



# Advisory Circular

## AC65-7.2

---

### Air Traffic Service Personnel Licences and Ratings— Air Traffic Controller Ratings— Approach Control Procedural Rating

Revision 3  
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 (AMC)** with the associated rule.

AMC 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. 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 (GM)** to facilitate compliance with the rule requirements. GM must not be regarded as an acceptable means of compliance.

#### Purpose

This advisory circular provides guidance on general requirements related to air traffic service personnel licences and ratings.

This material is intended for applicants for air traffic service personnel licences and ratings, holders of air traffic service personnel licences and ratings, air traffic service instructors, air traffic service examiners, training organisations, and air traffic service organisations.

#### Related Rules

This advisory circular relates to Part-65 Subpart G specifically 65.301(1)(ii).

## 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, 29<sup>th</sup> ICAO Assembly, 1992, which urges States to promote global harmonization of national rules, dated 6<sup>th</sup> 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 65-7.2 was developed based on NZ AC65-7.2 revision 3, dated on 11 November 2015.

## Table of Contents

Introduction.....	5
Advisory Circular Intent and Process.....	6
Subpart G—Air Traffic Controller Ratings.....	7
Approach control procedural rating .....	7
65.301 Applicability .....	7
65.303 Eligibility requirements .....	7
APPENDIX A—Subject No 104—Approach Control Procedural Rating.....	8
Syllabus.....	8
Air Traffic Services and Airspace Management .....	8
104.2 General .....	8
104.4 Air traffic control service .....	8
104.6 Flight information service .....	8
104.8 Alerting service.....	9
104.10 Airspace management .....	9
104.12 Performance based navigation.....	10
Co-ordination, Clearances and Instructions .....	11
104.14 ATS movement and control messages.....	11
104.16 Co-ordination tools .....	12
104.18 Co-ordination procedures.....	12
104.20 Revisions.....	13
104.22 Transfer of control and radio guard .....	13
104.24 ATC clearances.....	14
104.26 Holding instructions.....	16
Procedures and Control of Flights .....	17
104.28 IFR procedures .....	17
104.30 Arrival procedures .....	17
104.32 Oceanic flights.....	19
104.34 Military operations .....	19
104.36 Glider operations .....	19
104.38 Parachute operations and entry of balloons, rockets etc. into controlled airspace	19
Equipment .....	20
104.40 ATS equipment .....	20
104.42. ATS collision protection systems.....	20
104.44 Airborne collision avoidance system (ACAS) .....	20
ACAS incident. ....	20
104.46 SSR procedures.....	20
104.48 Use of surveillance systems in towers .....	21
104.50 ATS equipment failure.....	21

---

Procedural Separation.....	21
104.52 General .....	21
104.54 Visual separation.....	22
104.56 Vertical separation .....	22
104.58 Lateral separation .....	23
104.60 Longitudinal separation .....	23
104.62 Arrival and departure separations .....	23
104.64 Separation from aircraft in holding patterns.....	24
104.66 Wake turbulence separation.....	24
104.68 Separation from special use airspace (SUA), general aviation areas (GAA), parachute operations, fuel dumping and aerobatics.....	24
Local Knowledge.....	25
104.70 Geography and airspace .....	25
104.72 Sector procedures .....	26
104.74 Aircraft performance.....	27
104.76 Co-ordination.....	27
104.78 Administration .....	27
104.80 Emergencies .....	28

## **Introduction**

Part-65 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. The Part introduced changes that included area control automatic dependent surveillance ratings, instructor ratings, examiner ratings, and flight service operator licences.

This advisory circular forms part of a series of advisory circulars that support these rules - one for each required rating.

## **Advisory Circular Intent and Process**

This advisory circular provides guidance on how to comply with 65.301(1)(ii).

Civil Aviation Authority of Mongolia 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.

## **Subpart G—Air Traffic Controller Ratings**

### **Approach control procedural rating**

#### **65.301 Applicability**

Subpart G prescribes rules governing the issue and validation of air traffic controller ratings, the privileges and limitations of those ratings; and where a person's air traffic controller rating refers.

65.301(1)(ii), 2 and (3)(i) are specific to approach control procedural rating.

#### **65.303 Eligibility requirements**

65.303(a)(2)(ii) and (4) require an applicant for an approach control procedural 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; and emergency and search and rescue plans.

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

## **APPENDIX A—Subject No 104—Approach Control Procedural 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 feedback to the examination candidate.

#### **Sub Topic Syllabus Item**

### **Air Traffic Services and Airspace Management**

#### **104.2 General**

104.2.2 Explain the objectives of air traffic services.

104.2.4 State the categories air traffic services are divided into.

#### **104.4 Air traffic control service**

104.4.2 Define air traffic control service.

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

104.4.6 Define aerodrome control service.

104.4.8 Describe the responsibilities and directives of an approach controller.

104.4.10 Describe the divisions of responsibility between aerodrome and approach control.

#### **104.6 Flight information service**

104.6.2 Define flight information service.

104.6.4 Describe the scope of the flight information service.

104.6.6 Explain the responsibility for the provision of the flight information service.

104.6.8 Describe the information passed to a flight on first contact.

104.6.10 Define traffic information.

104.6.12 State when traffic information is passed.

- 104.6.14 Describe traffic avoidance advice, including relevant information to be passed.
- 104.6.16 State when traffic avoidance advice is passed.
- 104.6.18 Explain ATS responsibilities for IFR traffic information in Class G airspace.
- 104.6.20 Describe the requirements for exchange of movement data for non-controlled flights.
- 104.6.22 Explain the ATIS procedures.
- 104.6.24 Describe the controller's actions and requirements on receiving pilot reports on significant weather.

#### **104.8 Alerting service**

- 104.8.2 Define alerting service.
- 104.8.4 Describe the scope of the alerting service.
- 104.8.6 Explain the responsibility for the provision of the alerting service.
- 104.8.8 Explain the actions taken in the provision of the alerting service.
- 104.8.10 Explain the alerting service emergency phases.
- 104.8.12 Derive from an in-flight emergency response checklist, the controller's actions in the event of an in-flight emergency.
- 104.8.14 Explain the initial checks carried out to confirm the operational status of an aircraft.
- 104.8.16 Define SARTIME.
- 104.8.18 Describe the process for RCC/Police/CAA notification.

#### **104.10 Airspace management**

- 104.10.2 Describe the requirements for managing and prioritising workload in the provision of air traffic services.
- 104.10.4 Explain traffic priorities within controlled airspace.

104.10.6 Describe the procedures to follow when it becomes apparent air traffic demand will exceed the available capacity of the ATC system.

104.10.8 Define air traffic management (ATM).

104.10.10 Define air traffic flow management (ATFM).

104.10.12 Explain the tools used for implementing ATFM.

**104.12 Performance based navigation**

104.12.2 Describe the components of an area navigation system.

104.12.4 Define the following terms:

- (a) performance based navigation (PBN) ; and
- (b) RNAV; and
- (c) RNP; and
- (d) RNP AR.

104.12.6 Explain the use and limitations of GNSS.

104.12.8 Explain values used in association with RNP (and RNAV).

104.12.10 Explain the following procedures:

- (a) RNAV SID; and s
- (b) RNAV STARs; and
- (c) fly by/fly over waypoints; and
- (d) speed/level requirements at waypoints; and
- (e) RNAV approaches; and
- (f) RNP AR approaches and departures; and
- (g) flight plan requirements for RNAV; and

(h) radar vectoring considerations.

104.12.12 Describe the ATC contingency procedures in the event of GNSS coverage/signal issue, or aircraft equipment failure.

### **Co-ordination, Clearances and Instructions**

#### **104.14 ATS movement and control messages**

104.14.2 Describe air traffic service messages.

104.14.4 Describe the methods of message exchange for ATS messages.

104.14.6 Explain the movement and control messages for automatic distribution of flight plan data within the Flight Data Processor (FDP).

104.14.8 Explain the flight plan management process for filing and creation of flight plans.

104.14.10 Explain the requirements for the following elements of a flight plan:

- (a) flight plan route field; and
- (b) mixed flight rules; and
- (c) use of full registration; and
- (d) aircraft types; and
- (e) flight plan other field.

104.14.12 Explain the flight plan process for short term flight plans, including occasions used.

104.14.14 Explain the use of information attached to a correlated label on the situation display (SN).

104.14.16 Explain flight plan management procedures for:

- (a) flights cancelling IFR and proceeding VFR; and
- (b) flights cancelling VFR and proceeding IFR.

**104.16 Co-ordination tools**

- 104.16.2 Explain the automatic distribution of flight plan data within the Flight Data Processor (FDP).
- 104.16.4 State the various methods of co-ordination.
- 104.16.6 Explain the limitations of automatic exchange of ATS data in co-ordination.
- 104.16.8 Describe action to be taken when Flight Data Processor (FDP) cannot meet co-ordination time criteria.
- 104.16.10 Identify:
- (a) when an approval request is required; and
  - (b) the associated phraseologies.

**104.18 Co-ordination procedures**

- 104.18.2 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.
- 104.18.4 Explain the methods for confirmation of co-ordination.
- 104.18.6 State when a read back of co-ordination is mandatory.
- 104.18.8 State the time criteria prior to ETA at transfer of control point, within which co-ordination is required, for all flights between ATS sectors/units, including requirements to be met for a reduction in this time.
- 104.18.10 Describe the procedures relating to estimate messages, including:
- (a) occasions when estimates shall be passed; and
  - (b) explanation of an information estimate; and
  - (c) requirements for the use of estimate messages; and

- (d) elements of an estimate message, including for a departing aircraft; and
- (e) responsibilities of a controller when accepting an estimate message; and
- (f) standard phraseologies used.

#### **104.20 Revisions**

104.20.2 Identify the requirements for revisions to estimates and current flight plan (CPL) messages in the following circumstances:

- (a) changes of routing, including appropriate phraseology; and
- (b) revisions to ETA; and
- (c) revisions to level; and
- (d) revisions to SSR code.

104.20.4 State the standard phraseologies for revisions.

#### **104.22 Transfer of control and radio guard**

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

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

104.22.4 State when transfer of control shall be affected between approach and aerodrome control for departing and arriving aircraft.

104.22.6 Describe the procedures and actions required by accepting and transferring controller for transfers of radar control from radar sector to non-radar sector, including appropriate phraseologies.

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

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

#### **104.24 ATC clearances**

- 104.24.2 Describe the general principles of an ATC clearance, including:
- (a) validity; and
  - (b) who requires a clearance; and
  - (c) when it can be denied or withheld; and
  - (d) clearance issue, including relay through another agency.
- 104.24.4 Describe the elements of an ATC clearance.
- 104.24.6 List the elements of an ATC clearance that must be read back in full by a pilot.
- 104.24.8 Describe the requirements for issuing clearances to IFR flights to enter or leave controlled airspace.
- 104.24.10 List the objectives for instructions contained in an ATC clearance for an IFR flight.
- 104.24.12 Describe the ATS services a clearance to a VFR flight will provide.
- 104.24.14 List the phrases to be used to authorise an aircraft to operate in controlled airspace.
- 104.24.16 Explain the term clearance limit.
- 104.24.18 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.
- 104.24.20 Describe the procedures associated with route instructions.
- 104.24.22 Describe the requirements for issuing direct routing to IFR flights within controlled airspace.

- 104.24.24 Describe the procedures associated with level instructions and identify appropriate phraseologies.
- 104.24.26 State the procedures for updating the current flight plan (CPL) level on the flight plan for an aircraft:
- (a) prior to departure; and
  - (b) in the climb; and
  - (c) in the cruise; and
  - (d) in the descent; and
  - (e) operating under VFR.
- 104.24.28 Describe the procedures for the assignment of cruising levels to IFR flights, including RVSM requirements.
- 104.24.30 Explain IFR altimeter setting requirements, including pilot requirements for altimeter setting through the transition layer.
- 104.24.32 Define MFA, MSA, MRA and MEA, MDA and DA.
- 104.24.34 State the references that may be used when issuing a descent level to an arriving aircraft.
- 104.24.36 Explain requirements for issuing an IFR aircraft a cruising level or intermediate level in respect of terrain clearance for the following:
- (a) evaluated routes; and
  - (b) unevaluated routes; and
  - (c) direct routing; and
  - (d) ATC advice of obstacle clearance.
- 104.24.38 Describe procedures available to enable flights to operate at safe levels.
- 104.24.40 Explain approved area MSA including any restrictions that may apply.

- 104.24.42 Describe procedures associated with departure and diversionary climb instructions and identify relevant phraseologies.
- 104.24.44 Explain oceanic transitions.
- 104.24.46 State the separation instructions issued when applying time separation.
- 104.24.48 Describe the separation and reporting instructions.
- 104.24.50 State the phraseologies for frequency change instructions.
- 104.24.52 State the different internal ATC release instructions issued to departing aircraft, including delivery instructions.
- 104.24.54 Demonstrate examples for the following:
- (a) basic clearance formats; and
  - (b) entering controlled airspace; and
  - (c) leaving controlled airspace.

**104.26 Holding instructions**

- 104.26.2 Describe the reasons for issuing holding instructions, including where an aircraft may be instructed to hold.
- 104.26.4 State the elements of a clearance to hold for the following situations:
- (a) published holding pattern; and
  - (b) two navigation aids same name; and
  - (c) when holding at a DME distance on a VOR radial; and
  - (d) where the significant point is an instrument approach segment identifier; and
  - (e) published significant point on an ATS route or arrival procedure; and
  - (f) other than in an established and published holding pattern; and
  - (g) pilot unfamiliar with pattern.

- 104.26.6 Explain the terms:
- (a) onwards clearance time; and
  - (b) expected approach time.

### **Procedures and Control of Flights**

#### **104.28 IFR procedures**

- 104.28.2 Define the following terms:
- (a) IFR flight; and
  - (b) IMC; and
  - (c) instrument runway; and
  - (d) exact and non-exact reporting points and waypoints; and
  - (e) instrument approach procedure; and
  - (f) visual reference; and
  - (g) visual departure; and
  - (h) visual approach; and
  - (i) visual arrival procedure; and
  - (j) holding patterns, including entry; and
  - (k) missed approach procedure.

104.28.4 Describe the position reporting requirements under UB FIR.

#### **104.30 Arrival procedures**

- 104.30.2 Describe standard instrument arrival procedures (STAR), including exceptions and appropriate phraseologies.
- 104.30.4 Describe the procedures for lateral diversions on a STAR, including appropriate phraseologies.

- 104.30.6 With regard to approach commencement:
- (a) list the format for the approach procedure when the pilot is unfamiliar; and
  - (b) describe when an instrument approach can be issued including provisos; and
  - (c) explain the minimum initial approach altitude.
- 104.30.8 State the elements of an approach clearance.
- 104.30.10 State the requirements for identifying the nominated instrument approach, including appropriate clearance phraseology.
- 104.30.12 State the level restrictions when clearing an aircraft for descent prior to carrying out an instrument approach.
- 104.30.14 Explain circuit integration requirements.
- 104.30.16 Explain requirements for circling approaches.
- 104.30.18 State the requirements for an arriving aircraft to join a DME arc from the inside.
- 104.30.20 State the requirements for an aircraft when tracking via initial approach to intermediate approach hold, including appropriate phraseologies.
- 104.30.22 Explain the procedures for the protection of ILS critical areas, including operations in the case of inadvertent inclusions and agreement on protection of critical areas.
- 104.30.24 Describe the following procedures relating to a visual approach:
- (a) pilot responsibilities; and
  - (b) imposing a level restriction on a visual approach.
- 104.30.26 Describe the requirements that must be met before:
- (a) ATC can nominate a visual approach as the preferred IFR approach; and
  - (b) ATC can issue a visual approach clearance to an arriving IFR flight.
- 104.30.28 Describe the requirements for missed approaches in the following cases:

- (a) protection of the missed approach; and
  - (b) termination of the missed approach; and
  - (c) issuing instruction to amend the missed approach; and
  - (d) timing of the published missed approach procedure.
- 104.30.30 Describe the procedure for an aircraft leaving controlled airspace on an instrument approach, including the appropriate phraseology.
- 104.32. Oceanic flights**
- 104.32.2 Describe the co-ordination procedures for flights planned to operate in UB FIR
- 104.34. Military operations**
- 104.34.2 Describe the co-ordination and flight planning procedures to be followed for military operations.
- 104.34.4 Describe the procedures for military aircraft with respect to level allocation.
- 104.34.6 Describe the procedures to be used by military aircraft on surveillance patrols.
- 104.36. Glider operations**
- 104.36.2 State the airspace where glider operations require a clearance to enter.
- 104.36.4 State the requirements for glider flights in IMC.
- 104.38. Parachute operations and entry of balloons, rockets etc. into controlled airspace**
- 104.38.2 State the airspace or area within which parachute descents may be conducted.
- 104.38.4 State the requirements for parachute descents within controlled airspace.
- 104.38.6 Explain the procedures required for entry of balloons, rockets etc. into controlled airspace.

**Equipment****104.40     ATS equipment**

- 104.40.2     Explain in general terms the automated Flight Data Processing System (FDPS).
- 104.40.4     Explain in general terms the function of each piece of equipment, including information displayed, available on the controller work position (CWP).

**104.42.     ATS collision protection systems**

- 104.42.2     Describe the controller's responsibilities in the event of a Short Term Conflict Alert (STCA).
- 104.42.4     Describe procedures for alert suppression of STCA.
- 104.42.6     Describe the actions and responsibilities of the controller in a Minimum Safe Altitude Warning (MSAW) event.
- 104.42.8     Describe procedures for the alert suppression of MSAW.

**104.44     Airborne collision avoidance system (ACAS)**

- 104.44.2     Describe how ACAS equipment operates.
- 104.44.4     State the actions taken by pilots and controllers in the event of a traffic advisory (TA)

**ACAS incident.**

- 104.44.6     State the actions taken by pilots and controllers in the event of a resolution advisory (RA) ACAS incident.
- 104.44.8     State the procedures for the reporting of an ACAS event.

**104.46     SSR procedures**

- 104.46.2     Explain SSR code management.
- 104.46.4     Describe the procedures for handling non-transponder equipped aircraft in transponder mandatory controlled airspace.

**104.48 Use of surveillance systems in towers**

104.48.2 State the policy for the use of surveillance systems in towers.

**104.50 ATS equipment failure**

104.50.2 Explain how to recognise system degradation or complete failure of ATS equipment, including but not limited to:

- (a) Flight Data Processor (FDP); and
- (b) Radar Data Processor (RDP); and
- (c) navigation aids (NAVAID); and
- (d) voice communication system; and
- (e) main and standby power supply; and
- (f) equipment on controller work position (CWP).

104.50.4 Describe the procedures to be followed in the event of failure or partial failure of ATS equipment including the location of supporting documentation to the Operations Manual.

**Procedural Separation****104.52 General**

104.52.2 Describe the requirements for the provision of separation and methods applied.

104.52.4 Explain the scope for the provision of separation.

104.52.6 Describe the provision of separation to military aircraft.

104.52.8 Define same track, reciprocal tracks, and crossing tracks.

104.52.10 State when separation can be reduced or increased.

104.52.12 Describe the actions to be taken in the event of a loss of separation.

104.52.14 State the elements of essential traffic information.

**104.54 Visual separation**

- 104.54.2 Explain visual separation.
- 104.54.4 Define the terms used in the provision of visual separation.
- 104.54.6 Explain the requirements for the application of visual separation beyond the vicinity of aerodromes, including pilot responsibilities and appropriate phraseologies.
- 104.54.8 List the requirements before clearing an IFR flight to maintain own separation in VMC, including pilot responsibilities.
- 104.54.10 Explain the requirements for the application of visual separation within the vicinity of an aerodrome.
- 104.54.12 Explain the requirements for the application of composite visual separation.
- 104.54.14 Describe pilot responsibilities when ATC is applying visual separation.
- 104.54.16 Describe the information given when requiring a pilot to sight another aircraft for the application of visual separation.

**104.56 Vertical separation**

- 104.56.2 State the vertical separation minima.
- 104.56.4 State the vertical separation minima as it applies to the transition layer.
- 104.56.6 Describe the requirements to be met prior to clearing an aircraft to a level when the aircraft occupying that level reports vacating.
- 104.56.8 State the vertical separation standards and procedures for reduced vertical separation minima (RVSM).
- 104.56.10 Describe the requirements for non-RVSM operations.
- 104.56.12 Describe the ATS monitoring requirements for altitude deviations in RVSM airspace.

**104.58 Lateral separation**

104.58.2 Describe the types of lateral separations.

104.58.4 Describe the procedures and application of lateral separations, including:

- (a) provisos for their use; and
- (b) definitions of lateral separation terms; and
- (c) how lateral separation points are depicted; and
- (d) use of GNSS.

- (a) methods of application; and

- (b) restrictions on use.

104.58.6 Explain the use of the lateral separation table.

104.58.8 Describe geographical separation, including:

104.58.10 Explain track separation.

**104.60 Longitudinal separation**

104.60.2 State the longitudinal separation standards and procedures based on time.

104.60.4 Describe the methods of establishing longitudinal separation based on time.

104.60.6 State the longitudinal separation standards and procedures based on distance.

104.60.8 Describe the methods of establishing longitudinal separation based on distance.

**104.62 Arrival and departure separations**

104.62.2 State the departure separations available for successive IFR departures where tracks diverge by 30 degrees or more.

104.62.4 State the different separations available for separating departing aircraft from arriving aircraft.

- 104.62.6 State the rules and procedures for separating successive IFR arrivals.
- 104.62.8 Explain the requirements that must be met before a second aircraft can be cleared for an instrument approach.
- 104.62.10 State the requirements for lateral separation from a DME or VOR arc.
- 104.62.12 Describe the protection of the missed approach procedure including criteria and restrictions.

**104.64 Separation from aircraft in holding patterns**

- 104.64.2 State the requirements for applying lateral separation from a holding pattern, including exceptions.
- 104.64.4 State the separation and requirements for aircraft leaving navigation aid against aircraft holding over the navigation aid.
- 104.64.6 State the separation and requirements for aircraft approaching navigation aid against aircraft holding over the navigation aid.

**104.66 Wake turbulence separation**

- 104.66.2 State the time based wake turbulence separations.
- 104.66.4 State the vertical wake turbulence separations requirements.

**104.68 Separation from special use airspace (SUA), general aviation areas (GAA), parachute operations, fuel dumping and aerobatics.**

- 104.68.2 State the vertical and horizontal separations from SUA and GAA, including exceptions.
- 104.68.4 State the separation levels above SUA/GAA/aerobatics for aircraft above 4500 m (13,000ft) when the zone area QNH is:
- (a) above 1013 hPa; and
  - (b) 1013 and below but above 980 hPa; and
  - (c) 980 hPa or below.

- 104.68.6 State the separation requirements from parachute operations.
- 104.68.8 State the separation requirements from aircraft fuel dumping.
- 104.68.10 State the separation requirements from aerobatics in controlled airspace.

**Sub Topic Syllabus Item**

**Local Knowledge**

**104.70 Geography and airspace**

- 104.70.2 Describe the geography and general weather of the approach control sector environment, including:
- (a) topography and local weather patterns; and
  - (b) locations of airfields and directions of runways; and
  - (c) rivers, towns and prominent features.
- 104.70.4 Define the area of responsibility for the approach control sector.
- 104.70.6 For the approach control sector and adjacent area and aerodrome control sectors derive, from appropriate maps and charts, the following:
- (a) controlled airspace and airspace classification; and
  - (b) general aviation areas and special use airspace; and
  - (c) holding patterns, reporting points and navigation aids; and
  - (d) surveillance (radar) sites and performance; and
  - (e) frequencies, including aerial locations.
- 104.70.8 Derive, from appropriate maps and charts, information on the following:
- (a) instrument approaches; and
  - (b) instrument departures; and
  - (c) VFR arrival procedures; and

- (d) VFR departure procedures.

**104.72 Sector procedures**

104.72.2 Explain the sector's traffic management procedures for IFR aircraft, including:

- (a) route structure, including SIDs, STARs, and SRCs; and
- (b) inbound/outbound traffic flow; and
- (c) holding requirements; and
- (d) descents, including minimum descents and terrain clearance; and
- (e) runway change procedures.

104.72.4 Describe VFR procedures including control zone sector and relevant geographic separations.

104.72.6 Describe the sector and position specific responsibilities including the operation of positions within the sector.

104.72.8 Describe the requirements for an adequate pre-duty briefing.

104.72.10 Describe the procedures for opening or taking over a watch.

104.72.12 Describe the procedures for closing or handing over watch, including any sector specific handover techniques.

104.72.14 Describe the sector's equipment check requirements and use of ATS position log strip.

104.72.16 Describe the adjacent sectors and towers off watch procedures.

104.72.18 Explain the sectors use of flight progress strips/systems including strip marking.

104.72.20 Describe the flight progress board display of meteorological and NOTAM information on position.

104.72.22 Describe the recommended techniques used for scanning the controller work position.

**104.74 Aircraft performance**

104.74.2 Describe the performance characteristics of common aircraft operating within the approach sector, including:

- (a) rates of climb/descent and maximum/minimum speeds; and
- (b) deterioration/variation of weather effecting aircraft operations and separations; and
- (c) IFR training.

**104.76 Co-ordination**

104.76.2 Describe the sector co-ordination requirements with adjacent:

- (a) approach sectors; and
- (b) area sectors; and
- (c) FIS areas; and
- (d) aerodrome control.

**104.78 Administration**

104.78.2 Explain the procedures for:

- (a) determining hours of service; and
- (b) promulgating hours of service; and
- (c) extension to hours of service.

104.78.4 Describe the overall requirements for staffing at ATS operating positions.

104.78.6 Describe the Personnel Licensing requirements for the approach control procedural rating including the training plan objectives.

104.78.8 Explain the feedback/ assessment mechanisms available for a trainee within the training plan for the approach control procedural rating.

- 104.78.10 Describe the medical fitness requirements for exercising an approach control procedural rating.
- 104.78.12 Describe the recent experience requirements for exercising an approach control procedural rating.
- 104.78.14 Describe the ATS personal log book keeping requirements.

**104.80 Emergencies**

- 104.80.2 Explain actions taken by controllers in the event evacuation from work place is required, including traffic recovery.
- 104.80.4 State where you would locate documentation for handling unusual/emergency situations, such as bomb threat and evacuation.
- 104.80.6 State where you would locate information on procedures and initial actions for handling aviation accidents and incidents.