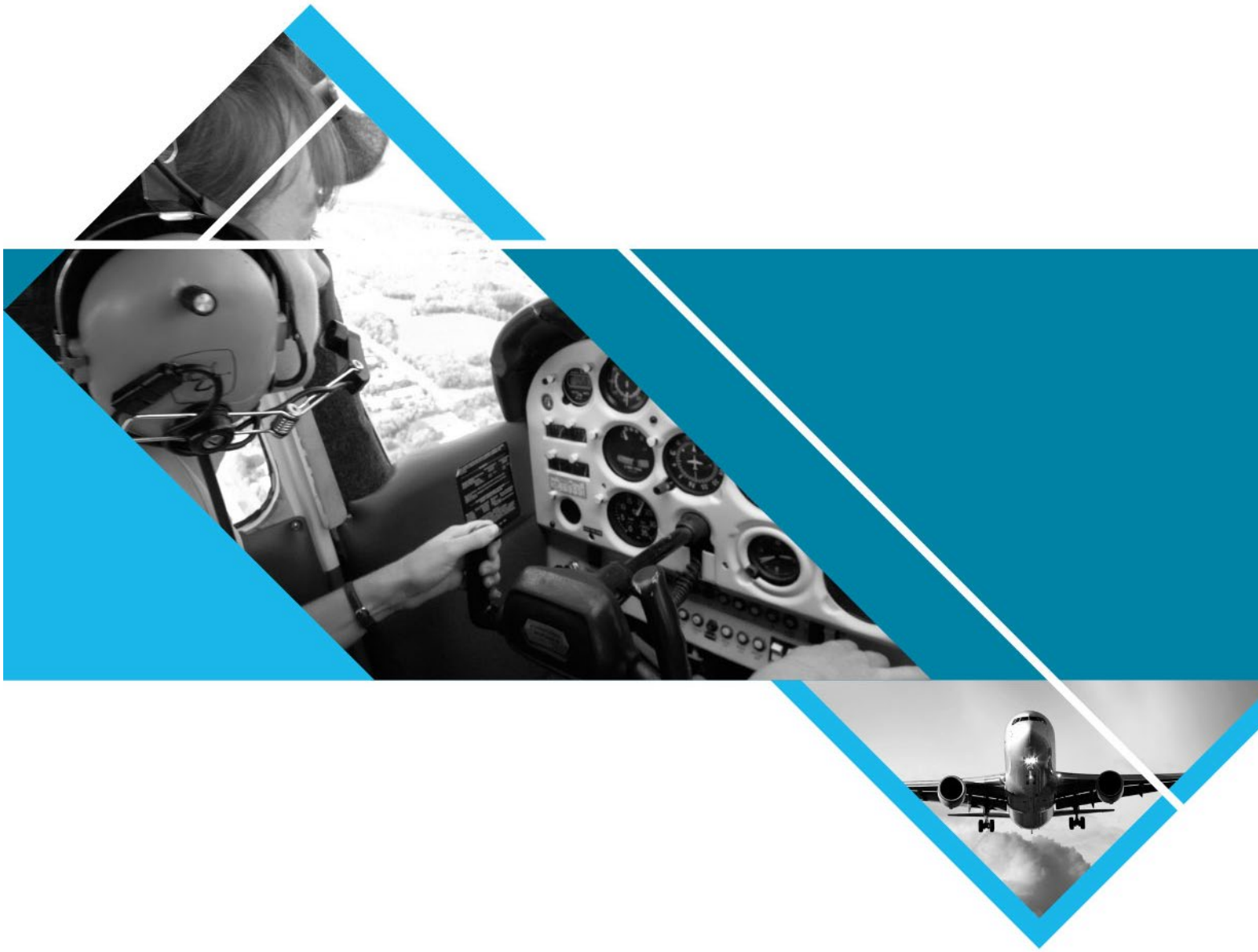
Australian Government
Civil Aviation Safety Authority



Flight Examiner Handbook

Version	3.1 February 2022
Approval Tier	Three
Owner	National Manager Regulatory Services 1
Responsible Area Manager	Manager Flight Testing Office
Review Date	January 2025

© Civil Aviation Safety Authority

All material presented in this Guidance document is provided under a Creative Commons Attribution 4.0 International licence, with the exception of the Commonwealth Coat of Arms (the terms of use for the Coat of Arms are available from the **It's an Honour** website). The details of the relevant licence conditions are available on the Creative Commons website, as is the full legal code for the CC BY 4.0 license.

Attribution

Material obtained from this document is to be attributed to CASA as:

© Civil Aviation Safety Authority 2022.

This document becomes an uncontrolled document when printed. Refer to <Document Catalogue> for current version.

Preface

As a Commonwealth government authority, CASA must ensure that the decisions we make, and the processes by which we make them, are effective, efficient, fair, timely, transparent, properly documented and otherwise comply with the requirements of the law. At the same time, we are committed to ensuring that all of our actions are consistent with the principles reflected in our Regulatory Philosophy.

Most of the regulatory decisions CASA makes are such that conformity with authoritative policy and established procedures will lead to the achievement of these outcomes. Frequently, however, CASA decision-makers will encounter situations in which the strict application of policy may not be appropriate. In such cases, striking a proper balance between the need for consistency and a corresponding need for flexibility, the responsible exercise of discretion is required.

In conjunction with a clear understanding of the considerations mentioned above, and a thorough knowledge of the relevant provisions of the civil aviation legislation, adherence to the procedures described in this manual will help to guide and inform the decisions you make, with a view to better ensuring the achievement of optimal outcomes in the interest of safety and fairness alike.

Table of contents

Preface **3**
Table of contents **4**
Glossary **22**
Revision history **26**

1 Introduction **30**
1.1 Purpose and scope 30
1.2 Authority of the handbook 30
1.3 How to use the handbook 31
1.4 CASA's expectations of examiners 31
1.5 Responsibility for the handbook and amendment status 31

2 Administration **33**
2.1 Overview 33
2.2 Application for a flight examiner rating or endorsement 33
2.2.1 Qualifications and experience 33
2.2.2 Application review 34
2.3 Flight examiner rating course 34
2.3.1 Learner pathways 35
2.4 Flight Test Management 36
2.4.1 Regulatory Requirement 36
2.4.2 Notification of flight tests 36
2.5 Fatigue Risk Management 36
2.6 Surveillance 37
2.7 Logging of flight time 37

3 Adult Education and Competency-based Assessment **38**
3.1 Flight test and proficiency check 38
3.1.1 Flight test and proficiency check aims 39
3.2 Assessment principles and methods 39
3.2.1 Principles of effective assessment 40
3.2.2 Types and methods of assessment 42
3.2.3 Dimensions of competency 43
3.2.4 Evidence as an assessment method 44
3.2.5 Effective questioning techniques as an assessment method 45
3.2.6 Types of questions to avoid 47
3.2.7 Questioning in the context of multi-crew operations 48
3.3 Factors affecting assessment 48
3.3.1 Inter-rater reliability 48

3.3.2 Accuracy 49
3.3.3 Judgement Errors and biases 49

4 Assessment of Human Factors (HF) and Non-technical Skills (NTS) 53
4.1 Considerations 53
4.1.1 Airmanship 53
4.1.2 Human factors and non-technical skills 54
4.2 Non-technical skills 1 – Manage safe flight 54
4.2.1 Examples of proficiency in unit NTS 1 54
4.2.2 NTS1.1 Maintain effective lookout 55
4.2.3 NTS1.2 Maintain situational awareness 56
4.2.4 NTS1.3 Assess situations and make decisions 58
4.2.5 NTS1.4 Set priorities and manage tasks 60
4.2.6 NTS1.5 – Maintain effective communications and interpersonal relationships 60
4.3 Non-technical skills 2 – Threat and error management 62
4.3.1 Evidence-based NTS 2 assessment 63
4.4 Assessment of HF and NTS in multi-crew operations 64
4.4.1 MCO.1 – Operate effectively as a crew member 65
4.4.2 MCO.2 – Demonstrate effective leadership and authority 66
4.4.3 MCO.3 - Maintain situational awareness 67
4.4.4 MCO.4 - Make effective decisions 68
4.4.5 Threat and error management in multi-crew operations 69
4.4.6 Do poor non-technical skills constitute a fail assessment? 71

5 Recreational pilot licence – aeroplane 72
5.1 Examiner requirements 72
5.2 Plan 72
5.2.1 Testing methodology 72
5.2.2 RPL A assessment scope and conditions 73
5.3 Conduct (ground component) 73
5.3.1 Initial brief to applicant 73
5.3.2 Document review 73
5.3.3 Assessment of knowledge requirements 74
5.3.4 Assessment of flight planning 75
5.4 Conduct (flight component) 75
5.4.1 Assessment of the applicant's performance 75
5.4.2 Pre-flight briefing 76
5.4.3 Assessment of activities and manoeuvres 76

5.4.4 Failure assessment 80
5.5 Complete (post flight) 81
5.5.1 Debriefings 81
5.5.2 Flight test administration 81
6 Recreational Pilot Licence – Helicopter 82
6.1 Examiner requirements 82
6.2 Plan 82
6.2.1 Testing methodology 82
6.2.2 RPL H assessment scope and conditions 83
6.3 Conduct (ground component) 83
6.3.1 Initial brief to applicant 83
6.3.2 Document review 83
6.3.3 Assessment of knowledge requirements 84
6.3.4 Assessment of flight planning 85
6.4 Conduct (flight component) 85
6.4.1 Assessment of the applicant's performance 85
6.4.2 Pre-flight briefing 86
6.4.3 Assessment of activities and manoeuvres 86
6.4.4 Failure assessment 90
6.5 Complete (post flight) 91
6.5.1 Debriefings 91
6.5.2 Flight test administration 91
7 Private Pilot Licence – Aeroplane 92
7.1 Examiner requirements 92
7.2 Plan 92
7.2.1 Testing methodology 92
7.2.2 PPL A assessment scope and conditions 93
7.3 Conduct (ground component) 93
7.3.1 Initial brief to applicant 93
7.3.2 Document review 94
7.3.3 Assessment of knowledge requirements 95
7.3.4 Assessment of flight planning 95
7.4 Conduct (flight component) 95
7.4.1 Assessment of the applicant's performance 95
7.4.2 Pre-flight briefing 96
7.4.3 Assessment of activities and manoeuvres 97

7.4.4 Failure assessment 101
7.5 Complete (post flight) 102
7.5.1 Debriefings 102
7.5.2 Flight test administration 102
8 Private Pilot Licence – Helicopter 104
8.1 Examiner requirements 104
8.2 Plan 104
8.2.1 Testing methodology 104
8.2.2 PPL H assessment scope and conditions 105
8.3 Conduct (ground component) 105
8.3.1 Initial brief to applicant 105
8.3.2 Document review 105
8.3.3 Assessment of knowledge requirements 106
8.3.4 Assessment of flight planning 107
8.4 Conduct (flight component) 107
8.4.1 Assessment of the applicant's performance 107
8.4.2 Pre-flight briefing 108
8.4.3 Assessment of activities and manoeuvres 108
8.4.4 Failure assessment 114
8.5 Complete (post flight) 114
8.5.1 Debriefings 114
8.5.2 Flight test administration 115
9 Commercial Pilot Licence - Aeroplane 116
9.1 Examiner requirements 116
9.2 Plan 116
9.2.1 Testing methodology 116
9.2.2 CPL A assessment scope and conditions 117
9.3 Conduct (ground component) 117
9.3.1 Initial brief to applicant 117
9.3.2 Document review 118
9.3.3 Assessment of knowledge requirements 119
9.3.4 Assessment of flight planning 119
9.4 Conduct (flight component) 119
9.4.1 Assessment of the applicant's performance 119
9.4.2 Pre-flight briefing 120
9.4.3 Assessment of activities and manoeuvres 121

9.4.4 Failure assessment 126
9.5 Complete (post flight) 127
9.5.1 Debriefings 127
9.5.2 Flight test administration 127
10 Commercial Pilot Licence - Helicopter 128
10.1 Examiner requirements 128
10.2 Plan 128
10.2.1 Testing methodology 128
10.2.2 CPL H assessment scope and conditions 129
10.3 Conduct (ground component) 129
10.3.1 Initial brief to applicant 129
10.3.2 Document review 130
10.3.3 Assessment of knowledge requirements 131
10.3.4 Assessment of flight planning 131
10.4 Conduct (flight component) 131
10.4.1 Assessment of the applicant's performance 131
10.4.2 Pre-flight briefing 132
10.4.3 Assessment of activities and manoeuvres 133
10.4.4 Failure assessment 138
10.5 Complete (post flight) 139
10.5.1 Debriefings 139
10.5.2 Flight test administration 139
11 Multi-crew Pilot Licence 140
11.1 Examiner requirements 140
11.2 Plan 140
11.2.1 Testing methodology 140
11.2.2 MPL assessment scope and conditions 141
11.3 Conduct (ground component) 142
11.3.1 Initial brief to applicant 142
11.3.2 Document review 142
11.3.3 Assessment of knowledge requirements 144
11.3.4 Assessment of flight planning 144
11.4 Conduct (flight component) 144
11.4.1 Assessment of the applicant's performance 144
11.4.2 Pre-flight briefing 145
11.4.3 Assessment of activities and manoeuvres 146

11.4.4 Failure assessment 151
11.5 Complete (post flight) 152
11.5.1 Debriefings 152
11.5.2 Flight test administration 152
12 Air Transport Pilot Licence - Aeroplane 153
12.1 Examiner requirements 153
12.2 Plan 153
12.2.1 Testing methodology 153
12.2.2 ATPL A assessment scope and conditions 154
12.3 Conduct (ground component) 156
12.3.1 Initial brief to applicant 156
12.3.2 Document review 157
12.3.3 Assessment of knowledge requirements 157
12.3.4 Assessment of flight planning 158
12.4 Conduct (flight component) 158
12.4.1 Assessment of the applicant's performance 158
12.4.2 Pre-flight briefing 159
12.4.3 Assessment of activities and manoeuvres 160
12.4.4 Failure assessment 165
12.5 Complete (post flight) 166
12.5.1 Debriefings 166
12.5.2 Flight test administration 166
13 Air Transport Pilot Licence - Helicopter 167
13.1 Examiner requirements 167
13.2 Plan 167
13.2.1 Testing methodology 167
13.2.2 ATPL H assessment scope and conditions 168
13.3 Conduct (ground component) 170
13.3.1 Initial brief to applicant 170
13.3.2 Document review 170
13.3.3 Assessment of knowledge requirements 171
13.3.4 Assessment of flight planning 171
13.4 Conduct (flight component) 172
13.4.1 Assessment of the applicant's performance 172
13.4.2 Pre-flight briefing 173
13.4.3 Assessment of activities and manoeuvres 173

13.4.4 Failure assessment 178
13.5 Complete (post flight) 179
13.5.1 Debriefings 179
13.5.2 Flight test administration 179
14 Class Rating – Single Engine Aeroplane 180
14.1 Examiner requirements 180
14.2 Plan 180
14.2.1 Testing methodology 180
14.2.2 SEA assessment scope and conditions 181
14.3 Conduct (ground component) 181
14.3.1 Initial brief to applicant 181
14.3.2 Document review 182
14.3.3 Assessment of knowledge requirements 182
14.3.4 Assessment of flight planning 183
14.4 Conduct (flight component) 183
14.4.1 Assessment of the applicant's performance 183
14.4.2 Pre-flight briefing 184
14.4.3 Assessment of activities and manoeuvres 184
14.4.4 Failure assessment 188
14.5 Complete (post flight) 189
14.5.1 Debriefings 189
14.5.2 Flight test administration 189
15 Class Rating - Single Engine Helicopter 190
15.1 Examiner requirements 190
15.2 Plan 190
15.2.1 Testing methodology 190
15.2.2 SEH assessment scope and conditions 191
15.3 Conduct (ground component) 191
15.3.1 Initial brief to applicant 191
15.3.2 Document review 191
15.3.3 Assessment of knowledge requirements 192
15.3.4 Assessment of flight planning 192
15.4 Conduct (flight component) 193
15.4.1 Assessment of the applicant's performance 193
15.4.2 Pre-flight briefing 194
15.4.3 Assessment of activities and manoeuvres 194

15.4.4 Failure assessment 197
15.5 Complete (post flight) 198
15.5.1 Debriefings 198
15.5.2 Flight test administration 198
16 Class Rating - Multi Engine Aeroplane 200
16.1 Examiner requirements 200
16.2 Plan 200
16.2.1 Testing methodology 200
16.2.2 MEA assessment scope and conditions 201
16.3 Conduct (ground component) 201
16.3.1 Initial brief to applicant 201
16.3.2 Document review 202
16.3.3 Assessment of knowledge requirements 202
16.3.4 Assessment of flight planning 203
16.4 Conduct (flight component) 203
16.4.1 Assessment of the applicant's performance 203
16.4.2 Pre-flight briefing 204
16.4.3 Assessment of activities and manoeuvres 204
16.4.4 Failure assessment 208
16.5 Complete (post flight) 209
16.5.1 Debriefings 209
16.5.2 Flight test administration 209
17 Type Rating - Single Engine Aeroplane 210
17.1 Examiner requirements 210
17.2 Plan 210
17.2.1 Testing methodology 210
17.2.2 TR SEA assessment scope and conditions 211
17.3 Conduct (ground component) 212
17.3.1 Initial brief to applicant 212
17.3.2 Document review 212
17.3.3 Assessment of knowledge requirements 213
17.3.4 Assessment of flight planning 213
17.4 Conduct (flight component) 214
17.4.1 Assessment of the applicant's performance 214
17.4.2 Pre-flight briefing 215
17.4.3 Assessment of activities and manoeuvres 215

17.4.4 Failure assessment 218
17.5 Complete (post flight) 219
17.5.1 Debriefings 219
17.5.2 Flight test administration 219
18 Type Rating - Single Engine Helicopter 221
18.1 Examiner requirements 221
18.2 Plan 221
18.2.1 Testing methodology 221
18.2.2 TR SEH assessment scope and conditions 222
18.3 Conduct (ground component) 223
18.3.1 Initial brief to applicant 223
18.3.2 Document review 223
18.3.3 Assessment of knowledge requirements 224
18.3.4 Assessment of flight planning 224
18.4 Conduct (flight component) 224
18.4.1 Assessment of the applicant's performance 224
18.4.2 Pre-flight briefing 225
18.4.3 Assessment of activities and manoeuvres 226
18.4.4 Failure assessment 229
18.5 Complete (post flight) 230
18.5.1 Debriefings 230
18.5.2 Flight test administration 230
19 Type Rating - Multi Engine Aeroplane 231
19.1 Examiner requirements 231
19.2 Plan 231
19.2.1 Testing methodology 231
19.2.2 TR MEA assessment scope and conditions 232
19.3 Conduct (ground component) 233
19.3.1 Initial brief to applicant 233
19.3.2 Document review 233
19.3.3 Assessment of knowledge requirements 234
19.3.4 Assessment of flight planning 234
19.4 Conduct (flight component) 235
19.4.1 Assessment of the applicant's performance 235
19.4.2 Pre-flight briefing 236
19.4.3 Assessment of activities and manoeuvres 236

19.4.4 Failure assessment 240
19.5 Complete (post flight) 241
19.5.1 Debriefings 241
19.5.2 Flight test administration 241
20 Type Rating - Multi Engine Helicopter 242
20.1 Examiner requirements 242
20.2 Plan 242
20.2.1 Testing methodology 242
20.2.2 TR MEH assessment scope and conditions 243
20.3 Conduct (ground component) 244
20.3.1 Initial brief to applicant 244
20.3.2 Document review 244
20.3.3 Assessment of knowledge requirements 245
20.3.4 Assessment of flight planning 245
20.4 Conduct (flight component) 246
20.4.1 Assessment of the applicant's performance 246
20.4.2 Pre-flight briefing 247
20.4.3 Assessment of activities and manoeuvres 247
20.4.4 Failure assessment 251
20.5 Complete (post flight) 252
20.5.1 Debriefings 252
20.5.2 Flight test administration 252
21 Type Rating - Cruise Relief Co-Pilot 253
21.1 Examiner requirements 253
21.2 Plan 253
21.2.1 Testing methodology 253
21.2.2 CRTR – CP assessment scope and conditions 254
21.3 Conduct (ground component) 255
21.3.1 Initial brief to applicant 255
21.3.2 Document review 255
21.3.3 Assessment of knowledge requirements 256
21.3.4 Assessment of flight planning 256
21.4 Conduct (flight component) 256
21.4.1 Assessment of the applicant's performance 256
21.4.2 Pre-flight briefing 257
21.4.3 Assessment of activities and manoeuvres 258

21.4.4 Failure assessment 260
21.5 Complete (post flight) 261
21.5.1 Debriefings 261
21.5.2 Flight test administration 261

22 Instrument Rating 262
22.1 Examiner requirements 262
22.2 Plan 262
22.2.1 Testing methodology 262
22.2.2 IR assessment scope and conditions 263
22.3 Conduct (ground component) 264
22.3.1 Initial brief to applicant 264
22.3.2 Document review 264
22.3.3 Assessment of knowledge requirements 265
22.3.4 Assessment of flight planning 265
22.4 Conduct (flight component) 266
22.4.1 Assessment of the applicant's performance 266
22.4.2 Pre-flight briefing 267
22.4.3 Assessment of activities and manoeuvres 267
22.4.4 Failure assessment 271
22.5 Complete (post flight) 272
22.5.1 Debriefings 272
22.5.2 Flight test administration 272

23 Instrument Proficiency Check 273
23.1 Examiner requirements 273
23.2 Plan 273
23.2.1 Testing methodology 273
23.2.2 IPC scope and conditions 274
23.3 Conduct (ground component) 277
23.3.1 Initial brief to applicant 277
23.3.2 Document review 277
23.3.3 Assessment of knowledge requirements 278
23.3.4 Assessment of flight planning 278
23.4 Conduct (flight component) 278
23.4.1 Assessment of the applicant's performance 278
23.4.2 Pre-flight briefing 279
23.4.3 Assessment of activities and manoeuvres 280

23.4.4 Failure assessment 283
23.5 Complete (post flight) 284
23.5.1 Debriefings 284
23.5.2 Proficiency check administration 284
24 Private Instrument Rating 285
24.1 Examiner requirements 285
24.2 Plan 285
24.2.1 Testing methodology 285
24.2.2 PIR assessment scope and conditions 286
24.3 Conduct (ground component) 287
24.3.1 Initial brief to applicant 287
24.3.2 Document review 287
24.3.3 Assessment of knowledge requirements 288
24.3.4 Assessment of flight planning 288
24.4 Conduct (flight component) 289
24.4.1 Assessment of the applicant's performance 289
24.4.2 Pre-flight briefing 290
24.4.3 Assessment of activities and manoeuvres 290
24.4.4 Failure assessment 295
24.5 Complete (post flight) 296
24.5.1 Debriefings 296
24.5.2 Flight test administration 296
25 Night VFR Rating 297
25.1 Examiner requirements 297
25.2 Plan 297
25.2.1 Testing methodology 297
25.2.2 NVFR assessment scope and conditions 298
25.3 Conduct (ground component) 299
25.3.1 Initial brief to applicant 299
25.3.2 Document review 299
25.3.3 Assessment of knowledge requirements 300
25.3.4 Assessment of flight planning 300
25.4 Conduct (flight component) 300
25.4.1 Assessment of the applicant's performance 300
25.4.2 Pre-flight briefing 301
25.4.3 Assessment of activities and manoeuvres 302

25.4.4 Failure assessment 304
25.5 Complete (post flight) 305
25.5.1 Debriefings 305
25.5.2 Flight test administration 305
26 Night Vision Imaging System Rating 307
26.1 Examiner requirements 307
26.2 Plan 307
26.2.1 Testing methodology 307
26.2.2 NVIS assessment scope and conditions 308
26.3 Conduct (ground component) 308
26.3.1 Initial brief to applicant 308
26.3.2 Document review 309
26.3.3 Assessment of knowledge requirements 309
26.3.4 Assessment of flight planning 310
26.4 Conduct (flight component) 310
26.4.1 Assessment of the applicant's performance 310
26.4.2 Pre-flight briefing 311
26.4.3 Assessment of activities and manoeuvres 311
26.4.4 Failure assessment 315
26.5 Complete (post flight) 315
26.5.1 Debriefings 315
26.5.2 Flight test administration 316
27 Night Vision Imaging System Proficiency Check 317
27.1 Examiner requirements 317
27.2 Plan 317
27.2.1 Testing methodology 317
27.2.2 NPC scope and conditions 318
27.3 Conduct (ground component) 318
27.3.1 Initial brief to applicant 318
27.3.2 Document review 319
27.3.3 Assessment of knowledge requirements 319
27.3.4 Assessment of flight planning 319
27.4 Conduct (flight component) 320
27.4.1 Assessment of the applicant's performance 320
27.4.2 Pre-flight briefing 321
27.4.3 Assessment of activities and manoeuvres 321

27.4.4 Failure assessment 324
27.5 Complete (post flight) 325
27.5.1 Debriefings 325
27.5.2 Proficiency check administration 326
28 Low Level Rating 327
28.1 Examiner requirements 327
28.2 Plan 327
28.2.1 Testing methodology 327
28.2.2 LL assessment scope and conditions 328
28.3 Conduct (ground component) 328
28.3.1 Initial brief to applicant 328
28.3.2 Document review 329
28.3.3 Assessment of knowledge requirements 329
28.3.4 Assessment of flight planning 330
28.4 Conduct (flight component) 330
28.4.1 Assessment of the applicant's performance 330
28.4.2 Pre-flight briefing 331
28.4.3 Assessment of activities and manoeuvres 331
28.4.4 Failure assessment 334
28.5 Complete (post flight) 335
28.5.1 Debriefings 335
28.5.2 Flight test administration 335
29 Aerial Application Rating 336
29.1 Examiner requirements 336
29.2 Plan 336
29.2.1 Testing methodology 336
29.2.2 AA assessment scope and conditions 337
29.3 Conduct (ground component) 338
29.3.1 Initial brief to applicant 338
29.3.2 Document review 338
29.3.3 Assessment of knowledge requirements 339
29.3.4 Assessment of flight planning 339
29.4 Conduct (flight component) 339
29.4.1 Assessment of the applicant's performance 339
29.4.2 Pre-flight briefing 340
29.4.3 Assessment of activities and manoeuvres 341

29.4.4 Failure assessment 344
29.5 Complete (post flight) 345
29.5.1 Debriefings 345
29.5.2 Flight test administration 345
30 Aerial Application Proficiency Check 347
30.1 Examiner requirements 347
30.2 Plan 347
30.2.1 Testing methodology 347
30.2.2 APC scope and conditions 348
30.3 Conduct (ground component) 348
30.3.1 Initial brief to applicant 348
30.3.2 Document review 349
30.3.3 Assessment of knowledge requirements 349
30.3.4 Assessment of flight planning 349
30.4 Conduct (flight component) 350
30.4.1 Assessment of the applicant's performance 350
30.4.2 Pre-flight briefing 351
30.4.3 Assessment of activities and manoeuvres 351
30.4.4 Failure assessment 353
30.5 Complete (post flight) 354
30.5.1 Debriefings 354
30.5.2 Proficiency check administration 354
31 Flight Instructor Rating 355
31.1 Examiner requirements 355
31.2 Plan 355
31.2.1 Testing methodology 355
31.2.2 FIR assessment scope and conditions 356
31.3 Conduct (ground component) 359
31.3.1 Initial brief to applicant 359
31.3.2 Document review 360
31.3.3 Assessment of knowledge requirements 361
31.3.4 The long briefing 361
31.3.5 Ground component debriefing 361
31.3.6 Assessment of flight planning 361
31.4 Conduct (flight component) 362
31.4.1 Assessment of the applicant's performance 362

31.4.2 Pre-flight briefing 363
31.4.3 Instructor development gradient 363
31.4.4 Assessment of activities and manoeuvres 365
31.4.5 Failure assessment 368
31.5 Complete (post flight) 369
31.5.1 Debriefings 369
31.5.2 Flight test administration 369
32 Simulator Instructor Rating 370
32.1 Examiner requirements 370
32.2 Plan 370
32.2.1 Testing methodology 370
32.2.2 SIR assessment scope and conditions 371
32.3 Conduct (ground component) 373
32.3.1 Initial brief to applicant 373
32.3.2 Document review 373
32.3.3 Assessment of knowledge requirements 374
32.3.4 The long briefing 374
32.3.5 Ground component debriefing 375
32.3.6 Assessment of flight planning 375
32.4 Conduct (flight component) 375
32.4.1 Assessment of the applicant's performance 375
32.4.2 Pre-flight briefing 376
32.4.3 Assessment of activities and manoeuvres 376
32.4.4 Failure assessment 379
32.4.5 Complete (post flight) 380
32.4.6 Debriefings 380
32.4.7 Flight test administration 380
33 Flight Instructor Proficiency Check 381
33.1 Examiner requirements 381
33.2 Plan 382
33.2.1 Testing methodology 382
33.2.2 FPC scope and conditions 382
33.3 Conduct (ground component) 383
33.3.1 Initial brief to applicant 383
33.3.2 Document review 384
33.3.3 Assessment of knowledge requirements 384

33.3.4 The long briefing 385
33.3.5 Ground component debriefing 385
33.3.6 Assessment of flight planning 385
33.4 Conduct (flight component) 386
33.4.1 Assessment of the applicant's performance 386
33.4.2 Pre-flight briefing 387
33.4.3 Assessment of activities and manoeuvres 387
33.4.4 Failure assessment 391
33.5 Complete (post flight) 392
33.5.1 Debriefings 392
33.5.2 Proficiency check administration 392
34 Simulator Instructor Proficiency Check 393
34.1 Examiner requirements 393
34.2 Plan 394
34.2.1 Testing methodology 394
34.2.2 SPC scope and conditions 394
34.3 Conduct (ground component) 395
34.3.1 Initial brief to applicant 395
34.3.2 Document review 395
34.3.3 Assessment of knowledge requirements 396
34.3.4 The long briefing 396
34.3.5 Ground component debriefing 396
34.4 Conduct (flight component) 396
34.4.1 Assessment of the applicant's performance 396
34.4.2 Pre-flight briefing 397
34.4.3 Assessment of activities and manoeuvres 398
34.4.4 Failure assessment 400
34.5 Complete (post flight) 401
34.5.1 Debriefings 401
34.5.2 Proficiency check administration 401
35 Flight Examiner Rating 403
35.1 Examiner requirements 404
35.2 Plan 404
35.2.1 Testing methodology 404
35.2.2 FER assessment scope and conditions 406
35.3 Conduct (ground component) 407

35.3.1 Initial brief to the examiner applicant 407
35.3.2 Document review 407
35.3.3 Assessment of knowledge requirements 408
35.4 Conduct (flight component) 408
35.4.1 Assessment of the FER applicant's performance 408
35.4.2 Pre-flight briefing 409
35.4.3 Post-flight test debriefing and training organisation debriefing 410
35.4.4 Completion of administration requirements 410
35.4.5 Examiner debriefing 410
35.4.6 Assessment of activities and manoeuvres 410
35.4.7 Failure assessment 412
35.5 Complete (post flight) 413
35.5.1 Debriefings 413
35.5.2 Flight test administration 413
36 Flight Examiner Proficiency Check 414
36.1 Examiner requirements 415
36.2 Plan 415
36.2.1 Testing methodology 415
36.2.2 EPC scope and conditions 417
36.3 Conduct (ground component) 418
36.3.1 Initial brief to the examiner applicant 418
36.3.2 Document review 418
36.3.3 Assessment of knowledge requirements 418
36.4 Conduct (flight component) 419
36.4.1 Assessment of the examiner applicant's performance 419
36.4.2 Pre-flight briefing 420
36.4.3 Post-flight debriefing and training organisation debriefing 420
36.4.4 Completion of administration requirements 420
36.4.5 Examiner debriefing 420
36.4.6 Assessment of activities and manoeuvres 421
36.4.7 Failure assessment 422
36.5 Complete (post flight) 423
36.5.1 Debriefings 423
36.5.2 Proficiency check administration 423

Glossary

Acronyms and abbreviations

Acronym / abbreviation	Description
AA	Aerial applications
AELP	Aviation English language proficiency
AFM	Aircraft Flight Manual
APC	Aerial Application Rating Proficiency Check
ARN	Aviation reference number
ATC	Air traffic control
ATPL	Air Transport Pilot Licence
CASA	Civil Aviation Safety Authority
CASR	*Civil Aviation Safety Regulations 1998 (CASR)*
CAR	*Civil Aviation Regulations 1988 (CAR)*
CAO	Civil Aviation Order
CPL	Commercial Pilot Licence
CRM	Crew Resource Management
EPC	Examiner Rating Proficiency Check
FDP	Flight Duty Period
FAA TERPS	United States Terminal Instrument Procedures
FEH	Flight Examiner Handbook
FER	Flight Examiner Rating
FERC	Flight Examiner Rating Course
FIR	Flight Instructor Rating
FOI	Flying Operations Inspector
FPC	Flight Instructor Rating Proficiency Check
FRMS	Fatigue Risk Management System
FSTD	Flight Simulation Training Device
FTE	Flight Training Examiner
FTM	Flight Test Management
GELP	General English language proficiency
HF	Human Factors
HOO	Head of Operations
IAS	Indicated air speed
ICUS	In command under supervision
IFF	Instrument flight full panel

Acronym / abbreviation	Description
IFL	Instrument flight limited panel
IMC	Instrument meteorological conditions
IPC	Instrument Rating Proficiency Check
KDR	Knowledge deficiency report
MEL	Minimum Equipment List
MCO	Multi-crew operations
MOS	Manual of Standards
NSR	No specific recommendations
NOTAM	Notice to airmen
NTS	Non-technical skills
NPC	NVIS Proficiency Check
NVFR	Night visual flight rules
NVIS	Night Vision Imaging System
PANS OPS	Procedures for air navigation services – aircraft operations
PC	Proficiency Check
PPL	Private Pilot Licence
RPL A	Recreational pilot licence - aeroplane
RPL H	Recreational pilot licence - helicopter
SA	situational awareness
SOP	standard operating procedure
TEM	threat and error management
TCAD	Traffic alert and collision avoidance display
TCAS	Traffic alert and collision avoidance system
VMC	Visual meteorological conditions

Definitions

Term	Definition
Applicant	A person who is being assessed during a flight test or proficiency check (PC)
Conduct	Means to take an active role in all phases of an assessment, including pre-flight preparation and briefing, the control and pace of the various sequences, the assessment of the applicant's performance, the debriefing and completion of post- test / proficiency check administration.

Term	Definition
Competency standard	The competency standards for a flight test for a flight crew licence with an aircraft category rating, a flight crew rating on a licence, or an endorsement on a rating are as set out in the Appendix in Schedule 5 of the Part 61 MOS that is for the licence, rating or endorsement flight test.
Credit	Any assessable item assessed as satisfactory by an examiner during an examination, recorded as a pass, and taken into account by an examiner during a subsequent test for the grant of the same licence, rating or endorsement, within 28 days. Credits are only valid for one retest
Discontinued	A flight test or PC is discontinued only when it cannot be completed due to circumstances beyond the applicant's control (e.g. no weather forecast, unserviceability) and the flight cannot be completed. If another examiner is nominated to complete a discontinued flight test or PC, the new examiner must notify a new flight test / PC and may apply the credits given by the first examiner within the normal 28-day limit.
Examiner	A person who holds a flight examiner rating with associated flight examiner endorsements or a person approved to conduct flight tests and / or proficiency checks.
Examiner applicant	A person applying for a flight examiner rating, a flight examiner endorsement on a flight examiner rating, or an examiner proficiency check.
Examiner requirements	Specific requirements that examiners must comply with.
Flight component	The activity of assessment involving practical demonstration in an aircraft of the skills and knowledge specified for the requested licence, rating or endorsement.
Flight examiner rating	A rating on a pilot licence that authorises the holder to conduct flight tests, to grant ratings and endorsements, to conduct proficiency checks and to conduct ELP assessments.
Flight test	A process conducted by an examiner that assesses the applicant's demonstration of knowledge, skills and attitudes for a licence, rating or endorsement and includes ground and flight components. The applicant's performance in the flight test must meet the competency standards mentioned in the Part 61 Manual of Standards for the flight test.
Flight test endorsement	A kind of flight examiner endorsement that authorises the flight examiner rating holder to conduct the flight test activities and proficiency check activities authorised by the flight test endorsement.
Flight test item	A task, manoeuvre or exercise listed on the flight test report.
Flight test notification	Notification given by the examiner to CASA of the examiner's intention to conduct a flight test or proficiency check. The minimum notification period prior to commencement is 24 hours.
Flight test management system	The CASA system used by examiners to notify a flight test or proficiency check and to record the result, including the required examiner, flight test/proficiency check and applicant details.

Term	Definition
FSTD approved for the purpose	The examiner should reference, as applicable: • the flight simulator Qualification Certificate, issued under regulation 60.035 of CASR • the synthetic trainer Legislative Instrument, issued under CAO 45.0 • the approval for a device that meets the qualification standards prescribed by a Legislative Instrument, issued under regulation 61.045 of CASR • the approval for a device that is qualified (however described) by the NAA of a recognised foreign state The simulator certificate lists the 'Training, Testing and Checking Considerations' and the synthetic trainer instrument lists 'Approvals' and 'Credits'. The FEH flight test/PC chapters identify the CASR Part 61 references that apply to the use of FSTDs. Some flight tests / PCs specify a flight simulator, rather than other types of trainers or devices. The simulator must be level D certified. Also refer to regulation 61.010 of CASR for further definitions.
Ground component	The activity of assessment, completed prior to the flight component, encompassing the knowledge and skills specified for the requested licence, rating or endorsement.
Knowledge deficiency report	A report, prepared when a candidate for an aeronautical knowledge examination gains a score between 51% and 99%, about the competency standards in which the candidate's knowledge is deficient.
May	Used to indicate discretion.
Must	Used to indicate a mandatory item which is a requirement of the Flight Examiner Handbook.
Proficiency check (PC)	A process conducted by an examiner that assesses the applicant's demonstration of knowledge, skills and attitudes to exercise the privileges of an operational rating on a licence, and which includes ground and flight components. The applicant's performance in the proficiency check must meet the competency standards mentioned in the Part 61 Manual of Standards for the proficiency check.
Revalidation	The administrative action taken with regards to the validity of a rating or approval that allows the holder to continue to exercise the privileges of a rating or approval for a further specified period, consequent upon the fulfilment of specified requirements.
Should	Used to indicate a strong recommendation.
Terminated	A flight test is terminated when the examiner makes a fail assessment.

Revision history

Revisions to this handbook are recorded below in order of most recent first.

Version no.	Date	Parts / sections	Details
3.1	February 2022	Chapter 2	Qualifications and experience
3.0	January 2022	Reverse cover page	Removal of paragraph which stated that FEH was for guidance only.
		Definitions	New definition of Examiner applicant
		Chapter 1.2	Inclusion of MOS head of power to FEH
		Chapter 2	New subparagraphs 2.4, 2.5, 2.6 and 2.7
			To address FTM, FRMS, Surveillance and Logging of flight time as Dual or ICUS
		Chapters 8 and 10	Instructions for completing the Flight test form where IFF and IFL are not tested
		Chapters 12 and 13	Addresses new regulations removing KDR requirement for ATPL
		Chapters 11, 12, 22 and 23	New wording for the manually flown approach. New wording to address overlay approaches not to be used for ATPL, IR and IPC
		Chapter 22	Use of FSTD not permitted for adding IAP3D
		Tables 15, 17, 19, 24, 38 and 39	Removes the reference to incipient spin, replacing with wing drop at the stall.
		Chapters 35 and 36	Change to Medical class one requirement for examiners to be class 2. New wording to address the new definition of examiner applicant.
		All Chapters that require a VFR flight test	Every Chapter has been amended to include by day in VMC under the VFR
		Chapter 26	Removal of reference to Grade 1 and Grade 2 NVIS endorsements
		All Chapters	Assessment of the applicant's performance.
2.5	February 2020	p.2	Updated CASA website link for FEH
		Chapter 23 Paras 23.1 and 23.5.2	New requirement to enter route and approach information in FTM
		Para 23.5.2	No paperwork to CASA (FTM only)

Version no.	Date	Parts / sections	Details
		Chapter 33 Paras 33.1 and 33.5.2	New requirement to enter briefing topics and air exercise sequences in FTM
		Para 33.5.2	No paperwork to CASA (FTM only)
		Chapter 34 Paras 34.1 and 34.5.2	New requirement to enter briefing topics and air exercise sequences in FTM
		Para 34.5.2	No paperwork to CASA (FTM only)
2.4	November 2019	Renumber all tables	Not all tables were numbered
		Chapter 23	IPC conducted in an overseas simulator
2.3	September 2019	Chapter 1	Removed references to ATO's
		Chapter 2 Para 2.2.1	Include detail on the use of Forms 61-FER and 61-TCO
		Chapter 3 Para 3.3.2	New description for rating accuracy
		Chapter 4 Para 4.2.2	Additional detail added for limitations of vision
		Chapter 5-36 (Conduct flight component – assessment of applicant's' performance)	Revised version of assessment of applicant's performance issued
		Chapter 7 table 9	Conduct of precautionary search. Added recommendation.
		Chapter 8 Para 8.2.1	Removed use of IFR procedures
		Chapter 9 Table 11	Conduct of precautionary search. Added recommendation
		Chapter 13 Para 13.2.1	Revised recommended airborne planning times
		Chapter 13.2.2	Added UFR activities and manoeuvres are performed in accordance with published procedures
		Para 13.3.2	Additional detail for training requirements
		Table 15	Revised recommendations for conduct of published holding pattern
		Chapter 15 Para 15.2.1	Removed use of IFR procedures
		Chapter 19 Table 21	Revised requirement for manage aircraft system malfunction

Version no.	Date	Parts / sections	Details
		Chapter 20 Table 22	Revised recommendations for limited power take off, approach and landing. Revised recommendations for manage engine failure
		Chapter 22 Para 22.2.2	Additional detail added to assessment scope and conditions
		Table 24	Revised recommendations for conduct of publishing holding pattern.
		Chapter 23 Para 23.2.2	Additional detail added to assessment scope and conditions
		Para 23.2.2	Added detail for IPC conducted in an overseas simulator
		Table 25	Revised recommendations for conduct of publishing holding pattern
			Amend requirement for circling approach
		Chapter 24 Para 24.2.2	Additional detail added to assessment scope and conditions
		Chapter 26 Para 26.2.1	Removed use of IFR procedures
		Para 26.2.2	Additional detail added to assessment scope and conditions
		Para 26.4.2	Amend pre-flight briefing detail
		Table 28	Revised recommendations for navigate aircraft en route and full and limited panel UA recovery.
		Chapter 27 Para 27.2.1	Removed use if IFR procedures
		Para 27.2.2	Additional detail added to assessment scope and conditions
		Para 27.4.2	Amend pre-flight briefing detail
		Table 29	Revised detail added to assessment scope and conditions
		Table 31	Added recommendation for at low level perform forced landing
		Chapter 30 Para 30.2.2	Additional detail added to assessment scope and conditions
		Table 32	Added detail to recommendation for at low level perform forced landing
		Chapter 31 Para 31.2.2	Additional detail added to assessment scope and conditions

Version no.	Date	Parts / sections	Details
		Para 31.4.5	Added detail to non safety-critical items
		Chapter 32 Para 32.2.2	Additional detail added to assessment scope and conditions
		Para 33.4.4	Added detail to non safety-critical items
		Chapter 34 Para 34.3.6	Removed assessment of flight planning
		Chapter 35 Para 35.2.2	Additional detail added to assessment scope and conditions
		Para 35.4.7	Added detail added non safety-critical items
		Chapter 36 Para 36.2.2	Additional detail added to assessment scope and conditions
		Para 36.4.7	Added detail to non safety-critical items
2.2	August 2019	Chapter 12	Update air transport pilot licence - aeroplane
2.1	July 2018	All	Update IAW new Part 61 Manual of Standards (MOS)
2.0	July 2017	All	Re-issue

1 Introduction

1.1 Purpose and scope

This handbook contains the standards, policy, procedures and guidelines to be used by Part 61 of the *Civil Aviation Safety Regulations 1998 (CASR)* flight examiner rating holders (examiners), persons approved under regulation 61.040 of CASR, CASA Flying Operations Inspectors (FOIs), and CASA Flight Training Examiners (FTEs) in the conduct of flight tests and proficiency checks.

The audience for this handbook includes:

- examiners, as a guide to their duties, responsibilities and conduct
- CASA staff who have a role in the oversight of the flight test or proficiency check process
- training providers who train applicants for the grant of a flight crew qualification
- flying training applicants for a flight crew qualification
- the aviation industry for information about approvals and the conduct of flight testing.

When performing their duties examiners have, as their primary responsibility, the safety of air navigation.

This handbook is designed to assist examiners to:

- understand their responsibilities and duties as an examiner
- understand the principles of flight testing
- conduct flight tests for flight crew qualifications and proficiency checks.

Note: Throughout this handbook a reference to an examiner is taken to be a reference to CASR Part 61 flight examiner rating holders, CASR 61.040 approval holders, CASA flying operations inspectors and CASA flight training examiners.

1.2 Authority of the handbook

The Part 61 Manual of Standards (MOS) provides the legislative head of power for the Flight Examiner Handbook (FEH).

Manual of Standards Instrument 2014, clause 4, states:

'For paragraph 98(5A)(a) and subsection 98(5D) of the Civil Aviation Act 1988, and regulation 11.068 of CASR 1998, it is a condition on the following:

(a) a flight examiner rating;

(b) an approval under regulation 61.040 to conduct a flight test or a proficiency check;

issued before or after this MOS, that when conducting a flight test or a proficiency check the holder of the rating, or of the approval, must comply with the requirements of, and take into account the recommendations in, the Flight Examiner Handbook as in force and published on the CASA website at the time of the flight test or proficiency check.'

1.3 How to use the handbook

Chapters 1 to 4 of this handbook provide general guidance for examiners, with chapter 3 providing detailed methodology and chapter 4 focusing on the assessment of human factors and non-technical skills.

Chapters 5 to 35 provide detailed instructions specific to each type of licence, rating and endorsement flight test or proficiency check.

Chapters 5 to 35 are divided into subsections:

- **Examiner requirements**, which lists the mandatory requirements pertaining to the specific flight test or proficiency check.
- **Plan, Conduct and Complete**, which each provide additional requirements and detailed guidance material to assist examiners in the planning, conduct and completion of each specific flight test or proficiency check.

1.4 CASA's expectations of examiners

The examiner rating is one that CASA and the aviation industry values highly, particularly because of the inherent recognition of an examiner's integrity and experience and the important role examiners play as part of the aviation safety system. CASA stresses the independence of an examiner and relies upon an examiner to withstand the sometimes-subtle pressures from employers, training providers and applicants.

By virtue of holding the examiner rating, an examiner has a high standing within the aviation community and is uniquely placed to monitor and positively influence the piloting skills, experience, knowledge, behaviours and attitudes of those with whom they come in contact.

CASA requires an examiner to:

- maintain an exemplary standard of professionalism, integrity and ethics
- diligently exercise the privileges of the rating, complying with all applicable legislation, conditions and directions, as well as being mindful of relevant guidance material
- properly assess an applicant's skills, knowledge, behaviours and attitudes to ensure a competent and safe pilot is produced
- engender and influence the attainment of continuously improving safety and standards in applicants and training providers
- diligently complete all relevant administrative procedures within timeframes required by legislation and CASA policy
- accurately report the outcomes of examiner activities in a timely manner to assist CASA in monitoring the safety health of the pilot community.

Further examiner requirements are explicitly described within each flight test and proficiency check chapter (refer Chapters 5 to 35). These requirements are mandatory. The remainder of the manual content constitutes guidance material for standardisation applicable to flight tests and proficiency checks.

1.5 Responsibility for the handbook and amendment status

The sponsor of this handbook is the Manager Flight Testing Office.

The Manager - Flight Testing Office is responsible for generating change requests, updating the handbook via the content management system, and ensuring that the content is aligned with current legislation and practices.

Suggestions for improvement are welcome. This handbook is a living document. As a result of experience, legislative change, new technology, your comments or suggestions, it will be amended and reissued when required.

If you would like to suggest changes to this document or find that the handbook is inconsistent with other advice provided by CASA, please notify:

Flight Testing Office
Regulatory Oversight Division
Civil Aviation Safety Authority
GPO Box 2005
CANBERRA ACT 2601

E-mail: flighttesting@casa.gov.au

2 Administration

2.1 Overview

This section of the Flight Examiner Handbook sets out the policy and procedures for the management of all examiners and those holding the privileges of an examiner. CASA may determine an alternative procedure and approval method for providing the privileges of a flight examiner rating.

2.2 Application for a flight examiner rating or endorsement

A person wishing to be granted a flight examiner rating or to add a flight examiner endorsement to their rating must meet the experience criteria and follow the application procedures described within CASA Form 61-FER. This form is available on the CASA website.

An applicant must provide all the documentation and information requested in Form 61-FER. Failure to provide all the requested information and documents may result in the application being declined. CASA Form 61-FER should be submitted in accordance with the instructions described on the form, refer to the submission checklist to ensure the application is complete.

An applicant may provide additional supporting documents with an application. All supporting documents should show the name and aviation reference number (ARN) of the applicant on each page.

Additional pages may be added to the application if there is insufficient space provided on the application form. All additional pages must show the name and ARN of the applicant on each page.

2.2.1 Qualifications and experience

As described in paragraph 11.055(4)(c) of CASR, CASA may take into account an applicant's experience in aviation when considering the grant of a flight examiner qualification.

To this end, CASA has defined the minimum experience levels in the CASA Form 61-FER for each examiner endorsement. New eligibility criteria, including updated endorsement specific competency standards, are currently under development and expected to be in place in late 2022.

Where an applicant has alternative but equivalent experience levels the following procedures apply.

Applicants for Flight Examiner Rating Course (FERC)

The application (Form 61-FER) will be assessed by the Flight Test Office.

It is mandatory that an applicant holds the requirements for the relevant flight examiner endorsement listed in regulation 61.1310 of CASR reference table column 3.

Additionally, in accordance with subregulation 11.055(4) of CASR, when receiving an application for an examiner authorisation, CASA will also take into account the applicant's relevant and necessary aviation experience. The minimum flight crew qualifications and

experience requirements that CASA is currently using as a guide to assess suitability for each flight examiner endorsement are detailed in Form 61-FER.

Applicants must provide satisfactory documentary evidence of the qualifications and experience when submitting their application. If applicants experience does not meet minimums guidelines in Section E of Form 61-FER, they must provide supporting evidence with the application to inform an assessment of suitability. Relevant operational, training and assessment qualifications and experience would be considered favourably. All experience claims declared by the applicant in Section E will be further validated on the day of the flight test by a CASA Officer (against pilot logbook evidence).

2.2.2 Application review

Each application for the grant of a flight examiner rating or flight examiner endorsement will be reviewed for completeness and eligibility.

CASA may seek further information regarding the applicant and / or their application where this is considered necessary. The applicant will be advised if further information is to be sought.

The review of an application will take into account the eligibility criteria described in this section.

Where CASA is of the view that an applicant does not meet the specified eligibility criteria, the applicant will be advised accordingly, and any shortcomings and deficiencies identified will be described in that advice. An applicant may re-apply once they have met the specified eligibility criteria.

2.3 Flight examiner rating course

CASA has developed a competency-based training course, the Flight Examiner Rating Course (FERC). Designed to meet the requirements set out in Part 61 MOS for the grant of a flight examiner rating and / or a flight examiner endorsement, the FERC enables applicants for a flight examiner rating (FER) and endorsement, or CASR regulation 61.040 approval, to gain the knowledge, skills and attitudes required to exercise the privileges of the rating and flight test endorsement(s).

Course phases

The FERC consists of five phases, each of which must be successfully completed to progress to the next phase. Designed for practical application using examples that relate to aeroplane, helicopter and multi-crew operations. It can be applied to a variety of both flight test endorsements and geographic locations.

The five phases for completing the FERC are:

(1) eLearning modules.
(2) a classroom workshop.
(3) practical competency development.
(4) an interview.
(5) a flight test.

eLearning modules

The eLearning phase consists of six modules:

(1) legal and administration.
(2) understanding assessment.
(3) assessment of human factors and non-technical skills.
(4) core principles – plan.
(5) core principles – conduct.
(6) core principles - complete.

Applicants are required to complete a workbook during the eLearning phase.

Classroom workshop

The classroom workshop is a one day virtual classroom environment conducted by CASA. It involves group work and individual activities with facilitated discussion and case studies.

During the workshop the applicant's workbook (completed during the eLearning phase) will be used to present a flight-testing scenario relevant to the applicant's flight test endorsement(s) and location.

Practical Competency Development

Practical Competency Development gives the FERC applicant practical experience in flight testing. Consisting of observation and practice, it is undertaken under the guidance of an approved industry examiner.

Initially the applicant will observe the industry examiner conducting actual tests, and then practise conducting tests under the direct supervision of the industry examiner.

Interview

The interview is conducted by CASA on an individual basis, allowing the applicant to have a personalised discussion regarding the flight-testing process.

The interview includes topics produced by the knowledge deficiency report (KDR), the eLearning assessments (if applicable), the workshop participation and the practical competency development.

Flight test

The FER flight test is conducted by CASA at a time and place arranged with the applicant.

The course is completed when the applicant has successfully passed a flight test for the grant of the FER or an additional flight test endorsement.

2.3.1 Learner pathways

The FERC is designed with various learner pathways. This includes an entry level pathway for new examiners, and for existing examiners, a pathway to apply for the grant of additional flight test endorsement(s) which recognises prior experience. CASA will advise the pathway which is applicable to each applicant.

2.4 Flight Test Management

2.4.1 Regulatory Requirement

In accordance with paragraphs 61.1295(5)(a)(b) of CASR, examiners must notify CASA of the examiner's intention to conduct the flight test or proficiency check, at least 24 hours before commencing the flight test for a pilot licence, or a rating or endorsement on a pilot licence.

Notification must be made online using the Flight Test Management (FTM) system. CASA's expectations regarding the use of the system and the information required when notifying a Flight Test or Proficiency Check can be found at the following link:

https://www.casa.gov.au/resources-and-education/our-systems/flight-test-management-system

2.4.2 Notification of flight tests

The following considerations must be followed when notifying a flight test or proficiency check:

Examiners must ensure that the required application(s) and flight test form(s) are used for each qualification tested.

Examiners should provide information detailing each flight test profile to ensure the validity and reliability of the assessment (flight test or proficiency check) is not compromised. For example, the examiner needs to identify the intention to conduct multiple flight tests in a single day or multiple flight tests in a single long-haul flight. CASA may contact the examiner to discuss the integrity of the assessment plan and fatigue risk management considerations.

When a flight test has been discontinued or failed (and credits are given) by the first examiner, and a second examiner is required to complete the flight test, the first examiner must enter the result (discontinued or failed) and submit the flight test or proficiency check report. The first examiner should retain a copy of the report and provide the documentation to the second examiner. The second examiner must make a new notification in FTM system, adding a comment that the test is a continuation or a re-test of the first test.

Note: If unable to notify CASA via the FTM system, the Flight Examiner should contact CASA with details via Applications@casa.gov.au or phone 131 757.

2.5 Fatigue Risk Management

When conducting more than one flight test or proficiency check in the same Flight Duty Period (FDP), examiners should apply their own threat and error management skills and consider if their fatigue at the end of the FDP would be a possible threat to the safe outcome of the flight.

To avoid errors and biases when conducting flight tests or proficiency checks, the examiner should allow plenty of time to observe the applicant over a sufficient time frame (as per the FEH Testing methodology) in order to increase the effectiveness of the assessment process.

The time pressure imposed on the applicant undertaking multiple tests on any one day, or the time pressure imposed on the examiner doing multiple tests with more than one applicant, must be carefully considered. Examiners should not rush the applicant or increase the level of stress they may already have at the commencement of the flight test.

Working on demanding mental tasks leads to a progressive increase in fatigue. Rest breaks should be included to help decrease fatigue, and improve performance and safety.

The responsibility for management of fatigue on a flight test or proficiency check rests with the examiner. However, it is a condition on every flight crew licence that a pilot must not conduct a flight if they are or are likely to be fatigued. Furthermore, the pilot in command (PIC) is responsible for safety of the aircraft and persons on board.

Therefore, examiners should comply with the CAO 48.1 - Fatigue Management appendix applicable to their operation when conducting flight tests and proficiency checks.

2.6 Surveillance

CASA's functions under section 9 of the *Civil Aviation Act 1988 (the Act)* include the requirement for CASA to conduct comprehensive industry surveillance of safety-related decisions.

Flight testing is considered one of the highest levels of safety-related decision making and one of the purposes of Flight Test Management (FTM) is to enable surveillance of flight tests and proficiency checks.

It is therefore essential that examiners provide accurate dates and start times including any changes to the date and start time (unless the test has already commenced) in FTM. If doing multiple tests in one day, notification of planned start time for each applicant is required.

2.7 Logging of flight time

For an applicant who holds a pilot licence, the flight time accrued by the applicant must be logged as ICUS (in command under supervision) regardless of whether the assessment resulted in a pass or a fail.

For an applicant who was *not* the holder of a pilot licence, the flight time accrued by the applicant:

- if the assessment resulted in a fail, may be logged as 'Dual' with the approval of the applicant's CASR Part 141 or Part 142 training provider
- if the assessment resulted in a pass, may be logged as ICUS on the basis that CASA would grant the pilot the pilot licence predicated on the successful flight test.

3 Adult Education and Competency-based Assessment

This chapter assists examiners with undertaking a standardised approach to all aspects of conducting flight tests and proficiency checks.

3.1 Flight test and proficiency check

The purpose of the flight test and proficiency check is to determine whether an applicant meets the skills, competency and proficiency requirements for the grant of a licence, rating or endorsement, or the ongoing proficiency of a rating or endorsement.

There is often confusion about the difference between skills, competency and proficiency. These terms are sometimes used interchangeably, but they have varying definitions:

Skills

A skill is an ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carry out complex activities or job functions involving ideas or concepts, things (technical skills), and interaction with people (human factors / non-technical skills).

In summary, skills are specific learned activities such as the use of an aircraft navigation system.

Competency

Competency is a combination of skills, knowledge and attributes required to perform a task to the prescribed standard. It is the achievement of specified competency standards and performance criteria outlined in an appropriate syllabus, usually involving an objective yes / no assessment.

A competency-based approach typically includes a long list of items to train and assess. The downside is that it often misses how competencies work together in different combinations to produce a desired result. This desired result is considered ‘proficiency’.

Proficiency

Proficiency is the result or output of demonstrating a series of defined competencies. Rather than demonstrating knowledge about a concept or subject matter, it demonstrates a level of performance. Whereas competency is a baseline, proficiency may vary with currency, revision and experience.

One of the things that differentiates competency from proficiency is the factor of context: A person would be described as being proficient in the operation of an aircraft, if they are able to not only operate the aircraft, but to manage the aircraft effectively in a wide range of variables, situations and contexts, especially when under pressure.

Another factor that differentiates competency from proficiency is agility / flexibility: the ability to change and adapt in the light of new situations.

In summary, competency is a demonstration that you can do something: proficiency is a demonstration of how well and flexibly you can do something.

So what does this mean for the examiner? The examiner can only determine if an applicant for the grant of a licence or rating is proficient after having observed a representative number of competencies in a range of situations and contexts.

3.1.1 Flight test and proficiency check aims

The aims of a flight test and proficiency check are to:

(1) determine, through observation of practical demonstrations, that an applicant has acquired or has maintained the required level of proficiency for the qualification as prescribed in the Part 61 MOS.
(2) provide feedback from the examiner to the HOO of information concerning items or components of the test or check that are most frequently below the desired competency, and those that consistently exceed the desired competency to help improve and standardise flight instruction processes and training outcomes provided by training providers.
(3) assist in maintaining and, where possible, improving flight safety standards by having examiners display exemplary attitudes and behaviours during flight tests and proficiency checks.

It is essential that a common standard is applied by all examiners.

Because every flight is conducted in different and sometimes widely varying conditions and circumstances, the examiner must consider a range of factors which may affect the assessment process. However, it is not appropriate to make allowance for poor training. Applicants must be assessed according to the required competencies for the licence, rating or endorsement sought. Examiners must exercise sound judgement and impartiality throughout their duties, and clearly understand the principles, methods and factors affecting the assessment process.

3.2 Assessment principles and methods

The principles, methods and factors outlined below apply as much to knowledge assessment in the briefing room as to practical assessment in the aircraft or flight simulation training device (FSTD).

The role of the examiner is to observe the performance of the applicant without influencing their performance.

Applicants and assessment situations vary. An effective examiner must be able to adapt to different personality types and assessment situations.

To accurately assess levels of performance and provide constructive feedback to the applicant the examiner will need to use a number of assessment tools and techniques, including:

- the Flight Examiner Handbook
- CASA flight test forms
- operator test and proficiency check forms
- specific questions and / or activities
- simulation and real-world scenarios.

3.2.1 Principles of effective assessment

The term assessment is generally used to describe the process of gathering measurable information and evidence about the performance of an individual or team and comparing this with a defined set of competency standards. A judgement is then made as to whether the competency standards have been met.

Assessment is an essential and continuous (ongoing) component of the flight crew licensing process. An effective assessment provides critical information to the examiner and CASA as the regulator, as well as providing vital feedback to the applicant. Both the examiner and the applicant need to know how well the applicant is performing with reference to a clearly defined and acceptable level of competency.

A good assessment provides practical and specific feedback to applicants, including direction and guidance on how to raise their level of performance. Most importantly, a well-designed and effective assessment process contributes to the development of aeronautical decision-making and judgment skills by helping to develop the applicant's ability to evaluate his or her own knowledge and performance accurately.

A well-designed and effective assessment also allows the examiner to assess the performance of the applicant over a comprehensive set of competency standards, thus highlighting the areas in which an applicant's performance is not yet competent. If, however, several applicants have problems at the same point in the flight test, the examiner may recognise the need for clearer or more detailed instructions by the examiner, or special emphasis in the assessment of subsequent performance.

Alternatively, if several applicants demonstrate an unacceptable level of competency in a particular flight manoeuvre, such as basic instrument flying, the examiner might recognise the need for a detailed debrief with the training provider's HOO to address any organisational factors which may be present, such as inadequate instrument scan training, or poor instrument flight instruction.

An assessment may be made about the performance of an individual, or individual members operating as a team. Assessment involves a degree of judgement by the examiner against established principles of effective assessment.

An effective assessment must be rigorous, credible and defensible. A number of key assessment principles are recognised within the aviation and training system. The four key assessment principles are summarised below.

Table 1: Assessment principles

Assessment Principles	
Validity	Validity is concerned with whether an assessment accurately measures what it is designed to measure and nothing else. That is, the scope of a flight test or proficiency check must be such that when applicants are assessed as proficient, they have met the competency requirements for the grant or revalidation of the licence, rating or endorsement.
Reliability	Reliability is concerned with whether an assessment measures consistently between repeated situations, to ensure comparable (similar) results between applicants over time. In the context of the flight test, assessment reliability ensures that two identical performances would result in the same assessment result.
Flexibility	Flexibility is concerned with making appropriate modifications to assessment procedures and methods to better suit the particular needs and personality of the applicant. In the flight test context, the examiner must also allow for variables to suit the context and environment in which the flight test is undertaken. For example, allowance should be made for flying accuracy in turbulent conditions. However, it must be noted that flexibility is intended to apply to the context and process of assessment, and not to the assessment standards.
Objectivity	Objectivity is concerned with ensuring that the examiner's personal opinions will not affect the outcome or assessment of the test. While it is inevitable that all flight test assessments are influenced to some degree by subjective opinions, examiners must ensure, as far as possible, that assessments are made in accordance with the applicable competency standards. Assessments will be less subjective, and therefore more valid, if the examiner has in-depth knowledge of the evaluation process and the expertise to accurately assess applicants without prejudice. To achieve objectivity, the assessment process should be well documented and should not go beyond the requirements for the grant or revalidation of the licence, rating or endorsement.

3.2.2 Types and methods of assessment

Table 2: Types of assessment

Types of Assessment	
Recognition of prior learning	Recognition of prior learning (RPL) is the acknowledgement of knowledge, skills or competencies gained as a result of previous experience or formal training or study undertaken. In the aviation context, this is especially beneficial for applicants transferring formal qualifications gained through the Defence Forces or other National Aviation Authorities.
Diagnostic assessment	Diagnostic assessment is used to assist learners, and trainers to determine the training needs of the learner. A diagnostic assessment indicates the gap between the learner's current knowledge, skills and competencies, and the desired level of knowledge, skill or competency for a particular task or role.
Traditional assessment	Traditional assessment involves the kind of written or oral testing (for example, multiple choice, matching) and grading that is most familiar to assessors and applicants. To achieve a passing score on a traditional assessment, the applicant generally has a set amount of time to recognise or reproduce memorised terms, definitions and data. There is usually only one correct answer.
Formative assessment	Formative assessment occurs progressively throughout a training program and is used to provide feedback to trainees on their progress during training. As the term suggests, formative assessment helps trainees to form the desired knowledge, skills and understanding that will eventually be needed to demonstrate the required competencies. The emphasis of formative assessment is on providing feedback to learners during the learning process. This is beneficial to learners in developing their own self-assessment skills for the improvement of their own performance and progress.
Summative assessment	Summative assessment is the most common form of assessment. It usually occurs at the end of a learning segment or formal training program. This is the formal process of collecting sufficient evidence to assess whether a person is competent in relation to a particular set of performance criteria. In the aviation context, summative assessments are used to determine competency for the grant of a licence, rating or endorsement. The flight test is a demonstration of the applied knowledge, skills and competencies, and comprises the assessment upon which granting of the formal qualification is based. The main approach to summative assessment is competency-based assessment, by which defined standards or specific performance criteria are used to assess the applicant's acceptable performance on a task. This type of assessment is preferable in the aviation context, since competence or the ability to meet performance criteria is desirable when assessing skilled performance.

Types of Assessment	
Authentic or holistic assessment	Authentic assessment requires the applicant to perform real-world tasks and actively demonstrate a meaningful application of knowledge, skills and competencies. Rather than develop separate assessment tasks to assess each unit of competency, a holistic approach seeks to integrate the assessment of knowledge, skills and performance in one assessment task or activity. That is, the applicant must demonstrate in-depth knowledge by formulating a solution to demonstrate application of skills, or competency, rather than merely choosing an outcome or response.

Generally, there are several assessment methods that examiners may use to make judgements regarding an applicant's overall proficiency. These are not mutually exclusive, and in practice, are often used together to formulate a more accurate 'overall' assessment.

Examples of assessment methods:

- observation of actual performance such as observing a flight sequence
- using a range of different question types in order to assesses the applicant's ability to listen, interpret and communicate ideas about information
- simulating a situation such as role-play interaction between the applicant and examiner
- presentation by the applicant of a variety of evidence of previous experience or training which addresses current standards.

3.2.3 Dimensions of competency

The above-described types and methods of assessment may be used independently or in a more holistic way by conducting the assessment against all 'dimensions of competency'. This means that the assessment is not narrowly based on a specific task or skill, but embraces all aspects of proficiency, utilises some, or all, of the methods described above, and represents an integrated and holistic approach to the assessment.

The assessment may take into account the dimensions of competency outlined below.

Table 3: Dimensions of competency

Dimensions of Competency	
Task skills	Performing at an acceptable level of competency. This may include carrying out individual tasks such as conducting a level turn.
Task management skills	Managing a number of different tasks at any one time. This involves being able to integrate several tasks to complete an outcome. For example, operating aeronautical radio whilst taxiing an aircraft.
Contingency management skills	Responding and reacting appropriately to unexpected problems, changes in routine and breakdown. For example, if the weather unexpectedly deteriorates, alternative strategies are employed to ensure a safe outcome.
Job or role environment skills	Fulfilling the responsibilities and expectations of the workplace. Each workplace is unique and requires the individual to be able to adjust to the environment in which they are working. This may include, for example, working with different flight crews, following workplace procedures, or complying with organisational policies.
Transferability skills	Transferring skills and knowledge to new situations and contexts. This requires the ability to adapt to different work situations and demands. For example, a pilot should be able to transfer baseline skills and knowledge from one situation to another. For example, instead of just assessing the applicant's performance while executing a level turn against the specified competency standard (task skills), it may be more realistic to observe the applicant performing the manoeuvre to avoid a simulated cloud bank (contingency skills) where the turn is required to position the aircraft to avoid the un-forecast weather and conduct a diversion procedure to an alternate aerodrome in accordance with the procedures contained within the company manuals (role and transferability skills).

By assessing all dimensions of competency, the skill is being applied to a new circumstance (transfer of skill), while managing a somewhat complex undertaking. This approach combines knowledge, understanding, problem solving, technical skills and application into the assessment.

3.2.4 Evidence as an assessment method

Evidence is the information gathered which, when matched against current standards, provides proof of competence or proficiency. Evidence can take many forms and be gathered from a number of sources. Evidence can be direct, indirect or supplementary.

Direct evidence

Examples of direct evidence:

- direct observation
- oral questioning
- demonstration of specific skills.

Indirect evidence

Examples of indirect evidence:

- assessment of qualities of a final product
- review of previous work undertaken
- written tests of underpinning knowledge.

Supplementary

Examples of supplementary evidence:

- testimonials from colleagues
- reports from supervisors
- work diaries or logbooks
- examples of reports or work documents.

No single form of evidence is better than another. Quality evidence should be provided by the applicant and should meet the four 'rules' of evidence, as set out below.

Table 4: Rules of evidence

Rules of Evidence	
Valid	Relates to the competency standards for the licence, rating or endorsement being assessed.
Sufficient	Provides enough evidence to make a judgement about the competence of the individual in relation to the current standards for the licence, rating or endorsement being sought.
Current	Is recent enough to show that the evidence produced is still able to be applied to the current standards for the applicable licence, rating or endorsement.
Authentic	Can be verified that the evidence is the applicant's own work.

There are many potential sources of evidence which may be used to make judgements regarding an individual's competency. These are not mutually exclusive and, in practice, are often used together to formulate a more accurate 'overall' assessment.

3.2.5 Effective questioning techniques as an assessment method

Most assessment types described above will require some form of questioning. While factual recall questions provide an indication of an applicant's knowledge, it is important for the examiner to create a climate of enquiry and engagement in high quality, high order questioning if formative assessment is to be effective.

Effective questioning is vital because it makes the applicant's thinking visible. It identifies prior knowledge, reasoning ability and the specified degree of applicant understanding. Questioning techniques are set out in the table below.

Table 5: Questioning techniques

Questioning Techniques	
Key questions	A good way to foster a culture of inquiry is to open with a big question that gets the applicant to think critically about what they have learnt. By asking a big question you can start thinking that immediately engages the applicant about their learning and it can raise motivation. For example, you might ask the applicant how important they think effective non-technical skills are in their assessment.
Open and closed questions	Open questions require learners to think and formulate a response. If an examiner asks an applicant to explain why they performed that manoeuvre then the applicant has to provide the explanation in their own words. This gives the examiner feedback especially if the examiner observes the applicant's body language. Closed questions usually only require the applicant to answer 'yes' or 'no' and as such are not particularly valuable.
The strategic pause	The thinking time at the 'pause' point is crucial, the quality of the response and the confidence level of applicant are raised by even a short amount of thinking time.

Socratic questioning and Socratic circles	The six steps of Socratic questioning (named after the classical Greek philosopher Socrates) create a critical atmosphere that probes thinking:
	• Clarification:
	  • Why do you say that?
	  • Could you explain that further?
	• Challenge assumptions:
	  • Is this always the case?
	  • Why do you think that assumption holds here?
	• Evidence as a basis for argument:
	  • Why do you say that?
	  • Is there reason to doubt this evidence?
	• Viewpoints and perspectives, which challenge the applicant to investigate other ways of looking at the same issue:
	  • What is the counter argument for…?
	  • Can you look at this in another way?
	• Implications and consequences, given that actions have consequences, this is an area ripe for questioning:
	  • But if that happened, what else would result?, or
	  • How does… affect …?
	• Question the question, just when applicants think they have a valid answer, you can further challenge misunderstandings:
	  • Why do you think I asked that question? or
	  • Why was the question important?

3.2.6 Types of questions to avoid

Asking, closed questions ‘Do you understand?’ or ‘Do you have any questions?’ has limited effect in an assessment environment. Assurance by the applicant that they do understand or that they have no questions provides no evidence of their comprehension, or that they even know the subject under discussion.

Table 6: Type of questions to avoid

Types of Questions to Avoid	
Puzzle	'What is the first action you should take if a conventional gear airplane with a weak right brake is swerving left in a right crosswind during a full flap, power-on wheel landing?'
Oversize	'What do you do before beginning an engine overhaul?'
Toss-up	'In an emergency, should you squawk 7700 or pick a landing spot?'
Bewilderment	'In reading the altimeter, you know you set the QNH for the nearest station pressure. If you take temperature into account, as when flying from a cold air mass through a warm front, what precaution should you take when in a mountainous area?'
Trick questions	These questions will cause the applicant to develop the feeling that they are engaged in a battle of wits with the examiner, and the whole significance of the subject involved will be lost. An example of a trick question would be where the alternatives are 1, 2, 3, and 4, but they are placed in the reverse order to trick the applicant to inadvertently answer incorrectly. If attention to detail is an objective, detailed construction of alternatives is preferable to trick.
Irrelevant questions	Diversions, which introduce unrelated facts and thoughts, will only obscure the orderly assessment process. Answers to unrelated questions are not helpful in evaluating the applicant's knowledge of the subject at hand.

3.2.7 Questioning in the context of multi-crew operations

When considering an assessment with knowledge requirements, examiners should consider their question distribution strategy to ensure the knowledge requirements for both applicants are assessed in all required competencies. Posing a question to both applicants and pausing for them to think without naming the applicant can lead to one applicant answering all the questions. The examiner should ensure the questioning technique is robust to satisfy the testing knowledge requirements of both applicants.

3.3 Factors affecting assessment

Two key considerations for the reliability and validity of flight test and proficiency check assessments are the accuracy and consistency of the examiner. The accuracy of assessments depends largely on the examiner's knowledge of the assessment criteria, the assessment scenarios, and the assessment methods to be used.

3.3.1 Inter-rater reliability

Inter-rater reliability refers to consistency (or agreement) between examiners regarding both their behavioural observations and their performance ratings. Agreement is important for consistent application of assessment criteria to maintain flight crew licensing standards and improve flight safety. Appropriately trained examiners should be interchangeable; the assessment should not be dependent on any particular examiner.

3.3.2 Accuracy

Two forms of accuracy are important; observation accuracy and rating accuracy.

Observation accuracy is the extent to which observers can correctly identify and record behavioural information. This is critical, as the assessment of non-technical skills (NTSs) typically requires examiners to observe and assess an applicant's NTS while the applicant is performing a simulated or actual task.

Rating accuracy is the extent to which the examiner assigns the correct rating (i.e. competent or not competent) to the particular level of performance observed. This is critical in order to provide a valid assessment of the applicant's skills.

An applicant's ability to perform a task is assessed by:

- determining that the performance achieves the required competencies in Schedules 5 or 6 of Part 61 MOS
- referencing the performance criteria in Schedule 2 of Part 61 MOS, and
- determining that the performance is within the prescribed tolerances in Schedule 8 of Part 61 MOS

One of the greatest inconsistencies in achieving inter-rater reliability is the examiner's perception of what is an acceptable degree of error and an acceptable deviation from tolerance (i.e. how long can that deviation be sustained before the deviation is recognised and that immediate and appropriate corrective action is taken).

Where an observed error has not become safety critical, the examiner should look for evidence that the applicant has the skills to recognize and correct the error. The examiner should not accept errors where tolerances are critical, such as descent below a Minimum Descent Altitude or a Decision Height.

When an applicant is demonstrating sound technique, but minor deviations occur outside the Flight tolerances in Schedule 8 of Part 61 MOS, the examiner must permit an acceptable opportunity for the applicant to demonstrate NTS competencies in order to apply corrective action.

3.3.3 Judgement Errors and biases

In order to conduct effective and objective flight tests, the examiner requires not only a sound knowledge of the characteristics of assessment, but also a good understanding of possible personal bias and judgement errors that can occur throughout the assessment process.

Assessment errors stem from two categories of bias:

(1) bias that the examiner may bring to the process
(2) bias that the applicant being assessed may bring to the process

Examiner biases

Examiner biases can cause judgment errors and thus influence the assessment of applicants or a particular group.

Table 7: Examples of Examiner Judgement Errors and Biases

Examiner Judgment Errors and Biases	
Confirmation	The tendency to seek out information that supports a pre-conceived belief about the applicant, as opposed to remaining open to the applicant's abilities throughout the assessment process.
Central tendency	The tendency for all, or most applicants to be assessed as 'average'. The examiner really feels that the performance of most applicants is not as good as it should be and therefore 'underscores' an applicant's good performance.
Generosity	The tendency for most applicants to be assessed as competent. This could be caused by an examiner's desire to be known as a nice person, or their reluctance to cope with the possible emotional response in the event of a fail assessment.
Severity	The tendency for most applicants to be assessed as not competent. In this situation, the examiner may feel that the published standards are too low and they should make assessments against their own standards. Or the examiner may be overly critical of an applicant's performance, requiring too high a standard.
Halo effect	When the examiner's impression of the applicant influences the assessment of performance. For example, when testing a friend, acquaintance, high profile individual, or their own trainees, an examiner may assess the individual as competent in error.
Leniency	This is a form of halo effect. It has its source in the examiner's likes, dislikes, opinions, prejudices, moods and political or community influence of people.
Stereotyping	The tendency for an examiner to assume that a member of a group has certain characteristics (for example national culture, gender etc) without having actual information about that individual.
Logical error	This error occurs when an examiner assumes that a high degree of ability in one area means a similar degree of competence in another. A competent assessment of one or two items does not mean the applicant is also competent on all items to be tested. The full test must be completed and assessed.
Error of narrow criterion	This error occurs when there is a group of applicants to test. The examiner may, in these circumstances, rate each applicant against the others within the group instead of against the standards.
Error of delayed grading	By delaying a 'not competent' assessment which will terminate the test, examiners may award a final 'competent' assessment based upon the overall impression of the flight test. This results in an erroneous assessment and a flight test report that is of little value to the training system.

Examiner Judgment Errors and Biases	
Blind spot	Examiners must be aware of their own personal biases (other than those listed above). For example, an examiner may believe an applicant is too young or their accent suggests a poor English proficiency. Both age and accents are irrelevant; rather it is the performance of the applicant on all aspects of the flight test that should be considered.
Fundamental attribution	The tendency for people to over emphasise personality-based explanations for behaviours observed in others while under emphasising the role and power of situational influences on the same behaviour. The examiner should always consider the context (environmental influences or task demands) in which the behaviour is being displayed.

Applicant biases

Applicant biases typically affect the applicant's view of their own abilities, and the post-assessment process.

Table 8: Applicant Biases

Applicant Biases	
Just-world hypothesis	The tendency for people to want to believe that the world is fundamentally just. This can be a potential problem when the applicant receives negative feedback, perhaps believing it to be unjust in this situation. How the examiner delivers negative feedback or a 'fail' result is therefore crucial.
Over confidence effect	This is when an applicant's subjective confidence in his or her judgments is greater than the objective accuracy of those judgments. Over-confidence causes people to overestimate their knowledge, underestimate risks, and exaggerate their ability to control events. Examiners may find that applicants challenge their post-test debrief, particularly if the applicant has an over inflated view about their performance.

Whilst all these biases and resulting errors may appear obvious on paper, they may not be obvious under flight-test conditions, especially as the judgement of the examiner may be obscured by a combination of two or more biases. Examiners must therefore be aware of these biases to consciously prevent them from influencing the validity of the flight tests and proficiency checks they conduct.

To avoid the above errors and biases, the examiner should consider adopting the following actions:

- Allow plenty of time for the flight test or proficiency check to observe the applicant over a sufficient time frame.
- Maintain the planned structured flight examination process. A structured and organised process for recording observations increases accuracy and reduces bias. Make sure that this process is repeatable.
- When making conclusions about an applicant's performance, do not rely completely on memory; always refer to notes.
- Consider only information observed and do not make any assumptions.

- Consider only information relevant to each technical and non-technical skill that is being assessed.
- Consider if any rating errors are occurring. Ask yourself: ‘Are my ratings affected by halo, leniency, severity, or any other types of bias?’
- Ensure a structured approach is taken when providing a debrief or giving feedback.

4 Assessment of Human Factors (HF) and Non-technical Skills (NTS)

4.1 Considerations

Most professional air crew would be aware that human behaviour and performance are cited as causal factors in the majority of aircraft accidents. While the aviation industry has benefited from increasing technology, with hardware and software becoming more reliable, human operators still continue to make errors. We know that human error cannot be eliminated, however efforts can be made to minimise and catch or mitigate errors before their consequences become unacceptable.

One of the best ways to ensure errors within aviation are managed is to ensure that applicants under flight examination display a sound knowledge of human factors (HF) and demonstrate adequate non-technical skills (NTS).

Human factors is a field of scientific knowledge that involves the minimisation of human error by optimising the relationship within systems, between people, activities, equipment and the environment.

Non-technical skills are specific skills such as critical decision making, teamwork, communication, situational awareness and workload management that complement the technical skills required in a given role. For example, applying the correct technique to land or hover an aircraft is a technical skill for a pilot. However, maintaining situational awareness (attention to the surrounding environment) to prevent a potential runway incursion, is a non-technical skill.

4.1.1 Airmanship

Traditionally, such skills as the consistent use of good judgement and flight discipline, as well as a high state of situational awareness, have been associated with good airmanship. Often, it was considered that knowledge of airmanship was gained through experience and a process of ‘infusion’. However, experience has shown that airmanship was difficult to measure accurately because identifiable performance criteria were not available. Assessment of airmanship was therefore, largely subjective.

Linking airmanship to HF and NTS is, in effect, bringing science to the often-nebulous concept of airmanship. By linking airmanship to the performance criteria in the HF and NTS units of the Part 61 MOS schedules, it is possible to evaluate an applicant’s competency more accurately.

For example, it is considered good airmanship for a pilot on a navigation exercise to continually identify potential forced landing areas along the route. But how can this be measured objectively? If an examiner observed the applicant maintaining an adequate lookout, identifying potential forced landing areas along the route, demonstrating that they are maintaining situational awareness by keeping track of (for example, surface wind direction and strength, visibility, aircraft performance) and applying relevant information for realistic contingency planning for a simulated engine failure, then the examiner could assess the applicant’s competency on these observable skills.

The purpose of linking HF and NTS to airmanship is not to diminish the importance of airmanship, but to make the measurement of it valid and reliable.

Pass or fail judgements based solely on airmanship issues must be carefully determined since they may be entirely subjective. It is not practical to give a comprehensive list of airmanship considerations, however the main principle is to look for signs that the applicant is effectively dealing with present or evolving flight conditions.

4.1.2 Human factors and non-technical skills

It is important for all pilots to recognise and appreciate the importance of HF and NTS knowledge, and the need to integrate these skills into their normal flight operations. Accordingly, examiners must not only incorporate sound HF and NTS principles into their flight tests and proficiency checks, but also develop effective assessment strategies. This requires the development and preparation of comprehensive assessment scenarios by examiners.

The requirement for NTS training and assessment is addressed through the elements in Schedule 2 of the Part 61 MOS:

- NTS1.1 – Maintain effective lookout
- NTS1.2 – Maintain situational awareness
- NTS1.3 – Assess situations and make decisions
- NTS1.4 – Set priorities and manage tasks
- NTS1.5 – Maintain effective communications and interpersonal relationships
- NTS2.1 – Recognise and manage threats
- NTS2.2 – Recognise and manage errors
- NTS2.3 – Recognise and manage undesired aircraft state.

A pilot would be expected to demonstrate knowledge of human performance limitations in these elements, including physiological, psychological and ergonomic aspects. For example, some knowledge aspects that underpin the application of NTS include:

- fatigue
- illusions
- general health
- drug and alcohol management
- knowledge of the functions of the eyes and ears.

4.2 Non-technical skills 1 – Manage safe flight

4.2.1 Examples of proficiency in unit NTS 1

Table 9: Examples of proficiency in unit of competency NTS 1

NTS 1 elements	Examples of proficiency
Maintain effective lookout	Maintains effective lookout at most times during flight.
Maintain situational awareness	Generally aware of developing situations, able to effectively anticipate future situations to maintain adequate flight safety and efficiency goals.
Assess situations and make decisions	Sound ability demonstrated to assess situations, consider available options and predict likely outcomes.

NTS 1 elements	Examples of proficiency
Set priorities and manage tasks	Generally demonstrates adequate planning and prioritisation of tasks to achieve safe and efficient flight operations.
Maintain effective communications and interpersonal relationships	Generally communicates clearly, concisely and consults with others.

4.2.2 NTS1.1 Maintain effective lookout

An effective lookout concerns seeing what is 'out there' and assessing the information that is received before making an appropriate decision.

Vision is the primary source of information for a pilot. The aircraft attitude, position, physical hazards and other traffic seen by the pilot are processed by the brain and used to build up situational awareness. Therefore, it is important for an examiner to effectively assess the ability of a pilot to best use vision to maintain safety.

Inside an aircraft, vision is used to interpret flight instruments, flight controls and aircraft systems. Externally, vision is used to observe and interpret weather, terrain, aircraft attitude and position.

In this context, lookout must not be thought of as just 'scanning the skies' to locate other traffic; it also involves looking at the internal and external environment of the aircraft and maintaining a radio listening watch and interpreting transmissions to determine traffic location and intentions.

Assessing effective lookout

Lookout is a critical facet of safe flight operations, and assessment of this skill will be ongoing throughout a pilot's flying career.

The examiner should be looking for competency in two main elements of effective lookout:

- see an object
- react appropriately to what has been seen.

In reacting appropriately, the applicant should be able to determine if the object is a threat and take mitigating (avoiding) action.

The examiner should ensure that the applicant covers the field of view from the cockpit, and varies the scan rate to accommodate the threats.

Congested airspace

Airspace congestion is usually encountered during busy stages of a flight, such as departure and approach. These high workload periods often focus an applicant's attention inside the cockpit.

The applicant should pay extra attention to other traffic when operating in congested airspace. Examiners should watch the applicant during these phases of flight to ensure that tasks are prioritised and managed to ensure a good lookout is maintained. This can be achieved by monitoring head and eye movement when possible and questioning the applicant about what they see.

Additionally, the examiner must monitor the applicant for an appropriate reaction to any traffic information received by radio transmissions, TCAD or TCAS. Questions such as 'where do you think other traffic will be coming from?' will assist in making this determination.

Hazardous terrain

When operating close to or in hazardous terrain or during periods of reduced visibility, greater effort must be directed outside the aircraft. The examiner should monitor the applicant's performance and assess any decisions they make to avoid collision with terrain or other aircraft.

Questioning should be used to determine if the applicant is aware of the current threats and whether a plan has been made to address them. The examiner should ask the applicant what they are seeing and whether they have recognised the possible associated hazards. These assessments must occur throughout the flight; however, the examiner must ensure that questions do not adversely impact the safe management of the flight.

Clearing procedure

Pilots must always clear the airspace around them before manoeuvring the aircraft. This 'clearing procedure' must be used to locate other aircraft as well as any terrain, weather or other hazards that may compromise safety.

Examiners should observe whether the applicant always uses an acceptable procedure and whether threats are seen and identified.

Given the physiological limitations of 'see and avoid', it may be appropriate to supplement continued lookout with other actions (for example, establish vertical separation). To achieve this, examiners themselves must closely monitor the airspace and maintain a good lookout so that they can identify any threats that are missed by the applicant.

Pilots of slow-flying aircraft must also demonstrate awareness of the fact that undetected faster aircraft approaching from the rear quarter are a constant risk to flight safety.

Limitations of vision

Examiners should ensure that applicants are aware of, and take into account, the limitations of vision. These limitations include aspects such as blind spots, threshold of acuity, accommodation (focusing on an object), empty field myopia, focal traps, visual field narrowing and cockpit workload. Notwithstanding the applicant's awareness of visual limitations, the examiner should determine that the applicant sights any threats to safety and takes appropriate mitigating action.

The same 'maintain effective lookout' (NTS 1.1) items can also be applied during the conduct of an Examiner Proficiency Check (EPC) in an FSTD (approved for the purpose). The EPC applicant should satisfactorily perform the published Part 61 MOS Schedule 2 NTS 1.1 competency within the context of the FSTD instructor operating station.

4.2.3 NTS1.2 Maintain situational awareness

In the aviation context, situational awareness (SA) is defined by Endsley[1] as:

[1] Endsley MR. Toward a theory of situation awareness in dynamic systems. *Human Factors* 1995;37(1):32–64.

'the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning and the projection of the status in the near future.'

This definition is often assigned three levels:

- level 1: perception of the current environment
- level 2: interpretation of the immediate situation
- level 3: anticipation of the future environment.

Level 1 SA is achieved through monitoring and gathering information from both within the cockpit and the environment outside the aircraft (perception).

Level 2 SA requires the pilot to process the information gathered and interpret the situation (interpretation).

Level 3 SA occurs when the pilot recognises the situation and predicts what is likely to occur (anticipation).

In the context of the Part 61 MOS and assessment of SA, it is important to understand that this is the scope of SA. Decision making is assessed as a separate activity.

Assessing situational awareness

The most important aspect of assessing SA is to confirm that the applicant's mental model (or perception) of the environment is accurate.

The next step is to find out what options the applicant has identified and assess whether they are realistic. In other words, the examiner must see if the 'what ifs' complement the mental model and provide a basis for an accurate and timely decision (if one is required).

Depending on the applicant's perception and options, there may be no need to proceed to the next step of making a decision, as SA is a dynamic process—further action only needs to be taken if a perceived situation compromises flight safety.

For example, if there are thunderstorms in the area but they do not conflict with the intended track, and the adverse effects of the storm will not affect the flight, no decision or action would be needed. However, it would indicate a lack of SA if the applicant did not consider the storms and the associated hazards in their planning.

Objective and responsive assessment

Observation and questioning are the primary means used by an examiner to make a formative assessment of SA. Questions such as 'what do you think could happen if….?' or 'what would you do if…?' can be used to assess an applicant's SA.

Assessment of an applicant's SA must be conducted throughout the flight test. The limits of an applicant's SA can be effectively explored through the creation of different scenarios.

The examiner should be prepared to modify the flight test or proficiency check scenarios as appropriate, to ensure a comprehensive assessment of the applicant's SA is made. If the examiner determines that an applicant's SA is deficient, they should provide guidance on how to improve SA in the post flight debriefing.

Examiners may gain an intuitive feeling that an applicant's SA does not meet the required competency standard; however, feelings cannot be used as a basis for an adverse assessment. Evidence must be obtained to support such an assessment. If an applicant's SA

is below the required standard, there will be a contributing factor or factors and it is up to the examiner to discover and record this deficiency as evidence.

Assumed level of knowledge

As SA can be adversely affected by a lack of knowledge, examiners must observe the applicant applying appropriate knowledge for any given situation. For example:

- unfamiliarity with air traffic separation rules could result in unsatisfactory descent planning when opposing traffic is present
- deficiencies in aircraft systems knowledge (for example, fuel system mismanagement) could lead to unsatisfactory outcomes.

If an applicant's lack of knowledge contributes to poor SA, the examiner should record the problem and provide appropriate feedback to the applicant. In some cases, lack of adequate knowledge (and its potential effect on SA) may be enough reason for an examiner to deem that an applicant has not achieved competency in non-technical skills.

High workload

During periods of high workload, it is possible that information may be overlooked. Examiners must determine if SA is being maintained, regardless of workload.

For example, if the applicant is busy during an approach into a very active terminal area, radio transmissions may be missed, or instructions forgotten. A possible cause for this reduced SA is failure to recall the information received (i.e. short-term memory breakdown causing faulty perception), which can lead to failure to take appropriate action.

Low workload

Examiners must also monitor the applicant during periods of low arousal or workload (inactivity) to ensure that an appropriate level of SA is maintained.

During a long navigation leg that is proceeding according to plan, an applicant may relax and stop thinking about what is happening and what could happen. It would be appropriate to confirm that SA is being maintained by the use of questions such as 'Where would you divert to now if a passenger became seriously ill?' or 'If you suffered an engine failure where would you land?' or 'What is our endurance now?'

Specific scenarios

In the normal course of a flight test, it is likely that many opportunities to assess SA will occur. Despite this, if an examiner wants to investigate a specific situation, they may need to develop a scenario to test the applicant's SA. For example, if the examiner wants to explore the applicant's ability to maintain SA under a high workload, they could create an artificial workload interspersed with distractions. Such a scenario may require some time and thought but, once developed, the scenario could be refined, adapted and used for other flight tests or proficiency checks.

4.2.4 NTS1.3 Assess situations and make decisions

Although this element is titled 'Assess situations and make decisions', the primary area of interest is the decision-making process. By applying SA, a pilot may arrive at a number of options of 'what could happen', and the next step is to make a decision that achieves the optimum outcome.

In daily life people are always making decisions—usually sub-consciously. However, in the aviation environment, incorrect or inappropriate decisions can have tragic consequences. Therefore, it is important for pilots to understand and be able to apply the decision-making process and to be aware of the need to make timely and correct decisions.

Assessing decision making

Complex decision making may be difficult for an examiner to assess on a flight test or proficiency check because of the limited timeframe and reduced opportunity. Nevertheless, an applicant's competence to make decisions must be assessed for the grant of a licence, rating or endorsement. It may be necessary to create scenarios to analyse an applicant's ability to manage complex decision making.

Decision making process

The ongoing process of acquiring SA, if working correctly, will provide the applicant with a perspective from which to derive any number of options and ultimately determine the best action to follow. The applicant must recognise that a decision has to be made. Problems must be identified, and the examiner must use effective observation and questioning techniques to determine the facts.

The applicant must analyse problems and propose solutions (options). This will require the applicant to gather and process information. The applicant's actions must be observable, but some questioning may be required to obtain an accurate assessment.

Based on the options identified, the applicant must make a decision. Examiners must ensure the decision is the optimal one and is implemented effectively in the time available. The applicant then must monitor progress against their plan and re-evaluate the plan as circumstances change, even if it is to confirm the desired outcome has been or will be achieved.

For a decision such as a 'go around' after a mishandled landing, the action and results will be very evident. In such cases, the examiner should ensure that the applicant recognised the mishandled landing soon enough and did not delay the recovery action.

More complicated decisions may require greater analysis by both the applicant and examiner. A complex problem may require a decision that does not lead to the optimum result immediately but could be modified at a later time.

It is acceptable for the applicant to make a decision on the basis that it may require revision if the safety of the flight is not compromised and the applicant continues to re-evaluate and update that initial decision. This situation could occur where a decision is made during flight planning, which may have to be modified after the applicant becomes airborne (for example, operational requirements, insufficient information available or changed weather conditions).

Management of factors affecting information processing

An examiner must observe an applicant's ability to manage factors that can adversely affect information processing and decision-making. An example would be a pilot who is prepared to press on in bad weather or other adverse circumstances, in an attempt to reach a destination.

Examiners should consider developing scenarios where bad weather, operational requirements or fuel shortage would make it impossible to safely proceed to the destination. In

such a case the applicant would be obliged to make a decision not to proceed and to take appropriate action that ensures safe flight, demonstrating competency in critical decision making.

While it is a challenge to assess an applicant's decision-making competence on a flight test, if the examiner prepares for the test by creating complex scenarios, the task of evaluating an applicant's decision-making competency will be achievable.

4.2.5 NTS1.4 Set priorities and manage tasks

Task management means completing a job or operation competently in the time available. If the workload is high and many tasks have to be completed, they must be prioritised in a logical and efficient sequence.

The saying 'aviate, navigate, communicate' forms a sound basis for prioritisation and task management. Many people are able to process information in a well organised and logical manner, but some are not able to operate efficiently in a confined and, at times, demanding and busy environment without additional guidance and direction.

Assessing prioritisation and task management

The assessment process will require detailed observation, information gathering and questioning by the examiner, because they will need to determine how an applicant's mind is functioning while managing tasks. By obtaining this information and combining it with observations, the examiner will be able to judge an applicant's ability to competently set priorities and manage tasks.

An examiner should observe an applicant's work pattern and task completion to evaluate their competence to set priorities and manage tasks on a flight test. Valid evidence must be obtained to substantiate the assessment. For example, if an applicant is told by ATS to 'expedite take-off' and does so before completing pre-take-off checks, rather than advising ATS that they were not ready for take-off, the examiner could reasonably deem the applicant to be not competent at prioritising tasks. The applicant would not have met the 'take-off aeroplane' standard and could compromise safety.

When assessing task management, the examiner must look for competent completion of a task in the time available. In particular, the examiner should seek confirmation that the applicant can manage multiple tasks (although not an excessive workload) in a logical order. It may be necessary for the examiner to create scenarios to support this evaluation.

Examiners must be aware of factors affecting workload management and look for evidence of how these factors impact applicant conduct.

4.2.6 NTS1.5 – Maintain effective communications and interpersonal relationships

Communication is a two-way process. It involves the accurate transmission, receipt and interpretation of information. Communication includes radio, as well as direct verbal and non-verbal exchanges.

A significant and vital component of interpersonal relationships is effective communication. It involves the pilot being able to get a positive or helpful response, rather than negative or

obstructive response, from individuals or groups they deal with in order to ensure the effective transfer of information that may be crucial to maintaining SA and safety of flight.

The intent of the NTS1.5 competency unit is to make pilots aware of the need to always foster positive and cooperative relationships with people involved with, or affected by, their flying operations. Affected people may include:

- instructor or examiner
- maintenance engineers
- air traffic controllers
- airport owners and operators
- ground staff, including refuellers.

Examiners are not required to assess an applicant's manners or personality per se; however, they are required to observe the interactions of applicants with other stakeholders and assess their ability to maintain constructive relationships with others in the operational context, in order to achieve safe flight operations.

Assessing effective communications and interpersonal relationships

The examiner should evaluate the applicant's ability to 'establish communications', that is, to make the effort to communicate or interact.

The examiner should assess the applicant's:

- tone of voice and demeanour
- ability to use a non-aggressive approach
- willingness to listen, including active listening
- body language (when applicable)
- level of assertiveness.

These traits apply both to communications and interpersonal relationships and should be assessed by observing the reaction of the other person involved.

The examiner must use evidence-based assessment. They should look for brevity and clarity of language, use of standard phraseology and whether the applicant was able to quickly elicit a positive reaction from the person with whom they were dealing.

Examples of feedback on negative communication include:

- *'You did not communicate competently because the air traffic controller had to ask you twice for clarification of your request'; and*
- *'You got into a shouting match with the engineer when discussing the aircraft's serviceability'.*

The examiner can assess 'define and explain objectives to involved stakeholders' by observing an applicant's cockpit communications and interaction with other flight crew members, or with the examiner.

An applicant who states their intention and explains how they will achieve the desired objectives could be assessed as communicating and interacting well with the examiner. However, assessment of communication and interpersonal skills should not be limited to the cockpit; examiners must make a holistic assessment of this aspect of an applicant's performance.

To assess assertiveness, the examiner must observe the applicant is able to 'demonstrate the required level of assertiveness that ensures the optimum completion of the flight' during the scenarios within the flight test or proficiency check profiles.

For example, if an air traffic clearance is inappropriate or unsafe, an examiner would expect to observe a competent applicant negotiate or suggest alternatives. When faced with a more time critical situation there may be a need to change the normal tone of voice and style of the transmission to maximise the priority and gain the attention necessary to deal with the situation. Accepting the status quo could result in an unsafe outcome, which would be unacceptable.

4.3 Non-technical skills 2 – Threat and error management

Threat and error management (TEM) proposes that threats (such as adverse weather), errors (such as using the wrong instrument settings or the incorrect use of automation) and undesired aircraft states (UAS) (such as altitude deviations) are challenges that pilots must recognise and manage to maintain safety. Pilots who successfully manage these issues regardless of their occurrence increase their potential for maintaining adequate safety margins.

TEM pervades all aspects of flight management, from assessing fitness for duty and pre-flight considerations, to the conduct and completion of a flight. Therefore, TEM must be assessed throughout the flight test. Accordingly, the examiner will need to develop scenarios to ensure adequate assessment opportunities.

The practical flight standards prescribed in the Part 61 MOS unit of competency NTS 2 form the starting point for assessing TEM. The basic concept for TEM is simple:

- identify the threat, error or undesired aircraft state
- manage the threat, error or undesired aircraft state.

All conditions specified in the standard for NTS2 must be met before the applicant can be assessed as competent.

Management in the context of TEM is defined as to 'plan, direct and control an operation or situation'. In practical terms this means the timely detection of and response to threats or errors that may lead to undesired aircraft states.

Specifically, the applicant should demonstrate the ability to:

- recognise, assess and manage potential threats in the performance of the various task elements, in accordance with TEM techniques
- avoid or trap errors which may occur in performing the various task elements, in accordance with TEM techniques
- follow standard operating procedures with evident situational awareness to avoid and trap errors
- apply strategies which will mitigate the effects of any errors which may occur, in accordance with TEM techniques.

Table 10 provides examples of proficiency in the NTS2 unit of competency.

Table 10: Examples of proficiency in unit of competency NTS2

NTS 2 Elements	Examples of proficiency
Recognise and manage threats	Generally recognises and manages threats appropriately, generally uses effective strategies to minimise and mitigate effects of threats
Recognise and manage errors	Generally recognises and manages errors appropriately, generally uses effective strategies to contain and mitigate effects of errors
Recognise and manage undesired aircraft states	Generally recognises and takes appropriate steps to manage undesired aircraft states with adequate flight safety goals maintained

4.3.1 Evidence-based NTS 2 assessment

Examiners must obtain evidence to ensure that sound TEM techniques are being practised. Examiners cannot assume that just because an applicant completed a faultless trip, competent TEM skills were used. The examiner should question the applicant and observe their actions to ensure the evidence is valid, authentic, sufficient and current.

It is likely that an examiner will need to create scenarios on a flight test or proficiency check to allow proper assessment of TEM. A competent applicant is less likely to get into an undesired aircraft state or would quickly correct an undesired aircraft state (for example, low approach speed), and it may be necessary for the examiner to artificially create such a circumstance.

For example:

- on approach to a destination aerodrome, simulate a thunderstorm over the airfield to duplicate both a threat and an undesired aircraft state
- simulate a radio failure approaching a non-controlled aerodrome with a CTAF
- simulate a system malfunction or engine failure
- simulate an instrument or display failure.

Assessment of threat and error management

Evaluation of competence is difficult for an examiner as the TEM assessment must be determined based on a single flight test or proficiency check. Accordingly, the examiner will need to develop scenarios to ensure adequate assessment opportunities throughout the test or check.

During pre-flight planning, the examiner should observe and question the applicant to gain insight into the countermeasures that they apply to anticipated threats. Scrutiny of flight planning activities will also allow the examiner to monitor some aspects of error management.

Throughout general flying and navigation phases of the test, simulation of systems malfunctions and emergencies will afford the opportunity to evaluate threat, error and undesired state management competencies.

The examiner will evaluate NTS competencies at the same time as appraising TEM competencies. Although a flight test involves assessment of a multitude of competencies, with proper planning and some thought, examiners will be able to successfully assess NTS and TEM.

As a practical example, during a PPL flight test it would be possible to assess a number of elements from the NTS1 and NTS2 standards if the examiner sets a scenario during the navigation phase that requires a precautionary search. Consider the list below:

- **Lookout**: selection of a suitable landing area, weather conditions, traffic and terrain avoidance
- **Situational awareness**: monitoring of aircraft systems, weather, location and flight environment. Collecting information from map, charts and ERSA
- **Decision-making**: identifying and assessing options regarding weather, time of day, endurance and location; deciding to conduct precautionary search and assessment of landing area; deciding to land or re-evaluation, and configuring of aircraft for landing
- **Task prioritisation**: organising and managing a logical descent and arrival, aircraft configuration, appropriate radio calls, field selection and briefing of passengers.
- **Communications**: communicating with ATC, other aircraft, passengers and, if possible, ground personnel
- **Threat management**: monitoring, assessing and managing threats, particularly in relation to weather, terrain, low level operations and aircraft handling
- **Error management**: identifying any errors and take action before safety is affected, particularly when flying low level. Use of checklists and standard operating procedures applicable to a precautionary search situation
- **Undesired aircraft state**: recognising and correcting any undesired state particularly in relation to power settings, configurations, IAS, and height during the low-level manoeuvres.

4.4 Assessment of HF and NTS in multi-crew operations

The units of competency outlined above for NTS 1 and 2 are equally applicable to assessment of HF and NTS in multi-crew operations. In addition, further specific requirements for the assessment of HF and NTS in multi-crew operations (MCO) are also defined. The MCO units of competency, including the specific elements and performance criteria, are outlined in Schedule 2 of the Part 61 MOS.

MCO unit description

This unit describes the skills, knowledge and behaviours required to plan, direct and control all aspects of flight operations in a multi-crew environment as either pilot in command or a crew member. The unit contains the following elements:

- MCO.1 – Operate effectively as a crew member
- MCO.2 – Demonstrate effective leadership and authority
- MCO.3 – Maintain situational awareness
- MCO.4 – Make effective decisions.

The issue regarding the analysis for assessment of the performance of the individual or the team, in multi-crew operations has been the subject of considerable research. However, it is important to note that while the focus of this unit is on the specific skills required to work in a team, the focus of attention of the examiner is on the performance of the individual operating within the team.

The examiner must assess the performance of the applicant, in the context of the team environment, and how the applicant's behaviour influences the team's performance.

Furthermore, the applicant's performance may vary across scenarios, depending on the demand that each scenario places on the individuals and the team. Therefore, it is important that the examiner considers several scenarios for assessment across the entire flight, in order to make a holistic assessment of the applicant's performance.

It can be considered that teams do not perform per se; it is the performance of individuals that contribute to the effectiveness and performance of the team.

Assessment of team skills

Assessment of the applicant's ability to operate effectively as a crew member will require the examiner to design appropriate flight test scenarios to provide the applicant with an opportunity to demonstrate proficiency and perform the tasks associated with each of the specific performance criteria included. These scenario events should vary in difficulty and be presented at various points during the flight test or proficiency check.

The examiner should observe the applicant's behaviour and record sufficient evidence to provide constructive feedback regarding the applicant's performance at the end of the flight test.

4.4.1 MCO.1 – Operate effectively as a crew member

Considerable research and analysis of safety data has recognised that good teamwork is particularly important to reduce errors and maintain safety in aviation. However, teams are seldom constant, and in larger airlines, the composition of the flight crew may change frequently. However, flight crews must function effectively from the moment they are formed, in order to achieve their task and manage safety effectively.

It can be considered that when an individual crew member commits an error, and that error is not detected or corrected by another crew member, the error becomes a crew error. The general principles of crew resource management (CRM) may support this approach by focusing on the performance of the crew as a whole. However, a core concept of CRM training is not necessarily to strengthen any particular flight crew but rather to make individuals more effective crew members in the flight crew team that they are operating in.

In effective-performing crews, the constant high correlation between behavioural ratings for the captain and first officer indicate that these individuals do not act independently of each other. However, in poorly-performing crews, there are often observable differences in the behaviours that are rated 'poor' for the individual pilots. For example, poor leadership demonstrated by the captain, with no intervention from the first officer, may result in a poor rating for assertiveness for the first officer.

This differentiation is important for the examiner to consider in the context of a flight test for the issue of a flight crew licence, rating or endorsement, which requires individual assessment and feedback for the applicant. The focus of an examiner is not to assess the personality of the applicant, but rather to observe and assess the behaviour of the applicant with respect to proficiency.

The examiner is required to assess the applicant's proficiency in the specific skills needed to operate effectively as a crew member. These skills fall broadly into two main categories; communication and cooperation, which can be summarised as:

- sending and receiving information
- identifying barriers to communication
- supporting other crew members
- solving conflict, exchanging information, and
- coordinating activities.

The MCO.1 element is broken down into 16 specific performance criteria, such as:

- motivate and support other crew members
- apply strategies to manage stress and conflict
- listen critically and request clarification when necessary, and
- assist other crew members to manage workload.

The main categories, summary and proficiency examples are shown in Table 11.

Table 11: Element MCO.1 summary and examples of proficiency

	MCO.1 summary	Examples of proficiency
Communication	Sending information clearly and concisely	Generally communicates clearly and concisely, consults with others
	Including context and intent during information exchange	Generally good use of context with adequate meaning and intent during communication
	Receiving information by listening	Information effectively received and input sought from others
	Identifying and addressing barriers to communication	Identifies and adequately address most barriers
Co-operation	Supporting others	Generally considers needs of others, provides timely support and feedback
	Solving conflicts	Generally focuses on what is right, able to suggest solutions as conflict arises
	Exchanging information	Generally communicates effectively, adequately consults with others
	Coordinating activities	Establishes team, creates adequate atmosphere for input and feedback

4.4.2 MCO.2 – Demonstrate effective leadership and authority

Effective leadership is about directing and coordinating the activities of crew members. It includes:

- encouraging crew members to work together
- planning and setting priorities
- assigning tasks
- managing workload

- monitoring and assessing performance
- motivating crew members
- establishing a positive team atmosphere.

The thoughts and behaviour of other members are influenced by the team leader's ideas and actions. Therefore, effective team leadership is essential to team performance and the effectiveness of the team in achieving its objectives.

A summary and proficiency examples for leadership and authority are shown in Table 12 Element MCO.2 summary and examples of proficiency.

Table 12: Element MCO.2 summary and examples of proficiency

MCO.2 summary	Examples of proficiency
Using authority	Generally demonstrates appropriate use of authority and assertiveness
Maintaining standards	Desired standards generally well maintained, with infrequent lapses
Planning and prioritising	Generally demonstrates adequate planning and prioritisation of tasks to achieve safe and efficient flight operations
Managing workload and resources	Generally demonstrates ability to manage workload and effective use of resources to achieve adequate safety and efficiency goals

These skills are not only essential for the team leaders or captains, but are also essential for other crew members, including first and second officers.

Effective leadership has been shown to be crucial to maintaining safe performance in aviation. Research has shown that leaders influence the safety behaviours of other team members, such as compliance with rules and procedures, and the outcome of critical incidents and emergencies.

Assessment of leadership and authority

Assessment of the applicant's leadership and management skills will require the examiner to design appropriate flight test scenarios to provide the applicant with an opportunity to demonstrate proficiency and perform the tasks associated with each of the specific performance criteria included. These scenarios will require the applicant to analyse and assess complex problems and make decisions while directing and monitoring the actions of their support crew member.

Ideally, multiple events should be included for each element and performance criteria against which the applicant's performance is to be assessed. These events should vary in difficulty and be presented at various points during the flight test scenario. These scenarios should be designed such that the applicant is required to consider and manage the consequences of their decisions and review the actions of the crew as the scenario unfolds.

4.4.3 MCO.3 - Maintain situational awareness

Situational awareness is the first step in the decision-making process. It relies upon gathering and interpreting information and anticipating the future states, which may require a decision to be made regarding the anticipated outcome or event.

In a multi-crew environment, it is important that crew members working together on cooperative tasks have some degree of shared situational awareness and a 'shared mental model' for the task and the intended outcome, knowing each crew member's roles and responsibilities.

It is well known that both fatigue and stress can adversely affect the quality of situational awareness. Furthermore, research has found that distractions and interruptions occur surprisingly often in safety-critical domains such as aviation. Therefore, knowing when to interrupt other crew members, and what information is essential at critical phases of flight, are important skills in a multi-crew environment. The use of and adherence to standard operating procedures and standard phraseology are important factors in maintaining situational awareness.

A summary and proficiency examples for situational awareness are shown in Table 13.

Table 13: Element MCO.3 summary and examples of proficiency

MCO.3 summary	Examples of proficiency
Gathering information	Information effectively gathered from a number of sources
Interpreting information	Effectively interprets information to anticipate developing situations
Anticipating future states	Generally aware of developing situations, able to effectively anticipate future system states with good level of accuracy and reliability

Assessing situational awareness

As situational awareness is largely a cognitive skill, it is impossible to observe directly. Therefore, the examiner must design appropriate scenarios that include specific task actions and communications that indicate the applicant is gathering and interpreting information to develop an understanding of the situation that is occurring and anticipating what may happen as the scenario unfolds. Observed behaviours and communications must be used to assess the level of situational awareness demonstrated by the applicant.

4.4.4 MCO.4 - Make effective decisions

Decision making can be defined as the process of assessing a situation and reaching a judgement or choosing an option to meet the needs of the situation. Decision-making skills are especially important in high-risk environments such as aviation, where the individuals involved may be functioning under time pressures and stress. Different decision-making techniques may be required for different scenarios, depending on the nature of the decision to be made and the time available to make a decision.

In stressful situations, decision making may be particularly vulnerable, especially for complex decisions, where time and mental effort are required to evaluate and compare optional courses of action and potential outcomes. Consequently, there are a number of decision making models available to aid the process of decision making in complex and often stressful environments.

A summary and proficiency examples for making effective decisions are shown in Table 14.

Table 14: Element MCO.4 summary and examples of proficiency

MCO.4 summary	Examples of Proficiency
Defining the problem	Sound methodology to define problems, considers most factors, generates appropriate solutions and allows for contingencies
Generating and considering options	Sound methodology to consider options and predict likely outcomes
Selecting and implementing options	Sound methodology to select and implement satisfactory options, confirms selected course of action to ensure safe outcome
Reviewing the outcome	Effective review of plan, and modification of plan when required

Examiners must be aware that decision making is significantly influenced by technical expertise, level of experience, familiarity of the situation and practice in responding to problem situations. As decision making is a cognitive skill, it is affected by many of the same factors as situational awareness, such as stress, fatigue, noise, distraction and interruption.

Assessment of decision making

As with situational awareness, decision making is impossible to observe directly. Therefore, the examiner must design appropriate flight test scenarios that include specific events requiring the applicant to make decisions under different conditions. Observed behaviours and communications must be used to assess the effectiveness of decisions being made.

In some cases, the decision-making process may also be observed where the applicant's communications with other crew members follows a structured sequence of steps to evaluate options and choose the appropriate outcome.

4.4.5 Threat and error management in multi-crew operations

The examiner will evaluate HF and NTS competencies at the same time as appraising TEM competencies. Although a flight test involves assessment of a multitude of competencies, with proper planning and some thought, examiners will be able to successfully assess all HF and NTS considerations and TEM requirements on flight tests and proficiency checks.

As a practical example, it would be possible to assess a number of elements from the HF, NTS and TEM standards if an examiner sets up an appropriate scenario during the en route navigation phase. Such a scenario requires management of a non-normal event, such as a system failure, resulting in a decision to divert to the nearest suitable airport for landing.

Consider the lists below.

Operate effectively as a crewmember:

- **Use standard operating procedures**: use of normal and non-normal checklists, procedures and phraseology following the first indications of the system failure.
- **Cooperate**: as the consequences of the system failure are assessed, cooperate with other flight crew members; provide timely information, verify receipt of information, encourage input from others, apply assertive strategies.

- **Communicate**: during the immediate and subsequent actions following the system failure, communicate with flight crew, air traffic control, cabin crew, passengers, engineers, company personnel, and other aircraft (as applicable).
- **Monitor and support**: throughout the scenario initiated by the system failure event, consider the ability of other crew members to perform duties, motivate and support other crew, appraise crew performance.
- **Manage**: since stress, conflict and distractions may be heightened during the system malfunction event, manage workload to optimise outcome.

Demonstrate effective leadership and authority

- **Briefings**: in addition to normal pre-flight briefings, following the system failure event, the applicant should conduct briefings to establish a plan of action, priorities and crew roles.
- **Communication**: the system-failure event allows the applicant excellent opportunities to establish the atmosphere to encourage open communication and input from crew, identify and communicate key issues reinforce roles, and maintain motivation.
- **Management**: one of the prime assessment purposes of the system malfunction event is for the applicant to allocate tasks, establish goals, monitor crew actions and outcomes, manage time and resources to ensure flight is completed safely and effectively.

Maintain situational awareness

A system-failure event scenario is an ideal opportunity to assess situational awareness. There are a number of competencies that the applicant must demonstrate:

- **Monitor**: flight path, aircraft configuration, system state, flight environment.
- **Perceive**: flight environment, aircraft systems, detect non-normal situations.
- **Interpret**: identify threats and errors, assess options, modify planned operations.
- **Anticipate**: potential hazards, aircraft configuration and performance.
- **Cross-check**: cross-check the actions of other crew members.

Make effective decisions

- **Identification**: once the system failure event occurs, identify problems, consider options and outcomes, generate solutions.
- **Management**: the consequences of the system failure need to be managed by the crew. The applicant must manage the non-normal situation, system performance and the diversion plan.
- **Assessment**: once the immediate actions have been completed, a decision to continue the flight or divert needs to be addressed. The applicant should assess suitable airports, assess risks and analyse solutions and options.
- **Prioritisation**: while working effectively with the other crew members and commencing a diversion, the applicant should prioritise workload management, communication and desired actions.
- **Evaluation**: with the diversion initiated as a result of crew management and decision making, the applicant should monitor progress against the agreed plan and evaluate and review decisions.

Threat and error management

As the crew divert to the nearest suitable alternate, the decision itself and the ongoing review involves TEM competencies:

- **Threat management**: weather, terrain, aircraft handling and performance
- **Error management**: recognition of errors, countermeasures, checklist use
- **Undesired aircraft state**: management of a non-normal situation, taking appropriate action to prioritise management of an undesired aircraft state.

4.4.6 Do poor non-technical skills constitute a fail assessment?

One final consideration is whether an applicant who lacks the necessary NTS skills required for the grant of a flight crew licence, rating or endorsement, or who fails to demonstrate NTS competency during a flight test or proficiency check, should fail on the basis of NTS alone? The answer is yes, but it should be linked to the performance of a technical skill.

Although applicant behaviour is an indicator that the applicant may be having trouble operating in the aviation environment on the day, it is not necessarily diagnostic. Therefore, further information may be required to identify the causal factors for the applicant's poor performance in order to target effective retraining. These causal factors are typically related to less-than-optimal technical skills.

The NTS framework focuses simultaneously on the operational environment and the performance of the applicant operating within that environment. As the NTS framework captures performance in the normal operating context, the resulting description is realistic, dynamic and holistic. Therefore, the results can be highly diagnostic.

Nevertheless, assessment of a pass or fail of a flight test based on NTS should be linked to a technical skill as they do not work in isolation. The assessment of NTS should acknowledge this and it is important for examiners to design flight test scenarios that reflect this interconnection.

For example, a pilot who does not adequately consider the implications of an MEL item on aircraft performance could be potentially assessed as not demonstrating effective skills in the following non-technical skills:

- NTS1.3 - Assess situations and make decisions
- NTS1.4 - Set priorities and manage tasks
- NTS2.1 - Recognise and manage threats.

However, this NTS assessment is probably linked to one or more of the technical skills in the Part 61 MOS such as element C2.1, Perform pre-flight actions and procedures.

In other words, the failure to adequately consider the implications of an MEL item on aircraft performance may stem from inadequate knowledge of specific performance data, or a lack of effort in considering the relevance of the data for the operation being undertaken. The applicant would therefore be assessed as not competent in C2.1 and NTS1.3, NTS1.4 and NTS2.1

5 Recreational pilot licence – aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in appendix G.1 of Schedule 5 of the Part 61 MOS for the grant of the recreational pilot licence and aeroplane category rating (RPL A).

5.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the RPL A flight test:

(1) The examiner must conduct the RPL A flight test in accordance with clauses 1 to 3 of appendix G.1 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the RPL A flight test within the operational scope and conditions described in clause 4 of appendix G.1 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

5.2 Plan

5.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment, and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended operational task to allow for unhurried preparation and planning (simulating a recreational passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.2 hours for the general handling and test specific manoeuvres.

5.2.2 RPL A assessment scope and conditions

The RPL A flight test must be conducted by day in VMC, under the VFR and in an aeroplane, in accordance with subregulation 61.475(3) of CASR.

The FEH activities and manoeuvres, listed in the Requirements column of Table 7 below, mirror the RPL A test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the RPL A flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the RPL A test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

RPL A flight tolerances and ground reference tolerances are specified in Table 1 of Schedule 8 of the Part 61 MOS. Sustained deviation outside the applicable flight tolerances is not permitted.

The applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system.

5.3 Conduct (ground component)

5.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

5.3.2 Document review

The examiner must confirm that an applicant for the RPL A satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the CASR subregulation 61.235(2) certification, training records, logbook, ARN and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - the examiner must sight one of the following documents to verify that the applicant is at least 16:

- Australian driver licence

- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – the examiner must ensure that the applicant holds a current GELP or AELP assessment.

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, a recreational aviation medical practitioner's certificate or a medical exemption allowing them to exercise the privileges of the RPL A.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

5.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

5.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- fuel plan
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including: forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

5.4 Conduct (flight component)

5.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required Part 61 MOS flight tolerances. Sustained errors outside these flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

5.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying recreational operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

5.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **RPL A** flight test.

Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 15: Assessment of activities and manoeuvres - RPL A

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	NSR
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Taxi aircraft	NSR
	(c) Plan, brief and conduct take-off and departure procedures	NSR
	(d) Conduct crosswind take-off	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct short field take-off	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off; or a requirement for best rate to 2000' AGL.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR

Phase of Flight	Requirements	Recommendations
	(b) Navigate and transit from the circuit area to the training area and return	The applicant should use a VTC or company training area map.
	(c) Operate safely in the local area airspace	NSR
	(d) Maintain any 1 cruise configuration for turbulence, flaps selected or high speed	NSR
Test specific activities and manoeuvres	(a) Enter and recover from stalls – 1 must be in the approach configuration and at least 1 stall and 1 wing drop at the stall	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Conduct steep level turns of at least 45˚ bank	NSR
	(c) Perform full panel instrument flying	The examiner should limit this to no longer than 5 minutes and position for sufficient altitude to conduct unusual attitude recoveries.
	(d) Full panel instrument flying, recover from at least 2 unusual attitudes	NSR
	(e) Manage engine failure after take-off	The examiner must consider the airfield terrain, obstacles and noise abatement requirements. Where the aerodrome does not allow the safe practise of EFATO, the examiner should simulate the procedure in the training area at altitude.
	(f) Manage a malfunction during start or shutdown and 1 of: a system malfunction, fire or radio failure	NSR
	(g) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,500‘AGL to ensure the applicant has sufficient time to perform the procedure.
Descent and arrival	(a) Conduct descents and descending turns	NSR

Phase of Flight	Requirements	Recommendations
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	The examiner is required to assess a crosswind landing unless the applicant's training records certify dual or solo competence in crosswinds of at least 70% of the AFM maximum. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Conduct short field and flapless landings	NSR
	(d) Perform a go-around procedure	NSR
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company standard operating procedures (SOPs) to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	

Phase of Flight	Requirements	Recommendations
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR
	(l) Manage passengers and the carriage of cargo	The examiner should role play as a passenger for the duration or part of the flight test.

5.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued, and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

5.5 Complete (post flight)

5.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal de-briefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

5.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days after the day of the test, complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing.

6 Recreational Pilot Licence – Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the recreational pilot licence and helicopter category rating (RPL H).

6.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the RPL H flight test:

(1) The examiner must conduct the RPL H flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the RPL H flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

6.2 Plan

6.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended operational task to allow for unhurried preparation and planning (simulating a recreational passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.2 hours for the general handling and test specific manoeuvres.

6.2.2 RPL H assessment scope and conditions

The RPL H flight test must be conducted by day in VMC, under the VFR and in a helicopter, in accordance with subregulation 61.475(3) of CASR.

The FEH activities and manoeuvres, listed in the Requirements column of Table 8 below, mirror the RPL H test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the RPL H flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the RPL H test form, must be assessed against a representative sample of the performance criteria applicable to the element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

RPL H flight tolerances and ground reference tolerances are specified in Table 3 of Schedule 8 of the Part 61 MOS. Sustained deviation outside the applicable flight tolerances is not permitted.

The applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system.

6.3 Conduct (ground component)

6.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

6.3.2 Document review

The examiner must confirm that an applicant for the RPL H satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the CASR subregulation 61.235(2) certification, training records, logbook, ARN and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - the examiner must sight one of the following documents to verify that the applicant is at least 16:

- Australian driver licence

- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – The examiner must ensure that the applicant holds a current GELP or AELP assessment.

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, a recreational aviation medical practitioner's certificate or a medical exemption allowing them to exercise the privileges of the RPL H.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

6.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

6.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- fuel plan
- weight and balance calculation
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

6.4 Conduct (flight component)

6.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, co-ordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOPs may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

6.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying recreational operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

6.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **RPL H** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 16: Assessment of activities and manoeuvres - RPL H

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	NSR

Phase of Flight	Requirements	Recommendations
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Lift-off and hover helicopter	The examiner should assess these items during the normal operation of the helicopter in the departure phase.
	(c) Taxi aircraft	
	(d) Air transit helicopter	
	(e) Plan, brief and conduct take-off and departure procedures	
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should pose scenarios to achieve the observation of a climb at best angle to achieve obstacle clearance or at best rate during departure and climb phase.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Navigate and transit from the circuit area to the training area and return	The applicant should use a VTC or company training area map.
	(c) Operate safely in the local area airspace	NSR

Phase of Flight	Requirements	Recommendations
Test specific activities and manoeuvres	(a) Hover helicopter in crosswind and tailwind and perform turns around any 1 of the rotor mast, nose or tail	The examiner is required to assess headwind/crosswind/tailwind hover and ground taxi unless the applicant's training records certify dual or solo competence in those wind conditions. In this case the examiner must indicate competency by marking the items on the flight test form with 'TR'.
	(b) Perform sidewards and backwards flight	NSR
	(c) Conduct steep level turns of at least 45˚ bank	Recommend a turn through at least 180 degrees is assessed.
	(d) Perform autorotative flight	Recommend assessment of at least entry to, stabilised control of and recovery from minimum rate of descent autorotation.
	(e) Land on and lift-off from sloping ground	It is not a requirement to demonstrate maximum slope landing limitations.
	(f) Land, manoeuvre and take-off in a confined area	NSR
	(g) Execute limited power take-off, approach and landing	NSR
	(h) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,000' AGL to ensure the applicant has sufficient time to perform the procedure.
	(i) Manage engine failure during hover or taxi	NSR
	(j) Manage a control or tail rotor malfunction in flight and at the hover	NSR
	(k) Manage a system malfunction – at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR

Phase of Flight	Requirements	Recommendations
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	These items should be assessed during the normal operation of the helicopter during the circuit phase.
	(b) Approach to the hover	
	(c) Air transit helicopter	
	(d) Perform a go-around procedure	The examiner may need to introduce a reason to conduct the go-around procedure.
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

Phase of Flight	Requirements	Recommendations
	(l) Manage passengers and the carriage of cargo	The examiner should role play as a passenger for the duration or part of the flight test.

6.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

6.5 Complete (post flight)

6.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

6.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days after the day of the test, complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

7 Private Pilot Licence – Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the private pilot licence and aeroplane category rating (PPL A).

7.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the PPL A flight test:

(1) The examiner must conduct the PPL A flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the PPL A flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

7.2 Plan

7.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a private passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 0.8 hour for the general handling and test specific manoeuvres.

The examiner may choose to conduct the general handling and navigation components in two separate flights.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the PPL A assessment flight sequences.

The PPL A flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the PPL A flight test should be considered as the flight time for the flight test.

7.2.2 PPL A assessment scope and conditions

The PPL A flight test must be conducted by day in VMC, under the VFR and in an aeroplane, in accordance with subregulation 61.515(3) of CASR.

The FEH activities and manoeuvres, listed in the Requirements column of Table 9 below, mirror the PPL A test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the PPL A flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the PPL A test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

PPL A flight tolerances and ground reference tolerances are specified in Table 1 of Schedule 8 of the Part 61 MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system on at least one leg.

7.3 Conduct (ground component)

7.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed

- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

7.3.2 Document review

The examiner must confirm that an applicant for the PPL A satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the CASR subregulation 61.235(2) certification, training records, logbook, licence (or ARN if RPL not issued) and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - The examiner must sight one of the following documents to verify that the applicant is at least 17:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – the examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the PPL A.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

7.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

7.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including: forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

7.4 Conduct (flight component)

7.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

7.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- the expectations of the examiner during the lost procedure simulation
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

7.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **PPL A** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 17: Assessment of activities and manoeuvres - PPL A

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	The examiner should conduct a review of the flight plan to assess correct application of wind computations and fuel planning. Gross error checks should also be applied, however where errors are not safety related the applicant should be permitted the opportunity to correct them in flight.
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Taxi aircraft	NSR
	(c) Plan, brief and conduct take-off and departure procedures	NSR
	(d) Conduct crosswind take-off	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct short field take-off	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off

Phase of Flight	Requirements	Recommendations
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off; or a requirement for best rate to 2000' AGL.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Navigate aircraft en route	The navigation task should be designed such that all of the required competencies can be assessed in a logical sequence. There should be at least one sector of sufficient distance that allows basic navigation technique to be adequately assessed. This sector should be of a sufficient duration to enable the assessment of: • multiple navigation cycles • track correction techniques • continued maintenance of navigation and fuel logs (ETAs and fuel status) • position fixing at suitable intervals. Importantly, the examiner should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound reasoning and application of acceptable VFR navigation procedures. The examiner should give particular attention to the applicant's navigation techniques in and around controlled airspace and how they plan to avoid controlled airspace and/or restricted and prohibited airspace, as applicable.
	(c) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
	(d) Navigate at low level	NSR
	(e) Perform lost procedure	It is an acceptable practice for the examiner to introduce the 'lost' scenario immediately following the instrument flying assessment. In normal circumstances the examiner should ensure the 'lost position' is at least several nautical miles laterally displaced from the original planned track.

Phase of Flight	Requirements	Recommendations
	(f) Perform diversion procedure	The examiner should provide a suitable scenario that will enable the applicant to 'self-select' the 'diversion route' to a 'suitable aerodrome or an alternate aerodrome'. The examiner should not apply any specific time constraints (subject to operational requirements) to execute the diversion. The examiner should ensure that the applicant is at a known position prior to introducing the diversion task.
	(g) Use instrument navigation systems	The examiner should consider selecting an appropriate leg for assessing the applicant's ability to use the aircraft navigation systems.
Test specific activities and manoeuvres	(a) Enter and recover from stalls – one must be in the approach configuration and at least one stall and one wing drop at the stall	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss. If ME, at least 2 stalls and no wing drop at the stall required.
	(b) Conduct steep level turns of at least 45˚ bank	NSR
	(c) Perform full panel instrument flying	The examiner should limit this to no longer than 5 minutes and position for sufficient altitude to conduct unusual attitude recoveries.
	(d) Full panel instrument flying, recover from at least 2 unusual attitudes	NSR
	(e) Manage engine failure after take-off	NSR
	(f) Conduct precautionary search	The examiner should initiate the precautionary search with a suitable scenario that allows the applicant to initiate the precautionary search procedure.
	(g) Manage a malfunction during start or shutdown and one of: a system malfunction, fire or radio failure	NSR
	(h) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,500'AGL to ensure the applicant has sufficient time to perform the procedure.
Descent and arrival	(a) Conduct descents and descending turns	NSR

Phase of Flight	Requirements	Recommendations
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	The examiner is required to assess a crosswind landing unless the applicant's training records certify dual or solo competence in crosswinds of at least 70% of the AFM maximum. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Conduct short field and flapless landings	NSR
	(d) Perform a go-around procedure	NSR
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	

Phase of Flight	Requirements	Recommendations
	(i) Operate in controlled airspace	Where a test cannot be conducted in actual controlled airspace the examiner is required to simulate CTR and CTA. The simulation should include all performance criteria of CTR (Part 61 MOS Schedule 2). At a minimum, the simulation methodology should include simulated: • VTC including – airspace boundaries, classes, frequencies, altitudes • ERSA information • weather and NOTAMS. The examiner should provide the applicant with the simulated charts and ERSA information at the time of advising the flight test route. The examiner is required to accurately replicate the role of air traffic control in the simulated environment. The simulated CTA/CTR environment shall remain 'active' for the duration of the flight test (i.e. the simulated CTR shall not be the same aerodrome for the 'operations at non-towered aerodromes' assessments).
	(j) Operate in Class G airspace	NSR
	(k) Operate at controlled aerodrome	Where a test cannot be conducted at a controlled aerodrome, refer to recommendations in (i) above
	(l) Operate at non-towered aerodrome	NSR
	(m) Use correct radio procedures	NSR
	(n) Manage relevant aircraft systems	NSR
	(o) Manage fuel system and monitor fuel plan and usage	NSR
	(p) Manage passengers and the carriage of cargo	The examiner should role play as a passenger for the duration or part of the flight test.

7.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

7.5 Complete (post flight)

7.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

7.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days after the day of the test, complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

8 Private Pilot Licence – Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the private pilot licence and helicopter category rating (PPL H).

8.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the PPL H flight test:

(1) The examiner must conduct the PPL H flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the PPL H flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

8.2 Plan

8.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a private passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 0.8 hour for the general handling and test specific manoeuvres.

The examiner may choose to conduct the general handling and navigation components in two separate flights.

8.2.2 PPL H assessment scope and conditions

The PPL H flight test must be conducted by day in VMC, under the VFR and in a helicopter, in accordance with subregulation 61.515(3) of CASR.

The FEH activities and manoeuvres, listed in the Requirements column of Table 10 below, mirror the PPL H test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the PPL H flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the PPL H test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

Activities and manoeuvres involving instrument flying or instrument navigation systems are only included if the aircraft is appropriately fitted and the flight examiner chooses to include them in the test.

PPL H flight tolerances and ground reference tolerances are specified in Table 3 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The PPL H applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system on at least one leg.

8.3 Conduct (ground component)

8.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

8.3.2 Document review

The examiner must confirm that an applicant for the PPL H satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve

this, the CASR subregulation 61.235(2) certification, training records, logbook, licence (or ARN if RPL not issued) and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - the examiner must sight one of the following documents to verify that the applicant is at least 17:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – The examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the PPL H.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

8.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It

should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

8.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

8.4 Conduct (flight component)

8.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances

for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors

- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

8.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- the expectations of the examiner during the lost procedure simulation
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

8.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **PPL H** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 18: Assessment of activities and manoeuvres - PPL H

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	The examiner should conduct a review of the flight plan to assess correct application of wind computations and fuel planning. Gross error checks should also be applied, however where errors are not safety related the applicant should be permitted the opportunity to correct them in flight.
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Lift-off and hover helicopter	The examiner should assess these items during the normal operation of the helicopter in the departure phase.
	(c) Taxi aircraft	
	(d) Air transit helicopter	
	(e) Plan, brief and conduct take-off and departure procedures	
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should pose scenarios to achieve the observation of a climb at best angle to achieve obstacle clearance or at best rate during departure and climb phase.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR

Phase of Flight	Requirements	Recommendations
	(b) Navigate aircraft en route	The navigation task should be designed such that all of the required competencies can be assessed in a logical sequence. There should be at least one sector of sufficient distance that allows basic navigation technique to be adequately assessed. This sector should be of a sufficient duration to enable the assessment of: • multiple navigation cycles • track correction techniques • continued maintenance of navigation and fuel logs (ETAs and fuel status) • position fixing at suitable intervals. Importantly, the examiner should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound reasoning and application of acceptable VFR navigation procedures. The examiner should give particular attention to the applicant's navigation techniques in and around controlled airspace and how they plan to avoid controlled airspace and/or restricted and prohibited airspace, as applicable.
	(c) Navigate at low level	NSR
	(d) Perform lost procedure	It is an acceptable practice for the examiner to introduce the 'lost' scenario immediately following the instrument flying assessment. In normal circumstances the examiner should ensure the 'lost position' is at least several nautical miles laterally displaced from the original planned track.
	(e) Perform diversion procedure	The examiner should provide a suitable scenario that will enable the applicant to 'self-select' the 'diversion route' to a 'suitable aerodrome or an alternate aerodrome'. The examiner should not apply any specific time constraints (subject to operational requirements) to execute the diversion. The examiner should ensure that the applicant is at a known position prior to introducing the diversion task.
	(f) Use instrument navigation systems	The examiner should consider selecting an appropriate leg for assessing the applicant's ability to use the aircraft navigation systems. *NAV.8 and Unit RNE are optional for "PPL-H non-ICAO compliant" Examiners must refer to 8.2.2 and 8.5.2 for guidance on inclusion of these test items.

Phase of Flight	Requirements	Recommendations
Test specific activities and manoeuvres	(a) Hover helicopter in crosswind and tailwind and perform turns around any 1 of the rotor mast, nose or tail	The examiner is required to assess headwind/crosswind/tailwind hover and ground taxi unless the applicant's training records certify dual or solo competence in those wind conditions. In this case the examiner must indicate competency by marking the items on the flight test form with 'TR'.
	(b) Perform sidewards and backwards flight	NSR
	(c) Conduct steep level turns of at least 45˚ bank	Recommend a turn through at least 180 degrees is assessed.
	(d) Perform full panel instrument flying	The examiner should limit this to no longer than 5 minutes and position for sufficient altitude to conduct unusual attitude recoveries. *Unit IFF is optional for "PPL-H non-ICAO compliant" Examiners must refer to 8.2.2 and 8.5.2 for guidance on inclusion of these test items.
	(e) Full panel instrument flying, recover from at least 2 unusual attitudes	*Unit IFF is optional for "PPL-H non-ICAO compliant" Examiners must refer to 8.2.2 and 8.5.2 for guidance on inclusion of these test items.
	(f) Perform autorotative flight	Recommend assessment of at least entry to, stabilised control of and recovery from minimum rate of descent autorotation.
	(g) Land on and lift-off from sloping ground	It is not a requirement to demonstrate maximum slope landing limitations.
	(h) Land, manoeuvre and take-off in a confined area	NSR
	(i) Execute limited power take-off, approach and landing	NSR
	(j) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,000' AGL to ensure the applicant has sufficient time to perform the procedure.
	(k) Manage engine failure during hover or taxi	NSR
	(l) Manage a control or tail rotor malfunction in flight and at the hover	NSR

Phase of Flight	Requirements	Recommendations
	(m) Manage a system malfunction – at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	These items should be assessed during the normal operation of the helicopter during the circuit phase.
	(b) Approach to the hover	
	(c) Air transit helicopter	
	(d) Perform a go-around procedure	The examiner may need to introduce a reason to conduct the go-around procedure.
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	

Phase of Flight	Requirements	Recommendations
	(h) Recognise and manage undesired aircraft state	
	(i) Operate in controlled airspace	Where a test cannot be conducted in actual controlled airspace the examiner is required to simulate CTR and CTA. The simulation should include all performance criteria of CTR (Part 61 MOS Schedule 2). At a minimum, the simulation methodology should include simulated: • VTC including – airspace boundaries, classes, frequencies, altitudes • ERSA information • weather and NOTAMS. The examiner should provide the applicant with the simulated charts and ERSA information at the time of advising the flight test route. The examiner is required to accurately replicate the role of air traffic control in the simulated environment. The simulated CTA/CTR environment shall remain 'active' for the duration of the flight test (i.e. the simulated CTR shall not be the same aerodrome for the 'operations at non-towered aerodromes' assessments).
	(j) Operate in Class G airspace	NSR
	(k) Operate at controlled aerodrome	As per (i) above
	(l) Operate at non-towered aerodrome	NSR
	(m) Use correct radio procedures	NSR
	(n) Manage relevant aircraft systems	NSR
	(o) Manage fuel system and monitor fuel plan and usage	NSR
	(p) Manage passengers and the carriage of cargo	The examiner should role play as a passenger for the duration or part of the flight test.

Note: *Where Units RNE and IFF (as required) are not conducted and assessed during the flight test the Examiner **must** ensure the associated boxes in the relevant Flight Test Reports and FTM are "**UNTICKED**" & "**N**" Not Tested are entered.

8.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued, and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

8.5 Complete (post flight)

8.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

8.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days after the day of the test, complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

If the examiner chooses not to include Item 3.3 (f) Use instrument navigation systems, Items 3.4 (d) Perform full panel instrument flying and (e) Full panel instrument flying, recover from at least 2 unusual attitudes. The flight test report form must be annotated **N** – (not tested) for those items. The examiner will also be required to change the FTM entries for these items from the default "✓" (pass) to "**N**" (not tested) when they complete the FTM close out for the flight test.

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

9 Commercial Pilot Licence - Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the commercial pilot licence and aeroplane category rating (CPL A).

9.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the CPL A flight test:

(1) The examiner must conduct the CPL A flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the CPL A flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

9.2 Plan

9.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the general test details least 24 hours before the start of the flight test and the specific scenario for the test route at least 2 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.7 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)
- 0.8 hour for the general handling and test specific manoeuvres.

The examiner may choose to conduct the general handling and navigation components in two separate flights.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the CPL A assessment flight sequences.

The CPL A flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the CPL A flight test should be considered as the flight time for the flight test.

9.2.2 CPL A assessment scope and conditions

The CPL A flight test must be conducted by day in VMC, under the VFR and in an aeroplane, in accordance with subregulation 61.580(3) of CASR. The aeroplane must have a cruise TAS of not less than 120 kts and either a turbine engine with a propeller or a piston engine with a variable pitch propeller.

The FEH activities and manoeuvres, listed in the Requirements column of Table 11 below, mirror the CPL A test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the CPL A flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the CPL A test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

CPL A flight tolerances and ground reference tolerances are specified in Table 2 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The CPL A applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system on at least one leg.

9.3 Conduct (ground component)

9.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content

- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

9.3.2 Document review

The examiner must confirm that an applicant for the CPL A satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the CASR subregulation 61.235(2) certification, training records, logbook, licence (or ARN if RPL/PPL not issued) and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - The examiner must sight one of the following documents to verify that the applicant is at least 18:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – The examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – The examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – The examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – The examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – The examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification – The examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – The examiner must check that the applicant holds a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the CPL A.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – The examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

9.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

9.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

9.4 Conduct (flight component)

9.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

9.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- the expectations of the examiner during the lost procedure simulation
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

9.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **CPL A** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 19: Assessment of activities and manoeuvres - CPL A

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	The examiner should conduct a review of the flight plan to assess correct application of wind computations and fuel planning. Gross error checks should also be applied, however where errors are not safety related the applicant should be permitted the opportunity to correct them in flight.
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Taxi aircraft	NSR
	(c) Plan, brief and conduct take-off and departure procedures	NSR
	(d) Conduct crosswind take-off	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct short field take-off	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off

Phase of Flight	Requirements	Recommendations
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off; or a requirement for best rate to 2000' AGL.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Navigate aircraft en route	The navigation task should be designed such that all of the required competencies can be assessed in a logical sequence. There should be at least one sector of sufficient distance that allows basic navigation technique to be adequately assessed. This sector should be of a sufficient duration to enable the assessment of: multiple navigation cycles track correction techniques continued maintenance of navigation and fuel logs (ETAs and fuel status) position fixing at suitable intervals. Importantly, the examiner should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound reasoning and application of acceptable VFR navigation procedures. The examiner should give particular attention to the applicant's navigation techniques in and around controlled airspace and how they plan to avoid controlled airspace and/or restricted and prohibited airspace, as applicable.
	(c) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
	(d) Navigate at low level	NSR
	(e) Perform lost procedure	It is an acceptable practice for the examiner to introduce the 'lost' scenario immediately following the instrument flying assessment. In normal circumstances the examiner should ensure the 'lost position' is at least several nautical miles laterally displaced from the original planned track.

Phase of Flight	Requirements	Recommendations
	(f) Perform diversion procedure	The examiner should provide a suitable scenario that will enable the applicant to 'self-select' the 'diversion route' to a 'suitable aerodrome or an alternate aerodrome'. The examiner should not apply any specific time constraints (subject to operational requirements) to execute the diversion. The examiner should ensure that the applicant is at a known position prior to introducing the diversion task.
	(g) Use instrument navigation systems	The examiner should consider selecting an appropriate leg for assessing the applicant's ability to use the aircraft navigation systems.
Test specific activities and manoeuvres	(a) Enter and recover from stalls – one must be in the approach configuration and at least: single engine: 1 stall and 1 wing drop at the stall multi engine: 2 stalls	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Conduct steep level turns of at least 45˚ bank	NSR
	(c) Perform full and limited panel instrument flying	The examiner should limit this to no longer than five minutes and position for sufficient altitude to conduct unusual attitude recoveries. For the limited panel assessment, the primary attitude indicator/display and the primary heading indicator/display may be 'failed' simultaneously. If assessed, unreliable airspeed indications must be a separate exercise. For EFIS cockpits, the use of standby instruments is acceptable for limited panel assessments.
	(d) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	At least one recovery full panel and at least one recovery limited panel must be assessed.
	(e) Manage engine failure after take-off	The examiner must consider the airfield terrain, obstacles and noise abatement requirements. Where the aerodrome does not allow the safe practise of EFATO, the examiner should simulate the procedure elsewhere at altitude.

Phase of Flight	Requirements	Recommendations
	(f) Conduct precautionary search	The examiner should initiate the precautionary search with a suitable scenario that allows the applicant initiate the precautionary search procedure.
	(g) Manage a malfunction during start or shutdown and one of: a system malfunction, fire or radio failure	NSR
	(h) Perform forced landing (single engine) or manage engine failure in cruise (multi engine)	For SE, the examiner should initiate the simulated engine failure at least 2,500'AGL to ensure the applicant has sufficient time to perform the procedure.
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	The examiner is required to assess a crosswind landing unless the applicant's training records certify dual or solo competence in crosswinds of at least 70% of the AFM maximum. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Conduct short field and flapless landings	NSR
	(d) Perform a go-around procedure	NSR
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide,
	(b) Maintain situational awareness	

Phase of Flight	Requirements	Recommendations
	(c) Assess situations and make decisions	where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Operate in controlled airspace	Where a test cannot be conducted in actual controlled airspace the examiner is required to simulate CTR and CTA. The simulation should include all performance criteria of CTR (Part 61 MOS Schedule 2). At a minimum, the simulation methodology should include simulated: VTC including – airspace boundaries, classes, frequencies, altitudes ERSA information weather and NOTAMS. The examiner should provide the applicant with the simulated charts and ERSA information at the time of advising the flight test route. The examiner is required to accurately replicate the role of air traffic control in the simulated environment. The simulated CTA/CTR environment shall remain 'active' for the duration of the flight test (i.e. the simulated CTR shall not be the same aerodrome for the 'operations at non-towered aerodromes' assessments).
	(j) Operate in Class G airspace	NSR
	(k) Operate at controlled aerodrome	Where a test cannot be conducted at a controlled aerodrome, refer to recommendations in (i) above
	(l) Operate at non-towered aerodrome	NSR

Phase of Flight	Requirements	Recommendations
	(m) Use correct radio procedures	NSR
	(n) Manage relevant aircraft systems	NSR
	(o) Manage fuel system and monitor fuel plan and usage	NSR
	(p) Manage passengers and the carriage of cargo	The examiner should role play as a passenger for the duration or part of the flight test.

9.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over / take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

9.5 Complete (post flight)

9.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

9.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

10 Commercial Pilot Licence - Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the commercial pilot licence and helicopter category rating (CPL H).

10.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the CPL H flight test:

(1) The examiner must conduct the CPL H flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the CPL H flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

10.2 Plan

10.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the general test details at least 24 hours before the start of the flight test and the specific scenario for the test route at least 2 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.7 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)
- 0.8 hour for the general handling and test specific manoeuvres.

The examiner may choose to conduct the general handling and navigation components in two separate flights.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the CPL H assessment flight sequences.

The CPL H flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the CPL H flight test should be considered as the flight time for the flight test.

10.2.2 CPL H assessment scope and conditions

The CPL H flight test must be conducted by day in VMC, under the VFR and in a helicopter, in accordance with subregulation 61.580(3) of CASR.

The FEH activities and manoeuvres, listed in the Requirements column of Table 12 below, mirror the CPL H test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the CPL H flight test.

Activities and manoeuvres involving instrument flying or instrument navigation systems are only included if the aircraft is appropriately fitted and the flight examiner chooses to include them in the test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the CPL H test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

CPL H flight tolerances and ground reference tolerances are specified in table 4 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The CPL H applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system on at least one leg.

10.3 Conduct (ground component)

10.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

10.3.2 Document review

The examiner must confirm that an applicant for the CPL H satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the CASR subregulation 61.235(2) certification, training records, logbook, licence (or ARN if RPL/PPL not issued) and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - the examiner must sight one of the following documents to verify that the applicant is at least 18:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – the examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the CPL H.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

10.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

10.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

10.4 Conduct (flight component)

10.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

10.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references

- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- the expectations of the examiner during the lost procedure simulation
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

10.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **CPL H** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 20: Assessment of activities and manoeuvres - CPL H

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	The examiner should conduct a review of the flight plan to assess correct application of wind computations and fuel planning. Gross error checks should also be applied, however where errors are not safety related the applicant should be permitted the opportunity to correct them in flight.
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Lift-off and hover helicopter	The examiner should assess these items during the normal operation of the helicopter in the departure phase.
	(c) Taxi aircraft	
	(d) Air transit helicopter	

Phase of Flight	Requirements	Recommendations
	(e) Plan, brief and conduct take-off and departure procedures	
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should pose scenarios to achieve the observation of a climb at best angle to achieve obstacle clearance or at best rate during departure and climb phase.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Navigate aircraft en route	The navigation task should be designed such that all of the required competencies can be assessed in a logical sequence. There should be at least one sector of sufficient distance that allows basic navigation technique to be adequately assessed. This sector should be of a sufficient duration to enable the assessment of: • multiple navigation cycles • track correction techniques • continued maintenance of navigation and fuel logs (ETAs and fuel status) • position fixing at suitable intervals. Importantly, the examiner should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound reasoning and application of acceptable VFR navigation procedures. The examiner should give particular attention to the applicant's navigation techniques in and around controlled airspace and how they plan to avoid controlled airspace and/or restricted and prohibited airspace, as applicable.
	(c) Navigate at low level	NSR
	(d) Perform lost procedure	It is an acceptable practice for the examiner to introduce the ‘lost’ scenario immediately following the instrument flying assessment. In normal circumstances the examiner should ensure the ‘lost position’ is at least several nautical miles laterally displaced from the original planned track.

Phase of Flight	Requirements	Recommendations
	(e) Perform diversion procedure	The examiner should provide a suitable scenario that will enable the applicant to 'self-select' the 'diversion route' to a 'suitable aerodrome or an alternate aerodrome'. The examiner should not apply any specific time constraints (subject to operational requirements) to execute the diversion. The examiner should ensure that the applicant is at a known position prior to introducing the diversion task.
	(f) Use instrument navigation systems	The examiner should consider selecting an appropriate leg for assessing the applicant's ability to use the aircraft navigation systems. *NAV.8 and Unit RNE are optional for "CPL-H non-ICAO compliant" Examiners must refer to 10.2.2 and 10.5.2 for guidance on inclusion of these test items.
Test specific activities and manoeuvres	(a) Hover helicopter in crosswind and tailwind and perform turns around any 1 of the rotor mast, nose or tail	The examiner is required to assess headwind/crosswind/tailwind hover and ground taxi unless the applicant's training records certify dual or solo competence in those wind conditions. In this case the examiner must indicate competency by marking the items on the flight test form with 'TR'.
	(b) Conduct steep level turns of at least 45˚ bank	Recommend a turn through at least 180 degrees is assessed.
	(c) Perform full and limited panel instrument flying	The examiner should limit this to no longer than five minutes and position for sufficient altitude to conduct unusual attitude recoveries. For the limited panel assessment, the primary attitude indicator/display and the primary heading indicator/display may be 'failed' simultaneously. If assessed, unreliable airspeed indications must be a separate exercise. For EFIS cockpits, the use of standby instruments is acceptable for limited panel assessments. *Units IFF and IFL are optional for "CPL-H non-ICAO compliant" Examiners must refer to 8.2.2 and 8.5.2 for guidance on inclusion of these test items.
	(d) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	At least one recovery full panel and at least one recovery limited panel must be assessed. *Units IFF and IFL are optional for "CPL-H non-ICAO compliant" Examiners must refer to 8.2.2 and 8.5.2 for guidance on inclusion of these test items.
	(e) Perform autorotative flight	Recommend assessment of at least entry to, stabilised control of and recovery from minimum rate of descent autorotation.

Phase of Flight	Requirements	Recommendations
	(f) Land on and lift-off from sloping ground	It is not a requirement to demonstrate maximum slope landing limitations.
	(g) Land, manoeuvre and take-off in a confined area or land and take-off from pinnacle or ridgeline	NSR
	(h) Execute limited power take-off, approach and landing	NSR
	(i) Perform forced landing (single engine) or manage engine failure in cruise (multi engine)	The examiner should initiate the simulated engine failure at a height above ground level and appropriate airspeed to ensure the applicant has sufficient time to perform the procedure.
	(j) Manage engine failure during hover or taxi	NSR
	(k) Manage a control or tail rotor malfunction in flight and at the hover	NSR
	(l) Manage a system malfunction – at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	These items should be assessed during the normal operation of the helicopter during the circuit phase.
	(b) Approach to the hover	
	(c) Air transit helicopter	
	(d) Perform a go-around procedure	The examiner may need to introduce a reason to conduct the go-around procedure.

Phase of Flight	Requirements	Recommendations
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Operate in controlled airspace	Where a test cannot be conducted in actual controlled airspace the examiner is required to simulate CTR and CTA. The simulation should include all performance criteria of CTR (Part 61 MOS Schedule 2). At a minimum, the simulation methodology should include simulated: • VTC including – airspace boundaries, classes, frequencies, altitudes • ERSA information • weather and NOTAMS. The examiner should provide the applicant with the simulated charts and ERSA information at the time of advising the flight test route. The examiner is required to accurately replicate the role of air traffic control in the simulated environment. The simulated CTA/CTR environment shall remain ‘active’ for the duration of the flight test (i.e. the simulated CTR shall not be the same aerodrome for the ‘operations at non-towered aerodromes’ assessments).

Phase of Flight	Requirements	Recommendations
	(j) Operate in Class G airspace	NSR
	(k) Operate at controlled aerodrome	As per (i) above
	(l) Operate at non-towered aerodrome	NSR
	(m) Use correct radio procedures	NSR
	(n) Manage relevant aircraft systems	NSR
	(o) Manage fuel system and monitor fuel plan and usage	NSR
	(p) Manage passengers and the carriage of cargo	The examiner should role play as a passenger for the duration or part of the flight test.

Note: *Where Units RNE, IFF and IFL (as required) are not conducted and assessed during the flight test the Examiner **must** ensure the associated boxes in the relevant Flight Test Reports and FTM are "**UNTICKED**" & "**N**" Not Tested are entered.

10.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

10.5 Complete (post flight)

10.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

10.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

If the examiner chooses not to include Item 3.3 (f) Use instrument navigation systems, Items 3.4 (c) Perform full panel instrument flying and (d) Full and limited panel instrument flying, recover from at least 2 unusual attitudes. The flight test report form must be annotated N – (not tested) for those items. The examiner will also be required to change the FTM entries for these items from the default "✓" (pass) to "**N**" (not tested) when they complete the FTM close out for the flight test.

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

11 Multi-crew Pilot Licence

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the multi-crew pilot licence (MPL) and associated aircraft category rating.

11.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the MPL flight test:

(1) The examiner must conduct the MPL flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the MPL flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

11.2 Plan

11.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating an air transport passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 2.0 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 1.0 hour for the general handling and test specific manoeuvres.

The examiner may choose to conduct the general handling and navigation components in two separate flights.

11.2.2 MPL assessment scope and conditions

The MPL flight test must be conducted under the IFR and in an aeroplane or an FSTD approved for the purpose, in accordance with subregulation 61.655(3) of CASR. The aeroplane and FSTD must be multi-engine, turbine-powered and type rated.

The FEH activities and manoeuvres, listed in the Requirements column of Table 13 below, mirror the MPL test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the MPL flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the MPL test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

MPL flight tolerances and ground reference tolerances are specified in Tables 2 and 5 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The MPL applicant should demonstrate safe and effective management of the flight as the co-pilot in a multi-crew environment, that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

The entire flight test should be conducted as a multi-crew operation (2-pilot) for all flight component test items. The applicant may use the aeroplane automation systems, unless otherwise directed by the examiner.

When the flight test is conducted in an aircraft, the examiner may occupy either a control seat or a suitable observer seat (jump seat). Where the examiner occupies a control seat (as captain), the examiner should be the nominated pilot in command (PIC).

Examiners must ensure that they do not impart training or assistance to the applicant during the conduct of the MPL test. If the examiner is occupying a control seat, they must provide the normal duties of a captain in that role, but only to the extent required by the operator's operations manual.

Where the examiner occupies a jump seat, a suitably qualified pilot should occupy the captain seat and be the nominated PIC.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command / safety of flight responsibilities
- flight test profile and scenario
- role of the captain
- introduction of non-normal sequences
- discontinuation / termination of the flight test
- communication protocols.

When the flight test is conducted in an approved FSTD, the examiner should not position the applicant over the top of a navigation aid or at the commencement of the approach procedure being assessed. The examiner should not speed up or in any other way change the real-time nature of the flight, except when a non- normal sequence has been completed and the simulator returned to its normal operating state.

The applicant must demonstrate competency in performing instrument approach operations for at least two different kinds of procedures, including a 2D instrument approach operation to the published MDA/H, and an ILS or GLS instrument approach to the published DA/H.

Examiners should use only the authorised instrument approach procedures for the aerodromes being used. Overlay instrument approaches are not to be used for an MPL flight test, except where an aeroplane's navigation system has been approved for such approaches.

The instrument flight assessment should consist of a flight with at least the CIR, IAP2 and IAP3 elements conducted under the IFR. The flight should include a sector to an aerodrome (other than the departure aerodrome) serviced by a published instrument approach which the aeroplane is equipped to use.

The applicant should demonstrate proficiency to operate the aeroplane on at least one instrument approach without the autopilot or flight director being used. Reversion to manual flight must be accomplished prior to the Initial Approach Fix (IAF) or equivalent.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR, regarding the authority to exercise the privileges of a rating or an activity in an aircraft. For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities, including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

11.3 Conduct (ground component)

11.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

11.3.2 Document review

The examiner must confirm that an applicant for the MPL satisfies the eligibility requirements to undertake the flight test for the grant of a CASR Part 61 licence. To achieve this, the CASR subregulation 61.235(2) certification, training records, logbook, licence (or ARN if RPL / PPL /

CPL not issued) and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age
The examiner must sight one of the following documents to verify that the applicant is at least 18:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations
The examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR)
The examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements
The examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience
The examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency
The examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification
The examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate
The examiner must check that the applicant holds either a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the MPL.

Security check and fit and proper person requirements
Regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

The flight test is a retest following a fail assessment
The examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

11.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

11.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or, if computer generated, demonstrate knowledge of:

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made, including, forecast weather, NOTAMs, aircraft data, chart validity.

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

11.4 Conduct (flight component)

11.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences

- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

The examiner should assess adherence to either company SOPs, training provider SOPs or the aeroplane manufacturer's SOPs, e.g. operator specific, Boeing or Airbus, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs in a multi-crew environment, and not just the technique used by the applicant and the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

11.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying air transport operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable)

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

11.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **MPL** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 21: Assessment of activities and manoeuvres - MPL

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an IFR flight	Applicants should be given notice and pre-flight material of the intended flight test route in accordance with their operation.
	(b) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(c) Perform pre-flight inspection	In-transit (aircraft turnaround) pre-flight cockpit preparation is acceptable for the purposes of the pre-flight inspection.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Taxi aircraft	Taxiing – only applicable in simulator/aircraft types for which ground steering is controlled from either operating seat.
	(c) Plan, brief and conduct take-off and departure procedures	NSR
	(d) Conduct crosswind take-off	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct an instrument departure (normal operations)	If available, the departure should be published or ATC cleared.
	(f) Conduct climb profiles and climbing turns	NSR
En route cruise	(a) Navigate aircraft en route using ground and satellite navigation systems	NSR

Phase of Flight	Requirements	Recommendations
	(b) Perform navigation systems integrity checks	NSR
	(c) Identify and avoid hazardous weather conditions	NSR
	(d) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
Test specific activities and manoeuvres	(a) Perform full and limited panel instrument flying	Where a failure of the primary attitude system is introduced, the examiner should not simulate a failure of the system when the aircraft is flying in IMC or at night. In complex aircraft types with multiple primary instrument display redundancy capability; intent of the Part 61 MOS (IFL unit of competency) is satisfied with a reduction of full primary instrument display as a result of a system(s) failure. This MOS competency should be accomplished by the applicant demonstrating system / checklist knowledge (recovering instrumentation where applicable) to a level whereby satisfactory manoeuvring can be conducted, albeit on an altered instrument scan. Forcing the aircraft into a situation of multiple unrealistic failures, whereby the standby artificial horizon and magnetic compass are the only primary means of instrumentation, is not necessary.
	(b) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	If the flight test is being conducted in an aeroplane and not an approved simulator, recovery from unusual attitudes should only be conducted by day and the examiner should have a clear horizon. At least one recovery full panel and at least one recovery limited panel must be assessed.

Phase of Flight	Requirements	Recommendations
	(c) Manage engine failure during take-off - IAS ≥ V1	The applicant shall attain optimum aeroplane performance following failure of an engine. The speed at which that failure may be simulated shall be as follows: (i) aeroplanes for which the take-off performance is predicated on the establishment of a V1, failure of the engine shall be simulated at a speed greater than V1; (ii) aeroplanes other than those described in subparagraph (i) above, failure of the engine shall be simulated at a speed greater than either, (a) the 1 engine inoperative best rate of climb speed or (b) the take-off safety speed plus 10 knots, whichever is the higher. In an aircraft the simulated engine failure should not be conducted at night or in IMC and the examiner should have visual reference at all times during the manoeuvre.
	(d) Conduct instrument departure OEI	The departure must be a separate event to the one engine inoperative (OEI) missed approach.
	(e) Conduct instrument approach OEI	The applicant should demonstrate proficiency in the management of the aircraft with OEI during an approach. The simulated engine failure should be introduced at or before the Final Approach Fix (FAF).
	(f) Conduct missed approach OEI	The applicant should fly the published approach followed by the published missed approach whilst maintaining the specified flight path tolerances for OEI operations.
	(g) Manage an event – system malfunction, fire or radio failure	NSR
Descent and arrival	(a) Perform a descent or published arrival procedure to an aerodrome	NSR
	(b) Track to holding fix and conduct a holding pattern or sector 3 entry procedure	If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required.
	(c) 2D, prepare for approach	NSR

Phase of Flight	Requirements	Recommendations
	(d) 2D, conduct approach	NSR
	(e) 3D, prepare for approach	NSR
	(f) 3D, conduct approach	NSR
	(g) Conduct missed approach	Since a OEI missed approach is required in the test, an all engines operating (AEO) missed approach may be included but is not required. Only one missed approach is required. If the applicant conducts a 2D missed approach, they must be able to describe the 3D DA procedure. If a 3D missed approach is conducted, they must describe the 2D MDA procedure. This is best completed during the ground component.
Circuit, approach and landing	(a) Conduct circling approach if required	The circling approach must be demonstrated as the continuation of the instrument approach from the specified circling minima, must be flown over the aerodrome specified on the instrument approach plate and must be at least a 90° heading change to the runway. It must not be flown as a standalone low level circuit. For simulators, the environmental settings should be set to not more than 1.5 times the visibility minima of the circling approach minima. The circling approach may not be demonstrated in a flight simulator unless it is specifically approved for visual operations.
	(b) Conduct crosswind landing	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Land and perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS and MCO competencies. The examiner should provide, where possible, applicable
	(b) Maintain situational awareness	

Phase of Flight	Requirements	Recommendations
	(c) Assess situations and make decisions	operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Operate effectively as a crew member	
	(j) Demonstrate effective leadership and authority	
	(k) Maintain multi-crew situational awareness	
	(l) Make effective decisions	
	(m) Operate in controlled airspace	NSR
	(n) Operate in Class G airspace	If applicable to test profile
	(o) Operate at controlled aerodrome	NSR
	(p) Operate at non-towered aerodrome	If applicable to test profile
	(q) Use correct radio procedures	NSR
	(r) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the aeroplane's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).

Phase of Flight	Requirements	Recommendations
	(s) Manage fuel system and monitor fuel plan and usage	NSR
	(t) Manage passengers and the carriage of cargo	The examiner should role play ground crew and passengers as applicable.

11.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM and in accordance with the flight check system (FCS), including failure to recall memory items (however described)
- sustained failure to maintain SOPs
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM or operations manual
- failure to demonstrate sound working knowledge of aeroplane automation (i.e.: FMS, AFDS, and/or MCP) or incorrect use of the aeroplane automation systems
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes or any specified altitude limitations when operating in IMC or simulated IMC
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2 and MCO.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued, and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

11.5 Complete (post flight)

11.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

11.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

12 Air Transport Pilot Licence - Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the air transport pilot licence and aeroplane category rating (ATPL A).

12.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the ATPL A flight test:

(1) The examiner must conduct the ATPL A flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the ATPL A flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before commencing in-aircraft or FSTD flight test components.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) If the flight test is conducted in an aircraft, from a safety of flight perspective, after a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) The ATPL flight test involves assessing TR-MEA competencies. Passing the ATPL flight test in a type rated aircraft results in CASA issuing a Flight Review and IPC on type. The examiner must be type rated as prescribed in subregulation 61.375(5) of CASR.
(7) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

12.2 Plan

12.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended flight test route to allow for unhurried preparation and planning (simulating an air transport passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

Approximately 3 hours flight time is required to adequately assess the ATPL flight test competencies.

The examiner may choose to conduct the general handling and navigation components in two separate flights.

12.2.2 ATPL A assessment scope and conditions

The ATPL A flight test must be conducted under the IFR and in an aeroplane or an FSTD approved for the purpose, in accordance with subregulation 61.700(5) of CASR. The aeroplane or FSTD must be multi-engine, turbine-powered and configured for flight, and operated, with a co-pilot.

Note 1: Multi-engine, turbine powered aircraft that are single pilot type certificated, must have a CAR 232 approved multi-pilot Flight Check System to be used for ATPL flight tests.

Note 2: Where the examiner is not familiar with the SOPs, the examiner must obtain the abbreviated and expanded format multi crew procedures in sufficient time to achieve familiarity.

The FEH activities and manoeuvres, listed in the Requirements column of Table 14 below, mirror the ATPL A test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the ATPL A flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the ATPL A test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

ATPL A flight tolerances and ground reference tolerances are specified in Tables 2 and 5 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The ATPL A applicant should demonstrate safe and effective management of the flight as the pilot in command (PIC) in a multi-crew environment, that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

The entire flight test must be conducted as a multi-crew operation (2-pilot) for all flight component test items. The applicant may use the aeroplane automation systems unless otherwise directed by the examiner.

The applicant should occupy the normal command seat for the aircraft type and operation. Approval for applicants to occupy other than as described above must be obtained from the CASA Manager FTO.

Examiners must ensure that they do not impart training or provide assistance to the applicant during the conduct of the ATPL A test. If the examiner is occupying a control seat they must provide the normal duties of a co-pilot in that role, but only to the extent required by the operator's operations manual.

In-Aircraft Flight Test

When the flight test is conducted in an aircraft, the examiner may occupy either a control seat or a suitable observer seat (jump seat). Where the examiner occupies a co-pilot control seat (as co-pilot), the examiner must be the nominated pilot in command (PIC).

Where the examiner occupies a jump seat, a suitably qualified pilot should occupy the co-pilot seat and be the nominated PIC. A suitably qualified pilot means:

(1) A company CA0 82 check pilot who is approved to conduct asymmetric operations in the flight test aircraft from the co-pilot seat and has flown all the intended flight test manoeuvres within the preceding 90 days in the flight test aircraft type.
(2) A pilot who is current on the flight test aircraft type, holds a valid FPC, holds a training endorsement for the flight test aircraft type, is familiar with and competent in the multicrew procedures intended to be used during the flight test and has flown all the intended flight test manoeuvres within the preceding 90 days in the flight test aircraft type.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command/safety of flight responsibilities
- flight test profile and scenario
- role of the 'co-pilot'
- introduction of non-normal sequences
- discontinuation/termination of the flight test
- communication protocols.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR regarding the authority to exercise the privileges of a rating or an activity in an aircraft. For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

FSTD Flight Test

When the flight test is conducted in an approved FSTD, during the navigation component, the examiner should not accelerate or in any other way change the real-time nature of the flight.

The applicant must demonstrate competency in performing instrument approach operations for at least two different kinds of procedure. One must be a 2D instrument approach operation. Additionally, the applicant must demonstrate competency in performing a 3D ILS or GLS instrument approach operation.

Examiners should use only the authorised instrument approach procedures for the aerodromes being used. Overlay instrument approaches are not to be used for an ATPL flight test, except where an aeroplane's navigation system has been approved for such approaches.

The flight should be planned to include a sector to an aerodrome serviced by a published instrument approach which the aeroplane is equipped to use.

The applicant must demonstrate proficiency to operate the aeroplane on at least one instrument approach without the autopilot and flight director being used (raw data and hand flown), auto throttle/auto thrust and flight path vector information may be used. Establishing manual flight must be accomplished prior to the Initial Approach Fix (IAF) or equivalent.

ATPL flight test profile development guidance

To assist examiners with the development of suitable ATPL flight test profiles, the following guidance is provided:

The ATPL flight test profile could be designed into 4 components:

(1) **Line orientated evaluation (LOE)** – a simulated commercial flight (normally passenger carrying) planned between a pre-determined aerodrome pairing. To assist with time management and competency assessment, this may involve a diversion.

(2) **Manoeuvre based sequence (MBS #1)** – an air exercise involving an abnormal event originating and terminating at the same aerodrome. Commonly (simulated) passengers, cabin crew or freight are not carried for this or the remaining sequences

(3) **Manoeuvre based sequence (MBS #2)** – commencing at altitude for the purpose of demonstrating the remaining CIR competencies:

- Basic manoeuvres by reference to standby flight instruments and
- Unusual attitude recovery assessment using normal and standby instrument displays.

(4) Manoeuvre based sequence (MBS #3) –a short sector to assess the applicant's command presence including NTS and MCO competencies while operating as PM.

The design of the LOE is simplified by the development of a table of two levels of contingency events categorised abnormal and emergency. The abnormal event could be defined as a resolvable technical or procedural event with a low level of complexity. The emergency event could be either technical or non-technical in nature with a high level of complexity requiring a command decision to continue, return or divert. These events should be designed to assess the competencies as outlined on the relevant flight test form and the FEH.

The design of the MBS could be such that it commences from the original LOE departure aerodrome using the pre-determined take-off performance data. This could commence from the runway threshold with aircraft state being at the ready with engines running. This sequence could include any further abnormal (eg.one engine inoperative at >V1) with a return to aerodrome for the conduct of any of the flight component competencies not yet included.

12.3 Conduct (ground component)

12.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

12.3.2 Document review

The examiner must confirm that an applicant for the ATPL A satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the training records (if applicable), logbook, licence (CPL A, MPL or foreign ATPL) and medical certificate must be checked, referring to subregulation 61.235(2) of CASR. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - the examiner must sight one of the following documents to verify that the applicant is at least 21:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – Not required under paragraph 61.235(2)(b) of CASR.

Training requirements – paragraph 61.700(3)(b) of CASR requires that the applicant must have completed flight training for the ATPL and the associated category rating. Paragraph 61.235(2)(aa) of CASR excludes the ATPL from the requirement for course completion certification. On this basis, the examiner will need to satisfy themselves that the applicant has received the required training prior to commencing the flight test.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – the examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification – N/A

Medical certificate – the examiner must check that the applicant holds either a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the ATPL A.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

Note: A CASA Flight Crew Licence cannot be issued until the applicant has been issued with an ASIC or AVID.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

12.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS. In addition, as the

ATPL (A) incorporates the privileges of an instrument rating, the examiner should also assess the CIR knowledge requirements as a safety of flight requirement.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

12.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

12.4 Conduct (flight component)

12.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences

- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

The examiner should assess adherence to either company SOPs, training provider SOPs or the aeroplane manufacturer's SOPs, e.g. operator specific, Boeing or Airbus, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs in a multi-crew environment, and not just the technique used by the applicant and the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

12.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (for example, passenger carrying air transport operation / simulation of passengers and flight attendant roles)
- pilot in command
- transfer of control
- flight tolerances
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

12.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **ATPL** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 22: Assessment of activities and manoeuvres - ATPL A

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an IFR flight	Applicants should be given notice and pre-flight material of the intended flight test route in accordance with their operation.
	(b) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(c) Perform pre-flight inspection	In-transit (aircraft turnaround) pre-flight cockpit preparation is acceptable for the purposes of the pre-flight inspection. External pre-flight inspection knowledge should be assessed by oral questioning if the test is conducted in an FSTD.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Taxi aircraft	The applicant should have full access to braking and nosewheel steering capability.
	(c) Plan, brief and conduct take-off and departure procedures	If the test is conducted in an aircraft and the conditions prevent a crosswind take-off, it is acceptable for the examiner to satisfy competency through verbal questioning of the type specific crosswind technique.
	(d) Conduct instrument departure (normal operations)	If available, the departure should be published, or ATC cleared.
	(e) Conduct climb profiles and climbing turns	NSR
En route cruise	(a) Navigate aircraft en route using ground and satellite navigation systems	NSR
	(b) Perform navigation systems integrity checks	NSR

Phase of Flight	Requirements	Recommendations
	(c) Identify and avoid hazardous weather conditions	NSR
	(d) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
Test specific activities and manoeuvres	(a) Perform instrument flying using normal and standby instrument displays	In-Aircraft - In an aircraft where a failure of the primary attitude, heading or airspeed indication is introduced, the examiner should not simulate a failure of the system when the aircraft is flying in IMC or at night. NOTE: Not applicable to FSTD
	(b) Instrument flying using normal displays and standby displays, recover from at least 2 unusual attitudes	In-aircraft - If the flight test is being conducted in an aircraft and not a FSTD, recovery from unusual attitudes should only be conducted by day and the examiner should have a clear horizon. NOTE: Not applicable to FSTD
	(c) Manage engine failure during take-off - IAS ≥ V1	The applicant shall attain optimum aeroplane performance following failure of an engine. The speed at which that failure may be simulated shall be as follows: (i) aeroplanes for which the take-off performance is predicated on the establishment of a V1, failure of the engine shall be simulated at a speed greater than V1; (ii) aeroplanes other than those described in subparagraph (i) above, failure of the engine shall be simulated at a speed greater than either, (a) the 1 engine inoperative best rate of climb speed or (b) the take-off safety speed plus 10 knots, whichever is the higher. In an aircraft the simulated engine failure should not be conducted at night or in IMC and the examiner should have visual reference at all times during the manoeuvre.
	(d) Conduct instrument departure OEI	The departure must be a separate event to the one engine inoperative (OEI) missed approach.

Phase of Flight	Requirements	Recommendations
	(e) Conduct instrument approach OEI	The simulated engine failure should be introduced before the Initial Approach Fix (IAF).
	(f) Conduct missed approach OEI	The applicant should fly the published approach followed by the published missed approach whilst maintaining the specified flight path tolerances for OEI operations.
	(g) Manage an event – system malfunction, fire or radio failure	This event must be one that is not included in other test specific activities and manoeuvres.
Descent and arrival	(a) Perform a descent or published arrival procedure to an aerodrome	NSR
	(b) Track to holding fix and conduct a holding pattern or sector 3 entry procedure	If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required. If conducting an RNAV(GNSS) approach, the applicant must conduct RNAV(GNSS) holding or sector 3. Only one holding procedure is required for the flight test.
	(c) 2D, prepare for approach	NSR
	(d) 2D, conduct approach	NSR - For an ATPL applicant who does hold an Australian instrument rating with 2D, 3D and MEA endorsements. For an ATPL applicant who does hold an Australian instrument rating but is missing one or more of the above endorsements, the examiner must contact the Manager FTO for advice. For an ATPL applicant who does not hold an Australian instrument rating, 2 X 2D approaches of different kinds must be demonstrated.
	(e) 3D, prepare for approach	NSR
	(f) 3D, conduct approach	NSR

Phase of Flight	Requirements	Recommendations
	(g) Conduct missed approach	Only one missed approach is required to be demonstrated. Since a OEI missed approach is required in the flight test, an all engines operating (AEO) missed approach may be included but is not required. If the applicant conducts a 2D missed approach, they must be able to describe the 3D DA procedure. If a 3D missed approach is conducted, they must describe the 2D MDA procedure. This is best completed during the ground component.
Circuit, approach and landing	(a) Conduct circling approach if required	For an ATPL applicant who does not hold an Australian instrument rating, the ATPL flight test must include assessment of a circling approach. The circling approach must be demonstrated as the continuation of the instrument approach from the specified circling minima, must be flown over the aerodrome specified on the instrument approach plate and must be at least a 90° heading change to the runway. It must not be flown as a standalone low-level circuit. For simulators, the environmental settings should be set to not more than 1.5 times the visibility minima of the circling approach minima. The circling approach may not be demonstrated in a flight simulator unless it is specifically approved for this manoeuvre.
	(b) Land and perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	Post-flight actions and procedures may be assessed by oral questioning if the flight test is conducted in an FSTD.
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and abnormal events will provide sufficient evidence of the NTS and MCO competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques. For MCO, the flight test will examine the ability of the applicant to operate effectively and safely as the pilot
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	

Phase of Flight	Requirements	Recommendations
	(f) Recognise and manage threats	in command (PIC) in a multi-crew environment. To this end the applicant must be assessed during operations as pilot flying (PF) and pilot monitoring (PM). The examiner should ensure that the flight test is structured in such a way that the applicant demonstrates command skills while nominated as PM.
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Operate effectively as a crew member	
	(j) Demonstrate effective leadership and authority	
	(k) Maintain multi-crew situational awareness	
	(l) Make effective decisions as multi-crew	
	(m) Operate in controlled airspace	NSR
	(n) Operate in Class G airspace	If applicable to test profile.
	(o) Operate at controlled aerodrome	NSR
	(p) Operate at non-towered aerodrome	If applicable to test profile.
	(q) Use correct radio procedures	NSR
	(r) Manage relevant aircraft systems	NSR
	(s) Manage fuel system and monitor fuel plan and usage	NSR

Phase of Flight	Requirements	Recommendations
	(t) Manage passengers and the carriage of cargo	The examiner should role-play ground crew, flight attendant and passengers in the context of the nominated company operating procedures. Examples: Hi capacity RPT – the applicant should provide a cabin crew pre-flight briefing. Freight operations where there is provision for carriage of persons other than the flight crew – the applicant should provide a passenger pre-flight safety briefing. During the flight test, the applicant should demonstrate cabin crew and/or passenger management IAW nominated company procedures. With respect to cargo management, this item may be assessed via oral questioning on; loading, dangerous good, LMC procedures etc.

12.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM and in accordance with the flight check system (FCS), including failure to recall memory items (however described)
- sustained failure to maintain SOPs
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM or operations manual
- failure to demonstrate sound working knowledge of aeroplane automation (i.e.: FMS, AFDS, and/or MCP) or incorrect use of the aeroplane automation systems
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes or any specified altitude limitations when operating in IMC or simulated IMC
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1, NTS2 and MCO.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued at the discretion of the examiner and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

12.5 Complete (post flight)

12.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

12.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

13 Air Transport Pilot Licence - Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the air transport pilot licence and helicopter category rating (ATPL H).

13.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the ATPL H flight test:

(1) The examiner must conduct the ATPL H flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the ATPL H flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

13.2 Plan

13.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended flight test route to allow for unhurried preparation and planning (simulating an air transport passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.8 hours (2.0 in an FSTD) for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 0.8 hour for the general handling and test specific manoeuvres. The examiner may choose to conduct the general handling and navigation components in two separate flights.

Use of IFR procedures

Examiners must ensure that the practical flight standards of CIR, IAP2 and IAP3 are conducted under the instrument flight rules (IFR).

13.2.2 ATPL H assessment scope and conditions

The ATPL H flight test must be conducted in a helicopter or an FSTD approved for the purpose, in accordance with subregulation 61.700(6) of CASR. The helicopter and FSTD must be certified for night operations, turbine-powered and configured for flight, and operated, with a co-pilot.

Note: Multi-engine, turbine powered aircraft that are single pilot type certificated, must use 'CASA approved' multi-crew checklists and standard operating procedures.

Note: Where the examiner is not familiar with the SOPs, the examiner must obtain the abbreviated and expanded format multi crew procedures in sufficient time to achieve familiarity.

If an IFR option is requested by the applicant, the helicopter and FSTD must be certified for and operated under the IFR.

The FEH activities and manoeuvres, listed in the Requirements column of Table 15 below, mirror the ATPL H test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the ATPL H flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the ATPL H test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

IFR activities and manoeuvres are performed in accordance with published procedures.

ATPL H flight tolerances and ground reference tolerances are specified in Tables 4 and 5 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The ATPL H applicant should demonstrate safe and effective management of the flight as the pilot in command (PIC) in a multi-crew environment, that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

The entire flight test must be conducted as a multi-crew operation (2-pilot) for all flight component test items. The applicant may use the helicopter automation systems unless otherwise directed by the examiner.

When the flight test is conducted in an aircraft, the examiner may occupy either a control seat or a suitable observer seat (jump seat). Where the examiner occupies a co-pilot control seat (as co-pilot), the examiner must be the nominated pilot in command (PIC).

Examiners must ensure that they do not impart training or assistance to the applicant during the conduct of the ATPL H test. If the examiner is occupying a control seat, they must provide

the normal duties of a co-pilot in that role, but only to the extent required by the operator's operations manual.

Where the examiner occupies a jump seat, a suitably qualified pilot should occupy the co-pilot seat and be the nominated PIC.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command/safety of flight responsibilities
- flight test profile and scenario
- role of the 'co-pilot'
- introduction of non-normal sequences
- discontinuation/termination of the flight test
- communication protocols.

When the flight test is conducted in an approved FSTD, the examiner should not position the applicant over the top of a navigation aid or at the commencement of the approach procedure being assessed. The examiner should not speed up or in any other way change the real-time nature of the flight, except when a non-normal sequence has been completed and the simulator returned to its normal operating state.

Where the test involves IFR operations, the applicant must demonstrate competency in performing instrument approach operations for at least two different kinds of procedures including a 2D instrument approach operation to the published MDA/H, and an ILS or GLS instrument approach to the published DA/H.

Examiners should use only the authorised instrument approach procedures for the aerodromes being used. Overlay instrument approaches are not to be used for an ATPL flight test, except where a helicopter's navigation system has been approved for such approaches.

The instrument flight assessment should consist of a flight with at least the CIR, IAP2 and IAP3 elements conducted under the IFR. The flight should be planned to include a sector to an aerodrome (other than the departure aerodrome) serviced by a published instrument approach which the helicopter is equipped to use.

The applicant must demonstrate proficiency to operate the helicopter on at least one instrument approach without the autopilot and flight director being used. Establishing manual flight must be accomplished prior to the Initial Approach Fix (IAF) or equivalent.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR regarding the authority to exercise the privileges of a rating or an activity in an aircraft. For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

13.3 Conduct (ground component)

13.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

13.3.2 Document review

The examiner must confirm that an applicant for the ATPL H satisfies the eligibility requirements to undertake the flight test for the grant of the CASR Part 61 licence. To achieve this, the training records (if applicable), logbook, licence (CPL H or foreign ATPL) and medical certificate must be checked, referring to subregulation 61.235(2) of CASR. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Minimum age - the examiner must sight one of the following documents to verify that the applicant is at least 21:

- Australian driver licence
- CASA issued medical certificate
- Australian passport
- Australian birth certificate.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – Not required under paragraph 61.235(2)(b) of CASR.

Training requirements –the applicant must have completed an approved course of training in multi-crew cooperation or equivalent.

The examiner must ensure that the applicant has:

- completed a CASA approved course of MCC training and provided acceptable evidence of completion OR
- met the requirements for alternative of Schedule 1 of CASA Instrument EX102/18 and provided acceptable evidence iaw Schedule 2 clause 1-6 of the Instrument OR
- applicant is a current or former member of the ADF and has provided acceptable evidence iaw Section 6 of CASA Instrument EX102/18.

Note: All sighted evidence must be submitted to CASA with the flight test report form.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – the examiner must ensure that the applicant holds a current AELP assessment.

Eligibility certification – N/A

Medical certificate – the examiner must check that the applicant holds either a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the ATPL H.

Security check and fit and proper person requirements – regulation 11.055 of CASR and the Aviation Transport Security Regulations require that the applicant has completed the applicable declarations.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

13.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

13.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

13.4 Conduct (flight component)

13.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

The examiner should assess adherence to either company SOPs, training provider SOPs or the helicopter manufacturer's SOPs, e.g. operator specific, Bell or Sikorsky, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs in a multi-crew environment, and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

13.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying air transport operation / simulation of passengers and flight attendant roles)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

13.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **ATPL H** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 23: Assessment of activities and manoeuvres - ATPL H

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an IFR flight	If the flight test is conducted VFR, the applicant is to plan accordingly.
	(b) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(c) Perform pre-flight inspection	In-transit (aircraft turnaround) pre-flight cockpit preparation is acceptable for the purposes of the pre-flight inspection. A pre-flight inspection may be assessed verbally if the test is conducted in an FSTD.
Ground operations, take-	(a) Complete all relevant checks and procedures	NSR

Phase of Flight	Requirements	Recommendations
off, departure and climb	(b) Plan, brief and conduct take-off and departure procedures	NSR
	(c) Conduct instrument departure (normal operations)	For IFR operations only.
	(d) Conduct climb profiles and climbing turns	NSR
En route cruise	(a) Navigate aircraft en route	NSR
	(b) Perform diversion procedure	NSR
	(c) Use instrument navigation systems	NSR
	(d) Perform navigation systems integrity checks	NSR
Test specific activities and manoeuvres	(a) Perform instrument flying using normal and standby instrument displays	In an aircraft, where a failure of the primary attitude, heading or airspeed indication is introduced, the examiner should not simulate a failure of the system when the aircraft is flying in IMC or at night. In complex aircraft types with multiple primary instrument display redundancy capability, the intent of the Part 61 MOS (IFL unit of competency) is satisfied with a reduction of full primary instrument displays as a result of a system(s) failure. This MOS competency requires the applicant to demonstrate instrument flying using an altered instrument scan. This should be accomplished by the applicant demonstrating system / checklist knowledge (recovering instrumentation where applicable) to a level whereby satisfactory manoeuvring can be conducted. Forcing the aircraft into a situation of multiple unrealistic failures, whereby the standby artificial horizon and magnetic compass are the only primary means of instrumentation, is not necessary.

Phase of Flight	Requirements	Recommendations
	(b) Instrument flying using normal displays and standby displays, recover from at least 2 unusual attitudes	If the flight test is being conducted in a helicopter and not an approved simulator, recovery from unusual attitudes should only be conducted by day and the examiner should have a clear horizon. At least one recovery using normal displays and at least one recovery using standby displays must be assessed.
	(c) Land on and lift off from sloping ground	This item may be assessed as part of item (e) below.
	(d) Execute limited power take-off, approach and landing	This item may be assessed as part of item (e) below.
	(e) Land, manoeuvre and take-off in a confined area or land and take-off from pinnacle or ridgeline	NSR
	(f) Manage engine failure - at least 1 from take-off, cruise flight, approach and landing	The applicant shall attain optimum helicopter performance following failure of an engine. In an aircraft the simulated engine failure should not be conducted at night or in IMC and the examiner should have visual reference at all times during the manoeuvre.
	(g) Manage a control or tail rotor malfunction in flight and at the hover	NSR
	(h) Manage a system malfunction - at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	NSR
	(b)(i) Perform a descent or published arrival procedure to aerodrome	For IFR operations only.

Phase of Flight	Requirements	Recommendations
	(b)(ii) Track to holding fix and conduct holding pattern or sector 3 entry procedure	For IFR operations only Must be IAW published procedures. If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required. If conducting an RNAV(GNSS) approach, the applicant must conduct RNAV(GNSS) published holding or sector 3 associated with the instrument approach procedure to be flown. Only one holding procedure is required for the test.
	(b)(iii) 2D, prepare for approach	For IFR operations only.
	(b)(iv) 2D, conduct approach	For IFR operations only.
	(b)(v) 3D, prepare for approach	For IFR operations only.
	(b)(vi) 3D, conduct approach	For IFR operations only.
	(b)(vii) Conduct missed approach	For IFR operations only. Only one missed approach is required. If the applicant conducts a 2D missed approach, they must be able to describe the 3D DA procedure. If a 3D missed approach is conducted, they must describe the 2D MDA procedure. This is best completed during the ground component.
Circuit, approach and landing	(a) Conduct circling approach if required	For IFR operations only. For an ATPL applicant who does not hold an Australian Instrument Rating, part of the ATPL flight test is the conduct of a circling approach. The circling approach must be demonstrated as the continuation of the instrument approach from the specified circling minima, must be flown over the aerodrome specified on the instrument approach plate and must be at least a 90° heading change to the runway. It must not be flown as a standalone low level circuit. For simulators, the environmental settings should be set to not more than 1.5 times the visibility minima of the circling approach minima. The circling approach may not be demonstrated in a flight simulator unless it is specifically approved for visual operations.
	(b) Conduct normal circuit pattern, approach and landing	NSR

Phase of Flight	Requirements	Recommendations
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	Post-flight actions and procedures may be assessed verbally if the flight test is conducted in an FSTD.
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and abnormal events will provide sufficient evidence of the NTS and MCO competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques. For MCO, the flight test will examine the ability of the applicant to operate effectively and safely as the pilot in command (PIC) in a multi-crew environment. To this end the applicant must be assessed during operations as pilot flying (PF) and pilot monitoring (PM). The examiner should ensure that the flight test is structured in such a way that the applicant demonstrates command skills while nominated as PM. As an example, this may involve a takeover decision due to an event such as windshear.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Operate effectively as a crew member	
	(j) Demonstrate effective leadership and authority	
	(k) Maintain multi-crew situational awareness	
	(l) Make effective decisions as multi-crew	
	(m) Operate in controlled airspace	NSR
	(n) Operate in Class G airspace	If applicable to test profile.
	(o) Operate at controlled aerodrome	NSR
	(p) Operate at non-towered aerodrome	If applicable to test profile.

Phase of Flight	Requirements	Recommendations
	(q) Use correct radio procedures	NSR
	(r) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the helicopter's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).
	(s) Manage fuel system and monitor fuel plan and usage	NSR
	(t) Manage passengers and the carriage of cargo	The examiner should role play ground crew, flight attendant and passengers as applicable.

13.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM and in accordance with the flight check system (FCS), including failure to recall memory items (however described)
- sustained failure to maintain SOPs
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM or operations manual
- failure to demonstrate sound working knowledge of helicopter automation (i.e.: FMS, AFDS, and/or MCP) or incorrect use of the helicopter automation systems
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes or any specified altitude limitations when operating in IMC or simulated IMC
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1, NTS2 and MCO.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued at the discretion of the examiner and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

13.5 Complete (post flight)

13.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

13.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

14 Class Rating – Single Engine Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the class rating – single engine aeroplane (SEA).

14.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the SEA flight test:

(1) The examiner must conduct the SEA flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the SEA flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

14.2 Plan

14.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a private passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.2 hours for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the SEA assessment flight sequences.

The SEA flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the SEA flight test should be considered as the flight time for the flight test.

14.2.2 SEA assessment scope and conditions

The SEA flight test must be conducted by day in VMC, under the VFR and in an aeroplane or an FSTD approved for the purpose, in accordance with sub regulation 61.750 (3) and the limitation of subregulation 61.245(2) of CASR.

The aeroplane and FSTD must be of the class covered by the SEA. The aeroplane must have operational dual controls, electronic intercom and dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 16 below, mirror the SEA test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the SEA flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the SEA test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

SEA flight tolerances and ground reference tolerances are specified in Table 1 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The SEA applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot.

14.3 Conduct (ground component)

14.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure

- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

14.3.2 Document review

The examiner must confirm that an applicant for the SEA satisfies the eligibility requirements to undertake the flight test for the grant of the class rating. To achieve this, CASR regulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the SEA must hold an aeroplane category RPL, PPL, CPL, MPL or ATPL (or be applying for the licence simultaneously with the SEA).

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the SEA.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

14.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

14.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification – N/A
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

14.4 Conduct (flight component)

14.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many

circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

14.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable)

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

14.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **SEA** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 24: Assessment of activities and manoeuvres - SEA

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	NSR

Phase of Flight	Requirements	Recommendations
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Taxi aircraft	NSR
	(c) Plan, brief and conduct take-off and departure procedures	NSR
	(d) Conduct crosswind take-off	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct short field take-off	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off; or a requirement for best rate to 2000' AGL.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Navigate and transit from the circuit area to the training area and return	NSR.

Phase of Flight	Requirements	Recommendations
	(c) Operate safely in the local area airspace	NSR
	(d) Maintain any 1 cruise configuration for turbulence, flaps selected or high speed	NSR
Test specific activities and manoeuvres	(a) Enter and recover from stalls – 1 must be in the approach configuration and at least 1 stall and 1 wing drop at the stall	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Conduct steep level turns of at least 45˚ bank	NSR
	(c) Perform full panel instrument flying	The examiner should limit this to no longer than 5 minutes and position for sufficient altitude to conduct unusual attitude recoveries.
	(d) Full panel instrument flying, recover from at least 2 unusual attitudes	NSR
	(e) Manage engine failure after take-off	The examiner must consider the airfield terrain, obstacles and noise abatement requirements. Where the aerodrome does not allow the safe practise of EFATO, the examiner should simulate the procedure elsewhere at altitude.
	(f) Manage a malfunction during start or shutdown and 1 of: a system malfunction, fire or radio failure	NSR
	(g) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,500’ AGL to ensure the applicant has sufficient time to perform the procedure.
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR

Phase of Flight	Requirements	Recommendations
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	The examiner is required to assess a crosswind landing unless the applicant's training records certify dual or solo competence in crosswinds of at least 70% of the AFM maximum. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Conduct short field and flapless landings	NSR
	(d) Perform a go-around procedure	NSR
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.

Phase of Flight	Requirements	Recommendations
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR
	(l) Manage passengers and the carriage of cargo	The examiner should role play as a passenger.

14.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

14.5 Complete (post flight)

14.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

14.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

15 Class Rating - Single Engine Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the class rating – single engine helicopter (SEH).

15.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the SEH flight test:

(1) The examiner must conduct the SEH flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the SEH flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

15.2 Plan

15.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a private passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.2 hours for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights.

15.2.2 SEH assessment scope and conditions

The SEH flight test must be conducted by day in VMC, under the VFR and in a helicopter or an FSTD approved for the purpose, in accordance with sub regulation 61.750 (3) and the limitation of subregulation 61.245(2) of CASR.

The helicopter and FSTD must be of the class covered by the SEH. The helicopter must have operational dual controls, electronic intercom and, if fitted with a wheeled undercarriage, dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 17 below, mirror the SEH test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the SEH flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the SEH test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

SEH flight tolerances and ground reference tolerances are specified in Table 1 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The SEH applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot.

15.3 Conduct (ground component)

15.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

15.3.2 Document review

The examiner must confirm that an applicant for the SEH satisfies the eligibility requirements to undertake the flight test for the grant of the class rating. To achieve this, the CASR

subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the SEH must hold a helicopter category RPL, PPL, CPL or ATPL (or be applying for the licence simultaneously with the SEH).

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the SEH.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

15.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

15.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification – N/A
- weight and balance calculation
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

15.4 Conduct (flight component)

15.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

15.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

15.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **SEH** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 25: Assessment of activities and manoeuvres - SEH

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	NSR
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.

Phase of Flight	Requirements	Recommendations
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Lift-off and hover helicopter	The examiner should assess these items during the normal operation of the helicopter in the departure phase.
	(c) Taxi aircraft	
	(d) Air transit helicopter	
	(e) Plan, brief and conduct take-off and departure procedures	
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should pose scenarios to achieve the observation of a climb at best angle to achieve obstacle clearance or at best rate during departure and climb phase.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Navigate and transit from the circuit area to the training area and return	NSR
	(c) Operate safely in the local area airspace	NSR
Test specific activities and manoeuvres	(a) Hover helicopter in crosswind and tailwind and perform turns around any 1 of the rotor mast, nose or tail	The examiner is required to assess headwind/crosswind/tailwind hover and ground taxi unless the applicant's training records certify dual or solo competence in those wind conditions. In this case the examiner must indicate competency by marking the items on the flight test form with 'TR'.
	(b) Perform sidewards and backwards flight	NSR
	(c) Conduct steep level turns of at least 45˚ bank	Recommend a turn through at least 180 degrees is assessed.

Phase of Flight	Requirements	Recommendations
	(d) Perform autorotative flight	Recommend assessment of at least entry to, stabilised control of and recovery from minimum rate of descent autorotation.
	(e) Land on and lift-off from sloping ground	It is not a requirement to demonstrate maximum slope landing limitations.
	(f) Land, manoeuvre and take-off in a confined area	NSR
	(g) Execute limited power take-off, approach and landing	NSR
	(h) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,000' AGL to ensure the applicant has sufficient time to perform the procedure.
	(i) Manage engine failure during hover or taxi	NSR
	(j) Manage a control or tail rotor malfunction in flight and at the hover	NSR
	(k) Manage a system malfunction – at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	These items should be assessed during the normal operation of the helicopter during the circuit phase.
	(b) Approach to the hover	
	(c) Air transit helicopter	

Phase of Flight	Requirements	Recommendations
	(d) Perform a go-around procedure	The examiner may need to introduce a reason to conduct the go-around procedure.
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR
	(l) Manage passengers and the carriage of cargo	The examiner should role play as a passenger.

15.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

15.5 Complete (post flight)

15.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

15.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

16 Class Rating - Multi Engine Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the class rating – multi engine aeroplane (MEA).

16.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the MEA flight test:

(1) The examiner must conduct the MEA flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the MEA flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

16.2 Plan

16.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a private passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.3 hours for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the MEA assessment flight sequences.

The MEA flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the MEA flight test should be considered as the flight time for the flight test.

16.2.2 MEA assessment scope and conditions

The MEA flight test must be conducted by day in VMC, under the VFR and in an aeroplane or an FSTD approved for the purpose, in accordance with subregulation 61.750(3) of CASR, and the limitation of subregulation 61.245(2) of CASR.

The aeroplane and FSTD must be of the class covered by the MEA. The aeroplane must have operational dual controls, electronic intercom and dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 18 below, mirror the MEA test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the MEA flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the MEA test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

MEA flight tolerances and ground reference tolerances are specified in Table 1 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The MEA applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot.

A simulated engine failure after take-off must not be initiated at a height less than 400ft AGL.

16.3 Conduct (ground component)

16.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content

- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

16.3.2 Document review

The examiner must confirm that an applicant for the MEA satisfies the eligibility requirements to undertake the flight test for the grant of the class rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the MEA must hold an aeroplane category PPL, CPL, MPL or ATPL (or be applying for the licence simultaneously with the MEA).

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the MEA.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

16.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

16.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification – N/A
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including: forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

16.4 Conduct (flight component)

16.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many

circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

16.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

16.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **MEA** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 26: Assessment of activities and manoeuvres - MEA

Phase of flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	NSR

Phase of flight	Requirements	Recommendations
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
	(c) Refuel aircraft	Training record evidence and oral questioning should be used in the absence of an actual refuel event. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.
	(b) Taxi aircraft	NSR
	(c) Plan, brief and conduct take-off and departure procedures	NSR
	(d) Conduct crosswind take-off	Training record evidence of dual or solo competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct short field take-off	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off
	(f) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should attempt to pose scenarios such as an obstacle at 300' AGL following a short field take off; or a requirement for best rate to 2000' AGL.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Maintain any 1 cruise configuration for turbulence, holding or range	NSR

Phase of flight	Requirements	Recommendations
	(c) Use instrument navigation systems	The examiner should set appropriate tasks that do not require a cross country navigation leg for the applicant to demonstrate competency.
Test specific activities and manoeuvres	(a) Enter and recover from stalls – 1 must be in the approach configuration and at least 2 stalls	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Conduct steep level turns of at least 45˚ bank	NSR
	(c) Perform full panel instrument flying	The examiner should limit this to no longer than 5 minutes and position for sufficient altitude to conduct unusual attitude recoveries.
	(d) Full panel instrument flying, recover from at least 2 unusual attitudes	NSR
	(e) Manage engine failure after take-off	The examiner must consider the airfield terrain, obstacles and noise abatement requirements. Where the aerodrome does not allow the safe practise of EFATO, the examiner should simulate the procedure elsewhere at altitude.
	(f) Manage engine failure in cruise	NSR
	(g) Conduct approach OEI	NSR
	(h) Conduct missed approach OEI	NSR
	(i) Manage a malfunction during start or shutdown and 1 of: a system malfunction, fire or radio failure	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR

Phase of flight	Requirements	Recommendations
	(b) Conduct cross-wind landing	The examiner is required to assess a crosswind landing unless the applicant's training records certify dual or solo competence in crosswinds of at least 70% of the AFM maximum. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Conduct short field and flapless landings	NSR
	(d) Perform a go-around procedure	Perform with all engines operating.
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.
	(j) Manage relevant aircraft systems	NSR

Phase of flight	Requirements	Recommendations
	(k) Manage fuel system and monitor fuel plan and usage	NSR
	(l) Manage passengers and the carriage of cargo	The examiner should role play as a passenger.

16.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

16.5 Complete (post flight)

16.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

16.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

17 Type Rating - Single Engine Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the type rating – single engine aeroplane (TR SEA).

17.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the TR SEA flight test:

(1) The examiner must conduct the TR SEA flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the TR SEA flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

17.2 Plan

17.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours (2.0 in an FSTD) for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights. In this case, the total time should not exceed 4 hours.

Use of IFR procedures

To authorise the applicant to pilot the type under the IFR, the examiner must ensure that the flight test is conducted under the IFR (regulation 61.790 of CASR).

17.2.2 TR SEA assessment scope and conditions

The TR SEA flight test must be conducted under the IFR, or by day in VMC under the VFR, as applicable, in an aeroplane or an FSTD approved for the purpose, in accordance with sub regulations 61.245(1), 61.810(3) of CASR, and the limitation of subregulation 61.245(2) of CASR. The aeroplane and FSTD must be of the type covered by the pilot type rating. The aeroplane must have operational dual controls, electronic intercom and dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 19 below, mirror the TR SEA test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the TR SEA flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the TR SEA test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

TR SEA flight tolerances and ground reference tolerances are specified in Table 2 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The TR SEA applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system.

When the flight test is conducted in an aircraft, the examiner may occupy either a control seat or a suitable observer seat (jump seat). Where the examiner occupies a control seat (as co-pilot), the examiner should be the nominated pilot in command (PIC).

If the examiner is occupying a control seat in a multi-crew operation, they must provide the normal duties of a co-pilot in that role, but only to the extent required by the operator's operations manual.

Where the examiner occupies a jump seat, a suitably qualified pilot should occupy the co-pilot seat and be the nominated PIC.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command/safety of flight responsibilities
- flight test profile and scenario
- role of the 'co-pilot'
- introduction of non-normal sequences

- discontinuation/termination of the flight test
- communication protocols.

When the flight test is conducted in an approved FSTD, the examiner should not speed up or in any other way change the real-time nature of the flight, except when a non-normal sequence has been completed and the simulator returned to its normal operating state. The examiner may 're-position the aircraft' when required to meet the flight test requirements e.g. after a landing, the 'aircraft' may be re-positioned to the start of the runway to facilitate another take-off without the requirement to taxi to the holding point once again.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR regarding the authority to exercise the privileges of a rating or an activity in an aircraft. For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

17.3 Conduct (ground component)

17.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

17.3.2 Document review

The examiner must confirm that an applicant for the TR SEA satisfies the eligibility requirements to undertake the flight test for the grant of the type rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the TR SEA must hold an aeroplane category PPL, CPL, MPL or ATPL.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records, as conducted by the training provider.

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at

least be a course completion certificate. For multi-crew operations, the applicant must also have completed an approved course of training in multi-crew cooperation or equivalent (regulation 61.785 of CASR).

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in an aeroplane, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the TR SEA.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

17.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS. For a flight test conducted under the IFR, the topics must also be applied to IFR operations.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

17.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

17.4 Conduct (flight component)

17.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

The examiner should assess adherence to either company SOPs, training provider SOPs or the aeroplane manufacturer's AFM, e.g. operator specific or manufacturer, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs, and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside

the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

17.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable)

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

17.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **TR SEA** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 27: Assessment of activities and manoeuvres — TR SEA

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(b) Perform pre-flight inspection	The examiner should engage the applicant during the pre-flight with questions relevant to the inspection, without disrupting the inspection or compromising safety. Where the aircraft already has a valid maintenance release certification for the day, the applicant is still required to complete the daily inspection in all respects and should explain the certification process.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	It is recommended that the examiner pose a start malfunction or emergency just prior to the start procedure so the applicant's touch drills can be assessed.

Phase of Flight	Requirements	Recommendations
	(b) Taxi aircraft	If aircraft design precludes taxiing from a particular operating seat, the applicant must demonstrate competency taxiing the aircraft.
	(c)(i) Plan, brief and conduct take-off and departure procedures	NSR
	(c)(ii) Conduct instrument departure – published if available or ATC cleared if available	For IFR operations only. Simulated IMC must not be introduced before the take-off minima. A Class G overhead departure procedure may be flown if a SID or ATC departure is not available.
	(d) Conduct crosswind take-off	For tests conducted in an aircraft, training record evidence of competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct climb profiles and climbing turns	NSR
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
	(c) Use instrument navigation systems	If the flight test is conducted under the IFR, the instrument flight assessment should consist of a segment with at least the IAP2 elements conducted under the IFR. The flight should include a sector to an aerodrome (other than the departure aerodrome) serviced by a published instrument approach which the aeroplane is equipped to use.
Test specific activities and manoeuvres	(a) Conduct approach to stall and recovery – 1 must be in the approach configuration and at least 2 stalls	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Conduct steep level turns of at least 45˚ bank	NSR
	(c) Perform full panel instrument flying	NSR

Phase of Flight	Requirements	Recommendations
	(d) Full panel instrument flying, recover from at least 2 unusual attitudes	In an aircraft, the unusual attitude recoveries should be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre.
	(e) Manage engine failure after take-off	The examiner must consider the airfield terrain, obstacles and noise abatement requirements. Where aerodromes do not allow the safe practise of EFATO, the examiner should simulate the procedure elsewhere at altitude.
	(f) Manage a malfunction during start or shutdown and 1 of: a system malfunction, fire or radio failure	NSR
	(g) Perform forced landing	NSR
Descent and arrival	(a) Conduct descent profiles and descending turns	NSR
	(b)(i) Plan and conduct arrival and circuit joining procedures	NSR
	(b)(ii)(A) Perform a descent or published arrival procedure to an aerodrome	For IFR operations only. The descent may be a normal descent to MSA/LSALT or a DGA.
	(b)(ii)(B) 2D, conduct approach	For IFR operations only.
	(b)(ii)(C) Conduct missed approach	For IFR operations only.
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	For tests conducted in an aircraft, training record evidence of competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Perform a go-around procedure	NSR

Phase of Flight	Requirements	Recommendations
	(d) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.
	(j) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the aeroplane's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).
	(k) Manage fuel system and monitor fuel plan and usage	NSR

17.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

17.5 Complete (post flight)

17.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

17.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

18 Type Rating - Single Engine Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the type rating – single engine helicopter (TR SEH).

18.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the TR SEH flight test:

(1) The examiner must conduct the TR SEH flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the TR SEH flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

18.2 Plan

18.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hour (2.0 in an FSTD) for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights. In this case, the total time should not exceed 4 hours.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the SEH assessment flight sequences.

The SEH flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the SEH flight test should be considered as the flight time for the flight test.

18.2.2 TR SEH assessment scope and conditions

The TR SEH flight test must be conducted by day in VMC, under the VFR in a helicopter or an FSTD approved for the purpose, in accordance with subregulations 61.245(1), 61.810(3) of CASR, and the limitation of subregulation 61.245(2) of CASR. The helicopter and FSTD must be of the type covered by the pilot type rating. The helicopter must have operational dual controls, electronic intercom and, if fitted with a wheeled undercarriage, dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 20 below, mirror the TR SEH test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the TR SEH flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the TR SEH test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

TR SEH flight tolerances and ground reference tolerances are specified in Table 2 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The TR SEH applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system.

When the flight test is conducted in an approved FSTD, the examiner should not speed up or in any other way change the real-time nature of the flight, except when a non-normal sequence has been completed and the simulator returned to its normal operating state. The examiner may ‘re-position the aircraft’ when required to meet the flight test requirements e.g. after the engine failure during hover or taxi, the ‘aircraft’ may be re-positioned to facilitate another take-off without the requirement to taxi to the helipad once again.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR regarding the authority to exercise the privileges of a rating or an activity in an aircraft.

For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

18.3 Conduct (ground component)

18.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

18.3.2 Document review

The examiner must confirm that an applicant for the TR SEH satisfies the eligibility requirements to undertake the flight test for the grant of the type rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the TR SEH must hold a helicopter category PPL, CPL or ATPL.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records, as conducted by the training provider.

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in a helicopter, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the TR SEH.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

18.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

18.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

18.4 Conduct (flight component)

18.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth,

coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system

Flight management – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight. The examiner should assess adherence to either company SOPs, training provider SOPs or the helicopter manufacturer's AFM, e.g. operator specific or manufacturer, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs and not just the ability to perform the task within specified numerical tolerances

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

18.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls

- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

18.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **TR SEH** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 28: Assessment of activities and manoeuvres – TR SEH

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(b) Perform pre-flight inspection	In-transit (aircraft turnaround) pre-flight cockpit preparation is acceptable for the purposes of the pre-flight inspection.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Lift-off and hover helicopter	The examiner should assess these items during the normal operation of the helicopter in the departure phase.
	(c) Taxi aircraft	
	(d) Air transit helicopter	
	(e) Plan, brief and conduct take-off and departure procedures	
	(f) Conduct maximum performance take-off	NSR
	(g) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should pose scenarios to achieve the observation of a climb at best angle to achieve obstacle clearance or at best rate during departure and climb phase.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Use instrument navigation systems	NSR

Phase of Flight	Requirements	Recommendations
Test specific activities and manoeuvres	(a) Hover helicopter in crosswind and tailwind and perform turns around any 1 of the rotor mast, nose or tail	The examiner is required to assess headwind/crosswind/tailwind hover and ground taxi unless the applicant's training records certify dual or solo competence in those wind conditions. In this case the examiner must indicate competency by marking the items on the flight test form with 'TR'.
	(b) Perform sidewards and backwards flight	NSR
	(c) Conduct steep level turns of at least 45˚ bank	Recommend a turn through at least 180 degrees is assessed.
	(d) Perform autorotative flight	Recommend assessment of at least entry to, stabilised control of and recovery from minimum rate of descent autorotation.
	(e) Land on and lift-off from sloping ground	It is not a requirement to demonstrate maximum slope landing limitations.
	(f) Execute limited power take-off, approach and landing	NSR
	(g) Perform forced landing	The examiner should initiate the simulated engine failure at least 2,000' AGL to ensure the applicant has sufficient time to perform the procedure.
	(h) Manage engine failure during hover or taxi	NSR
	(i) Manage a control or tail rotor malfunction in flight and at the hover	NSR
	(j) Manage a system malfunction – at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR

Phase of Flight	Requirements	Recommendations
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	These items should be assessed during the normal operation of the helicopter during the circuit phase.
	(b) Approach to the hover	
	(c) Air transit helicopter	
	(d) Perform a go-around procedure	The examiner may need to introduce a reason to conduct the go-around procedure.
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.

Phase of Flight	Requirements	Recommendations
	(j) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the helicopter's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).
	(k) Manage fuel system and monitor fuel plan and usage	NSR

18.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

18.5 Complete (post flight)

18.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

18.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

19 Type Rating - Multi Engine Aeroplane

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the type rating – multi engine aeroplane (TR MEA).

19.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the TR MEA flight test:

(1) The examiner must conduct the TR MEA flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the TR MEA flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

19.2 Plan

19.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours (2.0 in an FSTD) for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights. In this case, the total time should not exceed 4 hours.

Use of IFR procedures

To authorise the applicant to pilot the type under the IFR, the examiner must ensure that the flight test is conducted under the IFR (regulation 61.790 of CASR).

19.2.2 TR MEA assessment scope and conditions

The TR MEA flight test must be conducted under the IFR, or by day in VMC under the VFR, as applicable, in an aeroplane or an FSTD approved for the purpose, in accordance with subregulations 61.245(1), 61.810(3) of CASR, and the limitation of subregulation 61.245(2) of CASR. The aeroplane and FSTD must be of the type covered by the pilot type rating. The aeroplane must have operational dual controls, electronic intercom and dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 21 below, mirror the TR MEA test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the TR MEA flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the TR MEA test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

TR MEA flight tolerances and ground reference tolerances are specified in Table 2 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The TR MEA applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system.

When the flight test is conducted in an aircraft, the rejected take-off is not required and an engine failure during take-off is to be replaced by an engine failure after take-off. In an aircraft, the simulated engine failure should not be conducted at night or in IMC and the examiner should have visual reference at all times during the manoeuvre.

When the flight test is conducted in an aircraft, the examiner may occupy either a control seat or a suitable observer seat (jump seat). Where the examiner occupies a control seat (as co-pilot), the examiner should be the nominated pilot in command (PIC).

If the examiner is occupying a control seat in a multi-crew operation, they must provide the normal duties of a co-pilot in that role, but only to the extent required by the operator's operations manual.

Where the examiner occupies a jump seat, a suitably qualified pilot should occupy the co-pilot seat and be the nominated PIC.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command/safety of flight responsibilities
- flight test profile and scenario
- role of the 'co-pilot'
- introduction of non-normal sequences
- discontinuation/termination of the flight test
- communication protocols.

When the flight test is conducted in an approved FSTD, the examiner should not speed up or in any other way change the real-time nature of the flight, except when a non-normal sequence has been completed and the simulator returned to its normal operating state. The examiner may 're-position the aircraft' when required to meet the flight test requirements e.g. after an RTO, the 'aircraft' may be re-positioned to the start of the runway to facilitate another take-off without the requirement to taxi to the holding point once again.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR regarding the authority to exercise the privileges of a rating or an activity in an aircraft. For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

19.3 Conduct (ground component)

19.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

19.3.2 Document review

The examiner must confirm that an applicant for the TR MEA satisfies the eligibility requirements to undertake the flight test for the grant of the type rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the TR MEA must hold an aeroplane category PPL, CPL, MPL or ATPL.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records, as conducted by the training provider.

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate. For multi-crew operations, the applicant must also have completed an approved course of training in multi-crew cooperation or equivalent (regulation 61.785 of CASR).

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in an aeroplane, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the TR MEA.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

19.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS. For a flight test conducted under the IFR, the topics must also be applied to IFR operations.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

19.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

19.4 Conduct (flight component)

19.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

The examiner should assess adherence to either company SOPs, training provider SOPs or the aeroplane manufacturer's AFM, e.g. operator specific or manufacturer, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

19.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

19.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **TR MEA** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 29: Assessment of activities and manoeuvres - TR MEA

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(b) Perform pre-flight inspection	In-transit (aircraft turnaround) pre-flight cockpit preparation is acceptable for the purposes of the pre-flight inspection.

Phase of Flight	Requirements	Recommendations
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Taxi aircraft	If aircraft design precludes taxiing from a particular operating seat, the applicant must demonstrate competency taxiing the aircraft.
	(c)(i) Plan, brief and conduct take-off and departure procedures	NSR
	(c)(ii) Conduct instrument departure – published if available or ATC cleared if available	For IFR operations only. Simulated IMC must not be introduced before the take-off minima. A Class G overhead departure procedure may be flown if a SID or ATC departure is not available.
	(d) Conduct crosswind take-off	For tests conducted in an aircraft, training record evidence of competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(e) Conduct climb profiles and climbing turns	NSR
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
	(c) Use instrument navigation systems	If the flight test is conducted under the IFR, the instrument flight assessment should consist of a segment with at least the IAP2 elements conducted under the IFR. The flight should include a sector to an aerodrome (other than the departure aerodrome) serviced by a published instrument approach which the aeroplane is equipped to use.
Test specific activities and manoeuvres	(a) Conduct approach to stall and recovery – 1 must be in the approach configuration and at least 2 stalls	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Perform full panel instrument flying	NSR

Phase of Flight	Requirements	Recommendations
	(c) Full panel instrument flying, recover from at least 2 unusual attitudes	In an aircraft, the unusual attitude recoveries should be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre.
	(d) Manage incident or malfunction during take-off – reject	If the flight test is conducted in an aircraft, the examiner must assess the rejected take-off procedure verbally only.
	(e) Manage engine failure during take-off – IAS greater than or equal to V1	If the flight test is conducted in an aircraft, the examiner must only introduce a simulated engine failure after take-off, not during the take-off. The speed at which that failure may be simulated shall be as follows: (i) aeroplanes for which the take-off performance is predicated on the establishment of a V1, failure of the engine shall be simulated at a speed greater than V1; (ii) aeroplanes other than those described in subparagraph (i) above, failure of the engine shall be simulated at a speed greater than either, (a) the one engine inoperative best rate of climb speed or (b) the take-off safety speed plus 10 knots, whichever is the higher.
	(f) Manage engine failure in flight	NSR
	(g) Conduct approach OEI	NSR
	(h) Conduct missed approach OEI	NSR
	(i) Manage any 1 system malfunction – must be separate event to OEI approach and OEI missed approach	The aircraft system malfunction must be other than the one that has been applied in (d) to (g) above, must be a separate event to the OEI approach and the OEI missed approach.
Descent and arrival	(a) Conduct descent profiles and descending turns	NSR
	(b)(i) Plan and conduct arrival and circuit joining procedures	NSR
	(b)(ii)(A) Perform a descent or published arrival procedure to an aerodrome	For IFR operations only. The descent may be a normal descent to MSA/LSALT or a DGA.
	(b)(ii)(B) 2D, conduct approach	For IFR operations only.

Phase of Flight	Requirements	Recommendations
	(b)(ii)(C) Conduct missed approach	For IFR operations only.
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	For tests conducted in an aircraft, training record evidence of competence in crosswinds of at least 70% of the AFM maximum and oral questioning should be used in the absence of a crosswind. In this case the examiner must indicate competency by marking the item on the flight test form with 'TR'.
	(c) Perform a go-around procedure	Perform with all engines operating.
	(d) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.

Phase of Flight	Requirements	Recommendations
	(j) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the aeroplane's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).
	(k) Manage fuel system and monitor fuel plan and usage	NSR

19.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

19.5 Complete (post flight)

19.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

19.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

20 Type Rating - Multi Engine Helicopter

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the type rating – multi engine helicopter (TR MEH).

20.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the TR MEH flight test:

(1) The examiner must conduct the TR MEH flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS
(2) The examiner must conduct the TR MEH flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

20.2 Plan

20.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hour (2.0 in an FSTD) for the general handling and test specific manoeuvres.

The examiner may choose to conduct the flight test in combination with a licence or operational rating flight test to avoid two separate flights. In this case, the total time should not exceed 4 hours.

Use of IFR procedures

To authorise the applicant to pilot the type under the IFR, the examiner must ensure that the flight test is conducted under the IFR (regulation 61.790 of CASR).

20.2.2 TR MEH assessment scope and conditions

The TR MEH flight test must be conducted under the IFR, or by day in VMC under the VFR, as applicable, in a helicopter or an FSTD approved for the purpose, in accordance with subregulations 61.245(1), 61.810(3) of CASR, and the limitation of subregulation 61.245(2) of CASR. The helicopter and FSTD must be of the type covered by the pilot type rating. The helicopter must have operational dual controls, electronic intercom and, if fitted with a wheeled undercarriage, dual control brakes.

The FEH activities and manoeuvres, listed in the Requirements column of Table 22 below, mirror the TR MEH test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the TR MEH flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the TR MEH test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

TR MEH flight tolerances and ground reference tolerances are specified in Table 2 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The TR MEH applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system.

In an aircraft, the simulated engine failure should not be conducted at night or in IMC and the examiner should have visual reference at all times during the manoeuvre.

When the flight test is conducted in an aircraft, the examiner may occupy either a control seat or a suitable observer seat (jump seat). Where the examiner occupies a control seat (as co-pilot), the examiner should be the nominated pilot in command (PIC).

If the examiner is occupying a control seat in a multi-crew operation, they must provide the normal duties of a co-pilot in that role, but only to the extent required by the operator's operations manual.

Where the examiner occupies a jump seat, a suitably qualified pilot should occupy the co-pilot seat and be the nominated PIC.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command/safety of flight responsibilities
- flight test profile and scenario
- role of the 'co-pilot'
- introduction of non-normal sequences
- discontinuation/termination of the flight test
- communication protocols.

When the flight test is conducted in an approved FSTD, the examiner should not speed up or in any other way change the real-time nature of the flight, except when a non-normal sequence has been completed and the simulator returned to its normal operating state. The examiner may 're-position the aircraft' when required to meet the flight test requirements e.g. after the engine failure during hover or taxi, the 'aircraft' may be re-positioned to facilitate another take-off without the requirement to taxi to the helipad once again.

Examiners must be cognisant of the general competency requirement of regulation 61.385 of CASR regarding the authority to exercise the privileges of a rating or an activity in an aircraft. For manoeuvres that involve elevated risk (abnormal and emergency flight manoeuvres) when conducting a flight test in an aircraft, the examiner must be competent in the management of all flight test activities including the ability to safely manage potential applicant mishandling. This level of competency should be achieved with a targeted program of examiner training in an aircraft or a simulator where one is available.

20.3 Conduct (ground component)

20.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

20.3.2 Document review

The examiner must confirm that an applicant for the TR MEH satisfies the eligibility requirements to undertake the flight test for the grant of the type rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the TR MEH must hold a helicopter category PPL, CPL or ATPL.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records, as conducted by the training provider.

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate. For multi-crew operations, the applicant must also have completed an approved course of training in multi-crew cooperation or equivalent (regulation 61.785 of CASR).

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in a helicopter, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the TR MEH.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

20.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

20.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- loading system
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

20.4 Conduct (flight component)

20.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system

Flight management – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight. The examiner should assess adherence to either company SOPs, training provider SOPs or the helicopter manufacturer's AFM, e.g. operator specific or manufacturer, as nominated by the applicant.

Assessment should be based on the technique used by the applicant to satisfy compliance with SOPs and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

20.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

20.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **TR MEH** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 30: Assessment of activities and manoeuvres TR MEH

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
	(b) Perform pre-flight inspection	In-transit (aircraft turnaround) pre-flight cockpit preparation is acceptable for the purposes of the pre-flight inspection.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Lift-off and hover helicopter	The examiner should assess these items during the normal operation of the helicopter in the departure phase.
	(c) Taxi aircraft	

Phase of Flight	Requirements	Recommendations
	(d) Air transit helicopter	
	(e)(i) Plan, brief and conduct take-off and departure procedures	
	(e)(ii) Conduct instrument departure – published if available or ATC cleared if available	For IFR operations only. Simulated IMC must not be introduced before the take-off minima. A Class G overhead departure procedure may be flown if a SID or ATC departure is not available.
	(f) Conduct maximum performance take-off	NSR
	(g) Conduct climbs and climbing turns – must include any 2 of maximum rate, maximum angle or cruise climb	The examiner should pose scenarios to achieve the observation of a climb at best angle to achieve obstacle clearance or at best rate during departure and climb phase.
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Use instrument navigation systems	If the flight test is conducted under the IFR, the instrument flight assessment should consist of a segment with at least the IAP2 elements conducted under the IFR. The flight should include a sector to an aerodrome (other than the departure aerodrome) serviced by a published instrument approach which the helicopter is equipped to use.
Test specific activities and manoeuvres	(a) Hover helicopter in crosswind and tailwind and perform turns around any 1 of the rotor mast, nose or tail	The examiner is required to assess headwind/crosswind/tailwind hover and ground taxi unless the applicant's training records certify dual or solo competence in those wind conditions. In this case the examiner must indicate competency by marking the items on the flight test form with 'TR'.
	(b) Perform sidewards and backwards flight	NSR
	(c) Conduct steep level turns of at least 45˚ bank	Recommend a turn through at least 180 degrees is assessed.
	(d) Perform full panel instrument flying	NSR

Phase of Flight	Requirements	Recommendations
	(e) Full panel instrument flying, recover from at least 2 unusual attitudes	In an aircraft, the unusual attitude recoveries should be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre.
	(f) Land on and lift-off from sloping ground	It is not a requirement to demonstrate maximum slope landing limitations.
	(g) Execute limited power take-off, approach and landing	All engines operating
	(h) Manage engine failure - at least 1 from take-off, cruise flight, approach and landing	The applicant shall attain optimum helicopter performance following failure of an engine. At least one from a take-off, cruise flight or approach configuration; and must include an OEI landing. In an aircraft the simulated engine failure should not be conducted at night or in IMC and the examiner should have visual reference at all times during the manoeuvre.
	(i) Manage engine failure during hover or taxi	NSR
	(j) Manage a control or tail rotor malfunction in flight and at the hover	NSR
	(k) Manage a system malfunction – at least 1 from engine fire, electrical failure, hydraulic system, airframe fuel system or engine governor system	NSR
Descent and arrival	(a) Conduct descents and descending turns	NSR
	(b)(i) Plan and conduct arrival and circuit joining procedures	NSR
	(b)(ii)(A) Perform a descent or published arrival procedure to an aerodrome	For IFR operations only. The descent may be a normal descent to MSA/LSALT or a DGA.
	(b)(ii)(B) 2D, conduct approach	For IFR operations only.

Phase of Flight	Requirements	Recommendations
	(b)(ii)(C) Conduct missed approach	For IFR operations only.
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	These items should be assessed during the normal operation of the helicopter during the circuit phase.
	(b) Approach to the hover	
	(c) Air transit helicopter	
	(d) Perform a go-around procedure	The examiner may need to introduce a reason to conduct the go-around procedure.
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.

Phase of Flight	Requirements	Recommendations
	(j) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the helicopter's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).
	(k) Manage fuel system and monitor fuel plan and usage	NSR

20.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

20.5 Complete (post flight)

20.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

20.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

21 Type Rating - Cruise Relief Co-Pilot

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the cruise relief type rating – co-pilot (CRTR-CP) and associated aircraft category rating.

21.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the CRTR-CP flight test:

The examiner must conduct the CRTR-CP flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.

(1) The examiner must conduct the CRTR-CP flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(2) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(3) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(4) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(5) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

21.2 Plan

21.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial passenger/cargo carrying operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.0 hour for the general handling and test specific manoeuvres.

21.2.2 CRTR – CP assessment scope and conditions

The CRTR-CP flight test must be conducted under the IFR in an FSTD approved for the purpose, in accordance with subregulations 61.245(1), 61.845(3) of CASR, and the limitation of subregulation 61.245(2) of CASR. The FSTD must be of the type covered by the cruise relief type rating.

The FEH activities and manoeuvres, listed in the Requirements column of Table 23 below, mirror the CRTR-CP test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the CRTR-CP flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the CRTR-CP test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

CRTR-CP flight tolerances and ground reference tolerances are specified in tables 2 and 4 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The CRTR-CP applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If the examiner is occupying a control seat in a multi-crew operation, they must provide the normal duties of pilot in command in that role, but only to the extent required by the operator's operations manual.

Where the examiner occupies a jump seat, a suitably qualified pilot should be the nominated PIC.

Where the examiner or a suitably qualified pilot occupies a control seat, the examiner should brief all crew members on the following:

- command/safety of flight responsibilities
- flight test profile and scenario
- role of the 'pilot in command'
- introduction of non-normal sequences
- discontinuation/termination of the flight test
- communication protocols.

When conducting the flight test in an approved FSTD, the examiner should not speed up or in any other way change the real-time nature of the flight, except when a non-normal sequence has been completed and the simulator returned to its normal operating state.

21.3 Conduct (ground component)

21.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

21.3.2 Document review

The examiner must confirm that an applicant for the CRTR-CP satisfies the eligibility requirements to undertake the flight test for the grant of the type rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the CRTR-CP must hold a CPL, MPL or ATPL (or be applying for the licence simultaneously with the CRTR-CP) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records, as conducted by the training provider.

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate. The applicant must also have completed an approved course of training in multi-crew cooperation (subregulation 61.845(3) of CASR).

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in an aircraft, the examiner must check that the applicant holds a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the CRTR-CP.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

21.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

21.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

21.4 Conduct (flight component)

21.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences

- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

21.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- clarification of crew responsibilities in the event of actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

21.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **CRTR-CP** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 31: Assessment of activities and manoeuvres - CRTR-CP

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Perform pre-flight actions and procedures	An applicant may apply operator specific fuel policies for carriage over and above the minimum legal statutory fuel requirements.
Ground operations, take-off, departure and climb	(a) Conduct climb profiles and climbing turns	NSR
En route cruise	(a) Maintain straight and level and turn aircraft	NSR
	(b) Maintain any 1 cruise configuration for turbulence, holding or range	NSR
	(c) Use instrument navigation systems	The flight should include a sector to an aerodrome serviced by a published instrument approach which the aircraft is equipped to use so that the applicant can demonstrate an approach IAW company procedures.
Test specific activities and manoeuvres	(a) Conduct approach to stall and recovery – 1 must be in the approach configuration and at least 2 stalls	The examiner should place emphasis on the application of correct technique rather than the achievement of a minimum height loss.
	(b) Perform full panel instrument flying	NSR
	(c) Full panel instrument flying, recover from at least 2 unusual attitudes	NSR
	(d) Manage engine failure in flight	NSR
	(e) Conduct approach OEI	NSR
	(f) Conduct missed approach OEI	NSR

Phase of Flight	Requirements	Recommendations
	(g) Manage any 1 system malfunction – must be separate event to OEI approach and OEI missed approach	NSR
Descent and arrival	(a) Conduct descent profiles and descending turns	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct crosswind landing	NSR
	(c) Perform a go-around procedure	NSR
	(d) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	

Phase of Flight	Requirements	Recommendations
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	Communication and radio procedures relevant to the airspace within which the test is conducted.
	(j) Manage relevant aircraft systems	The applicant should demonstrate a sound working knowledge of the aeroplane's automation system, including use of the Flight Management Computer System (FMCS), the Autopilot Flight Director System (AFDS) and the Mode Control Panel (MCP) (or however these systems are described).
	(k) Manage fuel system and monitor fuel plan and usage	NSR

21.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the

technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

21.5 Complete (post flight)

21.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

21.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

22 Instrument Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the instrument rating (IR).

22.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the IR flight test:

(1) The examiner must conduct the IR flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the IR flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

22.2 Plan

22.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating either a private or commercial operation as applicable to the licence the applicant holds). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 0.8 hour for the general handling and test specific manoeuvres.

Use of IFR procedures

Although the flight is conducted under the IFR, some simulated emergencies must be conducted by day and in VMC (refer to IR Assessment below).

22.2.2 IR assessment scope and conditions

The IR flight test must be conducted under the IFR and in an aircraft, in accordance with subregulation 61.885(4) of CASR.

The aircraft used for the IR flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the instrument endorsement(s) covered by the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 24 below, mirror the IR test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the IR flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the IR test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

IFR activities and manoeuvres are performed in accordance with published procedures.

IR flight tolerances and ground reference tolerances are specified in Tables 2, 4 and 5 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The IR applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot. The applicant must demonstrate proficiency to operate the aircraft for at least one instrument approach operation without the autopilot and or flight director being used (manually manipulating the flight and power controls). Establishing manual flight must be accomplished prior to the Initial Approach Fix (IAF) or equivalent. If circling is required to complete the instrument approach manual flight must be continued to a point from where the landing can be achieved.

Where the aircraft is fitted with auto throttle capability then it is acceptable for the auto throttle to remain on.

For aeroplanes where a significant degradation of equipment, or multiple emergencies would be required to necessitate an autopilot and or flight director off approach to be flown, the examiner has the option of allowing the flight director on for the approach.

For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC.

Recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated, and the examiner has a clear view of the horizon.

The applicant for the IR must demonstrate competency by performing at least two different kinds of 2D instrument approach procedures and, if the flight test includes a 3D endorsement, an additional ILS or GLS kind of instrument approach procedure.

For a flight test that is for the grant of an additional aircraft category/class instrument endorsement, the applicant must demonstrate competency by performing at least one 2D instrument approach operation.

For a flight test that is for the grant of an additional approach instrument endorsement, the applicant must demonstrate competency as applicable to 3D instrument approach operations and perform at least one ILS or GLS kind of instrument approach procedure.

The addition of an instrument endorsement requires a flight test. The examiner should be mindful, if the flight test is completed more than six months after the granting of the IR, sub-regulation 61.880(3) allows the flight test to be recognised as an IPC. In this case the examiner should consider developing the flight test profile to include the proficiency check scope and conditions. Only one (1) FTM notification is required for the flight test. The test should be recorded on Form 61-2AE and 61-1503 for the initial issue of the instrument endorsement. There is no requirement to notify the IPC as the regulations recognise this automatically.

For all instrument approach operations, the approach procedures must be flown to the published and applicable MDA/H or DA/H.

Examiners should use only the authorised instrument approach procedures for the aerodromes being used. Overlay instrument approaches are not to be used for an IR flight test, except where an aeroplane's navigation system has been approved for such approaches.

22.3 Conduct (ground component)

22.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

22.3.2 Document review

The examiner must confirm that an applicant for the IR satisfies the eligibility requirements to undertake the flight test for the grant of the Instrument Rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate

must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the IR must hold a PPL, CPL or ATPL (or be applying for the licence simultaneously with the IR) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the IR.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

22.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

22.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

22.4 Conduct (flight component)

22.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

22.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private or commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- the expectations of the applicant during the simulation of instrument conditions, visual flight conditions and any simulated weather when advised 'visual' by the examiner
- the expectations when operating the aircraft at the minima (e.g. numerical tolerances).
- multiple flights and the assessment of competencies (if applicable)

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

22.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **IR** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 32: Assessment of activities and manoeuvres - IR

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an IFR flight	For aircraft where CAO 20.7.1B applies, use of appropriate performance data must be demonstrated.
	(b) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Plan, brief and conduct take-off and departure procedures	NSR
	(c) Conduct instrument departure – published if available or ATC cleared if available	Simulated IMC must not be introduced before the take-off minima. A Class G overhead departure procedure may be flown if a SID or ATC departure is not available.
En route cruise	(a) Navigate aircraft en route using ground and satellite navigation systems	NSR
	(b) Perform navigation systems integrity checks	NSR
	(c) Identify and avoid hazardous weather conditions	Verbal scenario(s) may be introduced if hazardous conditions are not present.
Test specific activities and manoeuvres	(a) Perform full and limited panel instrument flying	For the limited panel assessment, the primary attitude indicator/display and the primary heading indicator/display may be 'failed' simultaneously. If assessed, unreliable airspeed indications must be a separate exercise. For EFIS cockpits, the use of standby instruments is acceptable for limited panel assessments.
	(b) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	The unusual attitude recoveries must be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre. At least one recovery full panel and at least one recovery limited panel must be assessed.
	(c) Conduct instrument departure OEI – ME aircraft only	The departure must be a separate event to the one engine inoperative (OEI) missed approach.

Phase of Flight	Requirements	Recommendations
	(d) Conduct instrument approach OEI – ME aircraft only	The applicant should demonstrate proficiency in the management of the aircraft with OEI during an approach. The simulated engine failure should be introduced before the Final Approach Fix (FAF).
	(e) Conduct missed approach OEI or visual circling OEI – ME aircraft only	The applicant should fly the published approach OEI, followed by either the published missed approach or visual circling whilst maintaining the specified flight path tolerances for OEI operations.
Descent and arrival	(a) Perform a descent or published arrival procedure to an aerodrome	The descent may be a normal descent to MSA/LSALT or a DGA.
	(b) Track to holding fix and conduct a holding pattern or sector 3 entry procedure	Must be IAW published procedures. If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required. If conducting an RNAV(GNSS) approach, the applicant must conduct RNAV(GNSS) published holding or sector 3 associated with the instrument approach procedure to be flown Only one holding procedure is required for the test.
	(c)(i) 2D, prepare for approach	NSR
	(c)(ii) 2D, conduct approach	At least one 2D approach must be a CDI operation.
	(c)(iii) 2D, prepare for approach - 2nd approach	NSR
	(c)(iv) 2D, conduct approach - 2nd approach	The approach may be a CDI or azimuth operation.
	(d)(i) 3D, prepare for approach	NSR
	(d)(ii) 3D, conduct approach	A 3D approach is only required for the 3D instrument endorsement. Holding is not required if conducted 2D and radar vectoring is available.

Phase of Flight	Requirements	Recommendations
	(e) Conduct missed approach	Only one missed approach is required for the test. If the missed approach is conducted from a 3D approach, the applicant must be able to describe the MDA procedure for a 2D missed approach. If the missed approach is conducted from a 2D approach, the applicant must be able to describe the DA procedure for a 3D missed approach (if applying for a 3D endorsement). This is best completed during the ground component.
Circuit, approach and landing	(a) Conduct visual circling with at least 90° heading change	The circling approach should be demonstrated as the continuation of the published aerodrome instrument approach from the specified minima. The instrument approach and circling manoeuvres should be flown onto the actual aerodrome named on the instrument approach plate. The circling approach should not be flown as a standalone low level circuit and must commence from at least a 90° heading change to the runway.
	(b) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	

Phase of Flight	Requirements	Recommendations
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

22.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

22.5 Complete (post flight)

22.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

22.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

23 Instrument Proficiency Check

The aim of this proficiency check is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 6 of the Part 61 MOS for the instrument proficiency check (IPC).

23.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the IPC:

(1) The examiner must conduct the IPC in accordance with clauses 1 to 3 of Schedule 6 of the Part 61 MOS.

(2) The examiner must conduct the IPC within the operational scope and conditions described in clause 4 of Schedule 6 of the Part 61 MOS.

(3) The examiner must ensure that the ground component of the proficiency check is successfully completed before conducting the pre-flight briefing and flight component of the proficiency check.

(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.

(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.

(6) At the conclusion of the proficiency check when reporting the result in FTM, the examiner must enter the following details:

- the route, including the departure location, major turning points and the destination
- the specific kinds of instrument approach procedures flown, using the name on the instrument approach chart.

(7) Where credits are available for proficiency check items, they are valid for 28 days only. After 28 days, the proficiency check must be conducted in full.

23.2 Plan

23.2.1 Testing methodology

The examiner should apply the proficiency check methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The proficiency check should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the proficiency check cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating either a private or commercial operation as applicable to the licence the applicant holds). The applicant should be given the test route at least 24 hours before the start of the proficiency check.

It is recommended that the examiner plans an **airborne** time of approximately:

- 0.8 hour for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)
- 0.5 hour for the general handling and test specific manoeuvres.

Use of IFR procedures

Although the flight is conducted under the IFR, some simulated emergencies must be conducted by day and in VMC (refer to IPC scope and conditions below).

23.2.2 IPC scope and conditions

The IPC must be conducted under the IFR and in an aircraft or an FSTD approved for the purpose, in accordance with subregulation 61.880(6) of CASR.

The aircraft and FSTD used for the IPC must be of the appropriate category and be capable of being operated for the kind of operations relevant to the instrument endorsement(s) the applicant holds and that are assessed in the IPC.

The FEH activities and manoeuvres, listed in the Requirements column of Table 33 below, mirror the IPC test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 6 for the IPC.

These activities and manoeuvres, described in clause 3 of Schedule 6 of the Part 61 MOS and the IPC test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

Non Precision Approach procedures are not to be used when assessing an applicant for the 3D instrument approach. AIP ENR 1.5 states an NPA procedure used with advisory vertical guidance calculated and provided by on-board navigation equipment can be flown as a 3D instrument approach operation. It goes on to warn no assurance of compliance with descent limitations specified for the NPA procedure and accordingly the pilot must conform with segment MSA and MDA requirements. Also, when flying an NPA as a 3D operation pilots should initiate any missed approach at an altitude above the MDA to ensure the aircraft does not descend below published MDA. In this case an applicant would not be demonstrating the full competency in a precision approach procedure and does not descend to a published DA/H and then land or conduct the missed approach.

IFR activities and manoeuvres are performed in accordance with published procedures.

IPC flight tolerances and ground reference tolerances are specified in Tables 2, 4 and 5 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The IPC applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not 'act' as the auto-pilot.

The applicant must demonstrate proficiency to operate the aircraft for at least one instrument approach operation without the autopilot and or flight director being used (manually manipulating the flight and power controls). Establishing manual flight must be accomplished prior to the Initial Approach Fix (IAF) or equivalent. If circling is required to complete the instrument approach manual flight must be continued to a point from where the landing can be achieved.

Where the aircraft is fitted with auto throttle capability then is acceptable for the auto throttle to remain on.

For aeroplanes where a significant degradation of equipment, or multiple emergencies would be required to necessitate an autopilot and or flight director off approach to be flown, the examiner has the option of allowing the flight director on for the approach.

For ME aircraft, a simulated engine failure after take-off must not be initiated at a height less than 400ft AGL. Where the IPC is conducted in an approved FSTD there is no limitation on when an engine failure may be initiated.

For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC. Where the IPC is conducted in an approved FSTD there is no requirement for engine failures to be conducted by day in VMC.

In an aircraft, recoveries from unusual attitudes must be conducted by day in VMC. Where the IPC is conducted in an approved FSTD there is no requirement for unusual attitudes to be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated, and the examiner has a clear view of the horizon. Where the IPC is conducted in an approved FSTD this is not applicable.

The applicant for the IPC must demonstrate competency by performing at least two different kinds of instrument approach procedures, including at least one 2D instrument approach operation.

A 3D approach is not mandatory, however if the applicant holds the IAP 3D instrument endorsement and a 3D approach is not included in the check, limitations apply to exercising the privileges of that endorsement – refer to regulation 61.900 of CASR.

The Part 61 MOS Schedule 6 Appendix 1 Clause 3.6 requires a circling approach to be assessed. The intent is for the circling approach to be optional. However, if a circling approach is not included in the check, limitations apply to exercising the privileges of the instrument rating – refer to regulation 61.860 of CASR.

For all instrument approach operations, the approach procedures must be flown to the published and applicable MDA/H or DA/H.

Examiners should use only the authorised instrument approach procedures for the aerodromes being used. Overlay instrument approaches are not to be used for an IPC flight test, except where an aeroplane's navigation system has been approved for such approaches.

Instrument Proficiency Check (IPC) conducted in an overseas simulator

For an Australian CASA Part 61 licence holder to undertake an IPC partially conducted by a foreign-authorised person, the following applies:

The process requires the applicant to contact an Australian flight examiner or CASA authorised person who in turn must notify CASA of the intent to conduct the ground component of an IPC partially conducted by a foreign authorised person using the CASA Flight Test Management System (FTM). This notification must be lodged 10 working days prior to conducting the check. The flight test number is to be included on CASA Forms 61-1512 and 61-4P.

The FTM proficiency check selection in the drop-down menu is “IPC - partially conducted by a foreign authorised person”.

The IPC must be completed in full (ground & flight component) within 35 days of the nominated FTM notification date. The FTM further requires the examiner who conducted the ground component to report the pass/fail result within 14 days after the day of the check and record the successful completion of the IPC on the person’s licence if the person has been assessed as competent by a person authorised to conduct foreign IPC by a recognised State.

Prior to attempting the flight component of the IPC, an Australian flight examiner or CASA authorised person must:

(1) Assess the licence holder against the knowledge standards mentioned in the Part 61 MOS for IPC’s in accordance with the FEH.
(2) Be satisfied the holder meets the knowledge standards.
(3) Record the flight test number and result on CASA Form 61-4P.

The assessment of the candidate’s knowledge must be conducted “face-to-face” by an Australian flight examiner.

The Australian flight examiner conducting the IPC ground component is not required to be type rated on the aircraft type used in the flight component, however they must themselves hold a valid IPC.

On successful completion of the practical assessment of the IPC conducted overseas, an Australian flight examiner or CASA authorised person must comply with regulation 202.279 of CASR by endorsing the holder’s licence document, and complete and submit all the required documentation.

CASA Forms 61-1512 and 61-4P are to be used by the Australian flight examiner to:

- record the flight test number
- assess the flight test component and be satisfied that all competencies have been successfully completed
- record the pass/fail result.

The examiner should sign both forms, and send both forms to applications@casa.gov.au

The simulator used for the IPC must be approved by the National Aviation Authority (NAA) of a Recognised Foreign State (RFS) as defined under regulation 61.010 of CASR. A copy of the Qualification Certificate for the simulator used in the IPC must be provided by attaching the relevant documentation to CASA Form 61-4P.

The Foreign Authorised Person must be approved by the NAA of a RFS to conduct IPCs – a copy of the foreign authorised person's certificate setting out their approval to conduct IPCs must be provided by attaching the relevant documentation to CASA Form 61-4P.

The IPC must comply in all respects to the Part 61 MOS Schedule 6 requirements for an IPC (refer CASA Form 61-1512).

It is recommended that the simulator used for the IPC should have a current Australian aerodrome and navigation aids database. The licence holder should confirm this with the overseas simulator training provider. If the overseas simulator does not have such capability pilots should be aware that ICAO PANS OPS and FAA TERPS instrument approach procedures have different requirements that apply for the instrument approach procedures used in the practical assessment.

23.3 Conduct (ground component)

23.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the proficiency check with a brief to the applicant on the following items:

- proficiency check context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the proficiency check elements.

23.3.2 Document review

The examiner must confirm the identity of the applicant for the IPC. To achieve this, the logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the proficiency check.

Licence – the applicant for the IPC must hold a PPL, CPL or ATPL of the same category as the aircraft in which the proficiency check is conducted and hold the IR.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – N/A

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – N/A

Medical certificate – for proficiency checks conducted in an aircraft, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the IR.

Security check and fit and proper person requirements – N/A

If the proficiency check is a retest following a fail assessment, requiring remedial training – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

23.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 6 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

23.3.4 Assessment of flight planning

As part of the proficiency check, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

23.4 Conduct (flight component)

23.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their

assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

23.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the proficiency check environment (e.g. passenger carrying private or commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies

- procedures for simulating IMC.
- the expectations of the applicant during the simulation of instrument conditions, visual flight conditions and any simulated weather when advised ‘visual’ by the examiner
- the expectations when operating the aircraft at the minima (e.g. numerical tolerances).
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

23.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **IPC**. Where there are no specific recommendations, ‘NSR’ is listed in the table against the unit or element.

Table 33: Assessment of activities and manoeuvres - IPC

Phase of flight	Requirements	Recommendations
Pre-flight	(a) Plan an IFR flight	For aircraft where CAO 20.7.1B applies, use of appropriate performance data must be demonstrated.
	(b) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Plan, brief and conduct take-off and departure procedures	NSR.
	(c) Conduct instrument departure – published if available or ATC cleared if available	Simulated IMC must not be introduced before the take-off minima. A Class G overhead departure procedure may be flown if a SID or ATC departure is not available.
En route cruise	(a) Navigate aircraft en route using ground and satellite navigation systems	NSR
	(b) Perform navigation systems integrity checks	NSR
	(c) Identify and avoid hazardous weather conditions	Verbal scenario(s) may be introduced if hazardous conditions are not present.

Phase of flight	Requirements	Recommendations
Test specific activities and manoeuvres	(a) Perform full and limited panel instrument flying	For the limited panel assessment, the primary attitude indicator/display and the primary heading indicator/display may be 'failed' simultaneously. If assessed, unreliable airspeed indications must be a separate exercise. For EFIS cockpits, the use of standby instruments is acceptable for limited panel assessments.
	(b) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	The unusual attitude recoveries must be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre. At least one recovery full panel and at least one recovery limited panel must be assessed.
	(c) Conduct instrument departure OEI – ME aircraft only	The departure must be a separate event to the one engine inoperative (OEI) missed approach.
	(d) Conduct instrument approach OEI – ME aircraft only	The applicant should demonstrate proficiency in the management of the aircraft with OEI during an approach. The simulated engine failure should be introduced before the Final Approach Fix (FAF).
	(e) Conduct missed approach OEI or visual circling OEI – ME aircraft only	The applicant should fly the published approach OEI, followed by either the published missed approach or visual circling whilst maintaining the specified flight path tolerances for OEI operations.
Descent and arrival	(a) Perform a descent or published arrival procedure to an aerodrome	The descent may be a normal descent to MSA/LSALT or a DGA.
	(b) Track to holding fix and conduct a holding pattern or sector 3 entry procedure	Must be IAW published procedures. If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required. If conducting an RNAV(GNSS) approach, the applicant must conduct RNAV(GNSS) published holding or sector 3 associated with the instrument approach procedure to be flown. Only one holding procedure is required for the proficiency check.
	(c)(i) 2D, prepare for approach	NSR
	(c)(ii) 2D, conduct approach	NSR
	(d)(i) 3D, prepare for approach	Refer to limitations if not conducted (61.900).

Phase of flight	Requirements	Recommendations
	(d)(ii) 3D, conduct approach	Refer to limitations if not conducted (61.900). Holding is not required if conducted 2D and radar vectoring is available.
	(e) Conduct missed approach	Only one missed approach is required for the proficiency check. If the missed approach is conducted from a 3D approach, the applicant must be able to describe the MDA procedure for a 2D missed approach. If the missed approach is conducted from a 2D approach, the applicant must be able to describe the DA procedure for a 3D missed approach. This is best completed during the ground component.
Circuit, approach and landing	(a) Conduct visual circling with at least 90° heading change	Optional – see scope and conditions Refer to limitations if not conducted (61.860). The circling approach should be demonstrated as the continuation of the published aerodrome instrument approach from the specified minima. The instrument approach and circling manoeuvres should be flown onto the actual aerodrome named on the instrument approach plate. The circling approach should not be flown as a standalone low level circuit and must commence from at least a 90° heading change to the runway.
	(b) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most proficiency checks, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	

Phase of flight	Requirements	Recommendations
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

23.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the proficiency check. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the proficiency check must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the proficiency check may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

23.5 Complete (post flight)

23.5.1 Debriefings

The examiner must debrief the applicant and, if applicable, the operator as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the operator to construct a remedial training program.

23.5.2 Proficiency check administration

At the conclusion of the proficiency check, the examiner must:

- Enter in FTM, in accordance with the Examiner Requirements of 23.1 (6):
  - The route details
    - include the departure location, major turning points and the destination
    - formatting example: YMMB – AV – ESDIG – YBLT – LLOYD – AV - YMMB
  - The specific kinds of instrument approach procedures flown
    - use the name on the instrument approach chart
    - formatting example: YBLT RNAV-Z (GNSS) RWY 36.
- within 14 days after the day of the check, complete the proficiency check report and provide a copy of the report to the applicant and operator
- within 14 days after the day of the check, complete the flight test management system notification requirements.

All items on the proficiency check form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner must be in accordance with the Flight Crew Licensing Manual.

24 Private Instrument Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the private instrument rating (PIR).

24.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the PIR flight test:

(1) The examiner must conduct the PIR flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the PIR flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

24.2 Plan

24.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a private operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)
- 0.2 hour per endorsement for the general handling and test specific manoeuvres.

Use of IFR procedures

Although the flight is conducted under the IFR, some simulated emergencies must be conducted by day and in VMC (refer to PIR Assessment below).

24.2.2 PIR assessment scope and conditions

The PIR flight test must be conducted under the IFR and in an aircraft or an FSTD approved for the purpose, in accordance with subregulation 61.930(2) of CASR.

The aircraft and FSTD used for the PIR flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the private instrument endorsement(s) covered by the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 26 below, mirror the PIR test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the PIR flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the PIR test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

PIR flight tolerances and ground reference tolerances are specified in Tables 2, 4 and 5 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The PIR applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot.

The applicant must demonstrate proficiency to operate the aircraft for at least one instrument approach operation without the autopilot and or flight director being used (manually manipulating the flight and power controls). Establishing manual flight must be accomplished prior to the Initial Approach Fix (IAF) or equivalent. If circling is required to complete the instrument approach manual flight must be continued to a point from where the landing can be achieved.

For ME aircraft, a simulated engine failure after take-off must not be initiated at a height less than 400ft AGL.

For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC.

In an aircraft, recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated and the examiner has a clear view of the horizon.

IFR activities and manoeuvres are performed in accordance with published procedures.

The PIR applicant must demonstrate competency by performing en route navigation and holding using the navigation system that is for each Navigation Endorsement included in the test.

For a flight test that is for a departure endorsement, the PIR applicant must demonstrate competency by performing a take-off and departure other than a standard instrument departure, in an aircraft that is covered by the endorsement.

For a flight test that is for an approach/arrival endorsement, the PIR applicant must demonstrate competency by performing an approach or arrival using the navigation system that is covered by the endorsement.

For a flight test that is for an approach/arrival – category specific endorsement, the PIR applicant must demonstrate competency by performing an approach or arrival in a multi-engine aircraft of the applicable category, using the navigation system that is covered by the endorsement.

For a flight test that is for a night endorsement and the applicant is not the holder of a night VFR rating with the applicable category night VFR endorsement, the PIR applicant must demonstrate competency by performing an operation at night under the IFR in an aircraft of the category covered by the night endorsement.

For a flight test that is for the grant of an additional aircraft category/class endorsement, the PIR applicant must demonstrate competency by performing the 2D approach operations that the applicant is authorised to conduct.

For a flight test that is for the grant of an additional private instrument endorsement, competency need only be assessed in the units and elements applicable to the endorsement sought.

For all instrument approach operations, the approach procedures must be flown to the published and applicable MDA/H or DA/H.

24.3 Conduct (ground component)

24.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

24.3.2 Document review

The examiner must confirm that an applicant for the PIR satisfies the eligibility requirements to undertake the flight test for the grant of the Private Instrument Rating. To achieve this, the

CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the PIR must hold a PPL or CPL (or be applying for the licence simultaneously with the PIR) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the PIR.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

24.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

24.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

24.4 Conduct (flight component)

24.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

24.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- the expectations of the applicant during the simulation of instrument conditions, visual flight conditions and any simulated weather when advised 'visual' by the examiner
- the expectations when operating the aircraft at the minima (e.g. numerical tolerances).
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

24.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **PIR** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 34: Assessment of activities and manoeuvres - PIR

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an IFR flight	NSR

Phase of Flight	Requirements	Recommendations
	(b) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Plan, brief and conduct take-off and departure procedures	NSR.
	(c) For DEP endorsement, plan, brief and conduct an instrument departure	Simulated IMC must not be introduced before the take-off minima.
	(d) For SID endorsement, perform a SID or published procedure	Simulated IMC must not be introduced before the take-off minima.
En route cruise	(a) Navigate aircraft en route using ground and satellite navigation systems	NSR
	(b) Perform navigation systems integrity checks	NSR
	(c) Identify and avoid hazardous weather conditions	Verbal scenario(s) may be introduced if hazardous conditions are not present.
	(d) For NAV endorsement, use nav system to track to holding fix and conduct a holding pattern or sector 3 entry procedure	If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required.
Test specific activities and manoeuvres	(a) Perform full panel instrument flying	NSR
	(b)(i) For initial PIR issue, perform limited panel instrument flying	For the limited panel assessment, the primary attitude indicator/display and the primary heading indicator/display may be 'failed' simultaneously. If assessed, unreliable airspeed indications must be a separate exercise. For EFIS cockpits, the use of standby instruments is acceptable for limited panel assessments.

Phase of Flight	Requirements	Recommendations
	(b)(ii) For initial PIR issue, full and limited panel instrument flying, recover from at least 2 unusual attitudes	The unusual attitude recoveries must be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre. At least one recovery full panel and at least one recovery limited panel must be assessed.
	(c) For DEP endorsement, conduct instrument departure OEI - ME aircraft only	The departure must be a separate event to the one engine inoperative (OEI) missed approach.
	(d)(i) For APP/ARR endorsement, conduct instrument approach OEI - ME aircraft	The applicant should demonstrate proficiency in the management of the aircraft with OEI during an approach. The simulated engine failure should be introduced before the Final Approach Fix (FAF).
	(d)(ii) For APP/ARR endorsement, conduct missed approach OEI or visual circling OEI - ME aircraft only	The applicant should fly the published approach OEI, followed by either the published missed approach or visual circling whilst maintaining the specified flight path tolerances for OEI operations.
	(e)(i) For NGT endorsement, control aircraft on the ground	NSR
	(e)(ii) For NGT endorsement, conduct normal circuit patterns and landings at night, with and without landing lights	NSR
	(e)(iii) For NGT endorsement, manage cockpit lighting failure	NSR
	(e)(iv) For NGT endorsement, perform a go-around at night	NSR
Descent and arrival	(a) Perform a descent to establish and maintain VMC above or at the LSALT/MSA	NSR
	(b) Perform a visual approach	NSR

Phase of Flight	Requirements	Recommendations
	(c) For STAR endorsement, conduct a published STAR procedure	NSR
	(d)(i)(A) For APP NDB endorsement, conduct NDB approach procedure	If the flight test includes an NDB approach endorsement, the assessment should be conducted at the actual aerodrome of the published approach procedure and include a holding pattern or sector 3 entry procedure. If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required.
	(d)(i)(B) For APP VOR/LLZ endorsement, conduct VOR or LOC approach procedure	If the flight test includes a VOR/LLZ approach endorsement, the assessment should be conducted at the actual aerodrome of the published approach procedure and include a holding pattern or sector 3 entry procedure. If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required.
	(d)(i)(C) For APP DME or GNSS endorsement, conduct DME or GNSS arrival procedure	NSR
	(d)(i)(D) For APP RNP APCH-2D endorsement, conduct an RNP approach procedure	If the flight test includes an RNP APCH-2D approach endorsement, the assessment should be conducted at the actual aerodrome of the published approach procedure and include a holding pattern or sector 3 entry procedure. If a sector 3 entry into a holding pattern is conducted, an additional holding pattern is not required.
	(d)(i)(E) For APP RNP APCH-3D endorsement, conduct an RNP approach procedure using Baro vertical guidance	If the flight test includes an RNP APCH-3D private instrument endorsement the examiner should ensure the applicant already holds the Navigation – GNSS private instrument endorsement and Approach - RNP APCH - 2D private instrument endorsement (refer table 61.935).
	(d)(i)(F) For APP ILS endorsement, conduct an ILS approach procedure	Holding is not required if conducted 2D and radar vectoring is available.

Phase of Flight	Requirements	Recommendations
	(d)(ii) For APP/ARR endorsement, conduct missed approach	Only one missed approach is required for a test that includes multiple approach endorsements. If the missed approach is conducted from a 3D approach, the applicant must be able to describe the MDA procedure for a 2D missed approach. If the missed approach is conducted from a 2D approach, the applicant must be able to describe the DA procedure for a 3D missed approach. This is best completed during the ground component.
	(d)(iii) For APP/ARR endorsement, conduct visual circling with at least 90° heading change	If the flight test includes a circling approach, the circling approach should be demonstrated as the continuation of the aerodrome instrument approach from the specified minima. The instrument approach and circling manoeuvres should be flown onto the actual aerodrome named on the instrument approach plate. The circling approach should not be flown as a standalone low level circuit.
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most proficiency checks, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	

Phase of Flight	Requirements	Recommendations
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

24.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

24.5 Complete (post flight)

24.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

24.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

25 Night VFR Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the night VFR rating (NVFR).

25.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the NVFR flight test:

(1) The examiner must conduct the NVFR flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the NVFR flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

25.2 Plan

25.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a private or commercial operation as applicable to the licence the applicant holds). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 0.8 hour for the general handling and test specific manoeuvres.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the NVFR assessment flight sequences.

The NVFR flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the NVFR flight test should be considered as the flight time for the flight test.

If the NVFR applicant holds a valid IR and elects to convert to IFR during the NVFR assessment flight, then a fail assessment should be recorded and no NVFR flight component test credits are to be given.

25.2.2 NVFR assessment scope and conditions

The NVFR flight test must be conducted by night in VMC, under the VFR and in an aircraft or an FSTD approved for the purpose, in accordance with subregulation 61.975(2) of CASR.

The aircraft and FSTD used for the NVFR flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the night VFR endorsement(s) covered by the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 27 below, mirror the NVFR test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the NVFR flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the NVFR test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

NVFR flight tolerances and ground reference tolerances are specified in Tables 1 and 3 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The NVFR applicant should demonstrate that control of the aircraft or procedure is maintained at all times but if the successful outcome is in doubt, corrective action is taken promptly to recover to safe flight.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot.

The examiner must ensure that the navigation and circuit components of the flight test are conducted by night under the VFR.

For ME aircraft, a simulated engine failure in the cruise at night must be conducted not below the route LSALT.

In an aircraft, recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures the concept is that the examiner has a clear view of the horizon.

For a flight test that is for the grant of an additional Night VFR endorsement, the applicant must demonstrate competency by performing all the activities and manoeuvres described on the NVFR flight test form.

25.3 Conduct (ground component)

25.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

25.3.2 Document review

The examiner must confirm that an applicant for the NVFR satisfies the eligibility requirements to undertake the flight test for the grant of the night VFR rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the NVFR must hold a PPL, CPL or ATPL (or be applying for the licence simultaneously with the NVFR) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in an aircraft, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the NVFR.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

25.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

25.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

25.4 Conduct (flight component)

25.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

25.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private or commercial operation / simulation of passengers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

25.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **NVFR** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 35: Assessment of activities and manoeuvres - NVFR

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan a night VFR flight	NSR
	(b) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Plan, brief and conduct take-off and departure procedures	NSR
	(c) Conduct take-off and departure from aerodrome remote from ground lighting	Class D capital city airports are unsuitable for this assessment. If applicable, an intermediate airport remote from ground lighting should be planned.
En route cruise	(a) Navigate aircraft en route using visual tracking and visual position fixes	The navigation task should be designed such that all of the components can be assessed in a logical sequence. There should be at least one sector of sufficient distance that allows the applicant's navigation technique to be adequately assessed. This sector should be of a sufficient duration to enable the opportunity to assess multiple navigation cycles, track correction techniques, continued maintenance of navigation and fuel logs (ETAs and fuel status) and position fixing at suitable intervals. Importantly, examiners should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound reasoning and application of recognised NVFR navigation procedures.
	(b) Navigate aircraft en route using ground and satellite navigation systems	NSR

Phase of Flight	Requirements	Recommendations
	(c) Perform navigation systems integrity checks	NSR
	(d) Identify and avoid hazardous weather conditions	Verbal scenario(s) may be introduced if hazardous conditions are not present.
Test specific activities and manoeuvres	(a) Perform full and limited panel instrument flying	For the limited panel assessment, the primary attitude indicator/display and the primary heading indicator/display may be 'failed' simultaneously. If assessed, unreliable airspeed indications must be a separate exercise. For EFIS cockpits, the use of standby instruments is acceptable for limited panel assessments.
	(b) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	The unusual attitude recoveries must be conducted by day in VMC and the examiner should have visual reference at all times during the manoeuvre. At least one recovery full panel and at least one recovery limited panel must be assessed.
	(c) Manage a cockpit lighting failure	NSR
	(d)&(e) For ME end, manage an engine failure during cruise	The one engine inoperative (OEI) assessment must be conducted not below the route LSALT.
Descent and arrival	(a) Conduct a descent and visual approach procedure to an aerodrome	NSR
	(b) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	NSR
	(b) Conduct approach and landing to aerodrome remote from ground lighting	Class D capital city airports are unsuitable for this assessment. If applicable, an intermediate airport remote from ground lighting should be planned.
	(c) Land with and without landing lights	NSR
	(d) Perform a go-around procedure	NSR

Phase of Flight	Requirements	Recommendations
	(e) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

25.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

25.5 Complete (post flight)

25.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

25.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

26 Night Vision Imaging System Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the night vision imaging system rating (NVIS).

26.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the NVIS flight test:

(1) The examiner must conduct the NVIS flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the NVIS flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

26.2 Plan

26.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a commercial operation). The applicant should be given the test route at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an NVG **airborne** time of approximately:

- 0.4 hour for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)
- 1.1 hour for the general handling and test specific manoeuvres.

26.2.2 NVIS assessment scope and conditions

The NVIS flight test must be conducted by night in VMC, under the VFR and in a helicopter or an FSTD approved for the purpose, in accordance with subregulation 61.1035(2) of CASR.

The aircraft must be certificated for flight under the night VFR and be appropriate for the endorsement covered by the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 28 below, mirror the NVIS test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the NVIS flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the NVIS test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

NVIS flight tolerances and ground reference tolerances are specified in table 4 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The NVIS applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an auto-pilot is not available, the examiner must not ‘act’ as the auto-pilot.

For ME aircraft, the examiner must simulate at least one engine failure under NVG flight (e.g. an engine failure during landing or engine failure during the cruise).

Recoveries from unusual attitudes must be conducted goggled and in VMC.

For the above procedures, the examiner is to have a clear NVG horizontal and vertical view or view of the horizon.

26.3 Conduct (ground component)

26.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

26.3.2 Document review

The examiner must confirm that an applicant for the NVIS satisfies the eligibility requirements to undertake the flight test for the grant of the night vision imaging system rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the NVIS must hold a helicopter category CPL or ATPL.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in a helicopter, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the NVIS.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

26.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

26.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing data/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

26.4 Conduct (flight component)

26.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many

circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

26.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

26.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **NVIS** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 36: Assessment of activities and manoeuvres – NVIS

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan NVIS operations and determine serviceability of NVG equipment and aircraft	The applicant should pay particular attention to battery management and control.
	(b) Consult and brief stakeholders	NSR
	(c) Plan a night VFR flight	For NVG considerations, the applicant should take into account lunar, stellar and cultural illumination along with normal WX requirements.
	(d) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Lift-off, hover and taxi helicopter using NVG	The examiner should note hover height with skidded aircraft and taxi speed with wheeled aircraft.
	(c) Plan, brief and conduct take-off and departure procedures using NVG	NSR
	(d) Establish stable hover, take-off from and climb out from an unlit HLS using NVG	NSR
En route cruise	(a) Navigate aircraft en route	The navigation component should be designed such that all of the components may be assessed in a logical sequence. There should be at least one sector of sufficient distance that allows the applicant's navigation technique to be adequately assessed, navigation on an appropriate route taking into account ambient illumination and obstacles/hazards. Examiners should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound decision making and application of appropriate NVIS navigation techniques.
	(b) Transit to and from area of operation using NVG	The applicant should maintain appropriate altitudes and speeds and should navigate on the route most appropriate for weather conditions.

Phase of Flight	Requirements	Recommendations
	(a) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	Recoveries from unusual attitudes must be conducted goggled and in VMC. The applicant is to conduct recovery looking under the googles at the aircraft instruments, then confirm the aircraft attitude looking through the NVG. The examiner should have visual reference at all times during the manoeuvre. At least one recovery full panel and at least one recovery limited panel must be assessed.
	(b) Perform cockpit procedures and checks during goggled and de-goggled flight	These should be memory items and should consider handover of controls.
Test specific activities and manoeuvres	(c) Maintain control of aircraft during transition to and from goggled and de-goggled flight	The applicant should maintain emphasis on maintaining obstacle clearance.
	(d) Land and take-off from sloping ground using NVG or land and take-off from a pinnacle or ridgeline using NVG	The applicant should use appropriate NVG pinnacle/ridgeline technique.
	(e) Manage abnormal and emergency situations using NVG	The emphasis should be on crew utilisation where appropriate.
	(f) Manage inadvertent entry into IMC and re-establish VMC	The applicant should perform transition from NVIS flight to IFR following simulated inadvertent failure of NVG equipment.
	(g) Manage flight during multi-crew NVIS operations	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	NSR
	(b) Descend to unlit HLS while using NVG	The emphasis should be on a stable approach.
Circuit, approach and landing	(a) Conduct a circuit pattern, approach and landing using NVG	The examiner should ensure the applicant conducts an approach to the hover in addition to the required manoeuvres within the HLS.

Phase of Flight	Requirements	Recommendations
	(b) Approach and land on an unlit HLS using NVG	The emphasis should be on a stable approach.
	(c) Conduct a baulked landing using NVG	NSR
	(d) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a)&(b) Park, shut down, secure aircraft and complete post-flight administration	NSR
	(c) Conduct post-flight operational debriefing	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

26.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

26.5 Complete (post flight)

26.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

26.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

27 Night Vision Imaging System Proficiency Check

The aim of this proficiency check is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 6 of the Part 61 MOS for the night vision imaging system proficiency check (NPC).

27.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the NPC:

(1) The examiner must conduct the NPC in accordance with clauses 1 to 3 of Schedule 6 of the Part 61 MOS.
(2) The examiner must conduct the NPC within the operational scope and conditions described in clause 4 of Schedule 6 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the proficiency check is successfully completed before conducting the pre-flight briefing and flight component of the proficiency check.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for proficiency check items, they are valid for 28 days only. After 28 days, the proficiency check must be conducted in full.

27.2 Plan

27.2.1 Testing methodology

The examiner should apply the proficiency check methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The proficiency check should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the proficiency check cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended navigation task to allow for unhurried preparation and planning (simulating a commercial operation). The applicant should be given the test route at least 24 hours before the start of the proficiency check.

It is recommended that the examiner plans an NVG **airborne** time of approximately:

- 0.4 hour for the navigation task (this should not include time delays which may be experienced at a busy Class C or D airport)

- 1.1 hour for the general handling and test specific manoeuvres.

27.2.2 NPC scope and conditions

The NPC must be conducted in VMC, under the night VFR and in a helicopter or an FSTD approved for the purpose, in accordance with subregulation 61.1015(4) of CASR.

The aircraft must be certificated for flight under the night VFR and be appropriate for the proficiency check.

The FEH activities and manoeuvres, listed in the Requirements column of Table 29 below, mirror the NPC test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 6 for the NPC.

These activities and manoeuvres, described in clause 3 of Schedule 6 of the Part 61 MOS and the NPC test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

NPC flight tolerances and ground reference tolerances are specified in table 4 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The NPC applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

Where the aircraft is fitted with an autopilot system, the applicant must demonstrate competency in the system. If an autopilot is not available, the examiner must not ‘act’ as the auto-pilot.

For ME aircraft, the examiner must simulate at least one engine failure under NVIS flight (e.g. an engine failure during landing or engine failure during the cruise).

Recoveries from unusual attitudes must be conducted goggled and in VMC.

For the above procedures, the examiner is to have a clear NVG horizontal and vertical view or view of the horizon.

27.3 Conduct (ground component)

27.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the proficiency check with a brief to the applicant on the following items:

- proficiency check context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the proficiency check elements.

27.3.2 Document review

The examiner must confirm the identity of the applicant for the NPC. To achieve this, the logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the proficiency check.

Licence – the applicant for the NPC must hold a helicopter category CPL or ATPL and hold the NVIS rating.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – N/A

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – N/A

Medical certificate – for proficiency checks conducted in a helicopter, the examiner must check that the applicant holds a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the NVIS.

Security check and fit and proper person requirements – N/A

If the proficiency check is a retest following a fail assessment, requiring remedial training – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

27.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 6 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

27.3.4 Assessment of flight planning

As part of the proficiency check, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

27.4 Conduct (flight component)

27.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside

the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

27.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the proficiency check environment
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC.
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

27.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **NPC**. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 37: Assessment of activities and manoeuvres - NPC

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan NVIS operations and determine serviceability of NVG equipment and aircraft	The applicant should pay particular attention to NVG battery management and control.
	(b) Plan a night VFR flight	For NVG considerations, the applicant should take into account lunar, stellar and cultural illumination along with normal WX requirements.
	(c) Perform pre-flight actions and procedures	NSR
Ground operations, take-	(a) Complete all relevant checks and procedures	NSR

Phase of Flight	Requirements	Recommendations
off, departure and climb	(b) Lift-off, hover and taxi helicopter using NVG	The examiner should note hover height with skidded aircraft and taxi speed with wheeled aircraft.
	(c) Plan, brief and conduct take-off and departure procedures using NVG	NSR
	(d) Establish stable hover, take-off from and climb out from an unlit HLS using NVG	NSR
En route cruise	(a) Navigate aircraft en route	The navigation component should be designed such that all of the components may be assessed in a logical sequence using VFR or IFR procedures as applicable. There should be at least one sector of sufficient distance that allows the applicant's navigation technique to be adequately assessed, on an appropriate route taking into account ambient illumination and obstacles/hazards. Examiners should be satisfied that the applicant is using a suitable navigation methodology that is supported by sound decision making and application of appropriate NVIS navigation techniques.
	(b) Transit to and from area of operation using NVG	The applicant should maintain appropriate altitudes and speeds and should navigate on the route most appropriate for weather conditions.
Test specific activities and manoeuvres		
	(a) Full and limited panel instrument flying, recover from at least 2 unusual attitudes	Recoveries from unusual attitudes must be conducted goggled and in VMC. The applicant is to conduct recovery looking under the googles at the aircraft instruments, then confirm the aircraft attitude looking through the NVG. The examiner should have visual reference at all times during the manoeuvre. At least one recovery full panel and at least one recovery limited panel must be assessed.
	(b) Perform cockpit procedures and checks during goggled and de-goggled flight	These should be memory items and should consider handover of controls.

Phase of Flight	Requirements	Recommendations
	(c) Maintain control of aircraft during transition to and from goggled and de-goggled flight	The applicant should maintain emphasis on maintaining obstacle clearance.
	(d) Land and take-off from sloping ground using NVG or land and take-off from a pinnacle or ridgeline using NVG	The applicant should use appropriate NVG pinnacle/ridgeline technique.
	(e) Manage abnormal and emergency situations using NVG	The emphasis should be on crew utilisation where appropriate.
	(f) Manage inadvertent entry into IMC and re-establish VMC	The applicant should perform transition from NVIS flight to IFR following simulated inadvertent failure of NVG equipment.
	(g) Manage flight during multi-crew NVIS operations	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	NSR
	(b) Descend to an unlit HLS while using NVG	The emphasis should be on a stable approach.
Circuit, approach and landing	(a) Conduct a circuit pattern, approach and landing using NVG	The examiner should ensure the applicant conducts an approach to the hover in addition to the required manoeuvres within the HLS.
	(b) Approach and land on an unlit HLS using NVG	The emphasis should be on a stable approach.
	(c) Conduct a baulked landing using NVG	NSR
	(d) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most proficiency checks, the assessment of emergency and non-normal events will provide

Phase of Flight	Requirements	Recommendations
	(b) Maintain situational awareness	sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

27.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the proficiency check. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes

- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the proficiency check must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the proficiency check may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

27.5 Complete (post flight)

27.5.1 Debriefings

The examiner must debrief the applicant and, if applicable, the operator as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the operator to construct a remedial training program.

27.5.2 Proficiency check administration

At the conclusion of the proficiency check, the examiner must:

- within 14 days after the day of the check, complete the flight test report and provide a copy of the report to the applicant, the operator and CASA
- within 14 days after the day of the check, complete the flight test management system notification requirements.

All items on the proficiency check form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner must be in accordance with the Flight Crew Licensing Manual.

28 Low Level Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the low level rating (LL).

28.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the LL flight test:

(1) The examiner must conduct the LL flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the LL flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

28.2 Plan

28.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating either a private or commercial operation as applicable to the licence the applicant holds). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the general handling and test specific manoeuvres.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing should terminate the IFR flight segment before commencing the LL assessment flight sequences.

The LL flight test should be concluded by a landing in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the LL flight test should be considered as the flight time for the flight test.

28.2.2 LL assessment scope and conditions

The LL flight test must be conducted by day in VMC, under the VFR and in an aircraft, in accordance with subregulation 61.1070(2) of CASR.

The aircraft used for the LL flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the low level endorsement(s) covered by the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 30 below, mirror the LL test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the LL flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the LL test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

LL flight tolerances and ground reference tolerances are specified in Tables 2, 4 and 7 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The LL applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

For aeroplanes a simulated engine failure in low level operations must not be initiated below a height of 200 ft AGL.

For single engine helicopters only, a simulated engine failure in low level operations must not be initiated below a height of 150 ft AGL and not below Vy speed. (Not applicable to hover or taxi simulated engine failures).

28.3 Conduct (ground component)

28.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure

- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

28.3.2 Document review

The examiner must confirm that an applicant for the LL satisfies the eligibility requirements to undertake the flight test for the grant of the low level rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the LL must hold a PPL, CPL or ATPL (or be applying for the licence simultaneously with the LL) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the LL.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

28.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

28.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

28.4 Conduct (flight component)

28.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many

circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner

- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

28.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. private or commercial survey operation / simulation of observers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

28.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **LL** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 38: Assessment of activities and manoeuvres - LL

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan the low-level operations to ensure a safe outcome	NSR
	(b) Identify hazards and manage risks	NSR
	(c) Ensure aircraft performance capability	NSR

Phase of Flight	Requirements	Recommendations
	(d) Consult and brief stakeholders	NSR
	(e) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Plan, brief and conduct take-off and departure procedures	NSR
En route cruise	(a) Conduct appropriate checks and procedures before descending below 500ft AGL	NSR
Test specific activities and manoeuvres	(a) Navigate at low level	NSR
	(b) At low level, demonstrate use of escape routes	NSR
	(c) At low level, identify and operate in vicinity of powerlines or wires	NSR
	(d) At low level, operate in hilly terrain	NSR
	(e) At low level, manage wind effects, sloping terrain, false horizons and sun glare	NSR
	(f)(i) For LL A, conduct steep, max rate and min radius turns	NSR
	(f)(ii) For LL A, conduct procedure turns	NSR
	(f)(iii) For LL A, recover from approach to stalls - level and turning	NSR
	(f)(iv) For LL A, recover from high energy and low energy unusual attitudes	NSR
	(f)(v)(A) For LL A, recover from wing drop at the stall - SE only	NSR
	(f)(v)(B) For LL A, perform forced landing (SE only)	NSR
	(f)(vi) For LL A, manage engine failure (ME only)	NSR
	(g)(i) For LL H, conduct steep turns	NSR
	(g)(ii) For LL H, at low level conduct flight at various speeds and configurations	NSR

Phase of Flight	Requirements	Recommendations
	(g)(iii) For LL H, perform forced landing (SE only)	For single engine helicopters a simulated engine failure in low level operations must not be initiated below a height of 150 ft AGL and not below Vy speed. Note: not applicable to hover or taxi simulated engine failures
	(g)(iv) For LL H, manage engine failure (ME only)	NSR
	(g)(v) For LL H, at low level perform quick stop manoeuvres into wind and downwind	NSR
	(g)(vi) For LL H, recover from high energy and low energy unusual attitudes	NSR
	(h)(i) For LL AM, plan a stock mustering operation	NSR
	(h)(ii) For LL AM, manoeuvre aircraft in all planes below 500 ft AGL	NSR
	(h)(iii) For LL AM, perform climb, descent, low speed and high speed manoeuvres	NSR
	(h)(iv) For LL AM, perform reversal turns, decelerations and steep turns	NSR
	(h)(v) For LL AM, conduct stock mustering operations	NSR
	(i)(i) For LL SLING, prepare for a sling load operation	NSR
	(i)(ii) For LL SLING, plan a sling operation and conduct pre-flight briefing	
	(i)(iii) For LL SLING, operate the aircraft during external load operations	NSR
	(i)(iv) For LL SLING, manage abnormal and emergency situations during external load operations	NSR
	(j)(i) For LL WINCH, plan for a winch or rappelling operation and conduct pre-flight briefing	NSR
	(j)(ii) For LL WINCH, operate the helicopter during winch or rappelling operations	NSR
	(j)(iii) For LL WINCH, manage abnormal and emergency situations during winch or rappelling operations	NSR

Phase of Flight	Requirements	Recommendations
	(j)(iv) For LL WINCH, conduct post flight activities	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct low level circuit, approach and landing	NSR
	(b) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

28.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements

- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

28.5 Complete (post flight)

28.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

28.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

29 Aerial Application Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the aerial application rating (AA).

29.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the AA flight test:

(1) The examiner must conduct the AA flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the AA flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

29.2 Plan

29.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial operation). The applicant should be given the test scenario at least 24 hours before the start of the flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the general handling and test specific manoeuvres.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing should terminate the IFR flight segment before commencing the AA assessment flight sequences.

The AA flight test should be concluded by a landing in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the AA flight test should be considered as the flight time for the flight test.

29.2.2 AA assessment scope and conditions

The AA flight test must be conducted in VMC, under the VFR and in an aircraft, in accordance with subregulation 61.1115(2) of CASR.

The aircraft used for the AA flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the aerial application endorsement(s) covered by the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 31 below, mirror the AA test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the AA flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the AA test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

AA flight tolerances and ground reference tolerances are specified in tables 2 and 4 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The AA applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

For aeroplanes a simulated engine failure in low level operations must not be initiated below a height of 200 ft AGL.

For single engine helicopters only, a simulated engine failure in low level operations must not be initiated below a height of 150 ft AGL and not below Vy speed. (Not applicable to hover or taxi simulated engine failures).

Recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedure, the concept is that IMC is simulated, and the examiner has a clear view of the horizon.

29.3 Conduct (ground component)

29.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

29.3.2 Document review

The examiner must confirm that an applicant for the AA satisfies the eligibility requirements to undertake the flight test for the grant of the aerial application rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the AA must hold a CPL or ATPL (or be applying for the licence simultaneously with the AA) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A.

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – the examiner must check that the applicant holds either a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the AA.

Security check and fit and proper person requirements – N/A.

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

29.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

29.3.4 Assessment of flight planning

As part of the flight test, the applicant must complete a:

- flight plan
- fuel plan
- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

29.4 Conduct (flight component)

29.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

29.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. aerial application commercial operation / simulation of observers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

29.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **AA** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 39: Assessment of activities and manoeuvres - AA

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an aerial application operation to ensure a safe outcome	NSR
	(b) Identify hazards and manage risks	NSR
	(c) Ensure aircraft performance capability	NSR
	(d) Consult and brief stakeholders	NSR
	(e) Perform pre-flight actions and procedures	NSR
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	NSR
	(b) Plan, brief and conduct take-off and departure procedures	NSR
En route cruise	(a) Conduct appropriate checks and procedures before descending below 500ft AGL	NSR
Test specific activities and manoeuvres	(a)(i) At low level, perform straight flight, steep turns and procedure turns	NSR
	(a)(ii) Navigate at low level	NSR
	(a)(iii) At low level, manage wind effects, sloping terrain, false horizons and sun glare	NSR
	(a)(iv) At low level, demonstrate use of escape routes	NSR
	(a)(v) Recover from high energy and low energy unusual attitudes	NSR
	(a)(vi)(A) At low level, perform forced landing (SE only)	For single engine helicopters a simulated engine failure in low level operations must not be initiated below a height of 150 ft AGL and not below Vy speed. Note: not applicable to hover or taxi simulated engine failures
	(a)(vi)(B) At low level, manage engine failure (ME only)	

Phase of Flight	Requirements	Recommendations
	(a)(vii) For application ops, fly to, assess, land and take-off from an operational airstrip or HLS	NSR
	(a)(viii) For application ops, fly between operational airstrip or HLS and application area	NSR
	(a)(ix) For application ops, conduct an aerial survey of a treatment area	NSR
	(a)(x) For application ops, conduct operations over and under power lines	NSR
	(a)(xi) For application ops, apply substances	NSR
	(a)(xii) For application ops, operate aircraft safely and effectively using GNSS swath guidance equipment	NSR
	(a)(xiii) For application ops, operate at low level in hilly terrain	NSR
	(a)(xiv) For application ops, jettison load	NSR
	(b)(i) For AA A, conduct steep, max rate and min radius turns	NSR
	(b)(ii) For AA A, recognise and avoid the stall and recover from a simulated low altitude stall	NSR
	(b)(iii) For AA A, recover from wing drop at the stall (SE only)	NSR
	(b)(iv) For AA A, conduct operations at a certified or registered aerodrome	NSR
	(b)(v) For AA A, manage abnormal and emergency situations during low-level operations	NSR
	(c)(i) For AA H, at low level conduct flight at various speeds and configurations	NSR
	(c)(ii) For AA H, at low level perform quick stop manoeuvres into wind and downwind	NSR
	(c)(iii) For AA H, manage helicopter risks during application operations	NSR
	(d)(i) For AA FIRE, apply human factors	NSR
	(d)(ii) For AA FIRE, conduct pre-flight actions	NSR

Phase of Flight	Requirements	Recommendations
	(d)(iii) For AA FIRE, demonstrate understanding of fire agency procedures, fire traffic management and other aircraft separation requirements	NSR
	(d)(iv) For AA FIRE, perform planning and risk management	NSR
	(d)(v) For AA FIRE, fly to, assess, land and take-off from an operational airstrip or HLS or pick up point	NSR
	(d)(vi) For AA FIRE, fly between operational airstrip or HLS and drop zone	NSR
	(d)(vii) For AA FIRE, conduct an aerial survey of a fire area	NSR
	(d)(viii) For AA FIRE, apply substances	NSR
	(d)(ix) For AA FIRE, operate aircraft at maximum permissible weights for fire operations	NSR
	(d)(x) For AA FIRE, operate at low-level in hilly terrain	NSR
	(d)(xi) For AA FIRE, operate in high winds, high density altitude and high turbulence	NSR
	(d)(xii) For AA FIRE, conduct low-visibility operations	NSR
	(d)(xiii) For AA FIRE, manage abnormal or emergency situations during operations on a fire ground	NSR
	(d)(xiv) For AA FIRE, jettison load	NSR
	(e)(i) For AA FIRE H, replenish helicopter load with snorkel or bucket	NSR
	(e)(ii) For AA FIRE H, manage known helicopter risks during firefighting operations	NSR
	(f)(i) For AA NGT, complete aircraft and equipment serviceability check	NSR
	(f)(ii) For AA NGT, conduct a risk assessment	NSR
	(f)(iii) For AA NGT, conduct pre-flight actions	NSR

Phase of Flight	Requirements	Recommendations
	(f)(iv) For AA NGT, determine whether an airstrip or HLS is suitable for night operations	NSR
	(f)(v) For AA NGT, take-off and land at night at an airstrip or HLS remote from ground lighting	NSR
	(f)(vi) For AA NGT, conduct safe transit from airstrip to treatment area	NSR
	(f)(vii) For AA NGT, operate work lights to illuminate treatment area	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	NSR
Circuit, approach and landing	(a) Conduct low level circuit, approach and landing (day only)	NSR
	(b) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

29.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

29.5 Complete (post flight)

29.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

29.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

30 Aerial Application Proficiency Check

The aim of this proficiency check is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 6 of the Part 61 MOS for the aerial application proficiency check (APC).

30.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the APC:

(1) The examiner must conduct the APC in accordance with clauses 1 to 3 of Schedule 6 of the Part 61 MOS.
(2) The examiner must conduct the APC within the operational scope and conditions described in clause 4 of Schedule 6 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the proficiency check is successfully completed before conducting the pre-flight briefing and flight component of the proficiency check.
(4) The examiner must not introduce simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) Where credits are available for proficiency check items, they are valid for 28 days only. After 28 days, the proficiency check must be conducted in full.

30.2 Plan

30.2.1 Testing methodology

The examiner should apply the proficiency check methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The proficiency check should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the proficiency check cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a commercial operation). The applicant should be given the test scenario at least 24 hours before the start of the proficiency check.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the general handling and test specific manoeuvres.

Use of IFR procedures

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the proficiency check or be taken into account in the proficiency check flight time. A landing should terminate the IFR flight segment before commencing the APC assessment flight sequences.

The APC should be concluded by a landing in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the APC should be considered as the flight time for the proficiency check.

30.2.2 APC scope and conditions

The APC must be conducted by day or night, as applicable, in VMC, under the VFR and in an aircraft, in accordance with subregulation 61.1110 4(a) of CASR.

The aircraft used for the APC must be of the appropriate category and be capable of being operated for the kind of operations relevant to the aerial application endorsement(s) the applicant holds and that are assessed in the APC.

The FEH activities and manoeuvres, listed in the Requirements column of Table 32 below, mirror the APC test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 6 for the APC.

These activities and manoeuvres, described in clause 3 of Schedule 6 of the Part 61 MOS and the APC test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

APC flight tolerances and ground reference tolerances are specified in Tables 2 and 4 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The APC applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

For aeroplanes a simulated engine failure in low level operations must not be initiated below a height of 200 ft AGL.

For single engine helicopters only, a simulated engine failure in low level operations must not be initiated below a height of 150 ft AGL and not below Vy speed. (Not applicable to hover or taxi simulated engine failures).

30.3 Conduct (ground component)

30.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the proficiency check with a brief to the applicant on the following items:

- proficiency check context, purpose and content

- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the proficiency check elements.

30.3.2 Document review

The examiner must confirm the identity of the applicant for the APC. To achieve this, the logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the proficiency check.

Licence – the applicant for the APC must hold a CPL or ATPL of the same category as the aircraft in which the proficiency check is conducted and hold the AA.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – N/A

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – N/A

Medical certificate – the examiner must check that the applicant holds a class 1 medical certificate, or a medical exemption allowing them to exercise the privileges of the AA.

Security check and fit and proper person requirements – N/A

If the proficiency check is a retest following a fail assessment, requiring remedial training – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

30.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 6 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

30.3.4 Assessment of flight planning

As part of the proficiency check, the applicant must complete:

- flight plan
- fuel plan

- flight notification
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

30.4 Conduct (flight component)

30.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system

- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

30.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the proficiency check environment (e.g. aerial application commercial operation / simulation of observers)
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

30.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **APC**. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 40: Assessment of activities and manoeuvres - APC

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan an aerial application operation to ensure a safe outcome	NSR
	(b) Identify hazards and manage risks	NSR
	(c) Ensure aircraft performance capability	NSR
	(d) Perform pre-flight actions and procedures	NSR
Ground operations, take-	(a) Complete all relevant checks and procedures	NSR

Phase of Flight	Requirements	Recommendations
off, departure and climb	(b) Plan, brief and conduct take-off and departure procedures	NSR
En route cruise	(a) Conduct appropriate checks and procedures before descending below 500ft AGL	NSR
Test specific activities and manoeuvres	(a) For application ops, fly aircraft, manoeuvre and navigate at low-level	NSR
	(b) For application ops, apply substances	NSR
	(c) For application ops, jettison load	NSR
	(d) For A application ops, perform steep turns and procedure turns at or below 500 ft AGL	NSR
	(e) For A application ops, recognise and avoid the stall and recover from a simulated low altitude stall	NSR
	(f) For A application ops, perform forced landing from below 500 ft AGL (SE only)	For single engine helicopters a simulated engine failure in low level operations must not be initiated below a height of 150 ft AGL and not below Vy speed. Note: not applicable to hover or taxi simulated engine failures
	(g) For A application ops, manage abnormal and emergency situations during low-level operations	NSR
	(h) For firefighting end, operate in accordance with fire traffic management and other aircraft separation requirements	NSR
	(i) For firefighting end, conduct an aerial survey of a fire area	NSR
	(j) For firefighting end, apply substances	NSR
	(k) For firefighting end, operate aircraft at maximum permissible weights for fire operations	NSR
	(l) For firefighting end, manage abnormal or emergency situations during low-level operations on a fire ground	NSR
	(m) For H firefighting end, replenish helicopter load with snorkel or bucket	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	NSR

Phase of Flight	Requirements	Recommendations
Circuit, approach and landing	(a) Conduct low level circuit, approach and landing (day only)	NSR
	(b) Perform after-landing actions and procedures	NSR
Shut down and post-flight	(a) Park, shut down, secure aircraft and complete post-flight administration	NSR
General requirements	(a) Maintain effective lookout	In most proficiency checks, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

30.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the proficiency check. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes

- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the proficiency check must be terminated immediately. Some credits may be given for test items already assessed that are not associated with or relevant to the safety-critical event.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory. Under these circumstances the proficiency check may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

30.5 Complete (post flight)

30.5.1 Debriefings

The examiner must debrief the applicant and, if applicable, the operator as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the operator to construct a remedial training program.

30.5.2 Proficiency check administration

At the conclusion of the proficiency check, the examiner must:

- within 14 days after the day of the check, complete the proficiency check report and provide a copy of the report to the applicant, the operator and CASA
- within 14 days after the day of the check, complete the flight test management system notification requirements.

All items on the proficiency check form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner must be in accordance with the Flight Crew Licensing Manual.

31 Flight Instructor Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the flight instructor rating (FIR).

31.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the FIR flight test:

(1) The examiner must conduct the FIR flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the FIR flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce or permit simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) The examiner must give the pre-flight briefing sequence on the day of the flight test.
(7) The examiner must not give credits for any items of the ground component of the flight test if that component of the flight test is terminated due to failure of an item.
(8) The examiner must terminate the flight test at the point where a fail assessment is made. This applies to either the ground or the flight components. If the flight component error is safety critical, no credits are to be given.
(9) The examiner must complete and de-brief the ground component of the flight test prior to the commencement of the flight component of the flight test. The flight component includes the pre-flight briefing
(10) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

31.2 Plan

31.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a training flight). The applicant should be given the test scenario at least 48 hours before the start of the flight test. However, long briefing and pre-flight briefing topics are sometimes given on the day of the test (refer training endorsement test requirements)

It is recommended that the examiner plans for briefing times of approximately:

- 0.7 hour for each long briefing
- 0.2 hour for a pre-flight briefing.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the general handling and test specific manoeuvres.

Use of IFR procedures (FIR conducted VFR)

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the flight test or be taken into account in the flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the FIR assessment flight sequences.

The FIR flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the FIR flight test should be considered as the flight time for the flight test.

31.2.2 FIR assessment scope and conditions

The FIR flight test must be conducted in VMC under the VFR or IFR, as applicable, and in an aircraft or an FSTD approved for the purpose, in accordance with subregulations 61.1185(2)(3), regulation 61.1245 and subregulations 61.1250(2)(3) of CASR.

The aircraft and FSTD used for the FIR flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the training endorsement(s) covered by the flight test.

For testing in a FSTD, the examiner must be type rated so as to assess the applicant demonstrating knowledge, conducting aeronautical knowledge training and the conduct of activities and manoeuvres which are applicable to, or which are relevant to, the endorsements that are being assessed during the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 34 below, mirror the FIR test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the FIR flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the FIR test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

FIR flight tolerances and ground reference tolerances are specified in Tables 2, 4 and 7 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The FIR applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

To assist in the assessment of the FIR applicant's flight management ability, the applicant should decide positioning, height and orientation for all flight sequences and manage all relevant radio communications.

A competent performance in operating the aircraft is one in which the FIR applicant is in control of the aircraft and is able to manage unplanned situations to achieve the desired task outcome.

Additionally, FIR applicants should demonstrate efficient and effective decision making, continuous situational awareness and confident task management whilst maintaining positive and smooth aircraft control.

For ME aircraft, a simulated engine failure after take-off must not be initiated at a height less than 400ft AGL.

For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC.

Recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated, and the applicant has a clear view of the horizon.

Training endorsement test requirements

Grade 1

- Long briefing 1: nominated on the day of the test, an RPL, PPL or CPL syllabus sequence.
- Long briefing 2: nominated in advance to allow for research and preparation, any subject involving flying standards or aviation knowledge as described in Part 61 MOS Schedule 3, relevant to the licence and aircraft category held by the FIR applicant.
- Aircraft: a representative basic training aircraft.
- Flight conditions: by day under the VFR.

Grade 2

- Long briefing: nominated on the day of the test, an RPL, PPL or CPL syllabus sequence.
- Aircraft: a representative basic training aircraft.
- Flight conditions: by day under the VFR.

Grade 3 or class rating

- Long briefing: nominated on the day of the test, an RPL syllabus sequence.
- Aircraft: a representative basic training aircraft.
- Flight conditions: by day under the VFR.

Multi-crew pilot

- Long briefing 1: an IR syllabus sequence.
- Long briefing 2: an MCO syllabus sequence.

- Aircraft/FSTD: a representative air transport aircraft.

Type rating

- Long briefing 1: a sequence associated with theory or technical training on the aircraft type.
- Long briefing 2: a sequence associated with an aerodynamic aspect of the aircraft type.
- Aircraft/FSTD: the type proposed.

Multi engine aeroplane

- Long briefing 1: an MEA syllabus sequence.
- Long briefing 2: the 'asymmetric control problem'.
- Aircraft: a representative MEA training aircraft.
- Flight conditions: by day under the VFR.

Design feature endorsement

- Long briefing: a DF syllabus sequence.
- Aircraft: an aircraft that has the DF described in the pre-flight briefing.
- Flight conditions: by day under the VFR.

Instrument rating

- Long briefing 1: an IR syllabus sequence.
- Long briefing 2: a second IR syllabus sequence.
- Aircraft: certified to IFR standard on the maintenance release.
- Flight conditions: under the IFR.

Night VFR rating

- Long briefing: a NVFR syllabus sequence.
- Aircraft: certified to NVFR standard on the maintenance release.
- Flight conditions: by night under the VFR.

Night vision imaging system rating

- Long briefing 1: an NVIS syllabus sequence.
- Long briefing 2: a second NVIS syllabus sequence.
- Aircraft: certified to NVFR or IFR standard on the Maintenance Release and equipped for NVG operations.
- Flight conditions: by night.

Low Level Rating

- Long briefing: a LL syllabus sequence.
- Aircraft: a representative LL operations aircraft.
- Flight conditions: by day under the VFR.

Aerial application rating (day)

- Long briefing 1: an AA (day) syllabus sequence.
- Long briefing 2: a second AA (day) syllabus sequence (not required if applicant holds the FIR).

- Aircraft: a representative AA operations aircraft with dual controls.
- Flight conditions: by day under the VFR.

Aerial application rating (night)

- Long briefing: an AA (night) syllabus sequence.
- Aircraft: a representative AA operations aircraft with dual controls.
- Flight conditions: by night under the VFR.

Instructor rating

- Long briefing: a sequence associated with the 'principles of training' for a training endorsement held by the applicant.
- Aircraft: a representative training aircraft used for one of the applicant's existing training endorsements.

MEA class rating instructor

- Long briefing 1: a sequence associated with the 'principles of training' of MEA instructors.
- Long briefing 2: the 'asymmetric control problem'.
- Aircraft: a representative MEA training aircraft.
- Flight conditions: by day under the VFR.

Sling operations, winch and rappelling operations or spinning or aerobatics

- Long briefing: an applicable operation syllabus sequence.
- Aircraft: equipped and approved to undertake the applicable operation.
- Flight conditions: by day under the VFR.

Formation or formation aerobatics

- Long briefing: an applicable formation syllabus sequence.
- Aircraft: the applicant must provide two aircraft approved to undertake the operation(s) described in the pre-flight briefing. The second aircraft must be flown by a pilot who is the holder of the applicable formation flight activity endorsement. The pre-flight briefing must include all pilots within the formation.
- Flight conditions: by day under the VFR.

31.3 Conduct (ground component)

31.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment
- the 'trainee' profile for the flight test scenario.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

31.3.2 Document review

The examiner must confirm that an applicant for the FIR satisfies the eligibility requirements to undertake the flight test for the grant of the flight instructor rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the FIR must hold a PPL, CPL or ATPL (or be applying for the licence simultaneously with the FIR) of the same category as the aircraft in which the flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

The applicant must also have completed an approved course of training in principles and methods of instruction, or hold a Certificate IV in Training and Assessment, or hold a tertiary qualification in teaching.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

FIR applicants for the multi-crew pilot training endorsement must have completed an MCC course.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – for flight tests conducted in an aircraft, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the FIR.

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

31.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

Conducting the aeronautical knowledge quiz

The examiner should include questions from the knowledge standards defined in Schedule 3 of the Part 61 MOS, relating to the training endorsement being tested. The assessment of aeronautical knowledge is related to the applicant's 'own knowledge', not an ability to transfer knowledge, therefore, the examiner should not require 'teaching' during this assessment.

Where they are relevant, the bank of questions should cover multiple 'themes' of knowledge, such as:

- general aeronautical knowledge
- aerodynamics
- flight rules and air law
- human factors principles
- navigation
- meteorology.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

31.3.4 The long briefing

The flight test should include a long briefing(s) as prescribed for the specific training endorsement to satisfy the test report. Prior notice of the briefing topic should be given to the applicant prior to the day of the flight test, unless the specific requirements state 'this is to be given on the day of the test'.

During the long briefing, the examiner should not interrupt the applicant to explore their theoretical knowledge; rather, any occasional interjection should be as the 'trainee' reacting to the briefing content and delivery. The examiner may query the applicant upon conclusion of the briefing.

31.3.5 Ground component debriefing

At the conclusion of the ground component, the examiner shall de-brief the FIR applicant on that portion of the flight test so far. The debriefing shall include feedback against the specific performance criteria.

31.3.6 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan

- fuel plan
- flight notification (if applicable)
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

31.4 Conduct (flight component)

31.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system

- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

31.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. simulated training flight)
- the trainee profile
- the format of the flight component to ensure that the FIR applicant is in no doubt about what is required
- requirement to de-brief the ‘trainee’ on air exercise one
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC (if applicable)
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

31.4.3 Instructor development gradient

The instructor development gradient (IDG) demonstrates the progressive skills capability required, as a flight instructor gains experience and hence transitions through the grades of training endorsements. In particular, the IDG shows five key criteria, where the skill requirements (between the grades of instructor training endorsements) are clearly distinguishable. The word picture scenarios provide guidance to an examiner, by describing how the verb phrase from those performance criteria changes in the depth of capability. The table below provides guidance that an examiner may use when developing the trainee profile for a given grade of training endorsement.

Table 41: Instructor development gradient

FIR element	Grade 3 / 3A	Grade 2	Grade 1
FIR 1.2(d) Lesson plan is followed and modified where applicable to achieve training objectives and transfer of knowledge.	Is able to explain a concept with minor modifications.	Is able to use an analogy to explain a concept.	Is able to use an analogy to explain a concept which is relevant to the trainee's profile.
FIR 3.1(a) Review a trainee's performance records, identify the appropriate units and elements of training to be delivered and develop an appropriate lesson plan, including remedial training if required.	Is able to identify a trainee's weakness and apply a remedial training technique.	Is able to identify trainee's weaknesses and apply several remedial training techniques.	Is able to identify trainee's weaknesses and apply multiple remedial training techniques, specifically tailored to remedy faults identified.
FIR 3.3(a) Coordinate demonstration with explanation of manoeuvre.	The accurate demonstration, the aircraft performance and the key words, are coordinated.	The accurate demonstration is targeted to emphasise key elements of the correct technique.	The accurate demonstration is targeted to emphasise key elements of the correct technique. The specific needs of the trainee are considered.
FIR 3.3(c) Identify the trainee's deficiencies and provide feedback to assist the trainee in achieving the standard.	The feedback identifies deviations from the required standards and the instructor directs, or demonstrates another attempt.	The feedback describes general technique improvement for the next attempt.	The feedback describes, very specifically, the action that is required to improve the deficiency.
FIR 3.5(c) Identify any deficiencies in performance and suggest remedial actions and training.	The training suggested is simple, such as repeating a sequence with basic guidance.	The training suggested incorporates appropriate corrections for the performance deficiencies.	The training suggested is tailored to the root cause of the deficiency.
FIR 3.7(b) and (c) Evaluate final session outcomes against desired session outcomes and identify and incorporate adjustments to delivery, presentation and content of training when appropriate.	The Grade 3/3A is able to manage the training of the average trainee and approve the conduct of solo flight, other than the trainee's first solo.	The Grade 2 is able to manage the training of most trainees, approve the conduct of solo flight and assess KDRs.	The Grade 1 is able to manage the training for all trainee pilots, including those with difficulties, approve the conduct of solo flight, assess KDRs and supervise holders of grade 2 and 3 TEs.

31.4.4 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **FIR** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 42: Assessment of activities and manoeuvres - FIR

Phase of flight	Requirements	Recommendations
	(a) Plan a flight training exercise	The applicant should conduct a daily inspection which will be assessed by the examiner as a segment of planning flight training. This does not have to be the daily inspection used for maintenance release certification.
	(b) Perform pre-flight actions and procedures	NSR
Pre-flight	(c)(i) Pre-flight brief - Confirm the trainee is prepared and can recall underpinning knowledge	The pre-flight briefing sequence should be the same sequence as the air exercise one. The applicant should check essential knowledge is 'recalled', as related to the practical aspects of flight (i.e. not unnecessarily re-teaching the long briefing theory).
	(c)(ii) Pre-flight brief - training outcomes and performance criteria are briefed	The applicant should question the examiner on the expected standards to be demonstrated.
	(c)(iii) Pre-flight brief - conduct of the flight and actions required by the trainee during the flight are briefed	The applicant should ensure the trainee is made aware of what will be seen and done during the flight.
	(c)(iv) Pre-flight brief - TEM issues applicable to the proposed flight are discussed	The applicant should question the examiner on expected TEM risks relevant to the flight.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	Should be conducted by the applicant to demonstrate flying ability.
	(b) Plan, brief and conduct take-off and departure procedures	Should be conducted by the applicant to demonstrate flying ability.
En route cruise	(a) Maintain straight and level and turn aircraft	Should be conducted by the applicant to demonstrate flying ability.
	(a) Implement handover and takeover procedure	NSR

Phase of flight	Requirements	Recommendations
	(b) Intervene to manage undesired aircraft state	When the undesired state is initiated by the examiner.
Test specific activities and manoeuvres	(c)(i) Air Ex 1 - Conduct airborne training - demonstrate manoeuvres with clear explanations	When conducting the air exercises, examiners should ensure the flight time reflects a thorough assessment of the units and elements of the training endorsement. This duration should not include any transit time to assessment training areas. Air exercise 1 should: • be the same as the pre-flight briefing sequence • if applicable, be different from the long briefing sequence so that the examiner has the opportunity to review skills associated with a greater scope of instructional sequences.
	(c)(ii) Air Ex 1 - Conduct airborne training - direct trainee task performance	The applicant should direct a period of simulated in-flight instruction.
	(c)(iii) Air Ex 1 - Conduct airborne training - monitor and assess trainee performance and give instruction	The applicant should be able to assess and provide remedial training following any poor flight demonstration by the examiner.
	(d)(i) Air Ex 2 - Demonstrate manoeuvres - manage PIC responsibilities	Air exercise 2 should include: • a demonstration and handling of in-flight emergencies • additional pattered sequence(s) as relevant to the training endorsement • narrated sequences with no simulated trainee response • fault analysis of simulated trainee flying • a demonstration of pure flying ability.
	(d)(ii) Air Ex 2 - Demonstrate manoeuvres - demonstrate and direct manoeuvres with clear explanations	The applicant must demonstrate a high standard in each of the manoeuvres requested by the examiner.
	(d)(iii) Air Ex 2 - Demonstrate manoeuvres - monitor and assess trainee performance and give instruction	The applicant should be able to assess and provide remedial training following any poor flight demonstration by the examiner.

Phase of flight	Requirements	Recommendations
	(e)(i) For multi-crew pilot training endorsement - teamwork and problem solving are emphasised	NSR
	(e)(ii) For multi-crew pilot training endorsement - NTS rather than manipulative skills are emphasised	NSR
	(e)(iii) For multi-crew pilot training endorsement - SOPs, cockpit discipline and use of automation	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	Should be conducted by the applicant to demonstrate flying ability.
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	Should be conducted by the applicant to demonstrate flying ability.
	(b) Perform after-landing actions and procedures	Should be conducted by the applicant to demonstrate flying ability.
Shut down and post-flight	(a)&(b) Park, shut down, secure aircraft and complete post-flight administration	Should be conducted by the applicant to demonstrate flying ability.
	(c)(i) Post-flight brief - trainee is given the opportunity to self-assess their performance against performance criteria	On conclusion of the flight, the FIR applicant shall de-brief the examiner on air exercise one as they would de-brief a real trainee following an instructional flight.
	(c)(ii) Post-flight brief - trainee's performance is assessed accurately and discussed	Each of the examiner's acceptable 'trainee demonstrations' must be de-briefed.
	(c)(iii) Post-flight brief - performance deficiencies are identified, and remedial actions and proposed training is discussed	Each of the examiner's unacceptable 'trainee demonstrations' must be de-briefed.

Phase of flight	Requirements	Recommendations
	(c)(iv) Post-flight brief - TEM issues encountered during the flight are discussed	As created and demonstrated by the examiner during the flight component.
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

31.4.5 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight

- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. For the FIR, no credits are to be given.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory.

The examiner has the discretion to enable the applicant to demonstrate TEM to avoid the situation where the error becomes safety critical.

The examiner must terminate the flight test at the point where a fail assessment is made. This applies to either the ground or the flight components.

Credits are only valid for one retest.

31.5 Complete (post flight)

31.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

31.5.2 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

32 Simulator Instructor Rating

The aim of this flight test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the simulator instructor rating (SIR).

32.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the SIR flight test:

(1) The examiner must conduct the SIR flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the SIR flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the flight test is successfully completed before conducting the pre-flight briefing and flight component of the flight test.
(4) The examiner must not introduce or permit simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked.
(6) The examiner must give the pre-flight briefing sequence on the day of the flight test.
(7) The examiner must not give credits for any items of the ground component of the flight test if that component of the flight test is terminated due to failure of an item.
(8) The examiner must terminate the flight test at the point where a fail assessment is made. This applies to either the ground or the flight components. If the flight component error is safety critical, no credits are to be given.
(9) The examiner must complete and de-brief the ground component of the flight test prior to the commencement of the flight component of the flight test. The flight component includes the pre-flight briefing.
(10) Where credits are available for flight test items, they are valid for 28 days only. After 28 days, the flight test must be conducted in full.

32.2 Plan

32.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the flight test cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a training session). The applicant should be given the test scenario at least 48 hours before the start of the flight test.

It is recommended that the examiner plans for briefing times of approximately:

- 0.7 hour for each long briefing(s)
- 0.2 hour for a pre-flight briefing.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hour for the test specific activities and manoeuvres.

32.2.2 SIR assessment scope and conditions

The SIR flight test must be conducted under the VFR or IFR as applicable and in an FSTD approved for the purpose, in accordance with subregulation 61.1210(4), regulation 61.1245 and subregulations 61.1250(2)(3) of CASR.

The FSTD used for the SIR flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the training endorsement(s) covered by the flight test.

For the test the examiner must be type rated so as to assess the applicant demonstrating knowledge, conducting aeronautical knowledge training and the conduct of activities and manoeuvres which are applicable to, or which are relevant to, the endorsements that are being assessed during the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 35 below, mirror the SIR test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the SIR flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the SIR test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

The SIR applicant should demonstrate that control of the FSTD instructor operating station is maintained at all times, that the successful and safe outcome of any training session is not in doubt and that any corrective action is taken promptly.

To assist in the assessment of the SIR applicant's flight management ability, the applicant should decide positioning, height and orientation for all flight sequences and manage all relevant radio communications.

A competent performance in operating the FSTD IOS is one in which the SIR applicant is in control of the session and is able to manage unplanned situations to achieve the desired task outcome.

Additionally, SIR applicants should demonstrate efficient and effective decision making, continuous situational awareness and confident task management.

Training endorsement test requirements

Refer to chapter 0, flight instructor rating, for the full list of training endorsement test requirements.

Multi-crew pilot

- Long briefing 1: an IR syllabus sequence.
- Long briefing 2: an MCO syllabus sequence.
- FSTD: a representative air transport aircraft.

Type rating

- Long briefing 1: a sequence associated with theory or technical training on the aircraft type.
- Long briefing 2: a sequence associated with an aerodynamic aspect of the aircraft type.
- FSTD: the type proposed.

Multi engine aeroplane

- Long briefing 1: an MEA syllabus sequence.
- Long briefing 2: the ‘asymmetric control problem’.
- FSTD: a representative MEA training aircraft.
- Flight conditions: by day under the VFR.

Design feature endorsement

- Long briefing: a DF syllabus sequence.
- FSTD: an aircraft that has the design feature described in the pre-flight briefing.
- Flight conditions: by day under the VFR.

Instrument rating

- Long briefing 1: an IR syllabus sequence.
- Long briefing 2: a second IR syllabus sequence.
- FSTD: certified to IFR standard
- Flight conditions: under the IFR.

Night vision imaging system rating

- Long briefing 1: an NVIS syllabus sequence.
- Long briefing 2: a second NVIS syllabus sequence.
- FSTD: certified to NVFR or IFR standard and equipped for NVG operations.
- Flight conditions: by night.

Instructor rating

- Long briefing: a sequence associated with the ‘principles of training’ for a training endorsement held by the applicant.
- FSTD: a representative training aircraft used for one of the applicant’s existing training endorsements.

MEA Class rating instructor

- Long briefing 1: a sequence associated with the ‘principles of training’ of MEA instructors.
- Long briefing 2: the ‘asymmetric control problem’.
- FSTD: a representative MEA training aircraft.
- Flight conditions: by day under the VFR.

32.3 Conduct (ground component)

32.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the flight test with a brief to the applicant on the following items:

- flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment
- the 'trainee' profile for the flight test scenario.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the flight test elements.

32.3.2 Document review

The examiner must confirm that an applicant for the SIR satisfies the eligibility requirements to undertake the flight test for the grant of the simulator instructor rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook and licence must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the SIR must hold a CPL or ATPL of the same category as the FSTD in which the flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the applicant's theory examination pass records.

The applicant must also have completed an approved course of training in principles and methods of instruction, or hold a Certificate IV in Training and Assessment, or hold a tertiary qualification in teaching.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the training provider has completed the KDR requirements. It is strongly recommended that the KDR assessment be conducted by an instructor before the flight test.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of flight test.

Flight training requirements – the examiner must review the applicant's pilot training records to ensure that the training requirements have been met. Normal evidence should at least be a course completion certificate.

SIR applicants for the multi-crew pilot training endorsement must have completed an MCC course.

Aeronautical experience – the examiner must review the applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that an appropriate person of the training provider has certified in writing that the applicant is eligible to take the flight test.

Medical certificate – N/A

Security check and fit and proper person requirements – N/A

If the flight test is a retest following a fail assessment – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

32.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

Conducting the Aeronautical Knowledge Quiz

The examiner should include questions from the knowledge standards defined in Schedule 3 of the Part 61 MOS, relating to the training endorsement being tested. The assessment of aeronautical knowledge is related to the applicant's 'own knowledge', not an ability to transfer knowledge, therefore, the examiner should not require 'teaching' during this assessment.

Where they are relevant, the bank of questions should cover multiple 'themes' of knowledge, such as:

- general aeronautical knowledge
- aerodynamics
- flight rules and air law
- human factors principles
- navigation
- meteorology.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

32.3.4 The long briefing

The flight test should include a long briefing(s) as prescribed for the specific training endorsement to satisfy the test report. Prior notice of the briefing topic should be given to the applicant prior to the day of the flight test unless the specific requirements state 'this is to be given on the day of the test'.

During the long briefing, the examiner should not interrupt the applicant to explore their theoretical knowledge; rather, any occasional interjection should be as the 'trainee' reacting to the briefing content and delivery. The examiner may query the applicant upon conclusion of the briefing.

32.3.5 Ground component debriefing

At the conclusion of the ground component, the examiner shall debrief the SIR applicant on that portion of the flight test so far. The debriefing shall include feedback against the specific performance criteria.

32.3.6 Assessment of flight planning

As part of the flight test, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

32.4 Conduct (flight component)

32.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the

applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors

- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

32.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. simulated training session)
- the trainee profile
- the format of the flight component to ensure that the SIR applicant is in no doubt about what is required.
- requirement to de-brief the 'trainee' on air exercise one
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC (if applicable)
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

32.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **SIR** flight test. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 43: Assessment of activities and manoeuvres - SIR

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan a flight training exercise	Confirm the technical and human factors requirements, including simulator sickness, safety and emergency procedures.
	(b) Perform pre-flight actions and procedures	Perform pre-flight FSTD and instructor station procedures
	(c)(i) Pre-flight brief - confirm the trainee is prepared and can recall underpinning knowledge	The pre-flight briefing sequence should be the same sequence as the air exercise one. The applicant should check essential knowledge is 'recalled', as related to the practical aspects of flight (i.e. not unnecessarily re-teaching the long briefing theory). The limitations of the FSTD should be discussed.
	(c)(ii) Pre-flight brief - training outcomes and performance criteria are briefed	NSR
	(c)(iii) Pre-flight brief - conduct of the flight and actions required by the trainee during the flight are briefed	The applicant should ensure the trainee is made aware of what will be seen and done during the flight.
	(c)(iv) Pre-flight brief - TEM issues applicable to the proposed flight are discussed	NSR
Test specific activities and manoeuvres	(a)(i) Air Ex - Conduct FSTD training - guide and facilitate learning and manage trainee cognitive load	Throughout all phases of the training, demonstrate the ability to avoid unnecessary interruptions to the flow of the training sequence. Improve training outcomes by, where necessary, freezing the simulator or repositioning the simulator to a designated position in space.
	(a)(ii) Air Ex - Conduct FSTD training - monitor and assess trainee performance and provide instruction	NSR

Phase of Flight	Requirements	Recommendations
	(a)(iii) Air Ex - Conduct FSTD training - address any technical issues or unusual conditions as required	NSR
	(a)(iv) Air Ex - Conduct FSTD training - demonstrate ability to operate the instructor station	NSR
	(a)(v) Air Ex - Conduct FSTD training - demonstrate ability to operate the functional controls of the pilot station	The applicant should demonstrate a working knowledge of cockpit systems and be able to direct the trainee to resolve uncertainties with operating the systems or performing checklists.
	(a)(vi) Air Ex - Conduct FSTD training – demonstrate a flight sequence	The applicant must demonstrate a high standard in each of the manoeuvres requested by the examiner.
	(b)(i) For multi-crew pilot training endorsement - teamwork and problem solving are emphasised	NSR
	(b)(ii) For multi-crew pilot training endorsement - NTS rather than manipulative skills are emphasised	The applicant shall demonstrate a good working knowledge of the MCO competencies.
	(b)(iii) For multi-crew pilot training endorsement - SOPs, cockpit discipline and use of automation	NSR
Shut down and post-flight	(a) Perform post-flight FSTD and instructor station procedures	NSR

Phase of Flight	Requirements	Recommendations
	(b)(i) Post-flight brief - trainee is given the opportunity to self-assess their performance against performance criteria	On conclusion of the flight, the SIR applicant shall de-brief the examiner on air exercise one as they would de-brief a real trainee following an instructional flight.
	(b)(ii) Post-flight brief - trainee's performance is assessed accurately and discussed	NSR
	(b)(iii) Post-flight brief – trainee's performance deficiencies are identified and remedial actions and proposed training discussed	NSR
	(b)(iv) Post-flight brief - TEM issues encountered during the flight are discussed	NSR
General requirements	(a) Use correct radio procedures	NSR

32.4.4 Failure assessment

The failure to perform an activity or procedure may be broken into two levels depending on the safety implications during the flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the FSTD Instructor Operating Station is such that the safe outcome of the activity or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete FSTD checklist items mandated by the manufacturer
- failure to correctly prepare the FSTD for flight
- failure to operate the IOS within the limitations of the FSTD
- failure to comply with the hand-over/take-over technique (as applicable to FSTD training sessions).

If the error is safety critical and the examiner needs to take control or intervene, the flight test must be terminated immediately. For the SIR, no credits are to be given.

Non safety-critical items

The second level is where the control of the FSTD is such that the safe outcome of the activity or procedure is certain, but the technique is unsatisfactory. Under these circumstances the flight test may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

32.4.5 Complete (post flight)

32.4.6 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

32.4.7 Flight test administration

At the conclusion of the flight test, the examiner must:

- within 14 days after the day of the test, complete the flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

33 Flight Instructor Proficiency Check

The aim of this proficiency check is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 6 of the Part 61 MOS for the flight instructor proficiency check (FPC).

33.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the FPC:

(1) The examiner must conduct the FPC in accordance with clauses 1 to 3 of Schedule 6 of the Part 61 MOS.
(2) The examiner must conduct the FPC within the operational scope and conditions described in clause 4 of Schedule 6 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the proficiency check is successfully completed before conducting the pre-flight briefing and flight component of the proficiency check.
(4) The examiner must not introduce or permit simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) The examiner must give the pre-flight briefing sequence on the day of the proficiency check.
(7) The examiner must not give credits for any items of the ground component of the proficiency check if that component of the proficiency check is terminated due to failure of an item.
(8) The examiner must terminate the proficiency check at the point where a fail assessment is made. This applies to either the ground or the flight component. If the flight component error is safety critical, no credits are to be given.
(9) The examiner must complete and de-brief the ground component of the proficiency check prior to the commencement of the flight component. The flight component includes the pre-flight briefing.
(10) The examiner must review the applicant's logbook to determine (or confirm) the proficiency check assessment content relates to a training endorsement (or endorsements) which have been active in the preceding 12 months.
(11) Where an applicant for a proficiency check holds a class rating training endorsement (multi-engine) or a type rating training endorsement for a multi-engine aircraft, then at least each alternate proficiency check should be conducted in a multi-engine aircraft or an FSTD approved for the purpose.
(12) At the conclusion of the proficiency check when reporting the result in FTM, the examiner must enter the following details:

- the long briefing topic
- the pre-flight briefing topic

- the air exercise 1 sequence
- the air exercise 2 sequences.

(13) Where credits are available for proficiency check items, they are valid for 28 days only. After 28 days, the proficiency check must be conducted in full.

33.2 Plan

33.2.1 Testing methodology

The examiner should apply the proficiency check methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The proficiency check should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the proficiency check cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a training flight applicable to the training endorsement(s) the applicant holds). The applicant should be given the test scenario at least 24 hours before the start of the proficiency check.

It is recommended that the examiner plans for briefing times of approximately:

- 0.7 hour for a long briefing
- 0.2 hour for a pre-flight briefing.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the general handling and test specific manoeuvres.

Use of IFR procedures (FPC conducted VFR)

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the proficiency check or be taken into account in the proficiency check flight time. A landing and shutdown should terminate the IFR flight segment before commencing the FPC assessment flight sequences.

The FPC should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the FPC should be considered as the flight time for the proficiency check.

33.2.2 FPC scope and conditions

The FPC must be conducted in VMC under the VFR, or IFR, as applicable, and in an aircraft or an FSTD approved for the purpose, in accordance with subregulation 61.1180(4) of CASR.

The aircraft or FSTD used for the FPC must be of the appropriate category and be capable of being operated for the kind of operations relevant to the training endorsement(s) the applicant holds and that are assessed in the FPC.

For testing in a FSTD, the examiner must be type rated in order to assess the applicant demonstrating knowledge, conducting aeronautical knowledge training and the conduct of activities and manoeuvres which are applicable to, or which are relevant to, the endorsements that are being assessed during the flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 36 below, mirror the FPC test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 6 for the FPC.

These activities and manoeuvres, described in clause 3 of Schedule 6 of the Part 61 MOS and the FPC test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

FPC flight tolerances and ground reference tolerances are specified in tables 2, 4 and 7 of Schedule 8 of the MOS. Sustained deviation outside the applicable flight tolerance is not permitted.

The FPC applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

To assist in the assessment of the FPC applicant's flight management ability, the applicant should decide positioning, height and orientation for all flight sequences and manage all relevant radio communications.

A competent performance in operating the aircraft is one in which the FPC applicant is in control of the aircraft and is able to manage unplanned situations to achieve the desired task outcome.

Additionally, FPC applicants should demonstrate efficient and effective decision making, continuous situational awareness and confident task management whilst maintaining positive and smooth aircraft control.

For ME aircraft, a simulated engine failure after take-off must not be initiated at a height less than 400ft AGL.

For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC.

Recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated and the applicant has a clear view of the horizon.

33.3 Conduct (ground component)

33.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the proficiency check with a brief to the applicant on the following items:

- proficiency check context, purpose and content
- assessment procedure

- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment
- the 'trainee profile' for the proficiency check scenario.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the proficiency check elements.

33.3.2 Document review

The examiner must confirm the identity of the applicant for the FPC. To achieve this, the logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the proficiency check.

Licence – the applicant for the FPC must hold a PPL, CPL or ATPL of the same category as the aircraft in which the proficiency check is conducted and hold the FIR.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – N/A

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – N/A

Medical certificate – for proficiency checks conducted in an aircraft, the examiner must check that the applicant holds either a class 1 or 2 medical certificate, or a medical exemption allowing them to exercise the privileges of the FIR.

Security check and fit and proper person requirements – N/A

If the proficiency check is a retest following a fail assessment, requiring remedial training – the examiner must review the applicant's training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

33.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 6 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

Conducting the Aeronautical Knowledge Quiz

The examiner should include questions from the knowledge standards defined in Schedule 3 of the Part 61 MOS, relating to the training endorsement being tested. The assessment of aeronautical knowledge is related to the applicant's 'own knowledge', not an ability to transfer knowledge, therefore, the examiner should not require 'teaching' during this assessment.

Where they are relevant, the bank of questions should cover multiple ‘themes’ of knowledge, such as:

- general aeronautical knowledge
- aerodynamics
- flight rules and air law
- human factors principles
- navigation
- meteorology.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

33.3.4 The long briefing

The FPC should include a long briefing and prior notice of the briefing topic should be given to the applicant prior to the day of the proficiency check.

During the long briefing, the examiner should not interrupt the applicant to explore their theoretical knowledge; rather, any occasional interjection should be as the ‘trainee’ reacting to the briefing content and delivery. The examiner may query the applicant upon conclusion of the briefing.

33.3.5 Ground component debriefing

At the conclusion of the ground component, the examiner shall de-brief the FPC applicant on that portion of the proficiency check so far. The debriefing shall include feedback against the specific performance criteria.

33.3.6 Assessment of flight planning

As part of the proficiency check, the applicant must complete or demonstrate knowledge of (if computer generated):

- flight plan
- fuel plan
- flight notification (if applicable)
- weight and balance calculation
- take-off and landing distance/performance calculation.

When reviewing the applicant's flight preparation documents, the examiner must be satisfied that the applicant is able to validate the data on which the planning decisions and calculations have been made (including, forecast weather, NOTAMs, aircraft data, chart validity).

The examiner must ensure, through considered questioning, that the preparation is solely the work of the applicant and meets the knowledge standards as applicable.

33.4 Conduct (flight component)

33.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the

applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

33.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the proficiency check environment (e.g. simulated training flight)
- the trainee profile
- the format of the flight component to ensure that the FPC applicant is in no doubt about what is required
- requirement to de-brief the 'trainee' on air exercise one
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC (if applicable)
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

33.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **FPC**. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 44: Assessment of activities and manoeuvres - FPC

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Plan a flight training exercise	The applicant should conduct a daily inspection which will be assessed by the examiner as a segment of planning flight training. This does not have to be the daily inspection used for maintenance release certification.
	(b) Perform pre-flight actions and procedures	NSR
	(c)(i) Pre-flight brief - confirm the trainee is prepared and can recall underpinning knowledge	The pre-flight briefing sequence should be the same sequence as the air exercise one. The applicant should check essential knowledge is 'recalled', as related to the practical aspects of flight (i.e. not unnecessarily re-teaching the long briefing theory).

Phase of Flight	Requirements	Recommendations
	(c)(ii) Pre-flight brief - training outcomes and performance criteria are briefed	The applicant should question the examiner on the expected standards to be demonstrated.
	(c)(iii) Pre-flight brief - conduct of the flight and actions required by the trainee during the flight are briefed	The applicant should ensure the trainee is made aware of what will be seen and done during the flight.
	(c)(iv) Pre-flight brief - TEM issues applicable to the proposed flight are discussed	The applicant should question the examiner on expected TEM risks relevant to the flight.
Ground operations, take-off, departure and climb	(a) Complete all relevant checks and procedures	Should be conducted by the applicant to demonstrate flying ability.
	(b) Plan, brief and conduct take-off and departure procedures	Should be conducted by the applicant to demonstrate flying ability.
En route cruise	(a) Maintain straight and level and turn aircraft	Should be conducted by the applicant to demonstrate flying ability.
	(a) Implement handover and takeover procedure	NSR
	(b) Intervene to manage undesired aircraft state	When the undesired state is initiated by the examiner.
Test specific activities and manoeuvres	(c)(i) Air Ex 1 - Conduct airborne training - demonstrate manoeuvres with clear explanations	When conducting the air exercises, examiners should ensure the flight time reflects a thorough assessment of the units and elements of the training endorsement. This duration should not include any transit time to assessment training areas. Air exercise 1 should: • be the same as the pre-flight briefing sequence • if applicable, be different from the long briefing sequence so that the examiner has the opportunity to review skills associated with a greater scope of instructional sequences.

Phase of Flight	Requirements	Recommendations
	(c)(ii) Air Ex 1 - Conduct airborne training - direct trainee task performance	The applicant should direct a period of simulated in-flight instruction.
	(c)(iii) Air Ex 1 - Conduct airborne training - monitor and assess trainee performance and give instruction	The applicant should be able to assess and provide remedial training following any poor flight demonstration by the examiner.
	(d)(i) Air Ex 2 - Demonstrate manoeuvres - manage PIC responsibilities	Air exercise 2 should include: • a demonstration and handling of in-flight emergencies • additional pattered sequence(s) as relevant to the training endorsement • narrated sequences with no simulated trainee response • fault analysis of simulated trainee flying • a demonstration of pure flying ability.
	(d)(ii) Air Ex 2 - Demonstrate manoeuvres - demonstrate and direct manoeuvres with clear explanations	The applicant must demonstrate a high standard in each of the manoeuvres requested by the examiner.
	(d)(iii) Air Ex 2 - Demonstrate manoeuvres - monitor and assess trainee performance and give instruction	The applicant should be able to assess and provide remedial training following any poor flight demonstration by the examiner.
	(e)(i) For multi-crew pilot training endorsement - teamwork and problem solving are emphasised	NSR
	(e)(ii) For multi-crew pilot training endorsement - NTS rather than manipulative skills are emphasised	NSR

Phase of Flight	Requirements	Recommendations
	(e)(iii) For multi-crew pilot training endorsement - SOPs, cockpit discipline and use of automation	NSR
Descent and arrival	(a) Plan and conduct arrival and circuit joining procedures	Should be conducted by the applicant to demonstrate flying ability.
Circuit, approach and landing	(a) Conduct normal circuit pattern, approach and landing	Should be conducted by the applicant to demonstrate flying ability.
	(b) Perform after-landing actions and procedures	Should be conducted by the applicant to demonstrate flying ability.
Shut down and post-flight	(a)&(b) Park, shut down, secure aircraft and complete post-flight administration	Should be conducted by the applicant to demonstrate flying ability.
	(c)(i) Post-flight brief - trainee is given the opportunity to self-assess their performance against performance criteria	On conclusion of the flight, the FIR applicant shall de-brief the examiner on air exercise one as they would de-brief a real trainee following an instructional flight.
	(c)(ii) Post-flight brief - trainee's performance is assessed accurately and discussed	Each of the examiner's acceptable 'trainee demonstrations' must be de-briefed.
	(c)(iii) Post-flight brief - performance deficiencies are identified and remedial actions and proposed training is discussed	Each of the examiner's unacceptable 'trainee demonstrations' must be de-briefed.
	(c)(iv) Post-flight brief - TEM issues encountered during the flight are discussed	As created and demonstrated by the examiner during the flight component.
General requirements	(a) Maintain effective lookout	In most proficiency checks, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable
	(b) Maintain situational awareness	

Phase of Flight	Requirements	Recommendations
	(c) Assess situations and make decisions	operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	
	(i) Use correct radio procedures	NSR
	(j) Manage relevant aircraft systems	NSR
	(k) Manage fuel system and monitor fuel plan and usage	NSR

33.4.4 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the proficiency check. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards

- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the proficiency check must be terminated immediately. For the FPC, no credits are to be given.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

The examiner must terminate the flight test at the point where a fail assessment is made. This applies to either the ground or the flight components.

Credits are only valid for one retest.

33.5 Complete (post flight)

33.5.1 Debriefings

The examiner must debrief the applicant and, if applicable, the operator as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the operator to construct a remedial training program.

33.5.2 Proficiency check administration

At the conclusion of the proficiency check, the examiner must:

- enter in FTM, in accordance with the Examiner Requirements of 33.1 (12):
    - the long briefing topic
    - the pre-flight briefing topic
    - the air exercise 1 sequence
    - the air exercise 2 sequences.
- within 14 days after the day of the check, complete the proficiency check report and provide a copy of the report to the applicant and the operator
- within 14 days after the day of the check, complete the flight test management system notification requirements.

All items on the proficiency check form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner must be in accordance with the Flight Crew Licensing Manual.

34 Simulator Instructor Proficiency Check

The aim of this proficiency check is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 6 of the Part 61 MOS for the simulator instructor proficiency check (SPC).

34.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the SPC:

(1) The examiner must conduct the SPC in accordance with clauses 1 to 3 of Schedule 6 of the Part 61 MOS.
(2) The examiner must conduct the SPC within the operational scope and conditions described in clause 4 of Schedule 6 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the proficiency check is successfully completed before conducting the pre-flight briefing and flight component of the proficiency check.
(4) The examiner must not introduce or permit simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked.
(6) The examiner must not give credits for any items of the ground component of the proficiency check if that component of the proficiency check is terminated due to failure of an item.
(7) The examiner must terminate the proficiency check at the point where a fail assessment is made. This applies to either the ground or the flight components. If the flight component error is safety critical, no credits are to be given.
(8) The examiner must complete and de-brief the ground component of the proficiency check prior to the commencement of the flight component of the proficiency check. The flight component includes the pre-flight briefing.
(9) The examiner must review the applicant's logbook to determine (or confirm) the proficiency check assessment content relates to a training endorsement (or endorsements) which have been active in the preceding 12 months.
(10) Where an applicant for a proficiency check holds a class rating training endorsement (multi-engine) or a type rating training endorsement for a multi-engine aircraft, then at least each alternate proficiency check should be conducted in a multi-engine FSTD approved for the purpose.
(11) At the conclusion of the proficiency check when reporting the result in FTM, the examiner must enter the following details:

- the long briefing topic
- the pre-flight briefing topic
- the air exercise sequences.

(12) Where credits are available for proficiency check items, they are valid for 28 days only. After 28 days, the proficiency check must be conducted in full.

34.2 Plan

34.2.1 Testing methodology

The examiner should apply the proficiency check methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The proficiency check should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the proficiency check cannot be completed.

The examiner must ensure the applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a training flight applicable to the training endorsement(s) the applicant holds). The applicant should be given the test scenario at least 24 hours before the start of the proficiency check.

It is recommended that the examiner plan briefing times of approximately:

- 0.7 hour for the long briefing
- 0.2 hour for a pre-flight briefing.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.5 hours for the general handling and test specific manoeuvres.

34.2.2 SPC scope and conditions

The SPC must be conducted under the VFR or IFR as applicable and in an FSTD approved for the purpose, in accordance with subregulation 61.1205(4) of CASR.

The FSTD used for the SPC must be of the appropriate category and be capable of being operated for the kind of operations relevant to the training endorsement(s) the applicant holds and that are assessed in the SPC.

The FEH activities and manoeuvres, listed in the Requirements column of Table 37 below, mirror the SPC test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 6 for the SPC.

These activities and manoeuvres, described in clause 3 of Schedule 6 of the Part 61 MOS and the SPC test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

Sustained deviation outside the applicable flight tolerance is not permitted.

The SPC applicant should demonstrate that control of the FSTD Instructor Operating Station is maintained at all times, that the successful and safe outcome of any training session is not in doubt and that any corrective action is taken promptly.

To assist in the assessment of the SPC applicant's flight management ability, the applicant should decide positioning, height and orientation for all flight sequences and manage all relevant radio communications.

A competent performance in operating the FSTD IOS is one in which the SPC applicant is in control of the session and is able to manage unplanned situations to achieve the desired task outcome.

Additionally, SPC applicants should demonstrate efficient and effective decision making, continuous situational awareness and confident task management.

34.3 Conduct (ground component)

34.3.1 Initial brief to applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the proficiency check with a brief to the applicant on the following items:

- proficiency check context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment
- the ‘trainee profile’ for the proficiency check scenario.

The applicant should be encouraged to ask for clarification should they become uncertain on any of the proficiency check elements.

34.3.2 Document review

The examiner must confirm the identity of the applicant for the SPC. To achieve this, the logbook and licence must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the proficiency check.

Licence – the applicant for the SPC must hold a CPL or ATPL of the same category as the FSTD in which the proficiency check is conducted and hold the SIR.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – N/A

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – N/A

Medical certificate – N/A

Security check and fit and proper person requirements – N/A

If the proficiency check is a retest following a fail assessment, requiring remedial training – the examiner must review the applicant’s training records for evidence that appropriate remedial training has been successfully carried out with the applicant.

34.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 6 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

Conducting the Aeronautical Knowledge Quiz

The examiner should include questions from the knowledge standards defined in Schedule 3 of the Part 61 MOS, relating to the training endorsement being checked. The assessment of aeronautical knowledge is related to the applicant's 'own knowledge', not an ability to transfer knowledge, therefore, the examiner should not require 'teaching' during this assessment. Where they are relevant, the bank of questions should cover multiple 'themes' of knowledge, such as:

- general aeronautical knowledge
- aerodynamics
- flight rules and air law
- human factors principles
- navigation
- meteorology.

It is recommended the examiner allows 45 to 60 minutes for the knowledge requirements.

34.3.4 The long briefing

The SPC should include a long briefing and prior notice of the briefing topic should be given to the applicant prior to the day of the proficiency check.

During the long briefing, the examiner should not interrupt the applicant to explore their theoretical knowledge; rather, any occasional interjection should be as the 'trainee' reacting to the briefing content and delivery. The examiner may query the applicant upon conclusion of the briefing.

34.3.5 Ground component debriefing

At the conclusion of the ground component, the examiner shall de-brief the SPC applicant on that portion of the proficiency check so far. The debriefing shall include feedback against the specific performance criteria.

34.4 Conduct (flight component)

34.4.1 Assessment of the applicant's performance

When assessing the competency standards for the activities and manoeuvres in this chapter and on the flight test form, the examiner should consider both the technique used to execute the activity or manoeuvre and that tolerances are maintained within required parameters.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the examiner in assessing the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

34.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the proficiency check environment (e.g. simulated training session)
- the trainee profile
- the format of the flight component to ensure that the SPC applicant is in no doubt about what is required
- requirement to de-brief the 'trainee' on air exercise one
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC (if applicable)
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

34.4.3 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **SPC**. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 45: Assessment of activities and manoeuvres - SPC

Phase of Flight	Requirements	Recommendations
Pre-flight	(a) Pre-flight brief - Confirm the trainee is prepared and can recall underpinning knowledge	The pre-flight briefing sequence should be the same sequence as the air exercise one. The applicant should check essential knowledge is 'recalled', as related to the practical aspects of flight (i.e. not unnecessarily re-teaching the long briefing theory). The limitations of the FSTD should be discussed.
	(b) Pre-flight brief - training outcomes and performance criteria are briefed	NSR
	(c) Pre-flight brief - conduct of the flight and actions required by the trainee during the flight are briefed	The applicant should ensure the trainee is made aware of what will be seen and done during the flight.
	(d) Pre-flight brief - TEM issues applicable to the proposed flight are discussed	NSR
	(e) Plan a flight training exercise	Confirm the technical and human factors requirements, including simulator sickness, safety and emergency procedures.

Phase of Flight	Requirements	Recommendations
	(f) Perform pre-flight actions and procedures	Perform pre-flight FSTD and instructor station procedures.
Test specific activities and manoeuvres	(a) Air Ex - Conduct FSTD training - guide and facilitate learning and manage trainee cognitive load	Throughout all phases of the training, demonstrate the ability to avoid unnecessary interruptions to the flow of the training sequence. Improve training outcomes by, where necessary, freezing the simulator or repositioning the simulator to a designated position in space.
	(b) Air Ex - Conduct FSTD training - monitor and assess trainee performance and provide instruction	NSR
	(c) Air Ex - Conduct FSTD training - address any technical issues or unusual conditions as required	NSR
	(d) Air Ex - Conduct FSTD training - demonstrate ability to operate the instructor station	NSR
	(e) Air Ex - Conduct FSTD training - demonstrate ability to operate the functional controls of the pilot station	The applicant should demonstrate a working knowledge of cockpit systems and be able to direct the trainee to resolve uncertainties with operating the systems or performing checklists.
	(f) Air Ex - Conduct FSTD training – demonstrate a flight sequence	The applicant must demonstrate a high standard in each of the manoeuvres requested by the examiner.
	(g) For multi-crew pilot training endorsement - teamwork and problem solving are emphasised	NSR

Phase of Flight	Requirements	Recommendations
	(h) For multi-crew pilot training endorsement - NTS rather than manipulative skills are emphasised	The applicant shall demonstrate a good working knowledge of the MCO competencies.
	(i) For multi-crew pilot training endorsement - SOPs, cockpit discipline and use of automation	NSR
Shut down and post-flight	(a) Perform post-flight FSTD and instructor station procedures	NSR
	(b) Post-flight brief - trainee is given the opportunity to self-assess their performance against performance criteria	On conclusion of the flight, the SPC applicant shall de-brief the examiner on air exercise one as they would de-brief a real trainee following an instructional flight.
	(c) Post-flight brief - trainee's performance is assessed accurately and discussed	NSR
	(d) Post-flight brief – trainee's performance deficiencies are identified and remedial actions and proposed training discussed	NSR
	(e) Post-flight brief - TEM issues encountered during the flight are discussed	NSR
General requirements	(a) Use correct radio procedures	NSR

34.4.4 Failure assessment

The failure to perform an activity or procedure may be broken into two levels depending on the safety implications during the proficiency check. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the FSTD Instructor Operating Station is such that the safe outcome of the activity or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete FSTD checklist items mandated by the manufacturer
- failure to correctly prepare the FSTD for flight
- failure to operate the IOS within the limitations of the FSTD
- failure to comply with the hand-over/take-over technique (as applicable to FSTD training sessions).

If the error is safety critical and the examiner needs to take control or intervene, the proficiency check must be terminated immediately. For the SPC, no credits are to be given.

Non safety-critical items

The second level is where the control of the FSTD is such that the safe outcome of the activity or procedure is certain, but the technique is unsatisfactory. Under these circumstances the proficiency check may be continued and credits given for successfully completed test items.

The examiner has the discretion to enable the applicant to demonstrate TEM to avoid the situation where the error becomes safety critical.

Credits are only valid for one retest.

34.5 Complete (post flight)

34.5.1 Debriefings

The examiner must debrief the applicant and, if applicable, the operator as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the operator to construct a remedial training program.

34.5.2 Proficiency check administration

At the conclusion of the proficiency check, the examiner must:

- enter in FTM, in accordance with the Examiner Requirements of 34.1 (12):
    - the long briefing topic
    - the pre-flight briefing topic
    - the air exercise sequences
    - within 14 days after the day of the check, complete the proficiency check report and provide a copy of the report to the applicant and operator
    - within 14 days after the day of the check, complete the flight test management system notification requirements.

All items on the proficiency check form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner must be in accordance with the Flight Crew Licensing Manual.

35 Flight Examiner Rating

The aim of this FER test is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 5 of the Part 61 MOS for the grant of the flight examiner rating (FER) and the associated flight examiner endorsement(s).

The applicant should have the ability to:

- plan a flight test including assessment of those performance criteria described in Schedule 5 of the Part 61 MOS
- deliver an adequate pre-test brief for a flight test
- conduct a flight test in accordance with the FEH
- make appropriate assessment decisions
- conduct a post flight test briefing
- debrief the training organisation
- complete all administrative requirements (pre and post flight test).

Definitions

In the FER context, a fight test for an examiner rating involves two applicants. The primary applicant is the applicant for the FER or FEE and the second applicant is the person being assessed by the applicant for the FER or FEE.

To ensure that the there is no confusion, the follow definitions will apply:

The term **'Examiner'** in this chapter shall be taken to refer to one of the following listed persons (that is, a person assessing the applicant for the FER):

- a CASA flight training examiner
- a CASA flying operations inspector
- a person approved under regulation 61.040 of CASR

The term **'Examiner Applicant'** in this chapter shall refer to the person applying for the FER and / or examiner endorsement.

The term **'Applicant'** in this chapter shall refer to either:

- an applicant(s) undertaking an actual flight test for a licence, rating or endorsement
- the examiner when required to role play an applicant in a simulated flight test

Note: In a FER flight test or EPC where there is more than 1 applicant e.g. multi crew and FIR / SIR

The role of examiners

Examiners play a vital role in flight safety. With the 'pass' or 'fail' decision, the examiner is the 'gatekeeper' into the relevant licence, rating or endorsement privilege. As such, it is essential that an examiner is thoroughly familiar with the required knowledge, skills and attitudes (performance criteria and underpinning knowledge) described within Schedule 2 of the Part 61 MOS.

An applicant should only be 'passed' if they have demonstrated the required standards. Hence, an applicant requires attributes such as:

- an ability to engender and influence the continuous improvement of safety and standards in both candidates and flight training organisations
- excellent planning skills
- an ability to communicate accurately and effectively with people
- an ability to replicate realistic candidate profiles (e.g. pilot instructor applicants)
- an ability to limit inflight intervention, whilst cognisant of flight safety
- integrity in decision making.

35.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the FER flight test:

(1) The examiner must conduct the FER flight test in accordance with clauses 1 to 3 of Schedule 5 of the Part 61 MOS.
(2) The examiner must conduct the FER flight test within the operational scope and conditions described in clause 4 of Schedule 5 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the FER flight test is successfully completed before conducting the pre-flight briefing and flight component of the FER flight test.
(4) The examiner must not introduce or permit simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) The examiner must terminate the FER flight test at the point where a fail assessment is made. This applies to either the ground or the flight components.
(7) The examiner must not give credits for any items of the ground component of the FER flight test if that component of the FER flight test is terminated due to failure of a ground component item.
(8) An examiner must not give credits for any items of the flight component of the FER flight test if the FER flight test is terminated due to failure of a flight component item.
(9) Where credits are available for FER flight test items, they are valid for 28 days only. After 28 days, the FER flight test must be conducted in full.

35.2 Plan

35.2.1 Testing methodology

The examiner should apply the flight test methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The FER flight test should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the FER flight test cannot be completed.

The examiner must ensure the examiner applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a flight test applicable to the flight test endorsement(s) covered by the FER flight test). The examiner applicant should be given the test scenario at least 24 hours before the start of the FER flight test.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.7 hours for the general handling and test specific manoeuvres.

The FER flight test for the examiner rating and/or flight test endorsement(s) comprises three components:

- Component 1 (managed by the examiner)
    - interview in relation to an initial FER application and the components of the Flight Examiner Rating Course, in accordance with subregulation 61.1290(3). The interview is conducted prior to commencing the FER flight test
    - FER flight test briefing
    - document review
    - FER knowledge requirements.
- Component 2 (managed by the FER applicant)
    - a simulated or real flight test which is covered by the flight test endorsement and includes the relevant sections of the FEH
    - for simulated tests, the examiner may make a sample assessment of the Knowledge Requirements questions that the applicant has prepared for the candidate
    - if the FER flight test is for the grant of an FIR flight test endorsement, the examiner should deliver the long and pre-flight briefings (role playing a candidate), sufficient for the applicant to assess the briefing techniques
    - flight test de-briefings
- Component 3 (managed by the examiner)
    - FER flight test de-brief
    - administration.

Examiner applicant for air transport operators

Where the assessment is for an examiner applicant for an air transport operator (at the discretion of the examiner) the FER flight test may utilise the observation of an actual applicant for a licence or rating. In this case, the examiner applicant will be assessed conducting the test in accordance with the FEH for the qualification.

The examiner shall brief the examiner applicant on the communication requirements during the conduct of the flight test. This shall include provision for terminating the flight test and take control events.

The examiner applicant should confer with the examiner prior to advising the real applicant of any outcome. Prior to an opinion from the examiner, the examiner applicant should validate the pass / fail result in accordance with the relevant performance criteria described in the Part 61 MOS.

Replicated flight tests

In all the FER flight test endorsements listed below, the examiner should act as an applicant:

- private pilot licence
- commercial pilot licence
- multi-engine aeroplane class rating
- instrument rating (N/A simulator)
- night VFR rating
- night vision imaging system rating
- low level rating
- aerial application rating
- flight instructor rating (N/A simulator).

Use of IFR procedures (FER conducted VFR)

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the FER flight test or be taken into account in the FER flight test flight time. A landing and shutdown should terminate the IFR flight segment before commencing the FER assessment flight sequences.

The FER flight test should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the FER flight test should be considered as the flight time for the FER flight test.

35.2.2 FER assessment scope and conditions

The FER flight test must be conducted in VMC under the VFR, or IFR, as applicable, and in an aircraft or an FSTD approved for the purpose, in accordance with subregulations 61.1290(2), 61.1320(2) and regulation 61.1318 of CASR.

The aircraft and FSTD used for the FER flight test must be of the appropriate category and be capable of being operated for the kind of operations relevant to the flight test endorsement(s) covered by the FER flight test.

The FEH activities and manoeuvres, listed in the Requirements column of Table 38 below, mirror the FER test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 5 for the FER flight test.

These activities and manoeuvres, described in clause 3 of Schedule 5 of the Part 61 MOS and the FER test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

The examiner applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

*For ME aircraft, a simulated engine failure after take-off must not be initiated at a height less than 400ft AGL.

For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC.

*Recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated, and the applicant has a clear view of the horizon.

Note: *If the FER flight test includes simulating/replicating or the conduct of a real LL, AA, NVFR or NVIS flight test, NPC or APC the applicant must manage simulated engine failures in accordance with the relevant sections of this FEH.

35.3 Conduct (ground component)

35.3.1 Initial brief to the examiner applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the FER flight test with a brief to the examiner applicant on the following items:

- FER flight test context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment
- the 'applicant profile' for the flight test scenario(s) where applicable.

The examiner applicant should be encouraged to ask for clarification should they become uncertain on any of the FER flight test elements.

35.3.2 Document review

The examiner must confirm that an applicant for the FER satisfies the eligibility requirements to undertake the FER flight test for the grant of the flight examiner rating. To achieve this, the CASR subregulation 61.235(4) certification, training records, logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the flight test.

Licence – the applicant for the FER must hold a CPL or ATPL of the same category as the aircraft in which the FER flight test is conducted.

Aeronautical knowledge examinations – the examiner must review the examiner applicant's flight examiner rating course assessment and workbook records.

Knowledge deficiency report (KDR) – the examiner must ascertain whether the flight examiner rating course KDR assessment has been completed.

If the KDR has not been completed, the examiner must complete this before the flight component. Where the examiner conducts the KDR assessment, this should be on the first day of FER flight test.

Flight training requirements – the examiner must review the examiner applicant's pilot training records to ensure that the training and mentoring requirements have been met. Normal evidence should at least be a course completion certificate.

Aeronautical experience – the examiner must review the examiner applicant's pilot logbook to ensure that the minimum aeronautical experience requirements have been met. Note that this review is also completed at initial FER application and for enrolment into the flight examiner rating course.

English language proficiency – N/A

Eligibility certification – the examiner must ensure that the mentor has certified in writing that the examiner applicant is eligible to take the FER flight test.

Medical certificate – for FER flight tests conducted in an aircraft, the examiner must check that the examiner applicant holds an appropriate medical certificate, or a medical exemption allowing them to exercise the privileges of the FER.

Security check and fit and proper person requirements – N/A

If the FER flight test is a retest following a fail assessment – the examiner must review the examiner applicant's training records for evidence that appropriate remedial training has been successfully carried out with the examiner applicant.

35.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 5 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the examiner applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

35.4 Conduct (flight component)

35.4.1 Assessment of the FER applicant's performance

In the FER context the **examiner applicant** is required to demonstrate competency to assess the performance of the flight test **applicant**.

Where the **examiner** is role playing the flight test **applicant**, he/she should introduce a range of simulated errors appropriate to a typical flight test applicant.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the **examiner applicant** in assessing the flight test **applicant** in the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures

- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

35.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the test environment (e.g. passenger carrying private or commercial operation / simulation of passengers)
- the applicant profile where applicable
- the format of the airborne component to ensure that the applicant is in no doubt about what is required.
- requirement to de-brief the 'applicant' and 'HOO' where applicable
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls

- actual emergencies
- procedures for simulating IMC (if applicable)
- multiple flights and the assessment of competencies (if applicable).

The applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

35.4.3 Post-flight test debriefing and training organisation debriefing

The examiner applicant should conduct a post-flight test debriefing to the applicant (or the examiner role playing the applicant). The examiner applicant should also conduct a training organisation debriefing, given to the examiner (role playing the Head of Operations). These debriefings should be in accordance with the requirements of the FEH pertaining to the simulated flight test.

35.4.4 Completion of administration requirements

The applicant should demonstrate their ability to perform the test administration described in FER.7 and the Flight Crew Licensing Manual. The examiner may conduct this assessment verbally.

35.4.5 Examiner debriefing

The examiner should debrief the examiner applicant at the conclusion of the FER flight test. The debriefing should cover the performance criteria for each phase, as appropriate.

35.4.6 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **FER flight test**. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 46: Assessment of activities and manoeuvres - FER

Phase of Flight	Requirements	Recommendations
Test specific activities and manoeuvres	(a) Apply the flight test process correctly	NSR
	(b) Conduct and manage the flight test effectively	NSR
	(c) Monitor and record the applicant 2 performance	NSR
	(d) Manage contingencies and any abnormal or emergency situations	NSR

Phase of Flight	Requirements	Recommendations
	(e) Ensure the safe completion of the flight test	NSR
	(f) Evaluate the evidence of the applicant performance	NSR
	(g) Make assessment decision based on objective evaluation	NSR
Shut down and post-flight	(a)(i) Post-flight test debrief for applicant - advise result, provide feedback on performance and, if applicable, guidance on further training	NSR
	(a)(ii) Post-flight test debrief for applicant - explore opportunities to overcome competency gaps and advise reassessment procedures	NSR
	(b) Post-flight test debrief for HOO - advise training provider of result and provide information to improve training	NSR
	(c) Complete flight test administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	

Phase of Flight	Requirements	Recommendations
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	

35.4.7 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the FER flight test. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the FER flight test must be terminated immediately. For the FER, no credits are to be given.

Non safety-critical items

he second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory.

The examiner has the discretion to enable the applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

An unsatisfactory performance of any item or procedure results in an overall fail assessment for the FER test.

The examiner must not give credits for any items of the ground component of the FER flight test if that component of the FER flight test is terminated due to failure of a ground component item.

Where component 1 is completed satisfactorily and the applicant fails an item in component 2, credits may be given for component 1 FER flight test report items (FER knowledge requirements ONLY).

Credits are only valid for one retest.

35.5 Complete (post flight)

35.5.1 Debriefings

The examiner must debrief the applicant and the training provider as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the applicant's training records to allow the training provider to construct a remedial training program.

35.5.2 Flight test administration

At the conclusion of the FER flight test, the examiner must:

- within 14 days after the day of the test, complete the FER flight test report and provide a copy of the report to the applicant, training provider and CASA
- within 14 days complete the flight test management system notification requirements.

All items on the test form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner (if applicable) must be in accordance with the Flight Crew Licensing Manual.

36 Flight Examiner Proficiency Check

The aim of this proficiency check is for the applicant to demonstrate competency in the knowledge, skills and attitudes as required in Schedule 6 of the Part 61 MOS for the flight examiner proficiency check (EPC).

The applicant should have the ability to:

- plan a flight test/proficiency check including assessment of those performance criteria described in the Part 61 MOS
- deliver an adequate pre-test brief for a flight test/proficiency check
- conduct a flight test/proficiency check in accordance with the FEH
- make appropriate assessment decisions
- conduct a post flight test briefing
- debrief the training organisation
- complete all administrative requirements (pre and post flight test).

Definitions

In the FER context, a fight test for an examiner rating involves two applicants. The primary applicant is the applicant for the FER or FEE and the second applicant is the person being assessed by the applicant for the FER or FEE.

To ensure that the there is no confusion, the follow definitions will apply:

The term **'Examiner'** in this chapter shall be taken to refer to one of the following listed persons (that is, a person assessing the applicant for the FER):

- a CASA flight training examiner
- a CASA flying operations inspector
- a person approved under regulation 61.040 of CASR

The term **'Examiner Applicant'** in this chapter shall refer to the person applying for the FER and/or examiner endorsement.

The term **'Applicant'** in this chapter shall refer to either:

- an applicant/s* undertaking an actual flight test for a licence, rating or endorsement
- the examiner when required to role play an applicant in a simulated flight test

*__NOTE:__ In a FER flight test or EPC where there is more than 1 applicant.eg Multi crew and FIR/SIR

The role of examiners

Examiners play a vital role in flight safety. With the 'pass' or 'fail' decision, the examiner is the 'gatekeeper' into the relevant licence, rating or endorsement privilege. As such, it is essential that an examiner is thoroughly familiar with the required knowledge, skills and attitudes (performance criteria and underpinning knowledge) described within Schedule 2 of the Part 61 MOS.

An examiner applicant should only be 'passed' if they have demonstrated the required standards. Hence, an applicant requires attributes such as:

- engendering and influencing the continuous improvement of safety and standards in both applicants and flight training organisations
- excellent planning skills
- an ability to communicate accurately and effectively with people
- an ability to replicate realistic applicant profiles (e.g. pilot instructor applicants)
- an ability to limit inflight intervention, whilst cognisant of flight safety
- integrity in decision making.

36.1 Examiner requirements

The following examiner requirements are applicable to the conduct of the EPC:

(1) The examiner must conduct the EPC in accordance with clauses 1 to 3 of Schedule 6 of the Part 61 MOS.
(2) The examiner must conduct the EPC within the operational scope and conditions described in clause 4 of Schedule 6 of the Part 61 MOS.
(3) The examiner must ensure that the ground component of the proficiency check is successfully completed before conducting the pre-flight briefing and flight component of the proficiency check.
(4) The examiner must not introduce or permit simultaneous, multiple and unrelated simulated emergencies or abnormal events during the flight. Emergencies and abnormal situations relating to aircraft systems, powerplants and the airframe must be limited to those described in the AFM.
(5) After a simulated failure, the examiner must ensure the aircraft is reconfigured to a normal operating mode before another simulated failure may be introduced, except where the simulated failures are linked. The safety of the aircraft should never be in doubt when simulating emergencies or failures.
(6) The examiner must terminate the proficiency check at the point where a fail assessment is made. This applies to either the ground or the flight components.
(7) The examiner must not give credits for any items of the ground component of the proficiency check if that component of the proficiency check is terminated due to failure of a ground component item.
(8) An examiner must not give credits for any items of the flight component of the proficiency check if the proficiency check is terminated due to failure of a flight component item.
(9) Where credits are available for proficiency check items, they are valid for 28 days only. After 28 days, the proficiency check must be conducted in full.

36.2 Plan

36.2.1 Testing methodology

The examiner should apply the proficiency check methodology described in chapter 3, Adult education and competency-based assessment and chapter 4, Assessment of human factors and non-technical skills.

The proficiency check should be designed such that all required components can be assessed in a logical sequence. Where one or more mandatory units or elements are unable to be assessed for any reason, the proficiency check cannot be completed.

The examiner must ensure the examiner applicant is given adequate notice of the intended task to allow for unhurried preparation and planning (simulating a flight test applicable to the flight test endorsement(s) the applicant holds). The examiner applicant should be given the test scenario at least 24 hours before the start of the proficiency check.

It is recommended that the examiner plans an **airborne** time of approximately:

- 1.3 hours for the general handling and test specific manoeuvres.

The EPC comprises three components:

- Component 1 (managed by the examiner)
    - flight test briefing
    - document review
    - EPC knowledge requirements.
- Component 2 (managed by the examiner applicant)
    - a simulated or real flight test/proficiency check which is covered by the flight test endorsement(s) the examiner applicant holds and includes the relevant sections of the FEH
    - for simulated PCs, the examiner may make a sample assessment of the Knowledge Requirements questions that the examiner applicant has prepared for the applicant
    - if the EPC simulates an FIR or SIR flight test or an FPC, the examiner should deliver the long and pre-flight briefings (role playing an applicant), sufficient for the examiner applicant to assess the briefing techniques
    - flight test/proficiency check de-briefings.
- Component 3 (managed by the examiner)
    - proficiency check de-brief
    - administration.

Actual flight test / proficiency check observation

At the discretion of the examiner, the EPC may utilise the observation of an actual flight test or proficiency check. In this case for component 2, the examiner applicant will be assessed conducting the test in accordance with the FEH for the qualification. The following additional procedures apply in this case:

- **Examiner pre-flight briefing** – the examiner shall brief the examiner applicant on the communication requirements during the conduct of the proficiency check. This shall include provision for terminating the proficiency check and take control events
- **Examiner applicant and examiner confer** - the examiner applicant should confer with the examiner prior to advising the applicant of any outcome. Prior to an opinion from the examiner, the examiner applicant should validate the pass or fail result in accordance with the relevant performance criteria described in the Part 61 MOS.

Use of IFR procedures (EPC conducted VFR)

If IFR procedures are used for a positioning flight, this part of the flight should not form part of the proficiency check or be taken into account in the proficiency check flight time. A landing and shutdown should terminate the IFR flight segment before commencing the EPC assessment flight sequences.

The EPC should be concluded by a landing and shutdown in VFR conditions before commencing the IFR return positioning flight.

Only the flight time associated with the EPC should be considered as the flight time for the proficiency check.

36.2.2 EPC scope and conditions

The EPC must be conducted in VMC under the VFR, or IFR, as applicable, and in an aircraft or an FSTD approved for the purpose, in accordance with subregulation 61.1285(4) of CASR.

The aircraft and FSTD used for the EPC must be of the appropriate category and be capable of being operated for the kind of operations relevant to the flight test endorsement(s) the applicant holds and that are assessed in the EPC.

The FEH activities and manoeuvres, listed in the Requirements column of Table 39 below, mirror the EPC test form and FTM items. They are a paraphrase of the Part 61 MOS Schedule 6 for the EPC.

These activities and manoeuvres, described in clause 3 of Schedule 6 of the Part 61 MOS and the EPC test form, must be assessed against a representative sample of the performance criteria applicable to the Element being assessed, taking into account the relevant competency standards prescribed in Schedule 2 of the MOS.

The examiner applicant should demonstrate that control of the aircraft or procedure is maintained at all times, that the successful and safe outcome of any manoeuvre is not in doubt and that any corrective action is taken promptly.

*For ME aircraft, a simulated engine failure after take-off must not be initiated at a height less than 400ft AGL.

*For ME aircraft, simulated engine failures after take-off, in the cruise or during instrument approach procedures must be conducted by day in VMC.

*Recoveries from unusual attitudes must be conducted by day in VMC.

For the above procedures, the concept is that IMC is simulated, and the examiner applicant has a clear view of the horizon.

Note: *If the EPC includes simulating/replicating or the conduct of a real LL, AA, NVFR or NVIS flight test, NPC or APC, the examiner applicant must manage simulated engine failures in accordance with the relevant sections of this FEH.

36.3 Conduct (ground component)

36.3.1 Initial brief to the examiner applicant

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must begin the proficiency check with a brief to the examiner applicant on the following items:

- proficiency check context, purpose and content
- assessment procedure
- function of the examiner
- standards against which competency will be assessed
- actions in the event of a failure assessment
- the 'applicant profile' for the proficiency check scenario(s) where applicable.

The examiner applicant should be encouraged to ask for clarification should they become uncertain on any of the proficiency check elements.

36.3.2 Document review

The examiner must confirm the identity of the examiner applicant for the EPC. To achieve this, the logbook, licence and medical certificate must be checked. Ideally, these documents should be presented to the examiner prior to the commencement of the proficiency check.

Licence – the applicant must hold a CPL or ATPL of the same category as the aircraft in which the proficiency check is conducted and hold the FER.

Aeronautical knowledge examinations – N/A

Knowledge deficiency report (KDR) – N/A

Flight training requirements – N/A

Aeronautical experience – N/A

English language proficiency – N/A

Eligibility certification – N/A

Medical certificate – for proficiency checks conducted in an aircraft, the examiner must check that the examiner applicant holds an appropriate medical certificate, or a medical exemption allowing them to exercise the privileges of the FER.

Security check and fit and proper person requirements – N/A

If the proficiency check is a retest following a fail assessment, requiring remedial training – the examiner must review the examiner applicant's training records for evidence that appropriate remedial training has been successfully carried out with the examiner applicant.

36.3.3 Assessment of knowledge requirements

Questions for the oral knowledge assessment must be in accordance with the knowledge requirements topics listed in clause 2 of Schedule 6 of the Part 61 MOS.

The examiner should use a developed set of scenario-based questions for the listed topics to achieve effective assessment of the examiner applicant's working knowledge and reasoning ability. It should be a structured conversation to a logical conclusion, starting broad and funnelling down, rather than simple factual recall. Refer to FEH 3.2.5 - 3.2.7 for appropriate questioning techniques and methods of enquiry.

36.4 Conduct (flight component)

36.4.1 Assessment of the examiner applicant's performance

In the FER context the **examiner applicant** is required to demonstrate competency to assess the performance of the flight test **applicant**.

Where the **examiner** is role playing the flight test **applicant**, he/she should introduce a range of simulated errors appropriate to a typical flight test applicant.

The relevant performance criteria for each element frequently use the terms: technique, smoothness, accuracy, judgement, procedures, knowledge, and flight management.

The following explanations are provided to assist the **examiner applicant** in assessing the flight test **applicant** in the flight component:

- **Technique** – is the method by which a task is performed. There may be more than one acceptable technique and the examiner should be mindful of this in their assessment. Technique should, however, always involve the application of smooth, coordinated and accurate control inputs. Adjusting power, attitude and trim should be in a timely and coordinated fashion whilst following correct procedures
- **Smoothness** – is the ability to skilfully make the appropriate rate of adjustment to power and attitude during a manoeuvre. The applicant should demonstrate smooth flying in all sequences
- **Accuracy** – is the ability to control height, airspeed, heading, balance and trim within the required MOS flight tolerances. Sustained errors outside the MOS flight tolerances in any of these aspects should result in a fail assessment
- **Judgement** – is applicable to all tasks but is of importance with respect to the effect of environmental conditions such as cloud, visibility, wind and turbulence. It may be that on some occasions the flight conditions are such that even though the applicant's technique is sound, the aircraft may deviate outside specified tolerances for short periods. In such cases the assessment of technique, smoothness, accuracy and judgment should be the determining factors
- **Procedures** – the applicant should demonstrate awareness and practical application of nominated standard operating procedures throughout the flight test. In many circumstances, the adherence to SOP's may be the reason a committed error has been corrected in a timely manner
- **Knowledge** – during the flight test the applicant's underpinning knowledge may be further tested. For example, during the management of an aircraft system failure, it may become apparent that there is a lack of knowledge of that system
- **Flight management** – the applicant should demonstrate satisfactory proficiency in aircraft and flight management systems, situational awareness, threat and error management and decision-making during the flight.

Assessment should be based on the technique used by the applicant and not just the ability to perform the task within specified numerical tolerances.

Applicants should not be given a second opportunity to demonstrate a manoeuvre unless, in the opinion of the examiner, the circumstances causing failure of the first attempt were outside the control of the applicant in the test environment or the applicant recognised the error and self-managed corrective actions. This should be considered when the examiner is observing an error or errors which may have the potential to become safety critical, providing the applicant is demonstrating non-technical skills and threat and error management appropriately before the examiner is required to intervene.

36.4.2 Pre-flight briefing

In accordance with chapter 3, Adult education and competency-based assessment; the examiner must brief the applicant on:

- the scenario applied to the proficiency check environment (e.g. passenger carrying private or commercial operation / simulation of passengers)
- the applicant profile where applicable
- the format of the airborne component to ensure that the examiner applicant is in no doubt about what is required.
- requirement to de-brief the ‘applicant’ and ‘HOO’ where applicable
- pilot in command
- transfer of control
- flight tolerances and ground references
- simulating emergencies, methods and calls
- actual emergencies
- procedures for simulating IMC (if applicable)
- multiple flights and the assessment of competencies (if applicable).

The examiner applicant should be encouraged to ask for clarification should they be uncertain about any of the briefed items.

36.4.3 Post-flight debriefing and training organisation debriefing

The examiner applicant should conduct a post-flight debriefing, given to the examiner (role playing the applicant). The examiner applicant should also conduct a training organisation debriefing, given to the examiner (role playing the Head of Operations).

36.4.4 Completion of administration requirements

The examiner applicant should demonstrate their ability to perform the proficiency check administration described in FER.7 and the Flight Crew Licensing Manual. The examiner may conduct this assessment verbally.

36.4.5 Examiner debriefing

The examiner should debrief the examiner applicant at the conclusion of the proficiency check. The debriefing should cover the performance criteria for each phase, as appropriate.

36.4.6 Assessment of activities and manoeuvres

An examiner must comply with the requirements and take into account the recommendations described below when planning and conducting the **EPC**. Where there are no specific recommendations, 'NSR' is listed in the table against the unit or element.

Table 47: Assessment of activities and manoeuvres - EPC

Phase of Flight	Requirements	Recommendations
Test specific activities and manoeuvres	(a) Apply the flight test or proficiency check process correctly	NSR
	(b) Conduct and manage the flight test or proficiency check effectively	NSR
	(c) Monitor and record the applicant's performance	NSR
	(d) Manage contingencies and any abnormal or emergency situations	NSR
	(e) Ensure the safe completion of the flight test or proficiency check	NSR
	(f) Evaluate the evidence of the applicant's performance	NSR
	(g) Make assessment decision based on objective evaluation	NSR
Shut down and post-flight	(a)(i) Post-flight test debrief for applicant - advise result, provide feedback on performance and, if applicable, guidance on further training	NSR

Phase of Flight	Requirements	Recommendations
	(a)(ii) Post-flight test debrief for applicant - explore opportunities to overcome competency gaps and advise reassessment procedures	NSR
	(b) Post-flight test debrief for HOO - advise training provider of result and provide information to improve training	NSR
	(c) Complete flight test administration	NSR
General requirements	(a) Maintain effective lookout	In most flight tests, the assessment of emergency and non-normal events will provide sufficient evidence of the NTS competencies. The examiner should provide, where possible, applicable operational environment scenarios to support these events. The examiner should request a copy of company SOPs to ensure familiarity with standard briefs, work-cycles and procedural techniques.
	(b) Maintain situational awareness	
	(c) Assess situations and make decisions	
	(d) Set priorities and manage tasks	
	(e) Maintain effective communications and interpersonal relationships	
	(f) Recognise and manage threats	
	(g) Recognise and manage errors	
	(h) Recognise and manage undesired aircraft state	

36.4.7 Failure assessment

The failure to perform a manoeuvre or procedure may be broken into two levels depending on the safety implications during the proficiency check. Both levels result in a fail assessment.

Safety-critical items

The highest level, being safety critical, is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is in doubt and the examiner has to take control (physically or by direction).

Examples of safety-critical failure items include, **but are not limited to**:

- failure to complete checklist items mandated by the AFM
- failure to correctly prepare the aircraft for flight
- failure to comply with ATC clearances and airspace requirements
- failure to operate the aircraft within the limitations of the AFM
- failure to maintain required flight visibility and cloud separation during a visual segment
- failure to maintain required terrain clearance
- failure to comply with minimum descent altitudes
- failure to maintain minimum traffic separation standards
- failure to comply with the hand-over/take-over technique (not applicable to single pilot authorisations)
- failure to safely and consistently apply the elements of NTS1 and NTS2.

If the error is safety critical and the examiner needs to take control or intervene, the proficiency check must be terminated immediately. For the EPC, no credits are to be given.

Non safety-critical items

The second level is where the control of the aircraft is such that the safe outcome of the manoeuvre or procedure is certain, but the flight tolerances have been exceeded or the technique is unsatisfactory.

The examiner has the discretion to enable the examiner applicant to demonstrate NTS2 TEM to avoid the situation where the error becomes safety critical.

The examiner must not give credits for any items of the ground component of the FER flight test if that component of the FER flight test is terminated due to failure of a ground component item.

Where component 1 is completed satisfactorily and the examiner applicant fails an item in component 2, credits may be given for component 1 proficiency check items (EPC knowledge requirements ONLY).

Credits are only valid for one retest.

36.5 Complete (post flight)

36.5.1 Debriefings

The examiner must debrief the examiner applicant and, if applicable, the operator as soon as practicable after the conclusion of the flight component.

In the event of a fail assessment, in addition to the verbal debriefing, the examiner should ensure sufficient detail is entered into the examiner applicant's training records to allow the operator to construct a remedial training program.

36.5.2 Proficiency check administration

At the conclusion of the proficiency check, the examiner must:

- within 14 days after the day of the check, complete the proficiency check report and provide a copy of the report to the examiner applicant, operator and CASA
- within 14 days after the day of the check, complete the flight test management system notification requirements.

All items on the proficiency check form must be marked to indicate the assessment, with either ✓ (pass), X (fail), N (not tested) or TR (training records).

Licence entries made by the examiner must be in accordance with the Flight Crew Licensing Manual.