



Advisory Circular

AC65-7.6

**Air Traffic Service Personnel Licences and Ratings—
Air Traffic Controller Ratings—
Area Control Automatic Dependant Surveillance Rating**

**Revision 1
11 May 2016**

General

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

An acceptable means of compliance is not intended to be the only means of compliance with a rule, and consideration will be given to other methods of compliance that may be presented to the Director General. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate advisory circular.

An advisory circular may also include guidance material to facilitate compliance with the rule requirements. Guidance material must not be regarded as an acceptable means of compliance.

Purpose

The Advisory Circular provides the syllabus for training and assessment for applicants for an Area Control Automatic Dependent Surveillance Rating.

Related Rules

This Advisory Circular relates specifically to Part 65 *Subpart G Air Traffic Service Personnel licences and Ratings*

Change Notice

Subject to “Memorandum for Technical Cooperation” between the CAA of Mongolia and New Zealand on mutual cooperation in implementation of Assembly Resolution A29-3: Global Rule Harmonization, 29th ICAO Assembly, 1992, which urges States to promote global harmonization of national rules, dated 6th of May, 1999, Mongolian Civil Aviation Safety Regulation has been reconciled to the Civil Aviation Regulation of New Zealand.

Amendment 164 of Annex 1 to the Chicago Convention on International Civil Aviation urges flight crew members, ATC personnel and aircraft maintenance engineers to comply with the language proficiency requirements; and

Under Article 14 of the Civil Aviation Law of Mongolia 1999, "Use of foreign language in civil aviation" the AC has been released in English version only, in order to prevent any mistranslation and misuse of the aviation safety related documents.

This AC 65-7.6 was developed based on NZ AC65-7.6 revision 1, dated on 06 February 2014.

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Introduction

Part 65 – *Air Traffic Service Personnel Licences and Ratings* prescribes rules governing the issue of air traffic service licences and ratings, the conditions under which those licences and ratings are necessary, and the privileges and limitations of those licences and ratings.

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

Advisory Circular Intent and Process

Guidance on how to comply with Part 65 Subpart G rule 65.301(1)(v) is contained within this Advisory Circular (AC) *Air Traffic Service Personnel Licences and Ratings–Area Control Automatic Dependant Surveillance Rating*.

Subpart G — Air Traffic Controller Ratings Area Control Automatic Dependant Surveillance Rating

65.301 Applicability

Subpart G prescribes rules governing the issue and validation of area control automatic dependant surveillance ratings, and the privileges and limitations of those ratings.

65.303 Eligibility requirements

Rule 65.303 requires an applicant for an area control automatic dependant surveillance rating to have satisfactorily completed a training course and to have passed examinations relevant to the rating and validation in airspace structure; applicable rules, procedures and sources of information; air navigation facilities; air traffic control equipment and its use; terrain and prominent landmarks; characteristics of air traffic and traffic flow; weather phenomena; emergency and search and rescue plans, principles, uses and limitations of automatic dependant surveillance systems and associated equipment; and procedures for the provision of area control automatic dependant surveillance services, including procedures to ensure appropriate terrain clearance. Refer to subparagraphs (a)(2)(iv) and (4) of the rule.

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

APPENDIX A—Subject No 108—Area Control Automatic Dependent Surveillance Rating

Syllabus

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

108.2 General

108.2.2 Explain the objectives of air traffic services.

108.2.4 State the categories air traffic services are divided into.

108.4 Air Traffic Control Service

108.4.2 Define an air traffic control service.

108.4.4 Explain the responsibility for the provision of an air traffic control service.

108.4.6 Define an area control service.

108.4.8 Describe the responsibilities of an area controller.

108.6 Flight Information Service

108.6.2 Define a flight information service.

108.6.4 Describe the scope of a flight information service.

108.6.6 Explain the responsibility for the provision of a flight information service.

108.6.8 Define traffic information.

108.6.12 Describe the requirements for the provision of traffic information in the UB FIR, including appropriate phraseology.

108.8 Alerting Service

108.8.2 Define an alerting service.

108.8.4 Describe the scope of an alerting service.

108.8.6 Explain the responsibility for the provision of an alerting service.

108.8.8 Explain the actions taken in the provision of an alerting service.

108.8.10 Explain the alerting service emergency phases.

108.8.12 Derive from an in-flight emergency response checklist, controller actions in the event of an in-flight emergency.

108.8.14 Explain the initial checks carried out to confirm the operational status of an aircraft.

108.8.16 Define SARTIME.

108.8.20 Describe the action of an controller in the event of an aircraft needing assistance in addition to that outlined in an ATS operations manual.

108.8.22 State the role of scheduled position reports over waypoints in the provision of an alerting service for ADS-C equipped aircraft.

108.8.24 Describe the process for late or missing ADS-C reports.

108.8.26 Describe the appropriate response to overdue position reports

108.8.28 Describe the appropriate response to an ADS emergency report.

108.8.30 State the information an alerting service for a departure from an aerodrome.

108.10 Airspace Management

108.10.2 Describe the requirements for managing and prioritising workload in the provision of air traffic services.

- 108.10.4 Explain traffic priorities within controlled airspace.
- 108.10.6 Describe the procedures to follow when it becomes apparent air traffic demand will exceed the available capacity of the ATC system.
- 108.10.8 Define air traffic management (ATM).
- 108.10.10 Define air traffic flow management (ATFM).
- 108.10.12 Explain the tools used for implementing ATFM.
- 108.12 FANS 1/A CNS/ATM**
- 108.12.2 Explain the use and limitations of satellite based GNSS.
- 108.12.4 Explain in general terms the FANS 1/A CNS/ATM system.
- 108.12.6 Describe the interoperability constraints imposed by the FANS 1/A environment.
- 108.12.8 Describe the ATC contingency procedures in the event of GNSS coverage/signal issue, or aircraft equipment failure.

Co-ordination, Clearances and Instructions

108.14 Co-ordination Procedures

- 108.14.2 Explain the flight plan process for flight within the UB FIR, including:
- (a) ICAO flight plan formats;
 - (b) flight plan states;
 - (c) flight plan correction;
 - (d) flight plan route truncation;
 - (e) manual flight plan deletion;
 - (f) manual input of flight plans;
 - (g) request for or queries about flight plans.
- 108.14.4 State the means of coordination.
- 108.14.6 Describe the general co-ordination criteria for the provision of air traffic services, including:

- (a) information about which agreement must be reached; and
 - (b) when co-ordination is required.
- 108.14.8 Describe the automated coordination functions.
- 108.14.10 Explain the limitations of automatic exchange of ATS data in coordination.
- 108.14.12 State when a read back of coordination is mandatory.
- 108.14.14 State the time criteria prior to ETO at transfer of control point, within which coordination is required, for all flights between ATS sectors/units, including requirements to be met for a reduction in this time.
- 108.14.16 Describe the following procedures relating to estimate messages, including:
- (a) occasions when estimates shall be passed;
 - (b) explanation of an information estimate;
 - (c) requirements for the use of estimate messages;
 - (d) elements of an estimate message, including for a departing aircraft;
 - (e) responsibilities of a controller when accepting an estimate message;
 - (f) standard phraseologies used.
- 108.14.18 Describe the requirements and automated coordination functions, including:
- (a) coordination window functions;
 - (b) coordination variable system parameters;
 - (c) coordinated profile;
 - (d) aircraft position symbol/ flight strip indications;
 - (e) inbound without confliction;
 - (f) inbound with confliction;
 - (g) inbound re-coordination;
 - (h) inbound coordination with:
 - i) block levels,
 - ii) weather deviation,
 - iii) speed restriction,
 - iv) route changes,
 - v) profile restrictions.
 - (i) outbound re-coordination by system warning;
 - (j) outbound re-coordination when initiating change;
 - (k) back coordination;
 - (l) appropriate use of function buttons in coordination window;

- (m) inhibiting automatic coordination;
 - (n) appropriate response to system inhibiting coordination;
 - (o) manual coordination.
- 108.14.20 Explain the specific coordination procedures for pre- departure coordination from aerodromes within the UB FIR.
- 108.14.22 Explain the specific coordination procedures for pre-departure coordination with adjacent ATS units.
- 108.14.26 Explain the Letter of Agreement requirements for FIR adjacent FIRs/ATS units to the UB FIR including transfer of control and RTF points.
- 108.14.28 Describe the different types of air traffic services inter-facility data communications (AIDC/OLDI) messages, including:
- (a) their purpose;
 - (b) AIDC/OLDI message identifiers;
 - (c) sequence of AIDC/OLDI messages
 - (d) effects of not receiving any one of the expected AIDC/OLDI messages.
- 108.14.30 Describe the requirements when controller has detected a conflict extending across FIR boundary, including appropriate phraseologies.
- 108.14.32 Describe the procedures for flights operating close to a FIR boundary.
- 108.14.34 State the responsibility requirements for detecting conflicts and providing separation for flights entering and/or leaving controlled airspace.
- 108.14.36 Describe the procedures for flights entering the UB FIR, with respect to level information and SSR codes.
- 108.16 Revisions**
- 108.16.2 Identify the requirements for revisions to estimates and current flight plan (CPL) messages in the following circumstances:
- (a) changes of routing, including appropriate phraseology;
 - (b) revisions to ETO and/or ETA;
 - (c) revisions to level;
 - (d) revisions to SSR code.

108.16.4 State the standard phraseologies for revisions.

108.18 Transfer of Control

108.18.2 Describe the procedures associated with transfer of control, including:

- (a) elements of a verbal transfer of control message and response;
- (b) accepting controller's responsibility;
- (c) separation responsibility- 'your separation';
- (d) early release requirements;
- (e) phraseologies.

108.18.4 Describe the following procedures associated with transfer of radio guard:

- (a) standard RTF contact points;
- (b) accepting controller responsibility.

108.20 ATC Clearances

108.20.2 Define an ATC clearance.

108.20.4 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.

108.20.6 List the elements of an ATC clearance that must be read back in full by a pilot.

108.20.8 Describe the requirements for issuing clearances to IFR flights to enter or leave controlled airspace.

108.20.10 List the objectives for instructions contained in an ATC clearance for an IFR flight.

108.20.12 State the air traffic services provided when a clearance is issued to a VFR flight.

- 108.20.14 State the elements of an ATC clearance issued to an IFR or VFR flight to operate enroute.
- 108.20.16 List the phrases to be used to authorise an aircraft to operate in controlled airspace.
- 108.20.18 Define the term clearance limit for an IFR flight.
- 108.20.20 Describe procedures to follow in the event of unavailability of route and/or cruise level elements of an ATC clearance, including the phraseologies to be used.
- 108.20.22 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;
 - (d) revised route instructions;
 - (e) direct routing.
- 108.20.24 Describe the procedures associated with level instructions and identify appropriate phraseologies, including:
- (a) obstacle clearance reference;
 - (b) IFR cruising level requirements;
 - (c) non-standard levels block levels, changes of level;
 - (d) VFR levels.
- 108.20.26 Explain how to construct and deliver clearance in the following circumstances:
- (a) N/A;
 - (b) processing CPDLC request;
 - (c) processing a departure request;
 - (d) processing a clearance request;
 - (e) conditional clearance;
 - (f) clearance acknowledgment.
- 108.20.28 Describe the clearance requirements using CPDLC, including:
- (a) altitude change clearances;

- (b) issuing conditional altitude change clearances;
 - (c) level report requirements for climb or descent clearances;
 - (d) clearances into block levels;
 - (e) cancelling block altitude clearances;
 - (f) requesting an aircrafts speed;
 - (g) advising a wake turbulence offset;
- 108.20.30 Describe the requirements to be considered in the event of multi element requests, including:
- (a) avoiding multiple element clearance requests;
 - (b) responding to multiple element clearance requests;
 - (c) multiple clearance requests in one message: all approved;
 - (d) multiple clearance requests in one message: all not approved;
 - (e) multiple clearance requests in one message: some approved/some not approved;
 - (f) approved;
 - (g) multi- element uplink messages;
 - (h) combining multiple elements into a single message;
 - (i) time dependent clearance.
- 108.20.32 Explain the automated flight following and profile conformance monitoring.
- 108.20.34 Describe the appropriate response to requests that cannot be approved.
- 108.20.36 Explain the process when a request for cruise climb is made.
- 108.20.38 Explain the general procedures for the issuance of a clearance by an controller, including constraints.
- 108.20.40 Explain the process for relaying a clearance.
- 108.20.42 State the standard clearances to be used for delivery of descent clearance/traffic information, including occasions when they can be abbreviated.
- 108.20.46 Explain the requirements for weather deviations.
- 108.20.48 Explain the requirements for lateral offset.
- 108.20.50 Explain the requirements for issuing successive clearances.

- 108.20.52 Describe the process to be followed prior to issuing planned descent clearances.
- 108.20.54 Explain IFR altimeter setting requirements, including pilot requirements for altimeter setting through the transition layer.
- 108.20.56 Define MFA, MSA, MRA and MEA.
- 108.20.62 State the separation instructions issued when applying time separation.
- 108.20.64 Describe the separation instructions issued when applying vertical separation.
- 108.20.66 List the phraseologies for SSR Code allocation and frequency change instructions.
- 108.20.68 Demonstrate examples for the following:
- (a) basic clearance formats;
 - (b) entering controlled airspace;
 - (c) leaving controlled airspace.

108.22 Position Reporting

- 108.22.2 Describe the position reporting requirements for an IFR flight.
- 108.22.4 Describe the process of position reporting, including:
- (a) N/A;
 - (b) ADS-C position reports;
 - (c) CPDLC position reports;
 - (d) N/A;
 - (e) radar position reports;
 - (f) manual entry;
 - (g) discrepancies between ADS-C and CPDLC estimates.
- 108.22.6 Describe the position report processing interface with the FDP, including:
- (a) effect of position report processing;
 - (b) in conformance;
 - (c) out of conformance;

(d) incorrectly sequenced ADS position reports.

108.22.10 Define navigational error.

108.22.12 Explain the position reporting requirement in the CPDLC environment, including:

- (a) downlink of position report;
- (b) N/A;
- (c) first position report;
- (d) sending of ATC waypoints only;
- (e) updating a waypoint estimate/non-compulsory waypoints;
- (f) non-receipt of a scheduled position reports;
- (g) sequencing “abeam” waypoints in excess of FMS parameters;
- (h) ARINC 424 Fix names.

108.22.14 Explain the good operating practice followed when receiving a time out of conformance position report.

108.24 Holding Instructions

108.24.2 Describe the reasons for issuing holding instructions, including where an aircraft may be instructed to hold.

108.24.4 State the elements of a clearance to enter a holding pattern for the following situations:

- (a) published holding pattern;
- (b) navigation aids;
- (c) when holding at a DME distance on a VOR radial;
- (d) published significant point on an ATS route or arrival procedure;
- (e) other than in an established and published holding pattern;
- (f) pilot unfamiliar with pattern.

108.24.6 Explain the following terms:

- (a) onwards clearance time;
- (b) expected approach time.

108.26 Auckland Oceanic FIR N/A**108.28 Automatic Dependent Surveillance**

108.28.2 Explain in general terms the difference between radar and ADS.

108.28.4 Explain the operation of ADS-C, including:

- (a) the periodic contract;
- (b) the event contract;
- (c) cancelling ADS contracts;
- (d) ADS-C report;
- (e) the on demand contract;

108.28.6 Explain the factors to be considered when using ADS-C, including:

- (a) vertical and lateral variations;
- (b) figure of merit (FOM) data in ADS-C reports;
- (c) flight crew modification of active route.

108.28.8 Describe the procedures for the management of the ADS-C connection, including:

- (a) priority for the connection;
- (b) allocation of ADS-C connections;
- (c) monitoring of an aircraft operating close to an airspace boundary;
- (d) other ground facilities requesting ADS-C contracts;
- (e) ADS-C connections not available;
- (f) termination of ADS-C connections.

108.28.10 Describe the occasions when a change to the default reporting rate may be considered.

108.28.12 Explain in general terms ADS-C equipped aircraft navigation, including:

- (a) aircraft in heading select mode;
- (b) sequencing subsequent waypoints.

- 108.30 Oceanic Control System N/A**
- 108.32 Data Link and CPDLC**
- 108.32.2 Explain the operation of data link.
- 108.32.4 Describe the process for the pre-flight phase for data link, including:
- (a) identifying data link aircraft;
 - (b) registration number.
- 108.32.6 Define the term CPDLC.
- 108.32.10 Explain the purpose of the CPDLC connection, including:
- (a) active and inactive CPDLC connections;
 - (b) establishing an active CPDLC connection.
- 108.32.12 Describe CPDLC capability including:
- (a) downlink messages;
 - (b) uplink messages;
 - (c) armable messages.
- 108.32.14 Explain the use of pre-formatted and free text messages, including:
- (a) preferred use of pre-formatted messages;
 - (b) standardised free text messages;
 - (c) storing free text.
- 108.32.16 Describe the requirements for the exchange of CPDLC messages, including:
- (a) message assurance;
 - (b) ambiguous dialogues;
 - (c) interruption of a CPDLC dialogue.
- 108.32.18 Describe the appropriate response to requests, clearances and instructions, including:
- (a) affirmative response to a clearance/instruction;
 - (b) negative response to a clearance request;
 - (c) conditions relating to a specific clearance;

- (d) affirmative response to a negotiation request;
 - (e) negative response to a negotiation request;
 - (f) offering alternative clearances to downlink requests.
- 108.32.20 Describe the time period between receiving and responding to a message, including:
- (a) delays in responding;
 - (b) delay expected after receiving a standby message.
- 108.32.22 Describe the process of re-sending messages, including:
- (a) re-sending a message when no alert received;
 - (b) re-sending a message when an alert has been received;
 - (c) second identical request after an uplink standby message;
 - (d) multiple identical requests.
- 108.32.24 Describe the process of message closure, including:
- (a) answering an uplink free text;
 - (b) dialogue commenced via CPDLC and continued via voice;
 - (c) closure of the clearance window.
- 108.32.28 Describe the process for termination of CPDLC, including:
- (a) normal operations;
 - (b) end service failure due pending up/downlink;
 - (c) correct use of CPDLC messages;
 - (d) retaining CPDLC guard through another airspace.
- 108.34 General Operations**
- 108.34.2 Describe the performance characteristics of common aircraft operating within the sector, including:
- (a) rates of climb/descent and maximum/minimum speeds;
 - (b) deterioration/variation of weather effecting aircraft operations and separations;
 - (c) PBN equipment.

- 108.34.6 Describe the back coordination requirements for neighbouring FIRs and ATSU's.
- 108.34.8 Explain the coordination procedures.
- 108.34.12 Describe the sector and position specific responsibilities including the operation of positions within the sector.
- 108.34.16 Describe the layout of the flight progress board.
- 108.34.18 Describe the flight progress strips, including:
- (a) flight details;
 - (b) processing of flight details data.
- 108.34.20 Describe the recommended handover technique, equipment checks and use of sign on strips.
- 108.34.22 Describe the requirements for an adequate pre-duty briefing.
- 108.34.26 Describe the process for changes to FANS software.
- 108.36 Air Ground Voice Communications**
- 108.36.2 Describe in general terms the responsibilities of the international air-ground radio operator.
- 108.36.4 Describe the requirements for operation of the air log by air-ground operators, including:
- (a) OCS message processing;
 - (b) out of conformance AIREP processing;
 - (c) penultimate AIREPs;
 - (d) message priorities.
- 108.36.8 Describe responsibilities in terms of ensuring readbacks.
- 108.36.16 Describe in general terms the responsibilities and requirements of the aeronautical telecommunications system.

Separation**108.38 General**

- 108.38.2 Describe the requirements for the provision of separation and methods applied.
- 108.38.4 Explain the scope for the provision of separation.
- 108.38.8 Define same track, reciprocal tracks, and crossing tracks.
- 108.38.10 Define same track reciprocal tracks and crossing tracks in the application of horizontal separation.
- 108.38.12 State when separation can be reduced or increased.
- 108.38.14 Describe the actions to be taken in the event of a loss of separation.
- 108.38.16 Describe the requirements for exemption from the standard process when separation has been lost.
- 108.38.18 State the elements of essential traffic information.
- 108.38.20 Define the term common point.
- 108.38.22 Explain the use of ADS-C for separation, including:
- (a) appropriate ADS-C reporting requirements;
 - (b) appropriate separation standard.
- 108.38.26 State the requirements for the application of RNP separation.
- 108.38.28 State the vertical, longitudinal and lateral separation standards and requirements for their application.
- 108.38.32 State the separation standard when degraded RNP.

108.40 Vertical Separation

- 108.40.2 State the vertical separation minima.

- 108.40.6 Describe the requirements to be met prior to clearing an aircraft to a level when the aircraft occupying that level reports vacating.
- 108.40.8 State the vertical separation standards and procedures for reduced vertical separation minima (RVSM).
- 108.40.12 Describe the requirements for non-RVSM operations.
- 108.40.14 Describe the requirements for altitude deviations in RVSM airspace.
- 108.40.18 Explain the requirements for the approval for non-RVSM operations.
- 108.40.20 Describe the application of priorities within RVSM airspace.
- 108.40.22 Describe the requirements for climb and descent through RVSM airspace by non RVSM aircraft.
- 108.40.24 Describe the coordination required for non RVSM aircraft to enter UB FIR airspace in the RVSM stratum.
- 108.40.26 State the conventional RVSM flight levels and any requirements.
- 108.40.28 Describe the occasions and requirements when RVSM operations shall be suspended.
- 108.40.30 State the occasions when non RVSM civil aircraft are permitted to file flight plans.
- 108.40.32 Describe the requirements for the use of ADS-C in the application of vertical separation.

108.42 Lateral Separation

- 108.42.2 State the lateral separation standards and procedures.
- 108.42.6 Describe the procedure and application of diversionary climbs and the general rules and considerations for their use.
- 108.42.8 Explain track separation.
- 108.42.10 Describe the requirements for track separation between aircraft transitioning into airspace where a larger lateral separation minimum applies.

- 108.42.14 Describe the requirements for the use of ADS-C in the application of lateral separation.
- 108.42.18 Describe the requirements for the provision of lateral separation from special use airspace.
- 108.42.20 Describe RNP lateral separation.
- 108.42.22 Explain the requirements for lateral weather deviations.

108.44 Longitudinal Separation

- 108.44.2 State the separation standard for longitudinal separation between aircraft.
- 108.44.4 State the longitudinal separation standards and procedures based on time.
- 108.44.6 Describe the methods of establishing longitudinal separation based on time.
- 108.44.8 State the longitudinal separation standards and procedures based on distance.
- 108.44.10 List the requirements for the application of longitudinal separation based on distance.
- 108.44.12 Calculate an accurate ETP for opposite direction traffic in a theoretical example.
- 108.44.18 Describe the use of ADS-C in the provision of longitudinal separation including:
- (a) establishing longitudinal separation;
 - (b) using extrapolated or interpolated positions;
 - (c) validity of displayed information;
 - (d) time-based separation;
 - (e) distance-based separation.
- 108.44.20 State the RNP distance separation, including requirements and application.

108.46 Mach Number Technique

- 108.46.2 Describe the term Mach number technique.

- 108.46.4 Explain the application of Mach number technique.
- 108.46.8 Explain the methodology used for calculation of differences in speed in the use of Mach number technique.
- 108.48 OCS Separation and Conflict Detection N/A**
- 108.50 Airborne Collision Avoidance System (ACAS)**
- 108.50.2 Identify the meaning of acronyms associated with ACAS.
- 108.50.4 Describe how ACAS equipment operates.
- 108.50.6 State the actions taken by pilots and controllers in the event of a traffic advisory (TA) ACAS incident.
- 108.50.8 State the actions taken by pilots and controllers in the event of a resolution advisory (RA) ACAS incident.
- 108.50.10 State the procedures for the reporting of an ACAS event.

Emergencies

108.52 Emergency Procedures

- 108.52.2 Describe the actions a controller should take in the event of a CPDLC or ADS-C emergency message.
- 108.52.4 Explain the process in the event of an emergency mode ADS-C.
- 108.52.6 Describe the requirements for confirmation of emergency, acknowledging emergency and executive control responsibility.

108.54 Contingency Procedures

- 108.54.2 Briefly describe what the duty controller should do in the event of a full evacuation of Area Control Centre.
- 108.54.4 State the three contingency phases.
- 108.54.6 State the objective of the recovery phase.

- 108.54.10 Describe the objective of the limited ATS phase and any restrictions.
- 108.54.14 Explain actions taken by controllers in the event evacuation from work place is required, including traffic recovery.
- 108.54.16 State where you would locate documentation for handling unusual/emergency situations, such as bomb threat and evacuation.
- 108.54.18 State where you would locate information on procedures and initial actions for handling aviation accidents and incidents.

108.56 ATS Equipment Failure

- 108.56.2 Explain how to recognise system degradation or complete failure of the ATS system.
- 108.56.4 Describe in general terms how to respond to a complete failure of the ATS system.
- 108.56.22 Describe the effects on operations of navigation aid degradation or failure and appropriate procedures to be followed.
- 108.56.24 Describe the procedures to be followed in the event of a partial or total ground-ground voice communication system (VCS) equipment failure.
- 108.56.26 Describe the effects on operation of a power failure, including reference to UPS/generator back up.
- 108.56.28 Describe in general terms the process in the event of failure of HF transmitters and/or receivers.
- 108.56.30 Describe in general terms the effect on operations of the total failure of the ARINC gateways.
- 108.56.32 Describe in general terms the effect on operations of the total failure of the AFTN.
- 108.56.34 Describe in general terms the process for the air-ground operator to follow in the event of the failure of air log.

108.58 Administration

- 108.58.2 Explain the procedures for:
- (a) determining hours of service;
 - (b) promulgating hours of service;
 - (c) extension to hours of service.
- 108.58.4 Describe the overall requirements for staffing at ATS operating positions.
- 108.58.6 Describe the Personnel Licensing requirements for the area control automatic dependent surveillance rating including the training plan objectives.
- 108.58.8 Explain the feedback/ assessment mechanisms available for a trainee within the training plan for the area control automatic dependent surveillance rating.
- 108.58.10 Describe the medical fitness requirements for exercising an area control automatic dependent surveillance rating.
- 108.58.12 Describe the recent experience requirements for exercising an area control automatic dependent surveillance rating.
- 108.58.14 Describe the requirements for ATS personal log books.