

**Working Draft based on Amendment No. Amendment 211 (June 2006)
with the following approved amendment incorporated but not yet published**

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NAT REGIONAL SUPPLEMENTARY PROCEDURES

PART I — RULES OF THE AIR, AIR TRAFFIC SERVICES AND SEARCH AND RESCUE

These procedures are supplementary to the provisions contained in Annex 2, Annex 3, Annex 6 — Parts I and II, Annex 10, Annex 11, PANS-ATM (Doc 4444) and PANS-OPS (Doc 8168).

They do not apply in the local areas established by the appropriate authorities around Bermuda, Iceland, the Faroe Islands and Santa Maria, and in Greenland.

1.0 FLIGHT RULES

1.1 Instrument flight rules (IFR) (A2 – 2.2 and Chapter 5)

Note.— Annex 2, 2.2, permits a choice for a flight to comply with either the instrument flight rules or the visual flight rules when operated in visual meteorological conditions subject to certain limitations in Chapter 4 of the Annex. The following indicates certain further restrictions to that choice.

1.1.1 *Special application of instrument flight rules*

1.1.1.1 Flights shall be conducted in accordance with the instrument flight rules when operated at or above FL 60 or 600 m (2 000 ft) above ground, whichever is the higher, within:

- a) the New York Oceanic, Gander Oceanic, Shanwick Oceanic, Santa Maria Oceanic, Søndrestrøm and Reykjavik flight information regions; and
- b) the Bodø Oceanic flight information region when operated more than 185 km (100 NM) seaward from the shoreline.

2.0 REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

2.1 Means of compliance (A2 – 5.1.1 and Appendix 3; A6, Part I – 4.2, 7.2 and Chapter 3, Note 1; A6, Part II – 7.2 and Chapter 3, Note 1; A8, Part III – 8.1, A11 – 2.26)

2.1.1 Operators intending to conduct flights within the NAT Region where RVSM is applied shall require an RVSM approval either from the State of Registry or the State of the Operator. The State of Registry or the State of the Operator, as appropriate, should verify that the height-keeping performance capability of approved aircraft meets the requirements specified in Annex 6, Parts I and II.

Note.— Guidance material of use to those involved in the initial achievement and continued maintenance of the height-keeping performance has been issued by ICAO under the title Guidance Material on the Implementation of a 300 m (1 000 ft) Vertical Separation Minimum (VSM) in the MNPS Airspace of the North Atlantic (NAT) Region and will be supplemented and updated as required and as new material becomes available.

2.1.2 Adequate monitoring of flight operations in the NAT Region shall be conducted in order to assist in the assessment of continuing compliance of aircraft with height-keeping requirements.

3.0 MINIMUM NAVIGATION PERFORMANCE SPECIFICATIONS (MNPS)

3.1 Means of compliance

(A2 – 5.1.1; A6, Part I – 4.2, 7.2 and Chapter 3, Note 1; A6, Part II – 7.2 and Chapter 3, Note 1; A8 – 8.1)

3.1.1 For flights within the volume of airspace specified in 3.2.1 aircraft shall have lateral navigation performance capability such that:

- a) the standard deviation of lateral track errors shall be less than 11.7 km (6.3 NM);
- b) the proportion of the total flight time spent by aircraft 56 km (30 NM) or more off the cleared track shall be less than 5.3×10^{-4} ; and
- c) the proportion of the total flight time spent by aircraft between 93 and 130 km (50 and 70 NM) off the cleared track shall be less than 1.3×10^{-5} .

The State of Registry or the State of the Operator, as appropriate, should verify that the lateral navigation capability of approved aircraft meets the requirements specified in 3.1.1.

Note.— Guidance material of use to those involved in the initial achievement and continued maintenance of the navigation capability set forth in 3.1.1 has been issued by ICAO under the title Guidance Material related to Air Navigation in the NAT Region and will be supplemented and updated as required and as new material becomes available.

3.2 Area of applicability

3.2.1 The MNPS shall be applicable in that volume of airspace between FL 285 and FL 420 within the Oceanic Control Areas of Santa Maria, Shanwick, Reykjavik, Gander Oceanic and New York, excluding the area west of 60°W and south of 38°30'N.

Note.— This volume of airspace is referred to as the “MNPS airspace”.

3.2.2 Aircraft not meeting the requirements of 3.1.1 shall not be allowed to operate in MNPS airspace.

3.2.3 When granting approval for operations in MNPS airspace, States of Registry shall ensure that in-flight operating drills include mandatory navigation cross-checking procedures which will identify navigation errors in sufficient time to prevent the aircraft inadvertently deviating from the ATC-cleared route. Guidance on procedures are detailed in NAT Doc 001, T13/5N and NAT MNPS Operations Manual.

3.2.4 Adequate monitoring of flight operations in the NAT Region shall be conducted in order to assist in the assessment of continuing compliance of aircraft with the lateral navigation capabilities specified in 3.1.1.

Note.— Monitoring will be conducted in accordance with the appropriate guidance material issued by ICAO.

3.2.5 An operator who experiences reduced navigation performance shall inform air traffic control (ATC) as soon as practicable.

4.0 FLIGHT PLANS

4.1 Contents of flight plans

(A2 – 3.3; P-ATM, 4.4.1 and Appendix 2)

4.1.1 Route

4.1.1.1 Flights conducted wholly or partly outside the organized tracks shall be planned along great circle tracks joining successive significant points and flight plans shall be made in accordance with the following.

4.1.1.1.1 Flights operating between North America and Europe shall generally be considered as operating in a predominantly east-west direction. However, flights planned between these two continents via the North Pole shall be considered as operating in a predominantly north-south direction.

4.1.1.1.2 *Flights operating predominantly in an east-west direction*

- a) For flights operating south of 70°N, the planned tracks shall normally be defined by significant points formed by the intersection of half or whole degrees of latitude with meridians spaced at intervals of 10° from the Greenwich meridian to longitude 70°W.
- b) For flights operating north of 70°N, the planned tracks shall normally be defined by significant points formed by the intersection of parallels of latitude expressed in degrees and minutes with meridians normally spaced at intervals of 20° from the Greenwich meridian to longitude 60°W.
- c) The distance between significant points shall, as far as possible, not exceed one hour's flight time. Additional significant points should be established when deemed necessary due to aircraft speed or the angle at which the meridians are crossed, e.g.:
 - 1) at intervals of 10° of longitude (between 5°W and 65°W) for flights operating south of 70°N; and
 - 2) at intervals of 20° of longitude (between 10°W and 50°W) for flights operating north of 70°N.
- d) However, when the flight time between successive significant points is less than 30 minutes, one of these points may be omitted.

4.1.1.1.3 *Flights operating predominantly in a north-south direction*

For flights whose flight paths are predominantly oriented in a north-south direction, the planned tracks shall normally be defined by significant points formed by the intersection of whole degrees of longitude with specified parallels of latitude which are spaced at 5°.

4.1.1.2 For flights conducted along one of the organized tracks from the entry point into the NAT flight information regions to the exit point, the organized track shall be defined in the flight plan by the abbreviation "NAT" followed by the code letter assigned to the track.

4.1.1.3 For flights operating along the fixed ATS route network between Canada, the United States, Bermuda and the CAR Region, the track shall be defined by appropriate reference to this route network.

4.1.2 Estimated times

4.1.2.1 For flights conducted along one of the organized tracks from the entry point into the NAT flight information regions to the exit point, the accumulated estimated elapsed time only to the first oceanic FIR boundary should be specified in Item 18 of the flight plan.

4.1.2.2 For flights conducted wholly or partly outside the organized tracks in the NAT Region, accumulated estimated elapsed times to significant points en route shall be specified in Item 18 of the flight plan.

4.1.3 *Mach number*

4.1.3.1 For turbo-jet aircraft intending to operate within the Bodø Oceanic, Gander Oceanic, New York Oceanic, Reykjavik, Santa Maria Oceanic and Shanwick Oceanic control areas, the true Mach number planned to be used for any portion of their flight within these control areas shall be specified in Item 15 of the flight plan.

4.1.4 *Alternative flight level*

4.1.4.1 For turbo-jet aircraft intending to operate within the Gander Oceanic, New York Oceanic, Reykjavik, Santa Maria Oceanic and Shanwick Oceanic control areas, requests for a suitable alternative flight level may be included in Item 18 of the flight plan.

4.1.5 *Approval status and aircraft registration*

4.1.5.1 All RVSM-approved aircraft intending to operate in the NAT Region shall include the letter “W” in Field 10 of the flight plan. Furthermore, all RVSM-approved aircraft intending to operate in the NAT Region shall include the aircraft registration in Item 18 of the flight plan.

4.1.5.2 All MNPS-approved aircraft intending to operate in the NAT Region shall include the letter “X” in Field 10 of the flight plan.

4.2 Submission of flight plans (A2 – 3.3.1; P-ATM, 4.2.2)

4.2.1 Flight plans for flights departing from points within adjacent regions and entering the NAT Region without intermediate stops shall be submitted as early as possible.

5.0 AIR-GROUND COMMUNICATIONS AND IN-FLIGHT REPORTING

5.1 Time or place of position reports (A2 – 3.6.3, 3.6.5, 5.3.3; P-ATM, 4.11)

5.1.1 Unless otherwise required by air traffic services, position reports for flights on routes not defined by designated reporting points shall be made at the significant points listed in the flight plan.

5.1.1.1 Air traffic services may require any flight operating predominantly in an east-west direction to report its position at any of the intermediate meridians spaced at intervals of:

- a) 10° of longitude south of 70°N (between 5°W and 65°W);
- b) 20° of longitude north of 70°N (between 10°W and 50°W).

5.1.1.2 In requiring aircraft to report their position at intermediate intervals, the air traffic services authorities will be guided by the requirement to have position information at approximately hourly intervals and also by the need to cater for varying types of aircraft and for varying traffic and meteorological conditions.

5.2 Contents of position reports (P-ATM, 4.11 and 4.12)

5.2.1 *Position and time*

5.2.1.1 Verbal position reports shall be identified by the spoken word “Position” transmitted immediately before or after the

aircraft identification.

5.2.1.2 For flights outside the ATS route network, the position shall be expressed in terms of latitude and longitude as follows:

- a) for flights operating in a predominantly east-west direction:
 - 1) latitude in degrees and minutes; and
 - 2) longitude in degrees only.
- b) for flights operating in a predominantly north-south direction:
 - 1) latitude in degrees only; and
 - 2) longitude in degrees and minutes.

5.2.1.3 When making position reports all times should be expressed in four digits, giving both the hour and minutes.

5.2.2 Time over *next position*

5.2.2.1 If the estimated time for the next position last reported to air traffic control is found to be in error by three minutes or more, a revised estimate shall be transmitted to the ATS unit concerned as soon as possible.

5.2.3 Level

5.2.3.1 Aircraft cleared for cruise climb shall report their level to the nearest 30 m (100 ft).

Note.— Levels so reported, e.g. 354, may not necessarily be flight levels as defined in the PANS-OPS, Part III.

5.3 Transmission of position reports (P-ATM, 4.11)

5.3.1 Position reports made by aircraft operating within an oceanic control area at a distance of 110 km (60 NM) or less from the common boundary with an adjacent oceanic control area, including aircraft operating on tracks through successive points on such boundary, shall also be made to the area control centre serving the adjacent control area.

5.3.2 Responsibility for the transmission of position reports to the additional ATS units specified in 5.3.1 may be delegated to the appropriate communications station(s) through local arrangement.

5.4 Meteorological reports

5.4.1 When voice communications are used, oceanic area control centres shall designate, from among the aircraft intending to operate on the organized tracks, those which shall be required to report routine meteorological observations at each prescribed reporting point. This designation shall be made by the oceanic area control centre delivering the oceanic clearance, using the phrase “SEND MET REPORTS”, and should normally be made so as to designate one aircraft per track at approximately hourly intervals.

Note.— When air-ground data link is being used for meteorological reporting during flight, no aircraft observations by voice communications are required, in accordance with Annex 3, 5.3.1.

6.0 RADIO COMMUNICATIONS FAILURE PROCEDURES

(A2-3.6.5.2; P-ATM – 15.3;
P-OPS, Vol. I, Part VIII)

6.1 The following procedures are intended to provide general guidance for aircraft operating into or from the NAT Region experiencing a communications failure. These procedures are intended to complement and not supersede Annex 2, PANS-ATM and State procedures/regulations. It is not possible to provide guidance for all situations associated with a communications failure.

6.2 General

6.2.1 The pilot shall attempt to contact either another aircraft or any ATC facility and inform it of the difficulty and request that information be relayed to the ATC facility with whom communications are intended.

6.3 Communications failure prior to entering NAT Region

6.3.1 If operating **with** a received and acknowledged oceanic clearance, the pilot shall enter oceanic airspace at the cleared oceanic entry point, level and speed and proceed in accordance with the received and acknowledged oceanic clearance. Any level or speed changes required to comply with the oceanic clearance shall be completed within the vicinity of the oceanic entry point.

6.3.2 If operating **without** a received and acknowledged oceanic clearance, the pilot shall enter oceanic airspace at the first oceanic entry point, level and speed, as contained in the filed flight plan and proceed via the filed flight plan route to landfall. That first oceanic level and speed shall be maintained to landfall.

6.4 Communications failure prior to exiting NAT Region**6.4.1 Cleared on filed flight plan route**

6.4.1.1 The pilot shall proceed in accordance with the last received and acknowledged oceanic clearance, including level and speed, to the last specified oceanic route point, normally landfall, then continue on the filed flight plan route. The pilot shall maintain the last assigned oceanic level and speed to landfall and, after passing the last specified oceanic route point, the pilot shall conform with the relevant State procedures/regulations.

6.4.2 Cleared on other than filed flight plan route

6.4.2.1 The pilot shall proceed in accordance with the last received and acknowledged oceanic clearance, including level and speed, to the last specified oceanic route point, normally landfall. After passing this point, the pilot shall conform with the relevant State procedures/regulations and rejoin the filed flight plan route by proceeding, via the published ATS route structure where possible, to the next significant point ahead as contained in the filed flight plan.

Note.— The relevant State procedures/regulations to be followed by aircraft in order to rejoin its filed flight plan route are specified in detail in the appropriate national Aeronautical Information Publication.

6.5 The use of satellite voice communications (SATCOM)

6.5.1 Within the NAT Region, aircraft equipped for SATCOM voice shall restrict the use of such equipment to emergencies and non-routine situations occurring. Unforeseen inability to communicate by voice radio constitutes a non-routine situation. Since oceanic traffic typically communicates through aeradio facilities, a SATCOM call made due to unforeseen inability to communicate by other means should be made to such a facility rather than the ATC centre unless the urgency of the communication dictates otherwise. Dedicated SATCOM telephone numbers (short codes) for aeradio facilities and air traffic control facilities are published in national AIPs.

6.6 Procedures to follow when unable to obtain an Oceanic clearance using HF communications (P-ATM, 15.5.1.1)

6.6.1 Aircraft operating outside VHF coverage that are unable to contact ATC on HF to obtain an Oceanic clearance shall continue to operate at the last assigned flight level and along the cleared route of flight until communications are re-established.

Note.- Failure of HF communications often stems from poor signal propagation, frequently because of sun spot activity, and is likely to simultaneously affect multiple aircraft operating in a particular region. Air Traffic Management systems dependent on HF are designed around the assumption that communication may be temporarily interrupted and that aircraft affected will continue to operate in accordance with the last received and acknowledged clearance, until communication is restored.

7.0 AIR TRAFFIC CONTROL CLEARANCES

7.1 Contents of clearances (A11 – 3.7; P-ATM, 4.5.4, 4.5.7 and 11.4.2.5.2)

7.1.1 An abbreviated clearance shall only be issued by ATS when clearing an aircraft to follow one of the organized tracks throughout its flight within the NAT control areas, or when clearing an aircraft to follow its flight plan route. In all other circumstances, full details of the cleared track shall be specified in the clearance message.

7.1.1.1 When an abbreviated clearance is issued to follow one of the organized tracks it shall include:

- a) cleared track specified by the track code;
- b) cleared flight level(s);
- c) cleared true Mach number (if required);
- d) if the aircraft is designated to report meteorological information in flight, the phrase “SEND MET REPORTS”.

7.1.1.2 On receipt of an abbreviated clearance the pilot shall read back the contents of the clearance message. In addition, when cleared to follow one of the organized tracks, the pilot shall read back full details of the track specified by the code letter, except where alternative procedures using VHF techniques exist which include provision for the confirmation of cleared track by the pilot.

7.1.2 When an abbreviated clearance is issued to follow the flight plan route, it shall only be issued using direct controller/pilot communication, and shall include:

- a) the expression “cleared via flight planned route”;
- b) cleared flight level(s);
- c) cleared true Mach number (if required).

7.1.3 On receipt of an abbreviated clearance, the pilot shall read back the contents of the clearance message. In addition, when cleared via “flight planned route”, the pilot shall read back full details of the flight plan route.

7.1.4 A pilot-in-command shall, if at any time in doubt, request a detailed description of the route from ATS.

7.1.5 The ATC-approved Mach number shall be included in each clearance given to turbo-jet aircraft operating within Bodø Oceanic, Gander Oceanic, New York Oceanic, Reykjavik, Santa Maria Oceanic and Shanwick Oceanic control areas.

7.2 Adherence to ATC-approved route (A2 – 3.6.2)

7.2.1 If an aircraft has inadvertently deviated from the route specified in its ATC clearance it shall forthwith take action to regain such route within 185 km (100 NM) from the position at which the deviation was observed.

8.0 SEPARATION OF AIRCRAFT**8.1 Lateral separation**

(A11-Attachment B, P-ATM, 5.4.1 and 5.11)

8.1.1 Minimum lateral separation shall be:

- a) 110 km (60 NM) between aircraft which meet the minimum navigation performance specifications (MNPS) provided that a portion of the route of the aircraft is within, above, or below MNPS airspace;
- b) 167 km (90 NM) between aircraft operating outside the MNPS airspace and at least one aircraft does not meet the MNPS;
 - 1) between the Iberian Peninsula and the Azores Islands; and
 - 2) between Iceland and points in Scandinavia and in the United Kingdom;
- c) 167 km (90 NM) between aircraft operating outside MNPS airspace where no portion of the route of the aircraft is within, above, or below the MNPS airspace:
 - 1) between the United States/Canada and Bermuda; and
 - 2) west of 55°W between the United States, Canada or Bermuda and points in the CAR Region;
- d) 223 km (120 NM) between other aircraft;

except that lower minima in 5.4.1.2 of the PANS-ATM (Doc 4444) may be applied, or further reduced in accordance with 5.11, where the conditions specified in the relevant PANS-ATM provisions are met (see 8.4).

8.1.2 In the practical application of the minima in 8.1.1 a), b), and c), tracks may be spaced with reference to their difference in latitude, using one degree instead of 110 km (60 NM); one and one-half degrees instead of 167 km (90 NM); and two degrees instead of 223 km (120 NM), provided that in any interval of ten degrees of longitude the change in latitude of at least one of the tracks does not exceed:

- a) three degrees at or south of 58°N;
- b) two degrees north of 58°N and south of 70°N; and
- c) one degree at or north of 70°N and south of 80°N.

At or north of 80°N, or where the above rates of change of latitude are exceeded, the required lateral separation must be ensured by reference to the track spacing expressed in nautical miles.

8.2 Longitudinal separation

(P-ATM, 5.4.2 and 5.11)

8.2.1 Minimum longitudinal separation between turbo-jet aircraft shall be:

- a) 15 minutes; or
- b) 10 minutes, provided the Mach number technique is applied whether in level, climbing or descending flight; and the aircraft concerned have reported over a common point to follow continuously diverging tracks until some other form of separation is provided; and
 - 1) at least 10 minutes longitudinal separation exists at the point where the tracks diverge; and
 - 2) at least 5 minutes longitudinal separation will exist where lateral separation is achieved; and
 - 3) lateral separation will be achieved at or before the next significant point (normally ten degrees of longitude along track(s)) or, if not, within 90 minutes of the time the second aircraft passes the common point or within 1 112 km (600 NM) of the common point, whichever is estimated to occur first.

Note.— The minima contained in 8.2.1 b) are in addition to those found in the PANS-ATM (Doc 4444), 5.4.2.4, Longitudinal separation minima with Mach number technique based on time.

8.2.2 Minimum longitudinal separation between non-turbo-jet aircraft shall be:

- a) 30 minutes; and
- b) 20 minutes in the West Atlantic Route System (WATRS) area.

Note.— The WATRS area is defined beginning at a point 2700N 7700W direct to 2000N 6700W direct to 1800N 6200W direct to 1800N 6000W direct to 3830N 6000W direct to 3830N 6915W, thence counterclockwise along the New York Oceanic control area/flight information region boundary to the Miami Oceanic control area/flight information region boundary, thence southbound along the Miami Oceanic control area/flight information region boundary to the point of beginning.

8.3 Vertical separation

8.3.1 Between FL 290 and FL 410 inclusive, 300 m (1 000 ft) vertical separation can be applied in the NAT Region.

8.3.2 At or above FL 450, vertical separation between supersonic aircraft, and between supersonic aircraft and any other aircraft, shall be considered to exist if the flight levels of the two aircraft differ by at least 1 200 m (4 000 ft).

8.4 Information on application of separation minima

(A11 – 3.4; P-ATM, 5.4.1, 5.4.2 and 5.11)

8.4.1 Where, circumstances permitting, separation minima lower than those specified in 8.1 and 8.2 will be applied in accordance with the PANS-ATM, appropriate information should be published in Aeronautical Information Publications so that users of the airspace are fully aware of the portions of airspace where the reduced separation minima will be applied and of the navigation aids on the use of which those minima are based.

8.5 Horizontal separation minima relating to airspace reservations

8.5.1 *Separation minima between moving temporary reservations*

8.5.1.1 Lateral separation shall be:

- a) 110 km (60 NM) between the closest tracks of any aircraft for which the airspace is reserved, provided all aircraft or formation flights meet the MNPS; or
- b) 223 km (120 NM) between the closest tracks of any aircraft for which the airspace is reserved, except that in the New York OCA west of 60°W, 167 km (90 NM) may be applied.

Note.— A formation flight with at least one of the aircraft in the formation meeting MNPS is deemed to meet the requirement for the application of 110 km (60 NM) in a).

8.5.1.2 Longitudinal separation shall be 60 minutes.

8.5.2 *Separation minima between stationary temporary airspace reservations*

8.5.2.1 Lateral separation shall be:

- a) 110 km (60 NM) between the boundaries of stationary temporary airspace reservations, provided the requesting agencies have guaranteed to confine their activities to the requested airspace, except that in the New York OCA west of 60°W, 84 km (45 NM)

may be applied; or

- b) 223 km (120 NM) between the boundaries of the airspace reservations, if no guarantees have been given, except that in the New York OCA west of 60°W, 167 km (90 NM) may be applied.

8.5.3 *Separation minima between moving temporary airspace reservations and other aircraft*

8.5.3.1 Lateral separation shall be:

- a) 110 km (60 NM) between the track of an aircraft operating under the control of the ATC unit concerned and the closest track of any of the aircraft for which the airspace is reserved, provided all aircraft meet the MNPS requirements and a portion of the route of the aircraft is within, above or below MNPS airspace; or
- b) 110 km (60 NM) between the track of an aircraft operating under the control of the ATC unit concerned and the track of a formation flight for which the airspace has been reserved, provided at least one aircraft in the formation **and** the aircraft operating under the control of the ATC unit meet the MNPS requirements and a portion of the route of the aircraft is within, above or below MNPS airspace; or
- c) 223 km (120 NM) between the track of an aircraft operating under the control of the ATC unit concerned and the closest track of any of the aircraft for which the airspace is reserved, except that in the New York OCA west of 60°W, 167 km (90 NM) may be applied.

8.5.4 *Separation minima between stationary temporary airspace reservations and other aircraft*

8.5.4.1 Lateral separation shall be:

- a) 56 km (30 NM) between the track of an aircraft operating under the control of the ATC unit concerned or as part of a moving airspace reservation and the nearest limit of the reserved airspace, provided the aircraft meets the MNPS requirements and a portion of the route of the aircraft is within, above or below MNPS airspace **and** the requesting agency has guaranteed to confine its activities to the requested airspace; or
- b) 110 km (60 NM) between the track of an aircraft operating under the control of the ATC unit concerned or as part of a moving airspace reservation and the nearest limit of the reserved airspace, provided the aircraft meets the MNPS requirements and a portion of the route of the aircraft is within, above or below MNPS airspace **and** the requesting agency has **not** guaranteed to confine its activities to the requested airspace; or
- c) 110 km (60 NM) between the track of an aircraft operating under the control of the ATC unit concerned or as part of a moving airspace reservation and the nearest limit of the reserved airspace, when the aircraft does **not** meet the MNPS requirements **and** the requesting agency has guaranteed to confine its activities to the requested airspace, except that in the New York OCA west of 60°W, 84 km (45 NM) may be applied; or
- d) 223 km (120 NM) between the track of an aircraft operating under the control of the ATC unit concerned or as part of a moving airspace reservation and the nearest limit of the reserved airspace, when the aircraft does **not** meet the MNPS requirements and the requesting agency has **not** guaranteed to confine its activities to the requested airspace, except that in the New York OCA west of 60°W, 167 km (90 NM) may be applied.

<p>9.0 USE OF SECONDARY SURVEILLANCE RADAR (SSR) (P-ATM, Chapter 8; P-OPS, Vol. I, Part VIII)</p>
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9.1 Carriage and operation of pressure-altitude reporting SSR transponders

9.1.1 All aircraft operating as IFR flights in the NAT Region shall be equipped with a pressure-altitude reporting SSR transponder.

9.2 Operation of transpondeurs

9.2.1 Unless otherwise directed by ATC, pilots of aircraft equipped with SSR flying in NAT flight information regions shall retain the last assigned identity (Mode A) code for a period of 30 minutes after entry into NAT airspace.

10.0 PROCEDURES APPLICABLE IN DESIGNATED AIRSPACES

10.1 Establishment and use of organized track system (OTS)

10.1.1 When necessary in order to permit the optimum use of the airspace, the area control centres serving Gander Oceanic, New York Oceanic, Santa Maria Oceanic and Shanwick Oceanic control areas may, subject to coordination with each other and, when appropriate, with Reykjavik area control centre, establish an organized track system. The following procedures shall then be applied.

10.1.1.1 Operators conducting scheduled or non-scheduled flight operations at or above FL 280 within Gander Oceanic, New York Oceanic, Shanwick Oceanic and Santa Maria (north of 30°N) Oceanic control areas shall provide information to the area control centres concerned regarding the tracks likely to be requested by turbo-jet aircraft during peak traffic periods. Such information shall be provided as far in advance of the anticipated peak periods as practicable and as specified in appropriate aeronautical information publications.

10.1.1.2 Based on the above information, an organized track system may be established. The location of the organized tracks will depend on traffic demand and other relevant factors. The related organized track messages will be disseminated to operators by Shanwick Oceanic area control centre for the predominant westbound flow of air traffic and by Gander Oceanic area control centre for the predominant eastbound flow of air traffic. These messages shall be disseminated at least three hours in advance of each anticipated peak traffic period. Any subsequent change made to the track system shall be notified to the operators as soon as possible.

10.2 Mandatory carriage of OTS message

10.2.1 All aircraft operating in or above MNPS airspace shall carry a copy of the current OTS message.

10.3 Procedures for flights along the northern or southern boundaries of Gander Oceanic and Shanwick Oceanic flight information regions

10.3.1 Aircraft operating along tracks through successive points situated on the northern or southern boundaries of Gander Oceanic and Shanwick Oceanic flight information regions shall be provided with air traffic services by Gander or Shanwick area control centre as appropriate.

10.4 Procedures for manned balloon flights

10.4.1 Manned balloon flights authorized to operate in the NAT Region shall operate outside NAT minimum navigation performance specification (MNPS) airspace.

10.4.2 Within the NAT Region, manned balloons shall have a communications capability in accordance with Annex 2.

11.0 FLIGHT INFORMATION SERVICE**11.1 Transmission of SIGMET information**

(P-ATM, 9.1.3.2)

11.1.1 SIGMET information shall be transmitted to aircraft by VOLMET broadcast, by a general call to a group of aircraft, or by directed transmission to individual aircraft, as determined by the appropriate area control centre according to the circumstances, bearing in mind the need to ensure timely receipt of the information by the aircraft and to keep the load on the HF en-route communications channels to a minimum.

11.1.2 SIGMET information passed to aircraft shall cover a portion of the route up to two hours' flying time ahead of the aircraft.

11.2 Transmission of amended aerodrome forecast

(P-ATM, 9.1.3.5)

11.2.1 Amended aerodrome forecasts shall be passed to aircraft within 60 minutes from the aerodrome of destination, unless the information would have been made available through other means.

12.0 AIR TRAFFIC SERVICES MESSAGES**12.1 Flight plan and departure messages**

(P-ATM, 11.3.3 and 11.4.2.2)

12.1.1 Filed flight plan messages for flights intending to operate within the NAT Region at a distance of 110 km (60 NM) or less from the northern and southern boundaries of Gander Oceanic and Shanwick Oceanic flight information regions, shall be addressed to the area control centres in charge of the NAT flight information regions along the route and, in addition, to the area control centres in charge of the nearest adjacent NAT flight information regions.

12.1.2 For flights departing from points within adjacent regions and entering the NAT Region without intermediate stops, filed flight plan messages shall be transmitted to the appropriate area control centres immediately after the flight plan has been submitted.

**13.0 AIRBORNE COLLISION
AVOIDANCE SYSTEMS (ACAS II)**
(A2 – 3.2; A6, Part I – 6.18; A10 – Vol. IV;
A11 – 2.4.2; P-OPS, Vol. I, Part VIII; P-ATM,
Chapters 4 and 10)**13.1 Carriage and operation of ACAS II**

13.1.1 ACAS II shall be carried and operated in the NAT Region by all turbine-engined aeroplanes having a maximum certificated take-off mass exceeding 5 700 kg or authorized to carry more than 19 passengers.

**Working Draft based on Amendment No. 211 (June 2006)
with the following approved amendment incorporated but not yet published**

P. f. Amdt. Serial No.	Originator	Brief Description	Date Approved	Date Entered
	ICAO	Consequential amendment	10/11/06	30/11/06
S05/09	Iceland	Part 1 – Radio Communications Failure Procedures (§ 6.0)	07/03/07	15/03/07

NAT REGIONAL SUPPLEMENTARY PROCEDURES

PART 2 — COMMUNICATIONS

1.0 COMMUNICATION REQUIREMENTS FOR INTERNATIONAL GENERAL AVIATION
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1.1 Communication requirements for international general aviation
(A6, Part II – 6.3, 6.4)

1.1.1 International general aviation shall be equipped with functioning two-way radio communications equipment except that, under special local circumstances, the appropriate authorities may grant exemption from this requirement.

2.0 AERONAUTICAL MOBILE SERVICE
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2.1 Radiotelephony network operation
(A10, Vol. II – 5.2.2.3)

2.1.1 Procedures for the distribution of the NAT HF aeromobile message traffic of the users on the NAT routes between the various NAT HF families.

Note.— In the following table, under “route flown”, the letters “A”, “B”, “C”, “D” and “E” refer to NAT frequency families A, B, C, D and E.

<i>Designated for</i>	<i>Southern</i>	<i>Central</i>	<i>Northern</i>
Aircraft registered in the hemisphere W of 30°W	A	B	B
Aircraft registered in the hemisphere E of 30°W	A	C	C
Aircraft flying northern routes outside OTS tracks			D#
Aircraft flying southern routes	R		
<p>*Southern routes are those which enter the New York Oceanic or Santa Maria Oceanic flight information regions. The central and northern routes comprise all the others.</p> <p>#Use of the NATD radiotelephony network frequencies is extended to the Arctic area of the Anchorage flight information region, via Cambridge Bay Radio.</p> <p><i>Note. Aircraft registered in Australia will use Families designated for aircraft registered East of 30°W.</i></p>			

In the event of overloading of a Family actually occurring, or being anticipated, aircraft of one or more operators may be off-loaded from that Family to another appropriate Family, for the expected duration of the condition. The off-loading may be requested by any station, but Shannon and Gander will be responsible for taking a decision after co-ordination with all the NAT stations concerned.

2.2 SELCAL operation in the NAT region

2.1.1 While operating in an HF air-ground communications environment pilots shall maintain a listening watch on the assigned radio frequency. This will not be necessary, however, if a SELCAL watch is maintained and correct operation is ensured. Correct SELCAL operation shall be ensured by:

- a) the inclusion of the SELCAL code in the flight plan;
- b) the issue of a correction to the SELCAL code if subsequently altered due to change of aircraft or equipment; and
- c) an operational check of the SELCAL equipment with the appropriate radio station at or before initial entry into oceanic airspace. This SELCAL check must be completed successfully before commencing SELCAL watch.

Note.— SELCAL watch on the assigned radio frequency should be maintained, even in areas of the region where VHF coverage is available and used for air/ground communications.

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NAT REGIONAL SUPPLEMENTARY PROCEDURES

PART 3 — METEOROLOGY

1.0 AIRCRAFT OBSERVATIONS AND REPORTS
(A3 – Chapter 5)

1.1 When voice communications are used, all aircraft flying in the Bodø Oceanic, Søndrestrøm, Reykjavik, Gander Oceanic, Shanwick Oceanic, New York Oceanic and Santa Maria Oceanic flight information regions between North America and Europe in either direction shall be required to make and report routine meteorological observations at each designated reporting point and at the intermediate midpoint between such reporting points, except that:

- a) the midpoint observation shall not be the subject of a separate report but will be retained for transmission at the next designated reporting point; and
- b) aircraft cleared on an organized track shall be required to make and report routine observations only when so designated at the time of receiving their oceanic clearance in accordance with NAT/RAC 5.4.1 and 7.1.

1.2 When voice communications are used, the format to be used for all aircraft reports shall be in accordance with Appendix 1 to *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444).