

# Yarrawonga Aerodrome Manual

CASA PART 139



CASR PART 139 AERODROME MANUAL

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***MOIRA SHIRE COUNCIL***

# TABLE OF CONTENTS

|   |          |
|---|----------|
| <b>CASR PART 139 AERODROME MANUAL .....</b>                               | <b>1</b> |
| 0 PREFACE .....   | 13       |
| 0.1 AMENDMENT RECORD .....  | 13       |
| 0.2 DISTRIBUTION LIST.....  | 14       |
| 0.3 ABBREVIATIONS AND ACRONYMS .....                                      | 15       |
| 0.4 DEFINITIONS .....   | 16       |
| 1 AERODROME ADMINISTRATION .....  | 20       |
| 1.1 OPERATOR'S STATEMENT .....  | 20       |
| 1.2 ORGANISATIONAL STRUCTURE.....   | 21       |
| 1.3 KEY PERSONNEL.....  | 22       |
| 1.3.1 ACCOUNTABLE MANAGER.....  | 22       |
| 1.3.2 MANAGEMENT POSITIONS (AERODROME OPERATION AND MAINTENANCE).....     | 22       |
| 1.3.3 AERODROME OPERATIONS AND SAFETY FUNCTIONS .....                     | 23       |
| 1.4 AERODROME MANUAL ADMINISTRATION .....                                 | 23       |
| 1.4.1 MANUAL CONTROL .....  | 24       |
| 1.4.2 MANUAL AMENDMENT .....  | 24       |
| 1.4.3 MANUAL REVIEW .....   | 24       |
| 1.5 AUTHORISATIONS.....   | 25       |
| 1.5.1 AERODROME CERTIFICATE - CONDITIONS.....                             | 25       |
| 1.5.2 AERODROME INSTRUMENTS .....   | 25       |
| 2 AERODROME INFORMATION.....  | 26       |
| 2.1 AERONAUTICAL INFORMATION .....  | 26       |
| 2.1.1 AERODROME DIAGRAM .....   | 26       |
| 2.1.2 AERODROME ADMINISTRATION STATEMENT .....                            | 27       |
| 2.1.3 AERODROME LOCATION STATEMENT .....                                  | 27       |
| 2.1.4 MOVEMENT AREA INFORMATION - RUNWAYS .....                           | 28       |
| 2.1.5 MOVEMENT AREA INFORMATION - RUNWAY STRIP AVAILABILITY .....         | 31       |
| 2.1.6 MOVEMENT AREA INFORMATION - TAXIWAYS .....                          | 31       |
| 2.1.7 MOVEMENT AREA INFORMATION - APRONS.....                             | 32       |
| 2.1.8 VISUAL AIDS - APPROACH AND RUNWAY LIGHTING SYSTEMS.....             | 33       |
| 2.1.9 VISUAL AIDS - OTHER LIGHTING AND SECONDARY POWER SUPPLY .....       | 35       |
| 2.1.10 NAVIGATION AIDS.....   | 36       |
| 2.1.11 AVIATION RESCUE AND FIRE-FIGHTING SERVICES (ARFFS).....            | 36       |
| 2.1.12 GROUND SERVICES.....   | 37       |
| 2.1.13 AERODROME OPERATIONAL PROCEDURES - STANDARD TAXI ROUTES.....       | 38       |
| 2.1.14 AERODROME OPERATIONAL PROCEDURES - SPECIAL PROCEDURES.....         | 38       |
| 2.1.15 AERODROME OPERATIONAL PROCEDURES - NOTICES .....                   | 38       |
| 2.1.16 AERODROME OPERATIONAL PROCEDURES - LOW-VISIBILITY PROCEDURES ..... | 38       |
| 2.2 AERODROME SITE PLAN.....  | 39       |
| 2.3 SITE PLAN - FACILITIES OUTSIDE THE AERODROME BOUNDARY .....           | 39       |
| 2.4 AERODROME REFERENCE CODE (ARC) NOMINATIONS .....                      | 40       |
| 2.4.1 RUNWAYS .....   | 40       |
| 2.4.2 TAXIWAYS AND TAXILANES.....   | 40       |
| 2.4.3 AIRCRAFT PARKING POSITIONS.....                                     | 40       |



|   |    |
|---|----|
| 2.4.4 HOLDING BAYS (AIRCRAFT).....  | 40 |
| 2.5 INSTRUMENT CLASSIFICATION OF EACH RUNWAY .....  | 41 |
| 2.6 DEVIATIONS FROM PREFERRED STANDARDS.....  | 42 |
| 2.6.1 LOCATION OF RUNWAY THRESHOLD .....  | 42 |
| 2.6.2 RUNWAY TURN PAD / BYPASS PAD .....  | 42 |
| 2.6.3 RUNWAY LONGITUDINAL SLOPE VALUES.....   | 42 |
| 2.6.4 RUNWAY TRANSVERSE SLOPE VALUES .....  | 42 |
| 2.6.5 RUNWAY SURFACES .....   | 43 |
| 2.6.6 LONGITUDINAL SLOPE DESIGN VALUES ON GRADED RUNWAY STRIP.....                          | 43 |
| 2.6.7 RUNWAY END SAFETY AREA (RESA) .....   | 43 |
| 2.6.8 TAXIWAY LONGITUDINAL SLOPE VALUES.....  | 43 |
| 2.6.9 TAXIWAY TRANSVERSE SLOPE VALUES .....   | 43 |
| 2.6.10 COLOUR OF AERODROME MARKINGS, MARKERS, SIGNALS AND SIGNS.....                        | 44 |
| 2.6.11 RUNWAY EDGE LIGHTS ON A REDUCED RUNWAY WIDTH.....                                    | 44 |
| 2.6.12 SPACING OF TAXIWAY EDGE LIGHTS .....   | 44 |
| 2.7 FACILITIES WITH RETAINED COMPLIANCE.....  | 45 |
| 2.7.1 NON-COMPLIANT GRANDFATHERED FACILITIES .....  | 45 |
| 2.7.2 GRANDFATHERED FACILITIES OPTED-IN.....  | 45 |
| 3 AERODROME OPERATING PROCEDURES AND SYSTEMS .....  | 46 |
| 3.1 REPORTING AERONAUTICAL DATA AND INFORMATION .....                                       | 46 |
| 3.1.1 PERSONNEL WITH RESPONSIBILITIES - DATA ORIGINATOR.....                                | 47 |
| 3.1.2 CHANGES TO PUBLISHED AERONAUTICAL INFORMATION .....                                   | 47 |
| 3.1.3 ADVISING NOTAM OFFICE (NOF) OF CHANGES - AERODROME CONDITIONS / HAZARDS .....         | 48 |
| 3.1.4 REPORTING HAZARDS THAT MAY ADVERSELY AFFECT AVIATION SAFETY TO ATC .....              | 49 |
| 3.1.5 RECORD KEEPING - REPORTS.....   | 49 |
| 3.1.6 REVIEW OF PUBLISHED INFORMATION .....   | 50 |
| 3.2 AERODROME SERVICEABILITY INSPECTIONS.....   | 50 |
| 3.2.1 POSITIONS WITH RESPONSIBILITIES.....  | 50 |
| 3.2.2 ROUTINE SERVICEABILITY INSPECTIONS .....  | 51 |
| 3.2.3 ADDITIONAL SERVICEABILITY INSPECTIONS.....  | 51 |
| 3.2.4 INSPECTION PROCEDURES .....   | 56 |
| 3.2.5 COMMUNICATING WITH ATC DURING INSPECTION (IF APPLICABLE).....                         | 58 |
| 3.2.6 REPORTING INSPECTIONS RESULTS.....  | 58 |
| 3.2.7 PROMPT FOLLOW-UP ACTION TO CORRECT UNSAFE CONDITIONS.....                             | 60 |
| 3.2.8 TECHNICAL INSPECTION OF IDENTIFIED UNSAFE CONDITION .....                             | 60 |
| 3.2.9 MAINTAINING INSPECTION RECORDS.....   | 61 |
| 3.3 AERODROME LIGHTING.....   | 61 |
| 3.3.1 PERSONNEL WITH RESPONSIBILITIES .....   | 61 |
| 3.3.2 AERODROME LIGHTING - INSPECTION AND MAINTENANCE .....                                 | 62 |
| 3.3.3 OBSTACLE LIGHTING MAINTAINED BY AERODROME OPERATOR - INSPECTION AND MAINTENANCE ..... | 62 |
| 3.3.4 PORTABLE RUNWAY LIGHTS - INSPECTION AND MAINTENANCE .....                             | 63 |
| 3.3.5 MONITORING SECONDARY POWER SUPPLY .....   | 63 |
| 3.3.6 MONITORING STANDBY POWER SUPPLY .....   | 63 |
| 3.3.7 LIGHTING INSPECTIONS AND CHECKS .....   | 63 |
| 3.3.8 MAINTAINING LIGHTING INSPECTIONS RECORDS AND FOLLOW-UP ACTIONS .....                  | 64 |
| 3.3.9 SWITCHING LIGHTS ON AND OFF & INTENSITY SELECTION .....                               | 64 |

|   |    |
|---|----|
| 3.3.10 BACK-UP ARRANGEMENTS FOR PAL SYSTEM .....  | 65 |
| 3.3.11 ROUTINE AND EMERGENCY LIGHTING MAINTENANCE.....  | 65 |
| 3.3.12 PARTIAL OR TOTAL POWER SYSTEM FAILURE.....   | 65 |
| 3.3.13 MONITORING HAZARDOUS LIGHTS, LASERS, REFLECTION OR GLARE.....                          | 65 |
| 3.3.14 COMMISSIONED LIGHTING SYSTEMS .....  | 66 |
| 3.3.15 COMMISSIONING A NEW OR UPGRADING / REPLACING AN EXISTING LIGHTING SYSTEM.              | 67 |
| 3.4 UNAUTHORISED ENTRY TO AERODROME .....   | 67 |
| 3.4.1 CONTROLLING AIRSIDE ACCESS .....  | 67 |
| 3.4.2 MONITORING AIRSIDE ACCESS POINTS AND BARRIERS.....                                      | 68 |
| 3.5 AIRSIDE VEHICLE CONTROL .....   | 69 |
| 3.5.1 PERMIT SYSTEM FOR AIRSIDE VEHICLES .....  | 69 |
| 3.5.2 VEHICLES AND GROUND EQUIPMENT OPERATED AIRSIDE .....                                    | 69 |
| 3.5.3 AIRSIDE VEHICLE LIGHTING REQUIREMENTS.....  | 70 |
| 3.5.4 VEHICLES ON MANOEUVRING AREA .....  | 70 |
| 3.5.5 AIRSIDE DRIVERS - TRAINING .....  | 70 |
| 3.5.6 VEHICLES IN PROXIMITY TO AIRCRAFT.....  | 70 |
| 3.5.7 MOVEMENT AREA SPEED LIMITS .....  | 71 |
| 3.5.8 ESCORT SERVICE PROCEDURES .....   | 72 |
| 3.5.9 MONITORING AND ENFORCING TRAFFIC RULES .....  | 72 |
| 3.6 AIRCRAFT PARKING CONTROL .....  | 73 |
| 3.6.1 AIRCRAFT PARKING CONTROL PERSONNEL .....  | 73 |
| 3.6.2 LIAISON WITH ATC - APRON MANAGEMENT.....  | 73 |
| 3.6.3 ALLOCATING AIRCRAFT PARKING POSITIONS.....  | 73 |
| 3.6.4 ENGINE START AND AIRCRAFT PUSH-BACK CLEARANCES .....                                    | 73 |
| 3.6.5 AERODROME VISUAL DOCKING GUIDANCE SYSTEMS .....   | 73 |
| 3.6.6 MARSHALLING SERVICE .....   | 74 |
| 3.6.7 LEADER (VAN) SERVICE OR FOLLOW-ME SERVICE.....  | 74 |
| 3.6.8 APRON SAFETY MANAGEMENT PROCEDURES .....  | 74 |
| 3.6.9 ALTERNATIVE SEPARATION DISTANCES AND APRON MARKINGS .....                               | 75 |
| 3.7 AERODROME OBSTACLE CONTROL .....  | 76 |
| 3.7.1 OBSTACLE CONTROL PERSONNEL .....  | 76 |
| 3.7.2 MONITORING TAKE-OFF, APPROACH AND TRANSITIONAL SURFACES.....                            | 76 |
| 3.7.3 PROPOSED OR ACTUAL INFRINGEMENTS - OLS .....  | 77 |
| 3.7.4 HEIGHT OF INFRINGEMENTS - OLS .....   | 78 |
| 3.7.5 MONITORING VISUAL SEGMENT SURFACES AND CRITICAL OBSTACLES.....                          | 78 |
| 3.7.6 PROPOSED OR ACTUAL INFRINGEMENTS - PANS-OPS .....                                       | 78 |
| 3.7.7 HEIGHT OF INFRINGEMENTS - PANS-OPS .....  | 79 |
| 3.7.8 OBSTACLE CONTROL WITHIN AERODROME BOUNDARY .....  | 79 |
| 3.7.9 OBSTACLE CONTROL OUTSIDE AERODROME BOUNDARY .....                                       | 79 |
| 3.7.10 OBSTACLE LIGHTS SERVICEABILITY MONITORING PROGRAMME .....                              | 80 |
| 3.7.11 OBSTACLE LIGHT OUTAGE .....  | 80 |
| 3.7.12 CHARTS PUBLISHED BY THE AERODROME OPERATOR.....  | 81 |
| 3.8 PROTECTION OF COMMUNICATION, NAVIGATION, SURVEILLANCE AND METEOROLOGICAL FACILITIES ..... | 82 |
| 3.8.1 CONTROLLING ACTIVITIES NEAR CNS AND MET FACILITIES .....                                | 82 |
| 3.8.2 SUPPLY AND INSTALLATION OF WARNING SIGNS .....  | 82 |
| 3.9 AERODROME TECHNICAL INSPECTIONS / MANUAL VALIDATIONS.....                                 | 83 |

|   |     |
|---|-----|
| 3.9.1 INSPECTION PERSONNEL .....  | 83  |
| 3.9.2 INSPECTION ITEMS AND TIMEFRAMES.....  | 83  |
| 3.9.3 QUALIFIED PERSONNEL FOR TECHNICAL INSPECTIONS / MANUAL VALIDATIONS .....      | 84  |
| 3.9.4 SCHEDULING INSPECTIONS / MANUAL VALIDATIONS AND RECORDING THEIR RESULTS ..... | 85  |
| 3.9.5 BRIEFING TECHNICAL INSPECTORS .....   | 85  |
| 3.9.6 POST-INSPECTION / VALIDATION CORRECTIVE ACTIONS.....                          | 86  |
| 3.9.7 PROVIDING CASA WITH INSPECTION / VALIDATION REPORTS.....                      | 86  |
| 3.9.8 MAINTAINING RECORDS OF TECHNICAL INSPECTIONS / MANUAL VALIDATIONS.....        | 86  |
| 3.10 AERODROME WORKS SAFETY .....   | 86  |
| 3.10.1 WORKS SAFETY PERSONNEL.....  | 87  |
| 3.10.2 PREPARATION OF A METHOD OF WORKING PLAN (MOWP).....                          | 87  |
| 3.10.3 MOWP NOTIFICATIONS .....   | 88  |
| 3.10.4 COMMUNICATIONS WITH ATC DURING AERODROME WORKS.....                          | 89  |
| 3.10.5 TIME-LIMITED WORKS (TLW) OR EMERGENCY WORKS.....                             | 89  |
| 3.10.6 NOTIFICATIONS OF TLW OR EMERGENCY WORKS .....                                | 90  |
| 3.10.7 WORKS AT CLOSED AERODROME .....  | 90  |
| 3.11 WILDLIFE HAZARD MANAGEMENT.....  | 91  |
| 3.11.1 WILDLIFE HAZARD PERSONNEL .....  | 91  |
| 3.11.2 TRAINING OF PERSONNEL .....  | 92  |
| 3.11.3 WILDLIFE HAZARD MANAGEMENT PLAN.....   | 92  |
| 3.11.4 WILDLIFE HAZARD MONITORING .....   | 93  |
| 3.11.5 WILDLIFE HAZARD ASSESSMENT.....  | 93  |
| 3.11.6 WILDLIFE HAZARD MITIGATION.....  | 94  |
| 3.11.7 WILDLIFE HAZARD REPORTING (AIP, NOTAM, ATC, UNICOM).....                     | 94  |
| 3.11.8 LIAISON WITH LOCAL AUTHORITIES FOR WILDLIFE HAZARD MITIGATION.....           | 94  |
| 3.12 LOW-VISIBILITY OPERATIONS .....  | 95  |
| 3.12.1 LOW-VISIBILITY PERSONNEL .....   | 95  |
| 3.12.2 VEHICULAR TRAFFIC IN LOW-VISIBILITY OPERATIONS .....                         | 95  |
| 3.12.3 CNS FACILITIES IN LOW-VISIBILITY OPERATIONS .....                            | 95  |
| 3.12.4 MANOEUVRING AREA INSPECTIONS IN LOW-VISIBILITY OPERATIONS .....              | 95  |
| 3.12.5 MEASURING RUNWAY VISIBILITY.....   | 95  |
| 3.12.6 COMMUNICATING VISIBILITY MEASUREMENTS TO ATC OR PILOTS.....                  | 96  |
| 3.12.7 TRANSMISSOMETERS .....   | 96  |
| 3.12.8 LOW-VISIBILITY PROCEDURES (LVP).....   | 96  |
| 3.13 DISABLED AIRCRAFT REMOVAL .....  | 99  |
| 3.13.1 AIRCRAFT REMOVAL PERSONNEL .....   | 99  |
| 3.13.2 AIRCRAFT REMOVAL - AERODROME OPERATOR & AIRCRAFT CERTIFICATE HOLDER .....    | 99  |
| 3.13.3 NOTIFYING AIRCRAFT CERTIFICATE HOLDER.....                                   | 99  |
| 3.13.4 LIAISING WITH THE ATSB, DEFENCE AND ATC.....                                 | 100 |
| 3.13.5 EQUIPMENT AND PERSON(S) TO REMOVE AIRCRAFT.....                              | 100 |
| 3.14 AERODROME SAFETY MANAGEMENT.....   | 101 |
| 3.14.1 SAFETY MANAGEMENT SYSTEM (SMS).....  | 101 |
| 3.14.2 RISK MANAGEMENT PLAN .....   | 101 |
| 4 AERODROME EMERGENCY RESPONSE .....  | 102 |
| 4.1 EMERGENCY RESPONSE PERSONNEL .....  | 102 |
| 4.2 AERODROME EMERGENCY RESPONSE.....   | 103 |
| 4.2.1 AERODROME EMERGENCY PLAN (AEP).....   | 103 |

|  |     |
|--|-----|
| 4.2.2 LOCAL / STATE EMERGENCY RESPONSE PLAN .....                          | 103 |
| 4.3 AERODROME EMERGENCY PROCEDURES .....                                   | 104 |
| 4.3.1 AERODROME EMERGENCY COMMITTEE.....                                   | 104 |
| 4.3.2 EMERGENCY SERVICE ORGANISATIONS .....                                | 104 |
| 4.3.3 LOCAL EMERGENCY PLANNING ARRANGEMENTS .....                          | 108 |
| 4.3.4 NOTIFICATION AND INITIATION OF EMERGENCY RESPONSE.....               | 108 |
| 4.3.5 ACTIVATION, CONTROL AND COORDINATION OF EMERGENCY RESPONDERS .....   | 109 |
| 4.3.6 AERODROME EMERGENCY FACILITIES .....                                 | 109 |
| 4.3.7 ACCESS AND MANAGEMENT OF ASSEMBLY AREAS.....                         | 109 |
| 4.3.8 RESPONSE TO A LOCAL STAND-BY EVENT .....                             | 110 |
| 4.3.9 INITIAL RESPONSE TO FULL EMERGENCY.....                              | 110 |
| 4.4 READINESS OF EMERGENCY FACILITIES, ACCESS POINTS & ASSEMBLY AREAS..... | 110 |
| 4.5 EMERGENCY RESPONDER PREPAREDNESS .....                                 | 111 |
| 4.5.1 SITE INDUCTIONS FOR EMERGENCY RESPONDERS .....                       | 111 |
| 4.5.2 EMERGENCY RESPONSE TRAINING .....                                    | 111 |
| 4.5.3 EMERGENCY EXERCISES .....  | 111 |
| 4.6 POST-EMERGENCY RETURN TO OPERATIONAL STATUS .....                      | 111 |
| 4.7 REVIEWS OF AERODROME EMERGENCY PLAN (AEP) .....                        | 112 |
| 4.8 MONITORING LOCAL EMERGENCY PLANNING ARRANGEMENTS.....                  | 112 |
| 5 APPENDICES .....   | 113 |
| 5.1 Aerodrome Administration.....  | 113 |
| 5.2 Light System.....  | 114 |
| 5.3 Aerodrome Layout .....   | 131 |
| 5.4 RWY and TWY Slope .....  | 133 |
| 5.5 VSS.....   | 135 |
| 5.6 BOM Weather Facilities Layout.....                                     | 136 |
| 5.7 Emergency Vehicle Access Gates .....                                   | 139 |
| 5.8 Access Gates.....  | 143 |
| 5.9 Obstacle Limitation Surfaces .....                                     | 149 |
| 5.10 Global Reporting Format.....  | 152 |

## LIST OF EFFECTIVE PAGES

| Section  | Page | Version | Date        |
|--|------|---------|-------------|
| CASR PART 139 AERODROME MANUAL   | 1    | 1       | 16-Dec-2024 |
| 0 PREFACE  | 13   | 1       | 16-Dec-2024 |
| 0.1 AMENDMENT RECORD   | 13   | 1       | 16-Dec-2024 |
| 0.2 DISTRIBUTION LIST  | 14   | 1       | 16-Dec-2024 |
| 0.3 ABBREVIATIONS AND ACRONYMS   | 15   | 1       | 16-Dec-2024 |
| 0.4 DEFINITIONS  | 16   | 1       | 16-Dec-2024 |
| 1 AERODROME ADMINISTRATION   | 20   | 1       | 16-Dec-2024 |
| 1.1 OPERATOR'S STATEMENT   | 20   | 1       | 16-Dec-2024 |
| 1.2 ORGANISATIONAL STRUCTURE   | 21   | 1       | 16-Dec-2024 |
| 1.3 KEY PERSONNEL  | 22   | 1       | 16-Dec-2024 |
| 1.3.1 ACCOUNTABLE MANAGER  | 22   | 1       | 16-Dec-2024 |
| 1.3.2 MANAGEMENT POSITIONS (AERODROME OPERATION AND MAINTENANCE)         | 22   | 1       | 16-Dec-2024 |
| 1.3.3 AERODROME OPERATIONS AND SAFETY FUNCTIONS                          | 23   | 1       | 16-Dec-2024 |
| 1.4 AERODROME MANUAL ADMINISTRATION                                      | 23   | 1       | 16-Dec-2024 |
| 1.4.1 MANUAL CONTROL   | 24   | 1       | 16-Dec-2024 |
| 1.4.2 MANUAL AMENDMENT   | 24   | 1       | 16-Dec-2024 |
| 1.4.3 MANUAL REVIEW  | 24   | 1       | 16-Dec-2024 |
| 1.5 AUTHORISATIONS   | 25   | 1       | 16-Dec-2024 |
| 1.5.1 AERODROME CERTIFICATE - CONDITIONS                                 | 25   | 1       | 16-Dec-2024 |
| 1.5.2 AERODROME INSTRUMENTS  | 25   | 1       | 16-Dec-2024 |
| 2 AERODROME INFORMATION  | 26   | 1       | 16-Dec-2024 |
| 2.1 AERONAUTICAL INFORMATION   | 26   | 1       | 16-Dec-2024 |
| 2.1.1 AERODROME DIAGRAM  | 26   | 1       | 16-Dec-2024 |
| 2.1.2 AERODROME ADMINISTRATION STATEMENT                                 | 27   | 1       | 16-Dec-2024 |
| 2.1.3 AERODROME LOCATION STATEMENT                                       | 27   | 1       | 16-Dec-2024 |
| 2.1.4 MOVEMENT AREA INFORMATION - RUNWAYS                                | 28   | 1       | 16-Dec-2024 |
| 2.1.4.1 RUNWAY CODE NUMBER   | 28   | 1       | 16-Dec-2024 |
| 2.1.4.2 RUNWAY BEARING, LENGTH, WIDTH, AND SURFACE TYPE                  | 28   | 1       | 16-Dec-2024 |
| 2.1.4.3 THRESHOLD GEOGRAPHICAL LOCATION & ELEVATION - INSTRUMENT RUNWAYS | 28   | 1       | 16-Dec-2024 |
| 2.1.4.4 RUNWAY PAVEMENT STRENGTH RATING                                  | 28   | 1       | 16-Dec-2024 |
| 2.1.4.5 RUNWAY STRIP LENGTH AND WIDTH                                    | 29   | 1       | 16-Dec-2024 |
| 2.1.4.6 RUNWAY SLOPE   | 29   | 1       | 16-Dec-2024 |
| 2.1.4.7 RUNWAY DECLARED DISTANCES  | 29   | 1       | 16-Dec-2024 |
| 2.1.4.8 INTERSECTION DEPARTURE TAKE-OFF DISTANCES AVAILABLE              | 30   | 1       | 16-Dec-2024 |
| 2.1.4.9 SUPPLEMENTARY TAKE-OFF DISTANCES AVAILABLE (STODA)               | 30   | 1       | 16-Dec-2024 |
| 2.1.4.10 ESTABLISHED OLS FOR THE RUNWAY                                  | 30   | 1       | 16-Dec-2024 |
| 2.1.4.11 TYPE A CHARTS   | 30   | 1       | 16-Dec-2024 |
| 2.1.4.12 TYPE B CHARTS   | 30   | 1       | 16-Dec-2024 |
| 2.1.4.13 OBSTACLE-FREE ZONE (OFZ)  | 30   | 1       | 16-Dec-2024 |
| 2.1.4.14 ARRESTOR SYSTEM   | 31   | 1       | 16-Dec-2024 |
| 2.1.5 MOVEMENT AREA INFORMATION - RUNWAY STRIP AVAILABILITY              | 31   | 1       | 16-Dec-2024 |
| 2.1.6 MOVEMENT AREA INFORMATION - TAXIWAYS                               | 31   | 1       | 16-Dec-2024 |
| 2.1.7 MOVEMENT AREA INFORMATION - APRONS                                 | 32   | 1       | 16-Dec-2024 |
| 2.1.8 VISUAL AIDS - APPROACH AND RUNWAY LIGHTING SYSTEMS                 | 33   | 1       | 16-Dec-2024 |
| 2.1.8.1 APPROACH LIGHTING SYSTEM(S) (ALS)                                | 33   | 1       | 16-Dec-2024 |
| 2.1.8.2 RUNWAY THRESHOLD LIGHTS AND WING BARS                            | 33   | 1       | 16-Dec-2024 |
| 2.1.8.3 VISUAL APPROACH SLOPE INDICATOR SYSTEM (VASIS)                   | 33   | 1       | 16-Dec-2024 |
| 2.1.8.4 TOUCHDOWN ZONE (TDZ) LIGHTING                                    | 33   | 1       | 16-Dec-2024 |
| 2.1.8.5 RUNWAY CENTRELINE LIGHTS   | 33   | 1       | 16-Dec-2024 |
| 2.1.8.6 RUNWAY EDGE LIGHTS   | 33   | 1       | 16-Dec-2024 |
| 2.1.8.7 RUNWAY END LIGHTS  | 34   | 1       | 16-Dec-2024 |

| Section  | Page | Version | Date        |
|--|------|---------|-------------|
| 2.1.8.8 STOPWAY LIGHTS   | 34   | 1       | 16-Dec-2024 |
| 2.1.8.9 STARTER EXTENSION LIGHTING   | 34   | 1       | 16-Dec-2024 |
| 2.1.8.10 RUNWAY THRESHOLD IDENTIFICATION LIGHTS (RTIL)                       | 34   | 1       | 16-Dec-2024 |
| 2.1.8.11 PILOT ACTIVATED LIGHTING (PAL) SYSTEM                               | 34   | 1       | 16-Dec-2024 |
| 2.1.9 VISUAL AIDS - OTHER LIGHTING AND SECONDARY POWER SUPPLY                | 35   | 1       | 16-Dec-2024 |
| 2.1.9.1 AERODROME BEACON   | 35   | 1       | 16-Dec-2024 |
| 2.1.9.2 TAXIWAY LIGHTING SYSTEMS (INCLUDING HOLDING POSITIONS AND STOP BARS) | 35   | 1       | 16-Dec-2024 |
| 2.1.9.3 APRON LIGHTING SYSTEMS (INCLUDING VDGS)                              | 35   | 1       | 16-Dec-2024 |
| 2.1.9.4 OTHER MOVEMENT AREA - LIGHTING SYSTEMS                               | 36   | 1       | 16-Dec-2024 |
| 2.1.9.5 OBSTACLE LIGHTING FOR OLS INFRINGEMENTS                              | 36   | 1       | 16-Dec-2024 |
| 2.1.9.6 SECONDARY POWER SUPPLY (INCLUDING SWITCH-OVER TIME)                  | 36   | 1       | 16-Dec-2024 |
| 2.1.10 NAVIGATION AIDS   | 36   | 1       | 16-Dec-2024 |
| 2.1.11 AVIATION RESCUE AND FIRE-FIGHTING SERVICES (ARFFS)                    | 36   | 1       | 16-Dec-2024 |
| 2.1.12 GROUND SERVICES   | 37   | 1       | 16-Dec-2024 |
| 2.1.12.1 FUEL SUPPLIERS  | 37   | 1       | 16-Dec-2024 |
| 2.1.12.2 WEATHER INFORMATION BROADCASTS                                      | 37   | 1       | 16-Dec-2024 |
| 2.1.12.3 GROUND-TO-AIR COMMUNICATION SYSTEMS                                 | 37   | 1       | 16-Dec-2024 |
| 2.1.12.4 OTHER AVIATION-RELATED SERVICES MADE AVAILABLE TO PILOTS            | 37   | 1       | 16-Dec-2024 |
| 2.1.13 AERODROME OPERATIONAL PROCEDURES - STANDARD TAXI ROUTES               | 38   | 1       | 16-Dec-2024 |
| 2.1.13.1 STANDARD TAXI ROUTES DETERMINED BY AERODROME OPERATOR               | 38   | 1       | 16-Dec-2024 |
| 2.1.13.2 STANDARD TAXI ROUTES DETERMINED BY THE ATS PROVIDER                 | 38   | 1       | 16-Dec-2024 |
| 2.1.14 AERODROME OPERATIONAL PROCEDURES - SPECIAL PROCEDURES                 | 38   | 1       | 16-Dec-2024 |
| 2.1.15 AERODROME OPERATIONAL PROCEDURES - NOTICES                            | 38   | 1       | 16-Dec-2024 |
| 2.1.16 AERODROME OPERATIONAL PROCEDURES - LOW-VISIBILITY PROCEDURES          | 38   | 1       | 16-Dec-2024 |
| 2.2 AERODROME SITE PLAN  | 39   | 1       | 16-Dec-2024 |
| 2.3 SITE PLAN - FACILITIES OUTSIDE THE AERODROME BOUNDARY                    | 39   | 1       | 16-Dec-2024 |
| 2.4 AERODROME REFERENCE CODE (ARC) NOMINATIONS                               | 40   | 1       | 16-Dec-2024 |
| 2.4.1 RUNWAYS  | 40   | 1       | 16-Dec-2024 |
| 2.4.2 TAXIWAYS AND TAXILANES   | 40   | 1       | 16-Dec-2024 |
| 2.4.3 AIRCRAFT PARKING POSITIONS   | 40   | 1       | 16-Dec-2024 |
| 2.4.4 HOLDING BAYS (AIRCRAFT)  | 40   | 1       | 16-Dec-2024 |
| 2.5 INSTRUMENT CLASSIFICATION OF EACH RUNWAY                                 | 41   | 1       | 16-Dec-2024 |
| 2.6 DEVIATIONS FROM PREFERRED STANDARDS                                      | 42   | 1       | 16-Dec-2024 |
| 2.6.1 LOCATION OF RUNWAY THRESHOLD   | 42   | 1       | 16-Dec-2024 |
| 2.6.2 RUNWAY TURN PAD / BYPASS PAD   | 42   | 1       | 16-Dec-2024 |
| 2.6.3 RUNWAY LONGITUDINAL SLOPE VALUES                                       | 42   | 1       | 16-Dec-2024 |
| 2.6.4 RUNWAY TRANSVERSE SLOPE VALUES   | 42   | 1       | 16-Dec-2024 |
| 2.6.5 RUNWAY SURFACES  | 43   | 1       | 16-Dec-2024 |
| 2.6.5.1 AVERAGE SURFACE TEXTURE DEPTH  | 43   | 1       | 16-Dec-2024 |
| 2.6.5.2 FRICTION VALUES  | 43   | 1       | 16-Dec-2024 |
| 2.6.6 LONGITUDINAL SLOPE DESIGN VALUES ON GRADED RUNWAY STRIP                | 43   | 1       | 16-Dec-2024 |
| 2.6.7 RUNWAY END SAFETY AREA (RESA)  | 43   | 1       | 16-Dec-2024 |
| 2.6.8 TAXIWAY LONGITUDINAL SLOPE VALUES                                      | 43   | 1       | 16-Dec-2024 |
| 2.6.9 TAXIWAY TRANSVERSE SLOPE VALUES  | 43   | 1       | 16-Dec-2024 |
| 2.6.10 COLOUR OF AERODROME MARKINGS, MARKERS, SIGNALS AND SIGNS              | 44   | 1       | 16-Dec-2024 |
| 2.6.11 RUNWAY EDGE LIGHTS ON A REDUCED RUNWAY WIDTH                          | 44   | 1       | 16-Dec-2024 |
| 2.6.12 SPACING OF TAXIWAY EDGE LIGHTS  | 44   | 1       | 16-Dec-2024 |
| 2.7 FACILITIES WITH RETAINED COMPLIANCE                                      | 45   | 1       | 16-Dec-2024 |
| 2.7.1 NON-COMPLIANT GRANDFATHERED FACILITIES                                 | 45   | 1       | 16-Dec-2024 |
| 2.7.2 GRANDFATHERED FACILITIES OPTED-IN                                      | 45   | 1       | 16-Dec-2024 |
| 3 AERODROME OPERATING PROCEDURES AND SYSTEMS                                 | 46   | 1       | 16-Dec-2024 |
| 3.1 REPORTING AERONAUTICAL DATA AND INFORMATION                              | 46   | 1       | 16-Dec-2024 |

| Section   | Page | Version | Date        |
|---|------|---------|-------------|
| 3.1.1 PERSONNEL WITH RESPONSIBILITIES - DATA ORIGINATOR                               | 47   | 1       | 16-Dec-2024 |
| 3.1.1.1 AIP RESPONSIBLE PERSON  | 47   | 1       | 16-Dec-2024 |
| 3.1.1.2 NOTAM AUTHORISED PERSON(S)  | 47   | 1       | 16-Dec-2024 |
| 3.1.2 CHANGES TO PUBLISHED AERONAUTICAL INFORMATION                                   | 47   | 1       | 16-Dec-2024 |
| 3.1.3 ADVISING NOTAM OFFICE (NOF) OF CHANGES - AERODROME CONDITIONS / HAZARDS         | 48   | 1       | 16-Dec-2024 |
| 3.1.4 REPORTING HAZARDS THAT MAY ADVERSELY AFFECT AVIATION SAFETY TO ATC              | 49   | 1       | 16-Dec-2024 |
| 3.1.5 RECORD KEEPING - REPORTS  | 49   | 1       | 16-Dec-2024 |
| 3.1.6 REVIEW OF PUBLISHED INFORMATION   | 50   | 1       | 16-Dec-2024 |
| 3.2 AERODROME SERVICEABILITY INSPECTIONS  | 50   | 1       | 16-Dec-2024 |
| 3.2.1 POSITIONS WITH RESPONSIBILITIES   | 50   | 1       | 16-Dec-2024 |
| 3.2.2 ROUTINE SERVICEABILITY INSPECTIONS  | 51   | 1       | 16-Dec-2024 |
| 3.2.3 ADDITIONAL SERVICEABILITY INSPECTIONS   | 51   | 1       | 16-Dec-2024 |
| 3.2.4 INSPECTION PROCEDURES   | 56   | 1       | 16-Dec-2024 |
| 3.2.4.1 INSPECTION ITEMS  | 56   | 1       | 16-Dec-2024 |
| 3.2.5 COMMUNICATING WITH ATC DURING INSPECTION (IF APPLICABLE)                        | 58   | 1       | 16-Dec-2024 |
| 3.2.6 REPORTING INSPECTIONS RESULTS   | 58   | 1       | 16-Dec-2024 |
| 3.2.6.1 REPORTABLE OCCURRENCES TO THE NOTAM OFFICE (NOF)                              | 59   | 1       | 16-Dec-2024 |
| 3.2.7 PROMPT FOLLOW-UP ACTION TO CORRECT UNSAFE CONDITIONS                            | 60   | 1       | 16-Dec-2024 |
| 3.2.8 TECHNICAL INSPECTION OF IDENTIFIED UNSAFE CONDITION                             | 60   | 1       | 16-Dec-2024 |
| 3.2.9 MAINTAINING INSPECTION RECORDS  | 61   | 1       | 16-Dec-2024 |
| 3.3 AERODROME LIGHTING  | 61   | 1       | 16-Dec-2024 |
| 3.3.1 PERSONNEL WITH RESPONSIBILITIES   | 61   | 1       | 16-Dec-2024 |
| 3.3.2 AERODROME LIGHTING - INSPECTION AND MAINTENANCE                                 | 62   | 1       | 16-Dec-2024 |
| 3.3.3 OBSTACLE LIGHTING MAINTAINED BY AERODROME OPERATOR - INSPECTION AND MAINTENANCE | 62   | 1       | 16-Dec-2024 |
| 3.3.4 PORTABLE RUNWAY LIGHTS - INSPECTION AND MAINTENANCE                             | 63   | 1       | 16-Dec-2024 |
| 3.3.5 MONITORING SECONDARY POWER SUPPLY   | 63   | 1       | 16-Dec-2024 |
| 3.3.6 MONITORING STANDBY POWER SUPPLY   | 63   | 1       | 16-Dec-2024 |
| 3.3.7 LIGHTING INSPECTIONS AND CHECKS   | 63   | 1       | 16-Dec-2024 |
| 3.3.8 MAINTAINING LIGHTING INSPECTIONS RECORDS AND FOLLOW-UP ACTIONS                  | 64   | 1       | 16-Dec-2024 |
| 3.3.9 SWITCHING LIGHTS ON AND OFF & INTENSITY SELECTION                               | 64   | 1       | 16-Dec-2024 |
| 3.3.10 BACK-UP ARRANGEMENTS FOR PAL SYSTEM  | 65   | 1       | 16-Dec-2024 |
| 3.3.11 ROUTINE AND EMERGENCY LIGHTING MAINTENANCE                                     | 65   | 1       | 16-Dec-2024 |
| 3.3.12 PARTIAL OR TOTAL POWER SYSTEM FAILURE  | 65   | 1       | 16-Dec-2024 |
| 3.3.13 MONITORING HAZARDOUS LIGHTS, LASERS, REFLECTION OR GLARE                       | 65   | 1       | 16-Dec-2024 |
| 3.3.14 COMMISSIONED LIGHTING SYSTEMS  | 66   | 1       | 16-Dec-2024 |
| 3.3.15 COMMISSIONING A NEW OR UPGRADING / REPLACING AN EXISTING LIGHTING SYSTEM       | 67   | 1       | 16-Dec-2024 |
| 3.4 UNAUTHORISED ENTRY TO AERODROME   | 67   | 1       | 16-Dec-2024 |
| 3.4.1 CONTROLLING AIRSIDE ACCESS  | 67   | 1       | 16-Dec-2024 |
| 3.4.2 MONITORING AIRSIDE ACCESS POINTS AND BARRIERS                                   | 68   | 1       | 16-Dec-2024 |
| 3.5 AIRSIDE VEHICLE CONTROL   | 69   | 1       | 16-Dec-2024 |
| 3.5.1 PERMIT SYSTEM FOR AIRSIDE VEHICLES  | 69   | 1       | 16-Dec-2024 |
| 3.5.2 VEHICLES AND GROUND EQUIPMENT OPERATED AIRSIDE                                  | 69   | 1       | 16-Dec-2024 |
| 3.5.3 AIRSIDE VEHICLE LIGHTING REQUIREMENTS   | 70   | 1       | 16-Dec-2024 |
| 3.5.4 VEHICLES ON MANOEUVRING AREA  | 70   | 1       | 16-Dec-2024 |
| 3.5.5 AIRSIDE DRIVERS - TRAINING  | 70   | 1       | 16-Dec-2024 |
| 3.5.6 VEHICLES IN PROXIMITY TO AIRCRAFT   | 70   | 1       | 16-Dec-2024 |
| 3.5.7 MOVEMENT AREA SPEED LIMITS  | 71   | 1       | 16-Dec-2024 |
| 3.5.8 ESCORT SERVICE PROCEDURES   | 72   | 1       | 16-Dec-2024 |
| 3.5.9 MONITORING AND ENFORCING TRAFFIC RULES  | 72   | 1       | 16-Dec-2024 |
| 3.6 AIRCRAFT PARKING CONTROL  | 73   | 1       | 16-Dec-2024 |
| 3.6.1 AIRCRAFT PARKING CONTROL PERSONNEL  | 73   | 1       | 16-Dec-2024 |
| 3.6.2 LIAISON WITH ATC - APRON MANAGEMENT   | 73   | 1       | 16-Dec-2024 |

| <b>Section</b>  | <b>Page</b> | <b>Version</b> | <b>Date</b> |
|---|-------------|----------------|-------------|
| 3.6.3 ALLOCATING AIRCRAFT PARKING POSITIONS   | 73          | 1              | 16-Dec-2024 |
| 3.6.4 ENGINE START AND AIRCRAFT PUSH-BACK CLEARANCES                                    | 73          | 1              | 16-Dec-2024 |
| 3.6.5 AERODROME VISUAL DOCKING GUIDANCE SYSTEMS   | 73          | 1              | 16-Dec-2024 |
| 3.6.6 MARSHALLING SERVICE   | 74          | 1              | 16-Dec-2024 |
| 3.6.7 LEADER (VAN) SERVICE OR FOLLOW-ME SERVICE   | 74          | 1              | 16-Dec-2024 |
| 3.6.8 APRON SAFETY MANAGEMENT PROCEDURES  | 74          | 1              | 16-Dec-2024 |
| 3.6.9 ALTERNATIVE SEPARATION DISTANCES AND APRON MARKINGS                               | 75          | 1              | 16-Dec-2024 |
| 3.6.9.1 REDUCED SEPARATION DISTANCES - VDGS   | 75          | 1              | 16-Dec-2024 |
| 3.6.9.2 AIRCRAFT TYPE DESIGNATOR MARKINGS   | 75          | 1              | 16-Dec-2024 |
| 3.6.9.3 ALIGNMENT LINES   | 75          | 1              | 16-Dec-2024 |
| 3.6.9.4 PUSH-BACK OPERATOR GUIDANCE MARKINGS  | 75          | 1              | 16-Dec-2024 |
| 3.6.9.5 PASSENGER PATH MARKINGS   | 75          | 1              | 16-Dec-2024 |
| 3.6.9.6 MISCELLANEOUS AREA LINE MARKINGS  | 75          | 1              | 16-Dec-2024 |
| 3.7 AERODROME OBSTACLE CONTROL  | 76          | 1              | 16-Dec-2024 |
| 3.7.1 OBSTACLE CONTROL PERSONNEL  | 76          | 1              | 16-Dec-2024 |
| 3.7.2 MONITORING TAKE-OFF, APPROACH AND TRANSITIONAL SURFACES                           | 76          | 1              | 16-Dec-2024 |
| 3.7.3 PROPOSED OR ACTUAL INFRINGEMENTS - OLS  | 77          | 1              | 16-Dec-2024 |
| 3.7.3.1 PROPOSED OLS INFRINGEMENTS  | 77          | 1              | 16-Dec-2024 |
| 3.7.3.2 ACTUAL OLS INFRINGEMENTS  | 77          | 1              | 16-Dec-2024 |
| 3.7.4 HEIGHT OF INFRINGEMENTS - OLS   | 78          | 1              | 16-Dec-2024 |
| 3.7.4.1 HAZARDOUS OBSTACLES   | 78          | 1              | 16-Dec-2024 |
| 3.7.5 MONITORING VISUAL SEGMENT SURFACES AND CRITICAL OBSTACLES                         | 78          | 1              | 16-Dec-2024 |
| 3.7.6 PROPOSED OR ACTUAL INFRINGEMENTS - PANS-OPS                                       | 78          | 1              | 16-Dec-2024 |
| 3.7.7 HEIGHT OF INFRINGEMENTS - PANS-OPS  | 79          | 1              | 16-Dec-2024 |
| 3.7.8 OBSTACLE CONTROL WITHIN AERODROME BOUNDARY  | 79          | 1              | 16-Dec-2024 |
| 3.7.9 OBSTACLE CONTROL OUTSIDE AERODROME BOUNDARY                                       | 79          | 1              | 16-Dec-2024 |
| 3.7.10 OBSTACLE LIGHTS SERVICEABILITY MONITORING PROGRAMME                              | 80          | 1              | 16-Dec-2024 |
| 3.7.11 OBSTACLE LIGHT OUTAGE  | 80          | 1              | 16-Dec-2024 |
| 3.7.12 CHARTS PUBLISHED BY THE AERODROME OPERATOR                                       | 81          | 1              | 16-Dec-2024 |
| 3.7.12.1 TYPE A CHARTS  | 81          | 1              | 16-Dec-2024 |
| 3.7.12.2 TYPE B CHARTS  | 81          | 1              | 16-Dec-2024 |
| 3.7.12.3 PRECISION APPROACH TERRAIN CHARTS - ICAO                                       | 81          | 1              | 16-Dec-2024 |
| 3.7.12.4 AERODROME TERRAIN AND OBSTACLE CHARTS - ICAO (ELECTRONIC)                      | 81          | 1              | 16-Dec-2024 |
| 3.8 PROTECTION OF COMMUNICATION, NAVIGATION, SURVEILLANCE AND METEOROLOGICAL FACILITIES | 82          | 1              | 16-Dec-2024 |
| 3.8.1 CONTROLLING ACTIVITIES NEAR CNS AND MET FACILITIES                                | 82          | 1              | 16-Dec-2024 |
| 3.8.2 SUPPLY AND INSTALLATION OF WARNING SIGNS  | 82          | 1              | 16-Dec-2024 |
| 3.9 AERODROME TECHNICAL INSPECTIONS / MANUAL VALIDATIONS                                | 83          | 1              | 16-Dec-2024 |
| 3.9.1 INSPECTION PERSONNEL  | 83          | 1              | 16-Dec-2024 |
| 3.9.2 INSPECTION ITEMS AND TIMEFRAMES   | 83          | 1              | 16-Dec-2024 |
| 3.9.3 QUALIFIED PERSONNEL FOR TECHNICAL INSPECTIONS / MANUAL VALIDATIONS                | 84          | 1              | 16-Dec-2024 |
| 3.9.4 SCHEDULING INSPECTIONS / MANUAL VALIDATIONS AND RECORDING THEIR RESULTS           | 85          | 1              | 16-Dec-2024 |
| 3.9.5 BRIEFING TECHNICAL INSPECTORS   | 85          | 1              | 16-Dec-2024 |
| 3.9.6 POST-INSPECTION / VALIDATION CORRECTIVE ACTIONS                                   | 86          | 1              | 16-Dec-2024 |
| 3.9.7 PROVIDING CASA WITH INSPECTION / VALIDATION REPORTS                               | 86          | 1              | 16-Dec-2024 |
| 3.9.8 MAINTAINING RECORDS OF TECHNICAL INSPECTIONS / MANUAL VALIDATIONS                 | 86          | 1              | 16-Dec-2024 |
| 3.10 AERODROME WORKS SAFETY   | 86          | 1              | 16-Dec-2024 |
| 3.10.1 WORKS SAFETY PERSONNEL   | 87          | 1              | 16-Dec-2024 |
| 3.10.2 PREPARATION OF A METHOD OF WORKING PLAN (MOWP)                                   | 87          | 1              | 16-Dec-2024 |
| 3.10.3 MOWP NOTIFICATIONS   | 88          | 1              | 16-Dec-2024 |
| 3.10.4 COMMUNICATIONS WITH ATC DURING AERODROME WORKS                                   | 89          | 1              | 16-Dec-2024 |
| 3.10.5 TIME-LIMITED WORKS (TLW) OR EMERGENCY WORKS                                      | 89          | 1              | 16-Dec-2024 |
| 3.10.6 NOTIFICATIONS OF TLW OR EMERGENCY WORKS  | 90          | 1              | 16-Dec-2024 |



| <b>Section</b>   | <b>Page</b> | <b>Version</b> | <b>Date</b> |
|--|-------------|----------------|-------------|
| 3.10.7 WORKS AT CLOSED AERODROME   | 90          | 1              | 16-Dec-2024 |
| 3.11 WILDLIFE HAZARD MANAGEMENT  | 91          | 1              | 16-Dec-2024 |
| 3.11.1 WILDLIFE HAZARD PERSONNEL   | 91          | 1              | 16-Dec-2024 |
| 3.11.2 TRAINING OF PERSONNEL   | 92          | 1              | 16-Dec-2024 |
| 3.11.2.1 TRAINING FOR WILDLIFE HAZARD MONITORING AND REPORTING             | 92          | 1              | 16-Dec-2024 |
| 3.11.2.2 TRAINING FOR WILDLIFE HAZARD MITIGATION                           | 92          | 1              | 16-Dec-2024 |
| 3.11.3 WILDLIFE HAZARD MANAGEMENT PLAN                                     | 92          | 1              | 16-Dec-2024 |
| 3.11.4 WILDLIFE HAZARD MONITORING  | 93          | 1              | 16-Dec-2024 |
| 3.11.5 WILDLIFE HAZARD ASSESSMENT  | 93          | 1              | 16-Dec-2024 |
| 3.11.6 WILDLIFE HAZARD MITIGATION  | 94          | 1              | 16-Dec-2024 |
| 3.11.7 WILDLIFE HAZARD REPORTING (AIP, NOTAM, ATC, UNICOM)                 | 94          | 1              | 16-Dec-2024 |
| 3.11.8 LIAISON WITH LOCAL AUTHORITIES FOR WILDLIFE HAZARD MITIGATION       | 94          | 1              | 16-Dec-2024 |
| 3.12 LOW-VISIBILITY OPERATIONS   | 95          | 1              | 16-Dec-2024 |
| 3.12.1 LOW-VISIBILITY PERSONNEL  | 95          | 1              | 16-Dec-2024 |
| 3.12.1.1 RUNWAY VISIBILITY (RV) ASSESSMENT PERSONNEL                       | 95          | 1              | 16-Dec-2024 |
| 3.12.2 VEHICULAR TRAFFIC IN LOW-VISIBILITY OPERATIONS                      | 95          | 1              | 16-Dec-2024 |
| 3.12.3 CNS FACILITIES IN LOW-VISIBILITY OPERATIONS                         | 95          | 1              | 16-Dec-2024 |
| 3.12.4 MANOEUVRING AREA INSPECTIONS IN LOW-VISIBILITY OPERATIONS           | 95          | 1              | 16-Dec-2024 |
| 3.12.5 MEASURING RUNWAY VISIBILITY   | 95          | 1              | 16-Dec-2024 |
| 3.12.6 COMMUNICATING VISIBILITY MEASUREMENTS TO ATC OR PILOTS              | 96          | 1              | 16-Dec-2024 |
| 3.12.7 TRANSMISSOMETERS  | 96          | 1              | 16-Dec-2024 |
| 3.12.8 LOW-VISIBILITY PROCEDURES (LVP)                                     | 96          | 1              | 16-Dec-2024 |
| 3.12.8.1 SPECIFIC CIRCUMSTANCES FOR LVP                                    | 96          | 1              | 16-Dec-2024 |
| 3.12.8.2 NOMINATED RATE OF AERODROME MOVEMENTS                             | 96          | 1              | 16-Dec-2024 |
| 3.12.8.3 LVP-RELATED TRAINING AND AUTHORISATION FOR AIRSIDE DRIVERS        | 96          | 1              | 16-Dec-2024 |
| 3.12.8.4 CONTROL OF AIRSIDE OPERATIONS                                     | 96          | 1              | 16-Dec-2024 |
| 3.12.8.5 WITHDRAWAL OF NON-ESSENTIAL VEHICLES AND PERSONNEL                | 97          | 1              | 16-Dec-2024 |
| 3.12.8.6 SUSPENSION OF VISUAL AND NON-VISUAL AID MAINTENANCE               | 97          | 1              | 16-Dec-2024 |
| 3.12.8.7 SECURING AIRSIDE ACCESS AND PREVENTING ENTRY                      | 97          | 1              | 16-Dec-2024 |
| 3.12.8.8 ALERTING OF LVP   | 97          | 1              | 16-Dec-2024 |
| 3.12.8.9 COORDINATING LVP ACTIVITIES WITH ATC                              | 97          | 1              | 16-Dec-2024 |
| 3.12.8.10 PHYSICAL CHECKS OF LIGHTING AND WARNING DEVICES                  | 97          | 1              | 16-Dec-2024 |
| 3.12.8.11 PROTECTION OF AREAS FOR ILS                                      | 97          | 1              | 16-Dec-2024 |
| 3.12.8.12 EMERGENCY RESPONSES DURING LVP                                   | 98          | 1              | 16-Dec-2024 |
| 3.12.8.13 LVP STATUS   | 98          | 1              | 16-Dec-2024 |
| 3.12.8.14 REVIEW OF LOW-VISIBILITY PROCEDURES                              | 98          | 1              | 16-Dec-2024 |
| 3.13 DISABLED AIRCRAFT REMOVAL   | 99          | 1              | 16-Dec-2024 |
| 3.13.1 AIRCRAFT REMOVAL PERSONNEL  | 99          | 1              | 16-Dec-2024 |
| 3.13.2 AIRCRAFT REMOVAL - AERODROME OPERATOR & AIRCRAFT CERTIFICATE HOLDER | 99          | 1              | 16-Dec-2024 |
| 3.13.3 NOTIFYING AIRCRAFT CERTIFICATE HOLDER                               | 99          | 1              | 16-Dec-2024 |
| 3.13.4 LIAISING WITH THE ATSB, DEFENCE AND ATC                             | 100         | 1              | 16-Dec-2024 |
| 3.13.5 EQUIPMENT AND PERSON(S) TO REMOVE AIRCRAFT                          | 100         | 1              | 16-Dec-2024 |
| 3.14 AERODROME SAFETY MANAGEMENT   | 101         | 1              | 16-Dec-2024 |
| 3.14.1 SAFETY MANAGEMENT SYSTEM (SMS)                                      | 101         | 1              | 16-Dec-2024 |
| 3.14.2 RISK MANAGEMENT PLAN  | 101         | 1              | 16-Dec-2024 |
| 4 AERODROME EMERGENCY RESPONSE   | 102         | 1              | 16-Dec-2024 |
| 4.1 EMERGENCY RESPONSE PERSONNEL   | 102         | 1              | 16-Dec-2024 |
| 4.2 AERODROME EMERGENCY RESPONSE   | 103         | 1              | 16-Dec-2024 |
| 4.2.1 AERODROME EMERGENCY PLAN (AEP)                                       | 103         | 1              | 16-Dec-2024 |
| 4.2.2 LOCAL / STATE EMERGENCY RESPONSE PLAN                                | 103         | 1              | 16-Dec-2024 |
| 4.3 AERODROME EMERGENCY PROCEDURES   | 104         | 1              | 16-Dec-2024 |
| 4.3.1 AERODROME EMERGENCY COMMITTEE  | 104         | 1              | 16-Dec-2024 |
| 4.3.2 EMERGENCY SERVICE ORGANISATIONS                                      | 104         | 1              | 16-Dec-2024 |
| 4.3.3 LOCAL EMERGENCY PLANNING ARRANGEMENTS                                | 108         | 1              | 16-Dec-2024 |

| <b>Section</b>  | <b>Page</b> | <b>Version</b> | <b>Date</b> |
|---|-------------|----------------|-------------|
| 4.3.4 NOTIFICATION AND INITIATION OF EMERGENCY RESPONSE               | 108         | 1              | 16-Dec-2024 |
| 4.3.5 ACTIVATION, CONTROL AND COORDINATION OF EMERGENCY RESPONDERS    | 109         | 1              | 16-Dec-2024 |
| 4.3.6 AERODROME EMERGENCY FACILITIES                                  | 109         | 1              | 16-Dec-2024 |
| 4.3.7 ACCESS AND MANAGEMENT OF ASSEMBLY AREAS                         | 109         | 1              | 16-Dec-2024 |
| 4.3.8 RESPONSE TO A LOCAL STAND-BY EVENT                              | 110         | 1              | 16-Dec-2024 |
| 4.3.9 INITIAL RESPONSE TO FULL EMERGENCY                              | 110         | 1              | 16-Dec-2024 |
| 4.4 READINESS OF EMERGENCY FACILITIES, ACCESS POINTS & ASSEMBLY AREAS | 110         | 1              | 16-Dec-2024 |
| 4.5 EMERGENCY RESPONDER PREPAREDNESS                                  | 111         | 1              | 16-Dec-2024 |
| 4.5.1 SITE INDUCTIONS FOR EMERGENCY RESPONDERS                        | 111         | 1              | 16-Dec-2024 |
| 4.5.2 EMERGENCY RESPONSE TRAINING                                     | 111         | 1              | 16-Dec-2024 |
| 4.5.3 EMERGENCY EXERCISES   | 111         | 1              | 16-Dec-2024 |
| 4.6 POST-EMERGENCY RETURN TO OPERATIONAL STATUS                       | 111         | 1              | 16-Dec-2024 |
| 4.7 REVIEWS OF AERODROME EMERGENCY PLAN (AEP)                         | 112         | 1              | 16-Dec-2024 |
| 4.8 MONITORING LOCAL EMERGENCY PLANNING ARRANGEMENTS                  | 112         | 1              | 16-Dec-2024 |
| 5 APPENDICES  | 113         | 1              | 16-Dec-2024 |
| 5.1 Aerodrome Administration  | 113         | 1              | 16-Dec-2024 |
| 5.2 Light System  | 114         | 1              | 16-Dec-2024 |
| 5.3 Aerodrome Layout  | 131         | 1              | 16-Dec-2024 |
| 5.4 RWY and TWY Slope   | 133         | 1              | 16-Dec-2024 |
| 5.5 VSS   | 135         | 1              | 16-Dec-2024 |
| 5.6 BOM Weather Facilities Layout                                     | 136         | 1              | 16-Dec-2024 |
| 5.7 Emergency Vehicle Access Gates                                    | 139         | 1              | 16-Dec-2024 |
| 5.8 Access Gates  | 143         | 1              | 16-Dec-2024 |
| 5.9 Obstacle Limitation Surfaces                                      | 149         | 1              | 16-Dec-2024 |
| 5.10 Global Reporting Format  | 152         | 1              | 16-Dec-2024 |

# CASR PART 139 AERODROME MANUAL

# 0 PREFACE

## 0.1 AMENDMENT RECORD

### Part 139 MOS - 10.03

Revisions to this manual are dated and a new version number assigned accordingly. In addition to recording the date of change for each section or page of the manual, a summary of the changes made is also recorded.

| Version No. | Date  | Section & Page      | Summary of change(s)   |
|-------------|-------|---------------------|--|
| 1.0         | 04/22 | Ref to LEP          | Initial Version  |
| 2.0         | 04/23 | Ref to LEP          | Links  |
|             |       | Section 1.6.1, p.20 | Aerodrome diagram  |
|             |       | S. 1.13.1.2, p.36   | NOTAM authorised person(s).  |
|             |       | S. 1.14.1, p.39     | Positions with responsibilities Works for Safety person<br>Wildlife hazard personal. |
|             |       | S. 1.22.1, p.69     | Review of Aerodrome Emergency Plan (AEP)   |
|             |       | S. 1.23...1, p.73   | Runway edge lights   |
|             |       | S. 1.33, p.91       |  |
|             |       | S. 2.1.8.5, p.27    | YYWG Obstacles   |
|             |       | Appendix            |  |
|             |       | B3, p.95            |  |
|             |       | B4, p.96            |  |
|             |       | B5, p.97            |  |
|             |       | B8, p.100           |  |
|             |       | B9, p.101           |  |
|             |       | B10, p.102          |  |
|             |       | D1, p.104           |  |
|             |       | D2, p.105           |  |
|             |       | D3, p.106           |  |
| 3.0         | 09/24 | All                 | Wording: changed "Aerodrome" into "Aerodrome"  |
|             |       | S. 1.1, p.14        | Aerodrome administration - signed  |
|             |       | S. 2.1.4.6, p.22    | AD Information   |
|             |       | S. 2.1.4.13, p.24   | Obstacle Free Zone (OFZ)   |
|             |       | S. 2.1.6, p.25      | TWY Information  |
|             |       | S. 2.1.8.2, p.26    | Threshold Lights   |
|             |       | S. 2.1.12.3, p.30   | Ground to air communications   |
|             |       | Appendix D1, p.     | Clear identification of boundary   |
|             |       | S. 2.6.10, p.35     | Deviations from preferred standards  |
|             |       | S. 2.7.1, p.36      | Non-compliant grandfathered facilities   |
|             |       | S. 3.3.14, p.54     | Aerodrome lighting   |
|             |       | S. 3.4, p.55        | Unauthorised entry to Aerodrome  |
|             |       | S. 3.7.5, p.64      | Aerodrome Obstacle control - VSS   |
|             |       | S. 3.7.7, p.65      | Height of infringements  |
|             |       | S. 3.7.11, p.67     | Obstacle light outage  |
|             |       | S. 3.7.12.4, p.67   | Terrain chart is available   |
|             |       | S. 3.9.1, p.69      | AD technical inspection / manual validation  |
|             |       | S. 3.11.1, p.       | Wildlife Hazard Management   |
|             |       | S. 3.13.1, p.84     | Disabled aircraft removal  |

| Version No. | Date | Section & Page | Summary of change(s)         |
|-------------|------|----------------|------------------------------|
|             |      | S. 4.2.1, p.87 | Aerodrome emergency response |

## 0.2 DISTRIBUTION LIST

### Part 139 MOS - 10.02(2)(7)

A copy of this manual is retained in the Terminal Building at Yarrowonga Aerodrome and is made available to CASA for inspection if requested.

Electronic or printed copies and updates of this manual are distributed as follows:

| Copy No. | Manual holder     | Electronic format | Hard copy |
|----------|-------------------|-------------------|-----------|
| 1.0      | Terminal Building | X                 |           |
|          | MSC Office        | X                 |           |
| 2.0      | Terminal Building | X                 | X         |
|          | MSC Office        | X                 |           |
| 3.0      | Terminal Building | X                 | X         |
|          | MSC Office        | X                 |           |
|          |                   |                   |           |

Yarrowonga Aerodrome makes this manual available to all relevant persons via the MSC intranet with Content Manager 10

Persons printing the manual should be aware that any hard copies are uncontrolled and may not be the most up-to-date version.

### 0.3 ABBREVIATIONS AND ACRONYMS

| <b>ABBREVIATIONS or ACRONYMS</b> | <b>MEANING</b>  |
|----------------------------------|---|
| ACN                              | aircraft classification number                                  |
| ADP                              | aeronautical data package                                       |
| AEP                              | aerodrome emergency plan  |
| ARC                              | aircraft reference code   |
| ARFFS                            | aviation rescue and firefighting services                       |
| AGL                              | aeronautical ground lighting                                    |
| AHD                              | Australian height datum   |
| AIP                              | aeronautical information publication                            |
| AIS                              | aeronautical information service                                |
| ALARP                            | as low as reasonably practicable                                |
| AMSL                             | above mean sea level  |
| ARO                              | aerodrome reporting officer                                     |
| ARP                              | aerodrome reference point                                       |
| ASDA                             | accelerate-stop distance available                              |
| ATC                              | air traffic control   |
| AT-VASIS                         | an abbreviated T pattern visual approach slope indicator system |
| AVDGS                            | advanced visual docking guidance system                         |
| CASA                             | Civil Aviation Safety Authority                                 |
| ERSA                             | En-route Supplement Australia                                   |
| ft                               | feet  |
| FOD                              | foreign object debris   |
| H24                              | continuous  |
| IFR                              | instrument flight rules   |
| ILS                              | instrument landing system                                       |
| IWDI                             | illuminated wind direction indicator                            |
| LDA                              | landing distance available                                      |
| LVP                              | low-visibility procedures                                       |
| m                                | metres  |
| MAG                              | movement area guidance sign                                     |
| MOS                              | Manual of Standards   |
| MOWP                             | method of working plan  |
| MSC                              | Moirra Shire Council  |
| NAIPS                            | national aeronautical information processing system             |
| NOF                              | NOTAM Office  |
| NOTAM                            | notice to airman  |
| OFZ                              | obstacle free zone  |
| OLS                              | obstacle limitation surface                                     |
| OMGWS                            | outer main gear wheel span                                      |
| PAL                              | pilot activated lighting system                                 |
| PANS-OPS                         | Procedures for Air Navigation Services - Aircraft Operations    |
| PAPI                             | precision approach path indicator                               |
| PCN                              | pavement classification number                                  |
| RESA                             | runway end safety area  |
| RTIL                             | runway threshold identification lights                          |
| RV                               | runway visibility   |
| RVR                              | runway visibility range   |
| RWY                              | runway  |

| <b>ABBREVIATIONS or ACRONYMS</b> | <b>MEANING</b>                                   |
|----------------------------------|--|
| SMS                              | safety management system                         |
| STODA                            | supplementary take-off distance                  |
| RMP                              | risk management plan                             |
| TDZ                              | touchdown zone                                   |
| TODA                             | take-off distance available                      |
| TORA                             | take-off run available                           |
| T-VASIS                          | T pattern visual approach slope indicator system |
| TWY                              | taxiway  |
| VASIS                            | visual approach slope indicator system           |
| VDGS                             | visual docking guidance system                   |
| VFR                              | visual flight rules                              |
| WDI                              | wind direction indicator                         |

## 0.4 DEFINITIONS

| <b>TERM</b>                        | <b>DEFINITION</b>   |
|------------------------------------|---|
| accelerate-stop distance available | the length of the take-off run available plus the length of the stopway if provided   |
| accident                           | <p>an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:</p> <ul style="list-style-type: none"> <li>• a person is fatally or seriously injured as a result of: <ul style="list-style-type: none"> <li>◦ being in the aircraft, or</li> <li>◦ direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or</li> <li>◦ direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew, or</li> </ul> </li> <li>• the aircraft sustains damage or structural failure which: <ul style="list-style-type: none"> <li>◦ adversely affects the structural strength, performance or flight characteristics of the aircraft, and</li> <li>◦ would normally require major repair or replacement of the affected component, except for engine failure or damage when the damage is limited to the engine, its cowlings or accessories, or for damage limited to propellers, wing tips, antennas, tyres, brakes, fairings, small dents or puncture holes in the aircraft skin, or</li> <li>◦ the aircraft is missing or is completely inaccessible</li> </ul> </li> </ul> |
| aerodrome                          | an area of land or water (including any buildings, installations, and equipment) intended to be used either wholly or in part for the arrival, departure or movement of aircraft.   |
| aerodrome elevation                | the elevation of the highest point of the landing area  |
| aerodrome reference code           | <p>refers to the three (3) elements that are nominated by the aerodrome operator, specifically:</p> <ul style="list-style-type: none"> <li>• a code number which is determined by the aeroplane reference field length, and which is applicable to runways</li> <li>• a code letter which is determined by the aeroplane wingspan, and which is applicable to runways, taxiways, aircraft holding bays and parking positions</li> <li>• the OMGWS which is applicable to runways and taxiways</li> </ul>  |
| aerodrome reference point          | the designated geographical location of an aerodrome  |
| AIP responsible person             | for an aeronautical data originator, a person appointed by the originator under regulation 175.445 as responsible for the provision of aeronautical data or aeronautical information published in the AIP   |
| air transport operation            | <p>a passenger transport operation, or a cargo transport operation, that</p> <p>(a) is conducted for hire or reward, or</p> <p>(b) is prescribed by an instrument issued under regulation 201.025</p>   |

| TERM                          | DEFINITION  |
|-------------------------------|---|
|                               | <p>However, an operation conducted for a purpose mentioned in paragraph 206(1)(a) of CAR is not an air transport operation.</p> <p><i>206(1)(a) aerial work purposes, being purposes of the following kinds (except when carried out by means of an RPA):</i></p> <ol style="list-style-type: none"> <li>1. <i>aerial surveying</i></li> <li>2. <i>aerial spotting</i></li> <li>3. <i>agricultural operations</i></li> <li>4. <i>aerial photography</i></li> <li>5. <i>advertising</i></li> <li>6. <i>balloon flying training</i></li> <li>7. <i>ambulance functions</i></li> <li>8. <i>carriage, for the purposes of trade, of goods being the property of the pilot, the owner or the hirer of the aircraft (not being a carriage of goods in accordance with fixed schedules to and from fixed terminals)</i></li> <li>9. <i>any other purpose that is substantially similar to any of those specified in subparagraphs 1 to 7 (inclusive).</i></li> </ol> |
| AIS provider                  | a person who holds a certificate under regulation 175.055 of CASR   |
| apron                         | a defined area on a land aerodrome to accommodate aircraft for the purposes of loading or unloading passengers, mail or cargo, fuelling, parking or maintenance   |
| apron taxiway                 | a portion of a taxiway system located on an apron to provide a through taxi route for aircraft across the apron to another part of the taxiway system   |
| Australian height datum       | the datum that sets mean sea level as zero elevation  |
| clearway                      | a defined area at the end of the TORA, on the ground or water under the control of the aerodrome operator, which is selected or prepared as a suitable area over which an aeroplane may make a portion of its initial climb to a specified height   |
| displaced threshold           | a threshold not located at the extremity of a runway  |
| holding bay                   | a defined area where aircraft can be held or bypassed to facilitate efficient surface movement of aircraft  |
| incident                      | an occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation   |
| international aerodrome       | an aerodrome:<br>(a) designated by the Department as an international airport in Australia; and<br>(b) identified as a designated international airport in Australia on the Department's website.   |
| instrument runway             | one of the following types of runway nominated for the operation of aircraft using instrument approach procedures:<br>(a) non precision approach runway<br>(b) precision approach runway (CAT I)<br>(c) precision approach runway (SA CAT I)<br>(d) precision approach runway (SA CAT II)<br>(e) precision approach runway (CAT II)<br>(f) precision approach runway (CAT III A / B / C)  |
| landing distance available    | the length of the runway which is declared available and suitable for the ground run of an aeroplane landing  |
| manoeuvring area              | part of the aerodrome used for the take-off, landing and taxiing of aircraft, excluding aprons  |
| method of working plan        | a plan to ensure that aerodrome works do not present a hazard to aircraft operations  |
| movement area                 | that part of an aerodrome to be used for the take-off, landing and taxiing of aircraft, consisting of the manoeuvring area and the aprons   |
| non-homogenous runway surface | a runway surface that has different surface finishes across its full width  |
| non-instrument runway         | a runway for the operation of aircraft using visual approach procedures   |
| NOTAM                         | Notice to Airmen - and is a notice issued by the NOTAM Office containing information or   |



| <b>TERM</b>                       | <b>DEFINITION</b>   |
|-----------------------------------|---|
|                                   | instructions concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to persons concerned with flight operations   |
| NOTAM authorised persons          | for an aeronautical data originator, a person/s appointed under regulation 175.445 by the originator authorised to request the issue, review or cancellation of a NOTAM.  |
| obstacle                          | fixed (whether temporarily or permanently) and mobile objects, structures and parts of such objects and structures, that:<br>(a) are located on an area provided for the surface movement of aircraft, or<br>(b) extend above a defined surface designated to protect aircraft in flight, or<br>(c) stand outside the defined surfaces mentioned in items (a) and (b) above and that have been assessed as being a hazard to air navigation.  |
| obstacle free zone                | the airspace above the inner approach surface, inner transitional surface, baulked landing surface, and that portion of the runway strip bounded by these surfaces, which is not infringed by any fixed obstacle other than a low mass and frangibly mounted one required for air navigation purposes   |
| obstacle limitation surfaces      | a series of planes, associated with each runway at an aerodrome, that defines the desirable limits to which objects or structures may project into the airspace around the aerodrome so that aircraft operations at the aerodrome may be conducted safely   |
| PANS-OPS                          | Doc.8168-OPS/611 Volume II (Procedures for Air Navigation Services – Construction of Visual and Instrument Flight Procedures) approved and published by decision of the Council of the International Civil Aviation Organization, as in force from time to time   |
| pavement classification number    | a number expressing the bearing strength of a pavement for unrestricted operations by aircraft with aircraft classification number (ACN) less than or equal to the PCN  |
| runway                            | a defined rectangular area on a land aerodrome prepared for the landing and take-off of aircraft  |
| runway end safety area            | an area symmetrical about the extended runway centreline and adjacent to the end of the runway strip, primarily to reduce the risk of damage to an aeroplane which undershoots or overruns the runway   |
| runway strip                      | a defined area, including the runway and stopway, provided to:<br>(a) reduce the risk of damage to aircraft running off a runway, and<br>(b) protect aircraft flying over the runway during take-off or landing operations  |
| scheduled air transport operation | an air transport operation conducted in accordance with a published schedule  |
| secondary power supply            | an electrical power supply that:<br>(a) is automatically connected to the relevant load when the primary power source fails, and<br>(b) is derived from:<br>(i) the normal public electrical power supply, but in a way that:<br>(A) supplies power for the aerodrome's functionality from a special substation that is not the normal substation, and<br>(B) supplies the power through a special transmission line that follows a route different from the normal power supply route, and<br>(C) makes extremely remote the possibility of a simultaneous failure of the normal public electrical power supply and the power supply for the aerodrome, or<br>(ii) one or more generators, batteries, or similar devices which deliver a constant, reliable and sufficient supply of electrical power for the relevant aerodrome service |
| shoulder                          | an area adjacent to the edge of a pavement so prepared as to provide a transition between the pavement and the adjacent surface   |
| stopway                           | a defined rectangular area on the ground at the end of the take-off run available and prepared as a suitable area in which an aircraft can be stopped in the case of an abandoned take-off  |
| take-off distance available       | the length of the take-off run available plus the length of the clearway if provided  |
| take-off runway available         | the length of the runway declared available and suitable for the ground run of an aeroplane taking off  |
| taxilane                          | a portion of an apron designated as a taxiway and for use only to provide access to, and egress from aircraft parking positions   |
| taxiway                           | a defined path on an aerodrome on land, established for the taxiing of aircraft from one part of an aerodrome to another. A taxiway includes a taxilane, an apron taxiway, and a rapid exit taxiway   |

| <b>TERM</b>     | <b>DEFINITION</b>   |
|-----------------|---|
| threshold       | the beginning of that portion of the runway usable for landing  |
| Type A chart    | a chart which contains information on all significant obstacles within the take-off area of an aerodrome up to 10 km from the end of the runway |
| Type B chart    | an obstacle chart which provides obstacle data from around the aerodrome  |
| Y location code | the international code prefix used to identify Australian aerodromes  |

### Reference material

| <b>Document type</b> | <b>Title</b>  |
|----------------------|---|
| Regulation           | Part 139 of the <i>Civil Aviation Safety Regulations 1998</i> |
| Regulation           | Part 175 of the <i>Civil Aviation Safety Regulations 1998</i> |
| Manual of Standards  | Part 139 (Aerodromes) Manual of Standards 2019                |

# 1 AERODROME ADMINISTRATION

## *1.1 OPERATOR'S STATEMENT*

### **CASR 139.110(5)(c)**

The Yarrawonga Aerodrome Manual has been prepared in accordance with the requirements set out in the *Civil Aviation Safety Regulations 1998 (CASRs)*, and associated *Part 139 (Aerodromes) Manual of Standards 2019 (Part 139 MOS)*.

The contents of this manual describe the systematic approach to the operation and maintenance of Yarrawonga Aerodrome and demonstrates MSC commitment to managing the aerodrome safely and promoting a positive safety culture.

The aerodrome will be operated and maintained in accordance with the procedures set out in this manual, and in any subsidiary materials that are referenced in this manual, unless a temporary non-compliance or deviation from the procedures is necessary to ensure the safety of aircraft, aircraft operations, or individuals using the aerodrome. If the temporary non-compliance or deviation in the procedures is to take effect on a permanent basis, the manual will be updated. CASA will be advised of a temporary deviation or a change to this manual within 30 days.

At all times when the aerodrome is operating, the aerodrome manual and any subsidiary materials will be accessible by those personnel who have a role of responsibility.

This manual identifies persons from all levels of the organisation who are responsible and accountable for the safe operation of the aerodrome. As the authorisation holder, MSC is committed to ensuring that all individuals understand their responsibilities and accountabilities as defined within this aerodrome manual.

Signed:

Name: Malcolm France

Position: Acting Manager Operations / Accountable Manager

## *1.2 ORGANISATIONAL STRUCTURE*

### **Part 139 MOS - 11.02(a)(i)**

An organisational chart which clearly identifies all personnel responsible for the management and administration of Yarrawonga Aerodrome is available in the Appendix 5.1 of this manual.

## *1.3 KEY PERSONNEL*

### *1.3.1 ACCOUNTABLE MANAGER*

**CASR 139.110(1)(5); Part 139 MOS - 11.02(a)(ii); 13.02; 16.08(3); 25.04(2)(4)**

**Position:** Accountable Manager

**Name:** Malcolm France

**Management position:** Acting Manager Operations

**Responsibilities:**

To ensure Moira Shire Council:

- complies with civil aviation legislation
- operates and maintains the aerodrome safely and with a reasonable degree of care and diligence
- operates and maintains the aerodrome in accordance with the aerodrome manual for the aerodrome.

The accountable manager has a general knowledge of the relevant civil aviation safety legislation and standards that are applicable to the inspection, reporting, operation and maintenance of the aerodrome.

### *1.3.2 MANAGEMENT POSITIONS (AERODROME OPERATION AND MAINTENANCE)*

#### **Part 139 MOS – 11.02(a)(ii)**

#### **The management position (responsible for the operation and maintenance of the aerodrome)**

**Management Position:** Aerodrome Manager

#### **The management positions responsibilities for the Operation, Safety functions and Maintenance of the Aerodrome are:**

- ensuring the Aerodrome is operated in accordance with this Aerodrome Manual, confirming that the Aerodrome complies with the CASA Standards and particularly the Manual of Standards Part 139;
- ensuring Technical Inspection are undertaken by suitably qualified and experienced persons as required by CASR 139.075;
- ensuring that all new and redeveloped facilities constructed/installed are in accordance with the Standards specified in Manual of Standards Part 139;

### *1.3.3 AERODROME OPERATIONS AND SAFETY FUNCTIONS*

#### **Part 139 MOS – 11.02(c)**

The following individuals or positions are responsible for the aerodrome's operations and safety functions:

#### **Individual / Position: Aerodrome Manager**

#### **Responsibilities:**

- Ensure that all persons responsible for safety and operational functions have the appropriate training and experience to undertake those functions as required by CASR 139.115. (1) and MOS Part 139;
- Ensuring any deviations from the Aerodrome Manual that are made to ensure the safety of aircraft are reported to CASA within 30 days;
- Confirming that the Aerodrome complies with all certification conditions, exemption conditions and any directions issued by CASA and maintaining access to all necessary documents to ensure the Aerodrome's safe operation;
- Ensuring that the Aerodrome Safety Officers, Works Safety Officers and Wildlife Management Officers perform their duties according to the requirements of the Aerodrome Manual;
- Providing all Persons with responsibility for safety and operational functions have current and up-to-date licenses and authorisation to undertake those functions as required by CASR 139.140 and MOS Part 139, 10.1.3;
- Ensuring all persons with responsibility for safety and operational procedures have access to sufficient resources to meet the requirements of the roles effectively;
- Maintaining training records for all Aerodrome personnel;
- Ensuring twice-week serviceability inspections are undertaken by suitably qualified and experienced persons.
- Undertaking minor maintenance to Aerodrome facilities as required to ensure serviceability;
- Monitoring air-side vehicle and pedestrian access;
- Monitoring any work activities that a Works Safety Officer supervises;
- Undertaking the functions of a Works Safety Officer during planned and time-limited works, where a specific dedicated Works Safety Officer has not been otherwise assigned and
- Monitoring the activities of the Wildlife Management officers

### *1.4 AERODROME MANUAL ADMINISTRATION*

#### **Part 139 MOS – 10.01(1)(2)(3); 10.02(1)(3)(4); 10.04(1)(2)(b)(c); 11.02(b)**

This aerodrome manual identifies all elements required by the Part 139 MOS. Information that is not relevant to the aerodrome's operational context or regulatory compliance is marked NOT APPLICABLE or N/A.

All required information is contained in this manual and no subsidiary materials have been adopted.

This manual will at all times be accessible by those persons who have a role in the operation and maintenance of the aerodrome.

### *1.4.1 MANUAL CONTROL*

#### **Part 139 MOS – 10.01(4); 11.02(b)**

The following individuals/positions are responses for reviewing, maintaining, amending and controlling this aerodrome manual:

| <b>Individual / Position</b> | <b>Role / Function</b> |
|------------------------------|------------------------|
| Malcolm France               | Accountable Manager    |
| Ingo Schweda                 | Aerodrome Manager      |

### *1.4.2 MANUAL AMENDMENT*

#### **Part 139 MOS - 10.03(1)(2)(3)**

To maintain the accuracy of this manual, the aerodrome manual controller(s) will be advised of any changes to the aerodrome's facilities and operating procedures or of any errors or omissions so that an amendment can be made.

When an amendment is made, the aerodrome manual controller will update the amendment record in the respective section of this manual.

So that readers can identify information in the manual that has changed, the following procedure has been adopted:

- this manual complies with the Part 139 MOS, Chapter 10.03(2)(c)
- the list of effective pages (LEP) is updated with the section, page and date the change was finalised
- section 0.1 Amendment Record is updated with each new version and details of the changes.

Within 30 days of any amendment to this manual, written notice of the change and a new version of the aerodrome manual is provided to CASA.

### *1.4.3 MANUAL REVIEW*

#### **Part 139 MOS – 12.09(6)(a)(ii)**

This manual will be reviewed annually as part of the aerodrome manual validation process.

## *1.5 AUTHORISATIONS*

### *1.5.1 AERODROME CERTIFICATE - CONDITIONS*

#### **Part 139 MOS – 11.01(3)**

The aerodrome was formerly a registered aerodrome. The aerodrome manual has been submitted to CASA. An aerodrome certificate has yet to be issued.

### *1.5.2 AERODROME INSTRUMENTS*

#### **Part 139 MOS – 11.01(3)(a)**

No approvals, determinations, directions, exemptions or other instruments have been issued by CASA.



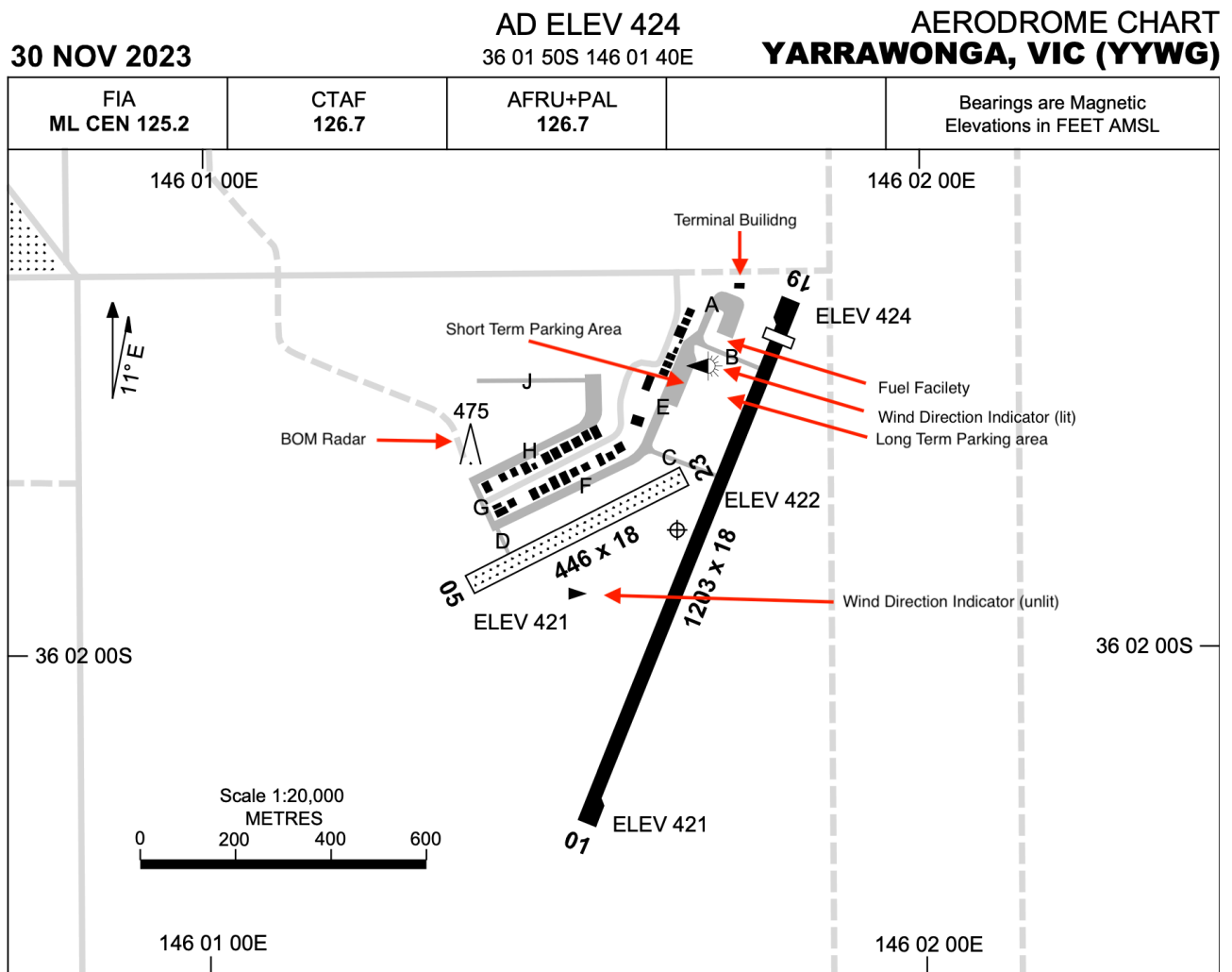
## 2 AERODROME INFORMATION

### 2.1 AERONAUTICAL INFORMATION

#### 2.1.1 AERODROME DIAGRAM

**Part 139 MOS - 11.01(1); 5.03(1)(a)-(j)**

A single aerodrome diagram that clearly illustrates all applicable aerodrome facilities prescribed in subparagraph 5.03(1) of the Part 139 MOS is below.



YYWGLayout301123.png

## 2.1.2 AERODROME ADMINISTRATION STATEMENT

### Part 139 MOS - 11.01(1); 5.03(2)(a)-(c)

The aerodrome's administration information prescribed in subparagraph 5.03(2) of the Part 139 MOS is recorded below:

| DESCRIPTION                         | DETAILS   |
|-------------------------------------|---|
| Name of aerodrome operator          | Moirira Shire Council   |
| Postal address                      | PO Box 578, Cobram Vic. 3643  |
| Phone number                        | (03) 5871 9222  |
| E-mail address                      | info@moira.vic.gov.au   |
| Website                             | <a href="https://www.moira.vic.gov.au">https://www.moira.vic.gov.au</a> |
| Facsimile number (if applicable)    |   |
| <b>OUT OF HOURS CONTACT DETAILS</b> |   |
| Name of out-of-hours contact        | Ingo Schweda  |
| Phone number                        | 0428 752 274  |
| E-mail address                      | ischweda@moira.vic.gov.au   |
| Facsimile number (if applicable)    |   |
| Aerodrome usage                     | a combination of commercial and none commercial                         |

## 2.1.3 AERODROME LOCATION STATEMENT

### Part 139 MOS - 11.01(1); 5.03(4)(a)-(f)

The aerodrome's location information prescribed in subparagraph 5.03(4) of the Part 139 MOS is below:

| Description                  | Details              |
|------------------------------|----------------------|
| Aerodrome name               | Yarrowonga Aerodrome |
| State / Territory            | VIC                  |
| ARP latitude (in WGS84)      | S 36° 1' 50.30"      |
| ARP longitude (in WGS84)     | E 146° 1' 39.92"     |
| Y location code              | YYWG                 |
| Elevation                    | 421 ft               |
| Type A charts (if published) | not provided         |
| Type B charts (if published) | not provided         |

## 2.1.4 MOVEMENT AREA INFORMATION - RUNWAYS

### 2.1.4.1 RUNWAY CODE NUMBER

#### Part 139 MOS - 11.01(1); 5.04(1)(a)

The code number for each of the runway(s) is recorded below:

| Runway | Code Number |
|--------|-------------|
| 01/19  | Code 2      |
| 05/23  | Code 1      |

### 2.1.4.2 RUNWAY BEARING, LENGTH, WIDTH, AND SURFACE TYPE

#### Part 139 MOS - 11.01(1); 5.04(1)(b)(c)

The bearings, length, width, and surface type(s) of the runway(s) is recorded below:

| RUNWAY  | RUNWAY BEARING (MAGNETIC) | RUNWAY LENGTH | RUNWAY WIDTH | RUNWAY SURFACE TYPE, OR TYPES (NON-HOMOGENOUS RUNWAYS) |
|---------|---------------------------|---------------|--------------|--|
| 01 / 19 | 011 / 192                 | 1143 m        | 18 m         | BITUM (Bituminous)                                     |
| 05 / 23 | 052 / 234                 | 446 m         | 18 m         | Natural Surface  |

### 2.1.4.3 THRESHOLD GEOGRAPHICAL LOCATION & ELEVATION - INSTRUMENT RUNWAYS

#### Part 139 MOS - 11.01(1) & 5.04(1)(d)(i)(ii)

The geographical location coordinates and the elevation of the midpoint of the runway threshold for each instrument runway are recorded below:

| RUNWAY THRESHOLD | LATITUDE (WGS84) | LONGITUDE (WGS84) | MIDPOINT ELEVATION |
|------------------|------------------|-------------------|--------------------|
| RWY 01           | S 36° 2' 11.03"  | E 146° 1' 31.70"  | 421 ft             |
| RWY 19           | S 36° 1' 38.57"  | E 146° 1' 48.20"  | 424 ft             |

### 2.1.4.4 RUNWAY PAVEMENT STRENGTH RATING

#### Part 139 MOS - 11.01(1); 5.04(1)(e)

The strength rating of the runway(s) pavement is below:

| ACN - PCN STRENGTH RATING | RUNWAY 01 / 19 |
|---------------------------|----------------|
| PCN value                 | 9              |
| Pavement type             | F              |
| Pavement subgrade         | B              |
| MAX take-off weight       | 5700 kg        |

| <b>ACN - PCN STRENGTH RATING</b> | <b>RUNWAY 01 / 19</b> |
|----------------------------------|-----------------------|
| MAX tyre pressure value          | 0.7 MPa               |
| Tyre pressure category           | Z                     |
| PCN evaluation method            | T                     |

#### 2.1.4.5 RUNWAY STRIP LENGTH AND WIDTH

##### **Part 139 MOS - 11.01(1); 5.04(1)(f)**

The length and width of the runway strip(s) are below:

| <b>RUNWAY</b> | <b>RUNWAY STRIP LENGTH</b> | <b>RUNWAY STRIP WIDTH (GRADED)</b> | <b>RUNWAY STRIP WIDTH (INCLUDING FLYOVER)</b> |
|---------------|----------------------------|------------------------------------|---|
| 01 / 19       | 1143 m                     | 80 m                               | 140 m   |
| 05 / 23       | 446 m                      | 80 m                               | 80 m  |

#### 2.1.4.6 RUNWAY SLOPE

##### **Part 139 MOS - 11.01(1); 5.04(1)(g)**

The runway slope details are below:

| <b>RUNWAY</b> | <b>RUNWAY SLOPE</b>   |
|---------------|-----------------------|
| 01 / 19       | 0.25% slope to the N  |
| 05 / 23       | 0.22% slope to the NE |

#### 2.1.4.7 RUNWAY DECLARED DISTANCES

##### **Part 139 MOS - 11.01(1); 5.04(1)(h)**

The declared distances for each runway are below:

| <b>TYPES</b>                              | <b>RUNWAY 01</b> | <b>RUNWAY 19</b> |
|---|------------------|------------------|
| Take-off run available (TORA)             | 1143 m (3750 ft) | 1203 m (3947 ft) |
| Take-off distance available (TODA)        | 1203 m (3947 ft) | 1263 m (4144 ft) |
| TODA gradient                             | 2.55 %           | 3.22 %           |
| Accelerate-stop distance available (ASDA) | 1143 m (3750 ft) | 1203 m (3947 ft) |
| Landing distance available (LDA)          | 1143 m (3750 ft) | 1125 m (3691 ft) |

| <b>TYPES</b>                              | <b>RUNWAY 05 / 23</b> |
|---|-----------------------|
| Take-off run available (TORA)             | 446 m (1463 ft)       |
| Take-off distance available (TODA)        | 476 m (1561 ft)       |
| TODA gradient                             | 4.36% / 6.33%         |
| Accelerate-stop distance available (ASDA) | 446 m (1463 ft)       |
| Landing distance available (LDA)          | 446 m (1463 ft)       |

*2.1.4.8 INTERSECTION DEPARTURE TAKE-OFF DISTANCES AVAILABLE***Part 139 MOS - 11.01(1); 5.04(1)(h); 5.12(3)(4)**

Intersection departures are not available.

*2.1.4.9 SUPPLEMENTARY TAKE-OFF DISTANCES AVAILABLE (STODA)***Part 139 MOS - 11.01(1); 5.04(1)(h)**

The supplementary take-off distances for each runway are below:

| <b>OBSTACLE CLEAR TAKE-OFF GRADIENT</b> | <b>RUNWAY 01</b> | <b>RUNWAY 19</b> |
|---|------------------|------------------|
| 1.6%                                    | 1002 m           | m                |
| 1.9%                                    | 1106 m           | m                |
| 2.2%                                    | 1170 m           | 837 m            |
| 2.5%                                    | 1199 m           | 996 m            |
| 3.3%                                    | m                | m                |
| 5%                                      | m                | m                |

*2.1.4.10 ESTABLISHED OLS FOR THE RUNWAY***Part 139 MOS - 11.01(1); 5.04(1)(i)**

The code number of the runway(s) OLS is recorded below:

| <b>RUNWAY END</b> | <b>ESTABLISHED CODE</b> |
|-------------------|-------------------------|
| 01                | Code 2                  |
| 19                | Code 2                  |
| 05                | Code 1                  |
| 23                | Code 1                  |

*2.1.4.11 TYPE A CHARTS***Part 139 MOS - 11.01(1); 5.04(1)(j)(i)**

A Type A chart is not required and has not been prepared.

*2.1.4.12 TYPE B CHARTS***Part 139 MOS - 11.01(1); 5.04(1)(j)(ii)**

A Type B chart has not been prepared.

*2.1.4.13 OBSTACLE-FREE ZONE (OFZ)***Part 139 MOS - 11.01(1); 5.04(1)(k)**

An obstacle-free zone is not identified.

*2.1.4.14 ARRESTOR SYSTEM***Part 139 MOS - 11.01(1); 5.04(1)(I)**

An arrestor system is not provided.

*2.1.5 MOVEMENT AREA INFORMATION - RUNWAY STRIP AVAILABILITY***Part 139 MOS - 11.01(1); 5.04(2)(a)(b)**

The runway strip for 01/19 has been suitably prepared and is available for take-offs and landings.

The runway strip is available 24/7.

There are no limitations on the availability of the runway strip.

The runway strip for 05/23 has been suitably prepared and is available for take-offs and landings.

The runway strip is available during daylight hours.

The limitations on the availability of the runway strip are during dry weather conditions.

*2.1.6 MOVEMENT AREA INFORMATION - TAXIWAYS***Part 139 MOS - 11.01(1); 5.04(3)(a)-(d)**

Each taxiway designation, code letter, width, and surface type are below:

| <b>TAXIWAY NAME</b> | <b>TAXIWAY DESIGNATION</b> | <b>ARC LETTER</b>    | <b>TAXIWAY WIDTH</b> | <b>TAXIWAY SURFACE TYPE</b> |
|---------------------|----------------------------|----------------------|----------------------|-----------------------------|
| TWY                 | A                          | B                    | 10.5 m               | BITUMEN                     |
| TWY                 | B                          | B                    | 10.5 m               | BITUMEN                     |
| TWY                 | C                          | B                    | 10.5 m               | NATURAL SURFACE             |
| TWY                 | D                          | B                    | 10.5 m               | BITUMEN                     |
| TWY                 | E                          | UNDER REVIEW (B)     | 10.5 m               | BITUMEN                     |
| TWY                 | F                          | UNDER REVIEW (A) (B) | 10.5 m               | BITUMEN                     |
| TWY                 | G                          | UNDER REVIEW (A) (B) | 10.5 m               | BITUMEN                     |
| TWY                 | H                          | UNDER REVIEW (A) (B) | 10.5 m               | BITUMEN                     |
| TXL                 | J                          | UNDER REVIEW (A)     | 7.5 m                | BITUMEN                     |

### *2.1.7 MOVEMENT AREA INFORMATION - APRONS*

#### **Part 139 MOS - 11.01(1); 5.04(4)(a)-(c); 5.04(5)(a)(b)**

The aerodrome has no international operations, nor have the parking position designations been provided to Airservices for publication in the AIP. See below for the apron surface type(s):

| <b>APRON</b>    | <b>APRON SURFACE TYPE</b> |
|-----------------|---------------------------|
| Aerodrome Apron | Bitumen seal              |

## 2.1.8 VISUAL AIDS - APPROACH AND RUNWAY LIGHTING SYSTEMS

### 2.1.8.1 APPROACH LIGHTING SYSTEM(S) (ALS)

#### Part 139 MOS - Chapter 9, Division 6 & 7; 11.01(1); 5.05(1)(a)

The aerodrome does not have a runway approach lighting system.

### 2.1.8.2 RUNWAY THRESHOLD LIGHTS AND WING BARS

#### Part 139 MOS - 11.01(1); 5.05(1)(b)

The particulars for each runway threshold lights and wing bars (if provided) are below:

| RUNWAY DESIGNATION | THRESHOLD LIGHTS - COLOUR | WING BARS - COLOUR | GEOGRAPHICAL COORDINATES            |
|--------------------|---------------------------|--------------------|-------------------------------------|
| 01                 | GREEN                     | NOT PROVIDED       | S 36° 2' 11.64<br>E 146° 1' 31.40"  |
| 19                 | GREEN                     | NOT PROVIDED       | S 36° 1' 37.93"<br>E 146° 7' 48.58" |

### 2.1.8.3 VISUAL APPROACH SLOPE INDICATOR SYSTEM (VASIS)

#### Part 139 MOS - Chapter 9, Division 9; 11.01(1); 5.05(1)(c)

Visual approach slope indicator system(s) are not provided.

### 2.1.8.4 TOUCHDOWN ZONE (TDZ) LIGHTING

#### Part 139 MOS - 11.01(1); 5.05(1)(d)

Touchdown zone lighting is not provided.

### 2.1.8.5 RUNWAY CENTRELINE LIGHTS

#### Part 139 MOS - 11.01(1); 5.05(1)(e)

Runway centreline lights are not provided.

### 2.1.8.6 RUNWAY EDGE LIGHTS

#### Part 139 MOS - Chapter 9, Division 10; 11.01(1); 5.05(1)(f)

The length, longitudinal spacing, colour and intensity of the runway edge lights are below:

| RUNWAY DESIGNATION      | LENGTH | LONGITUDINAL SPACING | COLOUR | INTENSITY (cd)     |
|-------------------------|--------|----------------------|--------|--------------------|
| 01                      | 1143 m | 59.5 m               | WHITE  | LI                 |
| 19                      | 1143 m | 59.5 m               | WHITE  | LI                 |
| (See Appendix 5.2 Light |        |                      |        | Low Intensity (LI) |



| RUNWAY DESIGNATION | LENGTH | LONGITUDINAL SPACING | COLOUR | INTENSITY (cd) |
|--------------------|--------|----------------------|--------|----------------|
| System)            |        |                      |        |                |

### 2.1.8.7 RUNWAY END LIGHTS

#### Part 139 MOS - Chapter 9, Division 10; 11.01(1); 5.05(1)(g)

The colour(s) of the runway end lights are below:

| RUNWAY END | RUNWAY END LIGHTS - COLOUR |
|------------|----------------------------|
| 01         | RED                        |
| 19         | RED                        |

The colour of wing bars (if provided) are recorded in subsection 2.1.8.2 of this manual.

### 2.1.8.8 STOPWAY LIGHTS

#### Part 139 MOS - 11.01(1); 5.05(1)(h)

The aerodrome does not have stopway lights.

### 2.1.8.9 STARTER EXTENSION LIGHTING

#### Part 139 MOS - 11.01(1); 5.05(1)(i)

The availability of starter extension lighting is provided at the following runway ends:

- RWY 19

### 2.1.8.10 RUNWAY THRESHOLD IDENTIFICATION LIGHTS (RTIL)

#### Part 139 MOS - 11.01(1); 5.05(1)(j)

The aerodrome does not have RTIL.

### 2.1.8.11 PILOT ACTIVATED LIGHTING (PAL) SYSTEM

#### Part 139 MOS - 11.01(1); 5.05(1)(k)

The availability of a PAL system is as follows:

- PAL
- AFRU

Operates on the VHF radio frequency 126.7 MHz and requires three one-second pulses to activate

## 2.1.9 VISUAL AIDS - OTHER LIGHTING AND SECONDARY POWER SUPPLY

### 2.1.9.1 AERODROME BEACON

#### Part 139 MOS - 11.01(1); 5.05(2)(a)

The aerodrome does not have an aerodrome beacon.

### 2.1.9.2 TAXIWAY LIGHTING SYSTEMS (INCLUDING HOLDING POSITIONS AND STOP BARS)

#### Part 139 MOS - 11.01(1); 5.05(2)(b)

The lighting systems for taxiways, including taxiway holding positions and stop bars (where provided), are below:

| TAXIWAY DESIGNATION | TAXIWAY LIGHTING SYSTEM - EDGE LIGHTS | TAXIWAY LIGHTING SYSTEM - CENTRELINE LIGHTS | TAXIWAY LIGHTING SYSTEM - STOP BARS | TAXIWAY LIGHTING SYSTEM - HOLDING POSITION LIGHTS |
|---------------------|---------------------------------------|---|-------------------------------------|---|
| A                   | Reflective Tape                       | N/A   | N/A                                 | N/A   |
| B                   | BLUE omnidirectional                  | N/A   | N/A                                 | YELLOW omnidirectional                            |
| C                   | BLUE omnidirectional                  | N/A   | N/A                                 | YELLOW omnidirectional                            |
| D                   | Reflective Tape                       | N/A   | N/A                                 | N/A   |
| E                   | BLUE omnidirectional                  | N/A   | N/A                                 | N/A   |
| F                   | Reflective Tape, one side             | N/A   | N/A                                 | N/A   |
| G                   | Reflective Tape, one side             | N/A   | N/A                                 | N/A   |
| H                   | Reflective Tape, one side             | N/A   | N/A                                 | N/A   |
| J                   | Reflective Tape                       | N/A   | N/A                                 | N/A   |

### 2.1.9.3 APRON LIGHTING SYSTEMS (INCLUDING VDGS)

#### Part 139 MOS - 11.01(1); 5.05(2)(c)

Apron lighting is not provided at the aerodrome.

#### *2.1.9.4 OTHER MOVEMENT AREA - LIGHTING SYSTEMS*

##### **Part 139 MOS - 11.01(1); 5.05(2)(d)**

All other movement area lighting systems provided at the aerodrome are below:

- Wind Sock Light
- Signal area

#### *2.1.9.5 OBSTACLE LIGHTING FOR OLS INFRINGEMENTS*

##### **Part 139 MOS - 11.01(1); 5.05(2)(e)**

There are no lit obstacles that infringe the aerodromes OLS.

#### *2.1.9.6 SECONDARY POWER SUPPLY (INCLUDING SWITCH-OVER TIME)*

##### **Part 139 MOS - 11.01(1); 5.05(2)(f)**

A secondary power supply is not provided.

#### *2.1.10 NAVIGATION AIDS*

##### **Part 139 MOS - 11.01(1); 5.06**

No navigation aids are provided by the aerodrome operator.

#### *2.1.11 AVIATION RESCUE AND FIRE-FIGHTING SERVICES (ARFFS)*

##### **Part 139 MOS - 11.01(1); 5.07**

An ARFFS is not provided by the aerodrome operator.

## 2.1.12 GROUND SERVICES

### 2.1.12.1 FUEL SUPPLIERS

#### Part 139 MOS - 11.01(1); 5.08(a)

Fuel suppliers and their contact details are below:

| FUEL SUPPLIER | FUEL TYPE | CONTACT DETAILS  | AFTER HOURS CONTACT DETAILS  |
|---------------|-----------|--|------------------------------|
| iOR           | AV GAS    | iOR Head Office<br>99 Southgate Ave<br>Cannon Hill<br>QLD 4170<br>1300 457 467 | Ingo Schweda<br>0427 711 566 |
| iOR           | JET A1    | iOR Head Office<br>99 Southgate Ave<br>Cannon Hill<br>QLD 4170<br>1300 457 467 | Ingo Schweda<br>0427 711 566 |

### 2.1.12.2 WEATHER INFORMATION BROADCASTS

#### Part 139 MOS - 11.01(1); 5.08(b)

Aerodrome weather information broadcasts are not provided by the aerodrome operator.

### 2.1.12.3 GROUND-TO-AIR COMMUNICATION SYSTEMS

#### Part 139 MOS - 11.01(1); 5.08(c)

The ground-to-air communication systems provided by the aerodrome operator are below:

- Aerodrome Frequency Response Unit (AFRU)
- Pilot Activation Light (PAL)
- on Frequency 126.7 MHz

### 2.1.12.4 OTHER AVIATION-RELATED SERVICES MADE AVAILABLE TO PILOTS

#### Part 139 MOS - 11.01(1); 5.08(d)

No other aviation-related services are made available to pilots by the aerodrome operator.

### *2.1.13 AERODROME OPERATIONAL PROCEDURES - STANDARD TAXI ROUTES*

#### *2.1.13.1 STANDARD TAXI ROUTES DETERMINED BY AERODROME OPERATOR*

**Part 139 MOS - 11.01(1); 5.09(1)(a)**

Standard taxi routes have not been determined by the aerodrome operator.

#### *2.1.13.2 STANDARD TAXI ROUTES DETERMINED BY THE ATS PROVIDER*

**Part 139 MOS - 11.01(1); 5.09(1)(b)**

Standard taxi routes have not been determined by the ATS provider.

### *2.1.14 AERODROME OPERATIONAL PROCEDURES - SPECIAL PROCEDURES*

**Part 139 MOS - 11.01(1); 5.09(2)**

Special procedures unique to the aerodrome which pilots would reasonably be expected to know in the interests of aviation safety are below:

- Due to single-lane and obstructed visibility, all traffic using Taxiway G to check for oncoming aircraft and broadcast intention.

### *2.1.15 AERODROME OPERATIONAL PROCEDURES - NOTICES*

**Part 139 MOS - 11.01(1); 5.09(3)**

Cautionary or administrative notices relating to the safe use of the aerodrome are below:

- Mobile agricultural irrigator may be in the vicinity of APCH RWY 19.
- Caution: R363 Mulwala (1.15NM RAD / 2000FT centred on 35584S 1455844E, H24).
- Seasonal bird hazard (Masked lapwings, Plovers and large flock of Corellas) at AD.

### *2.1.16 AERODROME OPERATIONAL PROCEDURES - LOW-VISIBILITY PROCEDURES*

**Part 139 MOS - 11.01(1); 5.09(4)(a)(b)(c)**

Low-visibility procedures are not established at the aerodrome.

## *2.2 AERODROME SITE PLAN*

### **Part 139 MOS - 11.01(2)(a)(i)-(v)**

A scaled plan of the aerodrome site that clearly shows all applicable aerodrome facilities prescribed in subparagraph 11.01(2)(a) of the Part 139 MOS is available in Appendix 5.3 Aerodrome Layout of this manual.

## *2.3 SITE PLAN - FACILITIES OUTSIDE THE AERODROME BOUNDARY*

### **Part 139 MOS – 11.01(2)(b)**

Yarrowonga Aerodrome does not own any aerodrome facilities or equipment that is located outside the boundaries of the aerodrome; therefore this subsection is NOT APPLICABLE.

## 2.4 AERODROME REFERENCE CODE (ARC) NOMINATIONS

### 2.4.1 RUNWAYS

#### Part 139 MOS – 11.01(2)(c)

The aerodrome reference code (ARC) number, letter and OMGWS for each runway is below:

| RUNWAY    | ARC NUMBER | ARC LETTER | OMGWS                          |
|-----------|------------|------------|--------------------------------|
| RWY 01/19 | 2          | Code B     | 4.5m up to but not included 6m |
| RWY 05/23 | 1          | Code A     | 4.5m up to but not included 6m |

### 2.4.2 TAXIWAYS AND TAXILANES

#### Part 139 MOS – 11.01(2)(c)

The aerodrome reference code (ARC) letter and OMGWS for each taxiway and taxi lane is below:

| TAXIWAY / TAXILANE | ARC LETTER                                   | OMGWS                          |
|--------------------|--|--------------------------------|
| TWY A              | Code B                                       | 4.5 up to but not including 6m |
| TWY B              | Code B                                       | 4.5 up to but not including 6m |
| TWY C              | Code B                                       | 4.5 up to but not including 6m |
| TWY D              | Code B                                       | 4.5 up to but not including 6m |
| TWY E              | Restricted to 12m Wingspan (is under review) | 4.5 up to but not including 6m |
| TWY F              | Restricted to 12m Wingspan (is under review) | 4.5 up to but not including 6m |
| TWY G              | Restricted to 12m Wingspan (is under review) | 4.5 up to but not including 6m |
| TWY H              | Restricted to 12m Wingspan (is under review) | 4.5 up to but not including 6m |
| TXL J              | Restricted to 12m Wingspan (is under review) | Up to but not including 4.5    |

### 2.4.3 AIRCRAFT PARKING POSITIONS

#### Part 139 MOS – 1.08(2)

Marked aircraft parking positions (primary and secondary) are not provided; therefore, this subsection is NOT APPLICABLE.

### 2.4.4 HOLDING BAYS (AIRCRAFT)

#### Part 139 MOS – 1.08(2); 6.55(2)

Aircraft holding bays are not provided; therefore, this is NOT APPLICABLE.

## 2.5 INSTRUMENT CLASSIFICATION OF EACH RUNWAY

### Part 139 MOS – 3.01(2); 11.01(2)(d)

The instrument classification for each runway end is below:

| <b>RUNWAY DESIGNATION</b> | <b>INSTRUMENT CLASSIFICATION</b>       |
|---------------------------|--|
| RWY 01                    | Non-Instrument                         |
| RWY 19                    | Non-precision Instrument RNAV-Z (GNSS) |
| RWY 05                    | Non-Instrument                         |
| RWY 23                    | Non-Instrument                         |



## 2.6 DEVIATIONS FROM PREFERRED STANDARDS

### 2.6.1 LOCATION OF RUNWAY THRESHOLD

#### Part 139 MOS – 6.01(3)(4)(6); 8.26

The following runway thresholds are permanently displaced from the extremity of the runway:

| <b>RUNWAY END</b> | <b>DISTANCE OF PERMANENT THRESHOLD DISPLACEMENT</b> | <b>REASONS FOR PERMANENT THRESHOLD DISPLACEMENT</b> |
|-------------------|---|---|
| 19                | 60m   | Due to OLS  |

### 2.6.2 RUNWAY TURN PAD / BYPASS PAD

#### Part 139 MOS – 6.03(2)(3)

All runway turn pads/bypass pads are located on the right-hand side of the runway as viewed when looking in the direction of take-off from that runway end.

### 2.6.3 RUNWAY LONGITUDINAL SLOPE VALUES

#### Part 139 MOS – 6.06(1)-(7)

The maximum runway longitudinal slope values expressed in subparagraphs 6.06(1) to (6) of the Part 139 MOS have not been exceeded.

### 2.6.4 RUNWAY TRANSVERSE SLOPE VALUES

#### Part 139 MOS – 6.08(2)(3)

The runway transverse slope values expressed in Table 6.08(2) of the Part 139 MOS have not been exceeded.

## 2.6.5 RUNWAY SURFACES

### 2.6.5.1 AVERAGE SURFACE TEXTURE DEPTH

#### Part 139 MOS – 1.08(4), Table 6.09(1)-1

The preferred average surface texture depth of 1 mm has been met on all runways.

### 2.6.5.2 FRICTION VALUES

#### Part 139 MOS – 1.08(4); Table 6.09(1)-2

The aerodrome is not used for scheduled international air transport operations.

## 2.6.6 LONGITUDINAL SLOPE DESIGN VALUES ON GRADED RUNWAY STRIP

#### Part 139 MOS – 6.18(1)(2)

The design longitudinal slope values expressed in subparagraph 6.18(1) of the Part 139 MOS have not been exceeded.

## 2.6.7 RUNWAY END SAFETY AREA (RESA)

#### Part 139 MOS – 1.08(4); 6.26(4)

The preferred RESA length, as stated in Table 6.26(4) of the Part 139 MOS has not been met on the following runway:

| RUNWAY DESIGNATION | ACTUAL RESA LENGTH | REASONS WHY THE PREFERRED RESA LENGTH NOT MET |
|--------------------|--------------------|---|
| RWY01              | 45m                | Fencing                                       |
| RWY19              | 30m                | Fencing                                       |

## 2.6.8 TAXIWAY LONGITUDINAL SLOPE VALUES

#### Part 139 MOS – 1.08(4); 6.40(1)(2)(3)

The maximum taxiway longitudinal slope values expressed in subparagraphs 6.40(1) and (2) of the Part 139 MOS have not been exceeded.

## 2.6.9 TAXIWAY TRANSVERSE SLOPE VALUES

#### Part 139 MOS – 6.41(2)(3)

The taxiway transverse slope values expressed in Table 6.41(2) of the Part 139 MOS have not been exceeded.

## *2.6.10 COLOUR OF AERODROME MARKINGS, MARKERS, SIGNALS AND SIGNS*

### **Part 139 MOS – Table 8.03(1)**

| <b>Example of colour</b> | <b>AS colour code</b> | <b>AS colour name</b>  |
|--------------------------|-----------------------|--|
| Blue                     | B41                   | Blue bell  |
| Green                    | G35/G26               | Lime/apple green   |
| Orange                   | X15                   | Orange   |
| Red                      | R13/<br>R14/R15       | Signal red, Waratah or crimson. AS Code R13, signal red, is preferred. However, AS Code R14 or R15 may be used if AS Code R13 cannot be sourced. |
| Yellow                   | Y14                   | Golden yellow  |
| White                    | N14                   | White  |
| Black                    | N61                   | Black  |

## *2.6.11 RUNWAY EDGE LIGHTS ON A REDUCED RUNWAY WIDTH*

### **Part 139 MOS – 9.51(10)(11)**

Runway edge lights are not located more than 3 m from the edge of the declared area.

## *2.6.12 SPACING OF TAXIWAY EDGE LIGHTS*

### **Part 139 MOS – 9.92(1)**

The spacing of all taxiway edge lights complies with section 9.92 of the Part 139 MOS.

## 2.7 FACILITIES WITH RETAINED COMPLIANCE

### 2.7.1 NON-COMPLIANT GRANDFATHERED FACILITIES

#### Part 139 MOS – 11.01(3)(b)

At the time of commencement of the Part 139 MOS, the following aerodrome facilities do not comply with the new standards.

These aerodrome facilities / OLS did meet a previous standard that was in place at the time the facility was introduced, last upgraded or replaced.

These facilities will be maintained in accordance with the requirements set out in the Part 139 MOS for the same facility.

| <b>FACILITY (GRANDFATHERED)</b> | <b>DESCRIPTION OF NON-COMPLIANCE</b>  |
|---------------------------------|---|
| TWY E - J width                 | TWY E - G not complying with 6.48 (i) of the MOS Part 139 for code A TWY. TWY Strip is 14m instead of 15.5m   |
| TWY E - J line of sight         | TWY's not complying with Table 6.42 (1) of the MOS Part 139 for TWY Code A. MSC is with CASA under review of this situation and close in contact with the CASA Inspectors.  |
| RWY 05 TRANSITIONAL SFC         | Fencing infringes RWY 05 transitional SFC by 0.66ft.  |
| RWY 01 RESA                     | At the RWY end of 01; RESA allows only 45m instead of 60m due to Fencing and Road.  |
| RWY 19 RESA                     | At the RWY end of 19; RESA allows only 30m instead of 60m due to Fencing  |
| TWY Edge Marker                 | According to 9.95 (2) (a) of the MOS Part 139, Characteristics of TWY edge Markers must be rectangular. YYWG AD edge Markers are round with the same markings.  |
| RWY 01/19 OLS                   | RWY does not meet the RWY width as per Table 6.02(1) of the MOS Part 139. RWY is 18m width.<br>The length of the INNER EDGE of RWY01/19 is 90m.<br>RWY19 APPROACH SLOPE 3.33%, DIVERGENCE 15%, TRANSITIONAL SLOPE OF 20% (1 in 5).<br>Mobile agriculture irrigator may be in vicinity of APCH to RWY19. Land owner will notify Aerodrome Manager to activate NOTAM for the time of operation.<br>Active irrigator will be identified by warning beacon. |

### 2.7.2 GRANDFATHERED FACILITIES OPTED-IN

#### Part 139 MOS – 2.01 opted-in

All grandfathered facilities remain grandfathered to a previous standard.

## 3 AERODROME OPERATING PROCEDURES AND SYSTEMS

### *3.1 REPORTING AERONAUTICAL DATA AND INFORMATION*

This section documents the procedures for:

- providing information to the AIS provider (Airservices) for publication in the Aeronautical Information Package (AIP)
- notifying Airservices of any changes that are required to be made to the information that is published in the AIP
- reporting to the NOTAM Office (NOF) any changes to the condition of the aerodrome facility, or any hazards, that may adversely affect aviation safety
- reporting hazards that may adversely affect aviation safety to ATC
- making the aerodrome reports readily accessible to relevant personnel
- retaining reports for at least 3 years
- maintaining the integrity of information that is published.

### *3.1.1 PERSONNEL WITH RESPONSIBILITIES - DATA ORIGINATOR*

#### *3.1.1.1 AIP RESPONSIBLE PERSON*

##### **CASR 175.445(1)(2); Part 139 MOS – 11.05(3)**

The nominated AIP responsible person for Yarrawonga Aerodrome is Ingo Schweda.

Their nomination has been provided to Airservices on the Aeronautical Data Originator (ADO) form that is available on the Airservices Australia website.

To meet the requirements of CASR 175.445, Moira Shire Council ensures that the AIP responsible person has been suitably trained so that they have the knowledge and competence to carry out their responsibilities.

Where a change to the AIP responsible person is required, a new ADO form will be submitted to Airservices informing them of the new appointment. This subsection of the manual will also be updated to reflect the change in nomination.

#### *3.1.1.2 NOTAM AUTHORISED PERSON(S)*

##### **CASR 175.445(4)(5); Part 139 MOS – 11.05(3)**

Persons who are authorised to request the issue, review, and cancellation of NOTAMs at Yarrawonga Aerodeome are below:

| <b>NOTAM AUTHORISED PERSON(S)</b> |
|-----------------------------------|
| Ingo Schweda                      |
| Daniel Pettit                     |

To meet the requirements of CASR 175.445, Moira Shire Council ensures that these persons have been suitably trained so that they have the knowledge and competence to request the issue, review and cancellation of NOTAMs.

The list of NOTAM-authorised persons is recorded in the NAIPS system that Airservices administers.

A NOTAM group manager who is responsible for maintaining and updating the NOTAM group has been nominated and recorded in the NAIPS system.

The NOTAM group manager for Yarrawonga Aerodrome is Ingo Schweda.

Where a change to the NOTAM group is required, the NOTAM group manager will update the NAIPS system. This subsection of the manual will also be updated to reflect the change in NOTAM authorised person(s).

### *3.1.2 CHANGES TO PUBLISHED AERONAUTICAL INFORMATION*

##### **CASR 175.455; 175.460; Part 139 MOS – 11.05(1)(a)**

The AIP responsible person is authorised to request a change to information that is published in the AIP.

MSC ensures that all requests for a change adhere to Airservices data quality requirements and

are in a format that allows Airservices to readily identify the required change(s) to the existing published data or information, including any consequential changes.

As soon as practicable after becoming aware of a change, a request for a change will be made in writing to Airservices at: [docs.amend@airservicesaustralia.com](mailto:docs.amend@airservicesaustralia.com)

MSC ensures that a statement of any consultation undertaken is provided with the request for change if the data is expected to cause an aviation organisation to make plans for changes to the organisation's operating procedures.

Once the request for a change has been submitted, the Aeronautical Data Package / Section 2 of this manual will be amended to reflect the change in aeronautical information.

MSC endeavours to ensure that long-term changes are planned and incorporated into the AIP. Aeronautical information is updated quarterly. The Airservices document amendment calendar is published on the Airservices website. To best ensure the timely communication of a change to published information, the deadlines for submissions are recorded and monitored by the AIP responsible person.

### *3.1.3 ADVISING NOTAM OFFICE (NOF) OF CHANGES - AERODROME CONDITIONS / HAZARDS*

#### **CASR 175.470; Part 139 MOS – 11.05(1)(b)(c)**

In the event there is a change to the condition of the aerodrome facility, or there is a hazard to aircraft operations, a NOTAM authorised person will, as soon as possible after the condition or hazard is detected, request the issue of a NOTAM.

To request the issue of a NOTAM, the NOTAM authorised person will complete a NOTAM request form which is available on the Airservices website.

The completed NOTAM request form will be submitted electronically to the NOTAM Office (NOF) at: [nof@airservicesaustralia.com](mailto:nof@airservicesaustralia.com)

Alternatively, a NOTAM request form will be faxed to the NOF. The fax number for the NOF is: 02 6268 5044

In an emergency or if the matter is urgent, the NOTAM authorised person may phone the NOF to request the immediate issue of a NOTAM. In these circumstances, the NOF can be contacted on: 02 6268 5063.

Urgent reports made by phone will be confirmed as soon as possible by the submission of a NOTAM request form forwarded either by e-mail or facsimile.

On submission of the request to issue a NOTAM, the NOTAM authorised person will obtain a copy of the published NOTAM through NAIPS to check the accuracy of that information which has been published. If an error is discovered, the discrepancy will be reported immediately to the NOF.

NOTAM will normally only be used in the case of operationally significant changes (reportable occurrences) that are required at short notice. The list of reportable occurrences is contained in subsection 3.2.6.1 of this manual.

### *3.1.4 REPORTING HAZARDS THAT MAY ADVERSELY AFFECT AVIATION SAFETY TO ATC*

#### **Part 139 MOS – 11.05(1)(d)(e)**

As YYWG is not a controlled aerodrome, hazards that are of an urgent nature and may adversely affect aviation safety for aircraft en-route to the aerodrome will be communicated to Brisbane ATC centre. The contact phone number is 02 6268 5063.

In the event of:

- i) a severe wind event, storm or period of heavy or prolonged rainfall
- ii) meteorological conditions that may cause the RWYCC to change
- iii) the width of the runway available is less than the published width
- iv) scheduled Aeroplane operations, whereby the Aeroplane operator has advised the ARO in advance, or known to be in progress at the aerodrome which affects the condition of the runway surface

the ARO should assign a runway condition code (RWYCC) using RCAM 10.5 (4), to inform pilots of runway braking action.

The Runway Condition Assessment Worksheet Summer/Winter is located in Appendix 5.10 (1)-(4) which describes the runway surface condition assessment, providing the RWYCC and reporting process.

The completed NOTAM request form will be submitted electronically to the NOTAM Office (NOF) at: [nof@airservicesaustralia.com](mailto:nof@airservicesaustralia.com) or NAIPS Internet Service.

### *3.1.5 RECORD KEEPING - REPORTS*

#### **Part 139 MOS – 11.05(2)(a)(b)**

A copy of all NOTAMs requested by MSC Aerodrome are:

**Retained by:** Aerodrome Manager

**Stored securely at:** MSC Intranet

A copy of all requests for change(s) to published information that are sent to the Airservices docs amend are:

**Retained by:** Aerodrome Manager

**Stored securely at:** MSC Intranet

Copies of all requests are held on file for a minimum period of three (3) years from the date each request was made.

The AIP responsible person and NOTAM authorised person(s) have access to all reports held on file.

The accuracy and currency of all active NOTAMs requested by Yarrawonga Aerodrome is checked by the Aerodrome Reporting Officer during the serviceability inspection process. Refer to subsection 3.2.4.1 of this manual.



### 3.1.6 REVIEW OF PUBLISHED INFORMATION

#### **CASR Part 175.465; Part 139 MOS – 12.09(6)(a)(i); 12.11(11)(d)(i)**

The Accountable Manager will review, at least once annually, the published aeronautical data and aeronautical information for which the aerodrome is responsible. Documented evidence of each review is:

**Retained by:** Accountable Manager

**Stored securely at:** MSC Intranet

MSC ensures the records of each review are kept for a minimum period of three (3) years from the date the review was completed.

In the event inaccurate information is identified during the review, the AIP responsible person will notify Airservices immediately.

## 3.2 AERODROME SERVICEABILITY INSPECTIONS

#### **Part 139 MOS – 11.03(1)(2)**

This section documents the procedures for:

- scheduling, conducting and reporting on the results of routine aerodrome serviceability inspections and additional aerodrome serviceability inspections should the circumstances require them to be conducted
- communicating with ATC during the inspection (if applicable)
- taking prompt follow-up action(s) to ensure the correction of any unsafe conditions
- arranging a technical inspection if an unsafe condition is identified
- maintaining records of inspections.

### 3.2.1 POSITIONS WITH RESPONSIBILITIES

#### **CASR 139.080(2); 139.085(2); Part 139 MOS – 11.03(2)(a)-(d); 13.03(a)-(f)**

The Aerodrome Manager is responsible for managing the aerodrome's serviceability inspections, ensuring that they occur in accordance with the requirements of the Part 139 MOS, and this manual.

The following is a list of personnel authorised to perform the functions of a reporting officer. The authorisation allows them to carry out serviceability inspections at Yarrawonga Aerodrome.

| <b>NAME</b>     | <b>POSITION</b>                              | <b>FUNCTION</b>  |
|-----------------|--|------------------|
| Ingo Schweda    | Aerodrome Manager                            | Management / ARO |
| Malcolm France  | Accountable Manager                          | Management / ARO |
| Daniel Pettit   | Superintendent Works and Services Operations | ARO              |
| Edward Thomson  | Leading Hand Parks                           | ARO              |
| Wayne Hyke      | Team Leader Parks                            | ARO              |
| Ashley Saunders | Acting Leader Hand Roads                     | ARO              |
| Clint Furmston  | Team Leader Parks                            | ARO              |
| Aaron Teixeira  | Leading Hand Parks                           | ARO              |

All personnel appointed as reporting officers have been trained so that they can competently

carry out their duties at this aerodrome, without the need for supervision.

MSC ensures that all training activities for reporting officers are recorded to verify achieved competencies.

All reporting officers undergo recurrent training every two to five years as is recommended in guidance material published by CASA.

A training schedule has been established and is maintained by Accountable Manager. The training schedule is reviewed regularly to ensure training is completed in a timely manner.

The training records of all reporting officers are:

**Maintained by: Training Department**

**Stored securely at: Intranet**

The Aerodrome Manager is responsible for reporting the results of the inspections.

The Aerodrome Manager is responsible for taking follow-up action if an unsafe condition is identified during the inspection.

### *3.2.2 ROUTINE SERVICEABILITY INSPECTIONS*

**Part 139 MOS – 11.03(1)(a)(i); 12.01(2)(3)**

The aerodrome has no scheduled air transport operations. A minimum of two (2) aerodrome serviceability inspections are conducted each week (at least 48 hours apart).

The serviceability inspections occur in accordance with the pre-determined schedule below:

| <b>DAY OF INSPECTION</b> | <b>INSPECTION TIMES</b> |
|--------------------------|-------------------------|
| Monday                   | Random                  |
| Friday                   | Random                  |

### *3.2.3 ADDITIONAL SERVICEABILITY INSPECTIONS*

**Part 139 MOS – 11.03(1)(a)(ii); 12.01(1)(a)-(d)**

**Yarrowonga** Aerodrome ensures that the reporting officer conducts additional serviceability inspections immediately any of the following occur:

- following an incident or accident
- a severe wind event, a severe storm or a period of heavy rainfall - see Global Reporting Format (GRF)
- if a hazard to aircraft may be present on the manoeuvring area
- when requested in writing by CASA
- when requested by ATC
- when a pilot or ARFFS provider reports a hazard.
- when operations are scheduled or notified in advance by the aeroplane operator or are known to be in progress

## Global reporting format and aerodrome serviceability inspections

### Part 139 MOS – 11.03(1)(b)(ii); 11.05(1)(e); 12.04A

Aerodrome serviceability inspections for a sealed runway must specifically check for visible dampness, standing water, snow, slush, ice or frost. Each runway third (third of TORA) is assessed for reportable amounts of water contamination on the runway surface.

A Runway Condition Report (RCR) is issued when aeroplane operations are scheduled or notified in advance to Moirā Shire Council Aerodrome by the aeroplane operator or are known to be in progress.

The Runway Condition Code (RWYCC) used in the RCR is assigned to a runway third based on the runway surface descriptions below:

| Runway surface description   | Applicable RWYCC |
|--|------------------|
| DRY  | 6                |
| WET (The runway surface is covered by any visible dampness or water up to and including 3mm depth) | 5                |
| WET ("slippery wet" runway)  | 3                |
| STANDING WATER (depth of more than 3mm)  | 2                |

A copy of the Runway Condition Worksheet is available in Appendix 5.10 (1) Global Reporting Format of this manual.

### **WET Runways**

MSC Aerodrome is an uncontrolled aerodrome and is reporting as per MOS Part 139 12.06A (4).

**YYWG {MMDDhhmm} RWY 01 5/5/5 WET/WET/WET**

**STANDING WATER on Runway**

MSC Aerodrome ensures that if more than 25% and more than 3mm depth of any runway third has STANDING WATER an RCR is issued.

Example: First third of runway 01 has STANDING WATER and the last two thirds are WET. A sample RCR for MSC Aerodrome is:

**YYWG {MMDDhhmm} RWY 01 2/5/5 STANDING WATER/WET/WET**

or

Example: STANDING WATER depth has been measured after a rainfall event. STANDING WATER is 6mm deep on the first third of runway 01 and 5mm deep on the last third of runway 01. The middle third of runway 01 is WET but no water depth to report (NR). A sample RCR for MSC Aerodrome is:

**YYWG {MMDDhhmm} RWY 01 2/5/2 06/NR/05 STANDING WATER/WET/STANDING WATER**

or

Example: 25% or less of a runway third has STANDING WATER on it and the other two thirds are WET. A sample RCR for MSC Aerodrome is:

**YYWG {MMDDhhmm} RWY01 5/5/5 WET/WET/WET**

**SLIPPERY WET Runways:**

*MSC Aerodrome* ensures that if any percentage of any runway third is SLIPPERY WET an RCR is issued.

The runway is SLIPPERY WET if *MSC Aerodrome* has received at least 2 consecutive pilot or ATC reports of MEDIUM runway braking action for the runway, or a portion of it.

and / or

The runway is SLIPPERY WET if *MSC Aerodrome* is aware that the runway, or a portion of it has significantly reduced surface friction when it is wet e.g. previous pilot or ATC reports when the runway is wet of braking action of MEDIUM.

Example: 25% or less of the first runway third of runway 01 is SLIPPERY WET. The last two thirds are WET but not SLIPPERY WET and not reported (NR). A sample RCR for *MSC Aerodrome* is:

**Submitting an RCR:**

**YYWG {MMDDhhmm} RWY 01 3/5/5 25/NR/NR SLIPPERY WET/WET/WET**

A RCR will be provided to both the NOTAM Office and ATC (if available) or, if ATC is not available, via UNICOM (if applicable):

| <b>RWYCC</b> | <b>Runway surface description</b> | <b>Report made available to</b>  |
|--------------|-----------------------------------|--|
| 2            | STANDING WATER                    | (a) the NOTAM Office, and ATC (if available; and<br>(b) if ATC is not available - pilots, but only where the aerodrome operator has available UNICOM, or CA/GAS. |
| 3            | SLIPPERY WET                      | (a) the NOTAM Office, and ATC (if available; and<br>(b) if ATC is not available - pilot, but only where the aerodrome operator has available UNICOM, or CA/GRS.  |

**Downgrading an RCR:**

-

If *MSC Aerodrome* has received at least 2 consecutive pilot or ATC reports of a runway braking action less than that expected for the associated RWYCC in the RCR that has been issued, it will reissue the RCR according to the braking action associated with the applicable RWYCC below:

| <b>Pilot report of runway braking action</b> | <b>Description</b>  | <b>RWYCC</b> |
|--|---|--------------|
| N/A  |   | 6            |
| GOOD   | Braking deceleration is normal for the wheel braking effort applied AND directional control is normal                               | 5            |
| GOOD TO MEDIUM                               | Braking deceleration OR directional control is between good and medium  | 4            |
| MEDIUM                                       | Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced.       | 3            |
| MEDIUM TO POOR                               | Braking deceleration OR directional control is between medium and poor.   | 2            |
| POOR   | Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced. | 1            |
| LESS THAN POOR                               | Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.           | 0            |

### 3.2.4 INSPECTION PROCEDURES

#### Part 139 MOS – 11.03(1)(b)

When conducting a serviceability inspection, the reporting officer will ensure that the vehicle they use to complete the inspection is:

- in a sound mechanical state to prevent a breakdown, unsafe operation, and any spillage of fuel lubricant or hydraulic fluid
- lit in accordance with the requirements set out in subsection 3.5.3 of this manual
- equipped with a VHF radio capable of monitoring the CTAF and / or ATC frequency.

Reporting officers are instructed to maintain a continuous listening watch of the VHF radio at all times when operating on the manoeuvring area.

Procedures for conducting runway inspections, including the direction of travel, communication procedures, actions in the event of a communication failure or vehicle breakdown etc. are documented in the Plant Assessor.

This is a subsidiary document to this manual and is available at Terminal Building, Intranet.

#### 3.2.4.1 INSPECTION ITEMS

#### Part 139 MOS - 12.03(3)-(11)

When performing each serviceability inspection, aerodrome reporting officers will check:

1. The surface condition of the movement area (which also includes runway and taxiway strips) looking for the following:

- surface irregularities, including cracking or spalling
- pavement deflections, including rutting or slipping
- water pooling or ponding
- build-up of rubber or other contaminants which may reduce runway surface friction
- surface damage caused by the spillage of corrosive fluids or oil
- subsurface leaks or pressure, including broken water mains or inadequate or defective drainage
- scour or erosion ditches within unsealed areas, including step-downs from sealed runway surfaces
- termite mounds, sink holes or other ground obstacles obscured, or not obscured, by grass
- soft ground, particularly in combination with surface roughness and slipperiness
- any other signs of pavement distress which have the potential to develop into a hazard for aircraft.

2. Aerodrome markings, lighting, wind direction indicators and ground signals for the following:

- loss of visibility markers and markings
- incorrect markers or markings
- any disturbance to the correct intensity level and alignment of lights
- discoloured or dirty lenses
- unserviceable lights, incorrectly fitted lights, or lights that are misaligned
- stand-by power equipment, to ensure that it is serviceable including the availability of fuel

- (if applicable)
  - the condition of light bases, MAGS and navigation equipment within the movement area, including strips
  - exposed edges around concrete footings and other aerodrome installations within the runway and taxiway strips
  - damage to the wind indicator assembly or mounting
  - for wind indicators – damage to sleeve fabric or loss of conspicuous colour
  - the correct operation of the pilot activated lighting (if installed)
  - the correct operation of the broadcast aerodrome weather station (if installed).
3. The cleanliness of the movement area looking for the following:
- foreign objects, for example, aircraft fastening devices and other aircraft parts
  - work tools, small items of equipment and personal items
  - debris, for example, sand, loose rocks, concrete, wood, plastic, pieces of tyre, mud and any other foreign bodies
  - hazards created during and after construction activity, including hazards arising from vehicles and plant travelling over unpaved, wet or contaminated areas.
4. For any obstacles infringing the take-off, approach, transitional and PANS-OPS surfaces that are visible from the aerodrome, specifically:
- the take-off, approach and transitional elements of the OLS
  - PANS-OPS airspace, including any critical obstacles that would otherwise affect the safety or integrity of PANS-OPS airspace.
5. For wildlife on, or in the vicinity of, the movement area:
- the condition of aerodrome fencing and the security of access points to the movement area
  - monitoring the presence and behaviour of any wildlife on, or likely to be on, the aerodrome, and identifying seasonal and environmental conditions which may act as an attractant
  - monitoring evidence of wildlife shelter provided by aerodrome infrastructure, for example, buildings, equipment and gable markers
  - checking for off-aerodrome wildlife attraction sources, observable from the aerodrome site, for example, mowing activities, seeding, standing water bodies, uncovered waste disposal, deceased wildlife or offal
  - the presence and operating condition of any wildlife hazard mitigating equipment incorporated into the wildlife hazard management procedures for the aerodrome.
6. Where the runway and runway strip surfaces are unrated, an empirical assessment of the runway, and the runway strip if it is available for aircraft operations, will be conducted to confirm their suitability.
7. Aerodrome fencing and signage to:
- identify any damage
  - confirm gates are secured
  - ensure there has been no attempted entry onto the manoeuvring area by either land-based wildlife or unauthorised persons.



8. Active NOTAMs requested by the aerodrome to ensure they are accurate and current.
9. The aerodrome frequency response unit to verify that it is functioning correctly.

All items and the areas that are to be checked as part of each aerodrome serviceability inspection are identified in a checklist titled Weekly Report.

The checklist is a subsidiary document to this manual and is available at: Terminal Building, Intranet.

### *3.2.5 COMMUNICATING WITH ATC DURING INSPECTION (IF APPLICABLE)*

#### **Part 139 MOS – 11.03(1)(g)**

The aerodrome is not a controlled aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.2.6 REPORTING INSPECTIONS RESULTS*

#### **Part 139 MOS – 11.03(1)(C); 12.03(12)**

MSC ensures that any significant object found during the serviceability inspection that could reasonably be expected to have an immediate adverse effect on the safety of an aircraft is reported to ATC in accordance with subsection 3.1.4 of this manual.

At the completion of each aerodrome serviceability inspection, the reporting officer records the following information on the Weekly Report:

- the date and time the serviceability inspection was completed
- the results of the inspection
- a description of any remedial action taken or scheduled to be taken.

All identified faults that require further corrective action are entered in the Maintenance Logbook.

Any works activities that are required to correct these faults are conducted in accordance with the works protocols set out in section 3.10 of this manual.

When the fault has been rectified, an entry to confirm the corrective action is complete is made in the Maintenance Logbook, Intranet, D24/82449.

Faults that remain open are subject to regular monitoring.

In the event the aerodrome serviceability inspection identifies a reportable occurrence as prescribed in subsection 3.2.6.1 below, a NOTAM authorised person is to contact the NOF to request the issue of a NOTAM. This request is to be made as soon as possible after it is observed and in accordance with subsection 3.1.3 of this manual.

The NOTAM authorised person has been instructed to provide as much detail as available. Should additional information become known, a revised NOTAM is to be submitted as soon as possible.

### 3.2.6.1 REPORTABLE OCCURRENCES TO THE NOTAM OFFICE (NOF)

#### **Part 139 MOS - 11.03(1)(c); 12.04(1)(a)-(i)**

A report to the NOF will be made on identification of the following:

- published runway information – any change (whether temporary or permanent), including changes to current information contained in permanent NOTAMs or in the AIP
- aerodrome works affecting the manoeuvring area or the obstacle limitation surfaces – includes time-limited works that require more than 10 minutes to restore normal safety standards
- aerodrome lighting / obstacle lighting – outage or unserviceability, unless the outage or unserviceability is fixed immediately, or does not meet the required outage limits
- temporary obstacles to aircraft operations, unless the temporary obstacle is removed immediately
- any significant increase in, or concentration of, wildlife hazards on or near the aerodrome which constitute a danger to aircraft, unless the wildlife causing the hazard is dispersed immediately
- any change to gradients within the take-off climb area that is due to a new or changed obstacle which results in a change to the gradient of more than 0.05% from the published gradient data for the runway, unless that new or changed obstacle can be removed without delay
- the emergence of new obstacles, unless the new obstacle is removed immediately
- a radio navigation aid or landing aid owned by MSC is unserviceable or has returned to service
- any other event which affects the safety of aircraft using the aerodrome, unless the event is ceased immediately.

### *3.2.7 PROMPT FOLLOW-UP ACTION TO CORRECT UNSAFE CONDITIONS*

#### **Part 139 MOS – 11.03(1)(d); 12.04(2)(3)(4)**

In the event the aerodrome serviceability inspection identifies an unsafe condition, the aerodrome reporting officer will:

- immediately report the unserviceability to ATC (if applicable)
- if urgent, advise the NOF via the phone to request the immediate issue of a NOTAM
- mark the unserviceable portion of the movement area so that it is not available by deploying the appropriate markers, markings, and lighting in accordance with the Part 139 MOS
- submit a request to issue a NOTAM (if applicable)
- if issued, verify the accuracy of the NOTAM information published by Airservices
- arrange for a technical inspection as soon as practicable
- arrange for repairs to the affected area ensuring that works requirements are adhered
- confirm the suitability of the repairs and the serviceability of the affected areas before returning to normal operations
- cancel the NOTAM (if applicable)
- advise ATC (if applicable).

### *3.2.8 TECHNICAL INSPECTION OF IDENTIFIED UNSAFE CONDITION*

#### **Part 139 MOS – 11.03(1)(e); 12.08; 12.09; 12.10(2)(d)**

If any unsafe condition is identified during the serviceability inspection, a technical inspection of the area impacted by the defect or deficiency will be immediately carried out in accordance with section 12.09 of the Part 139 MOS.

When arranging the technical inspection, the Aerodrome Manager will ensure that the person engaged to conduct the inspection has the required technical qualifications and experience, or demonstrable relevant experience, as required by section 12.10 of the Part 139 MOS.

A copy of the person's qualifications and relevant experience will be included in the resulting technical inspection report or maintained as part of the aerodrome manual.

On receipt of the technical inspection report, the recommendations will be reviewed by Accountable Manager and agreed corrective actions will be entered into a corrective actions plan. Where a recommendation is not supported, the reasons the recommendation was not supported, will also be documented in the corrective actions plan. A timeframe for implementation will be recorded.

The corrective actions plan will be retained on file at MSC Intranet. The corrective actions plan will be reviewed regularly and updated by Accountable Manager.

The technical inspection report will be retained for a minimum period of three (3) years at MSC Intranet.

Within 30 days of receiving the technical inspection report, the Accountable Manager will send a copy of the report to CASA via e-mail at: [aerodromes@casa.gov.au](mailto:aerodromes@casa.gov.au).

### *3.2.9 MAINTAINING INSPECTION RECORDS*

#### **Part 139 MOS – 11.03(1)(f); 11.04(1)(d); 12.03(12)**

Completed inspection records are:

**Filed:** Electronically

**Stored securely at:** MSC Office Intranet

The results of each aerodrome serviceability inspection are retained for a minimum period of two (2) years from the date the inspection was completed.

### *3.3 AERODROME LIGHTING*

This section documents the procedures for:

- inspecting and maintaining aerodrome lighting, and obstacle lighting that is maintained by MSC
- carrying out routine maintenance and emergency maintenance
- monitoring the supply of secondary and stand-by power (if provided)
- responding to a partial or total power system failure
- taking follow-up action(s) to correct deficiencies
- maintaining records of inspections
- monitoring hazardous lights, lasers, and reflection or glare within the aerodrome boundary.

#### *3.3.1 PERSONNEL WITH RESPONSIBILITIES*

##### **Part 139 MOS – 11.04(2)(a)-(f)**

The following individuals or positions have responsibilities for each lighting-related activity:

##### **(a) Carrying out lighting inspections**

Individual / position: ARO

##### **(b) Maintaining the records of inspections**

Individual / position: Aerodrome Manager

##### **(c) Taking follow-up action if unsafe condition identified during inspection**

Individual / position: ARO

##### **(d) Operating aerodrome lighting, including switching systems, back-up supply systems, and portable lighting equipment**

Individual / position: ARO

##### **(e) Performing maintenance on aerodrome lighting**

Individual / position: ARO

### **(f) Monitoring hazardous lights, lasers, reflection or glare within the aerodrome boundary**

Individual / position: ARO.

## ***3.3.2 AERODROME LIGHTING - INSPECTION AND MAINTENANCE***

### **Part 139 MOS – 9.136(2); 9.138(4); 11.04(1)(a)**

The reporting officer carries out a visual inspection of aerodrome lighting as part of the routine serviceability inspection process. The lights will be switched on so that their serviceability can be assessed.

The inspection, reporting the results of the inspection, and any follow-up actions that are required, will occur in accordance with the serviceability inspection process outlined in section 3.2 of this manual.

In addition to the serviceability inspection, inspection and maintenance activities for each lighting system will occur in accordance with the table below.

| <b>AERODROME LIGHTING SYSTEMS</b> | <b>INSPECTION SCHEDULE</b> | <b>ITEMS TO BE INSPECTED OR CHECKED</b>  | <b>MAINTENANCE ACTIVITIES</b>  |
|-----------------------------------|----------------------------|--|--|
| Runway edge lighting              | Twice a week               | Lens, Base, Globe, Position, Condition   | visual Inspection, cleaning, instantly replacing or adjustment if needed                               |
| Taxiway edge lighting             | Twice a week               | Lens, Base, Globe, Position, Condition   | visual Inspection, cleaning, instantly replacing or adjustment if needed                               |
| PAL                               | Twice a week               | Activation response, 20 Min. time interval, blinking activation (10Min. remaining), Glass, Base, Globe, Position, Condition Inspection, Backup Battery | visual Inspection, cleaning, instantly replacing or adjustment if needed, checking the Mainpower Board |
| Apron flood lights                | N/A                        | N/A  | N/A  |
| Windsock Indicator                | Twice a week               | Globe conditions, Position, Condition  | visual Inspection, cleaning, instantly replacing or adjustment if needed                               |
| Sign area                         | Twice a week               | Globe conditions, Position, Condition  | visual Inspection, cleaning, instantly replacing or adjustment if needed                               |
| RWY Inset lights                  | Twice a week               | Lense, Globe, Position, Condition  | visual Inspection, cleaning, instantly replacing or adjustment if needed                               |

## ***3.3.3 OBSTACLE LIGHTING MAINTAINED BY AERODROME OPERATOR - INSPECTION AND MAINTENANCE***

### **Part 139 MOS – 11.04(1)(a)**

There is no obstacle lighting maintained by Yarrawonga Aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.3.4 PORTABLE RUNWAY LIGHTS - INSPECTION AND MAINTENANCE*

#### **Part 139 MOS – 9.07(3)(a)**

No portable runway lights are available for use at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.3.5 MONITORING SECONDARY POWER SUPPLY*

#### **Part 139 MOS – 9.04; 905; 11.04(1)(b)**

A secondary power supply is not available at Yarrowonga Aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.3.6 MONITORING STANDBY POWER SUPPLY*

#### **Part 139 MOS – 11.04(1)(b)**

Standby power is not available at Yarrowonga Aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.3.7 LIGHTING INSPECTIONS AND CHECKS*

#### **Part 139 MOS – 11.04(1)(c)**

In addition to the inspections outlined in subsection 3.3.2, inspection and maintenance activities for each lighting system will occur in accordance with the table below:

| <b>AERODROME LIGHTING SYSTEMS</b> | <b>INSPECTION SCHEDULE</b> | <b>ITEMS TO BE INSPECTED OR CHECKED</b> | <b>MAINTENANCE ACTIVITIES</b>   |
|-----------------------------------|----------------------------|---|---|
| Signal Area                       | Twice a week               | Lens, Base, Globe, Position, Condition  | visual Inspection, cleaning, instantly replaced or adjusted if needed |

Procedures for recording inspection and maintenance activities are included in subsection 3.3.8 of this manual.

Aerodrome lighting inspections carried out as part of the Aerodrome Technical Inspection will be conducted in accordance with section 3.9 of this manual.

Each lighting system and the list of specific elements to be inspected and checked is contained in the Weekly Report, which is available at Yarrowonga Aerodrome Intranet.

### *3.3.8 MAINTAINING LIGHTING INSPECTIONS RECORDS AND FOLLOW-UP ACTIONS*

#### **Part 139 MOS – 11.04(1)(d)**

After each lighting inspection, the ARO records the following information on the Weekly Report.

- the date and time the inspection was completed
- the person responsible for completing the inspection
- the results of the inspection
- a description of any action taken

All identified faults that require further corrective action must be entered in the Weekly Report. Any work activities required to correct these faults must be conducted according to the work protocol set out in section 3.1 of this manual.

When the fault has been rectified, an entry will be made in the Weekly Report confirming that the corrective action is complete.

Faults that remain open are to be subject to regular monitoring.

### *3.3.9 SWITCHING LIGHTS ON AND OFF & INTENSITY SELECTION*

#### **Part 139 MOS – 11.04(1)(e)**

The lighting system is operated by: Aerodrome Operator (Manual Operation) or Pilot (Remote Operations).

The data on the operating current and the corresponding intensity selection is below:

| <b>LIGHTING SYSTEM</b> | <b>OPERATING CURRENT</b> | <b>INTENSITY SELECTION</b> |
|------------------------|--------------------------|----------------------------|
| AFRU & PAALC System    | 2.64 amps                | Low Intensity              |

The procedures for switching lights on and off, including the intensity selection, are as follows:

There are no Operator options for the intensity selection.

- Manual Mode: The Aerodrome Operator can turn the lights on and off at the Switch Cabinet (Comms Room), but the intensity can't be adjusted.
- Pilot Mode: The pilot can activate the light via radio frequency 126.7 MHz with three clicks on the PTT. The light will stay on for 30min. After 20min, the WDI light will start blinking for another 10min.

Further information: AFRU & PAALC System Handbook which is located at the Terminal Building and Intranet.

### *3.3.10 BACK-UP ARRANGEMENTS FOR PAL SYSTEM*

#### **Part 139 MOS – 9.23(1)(b); 11.04(1)(e)**

The pilot-activated lighting (PAL) system has been designed so that, if it fails, it can be manually activated.

A bypass switch has been provided that allows manual activation of the lights. The bypass switch is located Comms Room at the Terminal Building.

Aerodrome Manager has been issued a key to readily access the manual activation switch at all times when required.

### *3.3.11 ROUTINE AND EMERGENCY LIGHTING MAINTENANCE*

#### **Part 139 MOS – 11.04(1)(f)**

Routine maintenance is carried out in accordance with the following procedures:

- Inspection by the ARO, twice a week

Emergency maintenance is carried out in accordance with the following procedures:

- Report to the Aerodrome Manager
- Activate NOTAM (if required)
- Arrange repair as soon as practical

### *3.3.12 PARTIAL OR TOTAL POWER SYSTEM FAILURE*

#### **Part 139 MOS – 11.04(1)(g)**

In the event of a partial or total system failure, the following procedures are to be followed:

- Report to the Aerodrome Manager
- Activate NOTAM (if required)
- Arrange repair as soon as practical.

### *3.3.13 MONITORING HAZARDOUS LIGHTS, LASERS, REFLECTION OR GLARE*

#### **Part 139 MOS – 9.143(2)(a)(3)(4)(5)(8); 9.144(2); 11.04(1)(h)**

The Aerodrome Manager is to notify CASA in writing immediately when they become aware of any installation, or a proposal to install, or use any installation, equipment or laser, outside the aerodrome boundary that may have lighting or lighting intensity greater than that specified in Figure 9.144(2) of the Part 139 MOS.

Before proceeding to install or use any installation, equipment, or lasers within the boundary of the aerodrome, the Aerodrome Manager will report the following proposals to CASA so that a hazard assessment can be undertaken:

- installation of any equipment or lighting which would reflect sunlight (including solar panels,



- lasers, mirrors, or reflective building cladding)
- lighting that will emit multiple colours from a single source
- lighting that will result in rapid change in light colour
- flashing lights
- lighting that may have a lighting intensity that is greater than that specified in Figure 9.144(2) of the Part 139 MOS.

Yarrowonga Aerodrome will not proceed with any proposal until CASA has assessed, and approved in writing, confirming the installations will not cause a hazard to aircraft operations.

### 3.3.14 COMMISSIONED LIGHTING SYSTEMS

#### Part 139 MOS – 9.18(8)

Yarrowonga Aerodrome has commissioned the following lighting systems:

| LIGHTING SYSTEM | DATE COMMISSIONED | COMMISSIONING DOCUMENTATION - INDEPENDENT COMPLIANCE STATEMENT / LABORATORY TEST REPORT | COMMISSIONING DOCUMENTATION - GROUND CHECK REPORT | COMMISSIONING DOCUMENTATION - FLIGHT CHECK REPORT |
|-----------------|-------------------|---|---|---|
| RWY 01/19       | 15 June           | Airport Lighting Specialists independently tested in NATA accredited laboratory         | Airways Engineering Services                      | CASA.LOFLY.0245-Revision1                         |
| TWY B           | 15 June           | Airport Lighting Specialists independently tested in NATA accredited laboratory         | Airways Engineering Services                      | CASA.LOFLY.0245-Revision1                         |
| TWY C           | 15 June           | Airport Lighting Specialists independently tested in NATA accredited laboratory         | Airways Engineering Services                      | CASA.LOFLY.0245-Revision1                         |
| TWY E           | 15 June           | Airport Lighting Specialists independently tested in NATA accredited laboratory         | Airways Engineering Services                      | CASA.LOFLY.0245-Revision1                         |

See also attached Appendix 5.2:

- 210615 Yarrowonga YYWG Aerodrome Lighting System Flight Validation V1
- Ground Commissioning of Airfield Lighting System
- Statement of Conformity

### *3.3.15 COMMISSIONING A NEW OR UPGRADING / REPLACING AN EXISTING LIGHTING SYSTEM*

#### **Part 139 MOS – 9.17(1)-(10); 9.18(1)-(8)**

Yarrowonga Aerodrome will not commission a new aerodrome lighting system, or permit the use of a lighting system that has been replaced or upgraded, until:

- compliance statements from the manufacturer and the supplier, or, a test report from an accredited laboratory (as per subparagraph 9.17(1) of the Part 139 MOS), confirm that light fitting types, models and versions comply with the standard for photometric and other relevant characteristic specified in the Part 139 MOS
- a ground check has been completed by an appropriately qualified person and written evidence has been provided that confirms the lighting system meets the requirements of the Part 139 MOS
- if applicable, a flight check has been completed by a CASA approved person and written evidence has been provided that confirms the lighting system meets the requirements of the Part 139 MOS.

Once full compliance with the Part 139 MOS has been confirmed, a NOTAM authorised person is to request the issue of a NOTAM advising that the lighting system is available. The AIP responsible person is to advise Airservices of the particulars of the lighting system for publication in the AIP.

The Aerodrome Manager will provide a copy of the ground check determination, and the flight check report (if applicable), to CASA via e-mail to: [aerodromes@casa.gov.au](mailto:aerodromes@casa.gov.au)

All compliance statements / laboratory test reports, ground check, and flight check reports will be retained by the Aerodrome Manager and stored securely at MSC Intranet.

Subsection 3.3.14 of this manual is to be amended to include the particulars of the newly commissioned lighting system(s).

All reports and commissioning records are retained for as long as the lighting system remains in service.

## *3.4 UNAUTHORISED ENTRY TO AERODROME*

#### **Part 139 MOS – 11.11**

This section details how unauthorised persons, vehicles, equipment, mobile plant, animals or other things that may endanger the safety of aircraft, are prevented from entering onto the movement area, including procedures for:

- controlling airside access
- monitoring airside access control points and barriers.

### *3.4.1 CONTROLLING AIRSIDE ACCESS*

#### **Part 139 MOS – 11.11(a)**

To prevent unauthorised access by persons, vehicles, equipment, mobile plants, animals and other things that may endanger aircraft safety, a fence has been installed around the

perimeter of the airside boundary:

- Type of fence: Steel Chain Mesh
- Height of fence: 1.5m.

Moirā Shire Council ensures that only authorised persons are allowed unescorted access to the movement area and other operational areas of the aerodrome.

For those persons not authorised, escorted access is provided as required.

Airside access gates are:

- Located at: Appendix 5.8
- Always locked by: padlock or electronic access control system
- Keys and/or electronic access cards are issued by: Team Leader Administrations Operation
- A register of issued keys and/or access cards is maintained by: Team Leader Administrations Operation
- An audit of issued and unissued keys and/or access cards is conducted annually by: Aerodrome Manager.

Restricted access signs are located at regular intervals along the boundary fence, at each airside access gate, and at each building that provides direct access airside. The signs are located such that at least one sign is visible to a person approaching the secure perimeter.

Aerodrome Property owners are responsible for controlling airside access through their property. Any unauthorised entry observed by the tenant is to be reported immediately to the Aerodrome Manager.

Only authorised vehicles driven by an airside driver are permitted airside. Refer to section 3.5 of this manual.

Animals are only permitted airside if caged or restrained.

### *3.4.2 MONITORING AIRSIDE ACCESS POINTS AND BARRIERS*

#### **Part 139 MOS – 11.11(b)**

The reporting officer carries out a visual inspection of the perimeter fence and airside access gates as a part of the aerodrome serviceability inspection process. The inspection, reporting the results of the inspection, and any follow-up action(s) that is required, is to occur in accordance with the process outlined in section 3.2 of this manual.

Additional fence and access gate inspections are conducted:

- By: ARO
- When: Once a Month.

These additional inspections are recorded: Weekly Report.

In the event there is evidence of unauthorised entry by persons or wildlife, or the fence or access gates are compromised, the fence or access gates are to be re-secured where possible, and an airside inspection undertaken immediately to ensure there are no unauthorised persons, or wildlife, on the aerodrome.

Damaged fences or gates will be entered in the Maintenance Logbook, in accordance with the process outlined in subsection 3.2.6 of this manual, and are to be repaired as soon as possible.

## *3.5 AIRSIDE VEHICLE CONTROL*

### *3.5.1 PERMIT SYSTEM FOR AIRSIDE VEHICLES*

#### **Part 139 MOS – 11.14(a); 14.02(a)**

A permit system for airside vehicles is not required as the aerodrome does not, in a financial year, have more than 350,000 air transport passenger movements, or more than 100,000 aircraft movements; therefore, this subsection is NOT APPLICABLE.

### *3.5.2 VEHICLES AND GROUND EQUIPMENT OPERATED AIRSIDE*

#### **Part 139 MOS – 14.03(1)(a)(b)**

Yarrowonga Aerodrome ensures that all vehicles and ground equipment operated airside are maintained in a sound mechanical state to prevent a breakdown or unsafe operation, and any spillage of fuel, lubricant or hydraulic fluid.

Yarrowonga Aerodrome requires:

- vehicles operating airside to hold state registration confirming they are maintained in a roadworthy condition
- in the event an airside vehicle does not, or cannot obtain state registration, the owner of the vehicle to provide a statement of vehicle condition from a qualified mechanic prior to accessing the airside for the first time. A vehicle condition statement is valid for a maximum period of 12 months. If the owner still intends for the vehicle to be operated airside, a new vehicle condition statement is required to be presented prior to the end of that 12-month period
- evidence that vehicles comply with lighting and radio requirements (as applicable)
- a certificate of insurance with valid cover for the use of the vehicle within the airside area of the aerodrome.

A list of authorised vehicles is:

- Maintained by: Aerodrome Manager
- Available at: MSC Intranet / Terminal Building.

To ensure the requirements of this manual are achieved, Yarrowonga Aerodrome can inspect or can require an inspection to be carried out on any vehicle or ground equipment that is operating airside.

In the event that an inspection is not carried out, or the inspection identifies an unsafe condition that may create a hazard to aviation safety, the vehicle is to be denied access. If the vehicle is already airside, the operator of the vehicle is to be instructed to remove the vehicle from the airside.

A list of vehicles that have been removed from the airside or denied access is:

- Maintained by: Aerodrome Manager
- Available at: MSC Intranet / Terminal Building.

A vehicle that is denied access or has been removed from the airside at the direction of Yarrowonga Aerodrome is not to be authorised to re-enter the airside until an inspection has been completed and a satisfactory vehicle condition statement has been received.

### *3.5.3 AIRSIDE VEHICLE LIGHTING REQUIREMENTS*

#### **Part 139 MOS – 14.05(1)-(11)**

As the aerodrome does not have scheduled air transport operations and the aerodrome is not an international aerodrome, vehicles operating during the day may, as a minimum, use the standard manufacturer-fitted vehicle hazard warning lights.

Vehicles operating at night will display lights that are visible in all directions.

Except for a vehicle that is under escort, all vehicles will be lit when moving or operating on:

- a runway / runway strip
- a taxiway / taxiway strip
- the movement area at night
- during periods of low visibility.

### *3.5.4 VEHICLES ON MANOEUVRING AREA*

#### **Part 139 MOS – 14.03(4)(8), 14.04**

Except for a vehicle that is under escort, all vehicles operating on the runway, runway strip, taxiways and taxiway strips have a VHF receiver capable of monitoring the CTAF and / or ATC frequency. All drivers are to maintain a listening watch through the VHF receiver. Only those persons that hold an Aeronautical Radio Operator Certificate (AROC) are permitted to transmit.

### *3.5.5 AIRSIDE DRIVERS - TRAINING*

#### **Part 139 MOS – 14.01(1)-(4), 14.02(b); 11.14(b)**

As Yarrawonga Aerodrome does not have scheduled air transport operations, drivers not under escort, and who are operating a vehicle airside, are inducted to understand the following:

- the terminology used to describe the movement area
- the purpose and location of all airside areas
- hazardous or prohibited areas on the airside
- the significance of aerodrome visual aids and signs.

Induction details:

- induction method: Personal induction at the Terminal Building.

### *3.5.6 VEHICLES IN PROXIMITY TO AIRCRAFT*

#### **Part 139 MOS – 14.03(3)**

Airside drivers must give way to aircraft.

Airside vehicles are to remain clear of the runway, runway strip, taxiway(s), or taxiway strip(s) when they are in use or available to be used by aircraft unless there is a safety-related or operational requirement for vehicles to operate in these areas.

Airside vehicles are not to be driven:

- in a manner likely to endanger the safety of any person or create a hazard to aircraft operations
- under an aircraft, or within 3 m of lateral clearance, or within 1 m of overhead clearance, of any part of the aircraft, except when required for servicing the aircraft
- within 15 m of refuelling aircraft
- when drivers are affected by alcohol or drugs as per CASR Part 99.

All vehicles operated within 15 m of an aircraft's fuel tank filling points and vent outlets during fuelling operations comply with Appendix 1 of Civil Aviation Order 20.9.

### *3.5.7 MOVEMENT AREA SPEED LIMITS*

#### **Part 139 MOS – 14.03(2)(a)**

Speed limits are explained and provided to all drivers during their driver training and / or induction.

Drivers must adhere to the following speed limits:

| <b>LOCATION</b>                  | <b>SPEED LIMIT (km / h)</b> |
|----------------------------------|-----------------------------|
| Perimeter roads                  | 40                          |
| Apron                            | 10                          |
| Taxiways                         | 10                          |
| Runways                          | 10                          |
| During low-visibility operations | 10                          |

The above speed limits are sign posted at the following locations:

- Each Driver Access Gate (10 km/h)
- Main Entrance John Duigan Drive (40km/h)

### *3.5.8 ESCORT SERVICE PROCEDURES*

#### **Part 139 MOS – 14.01(5)**

Only authorised third party drivers are permitted to provide vehicle escorts airside.

At any one time, an escort driver is not authorised to escort more than the following number of vehicles:

- Max. number of vehicles: 1

The escort driver is fully responsible for the driver(s) under escort.

All airside drivers providing an escort service are monitored for adherence to these requirements periodically by the reporting officer.

In the event an airside driver or driver under escort is observed not to be following the rules for operating a vehicle airside or otherwise creating an unsafe condition, all respective vehicles and their drivers are to be escorted from the airside, and any authorisations are withdrawn.

Records of drivers authorised to conduct escorts are:

- Maintained by: Aerodrome Manager
- Stored securely at: MSC Intranet / Terminal Building.

### *3.5.9 MONITORING AND ENFORCING TRAFFIC RULES*

#### **Part 139 MOS – 14.03(2)(b)**

The aerodrome reporting officer is responsible for periodically monitoring the operation of vehicles airside in accordance with the following:

- Obtain an entry permit from the Aerodrome Manager.

Appropriate action is to be taken against drivers who are clearly in breach of displayed signage, markings, or speed limits. This may include withdrawing their authority to operate a vehicle airside.

## *3.6 AIRCRAFT PARKING CONTROL*

### *3.6.1 AIRCRAFT PARKING CONTROL PERSONNEL*

#### **Part 139 MOS – 11.15(2)(g)(i)(ii)**

Yarrowonga Aerodrome does not have scheduled international air transport operations, and there is no hazard resulting from apron congestion. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.6.2 LIAISON WITH ATC - APRON MANAGEMENT*

#### **Part 139 MOS – 11.15(2)(a)**

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.6.3 ALLOCATING AIRCRAFT PARKING POSITIONS*

#### **Part 139 MOS – 11.15(2)(b)**

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.6.4 ENGINE START AND AIRCRAFT PUSH-BACK CLEARANCES*

#### **Part 139 MOS – 11.15(2)(c)**

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.6.5 AERODROME VISUAL DOCKING GUIDANCE SYSTEMS*

#### **Part 139 MOS – 11.15(2)(d)**

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.



### *3.6.6 MARSHALLING SERVICE*

#### **Part 139 MOS – 11.15(2)(e)**

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.6.7 LEADER (VAN) SERVICE OR FOLLOW-ME SERVICE*

#### **Part 139 MOS – 11.15(2)(f)**

The aerodrome does not have scheduled international transport operations and apron congestion does not create a hazard to aircraft operations. Aircraft parking control procedures have not been established at the aerodrome; therefore, this subsection is NOT APPLICABLE.

### *3.6.8 APRON SAFETY MANAGEMENT PROCEDURES*

#### **Part 139 MOS – 11.15(3)**

The reporting officer(s) is responsible for periodically monitoring activities occurring on the apron to check that:

- no person, vehicle, or equipment is within the potential jet blast area behind the aircraft
- aprons are free from loose stones and other material that may cause FOD
- all equipment is appropriately stored in marked equipment storage areas
- vehicles do not pass behind aircraft that are displaying anti-collision beacons
- tug operators are adhering to the line marking guidance provided
- wheel chocks are appropriately positioned on parked aircraft.

As trends may identify changes to apron safety management procedures, reported incidents and hazards are also reviewed by:

- Aerodrome Manager.

### *3.6.9 ALTERNATIVE SEPARATION DISTANCES AND APRON MARKINGS*

#### *3.6.9.1 REDUCED SEPARATION DISTANCES - VDGS*

##### **Part 139 MOS – 6.58(1)(4)(a)(b)**

The aerodrome does not have VDGS; therefore, reduced separation distances are not permitted.

#### *3.6.9.2 AIRCRAFT TYPE DESIGNATOR MARKINGS*

##### **Part 139 MOS – 8.49(3)(d)**

This subsection is NOT APPLICABLE

#### *3.6.9.3 ALIGNMENT LINES*

##### **Part 139 MOS – 8.65(5)**

This subsection is NOT APPLICABLE

#### *3.6.9.4 PUSH-BACK OPERATOR GUIDANCE MARKINGS*

##### **Part 139 MOS – 8.70(4)**

This subsection is NOT APPLICABLE

#### *3.6.9.5 PASSENGER PATH MARKINGS*

##### **Part 139 MOS – 8.76(2)(b)**

This subsection is NOT APPLICABLE

#### *3.6.9.6 MISCELLANEOUS AREA LINE MARKINGS*

##### **Part 139 MOS – 8.77(2)**

There are no miscellaneous area line markings displayed on the apron(s).

## 3.7 AERODROME OBSTACLE CONTROL

### 3.7.1 OBSTACLE CONTROL PERSONNEL

#### Part 139 MOS – 11.06(2)(a)-(d)

The following person(s) have responsibilities for obstacle control:

| INDIVIDUAL OR POSITION | RESPONSIBILITIES   |
|------------------------|--|
| ARO                    | monitoring surfaces related to the OLS and terminal instrument flight procedures (PAN-OPS)                               |
| ARO                    | notifying CASA or the procedure designer when a proposed or actual infringement of the prescribed airspace is identified |
| ARO                    | implementing obstacle control within the aerodrome boundary  |
| ARO                    | liaison and facilitation of obstacle control outside the aerodrome boundary  |

### 3.7.2 MONITORING TAKE-OFF, APPROACH AND TRANSITIONAL SURFACES

#### Part 139 MOS – 11.06(1)(a)(i)

Yarrowonga Aerodrome has established the obstacle limitation surfaces (OLS) for each runway that meet the physical dimensions for approach and take-off runways as set out in Chapter 7 of the Part 139 MOS.

The particulars of each surface are shown on an OLS plan for the aerodrome which is available Appendix 5.9 OBSTACLE LIMITATION SURFACES and MSC Intranet / Terminal Building.

The aerodrome reporting officer will visually scan the OLS as part of the aerodrome serviceability inspection in section 3.2 of this manual to identify the emergence of any new or potential obstacles.

A survey that assesses the take-off, approach, and transitional surfaces, is completed as part of the manual validation process conducted in accordance with section 3.9 in this manual.

This survey is used to verify the accuracy of published information. On receipt of the survey, the results are compared against the aerodrome's information published in the AIP to ensure that there are no new obstacles, or that the height of existing obstacles has not changed.

### 3.7.3 PROPOSED OR ACTUAL INFRINGEMENTS - OLS

#### 3.7.3.1 PROPOSED OLS INFRINGEMENTS

##### **Part 139 MOS – 7.01(1); 7.18(1)(b); 17.19(1); 11.06(1)(d)(i)**

If a proposed object or structure is identified as likely to be an obstacle, details of the proposal are to be sent to CASA in writing by: Aerodrome Manager.

On receipt of CASA's written assessment, the relevant planning authority is to be advised of the result of the assessment.

Yarrowonga Aerodrome will follow up with the planning authority to ensure that those obstacles considered an unacceptable risk to aviation safety are not approved, or that those obstacles that are considered acceptable but subject to additional mitigations are appropriately marked and/or lit.

#### 3.7.3.2 ACTUAL OLS INFRINGEMENTS

##### **Part 139 MOS – 7.18(1)(b); 7.19(2); 11.06(1)(d)(i)**

Yarrowonga Aerodrome will not make a runway available for night use until CASA has determined that any obstacle(s) will not adversely affect the safety of night operations.

For any identified obstacles that have been erected without prior notification and which have not been assessed, the aerodrome reporting officer is to:

- advise ATC immediately (if applicable)
- consider limiting aircraft approach and take-off to the runway
- ensure an immediate request is made to issue a NOTAM
- take immediate steps to have the obstacle removed
- ascertain the height of the obstacle and consider displacing the runway approach threshold. If the threshold is displaced, the published declared distances will be amended, and the new threshold location appropriately marked / lit
- report the infringement to CASA in writing.

The NOTAM authorised person includes the following information in the NOTAM request:

- the nature of the obstacle
- the distance and magnetic bearing of the obstacle from:
  - if the obstacle is within the take-off area – the start of the take-off end of the runway or
  - the ARP.
- the height of the obstacle in relation to the aerodrome elevation
- if it is a temporary obstacle – the time during which it is a temporary obstacle.

The request to issue the NOTAM is to be made in accordance with the procedures set out in section 3.1 of this manual.

Once the obstacle has been removed, the aerodrome reporting officer is to:

- advise ATC (if applicable)
- re-open, or re-instate the full runway length (if required)
- ensure a request to cancel the NOTAM is made (if issued).

### *3.7.4 HEIGHT OF INFRINGEMENTS - OLS*

#### **Part 139 MOS – 11.06(1)(c)(i)**

There are no buildings, structures, plumes or other developments that infringe the aerodromes OLS; therefore, this subsection is NOT APPLICABLE.

#### *3.7.4.1 HAZARDOUS OBSTACLES*

#### **Part 139 MOS – 8.109(4); 8.110(1)-(8); 8.111(2)(a)(b)**

CASA has not assessed any obstacles as being hazardous; therefore, this subsection is NOT APPLICABLE.

### *3.7.5 MONITORING VISUAL SEGMENT SURFACES AND CRITICAL OBSTACLES*

#### **Part 139 MOS – 11.06(1)(a)(ii)**

Terminal instrument flight procedures have been established by Airservices Australia.

The data and drawings of the area around the aerodrome that show the designed approach paths, visual segment surface, circling areas, and the location of critical obstacles, have been provided by the procedure designer, and are available at MSC Intranet / YYWG Terminal Building and Appendix 5.5 of this manual.

The aerodrome reporting officer will use this data and drawings to monitor the visual segment surface and the nominated critical obstacles that are visible from the aerodrome as part of the aerodrome serviceability inspection in accordance with section 3.2 of this manual.

### *3.7.6 PROPOSED OR ACTUAL INFRINGEMENTS - PANS-OPS*

#### **Part 139 MOS – 7.20(3); 11.06(1)(d)(ii)(2)(b)**

The Aerodrome Manager is to immediately inform the terminal instrument flight procedures designer as soon as:

- a proposed or actual infringement of the PANS-OPS is identified
- a change to the status of an existing critical obstacle is identified
- there is a proposed development that is higher than the critical obstacle
- a new object or structure has been detected that is higher than the critical obstacle.

The procedure designer's contact details are as follows:

- Name: Airservices Australia
- E-mail: [nof@airservicesaustralia.com](mailto:nof@airservicesaustralia.com)
- Phone: 02 6268 5063.

### 3.7.7 HEIGHT OF INFRINGEMENTS - PANS-OPS

#### Part 139 MOS – 11.06(1)(c)(ii)

The height of buildings, structures, plumes and other developments that infringe the surfaces or areas associated with the published terminal instrument flight procedures (as defined in the PANS-OPS) are listed below:

| OBSTACLE TYPE               | LOCATION               | HEIGHT OF THE OBSTACLE | AFFECTED PROCEDURE |
|-----------------------------|------------------------|------------------------|--------------------|
| MT MAJOR TV-VOD             | 25NM BRG 218°T<br>ARP  | 171m AGL               | 25NM Segment       |
| MT GLENROWAN TWR-VOD        | 26NM BRG 159°T<br>ARP  | 15m AGL                | 25NM Segment       |
| MT BARAMBOGIE TRIG<br>DELWP | 29NM BRG 114°T<br>ARP  | 20m AGL                | 25NM Segment       |
| TERRAIN                     | 15NM BRG 154°T<br>ARP  | 10m AGL                | 10NM Segment       |
| OPTUS TWR SOUTH (lit)       | 1.8NM BRG 221°T<br>ARP | 28m AGL                | CAT A/B CIRCLING   |
| TERRAIN                     | 4.7NM BRG 206°T<br>ARP | -                      | CAT C CIRCLING     |

### 3.7.8 OBSTACLE CONTROL WITHIN AERODROME BOUNDARY

#### Part 139 MOS – 11.06(1)(e)

Yarrowonga Aerodrome does not permit objects or structures, other than approved visual and navigational aids, to be erected within the obstacle restriction area of the aerodrome without the written approval of CASA.

All proposed fixed objects or structures at the aerodrome, whether temporary or permanent, that sit on or above the movement area, or those that extend above the defined height limits, including the OLS, have been and/or will be reported to CASA in writing.

On receipt of CASA's assessment, Yarrowonga Aerodrome adopts controls appropriate to the recommendations provided by CASA.

### 3.7.9 OBSTACLE CONTROL OUTSIDE AERODROME BOUNDARY

#### Part 139 MOS – 11.06(1)(f)

Yarrowonga Aerodrome has liaised with local government authorities located within the OLS footprint of the aerodrome and requested they forward development proposals for assessment where the proposal may penetrate the OLS or PANS-OPS of the aerodrome.

Assistance has been provided to ensure the local government authority has suitable processes and information to determine which development proposals should be forwarded for assessment.

### *3.7.10 OBSTACLE LIGHTS SERVICEABILITY MONITORING PROGRAMME*

#### **Part 139 MOS – 9.36(1)(3)(a)**

There are no lit obstacles within the OLS area of the aerodrome; therefore, this subsection is NOT APPLICABLE. When temporary obstacles are required to be lit, they will be monitored in accordance with the MOS Part 139.

### *3.7.11 OBSTACLE LIGHT OUTAGE*

#### **Part 139 MOS – 9.36(2)(3)(b)**

In the event an obstacle light outage is detected during an inspection, the reporting officer is to:

- ensure that a NOTAM authorised person requests the immediate issue of a NOTAM
- liaise with the owner of the obstacle light so that the outage is repaired as quickly as possible.

If the obstacle light has been determined by CASA, in writing, as essential for aviation safety, the reporting officer is to:

- immediately report the outage to any aircraft that are manoeuvring, or about to manoeuvre on the affected runway
- immediately close the relevant runway or close the aerodrome until the outage is repaired
- notify CASA of the outage as soon as possible.

### *3.7.12 CHARTS PUBLISHED BY THE AERODROME OPERATOR*

#### *3.7.12.1 TYPE A CHARTS*

##### **Part 139 MOS – 7.21**

Type A charts are not required and have not been prepared; therefore, this subsection is NOT APPLICABLE.

#### *3.7.12.2 TYPE B CHARTS*

##### **Part 139 MOS – 7.22**

Type B charts have not been prepared; therefore, this subsection is NOT APPLICABLE.

#### *3.7.12.3 PRECISION APPROACH TERRAIN CHARTS - ICAO*

##### **CASR Part 175.D; Part 139 MOS – 7.23**

Precision Approach Terrain Charts have not been prepared; therefore, this subsection is NOT APPLICABLE.

#### *3.7.12.4 AERODROME TERRAIN AND OBSTACLE CHARTS - ICAO (ELECTRONIC)*

##### **Part 139 MOS – 7.24**

Aerodrome Terrain and Obstacle Charts have not been prepared; therefore, this subsection is NOT APPLICABLE.



## *3.8 PROTECTION OF COMMUNICATION, NAVIGATION, SURVEILLANCE AND METEOROLOGICAL FACILITIES*

### *3.8.1 CONTROLLING ACTIVITIES NEAR CNS AND MET FACILITIES*

#### **Part 139 MOS – 11.16(a); 19.02**

The following is a list of all CNS and MET facilities, their location on the aerodrome, and the particulars of the respective service provider:

| <b>CNS / MET FACILITY</b> | <b>LOCATION ON THE AERODROME</b> | <b>SERVICE PROVIDER</b> |
|---------------------------|----------------------------------|-------------------------|
| Weather Station           | see Appendix 5.6                 | BOM                     |
| Weather Radar             | see Appendix 5.6                 | BOM                     |

Yarrowonga Aerodrome ensures that there will not be any interference to the CNS or MET facilities at the aerodrome caused by developments, the erection of structures or from work activities within the vicinity of each facility.

Yarrowonga Aerodrome refers all developments within the aerodrome boundary, near to or likely to affect an existing CNS or MET facility, to the respective CNS or MET facility providers for a hazard and impact assessment.

In consultation with each facility provider, the restricted area boundaries have been determined for each CNS and MET facility. The restricted area boundaries are shown on a plan which is available at MSC Intranet / MSC Office.

Only the facility service provider is permitted to work within each boundary. When ground maintenance is required, the service provider is advised.

### *3.8.2 SUPPLY AND INSTALLATION OF WARNING SIGNS*

#### **Part 139 MOS – 11.16(b); 19.06(5)**

Signs have been placed around each communications, navigation and surveillance (CNS) or meteorological (MET) facility to:

- deter unauthorised access from vehicles and persons
- warn of hazardous emissions, including electromagnetic and microwave radiation.

The responsibilities for supplying, installing and maintaining the signs have been agreed upon with the service provider and are to occur as follows:

- The Bureau of Meteorology is responsible for the supply, installation and maintenance of signs on their facilities.

## 3.9 AERODROME TECHNICAL INSPECTIONS / MANUAL VALIDATIONS

### 3.9.1 INSPECTION PERSONNEL

#### Part 139 MOS – 11.10(2)(a)-(e)

The following is a list of individuals or positions and their responsibilities in the aerodrome manual validation and reporting process:

| INDIVIDUAL OR POSITION | RESPONSIBILITIES  |
|------------------------|---|
| Aerodrome Manager      | managing the validation programme                                       |
| Aerodrome Manager      | planning the validations  |
| Aerodrome Manager      | reporting the validation results and follow-up action                   |
| Aerodrome Manager      | receiving and considering validation reports                            |
| Aerodrome Manager      | taking follow-up action if defects or deficiencies have been identified |

### 3.9.2 INSPECTION ITEMS AND TIMEFRAMES

#### Part 139 MOS – 11.10(1)(a)(b); 12.09; 12.11(11)

Yarrowonga Aerodrome, in a financial year, has less than 10,000 air transport passenger movements and less than 20,000 aircraft movements.

An aerodrome manual validation is carried out in accordance with the following:

| VALIDATION REQUIREMENT   | FREQUENCY                            | REQUIRED QUALIFICATIONS AND / OR EXPERIENCE  |
|--|--------------------------------------|--|
| A check of the approach, take-off, and transitional surfaces to ensure published aerodrome information is accurate to within 0.05% of the published gradient in the AIP-ERSA | The validation is completed annually | The person engaged to conduct the validation is: <ul style="list-style-type: none"> <li>technically qualified or experienced in surveying or</li> <li>has a sound knowledge and understanding of the standards for obstacle limitation surfaces and</li> <li>can, by appropriate means, validate the accuracy of the current published information in the AIP and have a sound knowledge and understanding of the standards for OLS</li> </ul> |
| A check of the other surfaces associated with the OLS  | The validation is completed annually | The person engaged to conduct the validation is: <ul style="list-style-type: none"> <li>technically qualified or experienced in surveying or</li> <li>has a sound knowledge and understanding of the standards for obstacle limitation surfaces and</li> <li>can, by appropriate means,</li> </ul>   |

| VALIDATION REQUIREMENT  | FREQUENCY                              | REQUIRED QUALIFICATIONS AND / OR EXPERIENCE   |
|---|--|---|
|   |  | <ul style="list-style-type: none"> <li>validate the accuracy of the current published information in the AIP and have a sound knowledge and understanding of the standards for OLS</li> </ul> |
| For an aerodrome with a TIFP, a check of the MSC's monitoring of the instrument approach procedure-critical obstacles nominated by the procedure designer   | The validation is completed annually / | The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation   |
| A check of the currency and accuracy of information published in the AIP  | The validation is completed annually   | The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation   |
| A check of the currency and accuracy of aerodrome operating procedures specified in the aerodrome manual and supporting documents   | The validation is completed annually   | The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation   |
| A check that personnel appointed as a reporting officer<br>(a) have been trained and assessed in accordance with Chapter 13, and<br>(b) appear to be generally competent to carry out the required duties in accordance with MOS    | The validation is completed annually   | The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation   |
| A check that personnel appointed as a works safety officer<br>(a) have been trained and assessed in accordance with Chapter 13, and<br>(b) appear to be generally competent to carry out the required duties in accordance with MOS | The validation is completed annually   | The person engaged to conduct the validation has sound knowledge and experience of the applicable civil aviation safety legislation   |

### *3.9.3 QUALIFIED PERSONNEL FOR TECHNICAL INSPECTIONS / MANUAL VALIDATIONS*

#### **Part 139 MOS – 11.10(1)(b); 12.10(3)(4); 12.11(13)**

The Aerodrome Manager, at the time of engaging a person to conduct each element of the aerodrome manual validation, is to sight the qualifications and relevant experience of each person(s) to verify that they meet the required qualifications and / or experience as documented in subsection 3.9.2 of this manual.

A person who cannot demonstrate that they have the required technical qualifications and experience, or demonstrable relevant technical experience, will not be permitted to perform the inspection.

A record of qualifications and relevant experience is retained in the report for the annual aerodrome manual validation.

### *3.9.4 SCHEDULING INSPECTIONS / MANUAL VALIDATIONS AND RECORDING THEIR RESULTS*

#### **Part 139 MOS – 11.10(1)(c)**

A calendar is maintained to schedule manual validations.

- Person(s) responsible for calendar: Accountable Manager
- Location of calendar: MSC Intranet

To allow adequate planning time, a reminder is also set in the calendar three (3) months in advance of the due date.

The calendar is updated when an element of the manual validation is completed, and a new date for the next validation and a three-month advance reminder is set.

The calendar is reviewed monthly.

Irrespective of the schedule, an immediate validation is conducted in the event any of the following is detected during an aerodrome serviceability inspection:

- an unsafe condition is identified
- a defect or deficiency in a part of the aerodrome is identified
- incorrect aerodrome information published in the AIP, or a NOTAM, or reported to ATC (if applicable)
- any details in the aerodrome manual that are incorrect or not current
- any procedure in use at the aerodrome, which is not in accordance with, or conflicts with procedures in the aerodrome manual.

The results of each manual validation undertaken are presented in a report.

### *3.9.5 BRIEFING TECHNICAL INSPECTORS*

#### **Part 139 MOS – 11.10(1)(d)(i)(ii); 12.08(4); 12.11(8)**

At the time of engagement, the person(s) conducting the manual validation will be briefed on the scope of the validation.

The Accountable Manager is to advise the person(s) conducting each element of the validation that they are to include in their report:

- any non-compliance with the Part 139 MOS, including with respect to aerodrome personnel
- any incorrect aerodrome information:
  - published in the AIP or NOTAMs
  - reported to ATC (if applicable)
- any information in the aerodrome manual which is incorrect or not current
- any procedure, or practice in use at the aerodrome, which is not in accordance with, or conflicts with, procedures in the aerodrome manual.

### *3.9.6 POST-INSPECTION / VALIDATION CORRECTIVE ACTIONS*

#### **Part 139 MOS – 11.10(1)(e); 12.08(4)**

As soon as possible after the aerodrome manual validation has been completed, all errors or anomalies identified in the manual are to be corrected by Aerodrome Manager.

If necessary, consequential corrections to supporting procedures and to the aerodrome information published in the AIP are also to be made.

### *3.9.7 PROVIDING CASA WITH INSPECTION / VALIDATION REPORTS*

#### **Part 139 MOS – 11.10(1)(f); 12.08(7); 12.11(8)**

Where the validation identifies incorrect information published in the AIP, NOTAM, or in the aerodrome manual, or any errors or conflicts with the procedures documented in the aerodrome manual, within 30 days of finalising the manual validation, a report is to be provided to CASA by Aerodrome Manager.

### *3.9.8 MAINTAINING RECORDS OF TECHNICAL INSPECTIONS / MANUAL VALIDATIONS*

#### **Part 139 MOS – 12.08(9); 12.11(10)**

Records of the results of each manual validation are retained for a period of at least three (3) years from the date the record was completed.

- Maintained by: Aerodrome Manager
- Stored securely at: MSC Intranet / MSC Office.

## *3.10 AERODROME WORKS SAFETY*

#### **Part 139 MOS – 11.07**

Yarrowonga Aerodrome always makes all necessary arrangements to ensure that aerodrome works do not create a hazard to aircraft or cause confusion to pilots.

A works safety officer is to be present to directly oversee works safety at all times when the aerodrome is open and available for aircraft operations.

Aerodrome markers, markings and lights required for, or affected by aerodrome works are installed, altered or removed in accordance with the required standards.

Any part of the movement area that is unserviceable as a result of aerodrome works being carried out is marked and lit. Obstacles created as a result of the aerodrome works are assessed and marked, or lit in accordance with the assessment.

Where works are to be undertaken in the vicinity of CNS or MET facilities, the service provider is to be consulted to ensure neither the works, nor the vehicles or plant associated with the works affect performance of the facilities.

Where significant displacement of a runway threshold is planned, works planning may require consultations with the terminal instrument flight procedure (TIFP) designer and the surveyor that conducts the annual obstacle surveys.

### 3.10.1 WORKS SAFETY PERSONNEL

#### Part 139 MOS – 11.07(1)(2); 13.01

The following persons have specified responsibilities for works:

| INDIVIDUAL / POSITION | RESPONSIBILITY                |
|-----------------------|-------------------------------|
| Accountable Manager   | works planning                |
| Aerodrome Manager     | conducting works              |
| Aerodrome Manager     | arrangement and notifications |

The following is a list of personnel appointed to perform the functions of a works safety officer (WSO):

| NAME            | POSITION                          | FUNCTION             |
|-----------------|-----------------------------------|----------------------|
| Ingo Schweda    | Aerodrome Manager                 | Works safety officer |
| Daniel Pettit   | Superintendent Works and Services | Works safety officer |
| Ashley Saunders | Acting Leader Hand Roads          | Works safety officer |
| Wayne Hyde      | Team Leader Parks                 | Works safety officer |

All personnel appointed as a WSO have been trained so that they can competently carry out their duties at this aerodrome, without the need for supervision.

Yarrowonga ensures all training activities for works safety officers are recorded to verify achieved competencies.

All WSOs undergo recurrent training every two (2) to five (5) years as is recommended in guidance material published by CASA, or earlier if deficiencies are identified.

A training schedule has been established and is maintained by Workplace Trainer PEOPLE AND CULTURE. The training schedule is reviewed regularly to ensure training is completed in a timely manner.

The training records of all WSOs are:

- Maintained by: Workplace Trainer / PEOPLE AND CULTURE
- Stored securely at: MSC Office.

### 3.10.2 PREPARATION OF A METHOD OF WORKING PLAN (MOWP)

#### Part 139 MOS – 11.07(1)(a); Chapter 15; Chapter 16

Although a MOWP is not required when planning scheduled works, as a means to ensure aerodrome works do not create a hazard or confusion, and that the impact of the works will be clearly understood, Yarrowonga Aerodrome is to consult with:

- operators based at the aerodrome
- emergency services aircraft that are likely to operate at the aerodrome
- and other key stakeholders.

A list of representatives from each operator / organisation listed above, and their contact details, is maintained by: Aerodrome Manager.

CASA is to be consulted should any safety issues be identified.

In the event Yarrowonga Aerodrome elects to develop a MOWP, the MOWP will be prepared in

accordance with the content and sequencing requirements stated in Chapter 16 of the Part 139 MOS.

The name, position, and function of each WSO will be recorded in the MOWP.

MOWPs will be authorised and signed by either the:

- Accountable Manager
- Project Manager that has written authorisation from the aerodrome operator to sign the MOWP.

Written authorisations will be retained on file.

### *3.10.3 MOWP NOTIFICATIONS*

#### **Part 139 MOS – 11.07(1)(b); 15.02(3)(5); 16.10**

Unless the works are unforeseen urgent works, the authorised MOWP will be issued not less than 14 days before the works are scheduled to commence by Aerodrome Manager.

The MOWP is to be issued to:

- air transport operators using the aerodrome
- operators of emergency services aircraft that are likely to operate at the aerodrome
- ATC (if applicable)
- ARFFS (if applicable)
- providers of any communications, navigation, surveillance or meteorological infrastructure or equipment that might be affected by the works (if applicable)
- the WSO
- the project manager
- the works organiser
- the aerodrome security manager (if applicable)
- CASA via e-mail at: [aerodromes@casa.gov.au](mailto:aerodromes@casa.gov.au).

A distribution list of all MOWP recipients and their contact details is:

- Maintained by: Aerodrome Manager
- Stored securely at: MSC Intranet / MSC Office.

The following person(s) is responsible for ensuring that all recipients receive the MOWP: Aerodrome Manager.

The MOWP distribution list will be regularly reviewed to ensure it remains current.

In the event a MOWP requires amendment, the amended MOWP will:

- clearly show the information that has changed
- be disseminated to all persons who received the original MOWP
- be issued no later than 48 hours before the change in works commences.

Amendments to the MOWP are the responsibility of: Accountable Manager.

A NOTAM providing the time and date of the commencement of the works is to be issued as early as possible, but not less than 48 hours before commencement.

In the event the change in works is due to an unforeseen event and a notification period of at

least 48 hours is not possible, a NOTAM is to be requested as soon as possible after the change becomes known, and notification of the change is declared on the AFRU / or requested on the ATIS.

### ***3.10.4 COMMUNICATIONS WITH ATC DURING AERODROME WORKS***

#### **Part 139 MOS – 11.07(1)(c)**

The Aerodrome is not a controlled Aerodrome; therefore, this subsection is NOT APPLICABLE.

### ***3.10.5 TIME-LIMITED WORKS (TLW) OR EMERGENCY WORKS***

#### **Part 139 MOS – 11.07(1)(d)**

TLW are only to be carried out if:

- a works safety officer(s) is present in the vicinity of the works
- normal operations are not disrupted
- the movement area can be restored to normal safety standards, and
- any obstacles created by those works removed in not more than 30 minutes.

At all times during TLW, the WSO is to maintain a continuous radio listening watch.

In the event TLW have been stopped to facilitate an aircraft movement, normal safety standards are to be restored not less than five (5) minutes before the aircraft movement is to occur.

Where TLW have been stopped for an aircraft movement, TLW is only permitted to resume:

- for an aircraft arrival:
  - immediately after the aircraft arrival provided the safety of the aircraft is not endangered
  - if the aircraft has not arrived, at least 30 minutes after the aircraft was due to arrive.
- for an aircraft departure:
  - a minimum period of 15 minutes must have elapsed between the aircraft's departure and the resumption of TLW.



### *3.10.6 NOTIFICATIONS OF TLW OR EMERGENCY WORKS*

#### **Part 139 MOS – 11.07(1)(e)**

TLW or emergency works with recall times between 10 and 30 minutes are to be advised by NOTAM.

For TLW, the works safety officer is to ensure that a NOTAM has been issued at least 24 hours before the works commence.

The request for a NOTAM is to be made in accordance with section 3.1 of this manual.

The NOTAM authorised person is to include the following information in the NOTAM request:

- date and time of commencement of the works
- time required to restore normal safety standards.

Emergency works on a runway, or runway strip are not to commence until ATC (local tower, or the air traffic service centre) have been notified and the publication of a NOTAM advising the changes to the aerodrome has been verified. The operations centre for air transport operators with scheduled services occurring during the expected duration of emergency works is also be advised of the changes occurring due to the works.

### *3.10.7 WORKS AT CLOSED AERODROME*

#### **Part 139 MOS – 11.07(1)(f)**

To enable works to be completed when the aerodrome is closed, written notice of the intention to close the aerodrome is to be sent, at least 14 days before the aerodrome closure, to:

- air transport operators using the aerodrome
- each other known organisation using the aerodrome which is likely to be affected by the closure
- CASA.

A distribution list of those receiving the written notification will be retained by: Aerodrome Manager.

A copy of the written notice will be retained by: Aerodrome Manager.

At least 14 days before the aerodrome closure, a NOTAM will also be issued in accordance with section 3.1 of this manual, advising when the aerodrome will be temporarily closed.

### *3.11 WILDLIFE HAZARD MANAGEMENT*

#### *3.11.1 WILDLIFE HAZARD PERSONNEL*

##### **Part 139 MOS – 11.08(2)**

The following individuals and positions have responsibilities for wildlife hazard management:

| <b>INDIVIDUAL / POSITION</b> | <b>RESPONSIBILITIES</b>     |
|------------------------------|-----------------------------|
| ARO                          | monitoring wildlife hazards |
| ARO                          | mitigating wildlife hazards |

### *3.11.2 TRAINING OF PERSONNEL*

#### *3.11.2.1 TRAINING FOR WILDLIFE HAZARD MONITORING AND REPORTING*

##### **Part 139 MOS – 17.07(1)(3)**

At Yarrowonga Aerodrome, all personnel tasked with wildlife hazard monitoring and reporting are trained so that they can competently:

- conduct wildlife observations and identify high-risk species
- assess wildlife populations and describe their behaviour
- record information
- collect any remains of a wildlife strike on the aerodrome
- attempt to facilitate the identification of:
  - any wildlife involved in a strike event
  - any resulting damage to an aircraft.
- report the outcomes of observations, monitoring and strike collection activities.

Re-currency training is completed every: Three years.

The training records of all personnel are kept for a minimum period of three (3) years and are:

- Maintained by: Training Department / PEOPLE AND CULTURE
- Stored securely at: MSC Intranet / MSC Office.

#### *3.11.2.2 TRAINING FOR WILDLIFE HAZARD MITIGATION*

##### **Part 139 MOS – 17.07(2)(a)(b)(3)**

All personnel engaged in wildlife hazard mitigation are trained, so that they can competently:

- engage in active wildlife management without causing a hazard to aviation safety
- assess the effectiveness of any mitigation measures that are taken.

Re-currency training is completed every Three years.

The training records of all personnel are kept for a minimum period of three (3) years and are:

- Maintained by: Training Department / PEOPLE AND CULTURE
- Stored securely at: MSC Intranet / MSC Office.

### *3.11.3 WILDLIFE HAZARD MANAGEMENT PLAN*

##### **Part 139 MOS – 17.03; 17.04**

The type and frequency of aircraft operations do not trigger the requirement for a wildlife hazard management plan, nor does the aerodrome have a high wildlife hazard management risk. A wildlife hazard management plan has not been prepared.

### *3.11.4 WILDLIFE HAZARD MONITORING*

#### **Part 139 MOS – 11.08(1)(a); 17.01(3)**

Wildlife hazards at Yarrawonga Aerodrome are monitored as part of the aerodrome serviceability inspection process as shown in section 3.2 of this manual.

In addition to an inspection of the aerodrome boundary fence, and gates, looking for holes or other potential signs of a breach by wildlife, reporting officers will identify and record the following:

- presence of wildlife on and in the vicinity of the aerodrome, which is to include:
  - a count of all birds and animals sighted
  - bird / animal activity, e.g. feeding, flying, nesting
  - species (if known)
  - numbers
  - location.
- seasonal and environmental conditions which may attract wildlife, such as grasses, standing water, uncovered waste, deceased wildlife (e.g. dead rabbits, mice etc.)
- any additional indicators such as new nests or eggs.

All wildlife observed on the aerodrome and in the vicinity of the aerodrome are recorded on the: WHM List.

A record of wildlife strikes is also included in the following register:

- Wildlife strike register: Wildlife Strike Report Form
- Stored securely at: MSC Intranet / MSC Office.

All known or suspected wildlife strikes that occur at or in the vicinity of the aerodrome are reported to the Australian Transport Safety Bureau (ATSB). Each month, the wildlife strike statistical reports published by the ATSB are reviewed by: Aerodrome Manager.

Any reported occurrences near the aerodrome that have not been previously recorded are included in the Wildlife Management register.

To detect changes in wildlife hazards, reported wildlife observations and the wildlife strike register are reviewed every month by: Aerodrome Manager.

### *3.11.5 WILDLIFE HAZARD ASSESSMENT*

#### **Part 139 MOS – 11.08(1)(b); 17.02(1)**

Any detected wildlife hazard is assessed for risk to aircraft operations.

The hazard assessment process is completed in accordance with the procedures set out in the aerodrome MSC Safety Management System.

When assessing the risks, the following data is considered:

- wildlife observations
- reported strike events
- reported near miss events
- times of day or year / weather conditions.

Wildlife hazard risk assessments are:

- Maintained by: PEOPLE AND SAFETY
- Stored securely at: MSC Intranet / MSC Office.

### *3.11.6 WILDLIFE HAZARD MITIGATION*

#### **Part 139 MOS – 11.08(1)(c)**

The following measures have been implemented to assist in mitigating wildlife hazards:

- all gates are kept locked and rubbish appropriately stored
- grass heights are monitored to prevent seeding
- open unlined drains are regularly inspected and maintained to prevent water retention
- in the event dead birds and animal carcasses are located they are quickly removed
- bird spikes or barriers have been installed on roosting sites.

In the event a reporting officer(s) detects a source of attraction for wildlife, so that further actions can be considered and implemented to minimise the attraction, a report is to be drafted and sent to: Aerodrome Manager.

Wildlife mitigation permit(s) is held at the required intervals and renewal is managed by: PEOPLE AND SAFETY TEAM

Wildlife mitigation permits are stored securely at: MSC Intranet / MSC Office.

### *3.11.7 WILDLIFE HAZARD REPORTING (AIP, NOTAM, ATC, UNICOM)*

#### **Part 139 MOS – 11.08(1)(d); 17.05(1)**

In the event a wildlife risk is identified on or in the vicinity of the aerodrome, and the risk is a serious or imminent threat and cannot be immediately managed, the reporting officer(s) is to:

- notify ATC (if applicable)
- advise pilots via the CTAF / Unicom
- request the immediate issue of a NOTAM.

Known or seasonal hazards are reported in writing to the AIS provider for publication in the AIP-ERSA.

A NOTAM is requested if the hazard is a higher risk than usual, or is of a short term or seasonal nature.

### *3.11.8 LIAISON WITH LOCAL AUTHORITIES FOR WILDLIFE HAZARD MITIGATION*

#### **Part 139 MOS – 11.08(1)(e); 17.01(2)**

The following is a list of local authorities that have land within a 13-km radius of the aerodrome:

| LOCAL AUTHORITY     | CONTACT      |
|---------------------|--------------|
| Wildlife Victoria   | 03 8400 7300 |
| DEECA               | 136 186      |
| Moira Shire Council | 03 5871 9222 |
| Parks and Gardens   | 1300 366 356 |

Yarrowonga Aerodrome engages with the local authorities to ensure that future land uses and development proposals can be carefully considered.

### *3.12 LOW-VISIBILITY OPERATIONS*

Low-visibility operations are not conducted; therefore, this section is NOT APPLICABLE.

#### *3.12.1 LOW-VISIBILITY PERSONNEL*

##### **Part 139 MOS – 11.17(1)(e)(i)(ii)**

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

##### *3.12.1.1 RUNWAY VISIBILITY (RV) ASSESSMENT PERSONNEL*

##### **Part 139 MOS – 23.08**

No persons at Yarrowonga Aerodrome are authorised to conduct runway visibility assessments.

#### *3.12.2 VEHICULAR TRAFFIC IN LOW-VISIBILITY OPERATIONS*

##### **Part 139 MOS – 11.17(1)(b)**

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

#### *3.12.3 CNS FACILITIES IN LOW-VISIBILITY OPERATIONS*

##### **Part 139 MOS – 11.17(1)(c)**

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

#### *3.12.4 MANOEUVRING AREA INSPECTIONS IN LOW-VISIBILITY OPERATIONS*

##### **Part 139 MOS – 11.17(1)(d)**

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

#### *3.12.5 MEASURING RUNWAY VISIBILITY*

##### **Part 139 MOS – 11.17(1)(a); 23.09(c)(iii)(iv)**

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

### *3.12.6 COMMUNICATING VISIBILITY MEASUREMENTS TO ATC OR PILOTS*

#### **Part 139 MOS – 11.17(1)(a)**

Low-visibility operations are not conducted; therefore, this subsection is NOT APPLICABLE.

### *3.12.7 TRANSMISSOMETERS*

#### **Part 139 MOS – 11.17(2)**

Transmissometers are not installed at Yarrawonga Aerodrome; therefore, this is NOT APPLICABLE.

### *3.12.8 LOW-VISIBILITY PROCEDURES (LVP)*

#### **Part 139 MOS – Chapter 23**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

#### *3.12.8.1 SPECIFIC CIRCUMSTANCES FOR LVP*

##### **Part 139 MOS – 23.02(c)(i)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

#### *3.12.8.2 NOMINATED RATE OF AERODROME MOVEMENTS*

##### **Part 139 MOS – 23.02(c)(ii)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

#### *3.12.8.3 LVP-RELATED TRAINING AND AUTHORISATION FOR AIRSIDE DRIVERS*

##### **Part 139 MOS – 23.02(c)(iii)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

#### *3.12.8.4 CONTROL OF AIRSIDE OPERATIONS*

##### **Part 139 MOS – 23.02(c)(iv)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.5 WITHDRAWAL OF NON-ESSENTIAL VEHICLES AND PERSONNEL*

#### **Part 139 MOS – 23.02(c)(v)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.6 SUSPENSION OF VISUAL AND NON-VISUAL AID MAINTENANCE*

#### **Part 139 MOS – 23.02(c)(vi)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.7 SECURING AIRSIDE ACCESS AND PREVENTING ENTRY*

#### **Part 139 MOS – 23.02(c)(vii)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.8 ALERTING OF LVP*

#### **Part 139 MOS – 23.02(c)(viii)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.9 COORDINATING LVP ACTIVITIES WITH ATC*

#### **Part 139 MOS – 23.02(c)(ix)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.10 PHYSICAL CHECKS OF LIGHTING AND WARNING DEVICES*

#### **Part 139 MOS – 23.02(c)(x)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.11 PROTECTION OF AREAS FOR ILS*

#### **Part 139 MOS – 23.02(c)(xi)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.



### *3.12.8.12 EMERGENCY RESPONSES DURING LVP*

#### **Part 139 MOS – 23.02(c)(xii)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.13 LVP STATUS*

#### **Part 139 MOS – 23.02(c)(xiii)**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.12.8.14 REVIEW OF LOW-VISIBILITY PROCEDURES*

#### **Part 139 MOS – 23.04**

Low-visibility procedures (LVP) have not been established; therefore, this subsection is NOT APPLICABLE.

### *3.13 DISABLED AIRCRAFT REMOVAL*

#### *3.13.1 AIRCRAFT REMOVAL PERSONNEL*

##### **Part 139 MOS – 11.13(e)(i)(ii)**

The following person(s) have responsibilities for arranging the removal of disabled aircraft:

| <b>NAME</b>  | <b>ROLE</b>       | <b>PHONE NUMBER</b> | <b>AFTER-HOURS PHONE NUMBER</b> |
|--------------|-------------------|---------------------|---------------------------------|
| Ingo Schweda | Aerodrome Manager | 0428 752 274        | 0428 752 274                    |
| On Standby   | ARO               |                     | 0428 752 274                    |

#### *3.13.2 AIRCRAFT REMOVAL - AERODROME OPERATOR & AIRCRAFT CERTIFICATE HOLDER*

##### **Part 139 MOS – 11.13(a)**

The registered owner or aircraft operator has complete responsibility for removing their aircraft should it become disabled. All airline operators are therefore expected to have aircraft recovery plans which identify any special equipment that may be necessary.

Yarrowonga Aerodrome coordinates the aircraft recovery operation to ensure that the disabled aircraft is removed in a timely and efficient manner.

Removal of damaged aircraft may be subject to clearance of Australian Transport Safety Bureau and other investigating teams.

Although the aircraft owner is responsible, Yarrowonga Aerodrome may, where necessary, initiate salvage action when:

- there is a serious and imminent threat or hazard to other aircraft, vehicles or personnel on the movement area
- the aircraft operator refuses to move a disabled aircraft, or neglects to do so within a reasonable time.

In these instances, Yarrowonga Aerodrome accepts no responsibility for any loss or damage of any kind resulting from this action, and the aircraft operator shall be held responsible for all costs incurred.

Once a runway is negatively impacted (unavailable), or a reduction in operating length is required, a NOTAM is to be issued in accordance with section 3.1 of this manual.

Appropriate visual aids are deployed, when necessary, to mark unserviceable portions of the aircraft movement area by ARO.

#### *3.13.3 NOTIFYING AIRCRAFT CERTIFICATE HOLDER*

##### **Part 139 MOS – 11.13(b)**

The pilot of a disabled aircraft is expected to notify the holder of the aircraft's certificate of registration in the first instance.

If the pilot is not available, or is unable to notify the certificate of registration holder, the required notification is to be issued by Aerodrome Manager.

If the certificate of registration is not known to Yarrawonga Aerodrome Manager, details are to be obtained from the pilot, if possible, or if available, from the [civil aircraft register](#) on the CASA website.

### *3.13.4 LIAISING WITH THE ATSB, DEFENCE AND ATC*

#### **Part 139 MOS – 11.13(c)**

If the disabled aircraft cannot be immediately removed from the movement area, Yarrawonga Aerodrome will ensure:

- unserviceability markers, markings and lights are displayed as required
- the NOF is notified of the unserviceability, or changes to the runway or taxiway as applicable.

In the absence of a representative from Yarrawonga Aerodrome, the pilot is expected to advise air traffic services of the disabled aircraft closing the runway or airport. As there is no Air Traffic Control at Yarrawonga Aerodrome, this notification is expected to occur on the general area frequency should VHF be available on the ground. Once a representative from Yarrawonga Aerodrome becomes aware of the disabled aircraft, they are to confirm with the pilot that the air traffic services have been notified.

The ATSB will be notified immediately of an occurrence that requires their involvement.

### *3.13.5 EQUIPMENT AND PERSON(S) TO REMOVE AIRCRAFT*

#### **Part 139 MOS – 11.13(d)**

The holder of the aircraft's certificate of registration is expected to provide, by the fastest means possible, any specialised equipment and personnel required to remove a disabled aircraft.

Prior to engaging recovery assistance from Yarrawonga Aerodrome, the aircraft operator is required to indemnify Yarrawonga Aerodrome from any adverse consequence resulting from any activities during the recovery process.

Yarrawonga Aerodrome is to advise the aircraft operator of the contacts of any commercial crane operators that may assist in providing equipment for the removal of disabled aircraft.

## *3.14 AERODROME SAFETY MANAGEMENT*

### *3.14.1 SAFETY MANAGEMENT SYSTEM (SMS)*

#### **Part 139 MOS – 11.09(1); 25.02; 25.03; 25.04**

As the aerodrome has less than 50,000 air transport passenger movements / less than 100,000 aircraft movements in a financial year, a safety management system has not been prepared or implemented.

### *3.14.2 RISK MANAGEMENT PLAN*

#### **Part 139 MOS – 11.09(2); Chapter 26**

As the aerodrome has less than 25,000 air transport passenger movements / less than 20,000 aircraft movements in a financial year, a risk management plan has not been prepared or implemented.

## 4 AERODROME EMERGENCY RESPONSE

### 4.1 EMERGENCY RESPONSE PERSONNEL

#### Part 139 MOS – 11.12(2)(a)-(e)

| <b>INDIVIDUALS / POSITION</b>  | <b>RESPONSIBILITIES</b>   |
|--------------------------------|---|
| Accountable Manager            | Maintaining aerodrome emergency response procedures   |
| Aerodrome Manager / ARO        | Notifying procedures to initiate an emergency response  |
| Aerodrome Manager / ARO        | Initiating emergency response actions by aerodrome personnel                                    |
| Aerodrome Manager / ARO        | Returning the aerodrome to operational status after an emergency                                |
| Emergency Response Coordinator | Monitoring the function of the aerodrome response plan in local emergency planning arrangements |

## *4.2 AERODROME EMERGENCY RESPONSE*

### *4.2.1 AERODROME EMERGENCY PLAN (AEP)*

#### **Part 139 MOS – Chapter 24**

The type and frequency of aircraft operations at Yarrawonga Aerodrome does not trigger the requirement for an aerodrome emergency plan; but, the MSC has been prepared a AEP to identify resources available and the procedure in place to provide assistance to:

- aircraft in distress
- to search for
- provide aid to

and organise the rescue of survivors of aircraft accidents and forced landings, at or near the Yarrawonga Aerodrome.

The AEP is commensurate with the scale and type of aircraft that operate into Yarrawonga Aerodrome; the surrounding geography, and other activities conducted at the aerodrome. With the assistance of the Aerodrome Emergency Committee, Council has planned for the worst type of emergency situations that might conceivably occur with respect to size of aircraft, location, timing and weather.

### *4.2.2 LOCAL / STATE EMERGENCY RESPONSE PLAN*

#### **Part 139 MOS –Chapter 24**

An AEP has been established and implemented at Yarrawonga Aerodrome; therefore, this subsection is NOT APPLICABLE.

## 4.3 AERODROME EMERGENCY PROCEDURES

### 4.3.1 AERODROME EMERGENCY COMMITTEE

#### Part 139 MOS – 11.12(1)(a)(i)

An aerodrome emergency committee has been established at Yarrowonga Aerodrome. The position of each member of the aerodrome emergency committee is below:

| POSITION                               | ORGANISATION |
|--|--------------|
| Accountable Manager                    | MSC          |
| Emergency Management Coordinator       | MSC          |
| Municipal Emergency Manager            | MSC          |
| Municipal Recovery Manager             | MSC          |
| Municipal Emergency Management Officer | MSC          |
| Municipal Fire Prevention Officer      | MSC          |
| Aerodrome Manager                      | MSC          |

The responsibility of the aerodrome emergency committee is to ensure an appropriate and commensurate response in the event of a real emergency. The aerodrome emergency committee has assisted in:

- preparing and maintaining the aerodrome emergency plan
- planning the emergency response arrangements, including emergency preparation, testing and exercising the aerodrome's emergency plan.

The aerodrome emergency committee conducts a review of the aerodrome emergency plan following a test, an exercise, a real activation of the plan, or at least once annually.

Records of each review will be:

- Retained by: Accountable Manager
- Available at: MSC Intranet / MSC Office.

### 4.3.2 EMERGENCY SERVICE ORGANISATIONS

#### Part 139 MOS – 11.12(1)(a)(ii)

Descriptions of the roles of each emergency service organisation involved in the Yarrowonga Aerodrome AEP are below:

| EMERGENCY SERVICE ORGANISATION | ROLE DESCRIPTION   |
|--------------------------------|--|
| Moirā Shire                    | <p><b><i>On being notified of a crash, will dispatch personnel to:</i></b></p> <ol style="list-style-type: none"> <li>1. close the Aerodrome by placing a cross in the signal area;</li> <li>2. assist and liaise with the police, and carry out any duties as directed.</li> <li>3. cancel or amend NOTAM affecting the Aerodrome as required.</li> </ol> |

| <b>EMERGENCY SERVICE ORGANISATION</b> | <b>ROLE DESCRIPTION</b>  |
|---------------------------------------|--|
|                                       | <p><b><i>Aerodrome Operator, Reporting Officer, and Deputy Reporting Officer.</i></b></p> <p>Any of these persons, on observing or being notified of an aircraft crash or an expected abnormal landing, shall immediately render assistance and advise the police of the following:</p> <p>notify the AA NOTAM Office of action taken, institute the appropriate NOTAM action, and assess whether all or part of the runway can be made available after the event and prior to opening all or part of the runway that the runway is free of debris.</p> <ul style="list-style-type: none"> <li>• Aircraft type</li> <li>• Registration</li> <li>• Company name</li> <li>• Persons onboard</li> <li>• Dangerous cargo(if known)</li> <li>• Location</li> <li>• Brief the police of the action taken</li> <li>• The police shall coordinate the response</li> </ul>  |
| Airservices Australia                 | If a pilot indicates to an AA communications unit that his aircraft is in danger, the AA Rescue Coordination Centre (RCC) will notify the police.  |
| Police                                | <p>Extract from Rules and Practices for Aerodromes (RPA)</p> <p>The police represent the coroner at the site of a fatal accident and are authorised to direct custody and transport of deceased persons. The coroner is responsible for determining cause of death and in the case of aviation casualties draws on the special skills of the CASA Aviation Medicine Branch and the ATSB.</p> <p>Police are required to account for all people on board a crashed aircraft. In discharging this function, it will normally be necessary to secure the crash site and impose control over persons entering and leaving the site. It has been found that medical teams are ideally placed to assist the police in this matter without inhibiting the medical function.</p> <p>Police may also be given or delegate the responsibility of guarding any aircraft wreckage on behalf of ATSB.</p> <p>As soon as police presence is established at the scene of an Aerodrome emergency, the senior police officer will assume overall control and coordinate the agencies responding to the emergency. The person who initially assumed control of the situation is to hand over control to the police.</p> <p><b>IN THE EVENT OF AN EMERGENCY, THE POLICE WILL</b></p> <p>(a) on receiving advice of an aircraft crash or crash alert, obtain the following details:</p> <ul style="list-style-type: none"> <li>• location of aircraft</li> <li>• number of persons on board</li> <li>• aircraft type</li> <li>• aircraft registration</li> <li>• aircraft company</li> </ul> <p>(b) contact the Ambulance, Hospital, Fire Brigade, SES and Council.</p> |



| <b>EMERGENCY SERVICE ORGANISATION</b> | <b>ROLE DESCRIPTION</b>   |
|---------------------------------------|---|
|                                       | <p>(c) dispatch officers to the scene of the emergency, on arrival, and if necessary, when the aircraft has stopped, isolate the site. Once the firefighting unit is in position, set up a coordination point, activate flashing lights to establish the visual and physical position of the command post. No other flashing lights are to be turned on.</p> <p>(d) except for firefighting, take charge of all operations. Be the coordinator solely responsible for actions at the crash scene, admitting only essential firefighting personnel, equipment, and the ambulance.</p> <p>(e) obtain relevant details such as location, number of people involved, and the severity of the accident. Ensure all persons on the aircraft are accounted for. Direct walking survivors to the assembly area set aside for victim's support care. Ensure that the assembly area is located at least 100 metres from and, preferably upwind from the emergency site.</p> <p>(f) isolate in case of fire, the crash scene until declared safe by the Fire Brigade. When the scene is safe, restrict entry only to essential persons and equipment. Generally, control, supervise and ensure free movement of emergency service vehicles to enter, and assemble to provide appropriate support in the emergency area.</p> <p>(g) notify the Air Traffic Services Centre (ATSC) Brisbane and:</p> <p style="padding-left: 40px;">(i) provide all available information, concerning the accident for forwarding to ATSB; and</p> <p style="padding-left: 40px;">(ii) if aircraft details are not known, seek ATSC assistance in determining which aircraft is likely to be involved and the number of people on board.</p> <p>(h) if the crash is on or near the Aerodrome, notify Council:</p> <p style="padding-left: 40px;">(1) Aerodrome Manager, and if unavailable; the</p> <p style="padding-left: 40px;">(2) ARO - the ARO will notify the ATSC to wholly or partially close the Aerodrome.</p> <p>(i) if a charter aircraft is involved notify the operator or their agent, and seek details such as aircraft type and the number of persons on board.</p> <p>(j) check the aircraft for dangerous cargo and arrange for removal, take charge of all the aircraft papers and guard the wreckage until released by ATSB.</p> <p>(k) remain at the assembly area, control spectator and media access to an area away from the scene of the crash. Issue press and media releases.</p> <p>(l) arrange guard duty at the site of the crash. To assist the ATSB investigators, save and protect evidence, including impact marks on the ground, and other indicators such as debris. The exact location of victims marked, and a photographic record made of the scene, before any wreckage is disturbed.</p> <p>(m) control the media</p> |

| <b>EMERGENCY SERVICE ORGANISATION</b> | <b>ROLE DESCRIPTION</b>  |
|---------------------------------------|--|
| State Emergency Service               | <p>On observing or being notified a crash has occurred or is imminent on or in the vicinity of the Aerodrome, will:</p> <p>(a) proceed to the crash site</p> <p>(b) on arrival, contact the officer in charge at the site, and assist as directed. Vehicle's flashing light are to be switched off.</p> <p>(c) assist the ambulance to rescue and administer first aid as required by the ambulance officer, assist in loading and transporting casualties, and</p> <p>(d) assist the police to search for missing aircraft occupants. Securing of the area from sightseers, media, etc. Locate and mark aircraft wreckage as required by ATSB.</p> <p>Taking charge for extraction Casualties out of the aircraft.</p>  |
| Fire Brigade                          | <p>Procedures for the Fire Brigade on being notified and directed to an Aerodrome emergency at Yarrowonga Aerodrome will unless otherwise directed:</p> <p>(a) turn out and met at the assembly point for further information. Turn off the vehicle flashing lights unless they (prior to Police arrival on the scene) are the temporary emergency service coordinator;</p> <p>(b) take charge of rescue and firefighting operations as appropriate extinguish fire or prepare for possible explosion and/or fire. Advise the command post coordinator when the area is safe;</p> <p>(c) look for the police who will initially establish the command post, and assist as required. The police vehicle will display a flashing light;</p> <p>(d) it is expected that the Fire Brigade will be met at the gate assembly point. It is advisable that any tender is kept well clear of the runways and taxiway until the subject aircraft has stopped;</p> <p>(e) if runways and taxiways must be crossed it must be done with caution and always give way to aircraft;</p> <p>(f) call in outside assistance if necessary;</p> <p>(g) work in close liaison with all other services involved; and</p> <p>(h) in a crash off the Aerodrome take charge of rescue and firefighting operations as required.</p> |
| Ambulance Service                     | <p>On being notified of an Aerodrome emergency will unless otherwise directed:</p> <p>(a) obtain details of emergency from police or council</p> <p>(b) determine the level of response</p> <p>(c) dispatch all available ambulances and crew to the Aerodrome, and unless otherwise directed, enter the Aerodrome via the apron gate and proceed to the assembly point nearby the scene of the crash. On arrival turn off the vehicle flashing lights;</p> <p>(d) on arrival report to the command post coordinator, treat</p>  |

| <b>EMERGENCY SERVICE ORGANISATION</b> | <b>ROLE DESCRIPTION</b>  |
|---------------------------------------|--|
|                                       | casualties as appropriate, provide first aid and recover crash victim/s;<br><br>(e) evacuate all casualties as required;<br><br>(f) cross runways and taxiways with utmost caution; always give way to aircraft; and<br><br>(g) work in close liaison with the police. |

### 4.3.3 LOCAL EMERGENCY PLANNING ARRANGEMENTS

#### Part 139 MOS – 11.12(1)(a)(iii)

To ensure a coordinated response, the following procedures are followed when liaising with authorised person(s) responsible for local emergency planning arrangements:

- see MSC Aerodrome Emergency Management Plan

### 4.3.4 NOTIFICATION AND INITIATION OF EMERGENCY RESPONSE

#### Part 139 MOS – 11.12(1)(a)(iv); 24.04

Notification of an emergency will be made without delay.

To ensure agencies respond appropriately, it is important that all known information about the emergency is relayed as accurately as possible. The following information is to be relayed as applicable:

- exact location of the incident (including location details and map references etc.)
- nature of the incident
- type of aircraft
- estimated time of arrival of the aircraft involved and the runway to be used (if applicable)
- number of persons on board (including passengers and crew)
- presence of hazardous materials including dangerous goods
- any other relevant information.

To assist responding emergency agencies, location details and / or maps of the aerodrome and its immediate vicinity have been provided. The location details and / or maps show:

- primary and secondary access points
- emergency assembly areas
- aerodrome hazards.

The location details and / or maps are available at: MSC Intranet, MSC Office and Terminal Building.

### *4.3.5 ACTIVATION, CONTROL AND COORDINATION OF EMERGENCY RESPONDERS*

#### **Part 139 MOS – 11.12(1)(a)(v)**

Yarrowonga Aerodrome does not have any aerodrome-based emergency responders; therefore, this subsection is NOT APPLICABLE.

### *4.3.6 AERODROME EMERGENCY FACILITIES*

#### **Part 139 MOS – Chapter 11.12(1)(a)(vi)**

The facilities and specialist emergency equipment that are available at the aerodrome in the event of an emergency, and their procedures for use, are below.

In the event of a protracted emergency event, a Forward Command Post may be established at the Terminal Building. This building is included in the Appendix 5.3 AD Layout.

Access to this facility is obtained by contacting the Aerodrome Manager or delegating.

This facility is equipped with:

- Toilets
- Small meeting room
- Kitchenette (available)
- Power
- Parking
- Lighting

### *4.3.7 ACCESS AND MANAGEMENT OF ASSEMBLY AREAS*

#### **Part 139 MOS – 11.12(1)(a)(vii)**

The procedures for access and the management of assembly areas are described below:

IN THE EVENT OF AN EMERGENCY, THE POLICE WILL

- obtain relevant details such as location, number of people involved, and the accident's severity.
- ensure all persons on the aircraft are accounted for
- direct walking survivors to the assembly area set aside for victim's support care
- ensure the assembly area is located at least 100m from and preferably upwind from the emergency site.
- remain at the assembly area, control spectator and media access to an area away from the scene of the crash
- issue press and media release
- liaise with the Aerodrome Manager or delegate

### *4.3.8 RESPONSE TO A LOCAL STAND-BY EVENT*

#### **Part 139 MOS – 11.12(1)(a)(viii)**

The procedures to respond to a local stand-by event are described below:

A condition is declared when an aircraft approaching the Aerodrome is known or is suspected of having developed some defect, but the trouble is not such as would normally involve any serious difficulty in effecting a safe landing and thus NOT requiring a response from off-Aerodrome agencies. Due to the lack of permanent emergency resources on the Aerodrome, it is considered that Local Standby would be implemented, but 'Full Emergency' procedures will apply.

### *4.3.9 INITIAL RESPONSE TO FULL EMERGENCY*

#### **Part 139 MOS – 11.12(1)(a)(ix)**

The procedures to respond to a full emergency event at or in the immediate vicinity of the aerodrome are described below:

An emergency is declared when it is known that an aircraft approaching the Aerodrome is or suspected to be in difficulties and there is a danger of an accident occurring, which requires a response from off- Aerodrome agencies.

When the various agencies are notified through the usual communication channels, all or some of the following information will be given if it is known

- level of emergency
- Type of aircraft
- Passengers on Board (POB) if known
- Aircraft estimated time of arrival (ETA)
- nature of the emergency, i.e. medical onboard, equipment failure, etc.

Emergency management roles and responsibilities will be consistent with the State Emergency Management Plan and the Moirā Shire Municipal Emergency Management Plan.

## *4.4 READINESS OF EMERGENCY FACILITIES, ACCESS POINTS & ASSEMBLY AREAS*

#### **Part 139 MOS – 11.12(1)(b)**

The arrangements for keeping aerodrome emergency facilities, access points and assembly areas (if any) in a state of readiness are described below:

Yarrowonga Aerodrome has a primary emergency access gate off Cahills Road near the Terminal Building. Secondary access gates are available at the discretion of the Aerodrome Manager or delegate. The airside access point is located in the public carpark area. These are identified in the Aerodrome site map, attached to this plan as Appendix 5.7 Emergency Vehicle Access Gates.

During regular business, the Aerodrome Manager or delegate will control site access or direct access as required.

## *4.5 EMERGENCY RESPONDER PREPAREDNESS*

### *4.5.1 SITE INDUCTIONS FOR EMERGENCY RESPONDERS*

#### **Part 139 MOS – 11.12(1)(c)(i)**

To ensure local emergency responders are familiar with the aerodrome and its immediate surroundings, familiarisation tours are conducted.

During these tours, emergency responders are:

- shown the location and operation of:
  - aerodrome access points (including routes to get to the access points)
  - aerodrome assembly areas
  - aerodrome emergency facilities and equipment.
- made aware of hazardous storage facilities and materials at the aerodrome
- made aware of procedures to be followed when responding to an incident, including airside driving hazards.

### *4.5.2 EMERGENCY RESPONSE TRAINING*

#### **Part 139 MOS – 11.12(1)(c)(ii)**

The Type and frequency of Aircraft operations at Yarrawonga Aerodrome does not trigger the requirements for an emergency plan; therefore, this subsection is NOT APPLICABLE.

### *4.5.3 EMERGENCY EXERCISES*

#### **Part 139 MOS – 11.12(1)(c)(iii)**

A tabletop exercise will be conducted between aerodrome operator and their local emergency responders at least once every two years.

## *4.6 POST-EMERGENCY RETURN TO OPERATIONAL STATUS*

#### **Part 139 MOS – 11.12(1)(d)**

All agencies involved with the emergency should discuss and agree the timing of the transition. Council, as the aerodrome operator, must be ready to assume responsibility and have the appropriate resources assembled prior to the transition. Where practical the aerodrome community should receive continuous services and communication during the transition and a phased transition may be appropriate.

Considerations regarding the timing of the transition should include:

- The extent to which any emergency risks remain
- The extent to which the response agency personnel are still required
- The extent to which the effect and consequences of the emergency are known
- The roles and responsibilities of agencies with a responsibility to investigate the emergency
- The extent of consequences of the emergency on the operational status of the aerodrome and its ability to continue operating
- The extent to which the resources needed to return the aerodrome to operational status are

ready to manage their responsibilities.

Emergency response coordinators are responsible for advising all agencies involved in the emergency of the termination of the emergency response. Support agencies may be required to continue working at the emergency following the transition.

The Incident Controller, the Emergency Response Coordinator and the Council, as the aerodrome operator, will determine the transition structure and handover requirements to return the aerodrome to operational status.

When the emergency has been terminated and control transferred to the Council, returning the aerodrome to its operational status will be managed in accordance with the arrangements in the AOM / MOS Part 139.

## *4.7 REVIEWS OF AERODROME EMERGENCY PLAN (AEP)*

### **Part 139 MOS – 11.12(1)(e); 24.05(2)**

The aerodrome emergency plan is to be reviewed:

- following a test or exercise
- after the occurrence of a real emergency that requires activation of the aerodrome emergency plan
- at least once annually.

Documented evidence of each review is:

- Retained by: Emergency Management Coordinator
- Stored securely at: MSC Office - Intranet

## *4.8 MONITORING LOCAL EMERGENCY PLANNING ARRANGEMENTS*

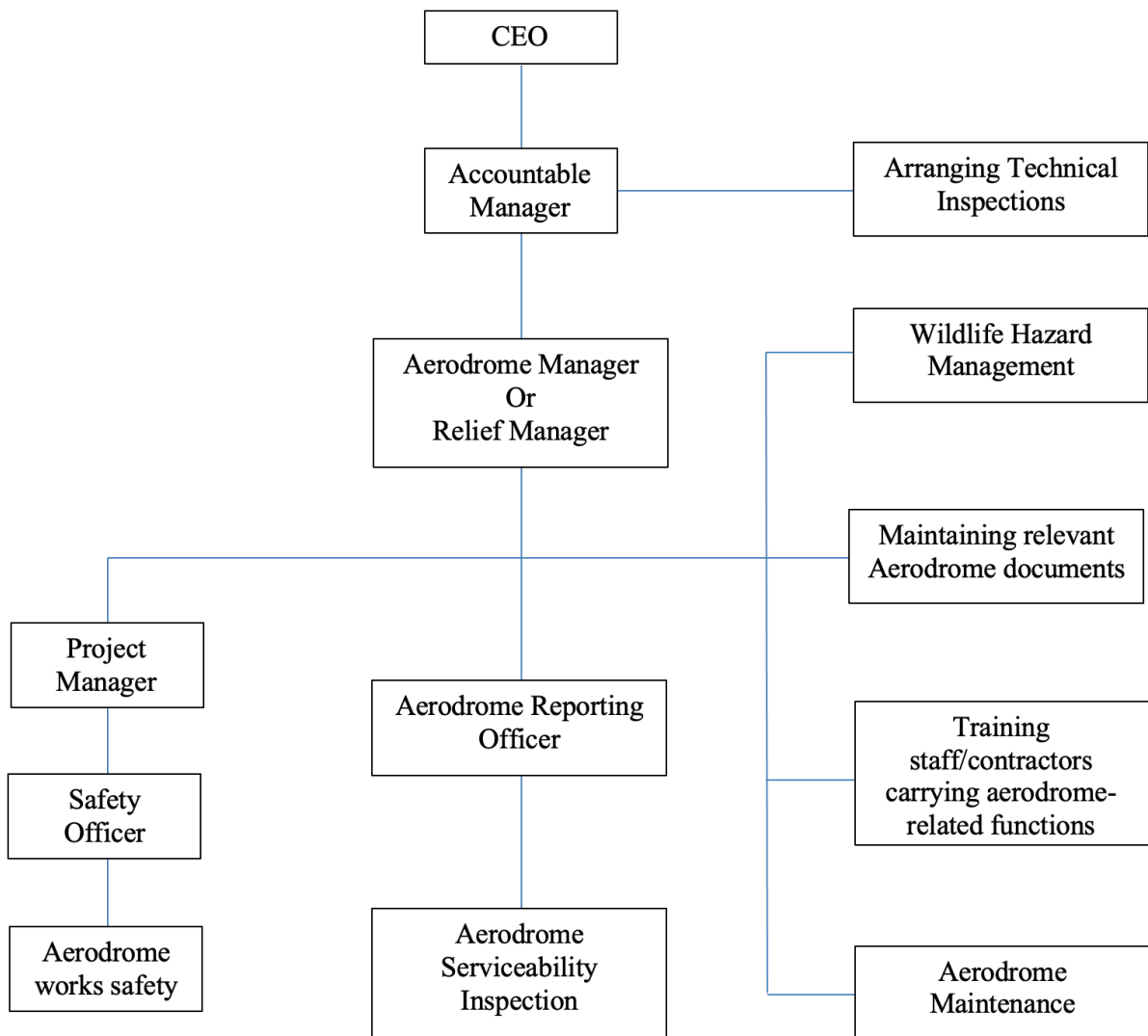
### **Part 139 MOS – 11.12(1)(e)**

The aerodrome has an AEP; therefore, this section is NOT APPLICABLE.

# 5 APPENDICES

## 5.1 AERODROME ADMINISTRATION

### **Organisational Flow chart**

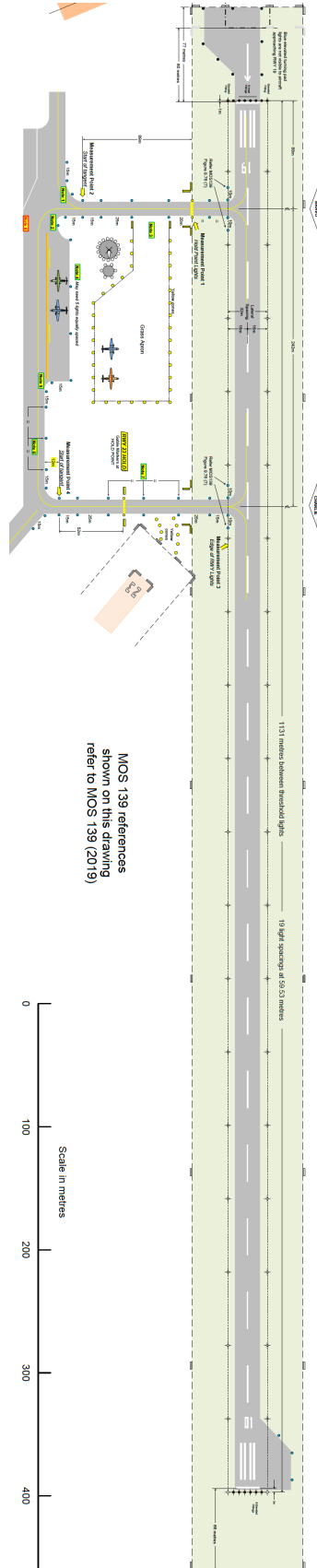


OrganisationalFlowChart.png



## 5.2 LIGHT SYSTEM

Lighting System Layout:



YYWG AD Light System Layout

## Statement of Conformity:



## Airport Lighting Specialists Pty Ltd

www.airportlighting.com.au  
 Factory 5 / 20 Peel Street Eltham 3095 Victoria Australia  
 Tel +61 3 9432 0511 sales@airportlighting.com.au  
 ABN 480 0742 0742

26-Jun-2024

### Statement of Conformity to

### Part 139 (Aerodromes) Manual of Standards 2019

Includes Compilation 1 Date 13 August 2020

Airport Lighting Specialists confirms the following lights have been independently tested by a NATA registered laboratory and certified to comply with the appropriate photometric and colorimetric clauses of CASA publication Part 139 (Aerodromes) Manual of Standards 2019.

| Part Number          | Colour | Application   | Test Report Number     | MOS139 Clause   | Result |
|----------------------|--------|---|------------------------|---|--------|
| PALLEDMOSCLEAR       | White  | Elevated<br>Low Intensity<br>Runway Edge            | TR220927/03            | 9.15 (White)<br>9.52 a,b,c,d<br>9.52 e(ii)A, e(ii)B<br>9.75 (1)<br>9.75 (5) | PASS   |
| ZA290.LED.C.C.A      | White  | Inset<br>Low Intensity<br>Runway Edge               | TR160211/01BR-<br>2023 | 9.15 (White)<br>9.52 a,b,c,d<br>9.52 e(ii)A, e(ii)B<br>9.75 (1)<br>9.75 (5) | PASS   |
| PALLEDMOSGREEN38     | Green  | Elevated<br>Low Intensity<br>Threshold              | TR220927/04G           | 9.15 (Green)<br>9.57 a,b,c,d,e<br>9.75 (1)<br>9.75 (5)                      | PASS   |
| PALLEDMOSLEDREDGREEN | Green  | Elevated<br>Low Intensity<br>Threshold              | TR220927/04G           | 9.15 (Green)<br>9.57 a,b,c,d,e<br>9.75 (1)<br>9.75 (5)                      | PASS   |
| PALLEDMOSLEDREDGREEN | Red    | Elevated<br>Low Intensity<br>Runway End,<br>Stopway | TR220927/04R           | 9.15 (Red)<br>9.65 (1) a,b,c,d,e<br>Fig 9.75 (1)<br>Fig 9.75 (5)            | PASS   |
| PALLEDMOSBLUE        | Blue   | Elevated Taxiway<br>Edge,<br>Runway Turn Pad        | TR220803/02            | 9.15 (Blue)<br>9.93 (1) a,b,c,d<br>9.93 (3)                                 | PASS   |
| PALLEDMOSYELLOW      | Yellow | Elevated<br>Intermediate<br>Holding Position        | TR220803/03            | 9.15 (Yellow)<br>9.104 (2) a,b  | PASS   |

*Mike Fisher*

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1



Ground Commission:



**Airways Engineering  
Services** R.E.C 10401

## Ground Commissioning of Airfield Lighting System

|  |  |
|--|--|
| <b>Aerodrome</b>   | <b>Yarrowonga VIC</b>  |
| <b>AVFAX Code / Location Identifier</b>                    | <b>3005 / YYWG</b>   |
| <b>Certified / Registered</b>                              | <b>Certified</b>   |
| <b>RPT / non RPT</b>                                       | <b>Non RPT</b>   |
| <b>Instrument NPA</b>                                      | <b>RNAV-Z (GNSS) RWY 19</b>                                      |
| <b>Runway Lighting</b>                                     | <b>LIRL Runway 01/19</b>   |
| <b>Taxiway Lighting</b>                                    | <b>Taxiways B &amp; C</b>  |
| <b>Apron Edge Lighting</b>                                 | <b>Between Taxiways B &amp; C</b>                                |
| <b>Apron Flood Lighting</b>                                | <b>N/A</b>   |
| <b>PAPI</b>  | <b>N/A</b>   |
| <b>Aerodrome Frequency Response Unit (AFRU)</b>            | <b>N/A</b>   |
| <b>Pilot Activated Airport Lighting Controller (PAALC)</b> | <b>AFRU+PAL set for PAL operation only.<br/>Verbal responses</b> |
|  |  |

This report follows the requirements of MOS Part 139 Chapter 9 Division 2 section 9.17 and AC139-04, as applicable to the aerodrome operations and the lighting facilities installed.

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*Ground Commissioning of Airfield Lighting System\_Page\_01*

## Airways Engineering Services

### CHAPTER 9

#### Division 2 Commissioning

##### 9.17 Commissioning of lighting systems — ground checks

- (1) Before an aerodrome lighting system is first used, including after an upgrade or a replacement:
  - (a) the system must be commissioned through:
    - (i) a ground check in accordance with this section; and
    - (ii) a flight check as required in accordance with section 9.18; and
  - (b) written evidence, verifying the commissioning process, must be provided to CASA in the form of:
    - (i) the ground check determination; and
    - (ii) the flight check report.
  
- (2) A ground check must be conducted by a *qualified person* who:
  - (a) has demonstrable relevant aerodrome lighting knowledge and experience; and
  - (b) is either:
    - (i) an electrical engineer; or
    - (ii) a licensed electrician.
  
- (5) If satisfied that the lighting system is both of the following:
  - (a) correctly installed;
  - (b) compliant with the standards specified in this MOS for photometrics, frangibility, supply and other relevant characteristics;then the qualified person must make a ground check determination, in writing, that the aerodrome lighting system complies with this MOS for a ground check.
  
- (6) For a ground check, the aerodrome operator must provide the qualified person with evidence that light fitting types, models and versions comply with the standards for photometric and other relevant characteristics specified in this MOS.
  
- (7) For subsection (6), the evidence must be in the form of:
  - (a) an independent compliance statement from each of the manufacturers, and the supplier, of the aerodrome lighting system; or
  - (b) a test report from an accredited laboratory.
  
- (8) For paragraph (7) (a), the compliance statement must be formally endorsed by a *verifying body* that is independent from both the manufacturer and the supplier of the lighting system, and that is either:
  - (a) an aviation safety regulator with which Australia has a bilateral agreement to recognise a compliance statement provided for aerodrome lighting systems; or

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## Airways Engineering Services

- (b) another person or body approved in writing by CASA to provide a compliance statement for aerodrome lighting systems.
- (9) For subsection (8), the endorsement must be documented and authorised by a responsible person of the verifying body.
- (10) For paragraph (7) (b), evidence in the form of a *test report* from an accredited laboratory must be:
  - (a) from a laboratory that is accredited by the National Association of Testing Authorities (*NATA*); or
  - (b) from an overseas accrediting authority which has a mutual recognition agreement with NATA, under which NATA confirms that the overseas accrediting authority has the competence to carry out the type of measurement involved; or
  - (c) from a laboratory that is accredited and has a mutual recognition arrangement administered by the International Laboratory Accreditation Corporation in accordance with ISO/IEC 17011, as in force or existing from time to time.

*Note* ISO/IEC 17011 is available at <https://www.iso.org/standards.html>. This is the joint International Organization for Standardization/International Electrotechnical Commission standard for the competence, consistent operation and impartiality of accreditation bodies assessing and accrediting conformity assessment bodies.

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## Airways Engineering Services

### Introduction:

The former runway edge lighting system and taxiway lighting were installed in the 1990's at a longitudinal spacing for the runway lighting of 90m. The lighting has been well maintained, but has deteriorated over time. The aerodrome has an instrument non-precision approach procedure for RWY 19.

The original direct buried cable was approved under a dispensation which lapsed with the introduction of the (year 2000) Wiring Rules. The cable joints and series isolating transformer faults had brought the insulation resistance of the cable down to 0.003 megohms from the required 1 megohm minimum.

When the insulation resistance of the circuit falls below the acceptable safety datum a significant electrical hazard may be present to persons working on or in the vicinity of the circuit. At 0.003 megohms the circuit had become a hazardous circuit, and had the potential to fail during periods of wet weather.

The airfield lighting has been upgraded to a runway and taxiway system of LED fittings. The longitudinal spacing has been set for 60m +0m/-5m.

No changes have been made to the Illuminated Wind Direction Indicator. The IWDI has eight LED fittings – two on each corner.

The new lighting systems are the minimum required for the level of operations conducted at Yarrawonga, and suitable for the complexity of the aerodrome layout.

The electrical field circuits have been installed to current Australian Standards, being in pit and duct over their entire length and buried at the minimum depth.

The LED light fixtures have been supplied by Airport Lighting Specialists and are manufactured to meet the relevant standards, and are fit for purpose. The fittings have been checked for compliance with a certified testing laboratory.

The runway and taxiway light fixtures are correctly located, including spacing, pattern, alignment, and levelling. The fittings are of the correct colour and intensity; and frangibly mounted, meeting the alignment and levelling standards.

The runway strip areas that were disturbed / excavated had been consolidated and left clean, however, heavy rains have caused further depressions requiring further backfill. All foreign objects have been removed.

The original PAL has not been modified in any way, therefore not requiring a flight test at this upgrade. The PAL has been tested with a hand-held radio from the furthest threshold and found to be satisfactory. All messages are correctly transmitted.

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## Airways Engineering Services

### Ground Commissioning Checks

| <b>Runway Edge Lighting, RWY01/19</b> |               |
|---------------------------------------|---------------|
| Runway length                         | 1203m         |
| Longitudinal spacing of lights        | 59.5m         |
| Runway width                          | 18m           |
| Lateral spacing of lights             | 34m           |
| Intensity                             | Low intensity |
| Circuit current setting               | 2.64 amps     |
| Vertical within ½ degree              | Satisfactory  |
| Irregular spacing                     | N/A           |
| Runway light omissions                | N/A           |
|                                       |               |

#### Remarks:

The runway lights are omnidirectional LED types meeting the required characteristics in MOS139 section 9.52 (a-e).

#### Corrective Action:

No corrective action is required

| <b>Runway Threshold Lights RWY 01</b> |                                |
|---------------------------------------|--------------------------------|
| Elevated / Flush                      | Elevated                       |
| Runway starter extension              | N/A                            |
| Pattern                               | Standard                       |
| Colour                                | Green                          |
| Outer threshold position light        | Omnidirectional runway (white) |
| Vertical within ½ degree              | Satisfactory                   |

#### Remarks:

The threshold lights are located 3m before the threshold marking. They comprise six equally spaced unidirectional lights (as part of a bidirectional fitting). The lens colour is white having green LEDs fitted and aimed at the approaching pilot. The two outer position lights at the threshold location are white omnidirectional runway edge lights

#### Corrective Action:

No corrective action is required

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## Airways Engineering Services

|                                 |              |
|---------------------------------|--------------|
| <b>Runway End Lights RWY 01</b> |              |
| Elevated / Flush                | Elevated     |
| Runway starter extension        | N/A          |
| Pattern                         | Standard     |
| Colour                          | Red          |
| Vertical within ½ degree        | Satisfactory |

**Remarks:**

The runway end lights are co-located with the threshold lights as a bidirectional fitting. They comprise six equally spaced fittings.

**Corrective Action:**

No corrective action is required

|                                      |              |
|--------------------------------------|--------------|
| <b>Runway Turn Pad Lights RWY 01</b> |              |
| Elevated / Flush                     | Elevated     |
| Colour                               | Blue         |
| Longitudinal spacing                 | satisfactory |
| Distance from RWY edge               | 0.6m         |
|                                      |              |

**Remarks:**

The beginning of the splay is less than 10m from the runway edge light, therefore no elevated blue fitting is placed here.

**Corrective Action:**

No corrective action required

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## Airways Engineering Services

| <b>Runway Threshold Lights RWY 19</b> |                |
|---------------------------------------|----------------|
| Elevated / Flush                      | Flush          |
| Runway starter extension              | Yes            |
| Pattern                               | Standard       |
| Colour                                | Green          |
| Outer threshold position light        | Elevated white |
| Vertical within ½ degree              | Satisfactory   |
|                                       |                |

### Remarks:

The RWY 19 threshold is located approximately 78m down from the beginning of the runway seal. This has been positioned to allow for transient obstacles travelling along Cahills Road.

The section of seal prior to the displaced threshold is a turning pad, and runway starter extension. Six threshold lights in a standard pattern are visible to approaching pilots. The two outer position lights at the threshold location are bidirectional white lights directed to approaching aircraft and red to aircraft landing on RWY 01. The threshold lights are co-located with the threshold marking.

### Corrective Action:

No corrective action required

| <b>Runway End Lights RWY 19</b> |              |
|---------------------------------|--------------|
| Elevated / Flush                | Flush        |
| Runway starter extension        | Yes          |
| Pattern                         | Alternate    |
| Colour                          | Red          |
| Outer RWY end light             | Elevated red |
| Vertical within ½ degree        | Satisfactory |
|                                 |              |

### Remarks:

The section of runway beyond the runway end lights is a turning pad and runway starter extension. A pilot may pass between the inner red lights without passing over them. The pattern displayed to the pilot is the 'alternate' pattern. Two flush fittings and one elevated fitting each side of the runway centreline. MOS139 Section 9.64 paragraph (3) (c).

### Corrective Action:

No corrective action required

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## Airways Engineering Services

|                                      |              |
|--------------------------------------|--------------|
| <b>Runway Turn Pad Lights RWY 19</b> |              |
| Elevated / Flush                     | Elevated     |
| Colour                               | Blue         |
| Longitudinal spacing                 | Satisfactory |
| Distance from RWY edge               | 0.6m         |
|                                      |              |

**Remarks:****Corrective Action:**

The elevated blue lights require to be shielded to pilots on approach.

|                                     |              |
|-------------------------------------|--------------|
| <b>Taxiway Edge Lighting, TWY B</b> |              |
| Longitudinal spacing of lights      | Satisfactory |
| Taxiway width                       | 11m          |
| Lateral spacing of lights           | 12.2m        |
| Circuit current setting             | 2.64 amps    |
| Vertical within ½ degree            | Satisfactory |
|                                     |              |

**Remarks:**

The spacing of the lights progressively reduces as the aircraft approaches both the runway and the apron areas, in accord with the requirements in MOS139 section 9.92 paragraph (4).

**Corrective Action:**

No corrective action required

|   |              |
|---|--------------|
| <b>Hold Point Lighting, TWY B</b>       |              |
| Distance from RWY centreline            | 45m          |
| Relative position to hold point marking | Co-located   |
| Lateral spacing of lights               | 12.2m        |
| Colour                                  | Yellow       |
| Vertical within ½ degree                | Satisfactory |
|   |              |

**Remarks:****Corrective Action:**

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## Airways Engineering Services

| <b>Taxiway Edge Lighting, TWY C</b> |              |
|-------------------------------------|--------------|
| Longitudinal spacing of lights      | Satisfactory |
| Taxiway width                       | 10.5m        |
| Lateral spacing of lights           | 12m          |
| Circuit current setting             | 2.64 amps    |
| Vertical within ½ degree            | Satisfactory |
|                                     |              |

**Remarks:**

The spacing of the lights progressively reduces as the aircraft approaches both the runway and the apron areas, in accord with the requirements in MOS139 section 9.92 paragraph (4).

**Corrective Action:**

No corrective action required

| <b>Hold Point Lighting, TWY C</b>       |              |
|---|--------------|
| Distance from RWY centreline            | 102m         |
| Relative position to hold point marking | Co-located   |
| Lateral spacing of lights               | 12m          |
| Colour                                  | Yellow       |
| Vertical within ½ degree                | Satisfactory |

**Remarks:**

The hold point marking is 102m from the runway centreline to prevent an aircraft infringing the RWY 23 threshold.

**Corrective Action:**

No corrective action required

| <b>Apron Edge Lighting</b> |              |
|----------------------------|--------------|
| Length of Apron Edge       | 116m         |
| Lateral spacing of lights  | 29m          |
| Colour                     | Blue         |
| Vertical within ½ degree   | Satisfactory |

**Remarks:****Corrective Action:**

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|   |  |
|---|--|
| <b>Pilot Activated Lighting</b>   |  |
| Are all lighting systems activated by PAL?                                      | Yes  |
| Frequency   | 120.250 MHz  |
| Operation by hand held radio from furthest THR                                  | Satisfactory   |
| Set Period  | 30 minutes   |
| Period of ten-minute turn-off lights (TMTOL)                                    | 10 minutes (beginning 20 minutes into the 'set period.')   |
| Are ten-minute turn-off lights visible from the;<br>- Apron<br>- Holding points | Yes<br>Yes   |
| Can the Set Period be reactivated during the TMTOL cycle?                       | Yes  |
| Is there manual activation of the aerodrome lighting?                           | No (see remarks)   |
| If the PAL fails, are the lighting facilities turned on?                        | Yes  |
| Following a power failure, are the lights turned on for one set period?         | No. The back-up battery prevents this. During a power fail, a fail message is transmitted.   |
| Is there a photo-cell?  | No   |
| Does the ERSA accurately reflect the airfield lighting facilities?              | The upgraded lighting systems provide the same guidance, however the ERSA states the longitudinal spacing is 86m. This must be changed to 60m. |

**Remarks:** The cubicle does not have a manual over-ride switch to activate the lighting. MOS139 Section 9.22 says: The PAL must be capable of:

(b) manual activation through an on/off switch such that:

(i) if the switch is selected on – the lighting system is activated and remains on, and

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### Airways Engineering Services

(ii) if the switch is selected off – the PAL goes into operating mode for the full timing cycle, including the ten minute turn off warning

**Corrective Action:**

This is a mandatory requirement; therefore a switch must be fitted to carry out this function

**Note:**

The circuit resistance of the combined runway / taxiway is 22.7 ohms.  
The insulation resistance to ground, (when tested at 1,000 volts) of the common circuit is 1.34 megohms.  
The circuit voltage is 154 volts and the circuit current is 2.64 amps.

**The ‘ground commissioning’ inspection was carried out by:**

**Jeff Gribble REC 10401**

**Airways Engineering Services**

**Tel: (03) 9735 4271 or 0409 930 798**

**I certify that I have carried out a ground commissioning check as per the CASA requirements relevant to the facilities listed in this report.**

*Jeff Gribble*

15/06/2021

Signed..... Dated .....

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## Lighting Flight Check:



## AERODROME LIGHTING FLIGHT CHECK

### FLIGHT CHECK REPORT – AERODROME LIGHTING SYSTEMS

|                  |                     |                   |                               |
|------------------|---------------------|-------------------|-------------------------------|
| <b>Aerodrome</b> | YARRAWONGA (YYWG)   | <b>Weather</b>    | FINE                          |
| <b>Runway</b>    | 01/19               | <b>Visibility</b> | GREATER THAN 10 KM            |
| <b>Aircraft</b>  | C172N VH-KMH        | <b>Cloud</b>      | SCT A025, BKN A050, OCST A080 |
| <b>Date</b>      | 15 JUNE 2021        | <b>Time</b>       | 1700 – 1820 HRS LOCAL (AEST)  |
| <b>Crew</b>      | S PRESTON/G CARROLL |                   |                               |

*Not all systems listed on this form will necessarily require checking at a particular aerodrome.*

| LIGHTING SYSTEM<br>(where provided)                             | FINDINGS<br>satisfactory / unsatisfactory / N/A | REMARKS  |
|---|---|--|
| <b>Runway Lights</b>  |   |  |
| <b>- Edge</b>   |   |  |
| Pattern   | Satisfactory                                    | White LED lights – good visibility – good intensity. Good, even light spacing (60m), alignment and symmetry. No infringement of grass cross runway. PALC operation satisfactory. |
| Colour  | Satisfactory                                    |  |
| Intensity   | Satisfactory                                    |  |
| <b>- Threshold including RTIL and Wing Bars, where provided</b> |   |  |
| Pattern   | Satisfactory                                    | Green LED lights – intensity consistent with edge lighting – good even spacing – good visibility on approach and landing. No RTIL.   |
| Colour  | Satisfactory                                    |  |
| Intensity   | Satisfactory                                    |  |
| <b>- Runway End</b>   |   |  |
| Pattern   | Satisfactory                                    | Red/Green LED lights – good visibility on landing, takeoff and go-around. Intensity consistent with edge lighting.   |
| Colour  | Satisfactory                                    |  |
| Intensity   | Satisfactory                                    |  |
| Visual circling   | Satisfactory                                    |  |
| <b>Intensity:-</b>  |   |  |
| No of Stages  | Satisfactory                                    | One stage only – pre-set to provide good contrast and intensity.   |
| Intensity changes   | N/A   |  |
| Line of Sight   | Satisfactory                                    |  |
| <b>Taxiway Lights - Edge</b>                                    |   |  |
| Adequate guidance   | Satisfactory                                    | Blue lights. Satisfactory displacement from taxiway edge. Guidance from runway to parking area.  |
| Colour  | Satisfactory                                    |  |
| <b>Taxiway Lights – C/L</b>                                     |   |  |
| Adequate guidance   | N/A   | No centreline guidance lights.   |
| Colour  | N/A   |  |
| <b>Taxiway – Turn Node</b>                                      |   |  |
| Adequate guidance   | Satisfactory                                    | Runway turning node at threshold – clear marked with blue lighting.  |
| Colour  | Satisfactory                                    |  |



GLOBAL AIRSPACE SOLUTIONS

## AERODROME LIGHTING FLIGHT CHECK

| LIGHTING SYSTEM<br>(where provided)   | FINDINGS<br>satisfactory / unsatisfactory / N/A | REMARKS   |
|---|---|---|
| <b>Runway Guard Lights, Intermediate Holding Position Lights, Stop Bars</b>   |   |   |
| Clearly visible   | N/A   | Flight strip edge lighting, taxi-way holding points (orange lights) provided on taxiways. All clearly visible.  |
| Location & Pattern  | N/A   |   |
| Colour  | N/A   |   |
| Intensity   | N/A   |   |
| <b>Movement Area Guidance Signs</b>   |   |   |
| Visible   | N/A   | Not applicable.   |
| Legible   | N/A   |   |
| Colour  | N/A   |   |
| <b>Illuminated Wind Direction Indicator</b>   |   |   |
| Conspicuous - Approach  | Satisfactory                                    | Good illumination. Clearly visible from all locations. PAL operation satisfactory. Satisfactory indication and notification of illumination time remaining.<br><br>Manual activation of lights controlled by aerodrome staff. |
| Conspicuous – Circuit area  | Satisfactory                                    |   |
| Conspicuous - Apron   | Satisfactory                                    |   |
| Conspicuous - Thresholds  | Satisfactory                                    |   |
| Truly representative  | Satisfactory                                    |   |
| No glare  | Satisfactory                                    |   |
| <b>Apron Floodlights</b>  |   |   |
| Adequate Illumination   | Satisfactory                                    | Main apron illumination – no floodlights – satisfactory.  |
| No glare  | Satisfactory                                    |   |
| <b>Aerodrome Environment</b>  |   |   |
| Obstacle lights   | Satisfactory                                    | Satisfactory.   |
| Extraneous light  | Satisfactory                                    |   |
| Aerodrome Beacon:-  | Not present                                     |   |
| Visual characteristic   | N/A   |   |
| Approx. visual range  | N/A   |   |
| <b>Approach Lights <del>SALS</del>, <del>CAT I</del> or <del>CAT II/III</del> (strikethrough not applicable ones)</b> |   |   |
| Pattern   | N/A   | Not applicable.   |
| Colour  | N/A   |   |
| <b>Intensity:-</b>  | N/A   |   |
| No of Stages  | N/A   |   |
| Intensity changes   | N/A   |   |
| Compatibility with Runway lights  | N/A   |   |





## AERODROME LIGHTING FLIGHT CHECK

| LIGHTING SYSTEM<br>(where provided)    | FINDINGS<br>satisfactory / unsatisfactory / N/A | REMARKS         |
|--|---|-----------------|
| <b>Runway Centreline Lights</b>        |   |                 |
| Pattern                                | N/A   | Not applicable. |
| Colour                                 | N/A   |                 |
| <b>Intensity:-</b>                     | N/A   | Not applicable. |
| No of Stages                           | N/A   |                 |
| Intensity changes                      | N/A   |                 |
| Compatibility with other light systems | N/A   |                 |
|  |   |                 |
| <b>Runway Touchdown Zone Lights</b>    |   |                 |
| Pattern                                | N/A   | Not applicable  |
| <b>Intensity:-</b>                     | N/A   |                 |
| No of Stages                           | N/A   |                 |
| Intensity changes                      | N/A   |                 |
| Compatibility with other light systems | N/A   |                 |

**Remarks:-**

(Add additional pages if necessary)

*Runway lighting checked. Lighting confirmed and PAL checked on this flight check. The lighting system installed is of a good standard, very effective and satisfactory in all aspects and in all locations on Yarrowonga (YYWG) aerodrome.*

*No deficiencies were observed.*

I certify that I have flight checked the aerodrome lighting system(s), and the system(s) meet(s) the relevant operational requirements.

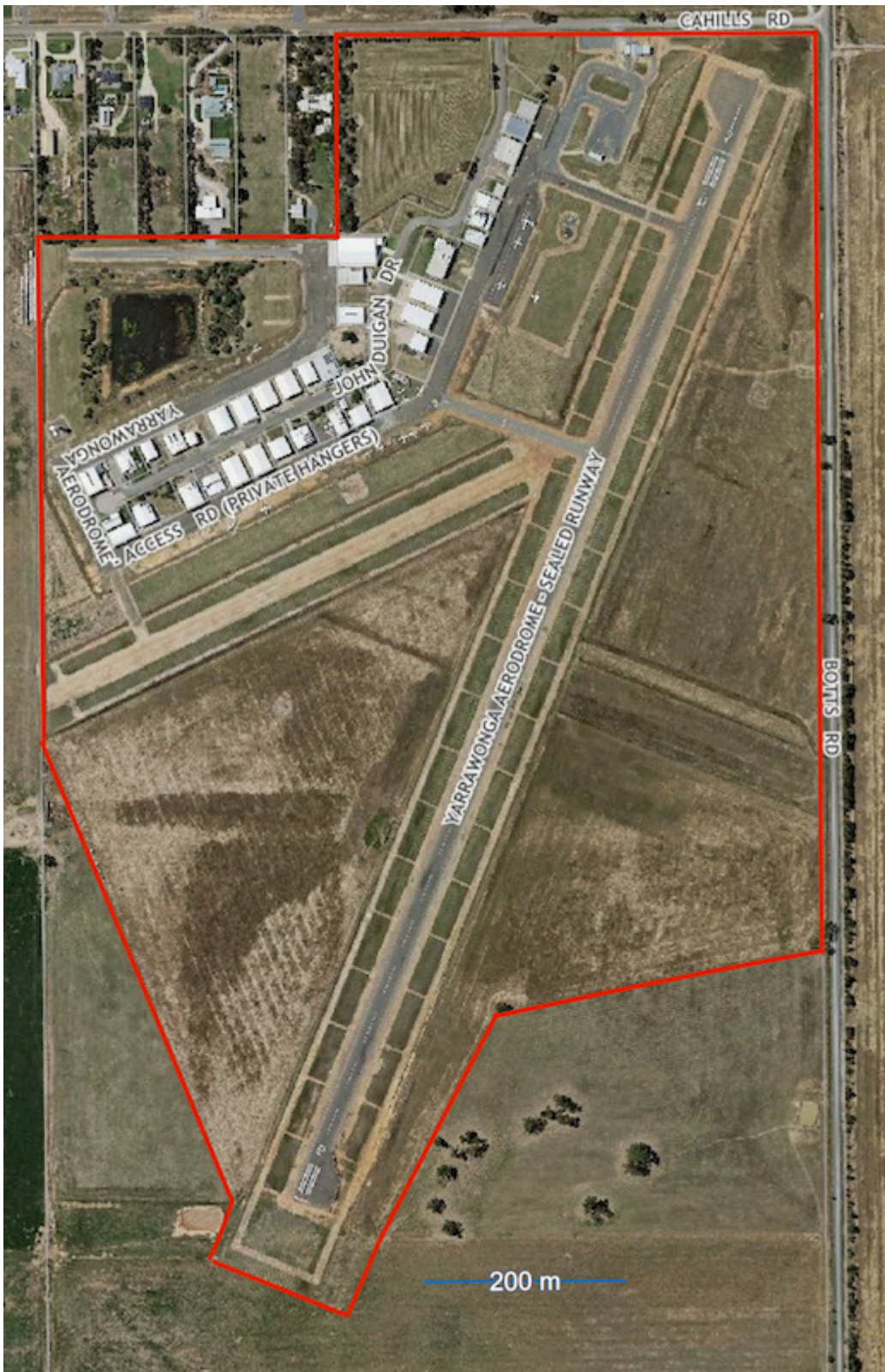
Signature: 

Date: 15 June 2021

Name (print): Stirling Preston

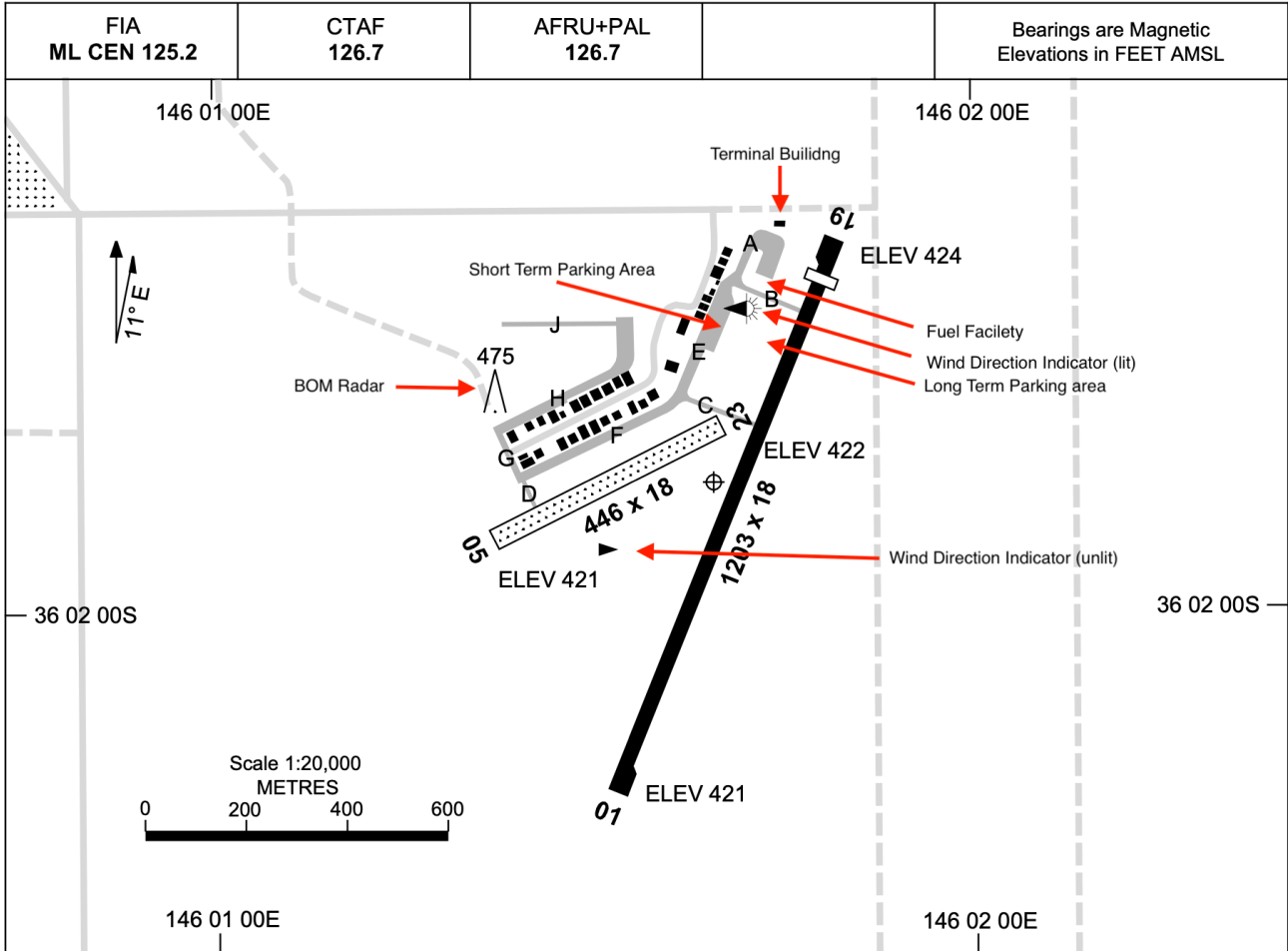
Letter of Competency No: CASA.LOFLY.0245 – Revision 1

### 5.3 AERODROME LAYOUT



YYWG\_AD\_Perimeter

**30 NOV 2023** **AD ELEV 424** **AERODROME CHART**  
36 01 50S 146 01 40E **YARRAWONGA, VIC (YYWG)**



YYWG AD Layout



### 5.4 RWY AND TWY SLOPE



RWY and TWY Slopes Page 1






RWY and TWY Slopes Page2

## 5.5 VSS

### VSS Data

|                   |                        |   |
|-------------------|------------------------|---|
| <b>YARRAWONGA</b> | <b>RUNWAY : 01/19</b>  | <b>AIRPORT SURVEYS</b><br><br>0409 230 650<br>paul@airportsurveys.com.au |
| <b>AERODROME</b>  | <b>(CODE 2 RUNWAY)</b> |   |

Surveyor : Bryan Fitzgerald  
Date of Survey : 19/08/2024

#### VISUAL SEGMENT SURFACE

Runway Length : 1143 metres  
Overall RWS Width : 80 metres  
Graded RWS Width : 80 metres

Note: All measurements in metres

| RWY 01                             | RWY 19                             |
|------------------------------------|------------------------------------|
| TORA: 1143 metres                  | TORA: 1203 metres                  |
| TODA: 1203 metres                  | TODA: 1263 metres                  |
| ASDA: 1143 metres                  | ASDA: 1203 metres                  |
| LDA: 1143 metres                   | LDA: 1125 metres                   |
| Take Off SFC Origin RL: 129.21 AHD | Take Off SFC Origin RL: 128.49 AHD |
| 19 Threshold RL: 129.29 AHD        | 01 Threshold RL: 128.49 AHD        |
| 19 Threshold Displaced: 18m        | 01 Threshold Displaced: 0m         |

| VSS PARAMETERS:  | RWY 01 | RWY 19      |
|------------------|--------|-------------|
| INNER EDGE       |        | 90 metres   |
| DIVERGENCE LEFT  |        | 15%         |
| DIVERGENCE RIGHT |        | 15%         |
| LENGTH           |        | 4977 metres |
| GRADIENT         |        | 3.282%      |

\*\*In accordance with Airservices Australia guidelines, obstacles less than 15 metres above the VSS Origin are not considered to be an obstruction to the Visual Segment Surface\*\*

| Approach Runway Number | Surveyed Point Number | Description            | Distance from VSS Origin | Height of Obstacle Above VSS Origin | VSS Gradient to Obstacle | Obstacle RL | Distance from Start of Take-Off | Offset from Runway Centreline | Relationship to VSS<br>(Red Figure = Obstruction / Black figure = Below) |
|------------------------|-----------------------|------------------------|--------------------------|-------------------------------------|--------------------------|-------------|---------------------------------|-------------------------------|--|
| RWY 19                 | 1                     | Euc. Tree              | 512.4                    | 14.32                               | 2.80%                    | 143.61      | 1697.4                          | 113.8 L                       | <15m ABV THR   |
| RWY 19                 | 2                     | Euc. Tree              | 454.2                    | 10.15                               | 2.24%                    | 139.44      | 1639.2                          | 87.5 L                        | <15m ABV THR   |
| RWY 19                 | 3                     | Phone Tower            | 1420.1                   | 41.55                               | 2.93%                    | 170.84      | 2605.1                          | 480.9 L                       | OUTSIDE  |
| RWY 19                 | 4                     | Euc. Tree              | 100.9                    | 3.12                                | 3.10%                    | 132.41      | 1285.9                          | 57.6 R                        | <15m ABV THR   |
| RWY 19                 | 5                     | Dead Tree              | 227.4                    | 5.24                                | 2.31%                    | 134.53      | 1412.4                          | 8.5 R                         | <15m ABV THR   |
| RWY 19                 | 6                     | Euc. Tree              | 29.5                     | 11.21                               | N/A                      | 140.50      | 1214.5                          | 130.7 L                       | <15m ABV THR   |
| RWY 19                 | 7                     | Steps on Terminal Roof | 1.4                      | 7.25                                | N/A                      | 136.54      | 1186.4                          | 117.4 L                       | <15m ABV THR   |
| RWY 19                 | 8                     | Fence                  | 48.8                     | 0.67                                | 1.38%                    | 129.96      | 1233.8                          | 47.0 L                        | <15m ABV THR   |
| RWY 19                 | 9                     | Road - 4.5m High       | 55.1                     | 3.97                                | 7.21%                    | 133.26      | 1240.1                          | 48.7 L                        | <15m ABV THR   |

#### VSS Data



## 5.6 BOM WEATHER FACILITIES LAYOUT



BOM Layout



BOM Radar Station:



*BOM Radar Station*

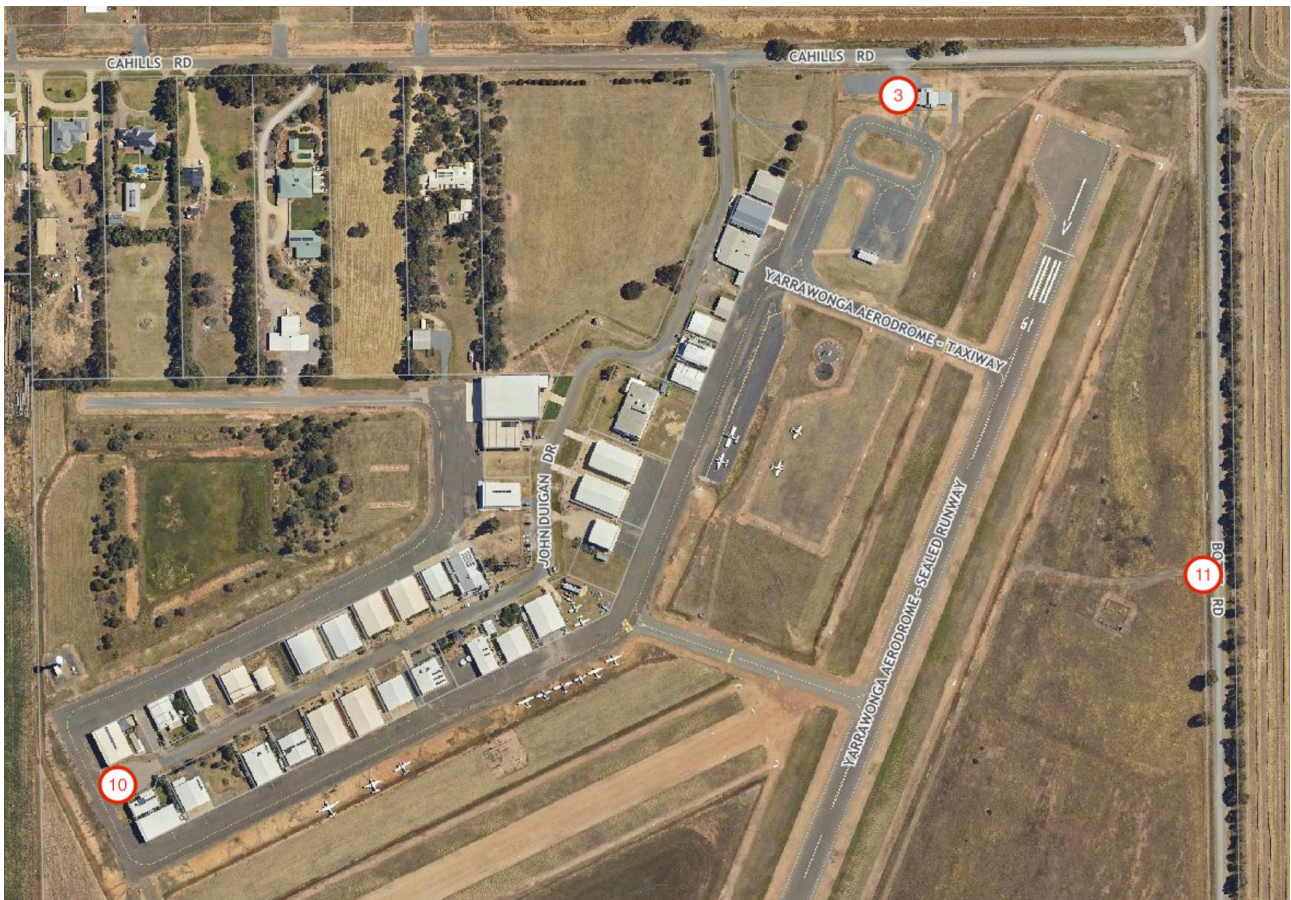


### BOM Weather Station (AWS)



AWS

### 5.7 EMERGENCY VEHICLE ACCESS GATES



Access Gates



### Gate 3



Gate 3



**Gate 10**



Gate 10



**Gate 11**



*Gate 11*

## 5.8 ACCESS GATES

Gate 1:



*Pedestrian Gate*

Gate 2:



*Emergency Access Gate*



Gate 3:



*Emergency Access Gate*

Gate 4:



*Emergency Access Gate*

Gate 5:



*Pedestrian Gate*

Gate 6:



*Emergency Access Gate*



Gate 7:



*Emergency Access Gate*

Gate 8:



*Pedestrian Gate*

Gate 9:



*Emergency Access Gate*

Gate 10:



*Emergency Gate*

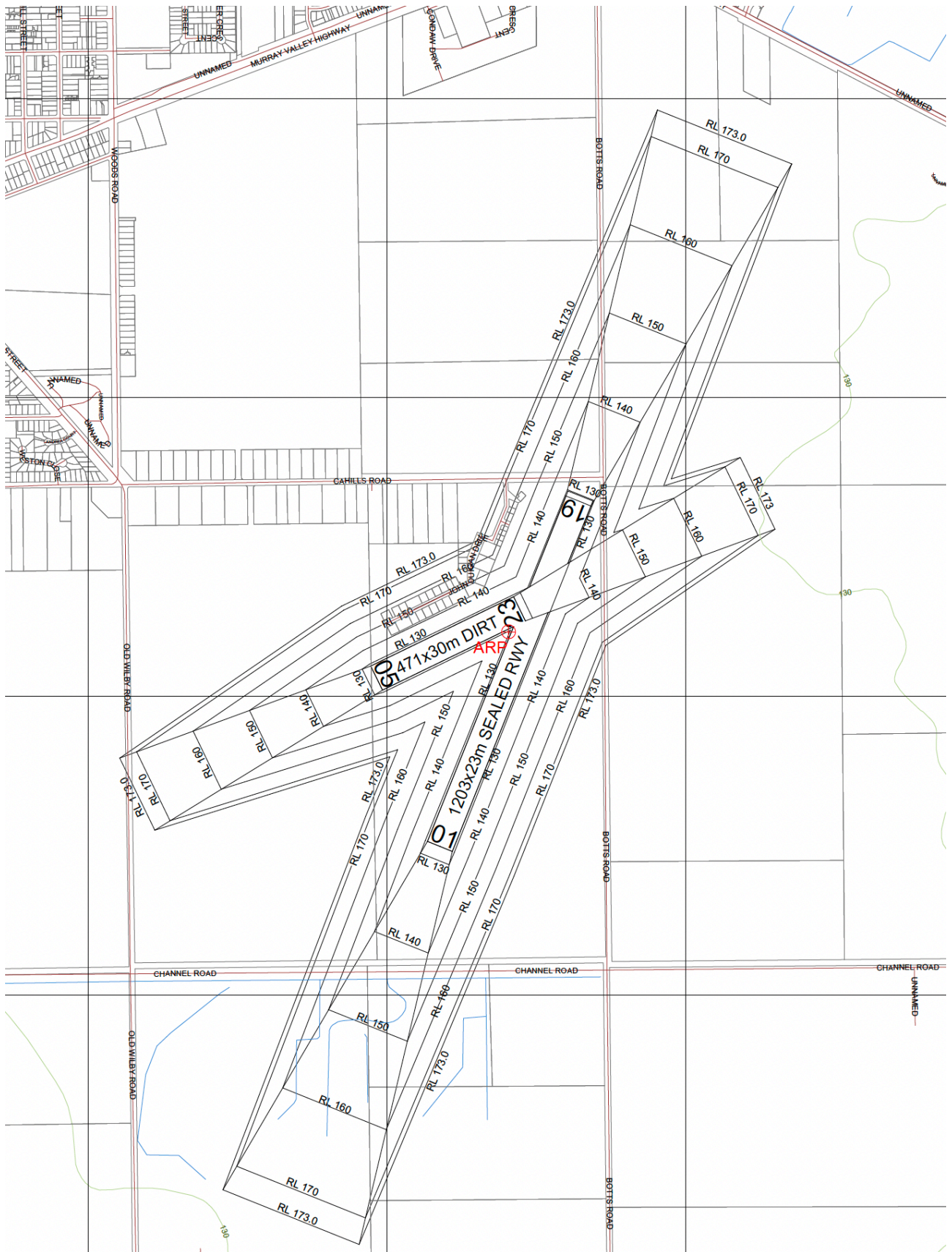


### Gate 11:



*Emergency Access Gate*

### 5.9 OBSTACLE LIMITATION SURFACES



RWYs OLS





**YARRAWONGA AERODROME**  
 OBSTACLE LIMITATION SURFACE DIMENSIONS  
 COORDINATES ARE MOIRA ZONE 56

**RUNWAY 01-19**  
 CODE 2 NON-PRECISION INSTRUMENT APPROACH RUNWAY  
 01 THRESHOLD 412198.678 6011553.576 128.462  
 19 THRESHOLD 412617.830 6012587.678 129.291  
 CENTRELINE BEARING 21° 52' 34"

**TAKE OFF SURFACE**  
 TAKE OFF GRADE 4%  
 LENGTH OF TAKE OFF AREA 2500 metres  
 INNER EDGE LENGTH 80 metres  
 DIVERGENCE ANGLE 10%

**APPROACH SURFACE**  
 FIRST SECTION GRADE 3.33%  
 FIRST SECTION LENGTH 2500 metres  
 INNER EDGE LENGTH 90 metres  
 DIVERGENCE ANGLE 15%

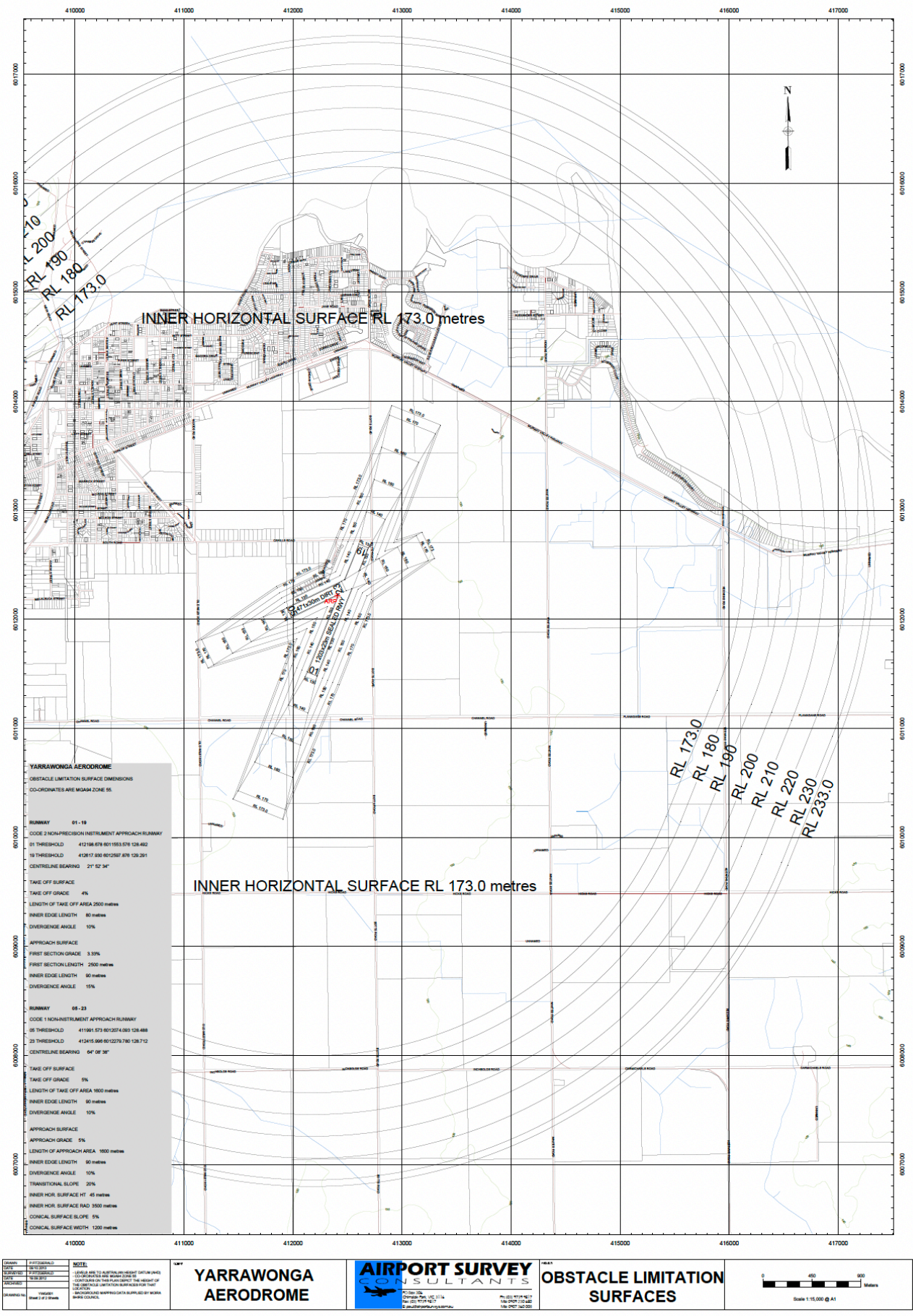
**RUNWAY 06-23**  
 CODE 1 NON-INSTRUMENT APPROACH RUNWAY  
 06 THRESHOLD 411991.573 6012074.003 128.488  
 23 THRESHOLD 412415.966 6012279.793 129.712  
 CENTRELINE BEARING 64° 08' 38"

**TAKE OFF SURFACE**  
 TAKE OFF GRADE 3%  
 LENGTH OF TAKE OFF AREA 1800 metres  
 INNER EDGE LENGTH 90 metres  
 DIVERGENCE ANGLE 10%

**APPROACH SURFACE**  
 APPROACH GRADE 5%  
 LENGTH OF APPROACH AREA 1800 metres  
 INNER EDGE LENGTH 90 metres  
 DIVERGENCE ANGLE 10%  
 TRANSITIONAL SLOPE 20%  
 INNER HOR. SURFACE HT 45 metres  
 INNER HOR. SURFACE RAD 3000 metres  
 CONICAL SURFACE SLOPE 5%  
 CONICAL SURFACE WIDTH 1200 metres

|   |                                    |  |  |  |
|---|------------------------------------|--|--|--|
| <p>Drawn by: J. COOPER<br/>                 Date: 28/12/2023<br/>                 Checked by: J. COOPER<br/>                 Date: 28/12/2023<br/>                 Approved by: [Signature]<br/>                 Date: 18/12/2024</p> | <p><b>YARRAWONGA AERODROME</b></p> | <p><b>AIRPORT SURVEY CONSULTANTS</b></p> <p>12/12/2024<br/>                 41/21/2024<br/>                 41/21/2024</p> | <p><b>OBSTACLE LIMITATION SURFACES</b></p> | <p>0 400 800 Metres<br/>                 Scale 1:15,000 @ A1</p> |
|---|------------------------------------|--|--|--|





OLS

# 5.10 GLOBAL REPORTING FORMAT

## 1. Runway Condition Assessment Worksheet

### Runway Condition Assessment Worksheet

Is more than 25% of any runway third surface wet or contaminated?

Yes - assign Runway Condition Codes for each third and complete RWY Condition Report (Blue Box)

No - No report created

Aerodrome

Date/Time (UTC) of assessment (MMDDhhmm)

Lower Runway Designator

Initials

Note: RWYCC 6/6/6 for all runway thirds may be used to indicate that the runway is no longer wet

| 1st RWY Third  | 2nd RWY Third   | 3rd RWY Third   |
|--|---|---|
| <p>For coverage 25% or less enter Code 6</p> <p>Identify % coverage if more than 25% of the RWY third</p> <p>Identify depth (if applicable)</p> <p>Identify Runway Condition Code</p> <p>Record the most restrictive code in the box to the right</p>  | <p>For coverage 25% or less enter Code 6</p> <p>Identify % coverage if more than 25% of the RWY third</p> <p>Identify depth (if applicable)</p> <p>Identify Runway Condition Code</p> <p>Record the most restrictive code in the box to the right</p>   | <p>For coverage 25% or less enter Code 6</p> <p>Identify % coverage if more than 25% of the RWY third</p> <p>Identify depth (if applicable)</p> <p>Identify Runway Condition Code</p> <p>Record the most restrictive code in the box to the right</p>   |
| <p>Wet (Damp) <input type="text"/> 5</p> <p>Wet (slippery wet runway) (Below Min Friction Level Classification) <input type="text"/> 3</p> <p>Standing water &gt;3mm <input type="text"/> 2</p> <p>% Cov. 25/50/75/100</p> <p>Depth: 4mm <input type="text"/> Assessed depth (mm): <input type="text"/></p>            | <p>Dry <input type="text"/> 6</p> <p>Wet (Damp) <input type="text"/> 5</p> <p>Wet (slippery wet runway) (Below Min Friction Level Classification) <input type="text"/> 3</p> <p>Standing water &gt;3mm <input type="text"/> 2</p> <p>% Cov. 25/50/75/100</p> <p>Depth: 4mm <input type="text"/> Assessed depth (mm): <input type="text"/></p> | <p>Dry <input type="text"/> 6</p> <p>Wet (Damp) <input type="text"/> 5</p> <p>Wet (slippery wet runway) (Below Min Friction Level Classification) <input type="text"/> 3</p> <p>Standing water &gt;3mm <input type="text"/> 2</p> <p>% Cov. 25/50/75/100</p> <p>Depth: 4mm <input type="text"/> Assessed depth (mm): <input type="text"/></p> |
| <p>Situational Awareness Section / Notes</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>TWY ..... Poor</p> <p>Apron ..... Poor</p> <p>Other .....</p>   |   |   |
| <p>State approved CFME Braking coefficient</p> <p>Adjusted RWYCC</p> <p>ONLY if Downgrade/ Upgrade Assessments used</p> <p>Mjr not to be transmitted in RWY Condition Report</p> <p>Downgrade/ Upgrade Criteria</p> <p><input type="checkbox"/> AIREP <input type="checkbox"/> CFME <input type="checkbox"/> Other</p> |   |   |
| <p>RCR</p> <p>Aerodrome ..... Date &amp; Time ..... RWYCC ..... Depth in mm</p> <p>Contaminant Type 1st third ..... Contaminant Type 2nd third ..... Contaminant Type 3rd third</p> <p>Plain language remarks .....</p> <p>Reduced RWY width in m (if applicable) .....</p>  |   |   |



# Runway Condition Assessment Worksheet

Assess the % coverage of runway contamination for each runway third

YYWG Aerodrome  
 Date/Time (UTC) of assessment (MMDDhhmm)  
 Lower Runway Designator  
 Outside Air Temperature  
 Initials

**< 10% coverage**  
 NR (No contaminant is reported) RWYCC - 6 to be generated for that third.  
**> 10% - ≤ 25% coverage**  
 Report contaminant coverage at 25% RWYCC - 6 to be generated for that third.  
**> 25% coverage**  
 RWYCC for that third shall be based on the contaminant present & temperature considerations  
 >25 to ≤50 report coverage as 50%  
 >50 to ≤75 report coverage as 75%  
 >75 to 100 report coverage as 100%

**NOTE:** RCR not required if all RWY thirds have <10% coverage (unless making a final report to advise the RWY is no longer contaminated)

| 1st RWY Third   |                          | 2nd RWY Third            |   | 3rd RWY Third   |       |
|---|--------------------------|--------------------------|---|---|-------|
| For coverage 25% or less (≤25%), enter Code 6. For coverage greater than 25% (>25%), follow the steps below |                          |                          |   |   |       |
| - Identify any contaminant that covers more than 25% of the RWY third                                       |                          |                          |   |   |       |
| - Identify % coverage   |                          |                          |   |   |       |
| - Identify depth (if applicable)  |                          |                          |   |   |       |
| - Identify Runway Condition Code  |                          |                          |   |   |       |
| - Record the most restrictive code in the box to the right  |                          |                          |   |   |       |
| Dry [6]   | Wet (Damp) [5]           | Frost [5]                | Wet (slippery wet runway) (Below Min Friction Level Classification) [3] | Wet (slippery wet runway) (Below Min Friction Level Classification) [3] | RWYCC |
| % Cov. 25/50/75/100   | % Cov. 25/50/75/100      | % Cov. 25/50/75/100      | % Cov. 25/50/75/100   | % Cov. 25/50/75/100   | RWYCC |
| Standing Water/Slush >3mm [2]   | Slush 3mm or less [5]    | Dry or Wet snow >3mm [3] | Dry or wet snow on compacted snow >3mm [3]                              | Dry or wet snow on compacted snow >3mm [3]                              |       |
| % Cov. 25/50/75/100   | % Cov. 25/50/75/100      | % Cov. 25/50/75/100      | % Cov. 25/50/75/100   | % Cov. 25/50/75/100   |       |
| Depth: 3mm or less [3]  | Assessed depth (mm): [ ] | Assessed depth (mm): [ ] | Assessed depth (mm): [ ]  | Assessed depth (mm): [ ]  |       |
| Mark depth only for: Standing Water, Slush, Wet or Dry Snow. Any snow on top of compacted snow              |                          |                          |   |   |       |
| -15°C or below [4] % Cov. 25/50/75/100  |                          |                          |   |   |       |
| Ice [1] Wet Ice, Water on compacted snow, snow on ice [0]   |                          |                          |   |   |       |
| % Cov. 25/50/75/100   |                          |                          |   |   |       |

**RWY Treatment Used?** Time Applied: \_\_\_\_\_

Chem. Treatment  
 Plowed  
 Swept  
 Scarified  
 Liquid  
 Solid

Notes: \_\_\_\_\_

**Situational Awareness Section**

RWY Reduced length LDA ..... m  
 RWY Drifting snow  RWY Loose sand  
 RWY Snowbanks L of CL ..... m / R of CL ..... m  
 TWY Snowbanks L of CL ..... m / R of CL ..... m  
 Asymm. reduced RWY width R/L ..... m FM CL

TWY ..... Poor  
 Apron ..... Poor  
 Other .....

**RWY Treatment Used?** Time Applied: \_\_\_\_\_

Chem. Treatment  
 Plowed  
 Swept  
 Scarified  
 Liquid  
 Solid

Notes: \_\_\_\_\_

**Situational Awareness Section**

RWY Reduced length LDA ..... m  
 RWY Drifting snow  RWY Loose sand  
 RWY Snowbanks L of CL ..... m / R of CL ..... m  
 TWY Snowbanks L of CL ..... m / R of CL ..... m  
 Asymm. reduced RWY width R/L ..... m FM CL

TWY ..... Poor  
 Apron ..... Poor  
 Other .....

**Adjusted RWYCC**

State approved CFME Braking coefficient

ONLY if Downgrade/ Upgrade Assessments used

Downgrade/ Upgrade Criteria

AIREP  
 CFME  
 Other

Mj not to be transmitted in RWY Condition Report

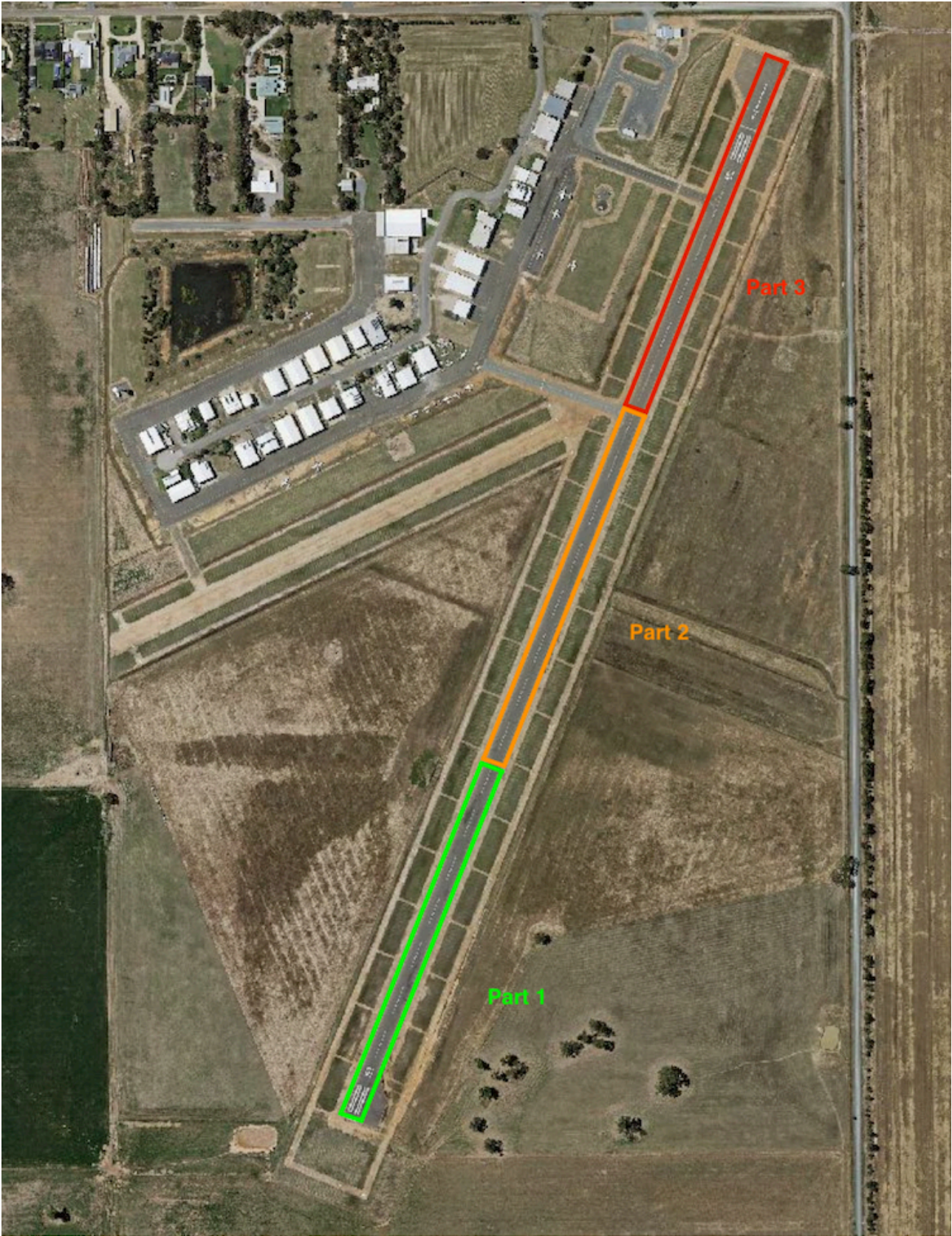
YYWG Aerodrome  
 Date & Time  
 RWY  
 RWYCC  
 Contaminant Type 1st third  
 Contaminant Type 2nd third  
 Contaminant Type 3rd third  
 Plain language remarks



RCAW - WINTER.png



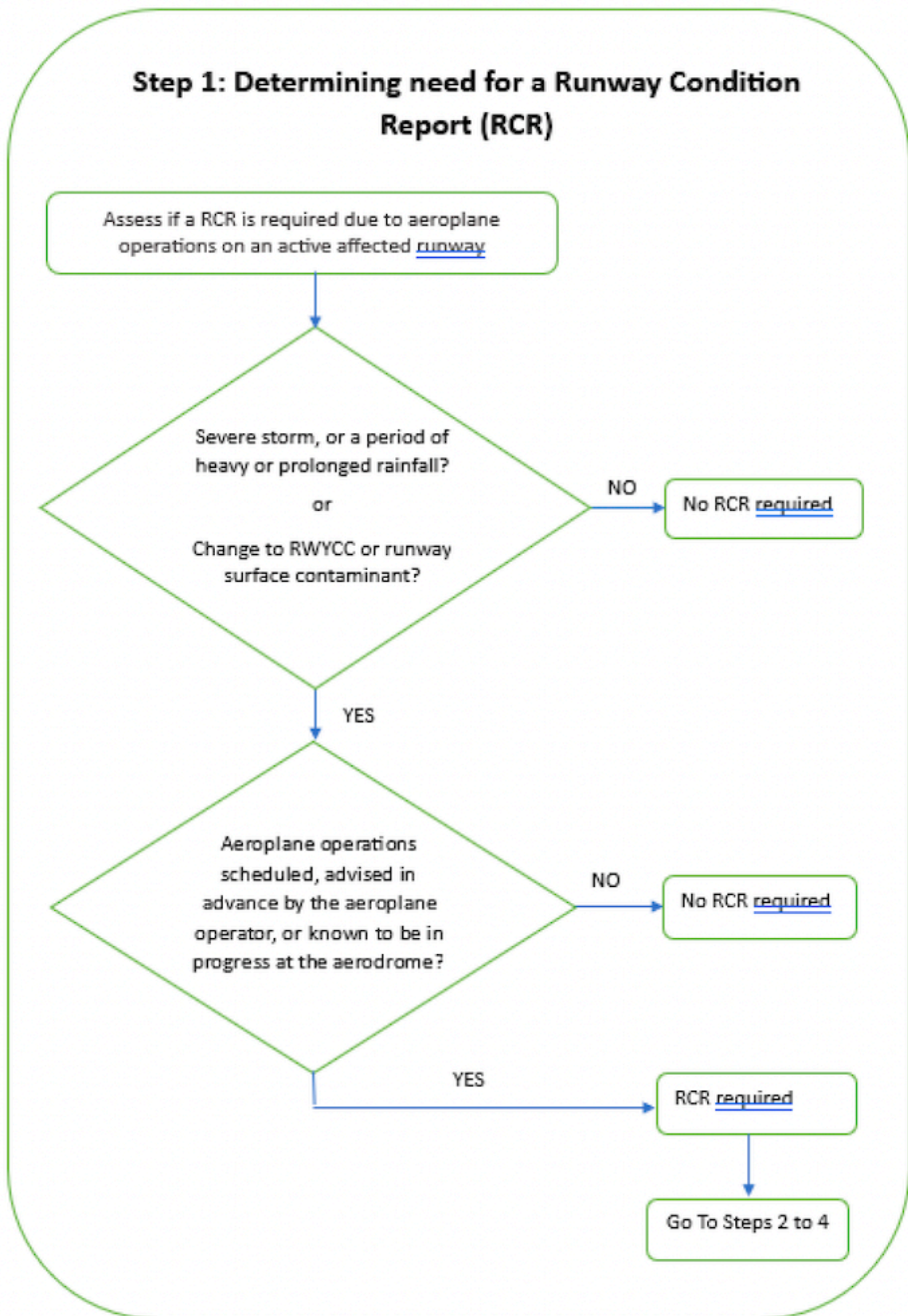
## 2. Depiction Runway Thirds



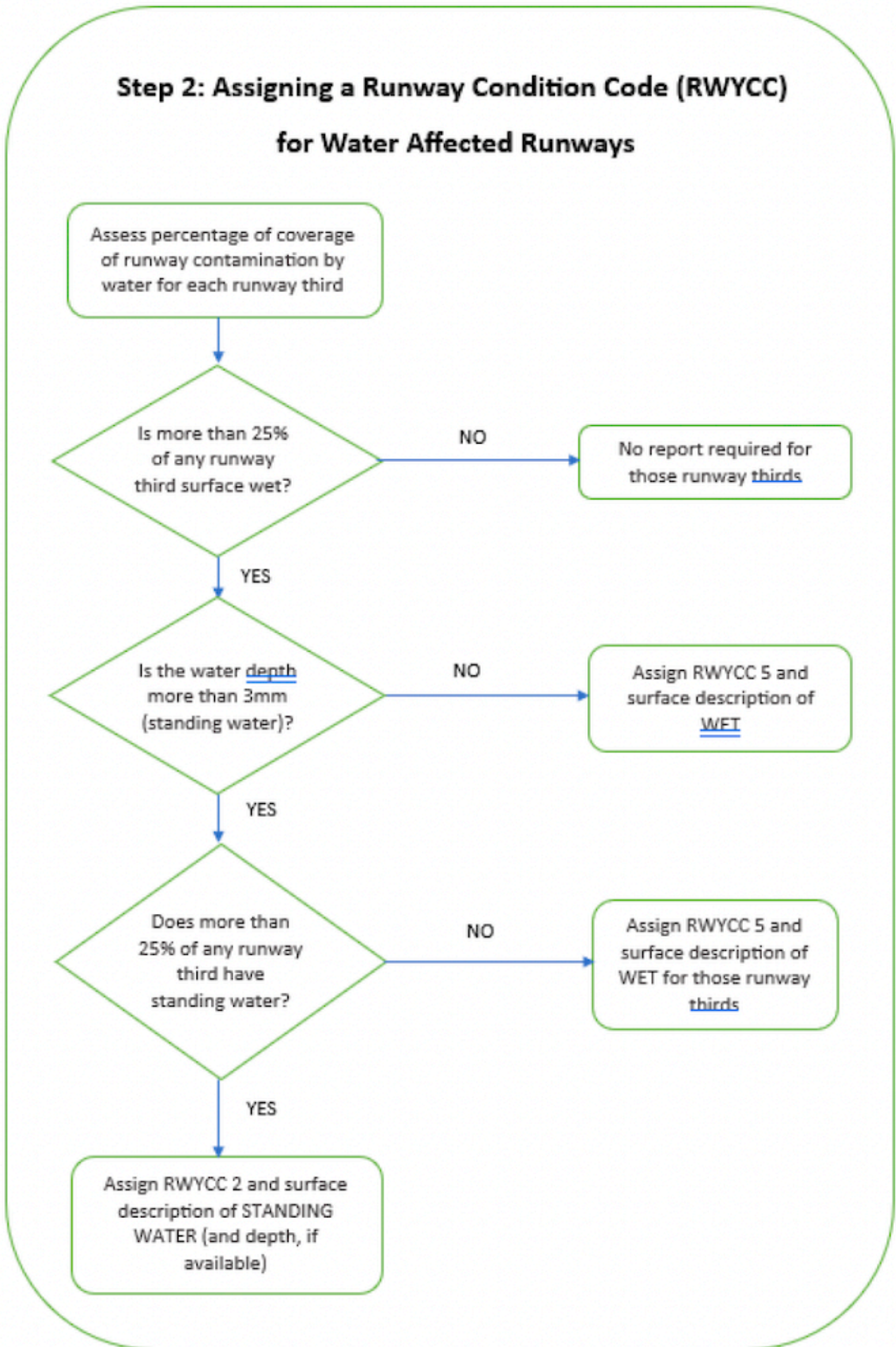
*RWY Thirds*



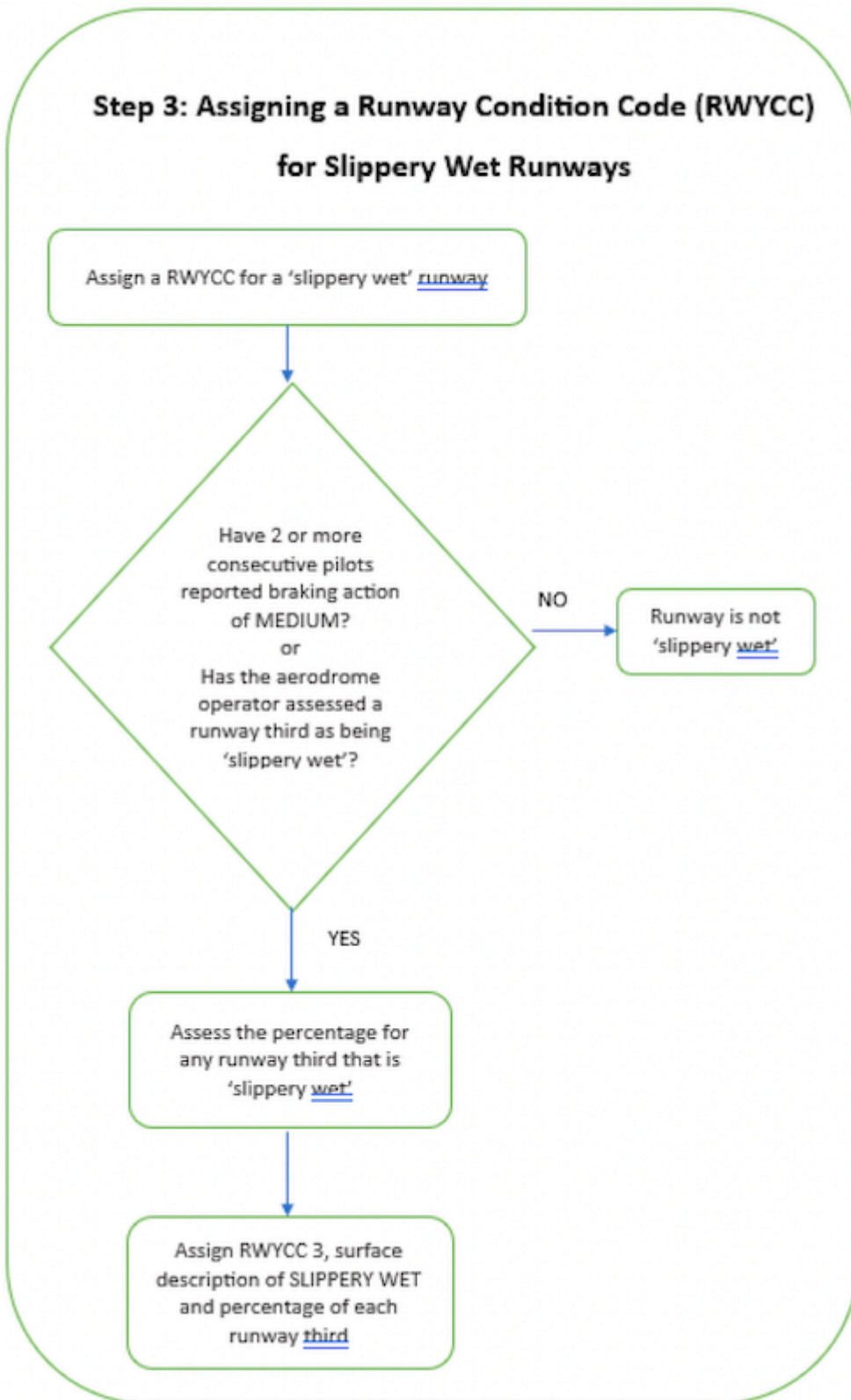
### 3. RCR Step Process



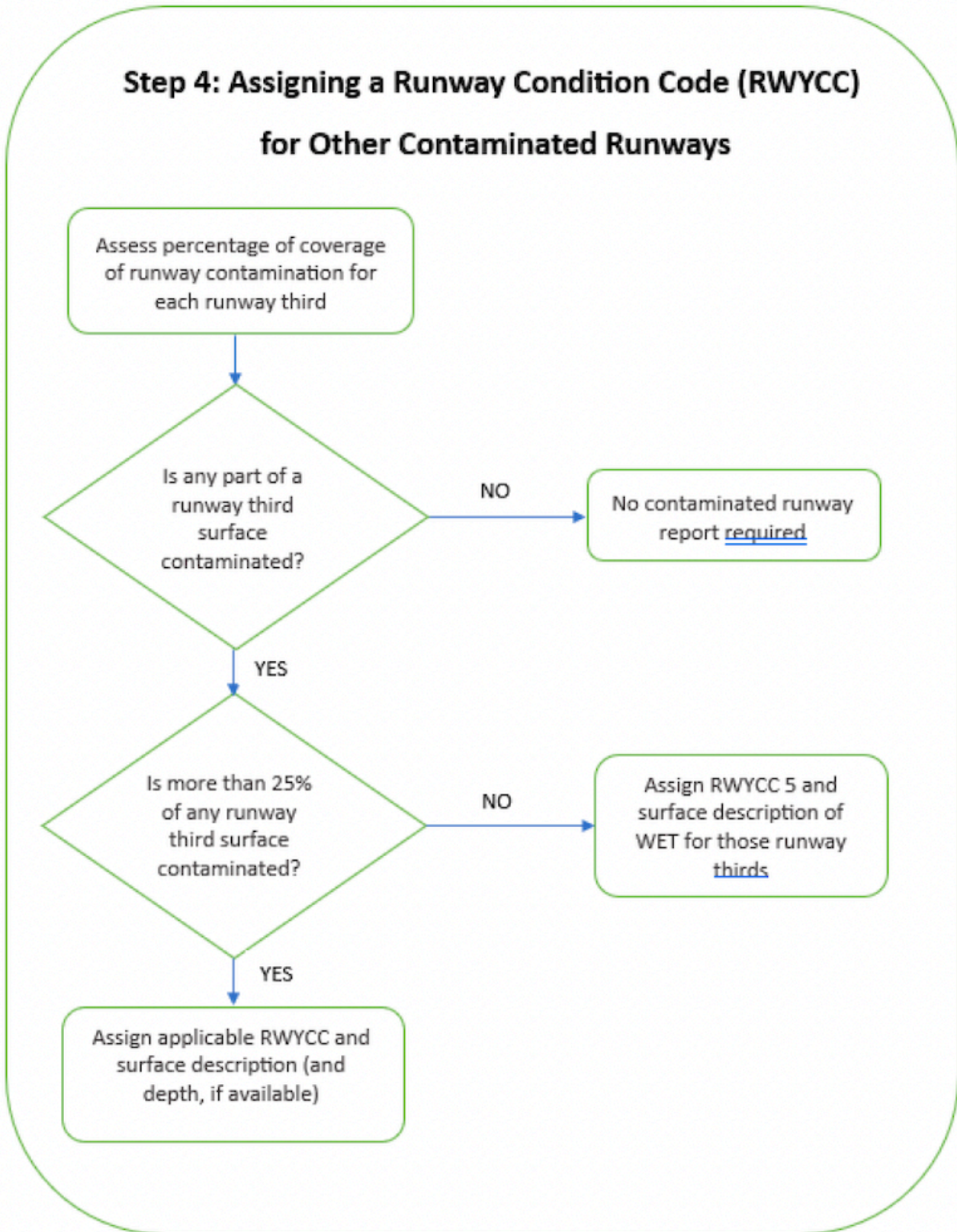
StepOneRCR







StepThreeRCR



StepFourRCR

## 4. Runway Condition Assessment Matrix (RCAM)

| Assessment criteria           |   | Downgrade assessment criteria   |                                       |
|-------------------------------|---|---|---------------------------------------|
| Runway Condition Code (RWYCC) | Runway surface description  | Aeroplane deceleration or directional control observation   | Pilot report of runway braking action |
| 6                             | <ul style="list-style-type: none"> <li>DRY</li> </ul>   | -   | -                                     |
| 5                             | <ul style="list-style-type: none"> <li>FROST</li> <li>WET (runway surface is covered by any visible dampness or water up to and including 3 mm depth)</li> </ul> <p><b>Up to and including 3 mm depth:</b></p> <ul style="list-style-type: none"> <li>SLUSH</li> <li>DRY SNOW</li> <li>WET SNOW</li> </ul>  | Braking deceleration is normal for the wheel braking effort applied AND directional control is normal.                        | GOOD                                  |
| 4                             | <p><b>-15°C and Lower outside air temperature:</b></p> <ul style="list-style-type: none"> <li>COMPACTED SNOW</li> </ul>   | Braking deceleration OR directional control is between Good and Medium.   | GOOD TO MEDIUM                        |
| 3                             | <ul style="list-style-type: none"> <li>WET ("slippery wet" runway)</li> <li>DRY SNOW or WET SNOW (any depth) ON TOP OF COMPACTED SNOW</li> </ul> <p><b>More than 3 mm depth:</b></p> <ul style="list-style-type: none"> <li>DRY SNOW</li> <li>WET SNOW</li> </ul> <p><b>Higher than -15°C outside air temperature<sup>1</sup>:</b></p> <ul style="list-style-type: none"> <li>COMPACTED SNOW</li> </ul> | Braking deceleration is noticeably reduced for the wheel braking effort applied OR directional control is noticeably reduced. | MEDIUM                                |
| 2                             | <p><b>More than 3 mm depth of water or slush:</b></p> <ul style="list-style-type: none"> <li>STANDING WATER</li> <li>SLUSH</li> </ul>   | Braking deceleration OR directional control is between Medium and Poor.   | MEDIUM TO POOR                        |

RCAM



| Assessment criteria |   | Downgrade assessment criteria   |                |
|---------------------|---|---|----------------|
| 1                   | <ul style="list-style-type: none"> <li>ICE</li> </ul>   | Braking deceleration is significantly reduced for the wheel braking effort applied OR directional control is significantly reduced. | POOR           |
| 0                   | <ul style="list-style-type: none"> <li>WET ICE</li> <li>WATER ON TOP OF COMPACTED SNOW</li> <li>DRY SNOW or WET SNOW ON TOP OF ICE</li> </ul> | Braking deceleration is minimal to non-existent for the wheel braking effort applied OR directional control is uncertain.           | LESS THAN POOR |

RCAM