DENMARK

AIC A
03/12

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12 SEP 2012

AIC A 03/12. Implementation of changes to the ICAO Flight Plan requirements and form (FPL 2012)

1.1 Introduction

The International Civil Aviation Organization (ICAO) has agreed to make changes to the content and format of the ICAO flight plan form (FPL), see Amendment 1 to the PANS-ATM, DOC 4444, 15th Edition (new ICAO Flight Plan - FPL 2012). These changes become globally applicable for both Visual Flight Rules (VFR) flights and Instrument Flight Rules (IFR) flights on 15 November 2012, although many States will accept the new format prior to that date. Coincident with these changes Denmark is amending its flight planning requirements, as of 15 November 2012, 00:00 UTC.

The main changes are related to:

- The ability to file both IFR and VFR FPL more than 24 hours in advance but not more than 120 hours
- The mandatory requirement for both IFR and VFR flights to include DOF if the flight plan is filed more than 24 hours in advance of the EOBT.
- The use of CHG message to notify a change to the intended DOF
- A significant number of new COM/NAV/SUR capabilities
- Significant changes to the content of Items 10 & 18 of the FPL
- Addition of Item 18 to CHG, DEP, DLA, CNL messages as compulsory syntax change
- New error indications within REJ message

Note: Attachment B to this AIC describes in more detail the changes to the ICAO FPL 2012 content and format. Attachment C offers guidance in filing COM/NAV/SUR capabilities (Item 10a/b and Item 18 PBN/),

1.2 Implementation in København FIR and Søndrestrøm FIR from 15 November 2012

Instrument Flight Rules (IFR) flights

Beginning 15 November 2012, 00:00 UTC, all flight plans for Instrument Flight Rules (IFR) flights, or for flights where a portion of the flight will be completed under IFR, must be filed using the NEW content and format. Flight plans filed using the PRESENT content and format will continue to be accepted until 00:00 on 15 November 2012.

Note: Denmark uses the Initial Flight Plan Processing System (IFPS) service for IFR flights within København FIR. Therefore, flight plans for IFR flights intending to operate within København FIR are to be filed using the IFPS, see Item 2.

Visual Flight Rules (VFR) flights

Also beginning 15 November 2012 at 00:00 UTC, all flight plans for Visual Flight Rules (VFR) flights must be filed using the NEW content and format. Flight plans filed using the PRESENT content and format will continue to be accepted until 00:00 on 15 November 2012.

Note: PRESENT refers to the current ICAO flight planning provisions, which will no longer be applicable after 15 November 2012.

NEW refers to the ICAO flight planning provisions, as detailed in Amendment 1 to the Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444), 15th Edition. These provisions become globally applicable from 15 November 2012.

Acceptance of flight plans

As of 15 November 2012, 00:00 UTC both IFR and VFR flight plans filed up to 120 hours in advance of the EOBT, will be accepted.

1.3 Transition period 12 November 2012 - 15 November 2012

IFR or VFR flight plans using the PRESENT content and format, which are filed after 15 November 2012 00:00 UTC, will not be accepted. If any part of the flight will or may take place after 00:00 UTC on 15 November 2012, pilots and operators must file the applicable flight plan using the NEW content and format.

Beginning on 12 November 2012, it is recommended that flight plans for IFR flights, or where a portion of the flight will be conducted under IFR, be filed using the NEW content and format. Repetitive Flight Plans (RPLs) for the 2013 winter season should be submitted using the NEW content and format.

During the transition period prior to 15 November 2012, pilots and operators are responsible for transmitting the appropriate flight plan content and format accepted by the Air Navigation Services Providers (ANSP) that will provide services in the airspace where the flight will take place.

Pilots and operators are encouraged to use the IFPS Validation (IFPUV) Application (see Attachment A), provided by EUROCONTROL, to test the validity of their flight plans well in advance of 15 November 2012. The IFPUV Application can also be used to syntax check flight plans for VFR flights.

2 Transition - IFR Flights within the IFPS Zone (IFPZ)

København FIR is within the IFPZ. All flight plans for IFR flights, or where a portion of the flight will be carried out under IFR, are to be submitted to IFPS. The following schedule is applicable to the IFPS transition from PRESENT to NEW flight plans:

- FPL for flights with a date of flight later than 15 November 2012 cannot be submitted prior to 12 November 2012.
- FPL for flights with a date of flight between 12 and 15 November 2012 cannot be submitted more than 24 hours in advance of the Estimated Off Block Time (EOBT).
- As of 15 November 2012 00:00 UTC, IFPS will no longer accept flight plans filed in the PRESENT format. IFPS will only accept flight plans filed in the NEW format.

Note: It is the responsibility of the pilot and/or operator to ensure that flight plans are filed in the correct format for the State(s) affected by the flight.

- As of 15 November 2012 00:00 UTC, IFPS will resume accepting flight plans filed more than 24 hours in advance of the EOBT. Please note that flight plans filed more than 120 hours in advance of the EOBT will not be accepted by IFPS.

Pilots and operators are reminded that IFPS cannot be used to submit VFR flight plans for flights within København FIR.

3 Date of Flight (DOF) and changes to Item 10

It is mandatory for both IFR and VFR flights to include Date of Flight (DOF) if the flight plan is filed more than 24 hours in advance of the EOBT. Pilots and operators are therefore strongly encouraged to include the DOF in Item 18 of the flight plan for all flights.

Pilots and operators should note the changed intention of Item 10 of the FPL. Under the NEW provisions, Item 10 indicates equipment and capabilities. Capability is comprised of three elements:

a) presence of relevant serviceable equipment on board the aircraft;

b) equipment and capabilities commensurate with flight crew qualification; and

c) where applicable, authorization from the appropriate authority.

4 Further information

Attachment A to this AIC describes the use of the IFPS Validation (IFPUV) Application.

Attachment B to this AIC describes the changes to the ICAO FPL content and format in detail. An advance edition of the amendment to the ICAO flight planning provisions is available on the ICAO European and North Atlantic website:

www.paris.icao.int – by following the links to “Other Meetings, Seminars & Workshops”, then to “FPL 2012 ICAO EUR Region Plan” and then to “Documentation related to FPL 2012 Amendment”.

Guidance for the filing of information related to requirements for Communication, Navigation and Surveillance equipment, capabilities and approvals in the flight plan Item 10 (COM/NAV/SUR), is described in Attachment C.

All documentation related to the IFPS implementation of these changes is available on the EUROCONTROL CFMU website

http://www.eurocontrol.int/news/get-ready-major-icao-flight-plan-changes-2012 by following the link to “ICAO 2012 FPL”.

And links to:

- **ICAO Flight Planning modifications for 2012**
  with more information about:
  - detailed specifications and guidance
  - deployment and transition,
  - testing,
  - training,
  - documentation and contacts
- **ICAO Flight Plan Implementation and Tracking System (FITS)**
- **ICAO EUR Region web pages**
- **ICAO FPL 2012 modifications - Are you ready with the OPT tests?**
- **EUROCONTROL Training Zone**

File and submit flight plan in Denmark

A flight plan may be submitted to Naviair AIS Briefing, Copenhagen Airport, Kastrup via the following link:

http://briefing.naviair.dk/index.php?sLan=UK

The site will be updated as from 15 November 2012

Attachment A – IFPS Validation System

Check of flight plans for both IFR flights and VFR flights.

The IFPUV Application will detect whether a test flight plan contains NEW content and format and will highlight any syntax errors which are detected. It is important to note that the IFPUV Application can be used to syntax check any flight plan, whether or not any portion of the route is within the IFPS Zone (IFPZ). The IFPUV Application can also be used to syntax check flight plans for VFR flights.

The IFPUV Application is available on the EUROCONTROL Central Flow Management Unit (CFMU) website:

- www.CFMU.eurocontrol.int, via the link to "CFMU NOP – Public".

After ensuring that the "TACTICAL" tab is selected, users should select the "IFPUV – Flight Planning " link. Test flight plans can be checked, as described below, using the "IFPUV – Free Text Editor". Test flight plans are input and submitted one at a time.

The IFPUV Application will first check the syntax of the flight plan, and then will check whether the flight plan is entirely VFR and whether any portion of the route is within the IFPS. If the entire flight plan is VFR or if no part of the route is within the IFPZ, the following error message will be sent in return:

FLIGHT NOT APPLICABLE TO IFPS

If this is the only error message sent in return, the IFPUV Application has not detected any syntax errors.

If a syntax error is detected, the specific flight plan Item or Items will be highlighted and a detailed description of the error or errors will be provided.

Attachment B – Detailed description of changes to ICAO FPL content and format

The ICAO provisions in PANS-ATM, Doc 4444, have been amended to specify that flight plans may not be filed more than 120 hours in advance of the EOBT.

Modifications to flight plans are to be notified using a CHG message. The ICAO interpretation is that a CHG message must be used to notify a change to the intended date of flight, including a change arising from a delay. A DLA message may only be used in cases where the delay does not result in a change to the intended date of flight.

Air Traffic Services (ATS) data systems may impose constraints on information in flight plans. Significant constraints are to be notified in Aeronautical Information Publications (AIP).

The changes made to specific FPL Items are as follows:

Item 7 – Aircraft Identification – the explanation of this provision has been clarified to specify that the aircraft identification cannot exceed 7 alphanumeric characters and is not to include hyphens or symbols. No other changes have been made to the provision.

Item 8 – Flight Rules and Type of Flight – the explanation of the provision related to indicating flight rules has been clarified. It has also been clarified that it must be specified in Item 15 (Route) the point or points at which a change in flight rules is planned. Additional text has been added to highlight that the status of the flight is to be denoted in Item 18 following the STS indicator, using one of the defined descriptors, or that other reasons for specific handling by ATS are to be denoted in Item 18 following the RMK indicator. No other changes have been made to the provision.

Item 10 – Equipment and Capabilities – numerous changes have been made to this provision. It is important to note that Item 10 now also indicates capabilities, which consists of three elements:

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

The following provisions are applicable to Item 10a (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:

A	GBAS landing system	J7	CPDLC FANS 1/A SATCOM (Iridium)
B	LPV (APV with SBAS)	K	MLS
C	LORAN C	L	ILS

D	DME	M1	ATC RTF SATCOM (INMARSAT)
E1	FMC WPR ACARS	M2	ATC RTF (MTSAT)
E2	D-FIS ACARS	M3	ATC RTF (Iridium)
E3	PDC ACARS	O	VOR
F	ADF	P1–P9	Reserved for RCP
G	GNSS (*See Note 2*)		
H	HF RTF	R	PBN approved *(see Note 4)*
I	Inertial Navigation	T	TACAN
J1	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 4	W	RVSM approved
J4	CPDLC FANS 1/A VDL Mode 2	X	MNPS approved
J5	CPDLC FANS 1/A SATCOM (INMARSAT)	Y	VHF with 8.33 kHz channel spacing capability
J6	CPDLC FANS 1/A SATCOM (MTSAT)	Z	Other equipment carried or other capabilities *(see Note 5)*

Any alphanumeric characters not indicated above are reserved.

Note 1: If the letter S is used, standard equipment is considered to be VHF RTF, 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 3: 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 4: If the letter R is used, the performance based navigation levels that can be met shall be specified in Item 18 following the indicator PBN/. Guidance material on the application of performance based navigation to a specific route segment, route or area is contained in the Performance-Based Navigation Manual *(Doc 9613).*

Note 5: If the letter Z is used, specify in Item 18 the other equipment carried or other capabilities, preceded by COM/, NAV/ and/or DAT, as appropriate. Exemptions for RNAV, CPDLC and 8.33 kHz are

to be indicated by inserting the letter Z in Item 10a and then inserting the appropriate descriptors in the following indicators in Item 18:

a) insert EXM833 following COM/;

b) insert RNAVX or RNAVINOP as appropriate following NAV/; and/or

c) insert CPDLCX following DAT/.

Note 6: Information on navigation capability is provided to ATC for clearance and routing purposes.

The following provisions are applicable to Item 10b (Surveillance equipment and capabilities):

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

OR

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

SSR Modes A and C

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

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

SSR Mode S

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 capability

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

Alphanumeric characters not indicated above are reserved.

Example: ADE3RV/HB2U2V2G1

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

Item 13– Departure aerodrome and time – some clarifications have been made and additional provisions included regarding how to indicate departure aerodromes which have not been assigned an ICAO four-letter designator. The following provisions are applicable to Item 13:

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 15c Route (including changes of speed, level and/or flight rules) – an editorial change has been made to clarify that it is possible to indicate, at a single point, where it is planned that a change of speed or level or both is planned to commence, or a change of ATS route and/or a change of flight rules.

The provision has been expanded to include the possibility of describing a significant point in the route as a bearing or distance from a “reference point”, rather than only from a navigational aid, as follows:

Bearing and distance from a reference point:

The identification of the reference 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 180° magnetic at a distance of 40 nautical miles from VOR “DUB” should be expressed as DUB180040.

Item 16 - The title of Item 16 has been clarified to specify that the “alternate aerodrome(s)” being referred to is/are the destination alternate aerodrome(s). Additionally, the provision related to estimated elapsed time has been clarified, along with the descriptions of how to indicate the locations, as follows:

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 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 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)

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 – significant changes have been made to these provisions.

Pilots and operators are warned that the use of indicators not included in the provisions may result in data being rejected, processed incorrectly or lost.

The provision has been clarified to indicate that hyphens “-“ or oblique strokes “/” should only be used as described.

The provision has been amended such that only indicators described in the provisions may be used, and they must be inserted in the order shown. The indicators defined are as follows, and are listed in the order in which they are to be inserted, if used:

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 navaids;

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.

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. If appropriate, insert RNAVX or RNAVINOP, as described in the *European Regional Supplementary Procedures* (EUR SUPPs, Doc 7030), Chapter 2.

COM/ Indicate communications applications or capabilities not specified in Item 10a. If appropriate, insert EXM833 as described in the *European Regional Supplementary Procedures* (EUR SUPPs, Doc 7030), Chapter 2.

DAT/ Indicate data applications or capabilities not specified in 10a. If appropriate, insert CPDLCX, as described in the *European Regional Supplementary Procedures* (EUR SUPPs, Doc 7030), Chapter 2.

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 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

CODE/ Aircraft address (expressed in the form of an alphanumerical 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.

RVR/ The minimum RVR requirement of the flight.

Note: This provision is detailed in the European Regional Supplementary Procedures *(EUR SUPPs, Doc 7030), Chapter 2.*

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.

RFP/ Q followed by a digit to indicate the sequence of the replacement flight plan being submitted.

Note: This provision is detailed in the European Regional Supplementary procedures (EUR SUPPs, Doc 7030), Chapter 2.

Attachment C - Guidance for indication of CNS capabilities in Item 10 and Item 18

Introduction

This Attachment offers guidance in the filing of CNS related information and in doing so addresses the two issues described in the following paragraphs:

1. Filing Navigation (NAV) Capability (Item 10a and Item 18 PBN/), and
2. Filing Surveillance (SUR) Capability (Item 10b)

The changes in Amendment 1 to PANS-ATM, Doc 4444, permit only 8 indications within the Performance Based Navigation (PBN) element of Item 18. However, it is not uncommon for a flight to qualify for more than 8, leaving the pilot/company with a problem to solve and many unanswered questions.

In some cases, particularly within the surveillance domain, indications for a particular function have a comparable hierarchical relationship where it can be stated that inclusion of 'lower' indications is unnecessary when 'higher' ones are applicable to the flight. Indeed both systems and ATC staff may find that the inclusion of a 'lower' capability can be confusing when a 'higher' indication is also included for the flight. This guidance identifies these cases and, where appropriate, recommends only the inclusion of the 'higher' level capability.

Scope

This guidance material has been developed jointly by the European 2012 Task Force and the EUROCONTROL Navigation Sub-Group (NSG). The guidance it provides is therefore applicable within the European Region. It has also been informally coordinated with some other regional task forces in an effort to achieve a common approach, and has received only positive responses. It is therefore hoped that other regions may well adopt the same guidance.

Guidance

1. Filing Navigation (NAV) Capability (Item 10a and Item 18 PBN/)

The process to identify, consolidate and file the appropriate capability and equipment indications in the FPL have been broken down into the following 5 steps:

Step 1	**Identify the PBN NAV serviceable equipment and capabilities ("permitted") held for each phase of flight (from Oceanic to Approach)**
Step 2	**File "R" for PBN in Item 10**
Step 3	**Enter "PBN/" in Item 18 and apply the guidance to reduce the number of indicators in Item 18 PBN (max 8)**
Step 4	**If more than 8 indicators remain, identify those considered least relevant to the flight and insert them within Item 18 under NAV/**
Step 5	**Identify the specific NAV equipment supporting each capability and file in Item 10 thereby ensuring conformity with the content of Item 18 PBN**

Step 1 Identify all the relevant PBN codes (if any) per flight phase

		All permited sensors	GNSS	DME/DME	VOR/DME	DME/DME/IRU (or INS/IRS for B5)	LORAN
Oceanic	RNAV 10	A1					
	RNP 4	L1					
En-Route	RNAV 5	B1	B2	B3	B4	B5	B6
	RNAV 2	C1	C2	C3		C4	
	RNAV 1	D1	D2	D3		D4	
Terminal	RNAV 1 (*)	D1	D2	D3		D4	
	RNP 1	O1	O2	O3		O4	
Final	RNP APCH	S1					
	RNP APCH with Baro VNAV	S2					
	RNP AR APCH with RF	T1					
	RNP AR APCH without RF	T2					

Note: P-RNAV is to be filed as RNAV 1. However, as P-RNAV is not exactly the same as RNAV 1 operators have a duty of care to ensure they meet RNAV 1 in other ICAO regions. See ICAO Doc. 9613 for clarification.

Step 2 If the flight qualifies for one or more of the codes/capabilities identified under Step 1, insert the indicator 'R' in Item 10a.

Step 3 Apply the following guidance to reduce the number of PBN codes.

RNAV 5 (B-RNAV):

- Insert only B1 if the flight qualifies for all of the following: B2, B3, B4, B5.
- Insert B6 if the flight qualifies by using LORAN C.

RNAV 2, RNAV 1 and **RNP 1**:

- Insert C4, D4 or O4, as appropriate, if the flight qualifies via DME/DME and DME/DME/IRU
  e.g. file C4 if both C3 and C4 apply, file D4 if both D3 and D4 apply, etc.
- Insert only C1, D1, O1, as appropriate, if "all sensors and IRU" capable
  e.g. file C1 if both C2 and C4 apply, file D1 if both D2 and D4 apply, etc.

RNP APCH:

- Insert either S1 or S2, subject to capability

RNP AR APCH:

- Insert either T1 or T2, subject to capability

Step 4 If having applied the guidance provided in Step 3 there are still more than 8 PBN codes remaining:

- Identify the capabilities considered to be the least relevant to the flight;
- Insert them under Item 18 within the NAV/ element;
- Insert the letter 'Z' in Item 10a.

For example, the codes relating to long range Oceanic capabilities (A1, L1) will not be a priority if the flight will take place entirely within European continental airspace. Inclusion of an RNP APCH capability will not be a priority if none of the destination or alternate aerodromes provide such a procedure.

Step 5 Identify the navigation equipment used in achieving the capabilities indicated under PBN and ensure they are included in Item 10a.

For any PBN capability:

- If 'all sensors' or GNSS is filed then 'G' must be present in Item 10a;
- If 'all sensors' or DME/DME is filed then 'D' must be present in Item 10a;
- If 'all sensors' or INS/IRU is filed then 'I' must be present in Item 10a;
- If DME/DME/IRU is filed then 'D' and 'I' must be present in Item 10a.

For RNAV 5 capability:

- If filing B1or B4 then 'O' or 'S' and 'D' must be present in Item 10a.

The table in **Appendix 1** provides an indication of the navigation equipment by which a PBN capability is achieved.

2. Filing Surveillance (SUR) Capability (Item 10b)

Transponder Modes A, C & S

- Insert only one of the published indicators, as appropriate.

  For example, if the aircraft is capable of Mode S including aircraft identification, pressure-altitude and enhanced surveillance capability only the letter 'H' is required, there is no need to include 'S', 'C' or 'A'.

ADS-B

- Insert either B1 or B2
  and/or
- Insert either U1 or U2
  and/or
- Insert either V1 or V2

ADS-C

- Insert D1 and/or G1

EXAMPLE

An example FPL as filed today, in PRESENT Format:

(FPL-SIA317-IS
-A388/J-SDHIJPRWXYZ/SD
-EGLL1030
-N0454F230 DVR L9 KONAN/N0483F310 UL607 FERDI/N0486F330 UL607 AMASI
UM149 BOMBI UL984 PADKA L984 SKAVI/N0489F350 L984 DIBED/K0899F350
UL984 NM UM991 OLGIN/K0900F350 B494 INSER/K0913F370 B494 MKL B491
BISNA/N0487F370 M23 MARAL/K0905F370 B450 BIBIM N644 ABDAN B371
LEMOD/N0496F370 N644 PAVLO/N0497F370 N644 DI M875 BUTOP/N0493F390
M875 KAKID M770 BUBKO/M084F390 M770 RAN/N0485F390 M770
GOLUD/M082F370 M751 VPK/N0481F370 B469 PADLI/N0479F350 B469 BIKTA
PASPU1A
-WSSS1202 WSAP
-EET/EBUR0016 EDVV0035 EDUU0036 LKAA0100 EPWW0124 UKLV0145 UKBV0207
UKDV0232 URRV0257 UBBA0406 UTAK0419 UTAA0444 UTAV0516 OAKX0534
OPLR0610 VIDF0640 VABF0741 VECF0744 VYYF0921 VTBB1027 WMFC1109
WSJC1200 REG/9VSKJ SEL/BPKS OPR/SIA NAV/RNP1 RNP4 RNAV1 RNAV2
RNAV5 RNAV10 DAT/SVM RMK/ADSB ACASII EQUIPPED DOF/120601
ORGN/WSSSSIAX)

The following table shows the NEW capability indications applicable to the flight (PRESENT indications are not repeated) and the consolidated result after application of the guidance material:

	Capability	Designator	After Consolidation
Item 10a	CPDLC ATN VDL Mode 2	J1	J1
	CPDLC FANS 1/A SATCOM (INMARSAT)	J5	J5
Item 10b	Transponder Mode S including aircraft ident, pressure altitude and enhanced surveillance	H	L
	Transponder Mode S including aircraft ident, pressure altitude, extended squitter (ADS-B) and enhanced surveillance	L	
	ADS-B with dedicated 1090MHz ADS-B 'out' and 'in' capability	B2	B2
PBN/	RNAV10	A1	A1
	RNP1 GNSS	O2	O1
	RNP1 DME/DME/IRU	O4	
	RNP4	L1	L1
	RNAV1 GNSS	D2	D1
	RNAV1 DME/DME/IRU	D4	
	RNAV2 GNSS	C2	C1
	RNAV2 DME/DME/IRU	C4	
	RNAV5 GNSS	B2	B1
	RNAV5 DME/DME	B3	
	RNAV5 VOR/DME	B4	
	RNAV5 INS	B5	
	RNP APCH with BAR-VNAV	S2	S2

The resultant NEW format FPL having applied the guidance material:

(FPL-SIA317-IS
-A388/J-GSDHIJ1J5RWXY/B2L
-EGLL1030
-N0454F230 DVR L9 KONAN/N0483F310 UL607 FERDI/N0486F330 UL607 AMASI UM149 BOMBI UL984 PADKA L984 SKAVI/N0489F350 L984 DIBED/K0899F350 UL984 NM UM991 OLGIN/K0900F350 B494 INSER/K0913F370 B494 MKL B491 BISNA/N0487F370 M23 MARAL/K0905F370 B450 BIBIM N644 ABDAN B371 LEMOD/N0496F370 N644 PAVLO/N0497F370 N644 DI M875 BUTOP/N0493F390 M875 KAKID M770 BUBKO/M084F390 M770 RAN/N0485F390 M770 GOLUD/M082F370 M751 VPK/N0481F370 B469 PADLI/N0479F350 B469 BIKTA PASPU1A
-WSSS1202 WSAP
-PBN/A1L1B1C1D1O1S2 DOF/120601 REG/9VSKJ EET/EBUR0016 EDVV0035 EDUU0036 LKAA0100 EPWW0124 UKLV0145 UKBV0207 UKDV0232 URRV0257 UBBA0406 UTAK0419 UTAA0444 UTAV0516 OAKX0534 OPLR0610 VIDF0640 VABF0741 VECF0744 VYYF0921 VTBB1027 WMFC1109 WSJC1200 SEL/BPKS OPR/SIA ORGN/WSSSSIAX RMK/ACASII EQUIPPED)

Note:

- *the PBN/ indication contains 7 designators which is within the limit allowed by PANS-ATM*
- *Item 10b contains one surveillance indication as oppose to the potential 'S', 'H', 'L'*
- *Item 10a contains the applicable designators and, due to the addition of the 'G', is now consistent with the capabilities provided in PBN*
- *removal of the unnecessary NAV/ and DAT/ indications in Item 18 also required removal of the 'Z' from Item 10a.*
- *removal of the unnecessary 'ADSB' text from within RMK/.*

Appendix 1

The table reflects the sensors by which a PBN qualification is achieved.
This is a tool to determine the minimum requirement for Item 10 as a function of the content of Item 18.

Item 18 (PBN/ ...)			Item 10 (nav related aspects only)													
			GBAS **A**	LPV **B**	LORAN **C**	DME **D**	ADF **F**	GNSS **G**	Inerty **I**	MLS **K**	ILS **L**	VOR **O**	PBN approved **R**	TACAN **T**	Standard (VHF RTF/ VOR / ILS) **S**	
RNAV 10																
	A1							G*	I*				R			* either G and/or I
RNAV 5																
	B1	ALL				D		G	I			O*	R		S*	* either O or S
	B2	G						G					R			
	B3	D/D				D							R			
	B4	V/D				D						O*	R		S*	* either O or S
	B5	I							I				R			
	B6	LORAN			C								R			
RNAV 2																
	C1	ALL				D		G	I				R			
	C2	G						G					R			
	C3	D/D				D							R			
	C4	D/D/I				D			I				R			
RNAV 1																
	D1	ALL				D		G	I				R			
	D2	G						G					R			
	D3	D/D				D							R			
	D4	D/D/I				D			I				R			
RNP 4																
	L1							G					R			
(B-)RNP 1																
	O1	ALL				D		G	I				R			
	O2	G						G					R			
	O3	D/D				D							R			
	O4	D/D/I				D			I				R			
RNP APCH																
RNP APCH (LNAV)	**S1**	GNSS						G					R			
RNP APCH LNAV/VNAV	**S2**	GNSS+Baro						G					R			
RNP AR																
with RF	**T1**							G					R			
without RF	**T2**							G					R			
RNP APCH (LPV)		GNSS+SBAS		B				G								+ Item 18 NAV/ SBAS

Precision Approach (GBAS **A**)
Precision Approach (MLS **K**)
Precision Approach (ILS **L**)