EUROPEAN (EUR) REGIONAL SUPPLEMENTARY PROCEDURES

These procedures are supplementary to the provisions contained in Annex 2, Annex 6 (Parts I and II), Annex 10 (Volumes IV and V), Annex 11, Annex 15, PANS-ATM (Doc 4444) and PANS-OPS (Doc 8168). The area of application of the EUR Regional Supplementary Procedures is included on the Index to Application of Supplementary Procedures chart.

Working Copy

This version of the Working Copy of the 5th Edition of the EUR *Regional Supplementary Procedures* (SUPPS) (Doc 7030), **Amendment No. 9, dated 25 April 2014**, includes the following approved amendment(s) which have not yet been published:

P. f. Amdt. Serial No.	Originator	Brief Description	Date Approved	Date Entered
15/27 – EUR 3	EANPG	Modification in Chapter 3, paragraph 3.1.4	19 Feb 2016	26 Feb 2016
15/26 – EUR 9	EANPG	Modification in Chaper 9, Section 9.5 "Loss of Vertical Navigation Performance required for RVSM"	26 Feb 2016	01 March 2016
13/15 – EUR 5	EANPG	Modification in Chapter 5 "Surveillance", addition of para 5.2.3 – Modification in Chapter 10, para 10.3 "Surveillance"	2 Feb 2016	30 March 2016
15/48 – EUR 3	EANPG	Modification in Chapter 3, para 3.7.1, VHF Datalink	20 Sept 2016	28 Sept 2016
13/14 – EUR 6	EANPG	Modification in Chapter 6, section 6.5 "Aerodrome Operations"	16 April 2018	4 May 2018
19/01 – EUR 3-2	EANPG	Modification in Chapter 3, Section 3.2	4 October 2019	8 October 2019
20/02 – EUR 2	EASPG	Modification in Chapter 2 – Flight Plans, Section 2.3.2 and Section 2.4	28 October 2020	3 November 2020
20/01 – EUR 3-2	EASPG	Modification in Chapter 3, Section 3.2	26 November 2020	2 December 2020
20/03 – EUR 9	EASPG	Modification in Chapter 9, Special Procedures, Section 9.1	17 December 2020	22 January 2021
21/01–EUR 3,4,9	Norway	Modification in Chapter 3, 3.2.2, Chapter 4, 4.1.1.2.3 and 4.2.1, Chapter 9, 9.7.1.1 with "Polaris FIR"	9 August 2021	24 August 2021

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Chapter 1. FLIGHT RULES

1.1 VISUAL FLIGHT RULES (VFR)

1.1.1 Special application

Nil.

1.2 INSTRUMENT FLIGHT RULES (IFR)

(A2 – Chapters 2 and 5)

Note.— Annex 2, 2.2, permits a flight to operate using either instrument flight rules or visual flight rules when operated in visual meteorological conditions subject to the limitations listed in Chapter 4 of the Annex. The following indicates certain additional restrictions.

1.2.1 Special application

1.2.1.1 Flights shall be conducted in accordance with instrument flight rules when operated above flight level (FL) 150 within the Amman, Beirut, Cairo, Damascus, Nicosia and Tel Aviv flight information regions (FIR).

1.2.1.2 Flights shall be conducted in accordance with instrument flight rules when operated within or above the EUR RVSM airspace as specified in 4.2.1.

1.2.2 Flight level changes

Nil.

1.3 AIR TRAFFIC ADVISORY SERVICE

(P-ATM – Chapter 9)

Note.— The circumstances under which it is compulsory to obtain air traffic advisory services are listed below.

1.3.1 All IFR flights shall comply with the procedures for air traffic advisory service when operating in advisory airspace within the Amman, Beirut, Cairo, Damascus and Tel Aviv flight information regions.

Chapter 2. FLIGHT PLANS

2.1 CONTENT – GENERAL

(A2 – Chapter 3; P-ATM – Chapter 11)

2.1.1 Date of flight

Nil.

2.1.2 Area navigation (RNAV) specifications

2.1.2.1 Operators of aircraft approved for B-RNAV shall indicate in the flight plan the availability of equipment and capabilities relevant to RNAV 5.

Note 1.— RNAV 5 and B-RNAV approvals are equivalent approvals.

Note 2.— It is not necessary, if the aircraft is approved for RNAV 5, to insert additional information in the flight plan to indicate the aircraft is approved for B-RNAV.

2.1.2.2 Operators of aircraft approved for P-RNAV, not relying solely on VOR/DME for determination of position, shall indicate in the flight plan the availability of equipment and capabilities relevant to RNAV 1.

Note 1.— P-RNAV approvals, except those associated with aircraft relying solely on VOR/DME for determination of position, and RNAV 1 approvals are equivalent approvals.

Note 2.— It is not necessary, if the aircraft is approved for RNAV 1, to insert additional information in the flight plan to indicate the aircraft is approved for P-RNAV.

2.1.2.3 Operators of aircraft approved for P-RNAV, relying solely on VOR/DME for determination of position, shall insert the letter Z in Item 10a of the flight plan and the descriptor EURPRNAV in Item 18 of the flight plan, following the NAV/ indicator.

Note.— P-RNAV approvals relying solely on VOR/DME for determination of position and RNAV 1 approvals are not equivalent approvals.

2.1.3 Required navigation performance (RNP) specifications

Nil.

2.1.4 Minimum navigation performance specifications (MNPS)

Nil.

2.1.5 Reduced vertical separation minimum (RVSM)-approved aircraft

2.1.5.1 The aircraft registration shall be inserted in Item 18 of the ICAO flight plan form.

Note.— Insertion of the aircraft registration does not apply to submissions made using the repetitive flight plan (RPL) listing form.

2.1.5.2 Operators of RVSM-approved aircraft shall also include the letter W in Item Q of the RPL, regardless of the requested flight level. If a change of aircraft operated in accordance with an RPL results in a modification of the RVSM approval status as stated in Item Q, a modification message (CHG) shall be submitted by the operator.

2.1.5.3 Operators of formation flights of State aircraft shall not insert the letter W in Item 10 of the ICAO flight plan form, regardless of the RVSM approval status of the aircraft concerned. Operators of formation flights of State aircraft intending to operate within RVSM airspace as general air traffic (GAT) shall include STS/NONRVSM in Item 18 of the ICAO flight plan form.

2.1.6 Non-RVSM-approved aircraft

2.1.6.1 Except for operations within the airspace designated in accordance with 9.7.1.1, operators of non-RVSM-approved aircraft shall flight plan to operate outside the RVSM airspace as specified in 4.2.1.

2.1.7 Non-RVSM-approved State aircraft

Nil.

2.1.8 Indication of 8.33 kHz channel spacing capability

Nil.

2.1.9 Route

Nil.

2.1.10 Estimated times

Nil.

2.1.11 Mach number

Nil.

2.1.12 Alternative flight level

Nil.

2.1.13 Special handling (STS)

Nil.

2.1.14 Controller-pilot data link communications (CPDLC)

2.1.14.1 Flights planning to use CPDLC over the aeronautical telecommunication network (ATN) shall include in Item 18 of the flight plan the indicator CODE/ followed by the 24-bit aircraft address (expressed in the form of alphanumerical code of six hexadecimal characters).

Example: CODE/F00001

2.2 CONTENT – AIR TRAFFIC FLOW MANAGEMENT (ATFM)

2.2.1 Runway visual range (RVR)

2.2.1.1 When RVR information is included in Item 18 of the flight plan (“RVR/nnn”) to indicate the minimum RVR requirement of the flight, it may be used for air traffic flow management (ATFM) purposes.

2.2.2 Flight plan addressing and distribution

(P-ATM – Chapter 11)

2.2.2.1 Flight plans and associated messages for all IFR flights, including the IFR portions of mixed IFR/VFR flights, entering, over flying or departing the IFPS zone (IFPZ), shall be addressed only to the two integrated initial flight plan processing system (IFPS) addresses for that portion of the flight within the IFPZ. The IFPS addresses to be included in flight plans and associated messages submitted by operators that intend to fly into or through the IFPZ are as follows:

	IFPS Unit Addresses	
Network	IFPU1 Haren, Belgium	IFPU2 Brétigny, France
AFTN	EUCHZMFP	EUCBZMFP
SITA	BRUEP7X	PAREP7X

2.2.2.2 IFPS will ensure distribution of the accepted flight plan to all relevant ATS units within their area of responsibility. Flight plan message originators filing to IFPS are responsible for ensuring that the flight plan and any modifications made thereto are addressed to all the relevant ATS units outside the IFPZ. In order to ensure consistency between the flight plan data distributed within the IFPZ and that distributed outside the IFPZ, the Central Flow Management Unit (CFMU) has established a “re-addressing function”. The “re-addressing function” is intended primarily for flights originating within the IFPZ and proceeding outside the IFPZ.

Note.— Detailed procedures and information applicable to flight plan addressing and distribution are contained in the EUROCONTROL “Basic CFMU Handbook”.

2.2.3 Slot allocation exemptions

2.2.3.1 The following flights are exempted from ATFM slot allocations:

a) flights carrying Head of State or equivalent status ["STS/HEAD"];

b) flights conducting search and rescue operations ["STS/SAR"];

c) flights used for a life critical medical emergency evacuation ["STS/MEDEVAC"];

d) flights used for fire-fighting ["STS/FFR"]; and

e) flights approved for exemption from ATFM measures by the appropriate ATS authority ["STS/ATFMX"].

2.3 SUBMISSION

(A2 – Chapter 3; P-ATM – Chapters 3 and 4)

2.3.1 General

2.3.1.1 A centralized flight planning processing and distribution service has been established under the authority of the EUROCONTROL CFMU. The service is provided through the IFPS and covers part of the ICAO EUR Region known as the IFPZ.

2.3.1.2 For all IFR flights, including the IFR portions of mixed IFR/VFR flights, entering, overflying or departing the IFPZ, a flight plan shall be submitted to IFPS either directly or via the Air Traffic Services Reporting Office (ARO) serving the aerodrome of departure.

Note 1.— The area of applicability and detailed procedures pertaining to the IFPZ are contained in the EUROCONTROL "Basic CFMU Handbook".

Note 2.— See 2.2.2 for information concerning flight plan addressing and distribution.

2.3.1.3 Flight plans for flights which may be subject to ATFM shall be submitted at least 3 hours before the EOBT.

2.3.2 Amendments

(P-ATM – Chapter 11)

2.3.2.1 Any changes to the EOBT of more than 15 minutes for any IFR flight within the IFPZ shall be communicated to the IFPS.

2.3.2.2 When an individual flight plan (FPL) ~~or a repetitive flight plan (RPL)~~ has been filed but it is decided, within 4 hours of EOBT, to use an alternative routing between the same aerodromes of departure and destination, either a modification message (CHG) may be sent or alternatively:

a) a cancellation message (CNL) shall be sent to IFPS;

b) not less than 5 minutes after sending the CNL message, a replacement flight plan (RFP) in the form of an FPL with identical call sign shall be transmitted;

c) the RFP shall contain, in Item 18, the indication “RFP/Qn”, where RFP signifies “Replacement Flight Plan” and “n” is “1” for the first replacement, “2” for the second replacement, and so on; and

d) the last RFP shall be filed at least 30 minutes before EOBT.

Note.— The submission of a replacement flight plan is normally accepted as fulfilling a State’s requirement for advance notification of flight (diplomatic clearance).

2.4 REPETITIVE FLIGHT PLANS (RPLs)

(P-ATM – Chapter 16 and Appendix 2)

~~*Note.— Detailed provisions for the handling of RPLs within the IFPZ are specified in the EUROCONTROL “Basic CFMU Handbook”.*~~

2.4.1 Operators intending to operate flights in ICAO EUR Region, outside IFPZ, may file repetitive flight plans.

2.4.2 In order to avoid a disproportionate workload on ATS units, RPLs will not be accepted for any flight conducted on 25 December. On this day, individual flight plans shall be filed for all flights.

2.4.3 All operators filing RPLs shall include, in Item Q of the RPL, all equipment and capability information in conformity with Item 10 of the flight plan. This includes appropriate indicators/designators as specified in 2.1.2.1 and 2.1.5.1.

2.4.4 When there is a change of equipment or capability for a flight which is subject to an RPL, a modification message (CHG) for the day of operation shall be sent not earlier than 20 hours before the estimated EOBT.

2.4.5 Similarly, other changes, delays, or cancellations for the day of operation shall be sent not earlier than 20 hours before the EOBT.

Chapter 3. COMMUNICATIONS

3.1 AIR-GROUND COMMUNICATIONS AND IN-FLIGHT REPORTING

(A2 – Chapters 3 and 5; P-ATM – Chapter 4)

Note.— Annex 2, 3.6.5.1 and 5.3.3, require controlled flights and certain IFR flights outside controlled airspace to maintain a continuous listening watch on the appropriate radio channel. The PANS-ATM, 4.11.2, allows the appropriate ATS authority to limit the elements required in position reports in specified circumstances. The following expands such requirements and specifies additional details regarding the transmission and content of in-flight reports.

3.1.1 Communications equipment

Nil.

3.1.2 Continuous listening watch in uncontrolled airspace

3.1.2.1 Aircraft flying within uncontrolled airspace may be requested to maintain a continuous watch on the appropriate air-ground frequency of the ATS unit serving the flight information region within which the aircraft is flying.

3.1.3 Position reports

Nil.

3.1.4 Abbreviated position reports

3.1.4.1 Unless otherwise specified by the appropriate ATS authority, position reports should only contain the aircraft identification, position and time.

~~3.1.4.2 In defined portions of the airspace, designated by the appropriate ATS authority, where:~~

~~a) through secondary surveillance radar (SSR), individual identity and verified Mode C information are permanently available in the form of labels associated with the radar position of the aircraft concerned; and~~

~~b) reliable air-ground communications coverage and direct pilot-to-controller communications exist,~~

~~the initial call after changing a radio channel may contain only the aircraft identification and level; subsequently, position reports may contain only aircraft identification, position and time.~~

3.1.5 Read-back of VHF channels

3.1.5.1 When instructed to contact an ATS unit on a different VHF communication channel, the pilot shall read back the newly assigned channel.

3.2 MANDATORY CARRIAGE OF 8.33 KHZ CHANNEL SPACING CAPABLE RADIO EQUIPMENT

(A10, Vol. V – Chapter 4)

3.2.1 Except where exemptions are granted by States concerned, ~~A~~all aircraft operating above FL 195 in the European Region shall be equipped with 8.33 kHz channel spacing capable VHF radio equipment.

~~3.2.2 Exemptions may be granted by States concerned for certain types of aircraft operation and for certain areas of operation~~.

~~*Note. All exemptions granted by States, including the extent to which aircraft from other States can be exempted, should be specified in States' AIPs.*~~

3.2.2 Except where exemptions are granted by States concerned, all aircraft operating at or below FL 195 in the following FIRs/UIRs, where the carriage of VHF radio is required, shall be equipped with 8.33 kHz channel spacing capable radio equipment:

Amsterdam FIR, Athinai FIR, Barcelona UIR, Bordeaux FIR, Bratislava FIR, Bremen FIR, Brest FIR, Brindisi UIR, Bruxelles FIR, Bucuresti FIR, Budapest FIR, , Hannover UIR, Helsinki FIR, Kobenhavn FIR, Langen FIR, Lisboa UIR, Ljubljana FIR, London FIR, Madrid UIR, Malta UIR, Marseille FIR, Milano FIR, Milano UIR, Munich FIR, Nicosia FIR, Paris FIR, Polaris FIR, Praha FIR, Reims FIR, Rhein UIR, Riga UIR, Roma UIR, Scottish FIR, Shannon UIR, Sofia FIR, Sweden UIR south of 61°30', Switzerland FIR, Tallinn UIR, Vilnius UIR, Warszawa FIR, Wien FIR, Zagreb FIR.

~~3.2.3 When ultra high frequency (UHF) ground infrastructure permits a close operational link to a State's airspace management procedure, UHF-equipped State aircraft not equipped with an 8.33 kHz channel spacing capable radio will be allowed to operate in the airspace designated for 8.33 kHz channel spacing operations.~~

~~*Note. Details of UHF coverage meeting the above infrastructure requirements should be specified in States' AIPs.*~~

3.2.3 Details pertaining to mandatory carriage of 8.33kHz channel spacing capable equipment shall be specified in States' AIPs.

3.2.4 All exemptions granted by States, including the extent to which aircraft from other States can be exempted, as well as procedures for the handling of State aircraft and other details, shall be specified in the States' AIPs.

3.3 CONTROLLER-PILOT DATA LINK COMMUNICATIONS (CPDLC)

3.3.1 Area of applicability

3.3.1.1 All concerned aircraft operating flights as general air traffic in accordance with instrument flight rules in the airspace defined below shall be equipped with context management (CM) and controller-pilot data link communications (CPDLC) applications capable of supporting the following data link services: data link initiation capability, air traffic control clearance, air traffic control communications management and air traffic control microphone check:

a) from 7 February 2013, in the following FIRs/UIRs above FL285:
Amsterdam FIR, Wien FIR, Barcelona UIR, Brindisi UIR, Brussels UIR, Canarias UIR, France UIR, Hannover UIR, Lisboa UIR, London UIR, Madrid UIR, Milano UIR, Rhein UIR, Roma UIR, Scottish UIR, Shannon UIR and Switzerland UIR; and

b) from 5 February 2015, in the following FIRs/UIRs above FL285:
Bratislava FIR, Bucuresti FIR, Budapest FIR, Kobenhavn FIR, Ljubljana FIR, Nicosia FIR, Praha FIR,

Sofia FIR, Warszawa FIR, Finland UIR south of 61°30', Hellas UIR, Malta UIR, Riga UIR, Sweden UIR south of 61°30', Tallinn UIR, Vilnius UIR.

Note.— Requirements for the CM and CPDLC applications to support the data link services described are contained in RTCA DO-280B/EUROCAE ED-110B Interoperability Requirements Standard For ATN Baseline 1 (INTEROP ATN B1) and RTCA DO-290/EUROCAE ED-120 Safety and Performance Requirements Standard for Air Traffic Data Link Services in Continental Airspace (Continental SPR Standard), including Changes 1 and 2, with the exceptions that:

a) uplink message 135, CONFIRM ASSIGNED LEVEL, and uplink message 233, USE OF LOGICAL ACKNOWLEDGEMENT PROHIBITED, will not be used by the ground systems; and

b) downlink message 38, ASSIGNED LEVEL (level), is not required by the aircraft.

3.3.1.2 Conformance to the equipage requirement and operator's approval shall be verified by the State of Registry or the State of the Operator, as appropriate.

3.3.1.3 Aircraft are exempted from the requirement stipulated in 3.3.1.1 in the following cases:

a) aircraft with an individual certificate of airworthiness first issued before 1 January 2011 are exempted until 5 February 2015;

b) aircraft with an individual certificate of airworthiness first issued before 1 January 2014 and fitted with data link equipment certified against requirements specified in RTCA DO-258A/EUROCAE ED-100A (or ED-100) are exempted for the life of that particular airframe;

c) aircraft which have a certificate of airworthiness issued before 31 December 1997 and which will cease operation in the airspace referred to in 3.3.1.1 before 31 December 2017 are exempted from the requirement stipulated in 3.3.1.1;

d) state aircraft;

e) aircraft flying in the airspace referred to in 3.3.1.1 for testing, delivery and for maintenance purposes; and

f) operators of types of aircraft reaching the end of their production life and being produced in limited numbers, or types of aircraft for which re-engineering costs required would be disproportionate due to old design, may, based on this criteria, request from the appropriate authority the granting of an exemption. Such requests shall be made prior to 30 September 2012 and include detailed information justifying the need for the granting of the exemption.

3.4 SATELLITE VOICE COMMUNICATIONS (SATCOM)

Nil.

3.5 AERONAUTICAL MOBILE SERVICE

3.5.1 Selective calling (SELCAL)

Nil.

3.5.2 HF operations

Nil.

3.5.2.1 Assignment of voice traffic to HF families

Nil.

3.5.2.2 Procedures for mutual assistance

Nil.

3.6 AERONAUTICAL FIXED SERVICE

3.6.1 AFTN rationalization

Nil.

3.7 RADIO CHANNELS/FREQUENCIES

3.7.1 VHF ~~Datalink~~ Digital link (VDL) ~~Mode 2~~ – system characteristics of ground and airborne installations

(A10, Vol. III and Vol V, ~~Part I~~)

~~3.7.1.1 With effect from 1 January 2010, all VDL Mode 2 ground transmitters in the European Region shall meet the provisions specified in Annex 10, Volume III, Part I, 6.2.4.1.1, 6.2.4.2.1, 6.2.4.2.2 and 6.2.4.3.1, relating to adjacent channel emissions.~~

~~3.7.1.2 With effect from 1 January 2010, all VDL Mode 2 airborne transmitters in the European Region shall meet the provisions specified in Annex 10, Volume III, Part I, 6.3.4.1.1, 6.3.4.2.1, 6.3.4.2.2 and 6.3.4.3.1, relating to adjacent channel emissions.~~

~~3.7.1.3 With effect from 1 January 2010, the receiving function of all VDL Mode 2 installations in the European Region shall meet the provisions specified in Annex 10, Volume III, Part I, 6.3.5.3.1, relating to the specified error rate.~~

3.7.1.1 In the EUR Region, all VDL Mode 4 ground aircraft stations shall only operate on 136.925 MHz and in accordance with the ICAO EUR Frequency Management Manual (Doc 011).

Chapter 4. NAVIGATION

4.1 PERFORMANCE-BASED NAVIGATION (PBN)

Note.— As the European (EUR) Region transitions to PBN as contained in the Performance-based Navigation Manual *(Doc 9613), the contents of 4.1 will be amended.*

4.1.1 Area navigation (RNAV) specifications

4.1.1.1 RNAV 10 (RNP 10)

Nil.

4.1.1.2 RNAV 5

Area of applicability

4.1.1.2.1 The requirements included in the RNAV 5 (B-RNAV) specification for en-route operations shall apply to all such operations conducted under IFR on designated RNAV 5 routes within the following FIRs as specified in the relevant State AIPs or NOTAMs:

Amman, Beirut, Cairo, Damascus and Tel Aviv.

Means of compliance

4.1.1.2.2 Conformance to the navigation requirement shall be verified by the State of Registry or the State of the Operator, as appropriate.

Note.— Guidance material concerning navigation requirements associated with RNAV 5 (B-RNAV) operations is contained in EASA AMC 20-4, Airworthiness Approval and Operational Criteria for the Use of Navigation Systems in European Airspace Designated for Basic RNAV Operations.

Area of applicability

4.1.1.2.3 The requirements included in the RNAV 5 (B-RNAV) specification for en-route operations shall apply to all such operations conducted under IFR on the entire ATS route network in the following flight information regions (FIRs)/upper flight information regions (UIRs) as specified in the relevant State AIPs:

Amsterdam, Ankara, Athinai, Baku, Barcelona, Bordeaux, Bratislava, Bremen, Brest, Brindisi, Bruxelles, Bucuresti, Budapest, Canarias (AFI area of applicability), Casablanca, Chisinau, Dnipropetrovs'k, France, Hannover, Istanbul, København, Kyiv, Langen, Lisboa, Ljubljana, London, L'viv, Madrid, Malta, Marseille, Milano, München, Nicosia, Odessa, Paris, Polaris, Praha, Reims, Rhein, Riga, Roma, Rovaniemi, Scottish, Shannon, Simferopol, Skopje, Sofia, Sweden, Switzerland, Tallinn, Tampere, Tbilisi, Tirana, Tunis, Varna, Vilnius, Warszawa, Wien, Yerevan, Zagreb.

Means of compliance

4.1.1.2.4 Conformance to the navigation requirement shall be verified by the State of Registry or the State of the Operator, as appropriate.

Note.— Guidance material concerning navigation requirements associated with RNAV 5 (B-RNAV) operations is contained in EASA AMC 20-4, Airworthiness Approval and Operational Criteria for the Use of Navigation Systems in European Airspace Designated for Basic RNAV Operations.

4.1.1.3 RNAV 2

Nil.

4.1.1.4 RNAV 1

Area of applicability

4.1.1.4.1 The requirements included in the RNAV 1 and/or P-RNAV specification shall be applied whenever P-RNAV terminal control area (TMA) procedures, excluding the final and missed approach segments, are used.

Note 1.— RNAV 1 and/or P-RNAV approvals are not mandatory in the EUR Region.

Note 2.— RNAV 1 approved aircraft are approved for P-RNAV.

Means of compliance

4.1.1.4.2 Conformance to the navigation requirement shall be verified by the State of Registry or the State of the Operator, as appropriate.

Note.— Guidance material concerning navigation requirements associated with P-RNAV operations is contained in the JAA Temporary Guidance Leaflet (TGL) No. 10 Revision 1.

4.1.1.5 Pre-PBN navigation specifications

Nil.

4.1.2 Required navigation performance (RNP) specifications

4.1.2.1 RNP 4

Nil.

4.1.2.2 Basic RNP 1

Nil.

4.1.2.3 Advanced RNP 1

Nil.

4.2 REDUCED VERTICAL SEPARATION MINIMUM (RVSM)

Area of applicability

4.2.1 RVSM shall be applicable in that volume of airspace between FL 290 and FL 410 inclusive in the following FIRs/UIRs:

Alger, Amman, Amsterdam, Ankara, Arkhangelsk, Baku, Barcelona, Beirut, Beograd, Berlin, Bratislava, Brindisi, Bruxelles, Bucuresti, Budapest, Cairo, Casablanca, Chisinau, Damascus, Dnipropetrovs'k, France, Hannover, Hellas, Istanbul, Kaliningrad, Kazan, Kirov, København, Kotlas, Kyiv, Lisboa, Ljubljana, London, L'viv, Madrid, Malta, Milano, Minsk, Moscow, Murmansk, Murmansk Oceanic, Naryan-Mar, Nicosia, Novosibirsk, Odesa, Penza, Perm, Petrozavodsk, Polaris, Praha, Rhein, Riga, Roma, Rostov, Rovaniemi, Samara, Sankt-Peterburg, Saratov, Sarajevo, Scottish, Shannon, Simferopol, Skopje, Sofia, Sweden, Switzerland, Syktyvkar, Tallinn, Tampere, Tbilisi, Tel Aviv, Tirana, Tripoli, Tunis, Ufa, Varna, Velikiye Luki, Vilnius, Vologda, Vorkuta, Warszawa, Wien, Yekaterinburg, Yerevan, Zagreb.

Means of compliance

Nil.

Chapter 5. SURVEILLANCE

(P-ATM – Chapter 8; P-OPS, Vol. I, Part III)

5.1 SECONDARY SURVEILLANCE RADAR (SSR)

5.1.1 Carriage of pressure-altitude reporting SSR transponders

Nil.

5.1.2 Code allocation methodology

5.1.2.1 All aircraft engaged in international flight shall be assigned an appropriate SSR code by the initial ATS unit at the beginning of the flight if it is to be conducted under instrument flight rules. The code shall be assigned in accordance with the *Air Navigation Plan — European Region*, Volume II — *FASID* (Doc 7754), Part IV, Attachment H, Principles and Procedures for the Distribution and Use of SSR Codes in the EUR Region.

5.1.3 Assignment of SSR codes

Nil.

5.1.4 Operation of pressure-altitude reporting SSR transponders

Nil.

5.1.5 Monitoring of SSR-derived information

Nil.

5.2 SSR MODE S

5.2.1 Carriage and operation of SSR Mode S

(A10, Vol. IV — Chapter 2)

5.2.1.1 The carriage and operation of Mode S airborne equipment shall be mandatory in airspace designated by the appropriate ATS authorities pursuant to the implementation of SSR Mode S Elementary or Enhanced surveillance in accordance with the following requirements:

a) SSR Mode S Elementary surveillance (ELS)

1) for all IFR flights, including general air traffic (GAT):

— Level 2 transponder, as a minimum, with downlink aircraft parameter (DAP) capability denoted as basic functionality as detailed in 5.2.1.2;

2) for VFR flights in airspace designated by the appropriate ATS authority, subject to transition arrangements published by the relevant State regulatory authorities:

— Level 2 transponder, as a minimum, with DAP capability denoted as basic functionality as detailed in 5.2.1.2;

b) Mode S Enhanced surveillance (EHS)

1) for IFR flights conducted as GAT by fixed-wing aircraft having a maximum take-off mass greater than 5 700 kg or a maximum cruising true airspeed in excess of 250 kt in designated airspace as notified by the appropriate authority:

— Level 2 transponder, as a minimum, with DAP capability denoted as basic functionality and enhanced surveillance functionality as detailed in 5.2.1.2;

c) Mode S-equipped aircraft shall report, automatically, basic functionality which includes the transmission of aircraft identification (in the form specified in item 7 of the ICAO flight plan);

Note 1.— The aircraft identification required above is not provided by the 24-bit aircraft address.

Note 2.— Level 1 transponders are not prescribed for international flights in the EUR Region.

d) Mode S-equipped aircraft with a maximum mass in excess of 5 700 kg or a maximum cruising true airspeed in excess of 463 km/h (250 kt) shall operate with antenna diversity.

5.2.1.2 Specific requirements for DAPs are classified separately as shown in Tables 1 and 2.

Table 1. Basic functionality

Basic functionality	*Associated register or protocol*
Automatic reporting of aircraft identification	BDS 2.0
Data link capability report	BDS 1.0
GIBC capability report	BDS 1.7
Altitude reporting in (25-ft increments subject to installation constraints)	Provision of altitude in AC field of Mode S protocol
Flight status (airborne/on the ground)	Provision of flight status field data in the Mode S protocol
Surveillance identifier (SI) code capability	

Table 2. Enhanced surveillance functionality

Enhanced surveillance functionality	*Associated register*
Magnetic heading Speed (IAS/Mach no.) Vertical rate (barometric rate of climb/descend or, preferably, baro-inertial) True airspeed (provided if track angle rate is not available)	BDS 6.0
True airspeed (TAS) Roll angle Track angle rate True track angle Ground speed	BDS 5.0
Selected vertical intention	BDS 4.0 (to provide ready access to information on aircraft current vertical intentions)
Barometric pressure setting (where readily available)	

Note 1.— Any additional requirements for DAPs which may become necessary after the initial implementation of Mode S enhanced surveillance will be promulgated with due regard to an agreed minimum five-year notification period.

Note 2.— IAS and Mach no. are considered as one DAP (even if technically they are two separate ARINC labels). If an aircraft can provide both, it must do so.

5.2.1.3 State regulatory authorities have delegated the EUROCONTROL Mode S Exemption Coordination Cell (ECC) to manage requests for exemption from Mode S EHS mandatory carriage requirements in the following circumstances:

a) where aircraft avionics do not permit the extraction and transmission of the full set of DAPs; and

b) for aircraft conducting flights, under existing rules, for the purpose of delivery or for transit into and out of maintenance bases.

These coordinated exemption arrangements and the operation of the EUROCONTROL Mode S ECC shall be subject to periodic review.

Note.— Aircraft operators who are granted exemptions are advised that it will not be possible to provide the same level of air traffic service as that applied to aircraft which comply with the Mode S transponder carriage and operation requirements.

5.2.2 Transition between Mode A/C and Mode S

Nil.

5.2.3 Use of downlinked airborne parameters indicating the intentions of the aircraft

5.2.3.1 Use of "Selected Level"

Note 1.– Subject to the surveillance system capabilities, the "Selected Altitude" DAP can be displayed to controllers on situation displays, as either a flight level or an altitude.

Note 2.– For ATC and radiotelephony phraseology purposes, the generic phase "Selected Level" is used to encompass data presented as either an altitude or a flight level.

5.2.3.1.1 When available, the "Selected Level" can be used, as prescribed by the appropriate ATS authority, to verify that flight crew's selections for vertical manoeuvres are consistent with the clearance issued by ATC. The "Selected Level" shall not be used on its own for the purpose of separation nor shall the availability of such information on a situation display be used as a substitute for the read-back and hear-back of level clearances.

Note 1. – The value of the "Selected Level" may differ from the read back cleared level for various operational reasons, such as:

a) when following SID/STARs with ATC level restrictions, pilots may select the final cleared level and utilise the aircraft flight management system to achieve the vertical constraints;

b) on final approach, where at a given moments pilots pre-select the missed approach point (MAPt) altitude;

c) when the aircraft is being flown manually;

Note 2. – See 10.3 for radiotelephony (RTF) phraseology to query the discrepancy observed on the situation display.

Note 3. –Guidance on implementation is provided in Operational Use of Downlink Airborne Parameters - High Level Considerations, which is available from the EUROCONTROL website.

5.3 AIRBORNE COLLISION AVOIDANCE SYSTEMS (ACAS)

5.3.1 Carriage and operation of ACAS II

(A10, Vol. IV – Chapter 4; P-OPS, Vol. I)

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

5.4 AUTOMATIC DEPENDENT SURVEILLANCE – CONTRACT (ADS-C)

Nil.

5.5 AUTOMATIC DEPENDENT SURVEILLANCE – BROADCAST (ADS-B)

Nil.

Chapter 6. AIR TRAFFIC SERVICES (ATS)

6.1 AIR TRAFFIC CONTROL (ATC) CLEARANCES

(A11 – Chapter 3; P-ATM – Chapter 4)

6.1.1 Content

Nil.

6.1.2 Adherence

6.1.2.1 Special procedures applicable to uncoordinated flights operating along the FIR boundaries in the Red Sea area

(P-ATM – Chapter 15; P-OPS, Vol. I, Part III, Section 3)

6.1.2.1.1 Uncoordinated flights operating along the FIR boundaries over the Red Sea portions of Cairo shall follow the procedures prescribed in the MID/ASIA SUPPs, 6.1.2.2.

6.2 SEPARATION

6.2.1 Lateral

Nil.

6.2.2 Longitudinal

(P-ATM – Chapter 5)

6.2.2.1 Longitudinal separation minimum based on time and radar-observed distance

6.2.2.1.1 A minimum longitudinal separation of three minutes may be applied between aircraft on the same track or crossing tracks, whether at the same level, climbing or descending, provided that:

a) their flight progress is continuously monitored by radar forming an integral part of the ATC unit concerned; and

b) the distance between the aircraft, as observed by radar, is never less than 37 km (20 NM).

Note.— Use of this separation is subject to all the limitations in the use of radar specified in the PANS-ATM, 8.1.

6.2.3 Composite

Nil.

6.2.4 Vertical
(P-ATM – Chapter 5)

6.2.4.1 Within the RVSM airspace as specified in 4.2.1, the vertical separation minimum shall be:

a) 300 m (1 000 ft) between RVSM-approved aircraft;

b) 600 m (2 000 ft) between:

1) non-RVSM-approved State aircraft and any other aircraft operating within RVSM airspace;

2) all formation flights of State aircraft and any other aircraft operating within RVSM airspace; and

3) non-RVSM-approved aircraft and any other aircraft operating within the airspace designated in accordance with 9.7.1.1.

6.2.5 Radar

6.2.5.1 Transfer of control

6.2.5.1.1 Transfer of control based on the procedures specified in the PANS-ATM, 8.7.4, may be carried out without systematic use of the bidirectional speech facilities available between the adjacent units concerned, provided that:

a) the detailed conditions applicable for the transfer are the subject of a bilateral agreement; and

b) the minimum distance between successive aircraft during the period of transfer is agreed as one of the following values:

1) 19 km (10 NM) when SSR information is used in accordance with the provisions of the PANS-ATM, provided that an overlapping radar coverage of at least 56 km (30 NM) between units involved exists; or

2) 9.3 km (5 NM) when the conditions of 1) apply and both units involved possess electronic aids for immediate recognition of release and acceptance of aircraft under radar transfer.

6.2.6 Reduction in separation minima

Nil.

6.2.7 Airspace reservations

Nil.

6.3 MINIMUM FLIGHT LEVEL

6.3.1 Establishment

(P-ATM – Chapter 4, P-OPS, Volume I, Part III)

6.3.1.1 Based on current and anticipated atmospheric pressure distribution, area control centres shall coordinate, when required, the lowest flight level to be used.

6.3.1.2 From 7 March 2015, the transition level shall be located at least 300 m (1 000 ft) above the transition altitude to permit the transition altitude and the transition level to be used concurrently in cruising flight, with vertical separation ensured.

6.4 ATS ROUTES

6.4.1 Track systems

Nil.

6.4.2 RNAV

(A11 – Appendices 1 and 3)

6.4.2.1 All RNAV standard instrument arrival and departure procedures shall be suitably designated as RNAV in accordance with Annex 11, Appendix 3.

6.4.2.2 All other RNAV routes shall be designated in accordance with Annex 11, Appendix 1.

6.5 AERODROME OPERATIONS

6.5.1 Area of applicability

6.5.1.1 The provisions in Sections 6.5.2 to 6.5.4 and 13.2.1.1 shall apply in Canarias FIR (AFI Region) and all FIRs of the EUR Region except the following, which are located in the AFI or MID Regions:

Alger, Beirut, Cairo, Casablanca, Damascus, Tel Aviv, Tripoli and Tunis.

6.5.2 Intersection take-off

6.5.2.1 An aircraft may be cleared to depart from a published intersection take-off position upon request of the pilot, or if initiated by ATC and accepted by the pilot, provided that all of the conditions of 6.5.2.2 to 6.5.2.6 are met.

6.5.2.2 The declared distances for each published intersection take-off position shall consist of the following:

a) take-off run available (TORA) from the intersection take-off position;

b) take-off distance available (TODA) from the intersection take-off position; and

c) accelerate-stop distance available (ASDA) from the intersection take-off position.

6.5.2.3 The reference point from which the runway declared distances for a published intersection take-off position are measured shall be in accordance with the relevant provisions in the *Air Navigation Plan — European Region,* Volume II — *FASID* (Doc 7754), Part III — AOP.

6.5.2.4 Declared distances for an intersection take-off position shall be published in the relevant AIP, clearly distinguishable from full runway declared distances.

6.5.2.5 Information on the TORA from the intersection shall be issued when requested by an aircraft or whenever deemed necessary by the controller.

Note.— See 10.4 for relevant radiotelephony (RTF) phraseology.

6.5.2.6 Signs shall be in accordance with Annex 14, Volume I.

6.5.3 Multiple line-ups on the same runway

6.5.3.1 Line-up instructions may be issued to more than one aircraft at different points on the same runway, taking into account that intersection take-off criteria shall be complied with, provided that:

a) minimum visibility is established by the appropriate authority. Those minima shall permit the controller and the pilot to continuously observe the position of the relevant aircraft on the manoeuvring area by visual reference;

b) local considerations, such as the airport layout, available radar equipment and local weather phenomena, are defined. The effect of jet blast/prop wash shall be taken into consideration;

c) air traffic service for aircraft involved in multiple line-ups on the same runway is provided on the same radio frequency;

d) pilots are advised of the position of any essential traffic on the same runway;

e) the slope of the runway does not render preceding aircraft in the departure sequence invisible to succeeding aircraft on the same runway;

f) pilot read-back of line-up instructions is required and contains the runway designator, the name of the intersection (if applicable) and the number in the departure sequence; and

g) wake turbulence separation is applied.

6.5.4 Visual departures

6.5.4.1 A visual departure is a departure by an IFR flight when either part or all of an instrument departure procedure (e.g. standard instrument departure (SID)) is not completed and the departure is executed in visual reference to terrain.

6.5.4.2 An IFR flight may be cleared to execute a visual departure:

a) ~~upon~~ when requested by ~~of~~ the pilot; or
b) prior to take-off, when ~~if~~ initiated by the controller and accepted by the pilot by a read-back of the ATC clearance.

6.5.4.3 To execute a visual departure, the aircraft take-off performance characteristics shall allow them to make an early turn after take-off. When implemented, visual departure shall be applied under the following conditions:

a) the meteorological conditions in the direction of take-off and the following climb-out shall not impair the procedure up to an altitude to be established and published by the appropriate authority, e.g. minimum flight altitude (MFA) or minimum sector altitude (MSA);

b) the procedure shall be applied during the daytime. The procedure may be considered for application at night following a separate ~~aeronautical study~~ safety assessment by the appropriate air traffic services (ATS) authority;

c) the pilot shall be responsible for maintaining obstacle clearance until the specified altitude. Further clearance (route, heading, point) shall be specified by ATC; and

d) separation shall be provided between an aircraft cleared to execute a visual departure and other ~~departing and arriving~~ aircraft, in accordance with the airspace classification.

Note. — Attention is drawn to the requirement to provide timely traffic information, in particular essential traffic information, about known VFR traffic relevant to the aircraft executing the visual departure and to the requirement to make the flight crew aware when a manoeuvre requested may lead the aircraft outside the controlled airspace. Pilots are reminded that ATC will provide services according to the airspace classification.

~~6.5.4.4 Prior to take-off, the pilot shall agree to execute a visual departure by providing a read-back of the ATC clearance.~~

6.5.4.5~~4~~ Any additional local restrictions shall be agreed on in consultation between the appropriate ATS authority and operators.

6.5.5 Visual approaches

Nil.

6.5.6 Advanced surface movement guidance and control systems (A-SMGCS)

(A11 — Chapter 11; P-ATM — Chapters 7 and 8)

Note.— For further information, see the Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual *(Doc 9830).*

6.5.6.1 General

6.5.6.1.1 A-SMGCS shall provide for the detection and display of the movement of all aircraft on the movement area as well as the identity of all suitably equipped aircraft.

6.5.6.1.2 A-SMGCS shall enable the detection and display of the movement of all vehicles on the manoeuvring area as well as the identity of all suitably equipped vehicles.

6.5.6.2 A-SMGCS functions

6.5.6.2.1 When authorized by and subject to conditions prescribed by the appropriate ATS authority, the information

provided on an A-SMGCS display may be used for the purpose of:

a) determining the location of aircraft on the movement area and vehicles on the manoeuvring area;

Note.— Where visual observation by the aerodrome controller is not possible, or whenever deemed beneficial by the aerodrome controller, the information provided by A-SMGCS may be used to replace visual observation.

b) monitoring aircraft and vehicles on the manoeuvring area for compliance with clearances and instructions;

c) determining that a runway is clear of traffic or assisting in the assessment that a runway will be clear of traffic prior to a landing or take-off;

d) providing information on essential local traffic on or near the manoeuvring area;

e) providing directional taxi information to aircraft when requested by the pilot or deemed necessary by the controller. Such information should not be issued in the form of specific heading instructions (except in special circumstances, e.g. emergencies); and

f) providing assistance and advice to emergency vehicles.

6.5.6.3 A-SMGCS alerts

6.5.6.3.1 Local instructions concerning use of the A-SMGCS alerting function, where available, shall specify, inter alia:

a) the aircraft and vehicles which might trigger alerts;

b) the areas of the manoeuvring area within which the alerting function is implemented;

c) the method of displaying alerts to the controller;

d) the warning criteria for the triggering of alerts that could depend on meteorological situations or type of operation being conducted, as well as alert warning time; and

e) conditions under which the alert function may be inhibited.

6.5.6.3.2 In the event an alert is triggered, the controller shall, without delay, assess the situation and take appropriate action as required.

6.5.6.3.3 For the purpose of analysis and to improve overall safety levels, the appropriate ATS authority shall retain electronic records of all alerts triggered.

6.5.6.4 A-SMGCS identification procedures

Note.— See PANS-ATM, 8.5, "Use of SSR transponders and ADS-B transmitters" and 8.6.2. "Identification of aircraft".

6.5.6.4.1 Where A-SMGCS is used, aircraft and vehicles may be identified by the following procedures or by those contained in the PANS-ATM, 8.6.2:

a) direct recognition of the aircraft identification of a Mode S-equipped aircraft in an A-SMGCS label; and

b) direct recognition of a suitably equipped vehicle identification in an A-SMGCS label.

6.5.7 Low visibility operations

(A11 – Chapter 3 and P-ATM – Chapter 7)

Note.— For the purpose of describing the provision of an aerodrome control service in the context of varying visibilities, the following four (4) visibility conditions, as defined in Doc 9830, Appendix A, are used. Criteria for determining the transition between visibility conditions are a function of local aerodrome and traffic characteristics and should be established by the appropriate ATS authority.

Visibility condition 1. *Visibility sufficient for the pilot to taxi and to avoid collision with other traffic on taxiways and at intersections by visual reference, and for personnel of control units to exercise control over all traffic on the basis of visual surveillance.*

Visibility condition 2. *Visibility sufficient for the pilot to taxi and to avoid collision with other traffic on taxiways and at intersections by visual reference, but insufficient for personnel of control units to exercise control over all traffic on the basis of visual surveillance.*

Visibility condition 3*. Visibility sufficient for the pilot to taxi but insufficient for the pilot to avoid collision with other traffic on taxiways and at intersections by visual reference, and insufficient for personnel of control units to exercise control over all traffic on the basis of visual surveillance. For taxiing, this is normally taken as visibilities equivalent to an RVR of less than 400 m but more than 75 m.*

Visibility condition 4. *Visibility insufficient for the pilot to taxi by visual guidance only. This is normally taken as an RVR of 75 m or less.*

6.5.7.1 When there is a requirement for traffic to operate on the manoeuvring area in visibility insufficient for personnel of control units to exercise control over all traffic on the basis of visual surveillance, ATC shall provide pilots and vehicle drivers with instructions and information to enable them to navigate and to avoid collisions with other relevant traffic by visual reference. In visibility condition 2, such instructions and information may be derived from the use of A-SMGCS, where available.

6.5.7.2 During visibility conditions 3 and 4, A-SMGCS, where available, may be used to determine the position of aircraft and vehicles on the manoeuvring area.

Note.— The Manual of Surface Movement Guidance and Control Systems (SMGCS) *(Doc 9476) and the* Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual *(Doc 9830) provide guidance on surface movement guidance and control components and procedures.*

6.5.7.3 The general conditions under which the low visibility procedures (LVP) applicable to Cat II/III operations are applied shall be published in the AIP, AD 1.1.

6.5.7.4 In addition to the provisions specified in PANS-ATM, 7.12.2., provisions regarding LVP should specify:

a) the requirement to inform the flight crews that LVPs are in operation and to inform them when LVPs are cancelled;

b) applicable spacing between successive arriving and/or departing aircraft to ensure protection of the

sensitive and critical areas; and

c) any ATFM measures to be implemented.

Note.— Further information can be found in the Air Traffic Services Planning Manual *(Doc 9426).*

6.5.7.5 When an ILS auto-coupled approach to a runway is being conducted outside low visibility conditions (LVP are not in force), it is possible that some disturbance of the ILS signal may occur. In cases where protection of the localizer sensitive area (LSA) cannot be provided, ATC shall inform the flight crew if the pilot requests an autoland with protection of the LSA.

6.6 RNAV PROCEDURES

6.6.1 General

6.6.1.1 RNAV system operation

6.6.1.1.1 Correct operation of the aircraft RNAV system shall be established before joining and during operation on an RNAV route. This shall include confirmation that:

a) the routing is in accordance with the clearance; and

b) the RNAV navigation accuracy of the aircraft meets the navigation accuracy requirements of the RNAV route and arrival or departure procedures, as applicable.

6.6.1.2 Obstacle clearance

(A2 – Chapter 5; P-ATM – Chapters 4 and 8)

6.6.1.2.1 Unless an IFR aircraft is receiving navigation guidance from ATC in the form of radar vectors, the pilot is responsible for obstacle clearance. Therefore, the use of RNAV does not relieve pilots of their responsibility to ensure that any ATC clearance or instruction is safe in respect to obstacle clearance. ATC shall assign levels that are at or above established minimum flight altitudes.

6.6.2 En-route

Nil.

6.6.3 Terminal

6.6.3.1 For operation on RNAV arrival and departure routes, where clearance is given by ATC for an RNAV procedure for which the aircraft is not approved, the pilot is to advise ATC who will then seek to provide an alternative routing.

Note.— See 10.1 for relevant radiotelephony (RTF) phraseology.

6.6.3.2 Aircraft equipped with RNAV equipment having a lateral track-keeping accuracy of ±5 NM (2 SD) with an ability to determine horizontal position to an accuracy sufficient to support the track-keeping requirement and having appropriate functionality, hereafter designated as basic area navigation (B-RNAV), may use RNAV (segments) of arrival and departure routes where these meet the following criteria:

a) the B-RNAV portion of the route must:

1) be above the appropriate minimum flight altitude (MFA) (e.g.: minimum radar vectoring altitude (MRVA) and minimum sector altitude (MSA)); and

2) be in accordance with established PANS-OPS criteria for en-route operations; and

3) conform to B-RNAV en-route design principles;

Note.— For minimum flight altitudes, see Annex 11, 2.22.

b) the departure procedures must be conventional (non-RNAV) up to a conventional fix (or a minimum altitude). Beyond that fix (or minimum altitude), a B-RNAV procedure can be provided in accordance with the criteria in a); and

c) the B-RNAV portion of an arrival route must terminate at a conventional fix in accordance with the criteria given in a) and b). Beyond that fix, the arrival shall be completed by a conventional (non-RNAV) procedure or by the provision of radar vectors; and

d) due regard must be taken of those operating procedures of the users which may affect system performance. Examples include, but are not limited to, initial position fixing on the runway and minimum automatic flight control system (AFCS) engagement altitudes; and

e) arrival and departure procedures, which can be flown by B-RNAV equipment, shall be identified explicitly as approved for application of B-RNAV.

6.6.4 State aircraft

(A11 – Chapter 3)

6.6.4.1 ATC procedures for State aircraft not equipped with RNAV but having a navigation accuracy meeting RNP 5

6.6.4.1.1 Within TMAs, State aircraft may only be routed via the RNAV terminal area procedures if they are equipped with the appropriate RNAV equipment (4.1.1.5.2 and 6.6.3.2 apply).

6.6.4.1.2 For such aircraft operating en route, the following procedures apply:

a) State aircraft should be routed via VOR/DME-defined ATS routes; or

b) if no such routes are available, State aircraft should be routed via conventional navigation aids, i.e. VOR/DME.

Note.— State aircraft routed in accordance with a) or b) may require continuous radar monitoring by the ATC unit concerned.

6.6.4.1.3 When the above procedures cannot be applied, the ATC unit shall provide State aircraft with radar vectors until the aircraft is capable of resuming its own navigation.

6.7 RNP PROCEDURES

6.7.1 General

Nil.

6.7.2 En-route

Nil

6.7.3 Terminal

Nil.

6.7.4 State aircraft

Nil.

6.8 COMPOSITE PROCEDURES

Nil.

6.9 MNPS PROCEDURES

Nil.

6.10 RVSM PROCEDURES

6.10.1 General

6.10.1.1 Except for operations within the airspace designated in accordance with 9.7.1.1, only RVSM-approved aircraft and non-RVSM-approved State aircraft shall be issued an ATC clearance into RVSM airspace.

6.10.1.2 ATC clearance into RVSM airspace shall not be issued to formation flights of civil aircraft.

6.10.2 Transition to/from RVSM airspace

Nil.

6.11 ATS COORDINATION

6.11.1 Between units providing area control services

(P-ATM – Chapter 10)

6.11.1.1 If a flight should enter an adjacent area, information concerning any revision of the estimate of three minutes or more shall be forwarded to the adjacent area control centre normally by telephone.

6.11.2 RNAV

(P-ATM – Chapter 11)

Aircraft experiencing degradation or failure of RNAV — computer-assisted coordination of estimate

6.11.2.1 In the case of automated messages not containing the information provided in Item 18 of the flight plan, the sending ATC unit shall inform the receiving ATC unit by supplementing the ACT message verbally with the phrase "RNAV OUT OF SERVICE" after the call sign of the aircraft concerned.

Aircraft experiencing degradation or failure of RNAV — verbal coordination of estimate

6.11.2.2 When a verbal coordination process is being used, the sending ATC unit shall include the phrase "RNAV OUT OF SERVICE" at the end of the message.

State aircraft not equipped with RNAV — computer-assisted coordination of estimate

6.11.2.3 In the case of automated messages not containing the information provided in Item 18 of the flight plan, the sending ATC unit shall inform the receiving ATC unit by supplementing the ACT message verbally with the phrase "NEGATIVE-RNAV" after the call sign of the aircraft concerned.

State aircraft not equipped with RNAV — verbal coordination of estimate

6.11.2.4 When a verbal coordination process is being used, the sending ATC unit shall include the phrase "NEGATIVE-RNAV" at the end of the message.

6.11.3 RNP

Nil.

6.11.4 RVSM

6.11.4.1 If the receiving unit has not received a flight plan, the sending ATC unit shall verbally inform the receiving unit whether or not the aircraft is RVSM-approved.

6.11.4.2 When an automated message does not contain the information filed in Item 18 of the flight plan relevant to RVSM operations, the sending ATC unit shall inform the receiving unit of that information by supplementing the ACT message verbally, using the term "NEGATIVE RVSM" or "NEGATIVE RVSM STATE AIRCRAFT", as applicable.

6.11.4.3 When a verbal coordination process is being used, the sending ATC unit shall include the information filed in Item 18 of the flight plan relevant to RVSM operations at the end of the verbal estimate message, using the term "NEGATIVE RVSM" or "NEGATIVE RVSM STATE AIRCRAFT", as applicable.

6.11.4.4 When a single aircraft is experiencing an in-flight contingency that impacts on RVSM operations, the associated coordination message(s) shall be supplemented verbally by a description of the cause of the contingency.

6.11.5 SSR codes

Nil.

6.12 ATS MESSAGES

6.12.1 Flight plan and departure

(P-ATM – Chapter 11)

6.12.1.1 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 FIRs shall be addressed to the ACCs in charge of the NAT flight information regions along the route and, in addition, to the ACCs in charge of the nearest adjacent NAT FIRs.

6.12.1.2 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 ACCs immediately after the flight plan has been submitted.

6.12.1.3 Provided reliable ATS speech circuits exist between the successive ATS units concerned with the flight, departure messages may be omitted for IFR flights operated within areas or along routes designated by mutual agreements between the States concerned.

6.12.2 Arrival

Nil.

6.12.3 Boundary estimates

6.12.3.1 When so specified in appropriate aeronautical information publications by the States concerned, flight plans and associated flight plan messages concerning flights within or intending to enter the airspace where the State(s) concerned are responsible for the provision of ATS shall not include FIR boundary estimates.

6.12.4 Computer-assisted coordination

(P-ATM – Chapter 10)

6.12.4.1 General

6.12.4.1.1 When so agreed between adjacent ATC units, a computer-assisted coordination process shall be introduced to eliminate the need for verbal coordination of boundary estimates and to reduce the amount of manual data input into ATC computers.

6.12.4.1.2 When introduced between adjacent area control centres for the purpose of activation and updating of FPL messages or RPLs, data processing shall be based upon the messages and procedures described in 6.12.4.2, 6.12.4.3 and 6.12.4.4.

6.12.4.1.3 The minimum requirement for the activation of flight plan data shall be the content of the boundary estimate (EST) message. When so agreed between adjacent units, the activate (ACT) message shall be used instead of the EST message, enabling additional information to be transmitted.

6.12.4.1.4 The means of communication to be employed and the procedures to be applied for the exchange of messages in the computer-assisted coordination process shall be specified by bilateral agreement between the ATC units concerned.

6.12.4.2 Messages

6.12.4.2.1 The EST message and the ACT message shall be the alternative means employed to achieve flight plan activation. The EST message shall contain Field Types 3, 7, 13a, 14 and 16a. The ACT message shall contain Field Types 3, 7, 13a, 14 and 16a, identical to that of the EST message and, in addition, one or more Field Types 22 as bilaterally agreed between adjacent ATC units for the inclusion of other current information associated with the flight plan.

6.12.4.2.2 The safeguarding of the transmitted message is achieved through the logical acknowledgement message (LAM) which is sent by the receiving ATS unit to the sending ATS unit. The LAM shall contain Field Type 3 (message type, number and reference data) with reference to the appropriate ATS message which it acknowledges.

Example: (LAMP/M178M/P100)
Meaning: LAM sent by Paris (P) to Maastricht (M) followed by the sending unit serial number (178) of this message, followed by the ATS unit identifiers (M/P) and serial number (100) or related estimate.

6.12.4.3 Operational procedure

6.12.4.3.1 The following basic rules shall apply for the use of EST and ACT messages:

a) These messages shall be automatically generated, exchanged and processed to obviate human intervention to the extent practicable.

b) A single message shall be sent in respect of each flight due to be transferred and any subsequent revision shall be the subject of verbal coordination.

c) The message shall provide the most recent information available on all transfer conditions at the time of transmission.

d) Acceptance by the receiving unit of the transfer conditions implied in the message shall be assumed, unless the receiving unit initiates verbal coordination to amend the transfer conditions.

Note.— Bilateral arrangement may be required to cover the event of failure of the ATS direct speech circuit.

e) There shall be bilateral agreement as to the boundary point and transmission times for each route. The normal transmission time shall be 15 minutes before the flight concerned is expected to cross the boundary.

f) In the event of data not being correlated by the receiving computer with an appropriate entry in its flight plan database, the computer shall originate a warning to the appropriate ATC sector to take necessary action for the acquisition of missing flight plan details. This shall normally involve a telephone inquiry.

g) In the event of incomprehensible or illogical data being detected within the message, the computer shall initiate an appropriate warning to the ATC sector involved, if this can be determined, for further action.

Note.— Any system-initiated warning shall require reversion to verbal coordination.

6.12.4.4 Data protection procedure

6.12.4.4.1 Appropriate safeguards in the automatic communication process shall be provided using a logical acknowledgement procedure.

6.12.4.4.2 This procedure shall be based on the following basic rules:

a) The receiving computer shall transmit a LAM in response to an activation message received and processed, up to the point where the operational content will be presented to the appropriate air traffic controller.

b) The transferring ATC unit shall set an agreed reaction parameter time of up to two minutes from transmission of the activation message. If the LAM is not received within that time frame, an operational warning shall be initiated and reversion to telephone and manual mode shall ensue. If the appropriate ATC sector cannot be determined, a LAM shall not be transmitted.

6.13 FLIGHT INFORMATION SERVICE (FIS)

6.13.1 Automatic terminal information services (ATIS)

(A11 – Chapter 4)

6.13.1.1 An ATIS broadcast shall not require the assignment of a VHF channel that is subject to international channel assignment.

6.13.1.2 An ATIS broadcast, when containing departure information only and when requiring transmission on a discrete channel, shall be transmitted on a ground control VHF channel.

6.13.1.3 ATIS broadcast messages need not contain an instruction that, on initial contact with the appropriate ATS unit, the pilot acknowledge receipt of the ATIS message.

6.13.2 SIGMETs

(P-ATM – Chapter 9)

6.13.2.1 Transmission of SIGMET information to aircraft shall be at the initiative of the appropriate ATS unit, by the preferred method of directed transmission followed by acknowledgement, or by a general call when the number of aircraft would render the preferred method impracticable.

6.13.3 Special air-reports

(P-ATM – Chapter 9)

6.13.3.1 Special air-reports shall be transmitted with the least possible delay to aircraft likely to be affected and shall cover the portion of the route up to one hour’s flying time ahead of the aircraft.

6.13.4 Amended aerodrome forecast

(P-ATM – Chapter 9)

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

6.13.5 Landing forecasts

Nil.

6.14 ALERTING SERVICES

(P-ATM – Chapter 9)

6.14.1 The procedures for an alerting service detailed in PANS-ATM, 9.2, are applicable to all sectors of flights over mountainous or sparsely populated areas, including sea areas.

Chapter 7. SAFETY MONITORING

7.1 STRATEGIC LATERAL OFFSET PROCEDURES (SLOP)

7.2 AIRSPACE MONITORING

7.2.1 General

Nil.

7.2.2 RNAV

Nil.

7.2.3 RNP

Nil.

7.2.4 RVSM

7.2.4.1 Monitoring of flight operations in the RVSM airspace shall be conducted to assess the continuing compliance of aircraft with the height-keeping performance requirements.

Chapter 8. AIR TRAFFIC FLOW MANAGEMENT (ATFM)

8.1 PROVISION

(P-ATM – Chapter 3)

8.1.1 ATFM is available to all States of the EUR Region and is provided in accordance with the provisions contained in the PANS-ATM (Doc 4444) and the EUR Air Navigation Plan (Doc 7754).

Note.— A list of the States receiving services from the ATFM System of the EUR Region (ASTER) is contained in the Air Navigation Plan — European Region, *Volume II —* FASID *(Doc 7754), Part V.III, Attachment B.*

8.2 APPLICATION

8.2.1 All IFR flights, including the IFR portions of mixed IFR/VFR flights, regardless of status, are taken into account when measuring demand against ATC capacity. Whenever it becomes necessary to manage this demand, ATFM may be used and departure slots issued by means of calculated take-off times.

8.2.2 Flights departing from areas beyond adjacent FIRs as set out in the ANP — EUR FASID, Part V.III, Attachment C, are exempted from CFMU ATFM slot allocation.

Note 1.— A list of the FIRs/UIRs adjacent to the EUROCONTROL CFMU area of responsibility which receive ASTER services from the CFMU is contained in the ANP — EUR FASID, Part V.III, Attachment C.

Note 2.— Detailed procedures applicable to the CFMU area of responsibility are contained in the EUROCONTROL "Basic CFMU Handbook".

8.3 EXEMPTIONS FROM ATFM SLOT ALLOCATION

(P-ATM – Chapter 3)

8.3.1 Flights carrying Heads of State (or equivalent status) and flights conducting search and rescue operations are exempted from ATFM slot allocations.

Note.— The corresponding ATFM flight planning requirements are provided in 2.2.3.

8.3.2 States receiving services from ASTER, as defined in the ANP — EUR FASID, Part V.III, Attachments B and C, may approve additional exemptions from the ATFM slot allocation for specific flights departing from an aerodrome located within their territory.

8.3.3 States shall publish the procedures for requesting ATFM slot allocation exemptions in their national AIPs.

Note.— Detailed procedures and information pertaining to ATFM slot allocation exemptions, for the area covered by the CFMU, are contained in the EUROCONTROL "Basic CFMU Handbook".

8.3.4 States shall carry out compliance monitoring of ATFM slot allocation exemptions granted in accordance with 8.3.1 and 8.3.2.

8.4 DEPARTURE SLOT MONITORING

8.4.1 ATC is responsible for departure slot monitoring at departure aerodromes. The exact procedures to be followed will depend on the way that ATS is organized at each aerodrome. There are, however, three requirements:

a) States shall ensure that an ATFM slot, if applicable, be included as part of the ATC clearance. ATC shall take account of an applicable slot or flight suspension when a clearance is issued.

b) ATC units responsible for departure slot monitoring shall be provided with the necessary information concerning the restrictions in force and slots allocated.

c) Aircraft operators shall inform themselves of and adhere to:

1) general ATFM procedures including flight plan filing, strategic ATFM measures and message exchange requirements; and

2) current ATFM measures (e.g. specific measures applicable on the day in question such as ATFM slot or flight suspension).

8.5 PROMULGATION OF ATFM MEASURES

8.5.1 Strategic ATFM measures

(A15 – Chapter 4; P-ATM – Chapter 3)

8.5.1.1 Following the agreement of all States concerned, ATFM units shall promulgate a traffic orientation scheme, when required, together with any other ATFM measures.

8.5.1.2 Coordinated strategic air traffic flow measures shall be promulgated in accordance with AIRAC procedures on the basis of the following principles:

a) the information shall be promulgated in English as aeronautical information regulation and control (AIRAC) ATFM Bulletins in accordance with the following requirements of Annex 15 concerning AIRAC AIP Supplements:

1) the effective date of the ATFM Bulletin shall be specified;

2) an ATFM Bulletin number shall be assigned; and

3) the ATFM Bulletin distribution shall be on the basis of a pre-determined distribution list including, but not limited to, all international AIS offices of EUR provider and user States; and

Note.— If required, national distribution will be determined by each State in accordance with its needs. Furthermore, if an ATFM Bulletin is redistributed, it should reference the original serial number.

b) following the publication of an AIRAC ATFM Bulletin, a trigger NOTAM in series F shall be promulgated in accordance with Annex 15 provisions (8.5.2.1 also refers).

8.5.2 Amendments to promulgated strategic ATFM measures

(A15 – Chapter 5; P-ATM – Chapter 3)

8.5.2.1 Changes to promulgated strategic ATFM measures, as defined in 8.5.1.1, shall be promulgated using a NOTAM in series F. This NOTAM shall be coordinated and provided in accordance with Annex 15 provisions. It shall include the following:

a) Item Q) shall include:

FIR: EUCF or EUXX
CODE: QPFCA (respectively QPFCD or QPFCH, whichever is appropriate)
TRAFFIC: I
PURPOSE: NBO
SCOPE: E
LOWER/UPPER: AS APPROPRIATE
COORDINATES/RADIUS: THE EPICENTRE AND RADIUS OF THE AREA OF CONCERN.

b) As regards the FIR field in Item Q): EUCF should be used if Item A) contains one four-letter location indicator only or EUXX if Item A) contains more than one four-letter location indicator. EU relates to European multinational air navigation facilities whereas CF relates specifically to the CFMU. (XX are the letters usually used to identify NOTAMs with multiple locations in Item A).)

c) Item A) shall include EU plus the two-letter ICAO identifier of the State concerned; it could include one to seven four-letter ICAO location identifiers representing the State(s) affected by the ATFM measures or it could include EUCF if the restrictions apply to the entire area concerned; and

d) Item C): because of the temporary nature of ATFM measures, the abbreviation PERM shall not be used.

8.5.3 ATFM circulars and information

(A15 – Chapter 7)

8.5.3.1 General information pertaining to air traffic flow management issues shall be promulgated using an ATFM Circular in accordance with the requirements of Annex 15 concerning Aeronautical Information Circulars. Distribution of the ATFM Circulars shall be in accordance with the procedures specified in 8.5.1.2 a) 3).

Note 1.— If required, national distribution will be determined by each State in accordance with its needs. Furthermore, if an ATFM Circular is redistributed, it should reference the original serial number.

Note 2.— Provisions for promulgation of information on ATFM measures, including updates of local ATFM measures and other additional information, are described in the EUROCONTROL "Basic CFMU Handbook".

8.5.4 Pre-flight information bulletin (PIB)

(A15 – Chapter 8)

8.5.4.1 Information concerning ATFM measures promulgated using NOTAM in series F shall be included in the PIB.

8.5.5 Query procedures

8.5.5.1 Standard NOTAM query procedures shall be used to access NOTAM series F information.

Chapter 9. SPECIAL PROCEDURES

9.1 EMERGENCY DESCENT PROCEDURES

(P-ATM – Chapter 15)

Nil

~~9.1.1 Action by the pilot-in-command~~

~~9.1.1.1 When an aircraft operated as a controlled flight experiences sudden decompression or a malfunction requiring an emergency descent, the aircraft shall, if able:~~

~~a) initiate a turn away from the assigned route or track before commencing the emergency descent;~~

~~b) advise the appropriate air traffic control unit as soon as possible of the emergency descent;~~

~~c) set transponder to Code 7700 and select the Emergency Mode on the automatic dependent surveillance/controller-pilot data link communications (ADS/CPDLC) system, if applicable;~~

~~d) turn on aircraft exterior lights;~~

~~e) watch for conflicting traffic both visually and by reference to ACAS (if equipped); and~~

~~f) coordinate its further intentions with the appropriate ATC unit.~~

~~9.1.1.2 The aircraft shall not descend below the lowest published minimum altitude that will provide a minimum vertical clearance of 300 m (1 000 ft) or, in designated mountainous terrain, of 600 m (2 000 ft) above all obstacles located in the area specified.~~

~~9.1.2 Action by the ATS unit~~

~~9.1.2.1 Immediately upon recognizing that an emergency descent is in progress, air traffic control units shall acknowledge the emergency on radiotelephony.~~

~~9.1.2.2 In particular, they may, as required by the situation:~~

~~a) suggest a heading to be flown, if able, by the aircraft carrying out the emergency descent in order to achieve separation from other aircraft concerned;~~

~~b) state the minimum altitude for the area of operation, only if the level-off altitude stated by the pilot is below such minimum altitude, together with the applicable QNH altimeter setting; and~~

~~c) as soon as possible, provide separation from conflicting traffic, or issue essential traffic information, as appropriate.~~

~~9.1.2.3 When deemed necessary, air traffic control will broadcast an emergency message, or cause such message to be broadcast, to other aircraft concerned to warn them of the emergency descent. The broadcast~~

~~emergency message should contain instructions for specific actions to be taken by aircraft addressed in the broadcast or, alternatively, instructions to continue in accordance with their current clearances, and stand by on the appropriate channels for further clearances and instructions.~~

~~*Note.— In the absence of specific instructions provided to the aircraft addressed in the broadcast, it may be expected that such aircraft will clear the area on their own initiative.*~~

9.2 CONTINGENCY PROCEDURES INCLUDING TURN BACKS

Nil.

9.3 AIR-GROUND COMMUNICATION FAILURE

Nil.

9.4 DEGRADATION OR FAILURE OF THE RNAV SYSTEM

9.4.1 Action by the pilot-in-command

9.4.1.1 When an aircraft cannot meet the requirements as specified in either 4.1.1.5.2.4 or 6.6.3.2, as required by the RNAV route or procedure, as a result of a failure or degradation of the RNAV system, a revised clearance shall be requested by the pilot.

Note.— See 10.1 for relevant radiotelephony (RTF) phraseology.

9.4.1.2 If an aircraft cannot meet the requirements as specified in 6.6.3.2 due to a failure or degradation of the RNAV system that is detected before departure from an aerodrome where it is not practicable to effect a repair, the aircraft concerned should be permitted to proceed to the nearest suitable aerodrome where the repair can be made. When granting clearance to such aircraft, ATC should take into consideration the existing or anticipated traffic situation and may have to modify the time of departure, flight level or route of the intended flight. Subsequent adjustments may become necessary during the course of the flight.

Note.— See 10.1 for relevant RTF phraseology.

9.4.1.3 With respect to the degradation/failure in flight of an RNAV system, while the aircraft is operating on an ATS route requiring the use of B-RNAV:

a) aircraft should be routed via VOR/DME-defined ATS routes; or

b) if no such routes are available, aircraft should be routed via conventional navigation aids, i.e. VOR/DME; or

c) when the above procedures are not feasible, the ATC unit should, where practicable, provide the aircraft with radar vectors until the aircraft is capable of resuming its own navigation.

Note.— Aircraft routed in accordance with a) or b) may, where practicable, require continuous radar

monitoring by the ATC unit concerned.

9.4.1.4 With respect to the degradation/failure in flight of an RNAV system, while the aircraft is operating on an arrival or departure procedure requiring the use of RNAV:

a) the aircraft should be provided with radar vectors until the aircraft is capable of resuming its own navigation, or

b) the aircraft should be routed by conventional navigation aids, i.e. VOR/DME.

9.4.2 Action by the ATS unit

9.4.2.1 Subsequent ATC action in respect of an aircraft that cannot meet the requirements as specified in either 4.1.1.5.2.4 or 6.6.3.2, due to a failure or degradation of the RNAV system, will be dependent upon the nature of the reported failure and the overall traffic situation. Continued operation in accordance with the current ATC clearance may be possible in many situations. When this cannot be achieved, a revised clearance, as specified in 9.4.1.3 and 9.4.1.4, may be required to revert to VOR/DME navigation.

9.5 LOSS OF VERTICAL NAVIGATION PERFORMANCE REQUIRED FOR RVSM

9.5.1 General

9.5.1.1 The pilot shall inform ATC as soon as possible of any circumstances where the vertical navigation performance requirements for RVSM airspace cannot be maintained. In such cases, the pilot shall obtain a revised ATC clearance prior to initiating any deviation from the cleared route and/or flight level.

9.5.1.2 ATC shall render all possible assistance to a pilot experiencing an in-flight contingency. Subsequent ATC actions will be based on the intentions of the pilot, the overall air traffic situation and the real-time dynamics of the contingency.

Note.— An in-flight contingency affecting flight in RVSM airspace pertains to unforeseen circumstances that directly impact on the ability of one or more aircraft to operate in accordance with the vertical navigation performance requirements of RVSM airspace. Such in-flight contingencies can result from degradation of aircraft equipment associated with height-keeping or from turbulent atmospheric conditions.

9.5.2 Degradation of aircraft equipment – pilot reported

(A6, Part I – Chapter 7 and Appendix 4; A6, Part II – Chapter 7 and Appendix 2)

9.5.2.1 When informed by the pilot of an RVSM-approved aircraft operating in RVSM airspace that the aircraft's equipment no longer meets the RVSM requirements, ATC shall consider the aircraft as non-RVSM-approved.

9.5.2.2 ATC shall take action immediately to provide a minimum vertical separation of 600 m (2 000 ft) or an appropriate horizontal separation from all other aircraft concerned that are operating in RVSM airspace. Essential traffic information should be provided, as necessary. An aircraft rendered non-RVSM-approved shall normally be cleared out of RVSM airspace by ATC when it is possible to do so.

9.5.2.3 Pilots shall inform ATC, as soon as practicable, of any restoration of the proper functioning of equipment required to meet the RVSM requirements.

9.5.2.4 The first ACC/UAC to become aware of a change in an aircraft's RVSM status shall coordinate with adjacent ACCs/UACs, as appropriate.

9.5.3 Severe turbulence – not forecast

9.5.3.1 When an aircraft operating in RVSM airspace encounters severe turbulence due to weather or wake vortex that the pilot believes will impact the aircraft's capability to maintain its cleared flight level, the pilot shall inform ATC. ATC shall establish either an appropriate horizontal separation or an increased minimum vertical separation.

9.5.3.1.1 When severe turbulence encountered has made it necessary to immediately deviate from the cleared route and/or flight level, the pilot shall obtain a revised ATC clearance as soon as possible.

9.5.3.2 ATC shall, to the extent possible, accommodate pilot requests for flight level and/or route changes and shall pass on traffic information as required.

9.5.3.3 ATC shall solicit reports from other aircraft to determine whether RVSM should be suspended entirely or within a specific flight level band and/or area.

9.5.3.4 The ACC/UAC suspending RVSM shall coordinate such suspension(s) and any required adjustments to sector capacities with adjacent ACCs/UACs, as appropriate, to ensure an orderly progression to the transfer of traffic.

9.5.4 Severe turbulence – forecast

9.5.4.1 When a meteorological forecast is predicting severe turbulence within RVSM airspace, ATC shall determine whether RVSM should be suspended and, if so, for how long and for which specific flight level(s) and/or area.

9.5.4.2 In cases where RVSM will be suspended, the ACC/UAC suspending RVSM shall coordinate with adjacent ACCs/UACs with regard to the flight levels appropriate for the transfer of traffic, unless a contingency flight level allocation scheme has been determined by letter of agreement. The ACC/UAC suspending RVSM shall also coordinate applicable sector capacities with adjacent ACCs/UACs as appropriate.

9.6 EN-ROUTE DIVERSION

Nil.

9.7 INTER-REGION INTERFACE FOR NON-RVSM-APPROVED AIRCRAFT

9.7.1 European/North Atlantic (NAT) interface

9.7.1.1 The State authorities responsible for Polaris, Scottish, Shannon, London, Brest, Madrid and Lisboa FIRs may establish designated airspace within their FIRs for the purpose of transitioning non-RVSM-approved aircraft operating to and from the NAT Region.

9.7.1.2 ACCs/UACs providing ATC service within airspace designated in accordance with 9.7.1.1 may clear such non-RVSM-approved aircraft to climb or descend through RVSM airspace.

9.7.1.3 Climbs or descents through RVSM airspace, in accordance with 9.7.1.2, shall be achieved before the aircraft passes the transfer of control point to the adjacent ACC/UAC, if applicable, unless otherwise specified in an

inter-ACC letter of agreement.

9.8 MANNED BALLOON FLIGHTS

Nil.

Chapter 10. PHRASEOLOGY

(P-ATM – Chapter 12)

10.1 RNAV

Circumstances	*Phraseologies*
RNAV arrival or departure procedure cannot be accepted by the pilot	*UNABLE (*designator*) DEPARTURE [*or* ARRIVAL] DUE RNAV TYPE
Pilot is unable to comply with an assigned terminal area procedure	*UNABLE (*designator*) DEPARTURE [*or* ARRIVAL] (*reasons*)
ATC unable to assign an RNAV arrival or departure procedure requested by a pilot due to the type of on-board RNAV equipment	UNABLE TO ISSUE (*designator*) DEPARTURE [*or* ARRIVAL] DUE RNAV TYPE
ATC unable to assign an arrival or departure procedure requested by the pilot	UNABLE TO ISSUE (*designator*) DEPARTURE [*or* ARRIVAL] (*reasons*)
Confirmation whether a specific RNAV arrival or departure procedure can be accepted	ADVISE IF ABLE (*designator*) DEPARTURE [*or* ARRIVAL]
Informing ATC of RNAV degradation or failure	*(*aircraft call sign*) UNABLE RNAV DUE EQUIPMENT
Informing ATC of no RNAV capability	*(*aircraft call sign*) NEGATIVE RNAV
** Denotes pilot transmission*	

10.2 RNP

Nil.

10.3 SURVEILLANCE

Circumstances	***Phraseologies***
Controller queries a discrepancy between the displayed "Selected Level" and the cleared level. *Note: The controller will not state on radiotelephony the value of the "Selected Level" observed on the situation display*	**CHECK SELECTED LEVEL. CLEARED LEVEL IS** (*level*) **CHECK SELECTED LEVEL. CONFIRM CLIMBING (***or* **DESCENDING) TO (***or* **MAINTAINING)** (*level*) ***CLIMBING (***or* ***DESCENDING) TO (***or* ***MAINTAINING) (****level****) (****appropriate information on selected level****)*** * Denotes pilot transmission

10.4 AERODROME OPERATIONS

Circumstances	*Phraseologies*
Request for departure from an intersection take-off position	*REQUEST DEPARTURE FROM RUNWAY (*number*), INTERSECTION (*designation or name of intersection*)
Approval of requested departure from an intersection take-off position	APPROVED, TAXI TO HOLDING POINT RUNWAY (*number*), INTERSECTION (*designation or name of intersection*)
Denial of requested departure from an intersection take-off position	NEGATIVE, TAXI TO HOLDING POINT RUNWAY (*number*), INTERSECTION (*designation or name of intersection*)
ATC-initiated intersection take-off	ADVISE ABLE TO DEPART FROM RUNWAY (*number*), INTERSECTION (*designation or name of intersection*)
Advising take-off run available from an intersection take-off position	TORA RUNWAY (*number*), FROM INTERSECTION (*designation or name of intersection*), (*distance in metres*)
Issuing multiple line-up instruction	LINE UP AND WAIT RUNWAY (*number*), INTERSECTION (*name of intersection*), (*essential traffic information*)
Request for a visual departure	*REQUEST VISUAL DEPARTURE [DIRECT] TO/UNTIL (*navaid, waypoint, altitude*)
ATS initiated visual departure	ADVISE ABLE TO ACCEPT VISUAL DEPARTURE [DIRECT] TO/UNTIL (*navaid, waypoint/altitude*)
Clearance for visual departure	VISUAL DEPARTURE RUNWAY (*number*) APPROVED, TURN LEFT/RIGHT [DIRECT] TO (*navaid, heading, waypoint*) [MAINTAIN VISUAL REFERENCE UNTIL (*altitude*)]
Read-back of visual departure clearance	*VISUAL DEPARTURE TO/UNTIL (*navaid, waypoint/altitude*)
** Denotes pilot transmission*	*Note.— TORA pronounced TOR-AH.*

10.5 ATFM

Circumstances	*Phraseologies*
Calculated take-off time (CTOT) delivery resulting from a slot allocation message (SAM). (The CTOT shall be communicated to the pilot at the first contact with ATC.)	SLOT (*time*)
Change to CTOT resulting from a Slot Revision Message (SRM).	REVISED SLOT (*time*)
CTOT cancellation resulting from a Slot Cancellation Message (SLC).	SLOT CANCELLED, REPORT READY
Flight suspension until further notice (resulting from Flight Suspension Message (FLS)).	FLIGHT SUSPENDED UNTIL FURTHER NOTICE, DUE (*reason*)
Flight de-suspension resulting from a De-suspension Message (DES).	SUSPENSION CANCELLED, REPORT READY
Denial of start-up when requested too late to comply with the given CTOT.	UNABLE TO APPROVE START-UP CLEARANCE DUE SLOT EXPIRED, REQUEST A NEW SLOT
Denial of start-up when requested too early to comply with the given CTOT.	UNABLE TO APPROVE START-UP CLEARANCE DUE SLOT (*time*), REQUEST START-UP AT (*time*)

Chapter 11. SEARCH AND RESCUE

11.1 INTERNATIONAL GENERAL AVIATION (IGA)

(A6, Part II – Chapter 6; A6, Part III – Chapter 4)

11.1.1 General aviation aircraft operating over designated areas, land or sea, where search and rescue operations would be difficult, should:

a) carry appropriate survival equipment; and

b) follow the routes or specified procedures if not equipped with two-way radio, except that under special circumstances, the appropriate authority may grant specific exemptions from this requirement.

Chapter 12. METEOROLOGY

12.1 AIRCRAFT OBSERVATIONS AND REPORTS

Nil.

Chapter 13. AERONAUTICAL INFORMATION SERVICES

13.1 NOTAM ADDRESSING AND DISTRIBUTION

13.1.1 In addition to the distribution to individual States, all NOTAM originated worldwide shall also be addressed to the European AIS Database (EAD) using the AFTN address EUECYIYN as destination address.

Note.— Bilateral addressing agreements between States remain unchanged.

13.1.2 The EAD shall ensure distribution of NOTAM to all relevant NOTAM Offices (NOF) within its area of responsibility (EAD Clients).

13.1.3 NOTAM originated by EAD Clients shall be channelled through the EAD system and therefore indicate the EAD AFTN origination address.

13.1.4 The EAD AFTN destination and origination addresses are as follows:

Type of message	EAD destination address	EAD origination address (where applicable)
NOTAM	EUECYIYN	EUECYIYN
SNOWTAM	EUECYIYS	EUECYIYN
ASHTAM	EUECYIYA	EUECYIYN
BIRDTAM	EUECYIYB	EUECYIYN
ATFM (ANM, AIM, CRAM)		EUECYIYN
Freetext	EUECYIYX	EUECYIYX
Request for: — repetition of NOTAM — original version of NOTAM — list of valid NOTAM	EUECYRYX	EUECYIYN
Reply message	EUECYRYX	EUECYIYN
Note.— "Request for…" messages will be processed automatically by the EAD in case the standard request format is applied.		

Note 1.— Detailed procedures and information applicable to the European AIS Database (EAD) is contained in the EUROCONTROL "EAD Operational User Handbook".

Note 2.— BIRDTAM is not an official ICAO term. BIRDTAM is an acronym for AFTN messages originated by military services based on a NATO Standard to provide information about bird strike risk/warning particularly in lower level flying areas. The EAD covers those messages for specific military clients.

Note 3.— ATFM includes Air Traffic Flow Management messages such as ANM (ATFM Notification Message), AIM (ATFM Information Message) and CRAM (Conditional Route Availability Message).

13.2 AERONAUTICAL CHART INFORMATION

13.2.1 Visual procedures

13.2.1.1 Information essential for the conduct of visual departures and visual approaches (e.g. significant obstacles, topographical and cultural features), including any specific limitations as prescribed by the appropriate authority (e.g. designated airspace, recommended tracks) shall be displayed on the visual approach chart and standard instrument departure (SID) chart or standard instrument arrival (STAR) chart, as appropriate.