



International Civil Aviation Organization
Eastern and Southern African Office

**First Meeting of the AFI Flight Plan Transition Task Force
(FPLT TF/1)
(Johannesburg, South Africa, 13 - 14 September 2010)**

**Agenda Item: 3 Review of implementation implications and development of
implementation strategy, plan and guidance**

REGIONAL STRATEGY, PLANNING AND GUIDANCE

(Presented by the Secretariat)

SUMMARY
This working paper provides a review of the AFI performance objectives related to Amendment 1 of the 15 th Edition of PANS-ATM, Doc 4444, and a review of planning and implementation process in other regions, as guidance for development of a regional strategy for implementation in the AFI Region. This also calls for development of Regional implementation strategy and plan.
Action by the meeting is at paragraph 3 .
REFERENCES: SP AFI RAN Report This Working Paper is related to Strategic Objectives: A & D

1. INTRODUCTION

1.1 On 28 May 2008, amendment No. 1 to the Fifteenth Edition of the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444) was approved, calling for substantial changes to ICAO flight plan to take effect from 15 November 2012. The new flight plan model introduces considerable changes related, *inter-alia*, to reduced vertical separation minimum (RVSM), Performance Based Navigation (PBN), Required Communication Performance (RCP), Automatic Dependent Surveillance – Broadcast (ADS-B) and Global Navigation Satellite systems (GNSS). The meeting may wish to note that the Amendment is an interim step towards a completely revamped system of interaction between aircraft and the ATM system, wherein the aircraft will be an integral part of the ATM system as envisaged in the Global ATM Operational Concept.

1.2 The Special AFI/8 Regional Air Navigation Meeting (SP AFI/8 RAN) Durban, South Africa, 24 to 29 November 2008 noted that the impact of the modifications to flight data processing systems would vary from one air navigation service provider and State to another depending on their data requirements, the level of validation necessary and the types of systems in place, and would require significant effort and lead time for States, air navigation service providers and aircraft operators.

1.3 Furthermore, the RAN Meeting recognized that because the change-over should be coordinated with all stakeholders, the planning and implementation regional groups (PIRGs) should develop coordinated transition plans with common strategies and mitigation measures. The RAN Meeting therefore agreed to a basic checklist in the form of a Performance Framework Form (PFF), to be followed by States and used by APIRG to monitor transition efforts. Accordingly, the SP AFI RAN formulated Recommendation 6/5 – *Implementation of the new ICAO model Flight Plan Form*.

1.4 The content of the PFF has since been reviewed by the ATS/AIS/SAR SG/11 meeting in April 2010, and adopted by the APIRG 17 meeting in August 2010 under the following Conclusion:

Conclusion 17/41: ATM Performance Framework

That, the AFI performance framework forms formulated by the Special AFI/8 RAN Meeting regarding performance objectives in the fields of ATM and SAR are updated as at Appendix 3.4A to the report on agenda item 3.4

1.5 The SP AFI/8 RAN Meeting noted that the impact of the modifications to the flight data processing systems will vary from one State/ANSP to another, depending on their specific data requirements, the level of validation necessary and the types of systems in place. The changes will have considerable consequences on ANSPs flight data processing systems and the use of data in ANSP automation which support communication with aircraft as the flight progresses.

2. DISCUSSION

2.1 **FPLT Task Force** – In order to facilitate the process of transition to and implementation of the new ICAO model flight plan, APIRG 17 Meeting in August 2010 adopted *Decision 11/46: Establishment of the AFI Flight Plan Transition Task Force (FPLT TF)*, establishing the AFI FPLT Task Force:

2.2 **Planning and Implementation implications** – The meeting may wish to review content of Amendment 1 to Doc 4444 15th Ed. (**Appendix A**) as well as guidance regarding its implementation, which was circulated under State Letter Ref.: AN 13/2.1-09/9 dated 6 February 2009 (**Appendix B**), in order to identify planning requirements for the Region. In this context, the meeting may also wish to note and take into consideration observations and steps taken in other ICAO Regions, amongst others, to avoid reinvention of the wheel, and to facilitate inter Regional coordination.

2.3 Based on the assessment of available information as well as impact of the implementation of Amendment 1 to Doc 4444 15th Ed., the meeting may wish to:

- a) Identify information that is essential for implementation, coordination, and in this context, information to be provided by States
- b) Develop a Regional Strategy to guide implementation in the AFI Region
- c) Review and update the Regional PFF at **Appendix C** to this working paper
- d) Develop a plan and identify actions, responsible parties and target dates, to achieve the tasks in the Performance Objectives

2.4 **Awareness campaigns** – The meeting will note that in order to facilitate the participation and necessary role playing by various stakeholders, the APIRG 17 in August 2010 adopted the following Conclusion:

Draft Conclusion 17/62: Convening of a Workshop on Implementation of New ICAO Flight Plan Model Provisions

That, in order to enable the optimum contribution of relevant stakeholder in the transition to and implementation of the new ICAO flight plan mode provisions, Regional Offices arrange workshops to sensitize and inform States, ANSPs and related entities.

2.5 The meeting will recall however, that participation of States in workshops is typically low. In this regard, the FPLT Task Force may wish to identify other complementary means to raise awareness at the appropriate levels in States/ANSPs.

2.6 **Communication and focal points** – the meeting may recall that ICAO has established the Flight Plan Implementation Tracking System (FITS), a web based tool that can be accessed at <http://www2.icao.int/en/FITS/Pages/home.aspx> to monitor the implementation of the new FPL in all ICAO Regions and help States and any other organization involved in flight data processing system to clarify issues related to the interpretation and implementation of the new provisions. The meeting may wish to note however, that a large portion of the information to be uploaded to the abovementioned website is to be provided by States.

2.7 In order to gather essential planning information, the ESAF Regional Office circulated State Letter Ref: ES AN 4/3 – 0825 dated 21 December 2009, requesting States to provide the following:

- a) Point of Contact for flight plan content transition, and contact details thereof
- b) Indication of whether or processing of flight plan information was automated
- c) Whether or not capability exist to process new (2012 content)

2.8 Despite intensive follow up, which included telephone calls, by 31 July 2010 responses were still very low, as indicated in **Appendix D** to this working paper. The Task Force and its members are requested to assist in obtaining responses from States.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information in this working paper;
- b) take action in accordance with paragraph 3 of this working paper; and
- c) update and where practical assist in obtaining States responses with regard to the list of points of contact for all States/ANSPs and organisations.



FPLT TF/1 WP/3
Appendix A

International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

國際民用
航空組織

Tel.: +1 (514) 954-6711

25 June 2008

Ref.: AN 13/2.1-08/50

Subject: Approval of Amendment 1 to the PANS-ATM

Action required: a) Implementation of the amendment on 15 November 2012; b) Publication of any differences as of 15 November 2012

Sir/Madam,

1. I have the honour to inform you that the Air Navigation Commission, acting under delegated authority, at the first and second meetings of its 177th Session, on 22 and 24 January 2008, approved Amendment 1 to the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition (PANS-ATM, Doc 4444) for applicability on 15 November 2012. The amendment was approved on 27 May 2008 by the President of the Council on behalf of the Council in accordance with established procedure.

2. Amendment 1 stems from the work of the Flight Plan Study Group (FPLSG). The nature and scope of the amendment is to update the ICAO model flight plan form in order to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems, while taking into account compatibility with existing systems, human factors, training, cost and transition aspects.

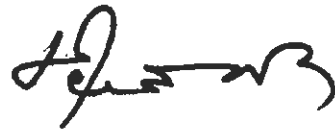
3. Copies of the interim edition of the amendment are available as attachments to the electronic version of this State letter on the ICAO-NET (www.icao.int/icao/net). The interim edition contains the text as it was approved by the Council and provided to you pending the issue of the replacement pages for the PANS-ATM in which the amendment will be incorporated. Please note that the attached amendment consists solely of a change to the ICAO model flight plan form, related ATS messages and procedures and has an applicability date of 15 November 2012. As the existing ICAO flight plan will remain in use during the interim period it is deemed premature for ICAO to distribute the blue cover State letter containing the replacement pages associated with the amendment. Therefore, the replacement pages will be distributed in October 2012. In the meantime, you may wish to use the amendment contained in this letter to begin updating your flight data processing systems to meet the new requirements which will be applicable in 2012.

4. In accordance with the decision of the 26th Session of the Assembly, I would like to bring to your attention the Organization's long-standing practice of providing documentation to States upon request. In this regard, I wish to refer you to the ICAO-NET website (www.icao.int/icaonet) where you can access all relevant documentation. The practice of dispatching printed copies of such documentation has now been discontinued.

5. Your Government is invited by the Council to implement the provisions of PANS-ATM as amended. In this connection, I draw your attention to the decision taken by the Council, on 1 October 1973, to discontinue the publication of differences in Supplements to the PANS documents and, instead, to request States to publish up-to-date lists of significant differences from PANS documents in their Aeronautical Information Publications.

6. May I, therefore, invite your Government to publish in your Aeronautical Information Publication a list of any significant differences which will exist on 15 November 2012 between the amended provisions of PANS-ATM and your national regulations and practices.

Accept, Sir/Madam, the assurances of my highest consideration.



Taïeb Chérif
Secretary General

Enclosure:

Amendment to the Foreword of the PANS-ATM

AMENDMENT TO THE FOREWORD OF THE PANS-ATM, FIFTEENTH EDITION

Add the following at the end of Table A:

<i>Amendment</i>	<i>Source(s)</i>	<i>Subject</i>	<i>Approved Applicable</i>
1	Flight Plan Study Group (FPLSG)	Update the ICAO model flight plan form.	27 May 2008 15 November 2012

— END —

AMENDMENT NO. 1
TO THE
PROCEDURES
FOR
AIR NAVIGATION SERVICES

AIR TRAFFIC MANAGEMENT
(Doc 4444)

INTERIM EDITION

The text of Amendment No. 1 to the PANS-ATM (Doc 4444) was approved by the President of the Council of ICAO on behalf of the Council on **27 May 2008** for applicability on **15 November 2012**. This interim edition is distributed to facilitate implementation of the amendment by States. Replacement pages incorporating Amendment No. 1 are expected to be distributed in October 2012. (State letter AN 13/2.1-08/50 refers.)

MAY 2008
INTERNATIONAL CIVIL AVIATION ORGANIZATION

**PROPOSED AMENDMENT TO THE *PROCEDURES FOR AIR
NAVIGATION SERVICES — AIR TRAFFIC MANAGEMENT*
(PANS-ATM, DOC 4444)**

NOTES ON THE PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1. ~~Text to be deleted is shown with a line through it~~ text to be deleted
2. New text to be inserted is highlighted with grey shading new text to be inserted
3. ~~Text to be deleted is shown with a line through it~~ followed new text to replace existing text
by the replacement text which is highlighted with grey
shading.

**PROCEDURES FOR AIR NAVIGATION SERVICES — AIR
TRAFFIC MANAGEMENT (PANS-ATM, DOC 4444)**

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CHAPTER 4. GENERAL PROVISIONS FOR AIR TRAFFIC SERVICES

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4.4 FLIGHT PLAN

4.4.1 Flight plan form

Note.— Procedures for the use of repetitive flight plans are contained in Chapter 16, Section 16.4.

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4.4.1.3 Operators and air traffic services units should comply with:

- a) the instructions for completion of the flight plan form and the repetitive flight plan listing form given in Appendix 2; and
- b) any constraints identified in relevant Aeronautical Information Publications (AIPs).

Note 1.— Failure to adhere to the provisions of Appendix 2 or any constraint identified in relevant AIPs may result in data being rejected, processed incorrectly or lost.

Note 2.— The instructions for completing the flight plan form given in Appendix 2 may be conveniently printed on the inside cover of flight plan form pads, or posted in briefing rooms.

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4.4.2 Submission of a flight plan

4.4.2.1 PRIOR TO DEPARTURE

4.4.2.1.1 Flight plans shall not be submitted more than 120 hours before the estimated off-block time of a flight.

4.4.2.1.2 Except when other arrangements have been made for submission of repetitive flight plans, a flight plan submitted prior to departure should be submitted to the air traffic services reporting office at the departure aerodrome. If no such unit exists at the departure aerodrome, the flight plan should be submitted to the unit serving or designated to serve the departure aerodrome.

4.4.2.1.3 In the event of a delay of 30 minutes in excess of the estimated off-block time for a controlled flight or a delay of one hour for an uncontrolled flight for which a flight plan has been submitted, the flight plan should be amended or a new flight plan submitted and the old flight plan cancelled, whichever is applicable.

CHAPTER 11. AIR TRAFFIC SERVICES MESSAGES

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11.4 MESSAGE TYPES AND THEIR APPLICATION

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11.4.2 Movement and control messages

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11.4.2.2 MOVEMENT MESSAGES

...

11.4.2.2.2 FILED FLIGHT PLAN (FPL) MESSAGES

Note.— Instructions for the transmission of an FPL message are contained in Appendix 2.

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11.4.2.2.2.5 FPL messages ~~shall normally~~ **should** be transmitted immediately after the filing of the flight plan. ~~However, if a flight plan is filed more than 24 hours in advance of the estimated off-block time of the flight to which it refers, that flight plan shall be held in abeyance until at most 24 hours before the flight begins so as to avoid the need for the insertion of a date group into that~~ the date of the flight departure shall be inserted in Item 18 of the flight plan. ~~In addition, if a flight plan is filed early and the provisions of 11.4.2.2.2.2 b) or c) or 11.4.2.2.2.3 apply, transmission of the FPL message may be withheld until one hour before the estimated off block time, provided that this will permit each air traffic services unit concerned to receive the information at least 30 minutes before the time at which the aircraft is estimated to enter its area of responsibility.~~

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11.4.2.2.4 MODIFICATION (CHG) MESSAGES

A CHG message shall be transmitted when any change is to be made to basic flight plan data contained in previously transmitted FPL or RPL data. The CHG message shall be sent to those recipients of basic flight plan data which are affected by the change. **Relevant revised basic flight plan data shall be provided to such affected entities not previously having received this.**

Note.— See 11.4.2.3.4 concerning notification of a change to coordination data contained in a previously transmitted current flight plan or estimate message.

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APPENDIX 2. FLIGHT PLAN

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2. Instructions for the completion of the flight plan form

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2.2 Instructions for insertion of ATS data

Complete Items 7 to 18 as indicated hereunder.

Complete also Item 19 as indicated hereunder, when so required by the appropriate ATS authority or when otherwise deemed necessary.

Note 1.— Item numbers on the form are not consecutive, as they correspond to Field Type numbers in ATS messages.

Note 2.— Air traffic services data systems may impose communications or processing constraints on information in filed flight plans. Possible constraints may, for example, be limits with regard to item length, number of elements in the route item or total flight plan length. Significant constraints are documented in the relevant Aeronautical Information Publication.

<p>ITEM 7: AIRCRAFT IDENTIFICATION (MAXIMUM 7 CHARACTERS)</p>
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INSERT one of the following aircraft identifications, not exceeding 7 alphanumeric characters and without hyphens or symbols:

a) the nationality or common mark and registration marking of the aircraft (e.g. EIAKO, 4XBCD, N2567GA), when:

- 1) in radiotelephony the call sign to be used by the aircraft will consist of this identification alone (e.g. ~~OO~~TEKCGAJS), or preceded by the ICAO telephony designator for the aircraft operating agency (e.g. ~~SABENA~~ ~~OO~~TEKBLIZZARD CGAJS);
- 2) the aircraft is not equipped with radio;

OR b) the ICAO designator for the aircraft operating agency followed by the flight identification (e.g. KLM511, NGA213, JTR25) when in radiotelephony the call sign to be used by the aircraft will consist of the ICAO telephony designator for the operating agency followed by the flight identification (e.g. KLM511, NIGERIA 213, ~~HERBIE~~JESTER 25);

Note 1.— Standards for nationality, common and registration marks to be used are contained in Annex 7, Chapter 2.

Note 2.— Provisions for the use of radiotelephony call signs are contained in Annex 10, Volume II, Chapter 5. ICAO designators and telephony designators for aircraft operating agencies are contained in Doc 8585 — Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services.

ITEM 8: FLIGHT RULES AND TYPE OF FLIGHT (ONE OR TWO CHARACTERS)

Flight rules

INSERT one of the following letters to denote the category of flight rules with which the pilot intends to comply:

- I if it is intended that the entire flight will be operated under the IFR
- V if it is intended that the entire flight will be operated under the VFR
- Y if the flight initially will be operated under the IFR (first) and specify in Item 15 the point, followed by one or more subsequent changes of flight rules or
- Z if the flight initially will be operated under the VFR (first), followed by one or more subsequent changes of flight rules

Specify in Item 15 the point or points at which a change of flight rules is planned.

Type of flight

INSERT one of the following letters to denote the type of flight when so required by the appropriate ATS authority:

- S if scheduled air service
- N if non-scheduled air transport operation
- G if general aviation
- M if military
- X if other than any of the defined categories above.

Specify status of a flight following the indicator STS in Item 18, or when necessary to denote other reasons for specific handling by ATS, indicate the reason following the indicator RMK in Item 18.

...

ITEM 10: EQUIPMENT AND CAPABILITIES

Capabilities comprise the following elements:

- a) presence of relevant serviceable equipment on board the aircraft;
- b) equipment and capabilities commensurate with flight crew qualifications; and
- c) where applicable, authorization from the appropriate authority.

Radio communication, navigation and approach aid equipment and capabilities

INSERT one letter as follows:

N if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable,

OR S if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable (see Note 1),

AND/OR

INSERT one or more of the following letters to indicate the serviceable COM/NAV/approach aid equipment and capabilities available and serviceable:

A	(Not allocated) GBAS landing system	J7	CPDLC FANS 1/A SATCOM (Iridium)
B	(Not allocated) LPV (APV with SBAS)	K	(MLS)
C	LORAN C	L	ILS
D	DME	M1	Omega ATC RTF SATCOM (INMARSAT)
E1	(Not allocated) FMC WPR ACARS	M2	ATC RTF (MTSAT)
E2	D-FIS ACARS	M3	ATC RTF (Iridium)
E3	PDC ACARS	O	VOR
F	ADF	P1-P9	(Not allocated) Reserved for RCP
G	(GNSS) (See Note 2)	Q	(Not allocated)
H	HF RTF	R	RNP type certification PBN approved (see Note 54)
I	Inertial Navigation	T	TACAN
J1	(Data Link) CPDLC ATN VDL Mode 2 (See Note 3)	U	UHF RTF
J2	CPDLC FANS 1/A HFDL	V	VHF RTF
J3	CPDLC FANS 1/A VDL Mode A	W	RVSM approved
J4	CPDLC FANS 1/A VDL Mode 2	X	MNPS approved
J5	CPDLC FANS 1/A SATCOM (INMARSAT)	Y	when prescribed by ATIS VHF with 8.33 kHz channel spacing capability
J6	CPDLC FANS 1/A SATCOM (MTSAT)	Z	Other equipment carried or other capabilities (see Note 25)

Any alphanumeric characters not indicated above are reserved.

Note 1.— If the letter S is used, standard equipment is considered to be VHF RTF, ~~ADF~~, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.

Note 2.— If the letter G is used, the types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ and separated by a space.

Note ~~25~~ 4.— If the letter Z is used, specify in Item 18 the other equipment carried or other capabilities, preceded by COM/ and/or, NAV/ and/or DAT, as appropriate.

Note 3.— ~~If the letter J is used, specify in Item 18 the equipment carried, preceded by DAT/ followed by one or more letters as appropriate. See RTCA/EUROCAE Interoperability Requirements Standard For ATN Baseline 1 (ATN B1 INTEROP Standard – DO-280B/ED-110B) for data link services air traffic control clearance and information/air traffic control communications management/air traffic control microphone check.~~

Note ~~46~~ 4.— Information on navigation capability is provided to ATC for clearance and routing purposes.

Note ~~54~~ 4.— ~~Inclusion of~~ If the letter R is used, the performance based navigation levels that can be met are specified in Item 18 following the indicator PBN/. Guidance material on the application of performance based navigation to a specific ~~indicates that an aircraft meets the RNP type prescribed for the route segment(s), route(s) and/or area concerned~~ is contained in the Performance-Based Navigation Manual (Doc 9613).

Surveillance equipment and capabilities
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INSERT N if no surveillance equipment for the route to be flown is carried, or the equipment is unserviceable,

OR

INSERT one or ~~two~~ more of the following letters/descriptors, to a maximum of 20 characters, to describe the serviceable surveillance equipment ~~carried~~ and/or capabilities on board:

~~SSR equipment~~ SSR Modes A and C

— N Nil

A Transponder — Mode A (4 digits — 4 096 codes)

C Transponder — Mode A (4 digits — 4 096 codes) and Mode C

SSR Mode S

— ~~X Transponder — Mode S without both aircraft identification and pressure-altitude transmission~~

E Transponder — Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability

H Transponder — Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability

I Transponder — Mode S, including aircraft identification, but no pressure-altitude capability

L Transponder — Mode S, including aircraft identification, pressure-altitude, extended squitter (ADS-B) and enhanced surveillance capability

P Transponder — Mode S, including pressure-altitude, but no aircraft identification

I	Transponder — Mode S, including aircraft identification transmission, but no pressure altitude transmission
S	Transponder — Mode S, including both pressure altitude and aircraft identification transmission capability
X	Transponder — Mode S with neither aircraft identification nor pressure-altitude capability

Note.— Enhanced surveillance capability is the ability of the aircraft to down-link aircraft derived data via a Mode S transponder.

ADS-B

B1	ADS-B with dedicated 1090 MHz ADS-B “out” capability
B2	ADS-B with dedicated 1090 MHz ADS-B “out” and “in” capability
U1	ADS-B “out” capability using UAT
U2	ADS-B “out” and “in” capability using UAT
V1	ADS-B “out” capability using VDL Mode 4
V2	ADS-B “out” and “in” capability using VDL Mode 4

ADS-C

D1	ADS-C with FANS 1/A capabilities
G1	ADS-C with ATN capabilities

ADS equipment

~~D~~ — ADS capability

Alphanumeric characters not indicated above are reserved.

Example: ADE3RV/HB2U2V2G1

Note.— Additional surveillance application should be listed in Item 18 following the indicator SUR/ .

<p align="center">ITEM 13: DEPARTURE AERODROME AND TIME (8 CHARACTERS)</p>

INSERT the ICAO four-letter location indicator of the departure aerodrome as specified in Doc 7910, Location Indicators,

OR, if no location indicator has been assigned,

INSERT ZZZZ and *SPECIFY*, in Item 18, the name and location of the aerodrome preceded by DEP/ ,

OR, the first point of the route or the marker radio beacon preceded by DEP/..., if the aircraft has not taken off from the aerodrome,

OR, if the flight plan is received from an aircraft in flight,

INSERT AFIL, and *SPECIFY*, in Item 18, the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, preceded by DEP/ .

THEN, WITHOUT A SPACE,

INSERT for a flight plan submitted before departure, the estimated off-block time (EOBT),

OR, for a flight plan received from an aircraft in flight, the actual or estimated time over the first point of the route to which the flight plan applies.

ITEM 15: ROUTE

INSERT the *first cruising speed* as in (a) and the *first cruising level* as in (b), without a space between them.

THEN, following the arrow, *INSERT* the route description as in (c).

(a) Cruising speed (maximum 5 characters)

INSERT the *True Air Speed* for the first or the whole cruising portion of the flight, in terms of:

Kilometres per hour, expressed as K followed by 4 figures (e.g. K0830), *or*

Knots, expressed as N followed by 4 figures (e.g. N0485), *or*

True Mach number, when so prescribed by the appropriate ATS authority, to the nearest hundredth of unit Mach, expressed as M followed by 3 figures (e.g. M082).

(b) Cruising level (maximum 5 characters)

INSERT the planned cruising level for the first or the whole portion of the route to be flown, in terms of:

Flight level, expressed as F followed by 3 figures (e.g. F085; F330), *or*

**Standard Metric Level in tens of metres*, expressed as S followed by 4 figures (e.g. S1130), *or*

Altitude in hundreds of feet, expressed as A followed by 3 figures (e.g. A045; A100), *or*

Altitude in tens of metres, expressed as M followed by 4 figures (e.g. M0840), *or*

for uncontrolled VFR flights, the letters VFR.

*When so prescribed by the appropriate ATS authorities.

(c) Route (including changes of speed, level and/or flight rules)
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Flights along designated ATS routes

INSERT, if the departure aerodrome is located on or connected to the ATS route, the designator of the first ATS route,

OR, if the departure aerodrome is not on or connected to the ATS route, the letters DCT followed by the point of joining the first ATS route, followed by the designator of the ATS route.

THEN

INSERT each point at which either a change of speed **and/or level is planned to commence**, **or** a change of ATS route, and/or a change of flight rules is planned,

Note.— When a transition is planned between a lower and upper ATS route and the routes are oriented in the same direction, the point of transition need not be inserted.

FOLLOWED IN EACH CASE

by the designator of the next ATS route segment, even if the same as the previous one,
OR by DCT, if the flight to the next point will be outside a designated route, unless both points are defined by geographical coordinates.

Flights outside designated ATS routes

INSERT points normally not more than 30 minutes flying time or 370 km (200 NM) apart, including each point at which a change of speed or level, a change of track, or a change of flight rules is planned.

OR, when required by appropriate ATS authority(ies),

DEFINE the track of flights operating predominantly in an east-west direction between 70°N and 70°S by reference to significant points formed by the intersections of half or whole degrees of latitude with meridians spaced at intervals of 10 degrees of longitude. For flights operating in areas outside those latitudes the tracks shall be defined by significant points formed by the intersection of parallels of latitude with meridians normally spaced at 20 degrees of longitude. The distance between significant points shall, as far as possible, not exceed one hour's flight time. Additional significant points shall be established as deemed necessary.

For flights operating predominantly in a north-south direction, define tracks by reference to significant points formed by the intersection of whole degrees of longitude with specified parallels of latitude which are spaced at 5 degrees.

INSERT DCT between successive points unless both points are defined by geographical coordinates or by bearing and distance.

USE ONLY the conventions in (1) to (5) below and *SEPARATE* each sub-item by a space.

(1)

ATS route (2 to 7 characters)

The coded designator assigned to the route or route segment including, where appropriate, the coded designator assigned to the standard departure or arrival route (e.g. BCN1, BI, R14, UB10, KODAP2A).

Note.— Provisions for the application of route designators are contained in Annex 11, Appendix I; whilst guidance material on the application of an RNP type to a specific route segment(s), route(s) or area is contained in the Manual on Required Navigation Performance (RNP) (Doc 9613).

(2) Significant point (2 to 11 characters)

The coded designator (2 to 5 characters) assigned to the point (e.g. LN, MAY, HADDY), or, if no coded designator has been assigned, one of the following ways:

— *Degrees only* (7 characters):

2 figures describing latitude in degrees, followed by “N” (North) or “S” (South), followed by 3 figures describing longitude in degrees, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 46N078W.

— *Degrees and minutes* (11 characters):

4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 4620N07805W.

— *Bearing and distance from a navigation aid significant point:*

The identification of the navigation aid (normally a VOR) significant point, in the form of 2 or 3 characters, THEN followed by the bearing from the aid point in the form of 3 figures giving degrees magnetic, THEN followed by the distance from the aid point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros — e.g. a point 180° magnetic at a distance of 40 nautical miles from VOR “DUB” should be expressed as DUB180040.

(3) Change of speed or level
(maximum 21 characters)

The point at which a change of speed (5% TAS or 0.01 Mach or more) or a change of level is planned to commence, expressed exactly as in (2) above, followed by an oblique stroke and both the cruising speed and the cruising level, expressed exactly as in (a) and (b) above, without a space between them, even when only one of these quantities will be changed.

Examples: LN/N0284A045
MAY/N0305F180
HADDY/N0420F330
4602N07805W/N0500F350
46N078W/M082F330
DUB180040/N0350M0840

(4) Change of flight rules
(maximum 3 characters)

The point at which the change of flight rules is planned, expressed exactly as in (2) or (3) above as appropriate, followed by a space and one of the following:

VFR if from IFR to VFR

IFR if from VFR to IFR

Examples: LN VFR

LN/N0284A050 IFR

(5) Cruise climb (maximum 28 characters)

The letter C followed by an oblique stroke; THEN the point at which cruise climb is planned to start, expressed exactly as in (2) above, followed by an oblique stroke; THEN the speed to be maintained during cruise climb, expressed exactly as in (a) above, followed by the two levels defining the layer to be occupied during cruise climb, each level expressed exactly as in (b) above, or the level above which cruise climb is planned followed by the letters PLUS, without a space between them.

Examples: C/48N050W/M082F290F350

C/48N050W/M082F290PLUS

C/52N050W/M220F580F620.

**ITEM 16: DESTINATION AERODROME AND
TOTAL ESTIMATED ELAPSED TIME,
DESTINATION ALTERNATE AERODROME(S)**

Destination aerodrome and total
estimated elapsed time (8 characters)

INSERT the ICAO four-letter location indicator of the destination aerodrome followed, without a space, by the total estimated elapsed time as specified in Doc 7910, *Location Indicators*,

OR , if no location indicator has been assigned,

INSERT ZZZZ followed, without a space, by the total estimated elapsed time, and *SPECIFY* in Item 18 the name and location of the aerodrome, preceded by DEST/ .

THEN WITHOUT A SPACE

INSERT the total estimated elapsed time.

Note.— For a flight plan received from an aircraft in flight, the total estimated elapsed time is the estimated time from the first point of the route to which the flight plan applies to the termination point of the flight plan.

Destination Alternate aerodrome(s) (4 characters)

INSERT the ICAO four-letter location indicator(s) of not more than two destination alternate aerodromes, as specified in Doc 7910, *Location Indicators*, separated by a space,

OR, if no location indicator has been assigned to the destination alternate aerodrome(s),

INSERT ZZZZ and *SPECIFY* in Item 18 the name and location of the destination alternate aerodrome(s), preceded by ALTN/ .

ITEM 18: OTHER INFORMATION

Note.— Use of indicators not included under this item may result in data being rejected, processed incorrectly or lost.

Hyphens or oblique strokes should only be used as prescribed below.

INSERT 0 (zero) if no other information,

OR, any other necessary information in the preferred sequence shown hereunder, in the form of the appropriate indicator selected from those defined hereunder followed by an oblique stroke and the information to be recorded:

STS/ Reason for special handling by ATS, e.g. a search and rescue mission, as follows:

ALTRV: for a flight operated in accordance with an altitude reservation;

ATFMX: for a flight approved for exemption from ATFM measures by the appropriate ATS authority;

FFR: fire-fighting;

FLTCK: flight check for calibration of nav aids;

HAZMAT: for a flight carrying hazardous material;

HEAD: a flight with Head of State status;

HOSP: for a medical flight declared by medical authorities;

HUM: for a flight operating on a humanitarian mission;

MARSA: for a flight for which a military entity assumes responsibility for separation of military aircraft;

MEDEVAC: for a life critical medical emergency evacuation;

NONRVSM: for a non-RVSM capable flight intending to operate in RVSM airspace;

SAR: for a flight engaged in a search and rescue mission; and

STATE: for a flight engaged in military, customs or police services.

Other reasons for special handling by ATS shall be denoted under the designator RMK/.

PBN/ Indication of RNAV and/or RNP capabilities. Include as many of the descriptors below, as apply to the flight, up to a maximum of 8 entries, i.e. a total of not more than 16 characters.

	RNAV SPECIFICATIONS
A1	RNAV 10 (RNP 10)
B1	RNAV 5 all permitted sensors
B2	RNAV 5 GNSS
B3	RNAV 5 DME/DME
B4	RNAV 5 VOR/DME
B5	RNAV 5 INS or IRS
B6	RNAV 5 LORANC
C1	RNAV 2 all permitted sensors
C2	RNAV 2 GNSS

C3	RNAV 2 DME/DME
C4	RNAV 2 DME/DME/IRU
D1	RNAV 1 all permitted sensors
D2	RNAV 1 GNSS
D3	RNAV 1 DME/DME
D4	RNAV 1 DME/DME/IRU
	RNP SPECIFICATIONS
L1	RNP 4
O1	Basic RNP 1 all permitted sensors
O2	Basic RNP 1 GNSS
O3	Basic RNP 1 DME/DME
O4	Basic RNP 1 DME/DME/IRU
S1	RNP APCH
S2	RNP APCH with BARO-VNAV
T1	RNP AR APCH with RF (special authorization required)
T2	RNP AR APCH without RF (special authorization required)

Combinations of alphanumeric characters not indicated above are reserved.

~~EET/~~ — Significant points or FIR boundary designators and accumulated estimated elapsed times to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.

Examples: ~~EET/CAP0745 XYZ0830~~
~~EET/EINN0204~~

~~RIF/~~ — The route details to the revised destination aerodrome, followed by the ICAO four letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.

~~Examples: RIF/DTA HEC KLAX~~
~~Examples: RIF/ESP G94 CLA YPPH~~
~~Examples: RIF/LEMD~~

~~REG/~~ — The registration markings of the aircraft, if different from the aircraft identification in Item 7.

~~SEL/~~ — SELCAL Code, if so prescribed by the appropriate ATS authority.

~~OPR/~~ — Name of the operator, if not obvious from the aircraft identification in Item 7.

~~STS/~~ — Reason for special handling by ATS, e.g. hospital aircraft, one engine inoperative, e.g. STS/HOSP, STS/ONE ENG INOP.

~~TYP/~~ — Type(s) of aircraft, preceded if necessary by number(s) of aircraft, if ZZZZ is inserted in Item 9.

~~PER/~~ — Aircraft performance data, if so prescribed by the appropriate ATS authority.

~~COM/ Significant data related to communication equipment as required by the appropriate ATS authority, e.g. COM/UHF only.~~

~~DAT/ Significant data related to data link capability, using one or more of the letters S, H, V and M, e.g. DAT/S for satellite data link, DAT/H for HF data link, DAT/V for VHF data link, DAT/M for SSR Mode S data link.~~

NAV/ Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, e.g. NAV/GBAS SBAS.

COM/ Indicate communications applications or capabilities not specified in Item 10a.

DAT/ Indicate data applications or capabilities not specified in 10a.

SUR/ Include surveillance applications or capabilities not specified in Item 10b.

DEP/ Name and location of departure aerodrome, if ZZZZ is inserted in Item 13, or the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location as follows:

With 4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 4620N07805W (11 characters).

OR, Bearing and distance from the nearest significant point, as follows:

The identification of the significant point followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros, e.g. a point of 180° magnetic at a distance of 40 nautical miles from VOR “DUB” should be expressed as DUB180040.

OR, The first point of the route (name or LAT/LONG) or the marker radio beacon, if the aircraft has not taken off from an aerodrome.

DEST/ Name and location of destination aerodrome, if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described under DEP/ above.

DOF/ The date of flight departure in a six figure format (YYMMDD, where YY equals the year, MM equals the month and DD equals the day).

REG/ The nationality or common mark and registration mark of the aircraft, if different from the aircraft identification in Item 7.

EET/ Significant points or FIR boundary designators and accumulated estimated elapsed times from take-off to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.

Examples: EET/CAP0745 XYZ0830
EET/EINN0204

SEL/ SELCAL Code, for aircraft so equipped.

TYP/ Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

Example: TYP/2F15 5F5 3B2

~~ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16.~~

~~RALT/ Name of en-route alternate aerodrome(s).~~

CODE/ Aircraft address (expressed in the form of an alphanumeric code of six hexadecimal characters) when required by the appropriate ATS authority. Example: "F00001" is the lowest aircraft address contained in the specific block administered by ICAO.

DLE/ Enroute delay or holding, insert the significant point(s) on the route where a delay is planned to occur, followed by the length of delay using four figure time in hours and minutes (hhmm).

Example: DLE/MDG0030

OPR/ ICAO designator or name of the aircraft operating agency, if different from the aircraft identification in item 7.

ORGN/ The originator's 8 letter AFTN address or other appropriate contact details, in cases where the originator of the flight plan may not be readily identified, as required by the appropriate ATS authority.

Note.— In some areas, flight plan reception centres may insert the ORGN/ identifier and originator's AFTN address automatically.

PER/ Aircraft performance data, indicated by a single letter as specified in the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, Doc 8168), *Volume I — Flight Procedures*, if so prescribed by the appropriate ATS authority.

ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RALT/ ICAO four letter indicator(s) for en-route alternate(s), as specified in Doc 7910, *Location Indicators*, or name(s) of en-route alternate aerodrome(s), if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

TALT/ ICAO four letter indicator(s) for take-off alternate, as specified in Doc 7910, *Location Indicators*, or name of take-off alternate aerodrome, if no indicator is allocated. For aerodromes

not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RIF/ The route details to the revised destination aerodrome, following by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.

Examples: RIF/DTA HEC KLAX
RIF/ESP G94 CLA YPPH

RMK/ Any other plain language remarks when required by the appropriate ATS authority or deemed necessary.

<p>ITEM 19: SUPPLEMENTARY INFORMATION</p>
--

...

4. Instructions for the transmission of a supplementary flight plan (SPL) message

Items to be transmitted

Transmit items as indicated hereunder, unless otherwise prescribed:

- a) AFTN Priority Indicator, Addressee Indicators <<≡, Filing Time, Originator Indicator <<≡ and, if necessary, specific identification of addressees and/or originator;
- b) commencing with <<≡ (SPL:

all symbols and data in the unshaded areas of boxes 7, 13, 16 and 18, except that the ‘)’ at the end of box 18 is *not* to be transmitted, and then the symbols in the unshaded area of box 19 down to and including the)<<≡ of box 19,

additional alignment functions as necessary to prevent the inclusion of more than 69 characters in any line of Items 18 and 19. The alignment function is to be inserted only in lieu of a space, so as not to break up a group of data,

letter shifts and figure shifts (not pre-printed on the form) as necessary;

- c) the AFTN Ending, as described below:

End-of-Text Signal

- a) one LETTER SHIFT
- b) two CARRIAGE RETURNS, one LINE FEED

Page-feed Sequence

Seven LINE FEEDS

End-of-Message Signal

Four of the letter N.

...

**7. Instructions for the completion of
the repetitive flight plan (RPL) listing form**

...

7.4 Instructions for insertion of RPL data

...

ITEM G: SUPPLEMENTARY DATA AT

INSERT name and appropriate contact details of contact entity where information normally provided under Item 19 of the FPL is kept readily available and can be supplied without delay.

...

APPENDIX 3. AIR TRAFFIC SERVICES MESSAGES

1. Message contents, formats and data conventions

...

1.2 The standard types of field

...

The standard fields of data permitted in ATS messages are as shown in the following table. The numbers in column 1 correspond with those in the reference table on page A3-30.

<i>Field type</i>	<i>Data</i>
3	Message type, number and reference data
5	Description of emergency
7	Aircraft identification and SSR Mode and Code
8	Flight rules and type of flight
9	Number and type of aircraft and wake turbulence category
10	Equipment and capabilities
13	Departure aerodrome and time
14	Estimate data
15	Route
16	Destination aerodrome and total estimated elapsed time, destination alternate aerodrome(s)
17	Arrival aerodrome and time
18	Other information
19	Supplementary information
20	Alerting search and rescue information
21	Radio failure information
22	Amendment

...

1.6 Data conventions

...

1.6.3 The expression of position or route

The following alternative data conventions shall be used for the expression of position or route:

- a) from 2 to 7 characters, being the coded designator assigned to an ATS route to be flown;
- b) from 2 to 5 characters, being the coded designator assigned to an en-route point;

- c) 4 numerics describing latitude in degrees and tens and units of minutes, followed by “N” (meaning “North”) or “S” (South), followed by 5 numerics describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). The correct number of numerics is to be made up, where necessary, by the insertion of zeros, e.g. “4620N07805W”;
- d) 2 numerics describing latitude in degrees, followed by “N” (North) or “S” (South), followed by 3 numerics describing longitude in degrees, followed by “E” (East) or “W” (West). Again, the correct number of numerics is to be made up, where necessary, by the insertion of zeros, e.g. “46N078W”;
- e) 2 or 3 to 5 characters being the coded identification of a ~~navigation aid (normally a VOR)~~ significant point, followed by 3 decimal numerics giving the bearing from the point in degrees magnetic followed by 3 decimal numerics giving the distance from the point in nautical miles. The correct number of numerics is to be made up, where necessary, by the insertion of zeros, e.g. a point at 180° magnetic at a distance of 40 nautical miles from VOR “FOJ” would be expressed as “FOJ180040”.

...

Field Type 8 — Flight rules and type of flight

Format:— ^{*}

a	b
---	---

SINGLE HYPHEN

(a)	<p><i>Flight Rules</i></p> <p>1 LETTER as follows:</p> <p>I if IFR it is intended that the entire flight will be operated under the IFR</p> <p>V if VFR it is intended that the entire flight will be operated under the VFR</p> <p>Y if IFR first the flight initially will be operated under the IFR, followed by one or more subsequent changes of flight rules</p> <p>Z if VFR first the flight initially will be operated under the VFR, followed by one or more subsequent changes of flight rules</p> <p><i>Note.— If the letter Y or Z is used, the point or points at which a change of flight rules is planned is to be shown as indicated in Field Type 15.</i></p>
-----	--

- * This field shall be terminated here unless indication of the type of flight is required by the appropriate ATS authority.

...

Field Type 10 — Equipment and Capabilities

Format:—

a

 /

b

SINGLE HYPHEN

(a) Radio Communication, Navigation and Approach Aid Equipment and Capabilities	
	1 LETTER as follows:
N	no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable
OR	S Standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable (<i>See Note 1</i>)
AND/OR	ONE OR MORE OF THE FOLLOWING LETTERS to indicate the serviceable COM/NAV/approach aid equipment serviceable and capabilities
A	(Not allocated) GBAS landing system J7 CPDLC FANS 1/A SATCOM (Iridium)
B	(Not allocated) LPV (APV with SBAS) K (MLS)
C	LORAN C L ILS
D	DME M1 Omega ATC RTF SATCOM (INMARSAT)
E1	(Not allocated) FMC WPR M2 ATC RTF (MTSAT)
	ACARS M3 ATC RTF (Iridium)
E2	D-FIS ACARS O VOR
E3	PDC ACARS P1-P9 (Not allocated) Reserved for RCP
F	ADF Q
G	(GNSS) (<i>See Note 2</i>) R (Not allocated)
H	HF RTF RNP type certification PBN approved
I	Inertial Navigation (see Note 54)
J1	(Data link) CPDLC ATN VDL T TACAN
	Mode 2 (<i>see Note 3</i>) U UHF RTF
J2	CPDLC FANS 1/A HF DL V VHF RTF
J3	CPDLC FANS 1/A VDL W RVSM approved
	Mode A X MNPS approved
J4	CPDLC FANS 1/A VDL Y when prescribed by ATS VHF with 8.33 kHz channel spacing capability
J5	CPDLC FANS 1/A SATCOM Z Other equipment carried or other capabilities (<i>see Note 25</i>)
J6	CPDLC FANS 1/A SATCOM (MTSAT)
<p><i>Note 1.— If the letter S is used, standard equipment is considered to be VHF RTF, ADF, VOR and ILS, unless another combination is prescribed by the appropriate ATS authority.</i></p> <p><i>Note 2.— If the letter G is used, the types of external GNSS augmentation, if any, are specified in Item 18 following the indicator NAV/ separated by a space.</i></p> <p><i>Note 25.— If the letter Z is used, specify in Item 18 the other the equipment carried or other capabilities is to be specified in Item 18, preceded by COM/ , and/or NAV/ and/or DAT, as appropriate.</i></p> <p><i>Note 3.— If the letter J is used, specify in Item 18 the equipment carried, preceded by DAT/ followed by one or more letters as appropriate. See RTCA/EUROCAE Interoperability Requirements Standard For ATN Baseline 1 (ATN B1 INTEROP Standard – DO-280B/ED-110B) for data link services air traffic control clearance and information/air traffic control communications management/air traffic control microphone check.</i></p>	

~~Note 46.~~— Information on navigation capability is provided to ATC for clearance and routing purposes.

~~Note 54.~~— ~~Inclusion of~~ If the letter R is used, the performance based navigation levels that can be met are specified in Item 18 following the indicator PBN/. Guidance material on the application of performance-based navigation to a specific ~~indicates that an aircraft meets the RNP type prescribed for the route segment(s), route(s) and/or area concerned is contained in the Performance-Based Navigation Manual (Doc 9613).~~

OBLIQUE STROKE

(b) *Surveillance Equipment and capabilities*

ONE OR ~~TWO LETTERS~~ MORE of the following descriptors, to a maximum of 20 characters, to describe the serviceable surveillance equipment ~~carried~~ and/or capabilities on board:

SSR equipment Modes A and C

~~N Nil~~

A Transponder — Mode A (4 digits — 4 096 codes)

C Transponder — Mode A (4 digits — 4 096 codes) and Mode C

SSR Mode S

~~X Transponder — Mode S without both aircraft identification and pressure-altitude transmission~~

E Transponder — Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability

H Transponder — Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability

I Transponder — Mode S, including aircraft identification, but no pressure-altitude capability

L Transponder — Mode S, including aircraft identification, pressure-altitude, extended squitter (ADS-B) and enhanced surveillance capability

P Transponder — Mode S, including pressure-altitude, but no aircraft identification ~~transmission~~ capability

~~I Transponder — Mode S, including aircraft identification transmission, but no pressure-altitude transmission~~

S Transponder — Mode S, including both pressure altitude and aircraft identification ~~transmission~~ capability

X Transponder — Mode S with neither aircraft identification nor pressure-altitude capability

Note.— Enhanced surveillance capability is the ability of the aircraft to down-link aircraft derived data via a Mode S transponder.

ADS-B

B1 ADS-B with dedicated 1090 MHz ADS-B “out” capability

B2 ADS-B with dedicated 1090 MHz ADS-B “out” and “in” capability

U1 ADS-B “out” capability using UAT
 U2 ADS-“out” and “in” capability using UAT
 V1 ADS-B “out” capability using VDL Mode 4
 V2 ADS-B “out” and “in” capability using VDL Mode 4

ADS-C

D1 ADS-C with FANS I/A capabilities
 G1 ADS-C with ATN capabilities

ADS equipment

D — ADS capability

Alphanumeric characters not indicated above are reserved.

Note.— Additional surveillance application should be listed in Item 18 following the indicator SUR/ .

Examples: –S/A

–SCHJ/CDB1

–SAFJR/SDV1

...

Field Type 13 — Departure aerodrome and time

Format:–

	a				b		

SINGLE HYPHEN

(a) *Departure Aerodrome*

4 LETTERS, being

the ICAO four-letter location indicator allocated to the departure aerodrome as specified in Doc 7910, *Location Indicators*, or

ZZZZ if no ICAO location indicator has been allocated (*see Note 1*) or if the departure aerodrome is not known, or

AFIL if the flight plan has been filed in the air (*see Note 2*).

Note 1.— If ZZZZ is used, the name and location of the departure aerodrome is to be shown in the Other Information Field (see Field Type 18) if this Field Type is contained in the message.

Note 2.— If AFIL is used, the ATS unit from which supplementary flight data can be obtained is to be shown in the Other Information Field (Field Type 18).

- * This field shall be terminated here in message types ~~CHG, CNL, ARR, CPL, EST, CDN, and ACP and RQS~~. It shall be terminated here in message type RQP if the estimated off-block time is not known.

(b) *Time*

4 NUMERICS giving

the estimated off-block time (EOBT) at the aerodrome in (a) in FPL, ARR, CHG, CNL, ~~and DLA and RQS~~ messages transmitted before departure and in RQP message, if known, or

the actual time of departure from the aerodrome in (a) in ALR, DEP and SPL messages, or

the actual or estimated time of departure from the first point shown in the Route Field (see Field Type 15) in FPL messages derived from flight plans filed in the air, as shown by the letters AFIL in (a).

Examples: –EHAM0730

–AFIL1625

...

Field Type 14 — Estimate data

Format:–

a

 /

b					

^{*}

c

d

e

SINGLE HYPHEN

(a) *Boundary Point (see Note 1)*

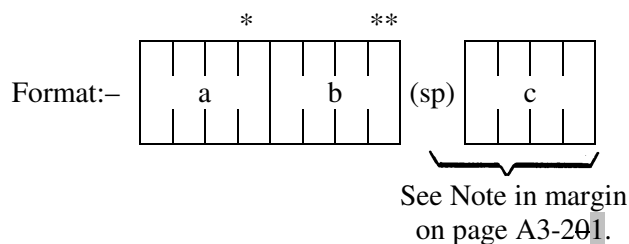
The BOUNDARY POINT expressed either by a designator consisting of 2 to 5 characters, in Geographical Coordinates, in Abbreviated Geographical Coordinates, or by bearing and distance from a ~~designated significant point (e.g. a VOR)~~.

Note 1.— This point may be an agreed point located close to, rather than on, the FIR boundary.

Note 2.— See 1.6 for data conventions.

...

Field Type 16 — Destination aerodrome and total estimated elapsed time, destination alternate aerodrome(s)



FIELD TYPE 16

<i>Previous type of field or symbol</i>	<i>This type of field is used in</i>	<i>Next type of field or symbol</i>
15	ALR	18
15	FPL	18
13	CHG	22 18
13	CNL	18
13	DLA	18
13	DEP	18
13	ARR***	17
15	CPL	18
14	EST)
13	CDN	22
13	ACP)
13	RQS	18
13	SPL	18

*** Only in case of a diversionary landing.

SINGLE HYPHEN

(a) *Destination Aerodrome*

4 LETTERS, being

the ICAO four-letter location indicator allocated to the destination aerodrome as specified in Doc 7910, *Location Indicators*, or

ZZZZ if no ICAO location indicator has been allocated.

Note.— If ZZZZ is used, the name and location of the destination aerodrome is to be shown in the *Other Information Field* (see Field Type 18).

* This field is to be terminated here in all message types other than ALR, FPL and SPL.

...

SPACE

<p>(c) <i>Destination Alternate Aerodrome(s)</i></p> <p>4 LETTERS, being</p> <p>the ICAO four-letter location indicator allocated to an alternate aerodrome, as specified in Doc 7910, <i>Location Indicators</i> or</p> <p>ZZZZ if no ICAO location indicator has been allocated.</p> <p><i>Note.— If ZZZZ is used, the name and location of the destination alternate aerodrome is to be shown in the Other Information Field (see Field Type 18).</i></p>
--

Note.— One further element of (c) should be added, as necessary, preceded by a space

Examples: –EINN0630
 –EHAM0645 EBBR
 –EHAM0645 EBBR EDDL

Field Type 17 — Arrival aerodrome and time

Format:–

	a				b		

^{*} (sp)

	c	
--	---	--

SINGLE HYPHEN

<p>(a) <i>Arrival Aerodrome</i></p> <p>4 LETTERS, being</p> <p>the ICAO four-letter location indicator allocated to the arrival aerodrome as specified in Doc 7910, <i>Location Indicators</i>, or</p> <p>ZZZZ if no ICAO location indicator has been allocated.</p> <p><i>Note.— If ZZZZ is used, the name or location of the arrival aerodrome is to be shown in the Other Information Field (see Field Type 18).</i></p>
<p>(b) <i>Time of Arrival</i></p> <p>4 NUMERICS, giving</p> <p>the actual time of arrival.</p>

* This field is to be terminated here if an ICAO location indicator has been allocated to the arrival aerodrome.

Field Type 18 — Other information

Note.— Use of indicators not included under this item may result in data being rejected, processed incorrectly or lost.

Hyphens or oblique strokes should only be used as prescribed below.

Format:— a

$$- \begin{array}{|c|} \hline \\ \hline \end{array} \begin{array}{c} \text{or} \\ \text{(sp)} \end{array} \begin{array}{|c|} \hline \\ \hline \end{array} \begin{array}{c} \text{(sp) * (sp)} \\ \text{(* additional elements as necessary)} \end{array} \begin{array}{|c|} \hline \\ \hline \end{array}$$

SINGLE HYPHEN

(a) 0 (zero) if no other information,

OR,

Any other necessary information in the ~~preferred~~ sequence shown hereunder, in the form of the appropriate indicator selected from those defined hereunder followed by an oblique stroke and the information to be recorded:

STS/ Reason for special handling by ATS, e.g. a search and rescue mission, as follows:

ALTRV: for a flight operated in accordance with an altitude reservation;

ATFMX: for a flight approved for exemption from ATFM measures by the appropriate ATS authority;

FFR: fire-fighting;

FLTCK: flight check for calibration of nav aids;

HAZMAT: for a flight carrying hazardous material;

HEAD: a flight with Head of State status;

HOSP: for a medical flight declared by medical authorities;

HUM: for a flight operating on a humanitarian mission;

MARSA: for a flight for which a military entity assumes responsibility for separation of military aircraft;

MEDEVAC: for a life critical medical emergency evacuation;

NONRVSM: for a non-RVSM capable flight intending to operate in RVSM airspace;

SAR: for a flight engaged in a search and rescue mission; and

STATE: for a flight engaged in military, customs or police services.

Other reasons for special handling by ATS shall be denoted under the designator RMK/.

PBN/ Indication of RNAV and/or RNP capabilities. Include as many of the descriptors below, as apply to the flight, up to a maximum of 8 entries, i.e. a total of not more than 16 characters.

	RNAV SPECIFICATIONS
A1	RNAV10 (RNP 10)
B1	RNAV 5 all permitted sensors
B2	RNAV 5 GNSS
B3	RNAV 5 DME/DME
B4	RNAV 5 VOR/DME
B5	RNAV 5 INS or IRS
B6	RNAV 5 LORANC
C1	RNAV 2 all permitted sensors
C2	RNAV 2 GNSS
C3	RNAV 2 DME/DME
C4	RNAV 2 DME/DME/IRU
D1	RNAV 1 all permitted sensors
D2	RNAV 1 GNSS
D3	RNAV 1 DME/DME
D4	RNAV 1 DME/DME/IRU
	RNP SPECIFICATIONS
L1	RNP 4
O1	Basic RNP 1 all permitted sensors
O2	Basic RNP 1 GNSS
O3	Basic RNP 1 DME/DME
O4	Basic RNP 1 DME/DME/IRU
S1	RNP APCH
S2	RNP APCH with BAR-VNAV
T1	RNP AR APCH with RF (special authorization required)
T2	RNP AR APCH without RF (special authorization required)

Combinations of alphanumeric characters not indicated above are reserved.

~~EET/~~ — Significant points or FIR boundary designators and accumulated estimated elapsed times to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.

~~Examples: EET/CAP0745 XYZ0830~~

~~———— EET/EINN0204~~

~~RIF/~~ — The route details to the revised destination aerodrome, followed by the ICAO four letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.

~~———— Examples: RIF/DTA HEC KLAX~~

~~———— Examples: RIF/ESP G94 CLA YPPH~~

~~———— Examples: RIF/LEMD~~

- ~~REG/ — The registration markings of the aircraft, if different from the aircraft identification in Item 7.~~
- ~~SEL/ — SELCAL Code, if so prescribed by the appropriate ATS authority.~~
- ~~OPR/ — Name of the operator, if not obvious from the aircraft identification in Item 7.~~
- ~~STS/ — Reason for special handling by ATS, e.g. hospital aircraft, one engine inoperative, e.g. STS/HOSP, STS/ONE ENG INOP.~~
- ~~TYP/ — Type(s) of aircraft, preceded if necessary by number(s) of aircraft, if ZZZZ is inserted in Item 9.~~
- ~~PER/ — Aircraft performance data, if so prescribed by the appropriate ATS authority.~~
- ~~COM/ — Significant data related to communication equipment as required by the appropriate ATS authority, e.g. COM/UHF only.~~
- ~~DAT/ — Significant data related to data link capability, using one or more of the letters S, H, V and M, e.g. DAT/S for satellite data link, DAT/H for HF data link, DAT/V for VHF data link, DAT/M for SSR Mode S data link.~~
- NAV/ Significant data related to navigation equipment, other than specified in PBN/, as required by the appropriate ATS authority. Indicate GNSS augmentation under this indicator, with a space between two or more methods of augmentation, e.g. NAV/GBAS SBAS.
- COM/ Indicate communications applications or capabilities not specified in Item 10a.
- DAT/ Indicate data applications or capabilities not specified in Item 10a.
- SUR/ Include surveillance applications or capabilities not specified in Item 10b.
- DEP/ Name and location of departure aerodrome, if ZZZZ is inserted in Item 13, or the ICAO four-letter location indicator of the location of the ATS unit from which supplementary flight plan data can be obtained, if AFIL is inserted in Item 13. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location as follows:
- With 4 figures describing latitude in degrees and tens and units of minutes followed by “N” (North) or “S” (South), followed by 5 figures describing longitude in degrees and tens and units of minutes, followed by “E” (East) or “W” (West). Make up the correct number of figures, where necessary, by insertion of zeros, e.g. 4620N07805W (11 characters).
- OR Bearing and distance from the nearest significant point, as follows:
- The identification of the significant point followed by the bearing from the point in the form of 3 figures giving degrees magnetic, followed by the distance from the point in the form of 3 figures expressing nautical miles. In areas of high latitude where it is determined by the appropriate authority that reference to degrees magnetic is impractical, degrees true may be used. Make up the correct number of figures, where necessary, by insertion of zeros, e.g. a point of 180° magnetic at a distance of 40 nautical miles from VOR “DUB” should be expressed as DUB180040.

OR The first point of the route (name or LAT/LONG) or the marker radio beacon, if the aircraft has not taken off from an aerodrome.

DEST/ Name and location of destination aerodrome, if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described under DEP/ above.

DOF/ The date of flight departure in a six figure format (YYMMDD, where YY equals the year, MM equals the month and DD equals the day).

REG/ The nationality or common mark and registration mark of the aircraft, if different from the aircraft identification in Item 7.

EET/ Significant points or FIR boundary designators and accumulated estimated elapsed times from take-off to such points or FIR boundaries, when so prescribed on the basis of regional air navigation agreements, or by the appropriate ATS authority.

Examples: EET/CAP0745 XYZ0830
EET/EINN0204

SEL/ SELCAL Code, for aircraft so equipped.

TYP/ Type(s) of aircraft, preceded if necessary without a space by number(s) of aircraft and separated by one space, if ZZZZ is inserted in Item 9.

Example: –TYP/2F15, 5F5, 3B2

~~ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16.~~

~~RALT/ Name of en route alternate aerodrome(s).~~

CODE/ Aircraft address (expressed in the form of an alphanumeric code of six hexadecimal characters) when required by the appropriate ATS authority. Example: “F00001” is the lowest aircraft address contained in the specific block administered by ICAO.

DLE/ Enroute delay or holding, insert the significant point(s) on the route where a delay is planned to occur, followed by the length of delay using four figure time in hours and minutes (hhmm).

Example: –DLE/MDG0030

OPR/ ICAO designator or name of the aircraft operating agency, if different from the aircraft identification in item 7.

ORGN/ The originator’s 8 letter AFTN address or other appropriate contact details, in cases where the originator of the flight plan may not be readily identified, as required by the appropriate ATS authority.

Note.— In some areas, flight plan reception centres may insert the ORGN/ identifier and originator’s AFTN address automatically.

PER/ Aircraft performance data, indicated by a single letter as specified in the *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS, Doc 8168), *Volume I — Flight Procedures*, if so prescribed by the appropriate ATS authority.

ALTN/ Name of destination alternate aerodrome(s), if ZZZZ is inserted in Item 16. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RALT/ ICAO four letter indicator(s) for en-route alternate(s), as specified in Doc 7910, *Location Indicators*, or name(s) of en-route alternate aerodrome(s), if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

TALT/ ICAO four letter indicator(s) for take-off alternate, as specified in Doc 7910, *Location Indicators*, or name of take-off alternate aerodrome, if no indicator is allocated. For aerodromes not listed in the relevant Aeronautical Information Publication, indicate location in LAT/LONG or bearing and distance from the nearest significant point, as described in DEP/ above.

RIF/ The route details to the revised destination aerodrome, following by the ICAO four-letter location indicator of the aerodrome. The revised route is subject to reclearance in flight.

Examples:–RIF/DTA HEC KLAX
–RIF/ESP G94 CLA YPPH

RMK/ Any other plain language remarks when required by the appropriate ATS authority or deemed necessary.

Examples:–0
–STS/MEDEVAC
–EET/015W0315 020W0337 030W0420 040W0502
–STS/ONE ENG INOP
–DAT/S

...

Field Type 22 — Amendment

FIELD TYPE 22

<i>Previous type of field or symbol</i>	<i>This type of field is used in</i>	<i>Next type of field or symbol</i>
4618	CHG	*22 or)
16	CDN	*22 or)

* Indicates that further fields of this type may be added

...

RULES FOR THE COMPOSITION OF ATS MESSAGES

(See Sections 1.3 to 1.8 of this Appendix)

...

STANDARD ATS MESSAGES AND THEIR COMPOSITION

DESIGNATOR	Other information
MESSAGE TYPE				18
Alerting		ALR		
Radiocommunication failure		RCF		
Filed flight plan		FPL		
Delay		DLA		18
Modification		CHG		18
Flight plan cancellation		CNL		18
Departure		DEP		18
Arrival		ARR		
Current flight plan		CPL		
Estimate		EST		
Coordination		CDN		
Acceptance		ACP		
Logical acknowledgement message		LAM		
Request flight plan		RQP		18
Request supplementary flight plan		RQS		18
Supplementary flight plan		SPL		

...

The expression of position or route

The following alternative data conventions shall be used for the expression of position or route:

...

- (e) 2 or 3 to 5 characters being the coded identification of a ~~navigation aid (normally a VOR)~~ significant point, followed by 3 decimal numerics giving the bearing from the point in degrees magnetic followed by 3 decimal numerics giving the distance from the point in nautical miles. The correct number of numerics is to be made up, where necessary, by insertion of zeros, e.g. a point at 180° magnetic at a distance of 40 nautical miles from VOR “FOJ” would be expressed as “FOJ180040”.

...

2. Examples of ATS messages

...

2.2 Emergency messages

2.2.1 Alerting (ALR) message

2.2.1.1 Composition

...

–	9 Type of aircraft and wake turbulence category	–	10 Equipment and capabilities
---	---	---	----------------------------------

...

16 Destination aerodrome and total estimated elapsed time, destination alternate aerodrome(s)

...

2.2.1.2 Example

The following is an example of an alerting message relating to an uncertainty phase, sent by Athens Approach Control to Belgrade Centre and other ATS units, in respect of a flight from Athens to Munich.

(ALR-INCERFA/LGGGZAZX/OVERDUE
 –FOX236/A360024-IM
 –C141/H-S/CD
 –LGAT1020
 –N0430F220 B9 3910N02230W/N0415F240 B9 IVA/N0415F180 B9
 –EDDM0227 EDDF
 –REG/A43213 EET/LYBE0020 EDM10133 REG/A43213 –OPR/USAF RMK/NO
 POSITION REPORT SINCE DEP PLUS 2 MINUTES
 –E/0720 P/12 R/UV J/LF D/02 014 C ORANGE A/SILVER C/SIGGAH
 –USAF LGGGZAZX 1022 126.7 GN 1022 PILOT REPORT OVER NDB ATS
 UNITS ATHENS FIR ALERTED NIL)

2.2.1.2.1 Meaning

Alerting message — uncertainty phase declared by Athens due no position reports and no radio contact since two minutes after departure — aircraft identification FOX236 — IFR, military flight — Starlifter, heavy wake turbulence category, equipped with standard communications, navigation and approach aid equipment for the route, SSR transponder with Modes A (4 096 code capability) and C — ADS capability — last assigned Code 3624 — departed Athens 1020 UTC — cruising speed for first portion of route 430 knots, first requested cruising level FL 220 — proceeding on airway Blue 9 to 3910N2230W where TAS would be changed to 415 knots and FL240 would be requested — proceeding on airway Blue 9 to Ivanic Grad VOR where FL 180 would be requested, maintaining TAS of 415 knots and FL240 would be requested — proceeding on airway Blue 9 to Munich, total estimated elapsed time 2 hours and 27 minutes — destination alternate is Frankfurt — aircraft registration A43213 — accumulated estimated elapsed

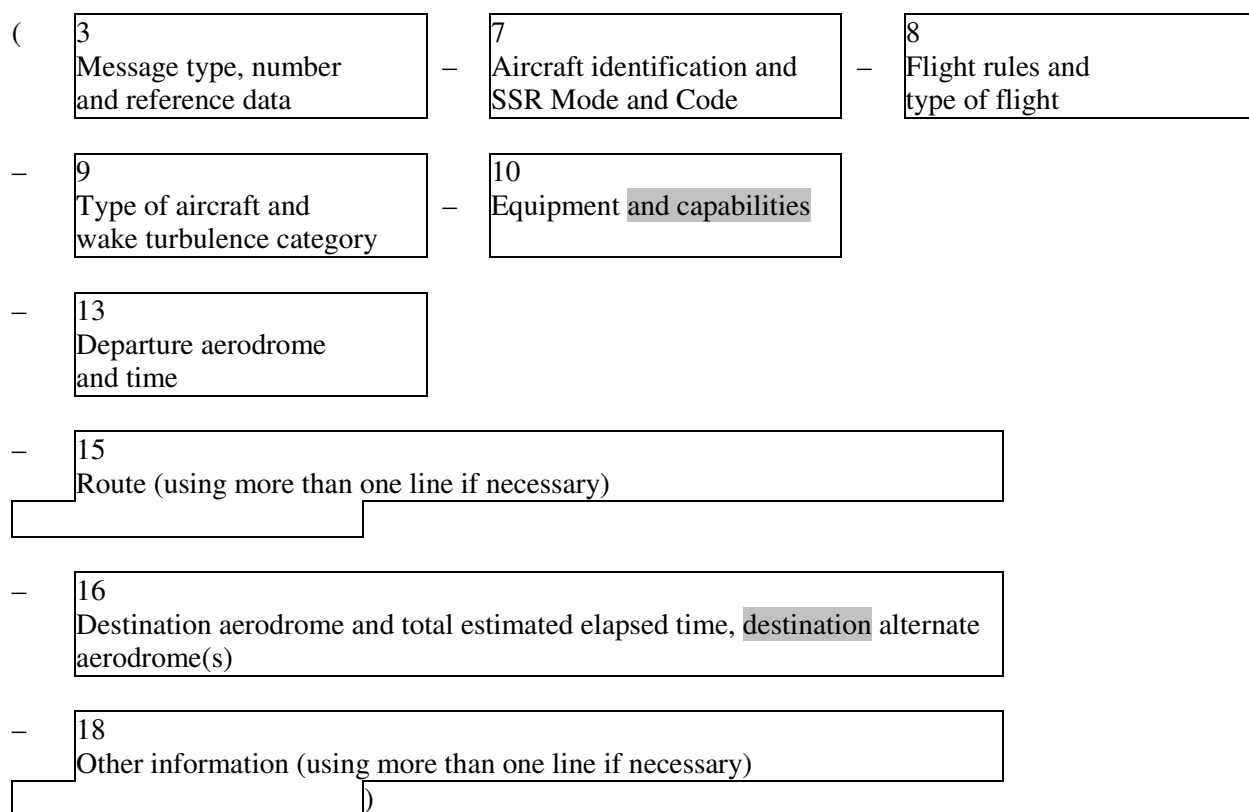
times at the Belgrade and Munich FIR boundaries 20 minutes and 1 hour and 33 minutes respectively — aircraft registration ~~A43213~~ — the aircraft is operated by the USAF — no position report has been received since 2 minutes after departure — endurance 7 hours and 20 minutes after take-off — 12 persons on board — portable radio equipment working on VHF 121.5 MHz and UHF 243 MHz is carried — life jackets fitted with lights and fluorescein are carried — 2 dinghies with orange covers are carried, have a total capacity for 14 persons — aircraft colour is silver — pilot's name is SIGGAH — operator is USAF — Athens approach control was the last unit to make contact at 1022 UTC on 126.7 MHz when pilot reported over GN runway locator beacon — Athens approach control have alerted all ATS units within Athens FIR — no other pertinent information.

...

2.3 Filed flight plan and associated update messages

2.3.1 Filed flight plan (FPL) message

2.3.1.1 Composition



2.3.1.2 Example

The following is an example of a filed flight plan message sent by London Airport to Shannon, Shanwick and Gander Centres. The message may also be sent to the London Centre or the data may be passed to that centre by voice.

```

(FPL-TPRACA101-IS
-B707MB773/H-CHOPV/CD
-EGLL1400
-N0450F310 G1-UG1L9 UL9 STU285036/M082F310 UG1UL9 52N015W LIMRI
  
```

52N020W 52N030W 50N040W 49N050W

–CYQX0455 CYYR

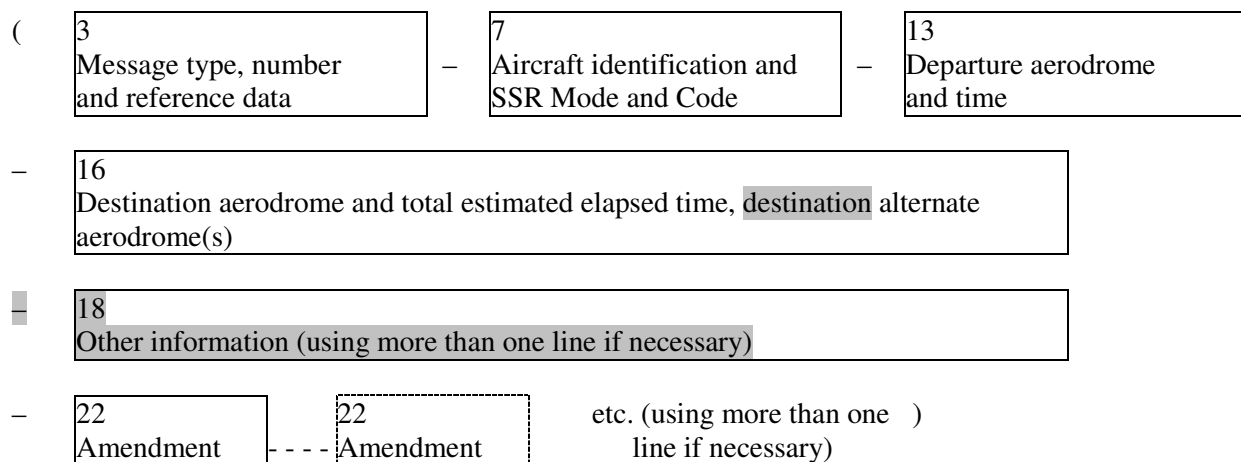
–EET/EISNN0026 EGGX0111 020W0136 CYQX0228 040W0330 050W0415 SEL/FJEL)

2.3.1.2.1 *Meaning*

Filed flight plan message — aircraft identification ~~TPR~~ACA101 — IFR, scheduled flight — a Boeing 707, ~~medium~~777-300, heavy wake turbulence category equipped with Loran C, HF RTF, VOR, ~~Doppler~~, VHF RTF and SSR transponder with Modes A (4 096 code capability) and C — ~~ADS capability~~ — departure aerodrome is London, estimated off-block time 1400 UTC — cruising speed and requested flight level for the first portion of the route are 450 knots and FL 310 — the flight will proceed on Airways ~~Green-1~~Lima 9 and Upper ~~Green-1~~Lima 9 to a point bearing 285 degrees magnetic and 36 NM from the Strumble VOR. From this point the flight will fly at a constant Mach number of .82, proceeding on Upper ~~Green-1~~Lima 9 to 52N15W LIMRI; then to 52N20W; to 52N30W; to 50N40W; to 49N50W; to destination Gander, total estimated elapsed time 4 hours and 55 minutes — ~~destination~~ alternate is Goose Bay — captain has notified accumulated estimated elapsed times at significant points along the route, they are at the Shannon FIR boundary 26 minutes, at the Shanwick Oceanic FIR boundary 1 hour and 11 minutes, at 20W 1 hour and 36 minutes, at the Gander Oceanic FIR boundary 2 hours and 28 minutes, at 40W 3 hours and 30 minutes and at 50W 4 hours and 15 minutes — SELCAL code is FJEL.

2.3.2 *Modification (CHG) message*

2.3.2.1 *Composition*



2.3.2.2 *Example*

The following is an example of a modification message sent by Amsterdam Centre to Frankfurt Centre correcting information previously sent to Frankfurt in a filed flight plan message. It is assumed that both centres are computer-equipped.

(CHGA/F016A/F014-GABWE/A2173-EHAM0850-EDDF-DOF/080122-8/I-16/EDDN)

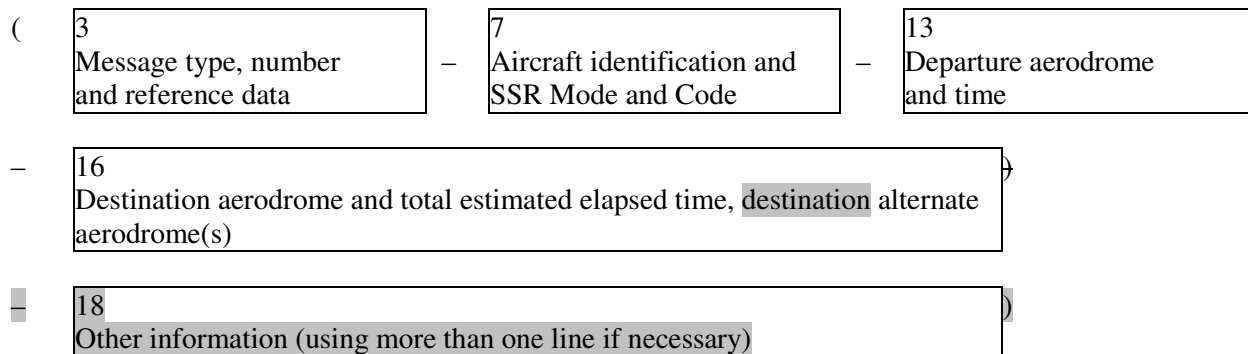
2.3.2.2.1 *Meaning*

Modification message – Amsterdam and Frankfurt computer unit identifiers A and F, followed by serial number (016) of this message sent by Amsterdam, repeat of computer unit identifiers followed by serial number (014) of the related filed flight plan message – aircraft identification GABWE, SSR Code 2173

operating in Mode A, en route from Amsterdam **EOBT0850** to Frankfurt **date of flight 22 Jan 2008** – Field Type 8 of the related filed flight plan message is corrected to IFR – Field Type 16 of the related filed flight plan is corrected, the new destination is Nürnberg.

2.3.3 *Flight plan cancellation (CNL) message*

2.3.3.1 *Composition*



2.3.3.2 *Example 1*

The following is an example of a flight plan cancellation message sent by an ATS unit to all addressees of a filed flight plan message previously sent by that unit.

(CNL-DLH522-EDBB**0900**-LFPO-**0**)

2.3.3.2.1 *Meaning*

Flight plan cancellation message – cancel the flight plan of aircraft identification DLH522 – flight planned from Berlin **EOBT0900** to Paris – **no other information**.

2.3.3.3 *Example 2*

The following is an example of a flight plan cancellation message sent by a centre to an adjacent centre. It is assumed that both centres are equipped with ATC computers.

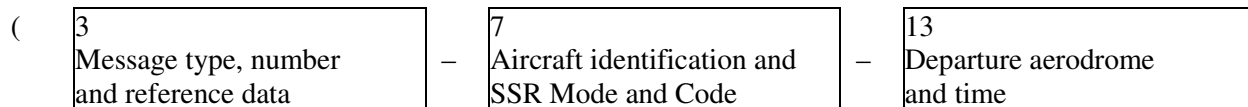
(CNLFB127F/B055-BAW580-EDDF**1430**-EDDW-**0**)

2.3.3.3.1 *Meaning*

Flight plan cancellation message – identifiers of sending and receiving ATC computer units F and B, followed by serial number (127) of this message, repeat of computer unit identifiers followed by serial number (055) of current flight plan message previously transmitted – cancel the flight plan of aircraft identification BAW580 – flight planned from Frankfurt **EOBT1430** to Bremen – **no other information**.

2.3.4 *Delay (DLA) message*

2.3.4.1 *Composition*



- 16
Destination aerodrome and total estimated elapsed time, destination alternate aerodrome(s)
- 18
Other information (using more than one line if necessary)

2.3.4.2 Example

The following is an example of a delay message from a departure aerodrome, or from a parent unit handling communications for a departure aerodrome, to each addressee of a filed flight plan message.

(DLA-KLM671-LIRF0900-LYDU-0)

2.3.4.2.1 Meaning

Delay message – aircraft identification KLM671 – revised estimated off-block time Fiumicino 0900 UTC destination Dubrovnik – no other information.

2.3.5 Departure (DEP) message

2.3.5.1 Composition

- (3 – 7 – 13)
- | | | |
|--|--|------------------------------------|
| 3
Message type, number and reference data | 7
Aircraft identification and SSR Mode and Code | 13
Departure aerodrome and time |
|--|--|------------------------------------|
- 16
Destination aerodrome and total estimated elapsed time, destination alternate aerodrome(s)
 - 18
Other information (using more than one line if necessary)

2.3.5.2 Example

The following is an example of a departure message from a departure aerodrome, or from a parent unit handling communications for a departure aerodrome, to each addressee of a filed flight plan message.

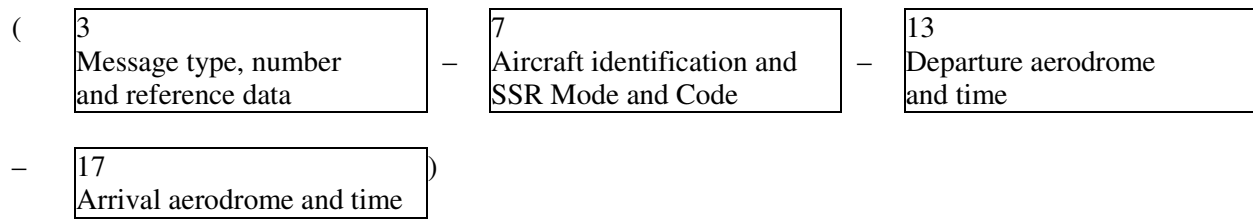
(DEP-CSA4311-EGPD1923-ENZV-0)

2.3.5.2.1 Meaning

Departure message – aircraft identification CSA4311 – departed from Aberdeen at 1923 UTC – destination Stavanger – no other information.

2.3.6 Arrival (ARR) message

2.3.6.1 Composition



2.3.6.2 Example 1

The following is an example of an arrival message sent from the arrival aerodrome (= destination) to the departure aerodrome.

(ARR-CSA406-LHBP-LKPR0913)

2.3.6.2.1 Meaning

Arrival message — aircraft identification CSA406 — departed from Budapest/Ferihegy — landed at Prague/Ruzyne Airport at 0913 UTC.

2.3.6.3 Example 2

The following is an example of an arrival message sent for an aircraft which has landed at an aerodrome for which no ICAO location indicator has been allocated. The SSR Code would not be meaningful.

(ARR-~~HELH3~~HHE13-EHAM-1030 DEN HELDER)

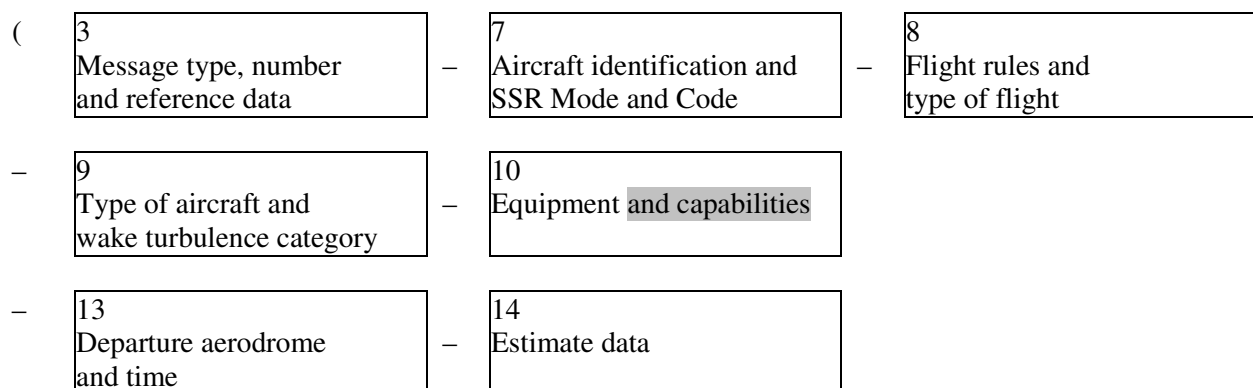
2.3.6.3.1 Meaning

Arrival message aircraft identification ~~HELH3~~HHE13 — departed from Amsterdam — landed at Den Helder heliport at 1030 UTC.

2.4 Coordination messages

2.4.1 Current flight plan (CPL) message

2.4.1.1 Composition



- 15
Route (using more than one line if necessary)
- 16
Destination aerodrome and total estimated elapsed time, **destination** alternate aerodrome(s)
- 18
Other information (using more than one line if necessary)

2.4.1.2 Example 1

The following is an example of a current flight plan message sent from Boston Centre to New York Centre on a flight which is en route from Boston to La Guardia Airport.

(CPL-UAL621/A5120-IS
~~DC9A320~~/M-S/CØ
 -KBOS-HFD/1341A220A200A
 -N0420A220 V3 AGL V445
 -KLGA
 -0)

2.4.1.3 Example 2

The following is an example of the same current flight plan message, but in this case the message is exchanged between ATC computers.

(CPLBOS/LGA052-UAL621/A5120-IS
~~DC9A320~~/M-S/CØ
 -KBOS-HFD/1341A220A200A
 -N0420A220 V3 AGL V445
 -KLGA
 -0)

Note.— The messages in Examples 1 and 2 are identical except that the Message Number of Example 2 does not appear in Example 1.

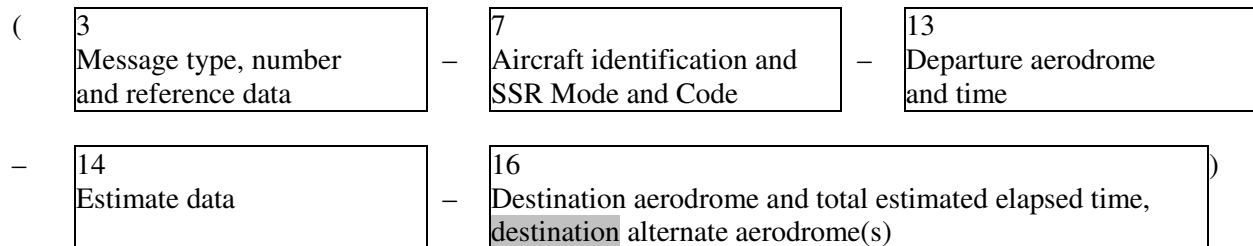
2.4.1.4 Meaning

Current flight plan message [with sending unit identity (BOS) and receiving unit identity (LGA), followed by the serial number of this message (052)] — aircraft identification UAL621, last assigned SSR Code 5120 in Mode A — IFR, scheduled flight — one ~~DC9A320~~, medium wake turbulence category, equipped with standard communications, navigation and approach aid equipment for the route and SSR transponder with Modes A (4 096 code capability) and C — ~~ADS-capability~~ — departed Boston — the flight is estimated to cross the Boston/New York “boundary” at point HFD at 1341 UTC, cleared by the Boston Centre at altitude 22 000 feet but to be at or above altitude 20 000 feet at HFD — TAS is 420 knots, requested cruising level is altitude 22 000 feet — the flight will proceed on airway V3 to

reporting point AGL thence on airway V445 — destination is La Guardia Airport — no other information.

2.4.2 *Estimate (EST) message*

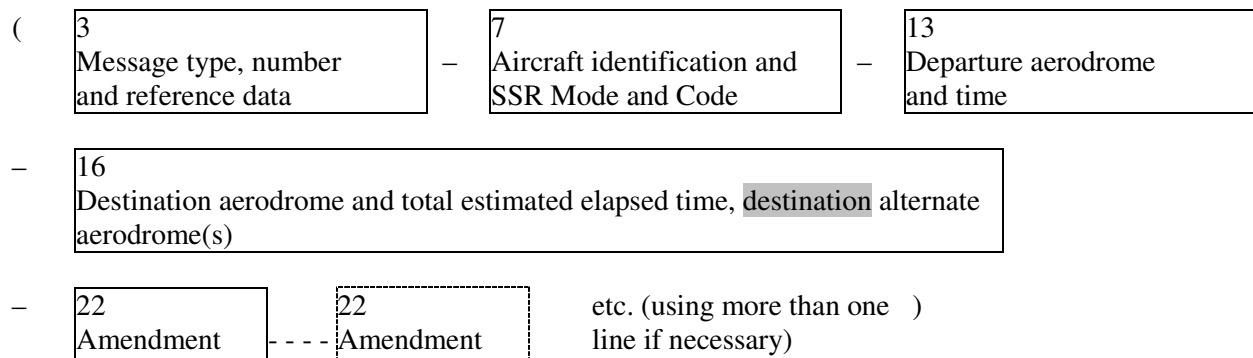
2.4.2.1 *Composition*



...

2.4.3 *Coordination (CDN) message*

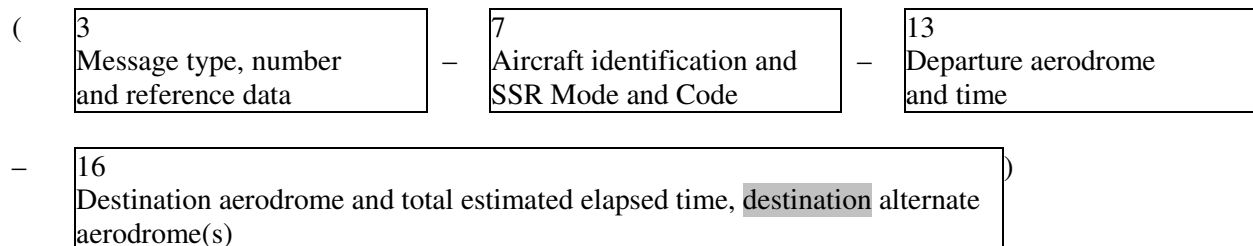
2.4.3.1 *Composition*



...

2.4.4 *Acceptance (ACP) message*

2.4.4.1 *Composition*

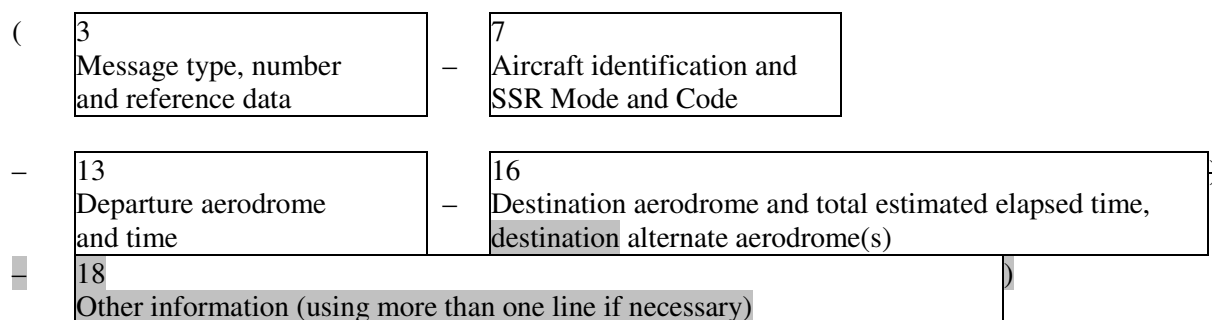


...

2.5 Supplementary messages

2.5.1 Request flight plan (RQP) message

2.5.1.1 Composition



2.5.1.2 Example

The following is an example of a request flight plan message sent by a centre to an adjacent centre after receipt of an estimate message, for which no corresponding filed flight plan message had been received previously.

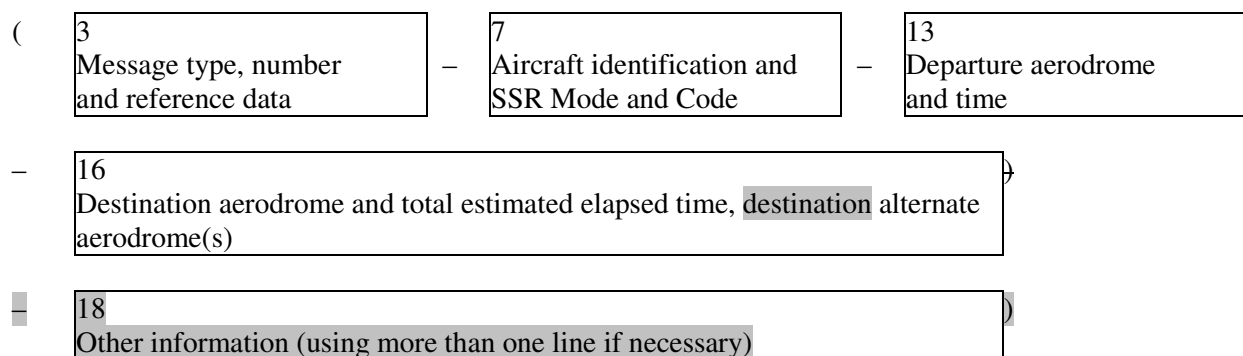
(RQP-PHOEN-EHRD-EDDL-0)

2.5.1.2.1 Meaning

Request flight plan message – aircraft identification PHOEN departed from Rotterdam – destination Düsseldorf – no other information.

2.5.2 Request supplementary flight plan (RQS) message

2.5.2.1 Composition



2.5.2.2 Example

The following is an example of a request flight plan message sent by an ATS unit to the ATS unit serving the departure aerodrome requesting information contain in the flight plan form, but not transmitted in the filed or current filed flight plan messages.

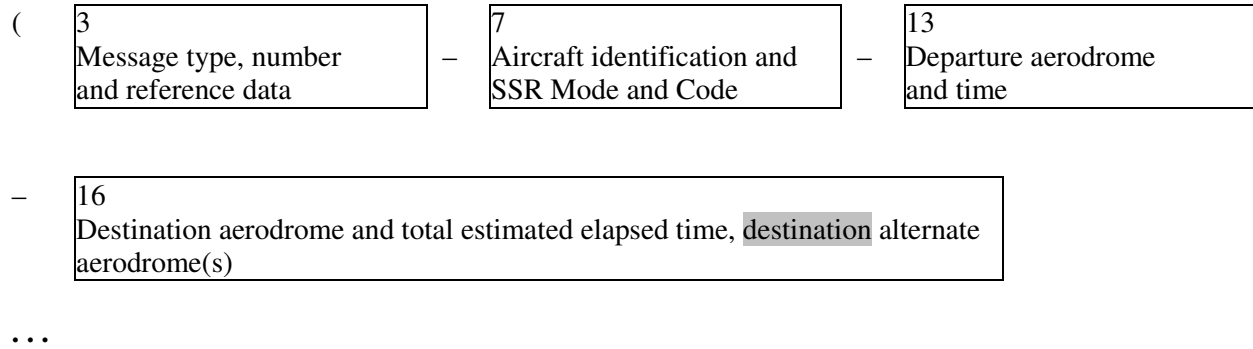
(RQS-KLM405/A4046-EHAM-CYMX-0)

2.5.2.2.1 *Meaning*

Request supplementary flight plan message – aircraft identification KLM405/SSR Code 4046 operating in Mode A – departure aerodrome is Amsterdam – destination aerodrome is Mirabel – no other information.

2.5.3 *Supplementary flight plan (SPL) message*

2.5.3.1 *Composition*





International Civil Aviation Organization	Organisation de l'aviation civile internationale	Organización de Aviación Civil Internacional	Международная организация гражданской авиации	منظمة الطيران المدني الدولي	国际民用 航空组织
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Tel.: +1 (514) 954-8219 ext. 6711

Ref.: AN 13/2.1-09/9

6 February 2009

Subject: Guidance for implementation of flight plan information to support Amendment 1 of the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition (PANS-ATM, DOC 4444)

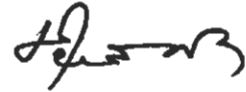
Action required: Coordinate the transition to the new ICAO flight plan

Sir/Madam,

1. I have the honour to draw your attention to the content of Amendment 1 to the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition (PANS-ATM, Doc 4444) related to the amended flight plan form and new flight planning procedures.
2. The nature and scope of the amendment, as described in State letter AN 13/2.1-08/50, is to update the ICAO model flight plan form in order to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems, while taking into account compatibility with existing systems, human factors, training, cost and transition aspects.
3. Considering that the transition from the current flight plan form and associated requirements to the new flight plan may present challenges for States and organizations involved in the processing of flight plans, ICAO has developed the guidance contained in the Attachment. The primary purpose of this guidance is to support a coordinated global effort during the transition period so that a successful and coordinated transition is achieved by the applicability date of 15 November 2012.
4. To support the transition, a public website is being developed by ICAO where States, Air Navigation Service Providers (ANSPs) and airspace users will be able to find information regarding the implementation status of the Amendment and where the most common issues and difficulties encountered will be discussed. States will be notified as soon as the site is available.

5. May I, therefore, request that all efforts be made to ensure a smooth transition to the new flight plan and that particular attention be paid to the pages referring to the conversion of new items 10 and 18 to the present items 10 and 18, which concern aircraft equipment and capabilities.

Accept, Sir/Madam, the assurances of my highest consideration.



Taïeb Chérif
Secretary General

Enclosure:

Guidance for implementation of flight plan information to support Amendment 1 of the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition (PANS-ATM, DOC 4444)

**Guidance for implementation of flight plan information to support Amendment 1 of the *Procedures for Air Navigation Services — Air Traffic Management*, Fifteenth Edition
(PANS-ATM, DOC 4444)**

1. INTRODUCTION

1.1. The guidance contained herein is provided to assist airspace users and Air Navigation Service Providers (ANSP) to implement the flight planning changes incorporated by Amendment 1 to Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444) Fifteenth Edition.

1.2. Amendment 1 stems from the work of the Flight Plan Study Group (FPLSG). The nature and scope of the amendment is to update the ICAO model flight plan form in order to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems, while taking into account compatibility with existing systems, human factors, training, cost and transition aspects.

1.3. The changes were announced by ICAO in State letter AN 13/2.1-08/50 dated 25 June 2008 and will become applicable on 15 November 2012.

1.4. The changes have considerable consequences on ANSP flight data processing systems that check and accept flight plans and related messages, use flight plan data in displays for controller reference, use data in ANSP automation and which support communication between ANSPs as the flight progresses. Preparation for the changes should therefore be made well in advance of the applicable date.

1.5. The changes also have consequences for airspace users. If a flight plan with new content is sent to an ANSP that has not prepared to accept the new content then it is likely that some information will be lost, misinterpreted or cause a rejection of the flight plan.

1.6. No start date has been given for implementation of the flight planning changes to commence; however, one reason for the State letter is to support the updating of flight plan data processing systems. The transition period for the changes is therefore from 25 June 2008 until 15 November 2012.

1.7. It is recognized that changes will be implemented by airspace users and ANSPs on individual schedules due to individual needs, however some coordination will occur.

1.8. It is essential to the success of this implementation that all airspace users and ANSPs be able to submit and process flight information in accordance with Amendment 1 to the PANS-ATM by 15 November 2012, as processing via present methods is not assured after that date.

1.9. This guidance does not change any provision in Annex 2 — *Rules of the Air* or the PANS-ATM regarding completion and acceptance of a flight plan.

2. OBJECTIVE

2.1. The purpose of the guidance contained herein is to support a coordinated global effort during the transition period so that a successful transition is achieved by the applicability date of 15 November 2012.

3. APPLICABILITY

3.1. This guidance applies to airspace users, ANSPs and Planning and Implementation Regional Groups (PIRGs). Note that flight planning services and related organizations involved in the processing of flight plans are considered part of the airspace user community and, as such, are covered under this guidance.

3.2. This document presents guidelines which should be considered when developing implementation plans for this amendment. Adherence to these guidelines will mitigate risks associated with the technical challenges inherent during the transition period and assure that users are able to meet flight planning requirements as individual ANSPs implement changes.

3.3. This document applies with immediate effect and continues until implementation of Amendment 1 to the PANS-ATM is complete.

4. SCOPE

4.1. This guidance is limited to transitioning to flight planning and Air Traffic Services (ATS) message changes defined in Amendment 1 to the PANS-ATM, including message content and submission instructions.

5. FLIGHT PLANNING ENVIRONMENT

5.1. PRESENT is defined as the present flight planning and ATS message formats as defined in the current version of the PANS-ATM.

5.2. NEW is defined as the flight planning and ATS message formats as specified in Amendment 1 to the PANS-ATM.

5.3. In order to allow performance case considerations to drive individual airspace user and ANSP implementation schedules, the ATM system will need to simultaneously support both PRESENT and NEW for a period of time.

5.4. Amendment 1 to the PANS-ATM contains changes to the length and content of items. The changes to content are as follows:

- Change the way aircraft equipment and capabilities are communicated to provide more details;
- Provide additional means of describing route way points (specifically bearing and distance from points other than navigation aids); and
- Permit specification of the date of flight in a standardised manner.

5.5. The present flight planning environment supports a variety of means of filing flight plans. For example flight plans can be filed directly by the airspace user to each ANSP individually or flight

plans can be filed by the airspace user at one location and then the ATM system distributes the flight plan. Amendment 1 does not specifically change these options; however the means of transitioning to Amendment 1 may impose some requirements during the transition.

5.6. The present ATM system supports a variety of means of ANSPs communicating flight plan data between ANSP systems, for example use of coordination messages where Amendment 1 implies changes of content.

6. IMPLEMENTATION GUIDELINES

6.1. These guidelines have been developed to facilitate concurrent use of both PRESENT and NEW by airspace user and ANSP flight data processing systems during the transition period.

6.2. Guideline 1

- a) As each ANSP transitions to NEW, it is essential that they also support PRESENT until the applicability date of 15 November 2012.
- b) There is no requirement for ANSPs to accept and process PRESENT after the applicability date, unless specified by the appropriate authority.
- c) This guideline relates to the situation when some ANSPs and/or airspace users do not implement the flight planning changes until the end of the transition period.

6.3. Guideline 2

- a) PIRGs are encouraged to plan and publish regional implementations sufficiently in advance of the applicability date so that airspace users and ANSPs can respond to and resolve any unforeseen operational issues.
- b) It is anticipated that implementation will occur progressively as each PIRG works with their member States/international organizations and airspace users to coordinate a regional transition prior to 15 November 2012.
- c) Transition plans should encourage all ANSPs to transition to NEW a certain period of time prior to 15 November 2012 to allow airspace users a transition period to NEW before the applicability date.
- d) Transition plans should take into account that the airspace user may not be able to make use of the new opportunities provided by NEW until an ANSP has transitioned. Even then, use of NEW may be restricted in its application if the flight still involves ANSPs who have not yet transitioned.

6.4. Guideline 3

- a) During the transition period and after an ANSP has advised that they can accept NEW, the determination to file NEW or PRESENT with that ANSP is the choice of the airspace user.

- b) It is expected that airspace users will make the decision on what format to file based on performance gains which may be achieved through capability information in Items 10 and/or 18 of NEW.
- c) It is intended that all airspace users will file NEW from the applicability date forward, as using PRESENT is not assured after that date.

Note – The following guidelines apply only to situations where ANSPs affected by a flight have not all transitioned to NEW.

6.5. Guideline 4

- a) During the transition period when not all ANSPs affected by a flight have transitioned to NEW, the airspace user must ensure that PRESENT is filed with ANSPs who have not yet transitioned.
- b) This can be achieved by the airspace user filing only PRESENT with all ANSPs (as ANSPs supporting NEW will also support PRESENT during transition).
- c) ANSPs using PRESENT may misinterpret, and may reject, flight plan information that is filed more than 24 hours in advance of flight. Filing more than 24 hours in advance of flight cannot be used if one or more ANSPs affected by a flight have not transitioned (unless those ANSPs already support filing more than 24 hours in advance of flight). Although ANSPs using NEW could accept the flight plan they may not be able to pass essential coordination to ANSPs using PRESENT.
- d) The airspace user may choose to file NEW to ANSPs that have transitioned and PRESENT to ANSPs that have not transitioned. However, without special transitional procedures, a situation can occur where the NEW would only be useable until the first ANSP along route of flight using PRESENT. This is because the ANSP using NEW will not be able to coordinate NEW with ANSPs using PRESENT.

6.6. Guideline 5

- a) To facilitate user decisions on whether to file PRESENT, NEW or a combination of PRESENT and NEW, ICAO will maintain a website listing each ANSP's ability to accept PRESENT or NEW.
- b) This information which will be publicly available is in addition to the normal methods of communication between an ANSP and its airspace users.
- c) Each ANSP will communicate, via State and ICAO Regional Offices, their ability to accept NEW to ICAO as soon as possible so that ICAO can ensure that complete and updated information is posted on the website. An ANSP advising of having completed transition to NEW is also indicating that they can coordinate with other ANSPs who have transitioned to NEW.

6.7. **Guideline 6**

- a) During the transition period, ANSPs who accept NEW may need to convert flight information to PRESENT for coordination with adjacent ANSPs who have not yet transitioned.
- b) It is strongly recommended for consistency that all ANSPs utilize the conversion table provided below so that airspace users and ANSPs have a common understanding of how NEW will be converted to PRESENT.
- c) PIRGs, States and ANSPs should be aware that valuable planning information may be lost during the conversion process, as shown in the conversion table.
- d) There is no intent for PRESENT to be converted to NEW during the transition period.

7. **CONVERSION OF NEW ITEMS 10 and 18 TO PRESENT ITEMS 10 and 18**

It is strongly recommended that all ANSPs utilize the table below to convert NEW Items 10 and 18 to the PRESENT for coordination with adjacent ANSPs which only accept PRESENT.

- Different agreements may be worked out between ANSPs for Item 18 information if the conversion would cause the message to be rejected by an ANSP which only accepts PRESENT.
- **CAUTION:** Some information will be lost from NEW during conversion, including certain information about capabilities, and information held in Item 18 indicators which do not exist in PRESENT such as DOF, DLE and TALT. As a partial mitigation, any information which would otherwise be lost from NEW may be translated into a single free text following RMK/ in Item 18 of PRESENT.

Com-Nav	NEW data in these columns		Converts to PRESENT data in these columns	
	Item 10	Item 18	Item 10	Item 18
	N		N	
	S		VOL	
	SF		S	
	A		Z	NAV/GBAS
	B		Z	NAV/LPV
	C		C	
	D		D	
	E1		J	DAT/n
	E2		J	DAT/n
	E3		J	DAT/n
	F		F	
	G	NAV/nnnn	G	
	H		H	
	I		I	
	J1		J	DAT/V
	J2		J	DAT/H
	J3		J	DAT/V

A-6

	J4		J	DAT/V
	J5		J	DAT/S
	J6		J	DAT/S
	J7		J	DAT/S
	K		K	
	L		L	
	M1		Z	COM/INMARSAT
	M2		Z	COM/MTSAT
	M3		Z	COM/IRIDIUM
	O		O	
	P1-P9(Reserved)			
	R	PBN/nn	Z	NAV/nnnn

Com-Nav	NEW data in these columns		Converts to PRESENT data in these columns	
	Item 10	Item 18	Item 10	Item 18
	T		T	
	U		U	
	V		V	
	W		W	
	X		X	
	Y		Y	
	Z	COM/NAV/DAT	Z	COM/ NAV/

Sur	N		N	
	A		A	
	C		C	
	E		S	
	H		S	
	I		I	
	L		S	
	P		P	
	S		S	
	X		X	
	B1			
	B2			
	U1			
	U2			
	V1			
	V2			
	D1		D	
	G1		D	

— END —

APIRG17 WP7

APPENDIX E1

ATM PERFORMANCE OBJECTIVES

NATIONAL PERFORMANCE OBJECTIVE - IMPLEMENTATION OF THE NEW ICAO FPL PROVISIONS BY 15 NOVEMBER 2012				
Benefits				
Environment	• reductions in fuel consumption			
Efficiency	• ability of air navigation service providers t make maximum use of aircraft capabilities			
	• ability of aircraft to conduct flights more closely to their preferred trajectories			
	• facilitate utilization of advanced technologies thereby increasing efficiency			
	• optimized demand and capacity balancing through the efficient exchange of information			
Safety	• enhance safety by use of modern capabilities onboard aircraft			
Strategy				
Short term (2010-2012)				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AUO SDM	<ul style="list-style-type: none">• plan the transition arrangements to ensure that the changes from the current to the new ICAO FPL form occur in a timely and seamless manner and with no loss of service;• ensure that the capabilities of local systems are fully adaptable to the changes envisaged in the new FPL form;• ensure the ability of FDPS’s to parse information correctly to guarantee that misinterpretation of data does not occur;• analyze each individual data item within the various fields of the new flight plan form, comparing the current values and the new values to verify any issue regarding the provision of service by the flight planning facility itself or downstream units;• ensure that there are no individual State peculiarities or deviations from the flight plan provisions;	2009-June 2011	States	Ongoing
		2010	States	Ongoing
		2010	States	Ongoing
		2010	States	Ongoing
		2011	States	Ongoing

APIRG17 WP 7

	<ul style="list-style-type: none"> ensure that the accepting ATS Reporting Office accepts and disseminates all aircraft capabilities and flight intent to all the downstream ACCs as prescribed by the PANS-ATM provisions. 	2012	States	Ongoing
	<ul style="list-style-type: none"> in order to reduce the change of double indications it is important that any State having published a specific requirement(s) which are now addressed by the amendment should withdraw those requirements in sufficient time to ensure that aircraft operators and flight plan service providers, after 15 November 2012, use only the new flight plan indications; inform on the implementation status to the ICAO regional offices on an ongoing basis; keep the Flight Plan Implementation Tracking System (FITS) up to date based on the information provided by the States. 	2010-2012	States	Ongoing
		2010-2012	States	Ongoing
		2010-2012	ICAO Regional Office	Ongoing
linkage to GPIs	GPI/5 RNAV and RNP (Performance-based navigation) GPI-12 Functional integration of ground systems with airborne system GPI/18 Aeronautical Information			

Transition to New ICAO Flight Plan Content

Amendment 1 to Procedures for Air Navigation Services - Air Traffic Management Documents 4444 (PANS-ATM Doc.4444)

State	FIR	Location Indicator	Mode of FPL processing		Capability exist to process new (2012 content)		Brief Remarks	Last Update
			Manual	Automated IFPS/FDPS	Yes	No		
Angola	Luanda	FNAN	X			NO		
Botswana	Gaborone	FBGR		FDPS		NO		
Comoros	FMMM	FMCH	X			No	Check with ASECNA	
DRC	Kinshasa	FZZA	X		Yes		FDPS in progress	
Ethiopia	Addis Ababa	HAAA	Manual	IFPS/FDPS	Yes	NO	Installing new AMHS	
Gabon	SIV	FOOL	X		Yes			
Ghana	Accra	DGAC				NO	Current system requires upgrading	
Guinea	Roberts	GLRB		Automated	Yes			
Kenya	Nairobi	HKNA	Manual	IFPS		NO		
Malawi	Lilongwe	FWLL	Yes			NO		
Madagascar	Antananarivo	FMMM		Automated	Yes			
Mauritius	FIMM	FIMP		FDPS		NO		
Niger	Niamey	DRRR		Automated	Yes		Service facilitated by ASECNA	
Nigeria	KANO	DNKK	Manual		Yes		AIS Nigeria is being Automated	
Rwanda	Kigali	HRYR	Manual			NO	To be installed before end 2010	
Senegal	Dakar	GOOO		FDPS				
Seychelles	Seychelles	FSSS		Automated			Introduced New FDPS will verify	
Somalia (CACAS)	Mogadishu	HCSM	ATS DS only no AFTN				No FLTPLN	
South Africa	Johannesburg	FAJS		X		NO	AFTN/AIS and FDPS	
	Cape Town	FACT		X		NO	FDPS	
	Johannesburg	FAJO		X		NO	FDPS	
Sudan	Khartoum	HSSS		FDPS		NO		
Tanzania	Dar-es-Salaam	HTDC	NO	Yes		No		
Tunisia	Tunis	DTTC			Yes			
Uganda	Entebbe	HUEN	Yes	Yes		NO	FPL Management partially automated	
Zimbabwe	Harare	FVHF	Yes	Yes				