

# Advisory Circular AC65-8.1

**Revision 2** 

Air Traffic Services Personnel Licences and Ratings – Flight Service Operator Ratings – Oceanic Air-Ground Rating 29 January 2024

#### General

Civil Aviation Authority (CAA) Advisory Circulars (ACs) contain information about standards, practices, and procedures that the Director has found to be an **acceptable means of compliance** with the associated rule.

Consideration will be given to other methods of compliance that are presented to the Director. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate AC.

#### **Purpose**

This AC describes an acceptable means of compliance and provides the syllabus for training and assessment for applicants for air traffic services (ATS) personnel licences and ratings, in particular flight service operator ratings – Oceanic air-ground ratings.

#### **Related Rules**

This AC relates to Civil Aviation Rule Part 65 Subpart H - Air Traffic Services Personnel Licences and Ratings—Flight Service Operators Ratings—Oceanic air-ground rating.

#### **Change Notice**

Revision 2 adds a note on the online application process and provides a link to an abbreviations and acronyms section in AC65-1. It also makes stylistic and format changes in line with other ACs. We have also added a Version History.

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# **Version History**

History Log

Revision No.	Effective Date	Summary of Changes
AC65-8.1, Rev 0	20 April 2002	Initial issue.
AC65-8.1, Rev 1	1 May 2014	Replaced the syllabus table in Appendix A to present the information in the objective performance verb format.  Made editorial changes to standardise formatting.
AC65-8.1, Rev 2	29 January 2024	Adds a note on the online application process  Provides a link to an abbreviations and acronyms section in AC65-1.  Makes stylistic and format changes in line with other ACs.  Adds a version history.

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#### Introduction

Part 65, Air Traffic Services Personnel Licences and Ratings, was issued on 1 April 1997 and amended most recently on 24 September 2015, Amendment 5. Part 65 prescribes rules governing the issue of ATS licences and ratings, the conditions to issue those licences and ratings, and the privileges and limitations of those licences and ratings.

This AC and the associated series of ACs, one for each Part 65 Subpart, and one for each rating where more than one rating is contained within a Subpart, support these rules.

## **Abbreviations and acronyms**

For a list of abbreviations and acronyms used in these ACs, please refer to <u>AC65-1</u>, <u>Air Traffic</u> Services Personnel Licences and Ratings – General.

While many abbreviations are from <u>Part 1 - Definitions and Abbreviations</u>, they have been listed in AC65-1 for convenience.

#### **AC Intent and Process**

This AC provides guidance on how to comply with Civil Aviation Rule Part 65 Subpart H - *Air Traffic Services Personnel Licences and Ratings—Flight Service Operators Ratings—Oceanic air-ground rating*.

CAA is actively managing the development of syllabuses into specific objective format. This format specifies exactly what has to be covered, and to what standard, so that no matter who studies, who instructs, and who assesses, all are working to exactly the same standards.

**Note**: From 29 January 2024 it will be possible to apply online for ATS licences and ratings through **MyAviation**, CAA's online portal for licensing requests, instead of filling in paper forms. Click the 'Online services' button on the CAA home page to get started.

## Subpart H — Flight Service Operator Ratings – Oceanic Air-Ground Rating

#### 65.351 Applicability

Subpart H prescribes the rules governing the issue and validation of flight service operator ratings, oceanic air-ground ratings, and the privileges and limitations of those ratings.

#### 65.353 Eligibility requirements

Rule 65.353 requires an applicant for an oceanic air-ground rating to have satisfactorily completed a training course relevant to the rating and to have demonstrated to the holder of an applicable ATS instructor rating the required skill, judgement, and performance to provide the flight service at the unit for which the rating is sought.

Successful assessment based on the syllabus given in Appendix A of this AC would meet this requirement.

# **APPENDIX A – Flight Service Operator Ratings Syllabus**

## Subject No 109 — Oceanic Air-Ground Rating

Each subject has been given a subject number and each topic within that subject a topic number. These reference numbers may be used on 'knowledge deficiency reports' and will provide valuable feed back to the examination candidate.

Sub Topic	Syllabus Item
	Air Traffic Services (ATS)
109.2	General
109.2.2	Explain the objectives of ATS.
109.2.4	State the categories ATS are divided into.
109.2.6	Explain airspace classification.
109.2.8	Describe the different airspace designations.
109.2.10	Describe the general parameters for co-ordination between ATS and aircraft operator representatives.
109.2.12	Define air traffic control (ATC) service.
109.4	Oceanic Air-ground Service
109.4.2	State the aircraft to which oceanic air-ground service shall be provided.
109.4.4	Describe the scope of the oceanic air-ground service.
109.4.6	Define oceanic area control service.
109.6	Flight Information Service (FIS)
109.6.2	Define FIS.
109.6.4	Describe the scope of FIS.
109.6.6	Explain the responsibility for the provision of FIS.
109.6.8	Describe the information passed to a flight on first contact.
109.6.10	Explain the purpose of traffic information.
109.6.12	Describe the requirements for exchange of movement data for non-controlled flights.
109.6.14	Describe the actions and requirements on receiving pilot reports on significant weather.
109.6.16	Describe the methods of dissemination of the FIS.
109.6.18	Describe procedures for dissemination of NOTAM information and SIGMET reports, including the compilation of such reports.

Sub Topic	Syllabus Item
109.6.20	Describe the practices and services of the Meteorological Service of New Zealand (MetService).
109.6.22	Describe the meteorological information passed to pilots (mandatory).
109.6.24	Describe the meteorological information passed to pilots (on request).
109.6.26	Describe the process to access ATIS information.
109.6.28	Describe the in-flight briefing service provided to aircraft using datalink.
109.6.30	State the requirements for updating changes to the Auckland HF primary or secondary frequencies.
109.8	Alerting Service
109.8.2	Define alerting service.
109.8.4	Describe the scope of alerting service.
109.8.6	Explain the responsibility for the provision of the alerting service.
109.8.8	Explain the alerting service emergency phases.
109.8.10	Explain the initial checks carried out to confirm the operational status of an aircraft.
109.8.12	Define SARTIME.
109.8.14	Describe the process for RCCNZ/ New Zealand Police/CAA notification.
	Co-ordination and Clearance Delivery
109.10	ATS movement and control messages
109.10.2	Describe the different ATS movement and control messages.
109.10.4	Explain the process for transmission of ATS messages.
109.10.6	Describe the categories of ATS messages and their priorities.
109.10.8	Describe the addressing of ATS messages.
109.10.10	Describe the process for the preparation of ATS movement and control messages.
109.10.12	Describe the general co-ordination criteria for the provision of ATS, including:
	(a) information about which agreement must be reached,
	(b) when coordination is required.
109.12	ICAO Flight Plan
109.12.2	Describe the procedures for the submission of a flight plan.
109.12.4	Describe the procedures prior to departure.

Sub Topic	Syllabus Item
109.12.6	Describe the delay procedures for a flight plan.
109.12.8	Describe the procedures for accepting a flight plan.
109.12.10	Describe the procedures for the completion of the flight plan form.
109.14	Air Traffic Control (ATC) Clearances
109.14.2	Describe the general co-ordination criteria for the provision of air traffic
	services, including:
	(a) information about which agreement must be reached,
	(b) when coordination is required.
109.14.4	Explain in general terms the application of co-ordination procedures.
109.14.6	Explain the clearance delivery requirements and procedures.
109.14.8	Describe the application of clearance delivery, including readback.
109.14.10	Define ATC clearance.
109.14.12	Describe the following conditions regarding an ATC clearance:
	(a) validity,
	(b) elements and what they are required to achieve,
	(c) who requires a clearance,
	(d) when it can be denied or withheld,
	(e) methods for issuing, including relay through another agency.
109.14.14	List the elements of an ATC clearance that must be read back in full by a pilot.
109.14.16	Describe the requirements for issuing clearances to IFR flights to enter or leave controlled airspace.
109.14.18	List the objectives for instructions contained in an ATC clearance for an IFR flight.
109.14.20	Define the term 'clearance limit' for an IFR flight.
109.14.22	Describe procedures to follow in the event of unavailability of route and/or cruise level elements of an ATC clearance, including the phraseology to be used.
109.14.24	Describe the procedures associated with route instructions, including:
	(a) standard route clearances,
	(b) route description, use of flight planned route,
	(c) actions to be taken in the event of hazardous weather conditions,

# **Sub Topic** Syllabus Item (d) revised route instructions, and (e) direct routing and unevaluated routes. Transfer of radio guard 109.16 109.16.2 Describe the procedures associated with transfer of radio guard, including: (a) standard radiotelephony contact points, and (b) accepting controller responsibility. **Auckland Oceanic Air-ground** 109.18 Auckland Oceanic FIR (NZZO) 109.18.2 Describe the lateral limits of NZZO, including: (a) vertical dimensions, (b) easternmost and westernmost boundaries. 109.18.4 Describe the geographical dimensions of the Cook Sector. 109.18.6 Describe the geographical dimensions of the Tonga Sector. 109.18.8 Describe the geographical dimensions of the Samoa Sector. 109.18.10 Describe the geographical dimensions of the McMurdo Sector. 109.18.12 Describe the requirements for the Norfolk Island Common Traffic Advisory Frequency (CTAF1), including: (a) airspace dimensions and definition, (b) Norfolk Island alerting service, (c) flight plan termination, and (d) traffic information. 109.18.14 Describe the adjacent international FIRs. 109.18.16 Describe the adjacent New Zealand FIR. 109.18.18 Describe the general weather patterns within this area. 109.18.20 Define the area of responsibility for Auckland oceanic area control service. 109.18.22 Derive from appropriate maps and charts relevant information, including: (a) controlled airspace and airspace classification,

<sup>1</sup> This is an Australian term, not used in NZ.

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Sub Topic	Syllabus Item
	(b) route system,
	(c) aerodromes within the Auckland Oceanic FIR,
	(d) special use airspace,
	(e) most used routes,
	(f) frequencies, and
	(g) navigation aids.
109.18.24	Explain user preferred routes.
109.20	Air-ground operations
109.20.2	Describe in general terms the responsibilities of the international air-ground radio operator.
109.20.4	Describe the requirements for operation of the Airlog by air-ground operators, including:
	(a) oceanic control system (OCS) message processing,
	(b) out of conformance AIREP processing,
	(c) penultimate AIREPs,
	(d) message priorities.
109.20.6	Describe the requirements for relaying of instructions from Oceanic controllers through air-ground operators.
109.20.8	Describe air-ground operator's responsibilities in terms of ensuring readbacks.
109.20.10	State the main HF frequencies monitored by Auckland Radio.
109.20.12	Describe the process for clearance issue and coordination of flight departing from aerodromes within the NZZO.
109.20.14	Describe the process for flights arriving at aerodromes within the NZZO.
109.20.16	Describe the position responsibilities of the air-ground operator.
109.20.18	Describe the priorities for an air-ground operator.
109.20.20	List the ICAO documents relevant to Oceanic air-ground service.
109.20.22	Describe the types of Oceanic communications.
109.20.24	Describe the requirements for position reporting.
109.20.26	Describe the elements of a position report (ARS).
109.20.28	Describe the elements of a position report special.

Sub Topic	Syllabus Item
109.20.30	Describe the requirements for addressing position reports.
109.20.32	Describe the requirements for a request message.
109.20.34	Describe the requirements for a request message due to weather.
109.20.36	Describe the requirements for a weather-related request.
109.20.38	Describe the requirements for the processing of a clearance message.
109.20.40	Describe the criteria format and phraseology for the relay of clearances and instructions.
109.20.42	Describe the requirements for the processing of a readback message.
109.20.44	Describe the requirements for a CLEARANCE (CLE) message.
109.20.46	Describe the requirements for a Revised Position Estimate (RPE) message.
109.20.48	Describe the requirements for an arrival message.
109.20.50	Describe the process of Flight Management Computer waypoint reporting (FMC WPR).
109.20.52	List the types of messages that can be sent via FMC WPR.
109.20.54	Describe the FMC WPR reporting for flights departing Norfolk Island, Rarotonga, Faleolo, Fua'amotu or Niue.
109.20.56	Describe the actions to be followed on the receipt of a penultimate FMC WPR.
109.20.58	Describe the fault reporting procedures for the air-ground position.
109.20.60	Describe the requirements relating to communications, position reports, traffic information and an alerting service for a RNZAF P-8A Poseidon.
109.20.62	Describe the requirements for processing early pilot reports.
109.20.64	Describe the recommended handover technique, equipment checks and use of sign on strips.
109.20.66	Describe the requirements for an adequate pre-duty briefing.
109.22	Air-ground administration
109.22.2	Describe the personnel licensing requirements for this rating including the training plan objectives.
109.22.4	Explain the feedback/assessment mechanisms available for a trainee within the training plan for this rating.
109.22.6	Describe the medical fitness requirements for exercising an air-ground rating.
109.22.8	Describe the recent experience requirements for exercising an air-ground rating.

Sub Topic	Syllabus Item
109.22.10	Describe the requirements for ATS personal logbooks.
109.22.12	Describe the requirements for keeping an ATS log.
109.22.14	Describe the procedures to ensure air-ground service continuity.
	Equipment
109.24	HF radio theory
109.24.2	Describe the types of radio waves.
109.24.4	Describe the propagation and properties of each type of radio wave.
109.24.6	Define the atmosphere.
109.24.8	Describe the factors that affect HF communications.
109.24.10	Describe the Major World Air Route Area (MWARA) South Pacific HF network.
109.24.12	Define the network responsibilities.
109.24.14	Describe the HF receivers.
109.24.16	Describe the HF transmitters.
109.24.18	Describe the HF aerials.
109.24.20	Describe the operation of SELCAL.
109.24.22	Describe the HF air-ground system.
109.24.24	Describe the HF by-pass system.
109.26	Air-ground position equipment
109.26. 2	Describe the air-ground system progress board operation.
109.26.4	Describe the air-ground Geographic (GEO) display.
109.26.6	Describe the operation of the AFTN.
109.26.8	Describe the Airlog system.
109.26.10	Explain in general terms the operation of SELCAL.
109.28	HF network operations
109.28.2	List the MWARA SP HF frequencies.
109.28.4	List the Operation Deep Freeze frequencies.
109.28.6	List the VOLMET frequencies.
109.28.8	List the HF stations in the ICAO MWARA SP6 group.

Sub Topic	Syllabus Item
109.28.10	List the AFTN addresses of each of the HF stations in the MWARA SP6 group.
109.28.12	Describe HF frequency notification advice to adjacent international facilities.
109.28.14	Describe the HF frequency notification advice to domestic area surveillance sectors.
109.28.16	Describe the practices to decrease HF frequency congestion.
109.28.18	Describe what is meant by HF over transmissions.
109.28.20	Describe the procedures for accepting primary HF guard.
109.28.22	Describe the procedures for intercepting HF traffic.
109.28.24	Describe the procedures on the receipt of an intercepted air report (ARP) message.
109.28.26	State where you would locate the table of frequency designators and assignments used by Auckland Radio.
109.30	Aeronautical telecommunications
109.30.2	Describe in general terms the responsibilities and requirements of the aeronautical telecommunications system.
109.30.4	Describe regular and network stations.
109.30.6	Describe regular station responsibilities.
109.30.8	Describe primary guard.
109.30.10	Describe transfer of primary guard.
109.30.12	Describe network station responsibilities.
109.32	Oceanic Control System
109.32.2	Explain in general terms the FANS 1/A and CNS/ATM.
109.32.4	Explain the characteristics of the OCS system architecture.
109.32.6	Explain the characteristics of the OCS data transmission process.
	Emergencies
109.34	Emergency procedures
109.34.2	Describe the action to be taken by air-ground operators in the event of an aircraft emergency.
109.34.4	Describe the actions taken in the event of a CPDLC or ADS-C emergency message.
109.34.6	Describe the procedures for a loss of Airlog HF transmitter/receivers or both.
109.34.8	Describe the requirements for confirmation of emergency, acknowledging emergency and executive control responsibility.

Sub Topic	Syllabus Item
109.34.10	Describe the requirements for suspension of communications watch by an aircraft station or aeronautical station.
109.34.12	Describe the requirements for HF message handling when communication is unable to be established.
109.36	Contingency procedures
109.36.2	State the three OCS contingency phases.
109.36.4	State the objective of the 'recovery phase'.
109.36.6	State the time at which aircraft are permitted to enter the Auckland oceanic control area during the recovery phase.
109.36.8	Describe the objective of the limited ATS phase and any restrictions.
109.36.10	Explain what is meant by 'third level contingency'.
109.36.12	Explain actions taken in the event evacuation from workplace is required, including traffic recovery.
109.36.14	State where you would locate documentation for handling unusual/emergency situations, such as bomb threat and evacuation.
109.36.16	State where you would locate information on procedures and initial actions for handling aviation accidents and incidents.
109.38	ATS equipment failure
109.38.2	Describe the notification process in the event of equipment failure.
109.38.4	Describe the procedures to be followed in the event of a partial or total ground-ground voice communication system (VCS) equipment failure.
109.38.6	Describe the effects on operation of a power failure, including reference to UPS/generator back up.
109.38.8	Describe in general terms the process in the event of failure of HF transmitters and/or receivers.
109.38.10	Describe in general terms the effect on operations of the total failure of the X25 Aeronautical Radio Incorporated (ARINC) gateways.
109.38.12	Describe in general terms the effect on operations of the total failure of the AFTN.
109.38.14	Describe the process for the air-ground operator to follow in the event of the failure of Airlog.
109.38.16	Explain in general terms the co-ordination requirements in the event of an equipment failure.