Directorate of Airspace Policy

Civil Aviation Authority

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The UK Flight Planning Guide

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Introduction

This publication is intended as guidance for the completion and submission of VFR and IFR Flight Plans (FPLs) and it will be updated and re-issued as necessary. It incorporates information previously issued by Aeronautical Information Circulars (AICs) on IFR and VFR Flight, as well as the latest instructions for North Atlantic (NAT) Flight Plans.

Included in this publication are step-by-step instructions for the completion of the CA48/RAF F2919 FPL Form. The Civil Aviation Authority does not supply copies of the CA48 Form, as it is becoming more common for FPLs to be submitted direct by electronic means and by fax. An electronic copy of the FPL Form is available from www.ais.org.uk/aes/en/CA48.PDF.

A blank Flight Plan Form for photocopying is included within this publication at Annex B. In order to reduce transmission times for Forms that are faxed to an Air Traffic Services Unit (ATSU), a version without the shaded portions has been provided.

Within the European Region, the integration of IFR Flight Planning has been established to facilitate the centralisation of Air Traffic Flow Management (ATFM). Consequently, the process involves automatic data processing, including the issue of Calculated Take Off Times (CTOTs) where appropriate and other ATFM messages. This publication highlights the importance of ATSUs being able to contact pilots/operators, in order that queries, the passing of ATFM messages, or even, perhaps, the rejection of their FPLs, can be dealt with quickly and effectively.

This publication also references other documents and gives information on how to obtain the definitive source material should greater detail be required.

Although correct at the time of publication, pilots and Aircraft Operators (AOs) should also check any relevant AICs and NOTAMs that may amend or change the information contained in this document.

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Glossary

The following terms have been defined to remove any doubt about the meaning of instructions in the text of the Guide and associated documents. Suitable interpretations, where they exist, have been selected from national and international documents. Some terms appear in more than one document and sometimes with different meanings. Only one definition has been selected for each term and the source identified in brackets. Terms, which have not been annotated, are those which have specific meanings within the text and have been defined to avoid ambiguity or misunderstanding. In some cases they are slight modifications of definitions in other documents.

Aeronautical Fixed Service (AFS) A telecommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air services *(ICAO Doc 4444)*.

Aeronautical Fixed Station A station in the aeronautical fixed service *(ICAO Doc 4444)*.

Assisted Flight Plan Exchange Service (AFPEx) A gateway via the internet into the Aeronautical Fixed Telecommunications Network (AFTN) and allows pilots or small airfields access to file their own flight plans and other flight related messages *(UK AIP)*.

The Aeronautical Information Publication (AIP) A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation *(ICAO Doc 4444)*.

Airborne Collision Avoidance System (ACAS) An aircraft system based on secondary surveillance radar (SSR) transponder signals which operates independently of ground-based equipment to provide advice to the pilot on potential conflicting aircraft that are equipped with SSR transponders *(ICAO Doc 4444)*.

Air Traffic Flow Management (ATFM). A service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring that ATC capacity is utilised to the maximum extent possible, and that the traffic volume is compatible with the capacities declared by the appropriate ATS authority *(UK AIP)*.

Air Traffic Services Unit (ATSU) A generic term meaning variously, air traffic control unit, flight information centre or air traffic services reporting office *(ICAO Doc 4444)*.

Alternate aerodrome An aerodrome to which an aircraft may proceed when it becomes either impossible or inadvisable to proceed to or to land at the aerodrome of intended landing.
Alternate aerodromes include the following:
Take-off alternate An alternate aerodrome at which an aircraft can land should this become necessary shortly after take-off and it is not possible to use the aerodrome of departure.
En-route alternate An aerodrome at which an aircraft would be able to land after experiencing an abnormal or emergency condition while en route.
Destination alternate An alternate aerodrome to which an aircraft may proceed should it become either impossible or inadvisable to land at the aerodrome of intended landing.
NOTE: The aerodrome from which a flight departs may also be an en-route or a destination alternate aerodrome for that flight *(ICAO Doc 4444)*.

Controlled airspace An airspace of defined dimensions within which air traffic control service is provided in accordance with the airspace classification *(ICAO Doc 4444)*.

NOTE: Controlled airspace is a generic term which covers ATS airspace Classes A, B, C, D and E as described in ICAO Annex 11, 2.6.

Controlled flight Any flight which is subject to an air traffic control clearance *(ICAO Annex 2 / ICAO Doc 4444)*.

Current flight plan (CPL) The flight plan, including changes, if any, brought about by subsequent clearances *(ICAO Annex 2 / ICAO Doc 4444)*.

NOTE: When the word "message" is used as a suffix to this term, it denotes the content and format of the current flight plan data sent from one unit to another.

Estimated Elapsed Time (EET) The estimated time required to proceed from one significant point to another *(ICAO Doc 4444)*.

Estimated Off-Block Time (EOBT) The estimated time at which the aircraft will commence movement associated with departure *(ICAO Annex 2 / ICAO Doc 4444)*.

Estimated Time of Arrival (ETA) For IFR flights, the time at which it is estimated that the aircraft will arrive over that designated point, defined by reference to navigation aids, from which it is intended that an instrument approach procedure will be commenced, or, if no navigation aid is associated with the aerodrome, the time at which the aircraft will arrive over the aerodrome. For VFR flights, the time at which it is estimated that the aircraft will arrive over the aerodrome *(ICAO Annex 2 / ICAO Doc 4444)*.

Filed Flight Plan The flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes *(ICAO Annex 2 / ICAO Doc 4444)*.

NOTE: When the word "message" is used as a suffix to this term, it denotes the content and format of the filed flight plan data as transmitted.

Flight Plan (FPL) Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft *(ICAO Annex 2 / ICAO Doc 4444)*.

NOTE: Specifications for flight plans are contained in ICAO Annex 2.

IFR flight A flight conducted in accordance with the Instrument Flight Rules *(Rules of the Air Regulations)*.

Instrument Meteorological Conditions (IMC) Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, less than the minima specified for visual meteorological conditions *(ICAO Annex 2 / ICAO Doc 4444)*.

NOTE 1: The specified minima for visual meteorological conditions are contained in Chapter 3 of Annex 2.

NOTE 2: In a control zone, a VFR flight may proceed under instrument meteorological conditions if and as authorised by air traffic control.

Location Indicator A four-letter code group formulated in accordance with rules prescribed by ICAO and assigned to the location of an aeronautical fixed station *(ICAO Doc 4444)*.

NOTAM	A notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations (*UK AIP)*.
Repetitive Flight Plan (RPL)	A flight plan related to a series of frequently recurring, regularly operated individual flights with identical basic features, submitted by an operator for retention and repetitive use by ATS units *(ICAO Annex 2 / ICAO Doc 4444)*.
Special VFR Flight	A flight made at any time in a control zone which is Class A airspace, or in any other control zone in IMC or at night, in respect of which the appropriate air traffic control unit has given permission for the flight to be made in accordance with special instructions given by that unit instead of in accordance with the Instrument Flight Rules and in the course of which flight the aircraft complies with any instructions given by that unit and remains clear of cloud and with the surface in sight *(Rules of the Air Regulations)*.
VFR flight	A flight conducted in accordance with the Visual Flight Rules *(Rules of the Air Regulations)*.
Visual Meteorological Conditions (VMC)	Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling, equal to or better than specified minima *(ICAO Annex 2 / ICAO Doc 4444)*. **NOTE:** The specified minima are contained in ICAO Annex 2, Chapter 4.

Acronyms/Abbreviations

ACC	Area Control Centre
ACH	ATC Flight Plan Change
ACK	Acknowledgement
ADEXP	ATS Data Exchange Presentation
AFIL	Air-Filed Flight Plan
AFP	ATC Flight Plan Proposal
AFPEx	Assisted Flight Plan Exchange Service
AFTN	Aeronautical Fixed Telecommunications Network
AIM	ATFM Information Message
AIP	Aeronautical Information Publication
ANM	ATFM Notification Message
AO	Aircraft Operator
APL	ATC Flight Plan
APR	Aircraft Operator Position Report
ARCC	Aeronautical Rescue Co-ordination Centre
ARR	Arrival (Message)
ATFM	Air Traffic Flow Management
ATFCM	Air Traffic Flow and Capacity Management
ATM	Air Traffic Management
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
BOTA	Brest Oceanic Transition Area
CASA	Computer Allocated Slot Allocation (System)
CFMU	Central Flow Management Unit
CHG	Change (Message)
CNL	Cancel (Message)
CPR	Correlated Position Report
CRAM	Conditional Route Availability Message
CTA	Control Area
CTOT	Calculated Take-off Time
CTR	Control Zone
DEP	Departure (Message)
DES	De-Suspension (Message)
DLA	Delay (Message)
DOF	Date of Flight
EAT	Expected Approach Time

EATMP	Eurocontrol European Air Traffic Management Programme
ECAC	European Civil Aviation Conference
EET	Estimated Elapsed Time
EOBT	Estimated Off Block Time
ETA	Estimated Time of Arrival
ETFMS	Enhanced Tactical Flow Management System
ETOT	Estimated Take Off Time
EUR	European
FAM	Flight Activation Monitoring
FDO	Flight Data Operations
FDOD	Flight Data Operations Division
FIR	Flight Information Region
FLAS	Flight Level Allocation Scheme
FLS	Flight Suspension (Message)
FMD	Flow Management Division
FMP	Flow Management Position
FPL	Flight Plan
FSA	Flight System Activation (Message)
GAT	General Air Traffic
ICAO	International Civil Aviation Organisation
IFPS	Integrated Initial Flight Plan Processing System
IFPU	IFPS Unit
IFPZ	Initial Flight Planning Zone
IFR	Instrument Flight Rules
IMC	Instrument Meteorological Conditions
MAN	Manual Repair (Message)
MASP	Minimum Aircraft System Performance Specification
MNPS	Minimum Navigation Performance Specification
MNPSA	Minimum Navigation Performance Specification Airspace
MTOW	Maximum Take Off Weight
MTWA	Maximum Total Weight Authorised
NAT	North Atlantic Region
NATS	National Air Traffic Services Ltd
NERS	North Atlantic European Routing Scheme
NLST	New List
NM	Network Manager
NMS	Network Management Specialist

NOTA	Northern Oceanic Transition Area
OACC	Oceanic Area Control Centre
OAT	Operational Air Traffic
OCA	Oceanic Control Area
ORM	Operational Reply Message
OTS	Organised Track System
RAD	Route Availability Document
REA	Ready (Message)
REJ	Rejected (Message)
RFL	Requested Flight Level
RLST	Revised List
RPL	Repetitive Flight Plan
RREC	Repetitive Flight plan Recovery Message
RSUS	Repetitive Flight plan Suspension Message
RTF	Radiotelephony
RVSM	Reduced Vertical Separation Minima
SAM	Slot Allocation Message
SARPs	Standards and Recommended Practices (ICAO)
SDR	Standard Departure Route
SITA	Societe Internationale de Telecommunications Aeronautiques
SLC	Slot Cancellation (Message)
SRM	Slot Revision Message
SSR	Secondary Surveillance Radar
SOTA	Shannon Oceanic Transition Area
STAR	Standard Arrival Route
STS	Status
SVFR	Special Visual Flight Rules
TACT	CFMU Tactical (System)
TC	Traffic Co-ordinator
TM	Traffic Manager
UNHCR	United Nations High Commission for Refugees
VFR	Visual Flight Rules
VHF	Very High Frequency
VMC	Visual Meteorological Conditions

Chapter 1 General Procedures - IFR and VFR

1 Flight Rules and Categories of FPL

1.1 Subject to the mandatory requirements of airspace classification shown in paragraph 2, below, a pilot may file a **VFR** or **IFR** Flight Plan for any flight. When flying in different types of airspace, a pilot may indicate if the aircraft will fly VFR first, then change to IFR; or vice versa.

1.2 There are three categories of FPL:

a) **Full** Flight Plans - the information filed on the FPL Form (CA48/RAF F2919);

b) **Repetitive** Flight Plans (see Chapter 4); and

c) **Abbreviated** Flight Plans - the limited information required to obtain a clearance for a portion of flight, filed either by telephone prior to take-off or by radiotelephony (RTF) when airborne (See paragraph 3).

NOTE: The destination aerodrome will be advised of the flight only if the flight plan information covers the whole route of the flight.

2 When to File an FPL

2.1 An FPL may be filed for any flight.

An FPL **must** be filed in the following circumstances:

Type of Airspace / Flight	Type of FPL
all flights within **Class A** Airspace	**only IFR allowed**
all flights within any Controlled Airspace in IMC or at night (including those operating under SVFR)	**IFR**
all flights within any Controlled Airspace, if the flight is to be conducted in accordance with IFR	**IFR**
all flights within **Class B - D** Controlled Airspace irrespective of weather conditions	**IFR or VFR**
any flight from an aerodrome in the United Kingdom, being a flight whose destination is more than 40 km from the aerodrome of departure and the aircraft Maximum Total Weight Authorised exceeds 5700 kg	**IFR or VFR**
all flights to or from the United Kingdom which will cross the United Kingdom FIR Boundary	**IFR or VFR**
any flight in **Class F** Airspace wishing to participate in the Air Traffic Advisory Service	**IFR or VFR**

Table 1 Types of Airspace / Flight

2.2 It is **advisable** to file a VFR or IFR FPL if the flight involves flying:

a) over the sea, more than 10 nm from the UK coastline;

b) over sparsely populated areas where Search and Rescue operations would be difficult; or

c) into an area in which search and rescue operations are in progress. The flight plan should include the expected times of entering and leaving the area and the details must also be passed to the parent ACC. The ACC will notify Kinloss ARCC.

3 Flight Plan Consistency

3.1 It is important to avoid inconsistencies between the flight plan data held by parties concerned with the safe conduct of flights, notably air traffic service units, operators and pilots. Such inconsistencies may have an impact on the safety and efficiency of the European air traffic management system. Furthermore, greater consistency in flight plan data would contribute to seamless operation, to support for new concepts of operation, notably in the field of air traffic flow management, and to enhanced safety.

3.2 ICAO procedures for the submission, acceptance and distribution of flight plans should be complemented by provision of obliging operators, pilots, air traffic services units and various originators of flight plans to ensure that the key items of flight plans held by them remain consistent until the end of the pre-flight phase which is defined as the period from the first submission of a flight plan until the first delivery of an ATC clearance. The key items of a flight plan are as follows:

a) aircraft identification;

b) departure aerodrome;

c) estimated off-block date;

d) estimated off-block time;

e) destination aerodrome;

f) route excluding terminal area procedures;

g) cruising speed(s) and requested flight level(s);

h) aircraft type and category of wake turbulence;

i) flight rules and type of flight;

j) aircraft equipment and its related capabilities.

3.3 The European Commission has issued Regulation No.1033/2006 laying down the requirements on procedures for flight plans in the pre-flight phase for the Single European Sky (SES). Such flight plans are referred to as ‘initial flight plan’ which is defined as the flight plan initially submitted by the originator including changes, if any, initiated and accepted by pilots, operators, an ATS unit or the centralised service for flight planning processing and distribution of flight plans during the pre-flight phase. The aim is to ensure the consistency of flight plans, repetitive flight plans and associated update messages between operators, pilots and air traffic service units through the Integrated Initial Flight Plan Processing System (IFPS) in the period preceding the first delivery of air traffic control clearance. This Regulation applies to all flights operating as general air traffic in accordance with instrument flight rules within UK airspace.

3.4 The following performance requirements are laid down by the Regulation:

a) Upon receipt of a flight plan, or a change thereto, IFPS will:

i) check it for compliance with the format and data conventions;

ii) check it for completeness and, to the extent possible, for accuracy;

iii) take action, if necessary, to make it acceptable to the air traffic services; and

iv) indicate acceptance of the flight plan or changes thereto to the originator;

b) IFPS will communicate to all affected ATS units the accepted flight plan and any accepted pre-flight phase changes to the key items of the flight plan and associated update messages;

c) The originator, when not being the operator or the pilot, shall ensure that the conditions of acceptance of a flight plan and any necessary changes to these conditions as notified by IFPS are made available to the operator or pilot who has submitted the flight plan;

d) The operator shall ensure that the conditions of acceptance of a flight plan and any necessary changes thereto as notified by IFPS to the originator are incorporated into the planned flight operation and communicated to the pilot;

e) The operator shall ensure that, prior to operation of the flight, the content of the initial flight plan correctly reflects the operational intentions;

f) ATC units shall, during the pre-flight phase, make available through IFPS any necessary changes affecting the route or flight level key items of a flight plan that could affect the safe conduct of a flight, for flight plans and associated update messages previously received by them from IFPS. No other changes to, or cancellation of a flight plan shall be made by an ATC unit in the pre-flight phase without co-ordination with the operator.

3.5 Regulation 1033/2006 lays down legal obligations relating to the initial flight plan so as to ensure that all parties involved in the flight planning process are using the same data at the end of the pre-flight phase.

4 Abbreviated Flight Plans

4.1 An Abbreviated Flight Plan is the limited information required to obtain a clearance for a portion of flight, filed either by telephone prior to take-off or by radiotelephony (RTF) when airborne. This might apply in the case of a required clearance to fly in a Control Zone (CTR) or crossing an Airway. No flight plan form is submitted and the destination aerodrome will not be informed.

4.2 In the case of a departure from an aerodrome within a CTR, an Abbreviated FPL may be sufficient to obtain an ATC clearance to depart the aerodrome and route to the appropriate CTR/CTA boundary and fulfils the requirement for "Booking Out" (see paragraph 5 below). However, some aerodromes require aircraft to follow designated noise preferential routes, which may be identified as Standard Departure Routes (SDRs) depending on the outbound track of the flight.

4.3 A Full Flight Plan must be filed if the pilot requires the destination aerodrome to be notified of the flight.

5 Booking Out

Rule 17 of the Rules of the Air Regulations 2007 requires a pilot intending to make a flight to inform the Air Traffic Service Unit (ATSU) at the aerodrome of departure, an action known as "Booking Out". Filing an FPL constitutes compliance with this Rule. The action of "Booking Out", however, does not involve flight details being transmitted to any other ATSU.

6 Submission Time Parameters

6.1 The general ICAO requirement is that FPLs should be filed on the ground at least 60 minutes before clearance to start-up or taxi is requested. The "Estimated Off Block Time" (EOBT) is used as the planned departure time in flight planning, not the planned airborne time. Exceptionally, in cases where it is impossible to meet this requirement, pilots or Aircraft Operators (AOs) should give as much notice as possible, but never less than 30 minutes.

6.2 In order to comply with the requirements of the Integrated Initial Flight Plan Processing System (IFPS), FPLs for IFR flights should be filed a minimum of **60 minutes** before Estimated Off Block Time (EOBT) (see Chapter 4).

6.3 IFR flights on the North Atlantic and on routes subject to Air Traffic Flow Management, should be filed a minimum of 3 hours before EOBT (see Chapter 4).

6.4 The Date of Flight (DOF) must be included in Item 18 of the FPL for all flight plans filed more than 24 hours in advance of the EOBT of the flight.

NOTE: IFPS will not accept FPLs submitted more than 120 hours in advance of the flight taking place.

6.5 An Abbreviated or Full FPL can be filed on RTF when airborne with any ATSU but only in extreme circumstances such as a change in flight conditions or destination and where no other method could be used. Normally this should be filed with the appropriate FIR controller and pilots should bear in mind that this will only be subject to controller workload. If the FPL contains an intention to enter Controlled Airspace or certain Control Zones/Control Areas, at least 10 minutes prior warning of entry must be given. In all cases, the message should start with the words "I wish to file an airborne FPL". However, the filing of Full FPLs on the RTF is to be discouraged due to the delay likely to be caused by controller workload and congestion on the frequency.

6.6 The requirements for the submission of a Repetitive FPL are detailed in Chapter 4.

7 Mechanisms for Filing a Flight Plan

7.1 NATS provides the Aeronautical Fixed Telecommunications Network (AFTN) within the UK and, in addition, an internet based service called ‘flightplanningonline’. This internet service uses an application called AFPEx (Assisted Flight Planning Exchange), which provides a gateway via the internet into the AFTN and allows pilots, Airline Operators, Handling Agents or small aerodromes access to file their own flight plans and other related messages anywhere within the UK or abroad.

7.2 The following categories describe the method which should be adopted by each group to file a flight plan within the UK:

a) Airline Operators, Handling Agents and Aerodromes must use the AFTN or ‘flightplanningonline’.

b) GA pilots should use ‘flightplanningonline’.

7.3 Foreign pilots and UK based GA pilots who have no access to the internet may fax the FPL to the Parent AFTN Unit (see below).

7.4 Applications for 'flightplanningonline' may be made via the website www.flightplanningonline.co.uk or through the following contacts. Approval is required from 'flightplanningonline' prior to connection to the AFPEx system.

AFPEx/Parent AFTN Unit	Telephone Numbers	Fax/AFTN address/E-mail
24hr Helpdesk	0845-6010483 01489-612792	01489-612793 EGGGYFAJ
Registration and new account enquiries	0845-6010484 01489-612227	flightplanningonline@nats.co.uk

Table 2 AFPEx Contact Details

NOTE: Applications for AFTN, refer to UK AIP GEN 3-4-2.

7.5 Submitting an FPL through the Departure Aerodrome ATSU

7.5.1 A written FPL, which is filed through the ATSU at the departure aerodrome, must be submitted on the FPL form CA48/RAF F2919. The local ATSU may assist with the compiling of flight plans and checking them. However, the ultimate responsibility for the filing of an accurate flight plans rests with the pilot or aircraft operator. If the departure aerodrome is not connected to the AFTN or if the FPL needs to be filed outside the hours of operation of the ATSU, the pilot is responsible for arranging for the FPL to be sent to the Parent AFTN by means of AFPEx or by fax.

7.6 Submitting an FPL via 'flightplanningonline'

7.6.1 An FPL may be submitted through this system by account holders using the on-line forms. Technical assistance is available from the AFPEx Helpdesk. Responsibility for filing an accurate flight plan still rests with the pilot/aircraft operator.

7.7 Submitting an FPL via the Parent AFTN Unit

7.7.1 A written, or preferably typed, FPL may be submitted to the Parent AFTN Unit for transmission over AFTN using Fax number 01489-612793 by foreign pilots and UK-based GA pilots who have no access to the internet.

7.7.2 A copy of the transmitted data will be faxed back to the filer for checking. The checking for accuracy of the transmitted information is the responsibility of the pilot/ aircraft operator and, if there are any discrepancies, contact should be made via the Helpdesk number in the table in paragraph 7.4 above.

8 Addressing Flight Plans

8.1 The responsibility for completing all parts of the form, including the addressing, rests with the originator of the flight plan. Although the ultimate responsibility for filing an accurate FPL rests with the pilot or operator, those who file through an ATSU, the Parent AFTN Unit or AFPEx may be given assistance if required.

8.2 The UK is a participating State in the Integrated Initial Flight Plan Processing System (IFPS). IFPS is the only system for the distribution of IFR General Air Traffic (GAT) flight plans and associated messages to Air Traffic Service Units (ATSUs) within the participating European States - the IFPS Zone. The roles and responsibilities of IFPS, with regard to addressing FPL, are detailed in Chapter 4.

8.2.1 Although IFPS handles IFR flight plans, it will not process the VFR portions of any mixed VFR/IFR flight plan.

8.2.2 An incident involving a mixed IFR/VFR flight highlighted the importance of the FPL and all associated messages being correctly addressed, especially when departure or destination aerodromes are omitted.

Example

An aircraft is planned to depart under VFR from an aerodrome in the UK with the intention of later joining controlled airspace flying under IFR. It is then planned to leave controlled airspace and proceed under VFR to a destination in France.

In this example, IFPS will process the IFR portion of the flight (notifying appropriate ATSUs along the route), but it **will not** distribute the flight plan information to either the departure or destination aerodromes, as they are included in the VFR portion of the FPL.

Therefore, in order to ensure that all relevant ATSUs are included in the flight plan message distribution, pilots or Aircraft Operators should make certain that whenever a flight plan contains portions of the flight operated under VFR, in addition to IFR, the FPL must be addressed to:

- IFPS (EGZYIFPS);
- Aerodrome of departure;
- Aerodrome of destination;
- All FIRs that the flight will route through under VFR (in UK address to EGZYVFRP for Scottish FIR and/or EGZYVFRT for London FIR; full addressing information is available in UK AIP ENR 1-11).

8.3 Additional VFR FPL addressing is detailed in Chapter 2.

8.4 Additional IFR FPL addressing is detailed in Chapter 3.

8.5 Further addressing information is available in the **UK AIP** (ENR Section 1.11), on the 'flightplanningonline' system, AFPEx help Guide and in electronic format at www.ais.org.uk (click Links > Random Flight Plan Address).

9 UK Parent AFTN System

9.1 The Parent AFTN Unit based at Swanwick ACC will provide a faxing service to visiting foreign pilots and UK pilots who have no access to the internet as detailed in paragraph 7.7.

9.2 Where there is no ATSU at the departure aerodrome or if the flight departs outside of the normal operating hours of the ATSU, the pilot is responsible for ensuring that the departure time is passed to the Parent AFTN Unit or the AFPEx Helpdesk so as to activate the flight plan and to enable a DEP message to be sent to the appropriate addresses. Arrangements should be made for a 'responsible person' on the ground to telephone the departure time to the Helpdesk. Failure to pass the departure time will result in the FPL remaining inactive. Consequently, this could result in the destination aerodrome not being aware that the aircraft is airborne and any necessary alerting action may not then be taken.

9.3 Exceptionally, the Flight Information Region (FIR) Controller at the ACC will accept departure times on RTF from pilots who have departed from aerodromes where there is no ATSU, or it is outside their hours operation. The pilot is to request the controller

to pass the departure time to the AFPEx Helpdesk. However, controller workload may cause a delay in forwarding such departure messages.

10 Assisted Flight Plan Exchange (AFPEx)

10.1 If the aerodrome of departure does not have an ATSU or if the FPL needs to be filed outside the hours of operation of an ATSU, the FPL can also be filed using the Assisted Flight Plan Exchange (AFPEx) service. AFPEx provides a gateway via the Internet into the Aeronautical Fixed Telecommunications Network (AFTN) and allows pilots and small aerodromes access to file their own flight plans plus other flight and ATFM related messages.

10.2 The Civil Aviation Communications Centre (CACC) at Swanwick administers the AFPEx service and staffs the AFPEx Helpdesk, providing both system and pilot help in relation to the filing of flight plans and related messages. Permission to use AFPEx will only be granted to bona fide users based in the UK and includes both aerodromes and pilots. Application forms are available on the website www.flightplanningonline.co.uk and approved users will be issued with a LOGIN and unique password to access their personal mailbox. An internet connection is essential but, once approved, an operator can file their flight plan from any computer.

10.3 AFPEx will automatically address a VFR FPL to the departure and destination aerodromes where these aerodromes have a valid ICAO location Indicator and IFR FPLs will be automatically addressed to IFPS. In the case of mixed VFR/IFR FPLs, the system will automatically address the plan to IFPS and both departure and destination aerodromes. AFPEx will also assist users by inserting other addresses as detailed in each European States' AIP. However, full responsibility for correctly addressing a flight plan still rests with the pilot/aircraft operator. In particular AFPEx does not address flight plans to intermediate FIRs.

10.4 Normally the ATSU at the departure aerodrome is responsible for ensuring that a departure message is passed so that the flight plan can be activated and to enable the departure message to be sent to the appropriate addresses. However, if the FPL has been filed for a departure from an aerodrome without an ATSU or where the departure is outside the normal hours of operation of the ATSU, it is the responsibility of the pilot/operator to ensure that a departure message is passed. This may require arrangements being made for a 'responsible person' on the ground to telephone the departure time to the Helpdesk. Exceptionally, the Flight Information Service (FIS) Officer at the first ACC contacted will accept departure times on RTF from pilots who have departed from aerodromes that do not have an ATSU or it is outside the hours of operation. In this case the pilot is to request the FIS to pass the departure time to the AFPEx Helpdesk.

10.5 Failure to pass the departure time will result in the FPL remaining inactive. Consequently, this could result in the destination aerodrome not being aware that the aircraft is airborne and any necessary alerting action may not be taken. It is also possible that an aircraft may be turned back or held en-route by the receiving FIR.

10.6 Pilots departing from aerodromes with no ATSU and who do not have access to AFPEx, can send flight plans via fax direct to the Helpdesk for onward transmission to AFTN (form templates can be downloaded from the AIS website www.ais.org.uk). Telephone contact should be made on the Helpdesk number given below, where the necessary details for faxing a flight plan will be given. The same number can be used to close a flight plan or to cancel a state of emergency after landing if you have been unfortunate enough to need to declare one. The number can also be used by the nominated 'responsible person' to activate a flight plan or, in the event of an aircraft

not arriving at its destination, to initiate overdue action. The CACC contact numbers (available 24 hours a day) are as follows:

Helpdesk Telephone: 0845 601 0483
Registration and Queries: 0845 601 0484

11 Action When the Destination Aerodrome has no ATSU or AFTN Link

11.1 If a pilot has filed an FPL to a destination that does not have an active ATSU, and is not connected to the AFTN, they are required to pass the ETA, prior to departure, to a 'responsible person' at the destination aerodrome. In the event of the aircraft failing to arrive at the destination aerodrome within 30 minutes of the notified ETA, the 'responsible person' must immediately advise the Parent AFTN Unit or AFPEx Helpdesk in order that alerting action may be commenced.

12 Flight Planning in Remote Areas

12.1 Introduction

Pilots may file a flight plan for any flight, but it is most advisable to file an FPL if flying over the sea more than 10 nautical miles from the UK coast, or over sparsely populated areas where search and rescue operations may be difficult.

12.2 Flight Planning and alerting action

12.2.1 Filing an FPL makes the ATSU at the destination aerodrome aware of an inbound aircraft's planned flight details. Once the FPL DEP message has been received, the destination aerodrome calculates the aircraft's estimated time of arrival (ETA). If the aircraft fails to arrive or make communication, the ATSU will start overdue action 30 minutes after the calculated ETA. Preliminary action will be taken to confirm the flight plan details and departure time. The supplementary flight plan information (which is not normally transmitted with the FPL) will be requested from the departure aerodrome. If the FPL has been filed for a departure from an aerodrome not connected to the AFTN, the pilot should indicate in Item 18 where the Supplementary FPL information can be obtained from (such as the Parent ATSU if the FPL has been filed through them).

NOTE: Booking Out does not constitute filing a flight plan.

12.2.2 If no FPL is filed, the destination aerodrome may not know that the aircraft is inbound to them, and will not be able to calculate an ETA, nor will they be prepared to initiate alerting action – unless additional information comes to their notice that an aircraft is in difficulties.

12.2.3 Searching for an aircraft that may have forced landed in difficult terrain or a sparsely populated area, or ditched in a large expanse of water, can be a difficult and lengthy process. The sooner an ATSU can detect that an aircraft needs assistance and alerts search and rescue services, the better for all concerned.

12.2.4 It is also important that, if a pilot does file an FPL and then lands elsewhere, that they notify the original destination without delay. When landing at an alternate aerodrome with an ATSU, it can be expected that the ATSU will send an arrival message on the pilot's behalf. However, it is important that the pilot informs the ATSU that they have diverted from the planned destination. Failure to notify the original destination may cause unnecessary search and rescue action to be initiated.

12.2.5 Specific FPL addressing requirements are detailed in Chapter 2.

13 International Operations

13.1 Pilots undertaking international flights are reminded that a flight plan **MUST** be filed for all flights to or from the United Kingdom which will cross the United Kingdom FIR Boundary.

13.2 When filing the flight plan, pilots are to ensure that well defined significant points/ features are included in the FPL to indicate where the aircraft will cross the UK or near continent coastlines. This information should be shown in Item 15 (Route) and Item 18 (Other Information: EET/) of the flight plan form. For assistance with routeing pilots should refer to the relevant country's AIP and/or local ATSUs in the vicinity of intended flight.

13.3 Pilots should plan their cross-channel flights, where possible, at such altitudes, which would enable radio contact to be maintained with the appropriate ATSU whilst the aircraft is transitting the Channel. In addition, the French Authorities have requested that aircraft fly at altitudes, which will keep them within Radar cover. The carriage of Secondary Surveillance Radar (SSR) equipment is mandatory.

13.4 Position reports are required when crossing the coast outbound, inbound and when crossing the FIR Boundary.

13.5 Pilots undertaking cross-channel flights under IFR are reminded that the normal IFR Rules will apply, particularly regarding altitudes and flight levels. Pilots are also reminded that the IMC rating is not recognised by the French Authorities.

13.6 Specific FPL addressing requirements are detailed in Chapter 2.

13.7 In UK Airspace, a bi-directional Recommended VFR Route between the Solent CTA and the Channel Islands CTR, routeing towards the Cherbourg Peninsula is established (See UK AIP AD 2-EGJJ-3-1). All traffic using the route above 3000 ft amsl are advised to maintain the appropriate quadrantal flight level, irrespective of the flight rules being observed. Pilots flying above 3000 ft amsl are reminded of the requirement to maintain an appropriate semi-circular level whilst within the French FIR.

14 Action in the Event of Diversion

If a pilot lands at an aerodrome other than the destination specified in the FPL, they must ensure that the ATSU at the original destination is informed within 30 minutes of the ETA (calculated from the FPL and departure time). This will avoid unnecessary search and rescue action being taken by the Alerting Services.

15 Delays, Departures, Modifications and Cancellations to a Filed Flight Plan

15.1 General

Having filed an FPL, pilots or AOs may require to change the existing FPL details. In most cases, a standard modification message can be sent. However, in some cases, the original FPL must be cancelled and a new FPL submitted. A second FPL cannot simply be used to amend the first (See also paragraph 15.5).

15.2 Delays

15.2.1 ICAO requires that an appropriate delay message (DLA) must be sent if the EOBT is more than 30 minutes later than that already shown in the FPL for controlled flights and if the EOBT is more than 60 minutes later for uncontrolled flights. In the event of

such delays it is important that the pilot advises the departure aerodrome ATSU/ Parent AFTN Unit/AFPEx Helpdesk so that a DLA message can be sent.

15.2.2 However, in order to meet the requirements of ATFM, all IFR aircraft operating within Europe must have any changes to their EOBT of +/- 15 minutes notified to the Integrated Flight Plan Processing System (IFPS). Full details are shown in Chapter 4 of this publication.

15.3 Departures

15.3.1 It is also important that the DEP message is sent, as this activates the FPL. Although the ATSU at the departure aerodrome has the responsibility to send the FPL and DEP message by AFTN, it would be sensible to check that this has been done, especially when departing from a non-UK aerodrome. If there is no ATSU at the departure aerodrome, or the ATSU is not connected to the AFTN, the pilot must ensure that the departure time is passed to the Parent AFTN Unit/AFPEx Helpdesk for onward transmission.

15.3.2 A DEP message is not required if an IFR FPL has been filed with IFPS and the flight will operate solely within the IFPS Zone (see also Chapter 4).

15.3.3 DEP messages must always be sent for VFR FPLs and IFR FPLs operating outside Controlled Airspace (CAS) or outside the IFPS Zone.

15.3.4 **Failure to activate the FPL could result in the destination aerodrome not being aware that alerting action should be taken.**

15.4 Modifications

15.4.1 Other modifications to a filed FPL, such as a change in aircraft type, speed, level, route, etc, can be notified using a change (CHG) message.

15.4.2 It is also important that when any changes or modifications are made to the original FPL, that a change (CHG) message is transmitted to all the addressees that will be affected by the change or modification. In the case of FPLs filed with IFPS, and as long as the CHG message is sent to them, IFPS will do this automatically for the IFR portions of the FPL.

15.5 Cancellations

15.5.1 Any changes to aircraft callsign, point of departure and/or destination will require the original FPL to be cancelled and a new FPL submitted.

15.5.2 Should the flight be cancelled, for any reason it is equally important to ensure that a cancellation (CNL) message is transmitted to all the original FPL addressees. In the case of FPLs filed with IFPS, and as long as the CNL message is sent to them, IFPS will do this automatically for the IFR portion of the FPL.

16 Cancelling an IFR FPL in Flight

16.1 If a pilot has begun a flight in Controlled Airspace under an IFR FPL he may decide on encountering VMC that he wishes to cancel his IFR FPL and fly under VFR, provided he is not flying in Class A airspace, where all flights are subject to IFR procedures.

16.2 In classes of Controlled Airspace where a choice of Flight Rules is possible in VMC, the pilot may cancel an IFR FPL by transmitting the following message to the ATSU:

"(identification) Cancel my IFR Flight".

16.3 ATC cannot approve or disapprove cancellation of an IFR FPL but, when in possession of information that IMC is likely to be encountered along the intended route of flight, will advise the pilot accordingly as follows:

"IMC reported (or forecast) in the vicinity of....."

16.4 The fact that a pilot reports that he is flying in VMC does not in itself constitute cancellation of an IFR FPL. Unless cancellation action is taken, the flight will continue to be regulated in relation to other IFR traffic.

17 Persons On Board

The number of persons on board a flight for which an FPL has been filed must be available to ATC for search and rescue purposes for the period up to the ETA at the destination aerodrome plus one hour. If this information has been sent to the AO's handling agency at destination, no further action is required. Otherwise, the information is to be made available as follows:

a) Where the AO or handling agency at the departure aerodrome closes before the ETA plus one hour, the AO or handling agency must lodge the number on board with the ATSU serving the aerodrome of departure.

b) Where the departure aerodrome ATSU closes down before the ETA plus one hour, that ATSU must lodge the number directly with the appropriate Area Control Centre (ACC).

c) At aerodromes without an ATSU, where the aerodrome closes before ETA at destination plus one hour, the aerodrome operator or handling agency must lodge the name and address of officials who have access to flight departure records with the appropriate ACC, so that they can be contacted as necessary, either direct or through the local police.

NOTE: The procedure above only applies if "TBN" (or similar) has been inserted in Item 19 to indicate that the total number of persons on board was not known at the time of filing the FPL.

18 Reference Documentation

a) ICAO Annex 2, Chapter 3.3;

b) ICAO Doc 4444 Chapter 4, Chapter 11, Chapter 16 and Appendix 2;

c) ICAO Doc 7030/5 Regional Supplementary Procedures, Part EUR and Part NAT;

d) Central Flow Management Unit (CFMU) Handbook;

e) Integrated Initial Flight Plan Processing System (IFPS) Users Manual (part of the CFMU Handbook);

f) UK Integrated Aeronautical Information Package (AIP), Part ENR of the AIP;

g) North Atlantic MNPS Airspace Operations Manual;

h) CAP 493 Manual of Air Traffic Services (MATS) - Part 1;

i) Rules of the Air Regulations.

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Chapter 2 VFR Flight Planning

1 When to File a VFR Flight Plan

See Chapter 1, paragraph 2.

2 Highland and Island Airports Limited

Highland and Island Airports Limited have highlighted the specific remoteness of some of their airports and the CAA considers it appropriate to emphasise the advice to pilots to file a flight plan when flying to or from the following HIAL aerodromes:

Barra (EGPR)	Kirkwall (EGPA)
Benbecula (EGPL)	Stornoway (EGPO)
Campbeltown (EGEC)	Sumburgh (EGPB)
Inverness (EGPE)	Tiree (EGPU)
Islay (EGPI)	Wick (EGPC)

3 Submission Time Parameters

VFR flight plans should be submitted to the ATSU at the departure aerodrome at least 60 minutes before clearance to start up or taxi is requested. The local ATSU, if required, may assist with compiling the flight plan. If the departure aerodrome is not connected to the AFTN or if the FPL needs to be filed outside the hours of operation of the ATSU, the pilot is responsible for arranging for the FPL to be sent to the Parent AFTN Unit (see Chapter 1 paragraph 8) by means of AFPEx or by fax. If the departure aerodrome has no ATSU, the pilot must arrange for the flight plan to be filed with the Parent AFTN Unit for onward transmission.

4 Addressing VFR Flight Plans

4.1 When addressing a VFR flight plan it is important to note that in addition to addressing the Destination Aerodrome, and, when applicable, the appropriate adjacent foreign FIR(s), it **must** also be addressed to the appropriate UK FIR(s), when entering or remaining within them, as listed below:

a) EGZYVFRP Scottish and Oceanic FIRs

b) EGZYVFRT London FIR

4.2 For addressing Cross-Channel flight plans see paragraph 7.2.3.

4.3 Further addressing information is available in the UK AIP (ENR Section 1-11), on the 'flightplanningonline' system, AFPEx Help Guide and in electronic format at www.ais.org.uk (click Links > Random Flight Plan Address).

5 VFR Flight Plans with portion(s) of flight operated as IFR

IFPS is the only source for the distribution of IFR/General Air Traffic (GAT) flight plans and associated messages to ATSUs within the participating European States - the IFPS Zone. Although IFPS handles IFR flight plans, **it will not** process the VFR portions of any mixed VFR/IFR flight plan. Therefore, in order to ensure that all

relevant ATSUs are included in the flight plan message distribution, pilots or Aircraft Operators should make certain that whenever a flight plan contains portions of the flight operated under VFR, in addition to IFR, the FPL must be addressed to:

a) IFPS (EGZYIFPS);

b) aerodrome of departure;

c) aerodrome of destination;

d) all FIRs that the flight will route through as VFR (in UK address to EGZYVFRP for Scottish/Oceanic FIRs and/or EGZYVFRT for London FIR); and

e) any additional addressees specifically required by State or Aerodrome Authorities.

6 Airborne Time

The pilot is responsible for ensuring that the airborne time of the flight is passed to the ATSU with whom the flight plan has been filed. The ATSU will ensure that the departure (DEP) message is sent to the appropriate addressees. The pilot should try to arrange for a 'responsible person' on the ground to telephone the airborne time to the ATSU, as passing it over the RTF may, due to controller workload, lead to a delay in sending a departure message. Failure to pass the airborne time will result in the flight plan remaining inactive; consequently, this could result in the destination aerodrome not being aware that alerting action should be taken. If a flight departs outside of the hours of operation of the ATSU the departure time must be passed to the Parent AFTN Unit or AFPEx Help Desk.

7 Cross-Channel Flight Planning

7.1 Introduction

The CAA have received reports that some VFR flight plans, filed for flights between France and the United Kingdom, have not been received at the UK destination aerodrome. Although these reports are infrequent, they nevertheless identify a significant safety aspect of cross-channel flight planning. The ability of the Air Traffic Service Unit at the destination aerodrome to be aware of an inbound flight is a key factor to alert search and rescue services, when appropriate.

7.2 Pilots' Responsibilities

7.2.1 The pilot is responsible for submitting (filing) an FPL to the Air Traffic Service Unit (ATSU) at the departure aerodrome at least 60 minutes before clearance to start up or taxi is requested. The local ATSU may, if required, assist the pilot to complete the FPL. If there is no ATSU at the departure aerodrome, or the ATSU is not connected to the Aeronautical Fixed Telecommunication Network (AFTN), or if the flight plan is filed outside the normal operating hours of the ATSU the pilot must ensure that the FPL is passed to the Parent AFTN by means of AFPEx or by fax.

7.2.2 If pilots send their FPLs by fax, or make use of a computer based FPL system, they should assure themselves that the FPL has been accepted and has been transmitted by AFTN on their behalf. A telephone call to the ATSU receiving the FPL, or contact with the ATSU at the aerodrome of departure, will enable pilots to confirm that their FPL has been received, accepted and transmitted.

7.2.3 Flight Plan Addressing

The FPL should be addressed to:

a) the destination aerodrome;

b) all interested ATSUs en-route;

c) the London FIR - EGZYVFRT;

d) the Scottish/Oceanic FIRs - EGZYVFRP (when necessary); and

e) all foreign FIRs that the aircraft will fly through or land/depart from.

7.2.4 **Flight Plan Route**

Pilots must ensure that well defined, significant points are included in the FPL to indicate where the aircraft will cross the UK or near continent coastlines. This information should be shown in Item 15 (Route) or Item 18 (Other information: EET/).

7.3 **Flight Plan Route - Flights to/from France**

7.3.1 Additionally, for flights to/from France, the French Authorities require the frontier crossing point (the UK/France FIR boundary position) to be included in Item 15 (Route) of the FPL. To assist pilots, the UK now includes the ATS route reporting points on the Southern England and Wales 1:500 000 chart. These can be used as a frontier crossing point. A position may also be shown as LAT/LONG, or as a bearing and distance from a route reporting point or navigation aid.

Example:

Cap Gris Nez - RINTI
Cap Gris Nez - 51N00130E
Cap Gris Nez - RINTI23005
Cap Gris Nez - DVR16010

7.3.2 The EET for this position should be shown in Item 18 of the FPL (Other information) in the format EET/LFFF(elapsed time) or EET/EGTT (elapsed time), depending on flight direction.

Example: EET/LFFF0145 (UK/France) or EET/EGTT0020 (France/UK).

7.4 **Flight Plan Route - Flights to/from Channel Islands**

Recommended VFR routes from the Solent CTA to the Channel Islands are shown in the UK AIP, in the Aerodrome Section - Jersey, page AD 2-EGJJ-3-1.

7.5 **Return Flight Plans filed from the UK**

Pilots may elect to file their return FPLs at the same time as they file their outbound FPL. The normal requirement is to address the FPL solely to the aerodrome of departure. However, if the pilot also adds the addressee of the destination aerodrome, then this will ensure that the return destination in the UK is aware of the intended return flight, just in case the return FPL is not transmitted from the non-UK country. If the return flight occurs on a different day, pilots must ensure that the date of flight (DOF) is shown in Item 18 of the FPL.

Example:

DOF/060922 (DOF/year/month/day = Date of flight 22 September 2006)

8 Flight Planning in Remote Areas

See Chapter 1, paragraph 12.

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Chapter 3 Special VFR

1 Introduction

1.1 A Special VFR Flight (SVFR) is a flight made at any time in a control zone which is Class A airspace, or in any other control zone in IMC or at night, in respect of which the appropriate air traffic control unit has given permission for the flight to be made in accordance with special instructions given by that unit instead of in accordance with the Instrument Flight Rules and in the course of which flight the aircraft complies with any instructions given by that unit and remains clear of cloud and with the surface in sight.

1.2 A Special VFR clearance may be requested without the submission of a full flight plan. However, brief details of the proposed flight are required to be passed to the appropriate ATSU before an SVFR clearance is issued.

2 Regulations

2.1 In the UK, VFR flight is not permitted at night. That means that every pilot who flies in uncontrolled airspace between evening civil twilight and morning civil twilight must follow the Instrument Flight Rules.

2.2 Rules 33-37 lay down the rules for IFR flight within controlled airspace, including the filing of a flight plan and the obtaining and obeying of an air traffic control clearance. Pilots without an instrument rating are normally prohibited from flying under IFR in controlled airspace, although an IMC rating will suffice in Class D and E airspace in the UK. However, flight may be possible with a 'Special VFR' clearance in some control zones.

2.3 Clearance for Special VFR flight in the UK is an authorisation by ATC for pilots to fly within a Control Zone although they are unable to comply with IFR. In exceptional circumstances, requests for Special VFR flight may be granted for aircraft with an all-up weight exceeding 5700 kg and capable of flight under IFR. Special VFR clearance is only granted when traffic conditions permit it to take place without hindrance to the normal IFR flights, but for aircraft using certain notified lanes, routes and local flying areas, special conditions may be applied (see paragraph 4.5).

3 Flight Planning Requirements

3.1 If intending to take advantage of SVFR privileges, pilots must ensure that ATC understands their requirements and any limitations that might affect their ability to accept the clearance given to them.

3.2 A Full FPL is not required for a Special VFR flight, but ATC must be given brief details of the call sign, aircraft type and pilot's intentions. These details may be passed either by RTF or, at busy aerodromes, through the Flight Clearance Office.

3.3 A Full FPL must be filed if the pilot requires the destination aerodrome to be notified of the flight. The CA48 flight plan should be filed as normal, with "I" as the flight rules written in Item 8 (IFR). Any part of the route in which the pilot requires SVFR clearance must be clearly stated, and Item 15 is suitable to show this requirement. When completing Item 15, designate the point(s) on the boundary of controlled airspace at which you intend to enter or leave, and write "SVFR" as your routeing within the control zone. Once in radio contact, if you are unable to accept flight in IMC, you must inform ATC.

4 Special VFR Clearance

4.1 Requests for Special VFR clearance to enter a Control Zone, or to transit a Control Zone, may be made to the ATC authority whilst airborne. Aircraft departing from aerodromes adjacent to a Control Zone boundary and wishing to enter may obtain Special VFR clearance either prior to take-off by telephone or by RTF when airborne. In any case, all such requests must specify the ETA for the selected entry point and must be made 5-10 minutes beforehand.

4.2 The specific conditions associated with SVFR clearances in each control zone are published in the UK AIP (AD 2 Section) for individual aerodromes.

4.3 Special VFR is permitted in the UK at night. However, in general terms, SVFR is a specific clearance within the Instrument Flight Rules, and pilots should treat any such clearance as merely relaxing the requirements to fly as IFR rather than being an extension of VFR. In any case, an SVFR clearance can only be given if traffic and controller workload allows.

4.4 Without prejudice to existing weather limitations on Special VFR flights at specific aerodromes (as detailed within the AD 2 Section) ATC will not issue a Special VFR clearance to any fixed-wing aircraft intending to depart from an aerodrome within a Control Zone, when the official meteorological report indicates that the visibility is 1800 m or less and/or the cloud ceiling is less than 600 ft.

4.5 Aircraft using the access lanes and local flying areas notified for Denham, White Waltham and Fairoaks in the London CTR, and any temporary Special Access Lanes which may be notified from time to time, will be considered as Special VFR flights and compliance with the procedures published for the relevant airspace will be accepted as compliance with an ATC clearance. As such, flight plans are not required to be filed and separate requests should not be made nor will separate clearances be given. Separation between aircraft, which are using such airspace, cannot be given, and pilots are responsible for providing their own separation from other aircraft in the relevant airspace.

Chapter 4 IFR Flight Planning

1 Introduction

1.1 The UK is a participating State in the Integrated Initial Flight Plan Processing System (IFPS), which is an integral part of the Eurocontrol centralised Air Traffic Flow Management (ATFM) system.

1.2 IFPS is the **sole** source for the distribution of **IFR**/General Air Traffic (GAT) FPL information to ATSUs within the participating European States, which collectively comprise the IFPS Zone. A description of the IFPS Zone is shown at Annex A.

1.3 IFPS will **not** handle VFR flight plans or Military Operational Air Traffic (OAT) flights but will process the GAT portions of a mixed OAT/GAT FPL and the IFR portions of a VFR/IFR FPL.

1.4 Except for the Shanwick OCA the Oceanic Control Areas of the North Atlantic are also outside the IFPS Zone (see paragraph 5.4).

2 IFPS

IFPS comprises two Units (IFPU) sited within the Eurocontrol facilities at Haren, Brussels and at Bretigny, Paris. The IFPS Zone is divided into two separate geographical areas, each IFPU having a primary responsibility for one area and a secondary role, for contingency purposes, for the other. Consequently all IFR/GAT flight plans and associated messages **must** be addressed to both IFPUs (see paragraph 5). Following successful processing, the FPL will be delivered, at the appropriate time, to all the ATSU addressees on the flight-profiled route within the IFPS Zone.

3 ATFM

3.1 Additionally, IFPS provides accurate flight data to the ATFM elements of the Central Flow Management Unit (CFMU), located at Haren, Brussels. The day-to-day ATFM activities in the participating states are managed by the CFMU, supported by the UK Flow Management Position (FMP) established at the London Area Control Centre (ACC), and Flight Data Operations (FDO). Overall authority for the provision of ATFM in the London and Scottish FIRs/UIRs is delegated to the Eurocontrol CFMU.

3.2 NATS has provided an FMP at the London ACC to liaise between the CFMU, local AOs and ATS.

3.3 ATS is responsible for monitoring a flight's compliance with any Calculated Take-Off Time (CTOT) that may be issued by the CFMU in response to the filing of an FPL on a route that is regulated. In accordance with agreed procedures, flights that cannot adhere to their CTOT will be denied start-up clearance. However, ATS will make all efforts to enable departing flights to comply with the CTOT and flights will not be prevented from departing due to small taxiing delays.

3.4 In some cases, due to specific restrictions in enroute airspace, or at aerodromes, flights will need to be stopped from departing. In this event, a Flight Suspension (FLS) message may be issued after a CTOT has been issued.

3.5 Where a flight departs from an aerodrome with an ATSU, the Aircraft Operator or pilot should obtain information, prior to start up from ATS as to whether a CTOT or FLS affects their flight.

3.6 Where a flight departs from an aerodrome without an ATSU, or when the FPL has been filed with the Parent AFTN Unit, it is the Aircraft Operator or pilot's responsibility to determine whether a CTOT or FLS affects their flight. In this case, the Aircraft Operator or pilot should contact the CFMU or FMP before the aircraft departs.

3.7 For additional information see Chapter 6 Air Traffic Flow Management. Contact telephone numbers are shown in the UK AIP, ENR 1.9.

4 Submission Time Parameters

4.1 FPLs should be filed a minimum of **3 hours** before Estimated Off Block Time (EOBT) for North Atlantic flights and those subject to ATFM measures, and a minimum of **60 minutes** before EOBT for all other flights.

4.2 IFPS always calculates the Date of Flight (DOF) if none is given in the FPL. In doing so it will assume the EOBT to be within the next 24 hours after the filing time. If an FPL is filed more than **24 hours** in advance of the EOBT, the DOF must be indicated in Item 18 of the FPL.

4.3 IFPS will not accept flight plans submitted more than **120 hours** in advance of the flight taking place.

5 Addressing IFR Flight Plans

5.1 Flights Wholly Within the IFPS Zone

5.1.1 FPLs and associated messages must be addressed to both IFPUs. This can be achieved by using either the standard collective AFTN address, or the individual AFTN or SITA addresses:

		AFTN	SITA
Collective		EGZYIFPS	
Individual	Haren	EUCHZMFP	BRUEP7X
	Bretigny	EUCBZMFP	PAREP7X

Table 3 AFTN/SITA Addresses

5.2 Flights Entering or Overflying the IFPS Zone

For that part of the flight within the IFPS Zone, only the two IFPUs need to be addressed as shown above.

5.3 Flights Departing from an Aerodrome Within, and then Exiting, the IFPS Zone

5.3.1 For that part of the flight within the IFPS Zone, only the two IFPUs need be addressed as shown above. For any parts of the flight outside the IFPS Zone, the FPL and associated messages must also be addressed to the appropriate ATSUs outside the Zone.

5.3.2 FPL originators filing directly to IFPS are responsible for ensuring that any modifications made to the FPL, either by IFPS or through subsequent messages, are distributed to the relevant ATSUs outside the Zone. This is achieved by use of the "Re-addressing Function' which is described fully in the IFPS User's Manual.

5.3.3 Operators are reminded that IFPS does not forward mixed IFR/VFR FPL to VFR addresses.

5.4 Oceanic Flights

For Oceanic flights it should be noted that only Shanwick OCA is within the IFPS Zone.

6 Filing of Flight Plans and Associated Messages

6.1 Flight Plans

6.1.1 Filing flight plans under IFPS involves an automatic interface with the computer database. Consequently, a rigid protocol for message exchange is needed, especially when delays or modifications are required to the planned route.

6.1.2 AOs are ultimately responsible for the complete filing of their FPLs and all associated messages. This encompasses compilation (including addressing), accuracy and submission of FPLs and also for the reception of the Acknowledgement (ACK) message from IFPS.

6.1.3 In the UK, AOs who have the facilities may file their own flight plans and associated messages directly with IFPS and any other non-IFPS states. This is the standard IFPS IFR/GAT FPL filing procedure and is termed "direct filing".

6.1.4 AOs and pilots who, for whatever reason, are unable to conform to the direct filing procedure should make local arrangements to file their IFR/GAT flight plans through the ATSU at the aerodrome of departure or through the Parent AFTN Unit. The ATSU may, when appropriate, assist in the compilation of flight plans and interpreting the associated messages. It is essential for reasons indicated below that the flight crew remains contactable by the ATSU prior to departure.

6.2 Associated Messages

6.2.1 The compilation of Departure (**DEP**), Arrival (**ARR**), Modification (**CHG**), Delay (**DLA**) and Cancellation (**CNL**) messages is detailed in *ICAO Doc 4444*. Their use for the exchange of information with the automatic IFPS database is strictly governed by the instructions given in the IFPS Users Manual. For example, to change the information in certain Items of the FPL, it is necessary to cancel the original FPL and refile with the amended data after a time lapse of at least 5 minutes.

6.2.2 The occasions when an **ARR** message must be sent are minimal, mainly when an aircraft has diverted or when a controlled flight has experienced radio failure. In each instance it is the responsibility of the ATSU at the landing aerodrome to send an ARR message.

6.2.3 Certain FPL messages are exclusive to the IFPS process, and are named Operational Reply Messages (**ORM**). They are:

a) The FPL Acceptance Acknowledgement Message (**ACK**).

b) Referred for Manual Repair (**MAN**).

c) FPL Message Rejected (**REJ**).

6.2.4 The ACK message will be automatically received from IFPS when the FPL has been automatically accepted into the system. Alternatively, a **MAN** message will indicate that the FPL has not been accepted and is awaiting manual intervention by an IFPS operator. Manual repair of a failed FPL is often carried out in conjunction with the FPL originator. Where FPLs are filed directly to IFPS, it is strongly advised that the originator's contact details be included in Item 18 where this is not obvious from the flight details. Dependant upon the success or otherwise of the manual "repair" to the message, an **ACK** or **REJ** will be received. An ACK message will include the "repaired' message so that the changes can be checked by the originator, and it is essential that the flight crew are informed of the accepted FPL route.

6.2.5 Receipt of a **REJ** message will indicate that the FPL has **not** been accepted by IFPS. The REJ message will indicate the errors in the message which need to be resolved and will also include a copy of the message received by IFPS; this will enable the originator to determine if the message has been corrupted during transmission. If an FPL or associated message is rejected by IFPS, a corrected message must be sent without delay.

6.2.6 **Until an ACK message has been received by the message originator, the requirement to submit a valid FPL for an IFR/GAT flight intending to operate within the IFPS Zone will not have been satisfied**. In this case the flight details will not have been processed by IFPS and consequently the flight data **will not** have been distributed to the relevant ATSUs within the IFPS Zone. Similarly, processed data will **not** have been sent to the database of the CFMU to be considered for ATFM purposes.

6.2.7 Therefore, errors in the FPL or associated messages may result in the flight concerned being delayed.

7 Repetitive Flight Plans (RPLs)

7.1 Operators who fly routes on a regular or scheduled basis within the IFPS Zone are able to file Repetitive Flight Plans on the Eurocontrol database. These plans are activated automatically at the appropriate time before each flight. RPLs for flights within the IFPS Zone, but which have a route portion outside the Zone, have to be filed to the National Authorities of those external states. All external states on the route must have agreed to the use of RPLs; a mixture of RPLs and FPLs is not permitted for an individual flight.

7.2 Attention is drawn to the fact that the Santa Maria (LPPO) OACC is NOT within the IFPS Zone.

7.3 Details of the requirements for the submission and duration of RPLs can be found in the IFPS User Manual section of the CFMU Handbook. The IFPS Users Manual and the CFMU Handbook are available, free of charge, from:

Eurocontrol Library
Rue de la Fusee, 96
B - 1130 Brussels
Belgium

www.cfmu.eurocontrol.be/index.htm

or may be downloaded from the CFMU website at www.cfmu.eurocontrol.int

8 Additional Information and Reference Documents for Flight Planning

Further information on flight planning, IFPS, ATFM and RPLs is contained in the following publications:

- UK Integrated Aeronautical Information Package (AIP), Parts ENR 1-9 and 1-10 of the AIP
- ICAO Annex 2 (10th edition)
- ICAO Doc 4444 PANS-ATM (14th edition), Chapters 4, 11 and 16; and Appendices 2 and 3
- ICAO Doc 7030 Regional Supplementary Procedures (5th edition). Parts EUR and NAT
- Central Flow Management Unit (CFMU) Handbook
- Integrated Initial FPL Processing System (IFPS) Users Manual (part of the CFMU Handbook)
- North Atlantic MNPS Airspace Operations Manual (Edition 2005).

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Chapter 5 Instructions for Completion of the FPL Form CA48/RAF F2919

1 Introduction

1.1 With extensive use of automatic data processing in flight planning it is most important that the FPL Form is correct in every detail before submission. Even minor mistakes, such as leaving a space where it is not called for, will result in a delay in processing the information, which can cause a delay to the flight.

1.2 The following general FPL instructions include those developed and agreed with other North Atlantic (NAT) ATC Provider States for operations in the North Atlantic Region, (Published separately in Aeronautical Information Circular (AIC) 55/2003 (Yellow 109)). Flight planning requirements for flights in the NAT Region domestic airspace adjacent to the NAT Region will be found in the relevant State AIPs and AICs.

NOTE: A blank form CA48/RAF F2919 is included for photocopying at Annex C.

2 General

a) **USE BLOCK CAPITALS AT ALL TIMES**;

b) Adhere to the prescribed formats and manner of specifying data;

c) Complete Items 7 to 18 as indicated in the following instructions;

d) Complete also Item 19 as indicated, to facilitate alerting of SAR Services;

e) Areas preceding Item 7 are to be completed by ATC and COM services, unless the responsibility for originating FPL messages has been delegated;

f) **Commence** inserting data **in the first space** provided. (Convention may dictate that the first figure is a zero e.g. 002 to indicate two POB in Item 19). Where excess space is available, **leave unused spaces blank**;

g) Do not introduce obliques or spaces where they are not required;

h) Insert all clock times in 4 figures, UTC;

i) Insert all estimated elapsed times in 4 figures (hours and minutes); and

j) Item numbers on the form are not consecutive.
(They correspond to Item Type numbers in standard ATS messages).

3 Flight Planning Requirements for non-RVSM Approved Aircraft Wishing to Operate at FL 430 or above, across the NAT Region to or from the EUR Region

3.1 Introduction

3.1.1 The European (EUR) Region have implemented Reduced Vertical Separation Minimum (RVSM) between FL 290 and FL 410 inclusive and the North Atlantic (NAT) Region has expanded its current RVSM airspace to the same vertical dimensions. With the exception of State aircraft, non-RVSM Approved aircraft are not permitted to operate within the EUR RVSM airspace, including in the UK UIRs, apart from as detailed below.

3.1.2 However, it has been accepted by the States who implemented EUR RVSM that certain operators of non-RVSM Approved aircraft may still wish to transit the NAT Region above RVSM airspace, that is at FL 430 or above.

3.1.3 The European IFPS requires that the speed and level must be specified at the EUR RVSM entry/exit point as contained in Item 15 of the ICAO Flight Plan. In relation to NAT flight planning, these points are located on the eastern boundaries of the Bodo, Reykjavik, Shanwick and Santa Maria OCAs.

3.1.4 The following flight planning provisions have therefore been developed to permit such flights to transition vertically through the EUR RVSM airspace.

3.2 Westbound Outbound from a EUR Aerodrome

In Item 15 of the ICAO Flight Plan, file a maximum level of FL 280 to the oceanic entry point and then a minimum level of FL 430 across the NAT Region, e.g. N0360F280....BEL UN551 NIBOG/M074F430 55N020W....

NOTE: In the NAT Region FL 430 is flight plannable as both a westbound and an eastbound cruising level.

3.3 Eastbound Inbound to a EUR Aerodrome

In Item 15 of the ICAO flight plan, file a minimum level of FL 430 across the NAT Region. File a change of level to a maximum of FL 270 at the oceanic landfall point, e.g. ...YAY/M074F450 53N050W...55N020W NIBOG/M074F450 UN551 BEL/N0360 F270....

3.4 Air Traffic Control (ATC) Procedures

3.4.1 The relevant European ACCs adjacent to the NAT oceanic boundary will ensure that the transition to or from filed level above the NAT RVSM airspace is conducted in accordance with the agreed European ATC procedures.

3.4.2 In the case of a westbound flight this will normally be effected between the last domestic fix and the oceanic entry point and in the case of an eastbound flight between the oceanic exit point and the landfall fix. Operators are therefore advised to plan their fuel requirements accordingly.

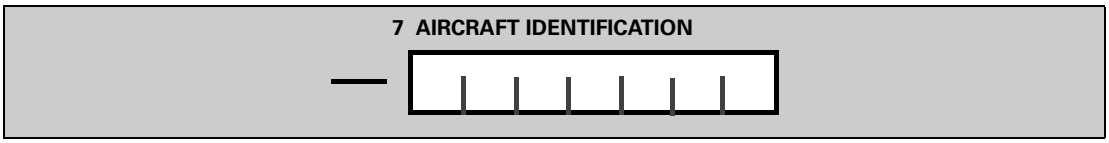
4 Completion of the Flight Plan Form

Description of each Item of the FPL Form and the information required to be inserted/ shown.

ITEM 3: MESSAGE TYPE (FPL)

To be completed only when the responsibility for originating FPL messages has been delegated (e.g. direct filing by AOs). For filing of second or subsequent flight plans, use either the Modification (CHG) or Cancellation (CNL) format as outlined in ICAO DOC 4444.

ITEM 7: AIRCRAFT IDENTIFICATION



INSERT one of the following aircraft identifications not exceeding 7 characters and not including hyphens or symbols:

a) The nationality or common mark and registration marking of the aircraft (e.g. ELAKO, 4XBCD, N256GA), when:

   i) in radiotelephony the callsign used by the aircraft will consist of this identification alone (e.g. CGAJS), or preceded by the ICAO telephony designator for the aircraft operating agency (e.g. BLIZZARD CGAJS);

   ii) the aircraft is not equipped with radio;

OR

b) The ICAO designator for the aircraft operating agency followed by the flight identification (e.g. BAW278, 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. SPEEDBIRD 278, NIGERIA 213, JESTER 25);

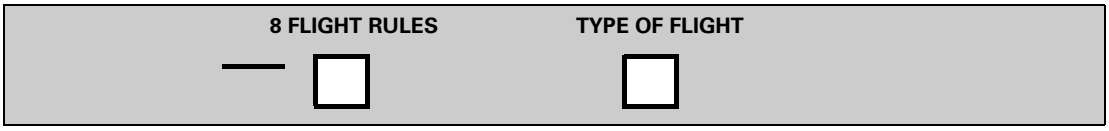
OR

c) The callsign determined by the military authorities if this will be used to identify the aircraft in radiotelephony during flight.

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

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

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



a) **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 followed by one or more subsequent changes of flight rules.
Z if the flight initially will be operated under the VFR 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.

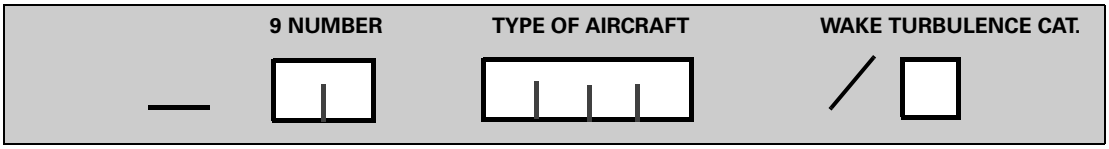
b) **TYPE OF FLIGHT**

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, Customs or Police.
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 9: NUMBER, TYPE OF AIRCRAFT AND WAKE TURBULENCE CATEGORY



NUMBER OF AIRCRAFT (2 characters)

INSERT the number of aircraft, **only if more than one** (e.g. 03).

c) **TYPE OF AIRCRAFT** (2 to 4 characters)

INSERT the appropriate Aircraft Type Designator as specified in ICAO DOC 8643 Aircraft Type Designators;

OR

if no such designator has been assigned or in case of formation flights comprising more than one type, **INSERT "ZZZZ"** and specify in Item 18 the numbers and type(s) of aircraft preceded by **TYP/**.

d) **WAKE TURBULENCE CATEGORY**

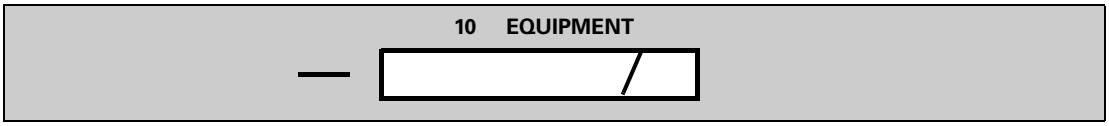
INSERT one of the following letters to indicate the wake turbulence category of the aircraft:

H HEAVY, to indicate an aircraft type with a maximum take-off weight (MTOW) of 136,000 kg (300,000 lb) or more;

M MEDIUM, to indicate an aircraft type with an MTOW of less than 136,000 kg (300,000 lb) but more than 7,000 kg (15,500 lb);

L LIGHT, to indicate an aircraft with an MTOW of 7,000 kg (15,500 lb), or less.

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, authorisation from the appropriate authority.

A) RADIO COMMUNICATION, NAVIGATION AND APPROACH AID EQUIPMENT AND CAPABILITIES

INSERT one letter, preceding the oblique stroke, 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 the standard or prescribed (e.g. NAT requirements) 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
- **B** LPV (APV) with SBAS
- **C** LORAN C
- **D** DME
- **E1** FMC WPR ACARS
- **E2** D-FIS ACARS
- **E3** PDC ACARS
- **F** ADF
- **G** (GNSS) – (See Note 2)
- **H** HF RTF
- **I** Inertial Navigation
- **J1** CPDLC ATN VDL MODE 2 (See Note 3)
- **J2** CPDLC FANS 1/A HFLD
- **J3** CPDLC FANS 1/A VDL Mode A
- **J4** CPDLC FANS 1/A VDL Mode 2
- **J5** CPDLC FANS 1/A SATCOM (INMARSAT)
- **J6** CPDLC FANS 1/A SATCOM (MTSAT)
- **J7** CPDLC FANS 1/A SATCOM (Iridium)
- **K** MLS
- **L** ILS
- **M1** ATC RTF SATCOM (INMARSAT)
- **M2** ATC RTF (MTSAT)
- **M3** ATC RTF (Indium)
- **O** VOR
- **P1-9** Reserved for RDP

R PBN approved (See Note 4)
T TACAN
U UHF RTF
V VHF RTF
W RVSM Approved
X MNPS Approved
Y VHF with 8.33 kHz spacing capability
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 are 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. In the EUR Region exemptions for RNAV, CPDLC and 8.33kHz are to be indicated by inserting the letter Z in Item 10a and then inserting the following indicators as appropriate in Item 18, as detailed in the IFPS Users Manual and Section ENR 1-10 of the UK AIP:

a) EXM833 following COM/;

b) RNAVX or RNAVINOP following NAV/;

c) CPDLX following DAT/.

NOTE 6: Information on navigation capability is provided to ATC for clearance and routeing purposes.

D) SURVEILLANCE EQUIPMENT

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 - 4096 Codes)

C Transponder - Mode A (4 digits - 4096 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 - including pressure altitude but no aircraft identification capability

S Transponder - Mode S including both aircraft identification and pressure altitude capability

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

NOTE: Extended surveillance capability is the ability of the aircraft to down-link aircraft de-rived 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

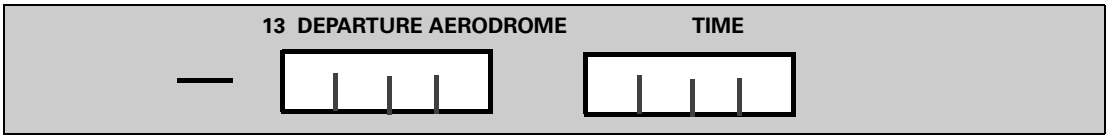
G1 ADS-C with ATN capabilities

Alphanumeric characters not indicated above are reserved.

Example: ADE3RV/HB2U2VG1

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

ITEM 13: DEPARTURE AERODROME AND TIME (8 CHARACTERS)



a) **DEPARTURE AERODROME**

INSERT the ICAO **four-letter location indicator** of the aerodrome of departure 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 FPL 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 FPL data can be obtained, preceded by **DEP/**.

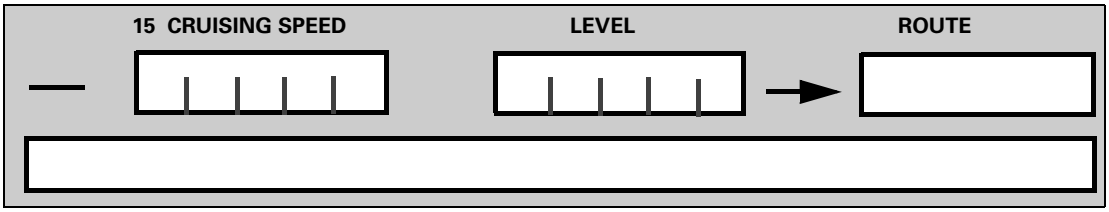
b) **TIME** (4 characters)

INSERT the estimated off-block time (EOBT) for an FPL submitted before departure;

OR

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

ITEM 15: CRUISING SPEED LEVEL AND ROUTE



INSERT the first cruising speed as in a) below and the first cruising level as in b) below, then, following the arrow, **INSERT** the route description as in c) below:

a) **CRUISING SPEED**

INSERT the True Air Speed for the first or the whole cruising portion of the flight, in terms of Knots, expressed as **N** followed by 4 figures (e.g. N0485);

OR

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

OR

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

b) **CRUISING LEVEL**

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

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

OR

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

OR

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

OR

for **VFR flights** where the flight is not planned to be flown at a specific cruising level, the letters **VFR**.

*When so prescribed by the appropriate ATS authorities.

c) ROUTE - (INCLUDING CHANGES OF SPEED, LEVEL AND/OR FLIGHT RULES)

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 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 in 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 70N and 70S 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 flying 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 co-ordinates or by bearing and distance.

USE ONLY the conventions in 1) to 5) below, separating 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, L975, M17, UL175, KODAP2A);

NOTE: Provisions for the application of route designators are contained in Annex 11, Appendix 1.

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 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 Significant Point** (9 characters)

  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 the insertion of zeros (e.g. a point 180^{o} 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 word "**PLUS**", without a space between them.

Examples: C/48N050W/M082F290F350
C/48N050W/M082F290PLUS
C/52N050W/M220F580F620

ROUTE REQUIREMENTS - NORTH ATLANTIC (NAT) FLIGHTS

Requirements for Flight Plans on Random Route Segments at/or South of 70ºN:

INSERT the proposed **cruising speed**, as follows:

Turbo-jet aircraft should indicate their proposed speeds in the following sequence:

a) cruising speed (TAS) in knots;

b) Oceanic entry point and cruising MACH number;

c) landfall fix and cruising speed (TAS) in knots.

All other aircraft: speed in terms of TAS.

INSERT the planned **cruising level** for ocean entry, specified at either the last domestic reporting point prior to ocean entry or when at the Oceanic Control Area (OCA) boundary;

INSERT the planned **Route of flight** described in terms of the following significant points:

a) last domestic reporting point prior to ocean entry;

b) OCA boundary entry point (only required by the Shanwick, New York and Santa Maria Oceanic Area Control Centres OACs);

c) significant points formed by the intersection of half or whole degrees of latitude with meridians spaced at intervals of 10 degrees from the Greenwich meridian to longitude 070^{o}W (The distance between points shall, as far as possible, not exceed one hour's flight time);

d) OCA boundary exit point (only required by the Shanwick, New York and Santa Maria OACs);

e) first domestic reporting point after the ocean exit.

NOTE: Each point at which either a change in speed or level is requested must be specified and followed, in each case, by the next significant point.

Requirements for Flight Plans on Organised Track System (OTS) South of 70ºN:

INSERT the proposed cruising speed in terms of MACH to be specified at commencement point of OTS.

INSERT the planned cruising level as a Flight level at the commencement point of OTS.

INSERT if (**and only if**) the flight is planned to operate along the whole length of one of the organised tracks as detailed in the NAT track message, the abbreviation "**NAT**" followed by the code letter assigned to the track, without a space. (e.g. NATB).

Flights wishing to join or leave an organised track at some intermediate point are considered random route aircraft and full route details must be specified in the FPL. The track letter should not be used to abbreviate any portion of the route in these circumstances.

NOTE 1: Each point at which either a change in speed or level is requested must be specified as geographical co-ordinates in latitude and longitude, or as a named waypoint.

NOTE 2: See also Chapter 9 - Special Procedure for Shanwick Control Area (North Atlantic Regions (NAT)).

Requirements for Flight Plans on Random Route Segments North of 70ºN:

INSERT the proposed cruising speed, as follows:

Turbo-jet aircraft should indicate their proposed cruising speeds in the following sequence:

a) cruising speed (TAS) in knots;

b) Oceanic entry point and cruising MACH number;

c) landfall fix and cruising speed (TAS) in knots.

All other aircraft: speed in terms of TAS.

INSERT the planned **cruising level** for ocean entry, specified at either the last domestic reporting point prior to ocean entry or when at the OCA boundary;

INSERT the planned **Route of flight** described in terms of the following significant points:

a) last domestic reporting point prior to ocean entry;

b) OCA boundary entry point (only required by the Shanwick, New York and Santa Maria OACs);

c) significant points formed by the intersection of parallels of latitude expressed in degrees and minutes with meridians normally spaced at intervals of 20 degrees from the Greenwich meridian to longitude 060ºW (The distance between significant points shall, as far as possible, not exceed one hours flight time);

d) OCA boundary exit point (only required by the Shanwick, New York and Santa Maria OACs);

e) first domestic reporting point after the ocean exit.

NOTE: Each point at which either a change in speed or level is requested must be specified and followed, in each case, by the next significant point.

Requirements for Flight Plans Predominantly North/South or South/ North:

INSERT the proposed **cruising speed**, as follows:

a) Turbo-jet aircraft should indicate their speed in terms of MACH;

b) All other aircraft should indicate their speed in terms of TAS in knots.

NOTE: In both cases, the planned airspeed is to be specified at either the last domestic reporting point prior to ocean entry or the OCA boundary.

INSERT the Flight level for ocean entry, specified at either the last domestic reporting point prior to ocean entry or the OCA boundary;

INSERT the **Route of flight** described in terms of the following significant points:

a) last domestic reporting point prior to ocean entry;

b) OCA boundary entry point (only required by the Shanwick, New York and Santa Maria OACs);

c) significant points formed by the intersection of whole degrees of longitude with specified parallels of latitude which are spaced at 5 degree intervals from 20^{o}N to 90^{o}N (The distance between significant points shall, as far as possible, not exceed one hours flight time);

d) OCA boundary exit point (only required by the Shanwick, New York and Santa Maria OACs);

e) first domestic reporting point after ocean exit.

NOTE: Each point at which either a change in speed or level is requested must be specified and followed, in each case, by the next significant point.

Requirements for Flight plans on NAM/CAR Route Structure:

INSERT the proposed cruising speed, as follows:

a) Turbo-jet aircraft should indicate their speed in terms of MACH;

b) All other aircraft should indicate their speed in terms of TAS in knots.

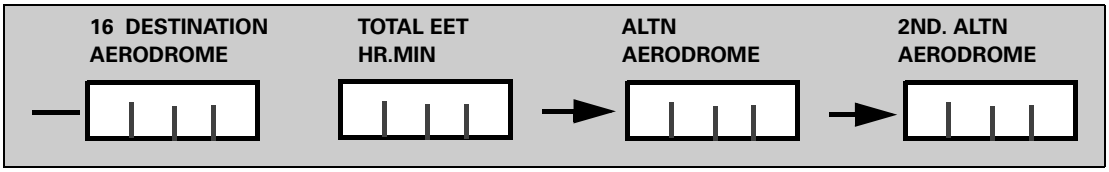
NOTE: In both cases the planned airspeed is to be specified at the commencement point of the NAM/CAR route structure.

INSERT the Flight level for ocean entry specified at the commencement point of the NAM/CAR route structure.

INSERT the Route of flight described in terms of NAM/CAR ATS route identifier(s).

NOTE: Each point at which either a change in speed or level is requested must be specified and followed in each case by the next route segment expressed by the appropriate ATS route identifier(s), or as a named waypoint.

ITEM 16: DESTINATION, TOTAL ELAPSED TIME AND DESTINATION ALTERNATE AERODROMES



a) **DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME**

INSERT the ICAO four-letter location indicator of the destination aerodrome followed by the total estimated elapsed time (4 characters).

OR

if no location indicator has been assigned, **INSERT "ZZZZ"** followed by the total estimated elapsed time and **specify** in Item 18 the name and location of the aerodrome, preceded by **DEST/**.

NOTE 1: **Total estimated elapsed time.** For **IFR flights**, this is the total estimated time required from take-off until arriving over the designated point from which it is intended that an Instrument Approach Procedure, defined by reference to navigation aids, will be commenced, or, if no navigation aid is associated with the destination aerodrome, until arriving over the destination aerodrome itself. For **VFR flights**, it will be the estimated total time required from take-off until arriving over the destination aerodrome.

NOTE 2: For an FPL 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 FPL applies to the termination point of the flight plan.

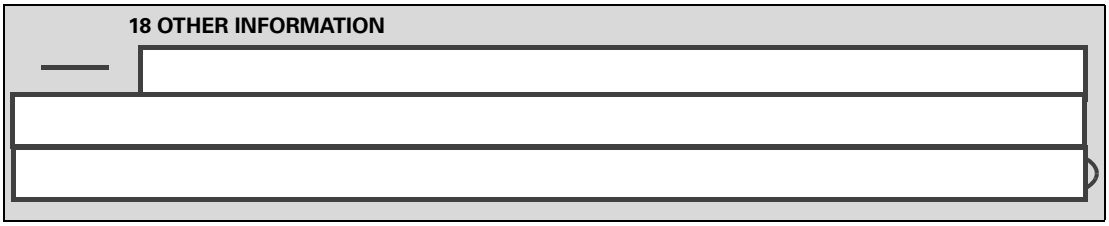
b) **DESTINATION ALTERNATE AERODROME(S)**

INSERT the **ICAO four-letter location indicator(s)** of not more than two destination alternate aerodromes.

OR

if no location indicator has been assigned to the destination alternate aerodrome, **INSERT "ZZZZ"** and **specify** in Item 18 the name and location of the **destination alternate** aerodrome, 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,

INSERT any other necessary information in the sequence shown below, in the form of the **appropriate indicator** selected from those defined hereunder followed by an **oblique stroke** plus 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 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

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.

NOTE: Guidance for the provision of NAV/COM/SUR information is included in Annex E.

	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	RANV 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 authorisation required)
T2	RNP AR APCH without RF (special authorisation 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.

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

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

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

DEP/ Name and location of the 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 the 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 the 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 time 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 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.

RVR/ The minimum RVR value for the flight.

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

DLE/ En-route 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 1 – Flight Procedures, if so prescribed by the appropriate ATS authority.

ALTN/ Name of the 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 designator(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(s), as specified in Doc 7910, Location Indicators, or name of take-off 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.

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 re-clearance 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 Supplementary Procedures (EUR SUPPs, Doc 7030) Chapter 2.

ITEM 19: SUPPLEMENTARY INFORMATION

NOTE: This information is not normally included in transmission of flight plan message. It is retained, however, at location of the filing of the FPL.

ENDURANCE:

After **E/ INSERT** a 4-figure group giving the fuel endurance in hours and minutes.

PERSONS ON BOARD:

After **P/ INSERT** the total number of persons (passengers and crew) on board, when required by the appropriate ATS authority.

INSERT "TBN" (to be notified) if the total number of persons is not known at the time of filing.

EMERGENCY RADIO:

R/ **CROSS OUT U** if UHF on frequency 243.00 MHz is not available.

CROSS OUT V if VHF on frequency 121.500 MHz is not available.

CROSS OUT E if emergency location transmitter (ELT) is not available.

SURVIVAL EQUIPMENT:

S/ **CROSS OUT all** indicators if survival equipment is not carried.

CROSS OUT P if polar survival equipment is not carried.

CROSS OUT D if desert survival equipment is not carried.

CROSS OUT M if maritime survival equipment is not carried.

CROSS OUT J if jungle survival equipment is not carried.

JACKETS:

J/ **CROSS OUT all** indicators if life jackets are not carried.

CROSS OUT L if life jackets are not equipped with lights.

CROSS OUT F if life jackets are not equipped with fluorescein.

CROSS OUT U and/or **V**; as in R/ (above) to indicate radio capability of jackets, if any.

DINGHIES:

D/

(NUMBER) **CROSS OUT** indicators **D** and **C** if no dinghies are carried;

OR **INSERT** number of dinghies carried; and

(CAPACITY) **INSERT** total capacity, in persons, of all dinghies carried; and

(COVER) **CROSS OUT** Indicator **C** if dinghies are not covered; and

(COLOUR) **INSERT** colour of dinghies if carried.

AIRCRAFT COLOUR AND MARKINGS:

A/ **INSERT** colour of aircraft and significant markings.

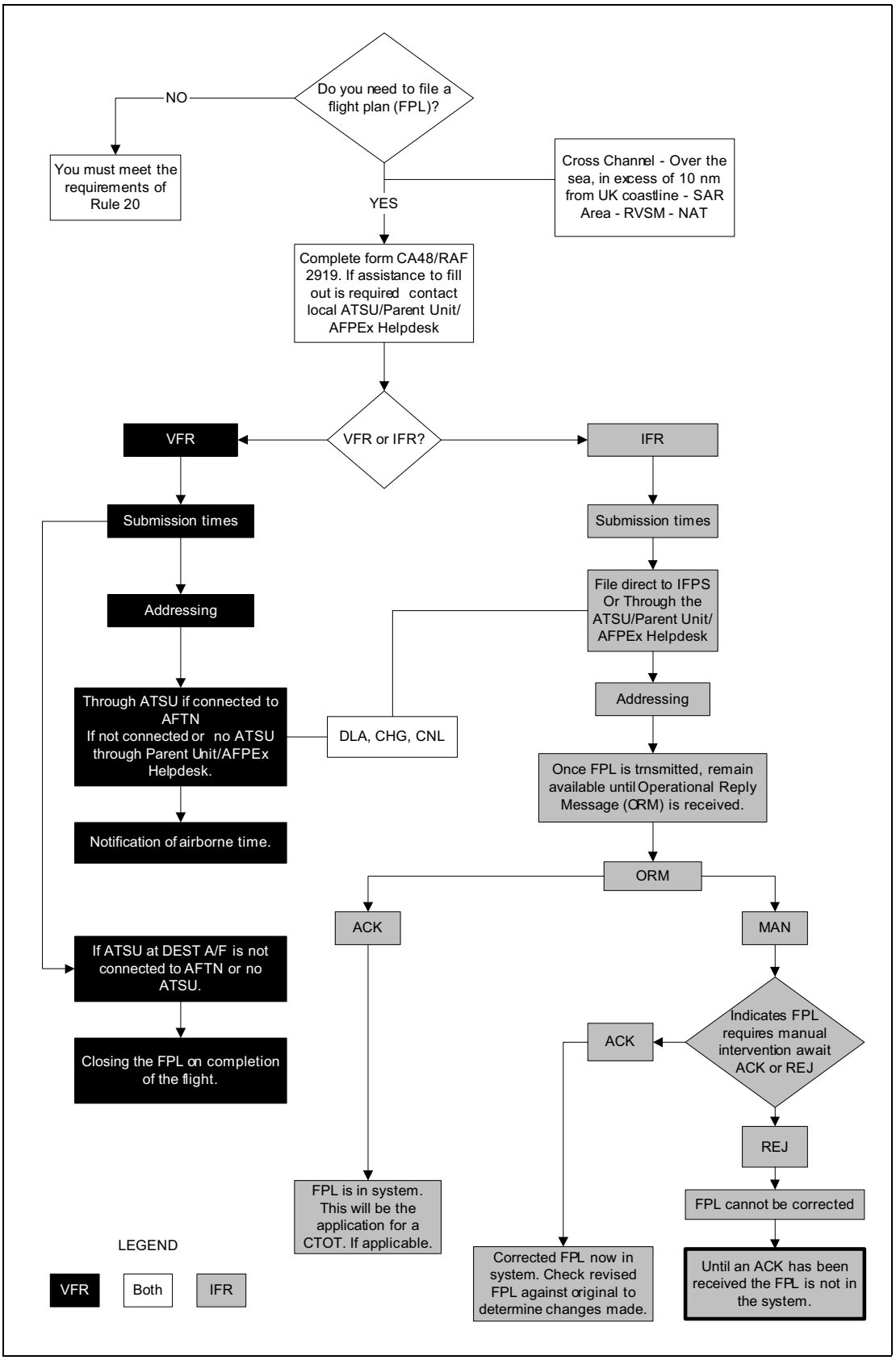
REMARKS:

N/ **CROSS OUT** indicator **N** if no remarks, or **INSERT** any other survival equipment carried and any other remarks regarding survival equipment.

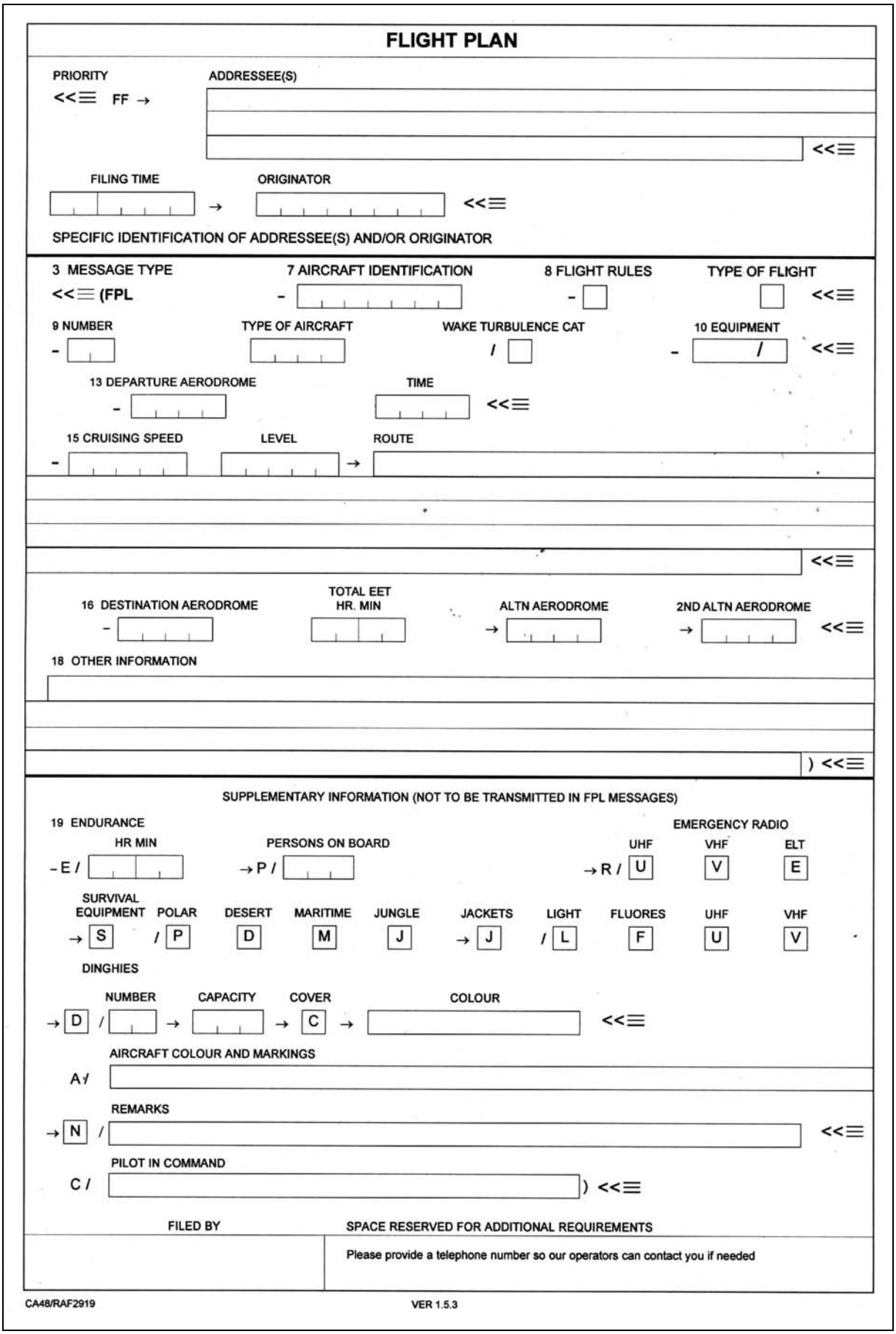
PILOT:

C/ **INSERT** name of pilot-in-command.

The Flight Plan Filing Process



Master Copy of FPL Form CA48/RAF 2919



Chapter 6 Air Traffic Flow Management (ATFM)

1 Introduction

1.1 Air Traffic Flow Management is a service established with the objective of contributing to a safe, orderly and expeditious flow of air traffic by ensuring ACC capacity is utilised to the maximum extent possible and the traffic volume is compatible with the capacities declared by the appropriate ATC authority.

1.2 A Centralised Air Traffic Flow Management (ATFM) service is established within the ICAO (EUR) Region to optimise the use of air traffic system capacity. The Eurocontrol Central Flow Management Unit (CFMU) in Brussels provides this service in conjunction with Flow Management Position (FMPs) established at each ACC.

1.3 The CFMU includes the Flow Management Division (FMD), responsible for the planning co-ordination and implementation of ATFM measures within the FMD ATFM area and the Flight Data Operations Division (FDOD), responsible for collecting, maintaining and providing data on all flight operations and the air navigation infrastructure. FDOD includes the Integrated Flight Planning System (IFPS). A description of the ATFM area and information on the CFMU systems can be found in the CFMU Handbook.

2 ATFM Documentation

2.1 ICAO European Region ATFM Procedures

2.1.1 The general ATFM procedures which apply throughout the ICAO European Region are published in the ICAO Doc 7030, Regional Supplementary Procedures (Europe).

2.2 CFMU Procedures and Information

2.2.1 Specific CFMU procedures and information can be found in the CFMU Handbook published by the CFMU and are available from:

Eurocontrol Library
Rue de la Fusée,
96, B-1130 Brussels
Belgium

Tel: 00-32-2-729-3639/3023
Fax: 00-32-2-729-9109
or from the CFMU website at: http://www.cfmu.eurocontrol.be/index.htm

2.2.2 Basic CFMU Handbook sections include:

a) **General and CFMU Systems** this contains details of the CFMU organisation, area of responsibility and a description of CFMU systems;

b) **The ATFM Users Manual** this is a self-contained users manual for aircraft operators and ATC units describing CFMU operating procedures in the context of the CFMU TACTICAL (TACT) system and Computer Allocated Slot Allocation (CASA) system; and

c) **IFPS Users Manual** this is a self-contained users manual describing operating procedures for flight plan filing in the IFPS area.

2.3 Only a limited selection of CFMU procedures are reproduced in the CAP 694. Reference should be made to the CFMU Handbook for comprehensive information and procedures.

3 ATFM Processes

3.1 The emphasis for ATFM measures is changing from regulation (delaying aircraft on the ground) towards capacity management. Only when no other option is available will a regulation be applied and delays issued (Slot Allocation).

3.2 Alternative ATFM measures include the re-routeing of aircraft both strategically and tactically. Permanent Strategic routeing requirements are published in the Route Availability Document (RAD). The RAD enables ATC to maximise capacity by defining restrictions that prevent disruption to the organised system of major traffic flows through congested areas.

3.3 In addition, routeing 'scenarios' may be applied by the CFMU to help resolve particular problems on particular days. These involve recommended or mandatory routes for particular groups of flights or selected individual flights. Re-routes for groups of flights will be published by the CFMU in an AIM (ATFM Information Message) or ANM (ATFM Notification Message).

3.4 Re-routeing may include restricting the level of an aircraft to keep it out of a particular ATC sector. This is known as level capping. Level capping scenarios are published for groups of aircraft.

3.5 A list of available re-routeing and level capping scenarios is promulgated on the CFMU website (http://www.cfmu.eurocontrol.int/rad).

3.6 Aircraft Operators (AOs) complying with a re-route or level capping requirement shall cancel any existing flight plan and re-file on the new route in accordance with the Replacement Flight Plan procedure published in the IFPS Users Manual section of the CFMU Handbook.

4 Slot Allocation Process

4.1 When no other option is available, a regulation will be applied by CFMU and departure times will be issued in the form of a Calculated Take Off Time (CTOT). This is facilitated by Computer Assisted Slot Allocation (CASA) algorithm within the Enhanced Tactical Flow Management Systems (ETFMS).

4.2 The ETFMS is largely automated and functions from an Aircraft Operators point of view in a passive mode. There is, therefore, no requirement to request a slot as the act of filing a flight plan effectively constitutes a request.

4.3 Pre-planned or strategic ATFM regulations are promulgated by the CFMU one day in advance by ATFM Notification Messages (ANM). All changes and tactical additions are promulgated by ANM revision messages.

4.4 For flights subject to a regulation, ETFMS will send a Slot Allocation Message (SAM) containing a CTOT at Estimated Off-Block Time (EOBT) - 2 hours. This will be sent to the aerodrome of departure as well as the Aircraft Operator via AFTN or SITA.

4.5 Revisions to, or cancellations of, the last issued CTOT may be initiated by FMD, the Aircraft Operator, or the FMP/ATC unit on behalf of the AO. AOs requiring assistance should contact either the FMD Central Flow HELPDESK (Tel: 00-32-2-745-1901) or the UK FMP (see paragraph 6.3).

4.6 All CTOT revisions or cancellations are to be made using the ATFM message exchange procedures described in the CFMU Handbook.

4.7 Full details of the Slot Allocation Process are published in the ATFM Users Manual section of the CFMU Handbook.

5 Flight Planning

5.1 The ATFM rules for flight planning, as defined in ICAO Doc 7030, are:

a) For flights likely to be subject to ATFM measures Aircraft Operators shall submit flight plans to IFPS at least 3 hours before the EOBT;

b) AOs filing flight plans for flights within the CFMU ATFM area or from within the ATFM adjacent area and entering the ATFM area shall assume their flight is subject to ATFM measures and subject to the requirement to submit a flight plan at least 3 hours before EOBT;

c) AOs should be aware that late filing of a flight plan may lead to a disproportionate delay;

d) Full details of flight planning requirements within the CFMU ATFM area are included in the CFMU ATFM Users Manual;

e) It is also important that the EOBT of a flight is as accurate as possible. It is a European requirement that all controlled flights departing, arriving or over-flying Europe subject to a change in an EOBT of more than + or - 15 minutes shall notify the change to the CFMU through IFPS. Modification procedures to enable Aircraft Operators to meet this requirement are described below.

5.2 In all cases, it is in the best interest of Aircraft Operators to initiate prompt revisions or cancellations, thus permitting the system to maximise use of available capacity and minimise delay. The later the revision is made the greater the probability of a delay.

5.3 The correct application of the STS/ATFMX procedure will ensure that approved flights are not unnecessarily delayed (see paragraph 12 for details of the ATFM exemption procedures).

5.4 **Jet aircraft with a total sector length exceeding 220 nm**

5.4.1 In order to reduce complexity in the London ACC airspace, and thus provide greater capacity for all airspace users, the following flight planning restriction applies to all aircraft operators filing flight plans, repetitive flight plans and subsequent change messages for jet aircraft planning to operate in UK airspace.

5.4.2 Where the total sector length (including any portion outside the London/Scottish UIR/FIR) exceeds 220 nm operators are to file a requested flight level for the entire route at FL 250 or above unless prior approval has been given by the UK FMP.

5.4.3 Requests for such approval are to be made to the UK FMP on + 44 (0) 1489 588150.

6 UK FMPs Tactical Operations

6.1 The Network Manager (NM) at the UK FMP is responsible for the day to day monitoring, planning and co-ordination of all ATFM measures affecting traffic entering, leaving, overflying or remaining within the UK. The FMP is responsible for all co-ordination between ATC and the FMD and for providing ATFM support to Aircraft Operators.

6.2 The Network Management Specialist (NMS) is responsible to the Network Manager for monitoring delays and FMD regulations to optimise traffic flow through UK sectors. The NMS will also undertake message exchanges with the FMD on behalf of ATC or Aircraft Operators when required.

6.3 **Responsibilities of the FMP**

6.3.1 The UK has established a single H24 FMP to provide liaison between UK ATC and the FMD as shown in Table 4.

FMP	Location	Area of Responsibility	ACC Served
UK FMP	London ACC	London and Scottish FIRs/ UIRs, Shanwick OCA	London ACC, London TCC, Manchester ACC, Scottish and Oceanic ACCs

Table 4 UK FMP and areas of responsibilities

6.3.2 Operational ATFM enquires should normally be addressed to the UK FMP as shown in the UK AIP ENR 1.9.

6.4 General ATFM enquiries should be addressed to:

Head of Traffic Management Services
Box 23
London Area Control Centre
Sopwith Way
Swanwick
Hampshire
SO31 7AY

Tel: +44 (0) 1489 612426
Fax: +44 (0) 1489 612131
AFTN: EGTTZDZX
SITA: LHRFMXS
Email: Ian.Davis@nats.co.uk

7 Responsibilities of Aircraft Operators

7.1 Aircraft Operators shall inform themselves of and adhere to:

a) general ATFM procedures including flight plan filing and message exchange requirements;

b) strategic ATFM measures (including Route Availability Document (RAD));

c) current ATFM measures (including specific measures applicable on the day of operation, as promulgated by ANM or Flight Suspension (FLS) messages);

d) departure slots (CTOTs) issued by the FMD and procedures related to changes to CTOTs;

e) the CFMU requirement for the modification or delay of EOBT. This is particularly important with the progressive implementation of CFMU Flight Activation Monitoring (FAM) whereby flights not notified as being airborne within 30 minutes of the notified ETOT or CTOT will receive a flight suspension message;

f) the sole responsibility to obtain a new CTOT if there is no RTF contact with the TWR at CTOT; and

g) the correct procedure to be followed to obtain approval for the use of STS/ATFMX.

7.2 In order to comply with a CTOT, Aircraft Operators need to plan the departure of a flight so that the aircraft will be ready for start up in sufficient time to comply with a CTOT taking into account the taxi time shown in the SAM. A slot window is available to ATC to optimise the departure sequence. This is not for use by AOs who should plan an EOBT consistent with the CTOT.

7.3 Where a flight departs from an aerodrome with an ATSU, the Aircraft Operator or pilot should obtain information, prior to start up from ATS as to whether a CTOT or FLS affects their flight.

7.4 Where a flight departs from an aerodrome without an ATSU, or when the FPL has been filed with the Parent AFTN Unit, it is the Aircraft Operator or pilot's responsibility to determine whether a CTOT or FLS affects their flight. In this case, the Aircraft Operator or pilot should contact the CFMU or FMP before the aircraft departs.

8 Responsibilities of UK Air Traffic Services

8.1 National Air Traffic Services Ltd (NATS) provides a Flow Management Position at the London ACC to liaise between ATC, Aircraft Operators and the FMD.

8.2 ATC have the following responsibilities:

a) ATC is responsible for departure slot monitoring at departure aerodromes. The exact procedures to be followed will depend on the way that ATS is organised at each aerodrome;

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

c) ATC shall ensure that an ATFM slot, if applicable, is included as part of the ATC clearance;

d) ATC shall take account of an applicable slot or flight suspension when a clearance is issued;

e) ATC shall provide all possible assistance to Aircraft Operators to meet a CTOT or to co-ordinate a revised CTOT;

f) ATC may deny start up clearance to flights unable to meet their slots until co-ordination with the FMP/FMD has been effected and a revised CTOT issued.

8.3 ATC is also responsible for monitoring flights compliance with departure slots (CTOTs) issued by the FMD as detailed in the ATFM Handbook. A slot window of -5 to +10 minutes is available to ATC to optimise the departure sequence.

8.4 In accordance with the provision of the Regional Supplementary Procedures, Europe (ICAO Doc 7030), flights which do not adhere to their slot shall be denied start-up clearance. However, ATC shall make all efforts to enable departing flights to comply with the slot. ATC shall liaise with the UK FMP to co-ordinate extensions to CTOTs.

8.5 With the progressive introduction of the CFMU Enhanced Tactical Flow Management System (ETFMS) and Flight Activation Monitoring (FAM), flights that are not notified as being airborne within 30 minutes of the notified ETOT or CTOT will receive a Flight Suspension (FLS) message. If a flight is suspended during the taxiing phase, then ATC is responsible for sending a DLA message. (Further details on ETFMS and FAM can be found at paragraph 11).

8.6 ATC assistance to Aircraft Operators

8.6.1 UK aerodromes may be able to assist Aircraft Operators in message exchange with the CFMU, provided that the pilot is in RTF contact with the TWR and if:

a) it is a maximum of 30 mins prior to current CTOT; and

b) the revision to the CTOT is for no more than 30 minutes.

NOTE 1: The TWR may co-ordinate message action on behalf of the Aircraft Operator or contact the UK FMP.

NOTE 2: Departures from the Jersey Zone should contact either the UK or Brest FMP according to the route of the flight after departure.

8.6.2 If there is no RTF contact with the TWR at CTOT, the Aircraft Operator/Handling Agent will be solely responsible for obtaining a new CTOT.

9 Inbound Flow Management

9.1 In congested terminal areas serving busy airports, holding can often occur at short notice through the need for the tactical integration of arrival traffic flows to achieve optimum airspace and runway utilisation.

9.2 In the United Kingdom, Area Control Centres (ACC) will not issue Expected Approach Times (EAT) to aircraft when the terminal area delay is likely to be less than 20 minutes.

9.3 Where radar sequencing of traffic from the appropriate terminal holding facility is in operation, Approach Control will not normally calculate or issue EATs to aircraft when the delay is expected to be less than 20 minutes.

9.4 If a pilot requests information on the expected delay they will be given a general indication of the delay, eg 'Delay less than 20 minutes', based on the best information available to the controller at that time.

9.5 Additionally, for London Gatwick, London Heathrow and London Stansted arrivals, when London TMA inbound delays are likely to exceed 20 minutes, inbound aircraft will be given a general statement concerning the anticipated delay based on the best information available to the controller at the time. Subsequently, when the aircraft is within 20 minutes of its original ETA for the appropriate terminal holding facility, an EAT will be issued. London ACC will endeavour to frequently update this data to ensure that the information provided to pilots is as accurate as possible. These procedures will remain applicable when ground equipment unserviceability or traffic demand requires the use of an alternative to the main holding facility.

9.6 Operators should consider the carriage of an extra fuel allowance when the flight includes operation in a congested traffic area or where ATC delays are likely.

10 Modification of Estimated Off Block Time (EOBT)

10.1 It is a requirement for both ATC and ATFM that the EOBT of a flight shall be an accurate EOBT. This applies to all flights, whether subject to ATFM or not. Any change to the EOBT of more than 15 minutes (+ or -) for any IFR flight within the CFMU Initial Flight Planning Zone (IFPZ) (see the IFPS Users Manual for details) shall be communicated to IFPS.

10.2 An Aircraft Operator (AO) should not modify the EOBT to a later time simply as a result of an ATFM delay. When an AO submits an amendment message (eg DLA or CHG) to IFPS, they must always give as an EOBT the earliest EOBT they may comply with. This time is not directly related to the CTOT provided in the Slot Allocation Message (SAM) or Slot Revision Message (SRM). The EOBT should always reflect the time the AO wants to be off-blocks. The EOBT should always be changed if the original EOBT established by the AO cannot be met by the AO for reasons other than ATFM delay.

10.3 There are two categories of controlled flights covered by this procedure. Those, that have an ATFM Calculated Take-Off Time (CTOT), issued by the CFMU, and those that do not. AOs should not modify the EOBT simply as a result of an ATFM delay.

10.4 The procedure to be followed to modify the EOBT of a flight that has not received an ATFM CTOT is as follows:

a) To amend the EOBT to a later time, a DLA or CHG message shall be sent to IFPS;

b) To amend the EOBT to an earlier time, a CNL message must be sent to IFPS followed five minutes later by a new flight plan with new EOBT indicated.

NOTE: The replacement flight plan procedure shall not be used.

10.5 The procedure to be followed to modify the EOBT of a flight that has received an ATFM CTOT is as follows:

a) If the EOBT established by the AO has changed or is no longer realistic for reasons other than ATFM then the following procedure shall be used:

i) If a flight has a CTOT that cannot be met, then the AO shall send a DLA message to IFPS with the new EOBT of the flight. This may trigger a revised CTOT;

ii) If a flight has a CTOT with some delay and the AO is aware that the original EOBT cannot be met but the existing CTOT is acceptable, then a message shall be sent to IFPS with the new EOBT of the flight. However, in order not to trigger a new CTOT, the following formula must be used:

Take the current CTOT minus the taxi-time, minus 10 minutes. The new EOBT must not be after this time.

Example: Original EOBT 1000, CTOT 1100, but the flight cannot go off blocks until 1025. The taxi-time is say 15 minutes. 1100 minus 15, minus 10 = 1035. The new EOBT must be earlier than 1035. If it is, then this action will not trigger a revised CTOT.

However, as CFMU systems are continuously seeking to give zero delay, the CTOT of the flight will never be earlier than the new EOBT plus the taxi-time.

b) If a flight has had a CTOT and now receives a Slot Cancellation Message (SLC), but the original EOBT can no longer be met, then the AO shall communicate the new EOBT by use of a DLA message. ATC/ATFM will now have the 'true' EOBT of the flight.

10.6 Some states outside the CFMU area of responsibility still require AOs to update the EOBT, regardless of why the flight's original EOBT may have changed. AOs should bear in mind the formula explained above when doing this. Where it is known that ATC send Departure messages (DEP) for all flights, then this DEP message will suffice.

10.7 It is not possible to amend (via CHG or DLA) the EOBT to an earlier time than the EOBT given in the flight plan. However, if a flight is ready to go off blocks earlier than the current EOBT, then there are two options available:

a) The AOs may ask the local ATC Unit (TWR), or the FMP, to send a Ready (REA) message. In this case, the flight is considered as 'ready to depart' from the filing time of the REA message; or

b) The AOs may contact the Central Flow Help Desk who has the ability to input an earlier EOBT into the TACT system (max - 30 minutes). Each case is treated on its merits and may be refused if it is considered that the request is not justified.

11 CFMU Enhanced Tactical Flow Management System (ETFMS) and Flight Activation Monitoring (FAM)

11.1 The development of the Enhanced Tactical Flow Management System (ETFMS), enables the CFMU to receive live time data on departing flights using Flight Activation Monitoring (FAM). This data is provided by the ATC systems and is derived from ATC radar information and flight plan messaging. There are advantages with improved knowledge of the traffic situation and this further assists ATFM tactical planning. FAM is being progressively introduced across the FMD ATFM area.

11.2 Flight Activation Monitoring:

a) monitors flights which should have departed;

b) takes action on these flights (through internal messaging to CFMU) to update the take-off time in order to improve the forecast of traffic demand;

c) suspends flights after the designated time parameter (30 minutes after CTOT or ETOT), unless a message is received to confirm that the flight is airborne or delayed; and

d) informs AOs and ATC at the departure aerodrome of any flight suspensions enabling these agencies to react accordingly.

11.3 The expected benefits of FAM are:

a) to provide a better forecast of the actual and expected traffic situation;

b) to release slots 'occupied' by flights that have not yet departed;

c) to create an incentive for the AOs to update their flights promptly;

d) to improve traffic load assessment; and

e) to enable a more efficient use of the available and projected airspace capacity.

11.4 ETFMS expects flights to be airborne, based on the filed EOBT or the ATFM slot departure time issued by the CFMU (CTOT). Those flights that are not notified as being airborne through ATC update messages within 30 minutes of the notified ETOT or CTOT time will receive a Flight Suspension (FLS) message from ETFMS and will remain suspended until signal action is taken. The comment '**NOT REPORTED AS AIRBORNE**' will be identified in the text.

11.5 Unless an aircraft is taxiing it is the responsibility of the AO to send a DLA message. If a flight is suspended during the taxiing phase then ATC will be responsible for sending a DLA message.

11.6 A flight is considered to be active in ETFMS (TACT) following reception of any of the following messages:

DEP - Departure Message
FSA - Flight System Activation Message
CPR - Correlated Position Report
APL - ATC Flight Plan
ACH - ATC Flight Plan Change
APR - Aircraft Operator Position Report
ARR - Arrival Message

11.7 Flights that have been suspended by FAM, will receive a FLS message with the comment 'Not reported as airborne'. An example of FLS message sent due to FAM:

- TITLE **FLS**
- ARCID ABC1234
- ADEP LPPR
- ADES LFPG
- EOBD 020514
- EOBT 0500
- COMMENT **NOT REPORTED AS AIRBORNE**
- TAXITIME 0012

11.8 Any changes of EOBT for both regulated and non-regulated flights **must** be notified **only** by means of a DLA/CHG message to IFPS.

11.9 Flight plan originators are reminded that all changes to EOBT of more than 15 minutes must be notified to IFPS. This will become increasingly more important to prevent Flight Suspension (FLS) messages being activated.

11.10 Flight Suspension - Procedures

11.10.1 When the AO and ATC at the aerodrome of departure receive an FLS due to the process, as described earlier, the following cases may occur:

a) The flight is still effectively on the ground either on stand or already taxiing:

i) The AO (aircraft on stand) or ATC (aircraft already taxiing) should ensure that the flight plan is re-initiated by sending a DLA message with a correct EOBT.

ETFMS (TACT) will then respond with a De-Suspension Message (DES) or Slot Revision Message (SRM) depending whether the flight is non-regulated or regulated, respectively.

ii) ATC should not let the aircraft start-up/depart before such a message (DES or SRM) is received.

NOTE: All effort shall be made by ATC to ensure that all flights, regulated or not, comply with their ETOT/CTOTs, taking into account the respective taxiing/ holding/ sequencing requirements. Any exception to permit aircraft to continue for departure, following taxi delays caused by airfield congestion, is not applicable unless the aircraft can depart and be airborne within the time frame ETOT/CTOT+30 minutes.

b) The flight is already flying:

i) No action is needed from the AO or from the Tower of departure. The flight will automatically be de-suspended at the reception of one of the above messages (DEP, CPR, FSA etc).

NOTE: The continuous re-occurrence of the above may mean a lack of proper information sent to CFMU. One possible solution would be a requirement to initiate DEP messages sent by the departure aerodrome but this will be determined by the CFMU through the national flow management office. In the UK this will be the NATS Area Control Service Traffic Management Organisation situated at the London Area Control Centre.

11.11 **Area of Application**

11.11.1 All users will be notified by CFMU/FMD by means of ATFM Information Message (AIM) whenever an area becomes FAM enabled.

11.11.2 The effect of these areas being FAM-enabled means that all flights that are departing from or arriving at these areas will be affected by Flight Activation Monitoring.

11.11.3 For flights departing from these areas and going to any other area, FAM will start at ETOT/CTOT.

11.11.4 For flights departing from non FAM-enabled and landing at aerodromes in FAM-enabled areas, the process will rely on the entry point of the first fully covered CPR-covered area. FLS may be sent to these flights landing inside, although departing outside.

12 ATFM Exemption Procedures

12.1 Since the introduction of the CFMU it has been possible for Flight Plan (FPL) originators to obtain exemptions from ATFM restrictions for certain flights through the use of STS/indicators in FPLs.

12.2 The following principles apply:

a) The insertion of a STS/… indicator in Item 18 of a flight plan will identify that a flight may require special handling. This indicator is for use by all parties that may have to handle the flight;

b) The current list of STS/indicators recognised for ATFM purposes comprises STS/HEAD; STS/SAR; STS/MEDEVAC; STS/FFR; STS/STATE; STS/HUM; STS/HOSP;

c) Additionally, STS/ATFMX may be used if that particular flight has received specific approval from the Office established by the National Administration for processing such requests.

It should be noted that:

i) Only STS/HEAD; STS/SAR; STS/MEDEVAC; STS/FFR; and STS/ATFMX qualify for automatic exemption from ATFM measures;

ii) The indicator STS/ATFMX is only used for ATFM purposes. It Is subject to strict application of the rules of usage and is additional to any other special handling notification that may be required to be shown for ATC purposes as STS/…. in Item 18 of the flight plan.

12.3 Further information on the use of STS/indicators for ATFM purposes may be found in the ATFM Users Manual published by the CFMU.

12.4 **Rules Of Application for the use of STS/ATFMX**

12.4.1 The following Rules of Application shall be applicable to all flights seeking to gain exemption from ATFM measures within the area of responsibility of the CFMU. It is intended to ensure that flights, which by the nature of their mission, cannot under any

circumstances be delayed due to ATFM. It is based on the ICAO SARPS (ICAO EUR DOC 003, ATFM-HB/2) and existing material in the CFMU Handbook.

12.4.2 It should be noted by all users that any flight which obtains exemption, and which may have otherwise been delayed, will have that delay passed on to other flights. It is essential, therefore, that use of the exemption facility shall be properly controlled and monitored so that genuine flight priorities may continue to operate without ATFM delay.

12.4.3 Any flight meeting the criteria established to warrant exemption status may, provided the necessary approval procedure has been followed and the flight duly authorised by the Office established by the National Administration for processing such requests, use STS/ATFMX for that flight and that flight only.

12.4.4 Each flight shall require specific approval to use STS/ATFMX.

12.5 Criteria for Determining the Application of STS/ATFMX for an Individual Flight

12.5.1 STS/HOSP or STS/HUM:

a) The CFMU criteria affords ATFM exemption for flights where the safety of human life is involved. That is, if the flight does not operate without delay a human life or lives may be lost. Such flights shall require specific medical/UNHCR authorisation to support their request.

b) Following consultation with Air Ambulance operators in the UK, the CAA has determined that the term 'safety of human life' is not always easy to define and, indeed, there are other urgent medical flights that also require to operate without delay. Such flights may include patients with threat of loss of limbs, transfer of human organs and the transportation of medical teams. The CFMU has advised that, as a general rule, the National Advisory Committee for Aeronautics (NACA) scale should be used to determine the need for exemption from ATFM measures. Flights that are categorised as NACA V (acute, critical condition) or NACA VI (resuscitation) will always qualify for approval to use STS/ATFMX. Flights that are categorised as NACA IV (possibly life threatening) will not normally be expected to use STS/ATFMX. However, should such a flight receive an ATFM delay that the accompanying medical personnel consider would jeopardise the patient's ability to recover, the CFMU Help Desk should be contacted where every effort will be made to reduce the delay to a minimum. Ultimately it is the responsibility of the medical teams treating the patient to determine the severity of the condition in accordance with the NACA scale as accurately as possible so that only bona fide applications for the use of ATFMX are submitted and the requisite medical evidence will be expected to accompany the application.

c) **Positioning Flights.** The following criteria apply to positioning flights:

- A flight positioning to an aerodrome to collect a patient categorised as NACA V or NACA VI and doing an immediate turnaround with the patient on board qualifies for the approval for the use of ATFMX. The same applies to time-critical transits for the collection of organs for transfer.
- A flight conducting a long positioning sector or sectors that might involve a re-fuelling stop, and where any significant delay could have implications for crew flight time limitations (FTL), will be considered for approval to use STS/ATFMX.
- **Routine positioning flights, e.g. a flight to an aerodrome to collect a patient some time after arrival, do not qualify for the use of STS/ATFMX. In particular flights positioning back to their home base to return to being 'on-call' do not qualify for approval and requests must not be submitted**

for such flights. However, if proof of a subsequent time critical can be produced approval for the use of STS/ATFMX may be considered.

d) If the flight fulfils the requirements, as stated above, then the flight may apply for approval to use STS/ATFMX through the procedure specified in paragraph 12.7.

12.5.2 **STS/STATE:**

a) The CFMU guidelines recommend that ATFM exemption may only be approved for flights if the person or persons on board a flight on State business are of such importance that the flight cannot accept any delay. Additionally, approval may be given if the mission of the flight is being carried out by, or on behalf of, the State and is of such importance that any delay will jeopardise the success of the mission;

b) If the flight fulfils the requirements, as stated above, then the flight may apply for approval to use STS/ATFMX through the procedure specified in paragraph 12.7.

12.6 Flight Priority

12.6.1 It should be noted that the use of STS/ATFMX does not itself afford the flight any additional flight priority status for special handling by ATS. It is the other STS/ indicators that indicate the need for special handling by ATS.

12.6.2 A STS/STATE flight may be afforded appropriate UK ATS handling priority because of the importance of the mission, or the person on board the flight.

12.6.3 The combined use of STS/HOSP with STS/ATFMX will indicate to ATS that the flight is required to operate without delay and so justify exemption from ATFM. Such flights may be afforded additional priority that the traffic situation allows.

12.6.4 Non-urgent flights will continue to use STS/HOSP indicating that special handling is required. Additional information may be included in item 18 of the FPL using RMK/ or the pilot may advise ATS exactly what special handling is required.

12.6.5 However, if any STS/HOSP flight experiences a medical emergency in flight, then the appropriate radiotelephony message(s) should be used to express the urgency of the condition to ATS.

12.6.6 It should be noted that the procedures detailed here are for ATC Flow Management purposes. The table of flight priorities for UK ATC purposes, as detailed in the Manual of Air Traffic Services (MATS) Part 1, is not affected.

12.7 UK Procedure for the Approval of use of STS/ATFMX

12.7.1 The UK has established two processes for the approval of certain qualifying flights to use STS/ATFMX:

a) a **Manual Approval** process applies to AOs who make irregular flights and are able to provide prior notice for approval;

b) a **Self Regulation Approval** process applies to AOs who are regularly engaged in Air Ambulance flights and, by the urgent nature of the flight, may not have sufficient time to undertake the Manual Approval process.

12.8 Manual Approval Process

12.8.1 The operator of a flight seeking an individual approval to insert the indicator STS/ ATFMX in Item 18 of a flight plan, for a flight departing from an aerodrome within the UK, shall obtain prior permission from the relevant authority, when practicable, at least 24 hours and not more than 48 hours in advance of the flight.

12.8.2 The pro-forma as shown at Annex C must be completed and faxed with appropriate supporting documentation.

12.8.3 Application for approval of STS/HOSP, STS/HUM or STS/STATE should normally be made to the Airspace Utilisation Section of the Directorate of Airspace Policy between the hours 0830 - 1630 (local time), Monday to Friday, excluding Public Holidays, as follows:

Tel: +44 (0) 20-7453 6599
Fax: +44 (0) 20-7453 6593
E-mail: ausops@dap.caa.co.uk

12.8.4 Outside the hours notified in paragraph 12.8.3, application for approval for STS/HOSP or STS/HUM only should be made to the UK FMP FLOLINE, as follows:

Tel: +44 (0) 1489 588150
Fax: +44 (0) 1489 612437

12.9 Self Regulation Approval Process

12.9.1 In recognition of the specific requirements of Air Ambulance flights, the CAA has established a process by which an AO can determine whether their own flights meet the requirements for ATFM exemption. Subject to compliance with a set of formal conditions, the CAA may grant AOs an Approval to apply STS/ATFMX to specific flights meeting the conditions of the Approval. In exceptional circumstances such an approval may be granted to non-UK based operators and categories other than Air Ambulance flights for departures from UK aerodromes only.

12.9.2 AOs wishing to apply for CAA Approval for Self Regulation should contact:

Airspace Regulation
Directorate of Airspace Policy
CAA House
45-59 Kingsway
London
WC2B 6TE

Fax: +44 (0) 20 7453 6565
E-mail: airspaceregulation@.caa.co.uk

12.10 Compliance Monitoring

12.10.1 The CFMU provides the CAA with a list of all flights departing the UK using STS/ATFMX, on a monthly basis. The CAA undertakes to verify that all such flights operated with an appropriate approval for ATFM exemption.

12.10.2 With regard to those AOs that have been granted an Approval for Self Regulation, the CAA will, from time to time, conduct an audit of randomly selected flights and will require proof that the flights met the requirements of the CFMU and the conditions of the CAA Approval.

12.10.3 Additionally, the AO will be required to retain, and supply on demand, all appropriate documentation to support the use of STS/ATFMX.

13 Provision of Information on Events Affecting Air Traffic Movements

13.1 ATC providers at all UK airports (including military airfields) are to provide, at the earliest opportunity, but at least fourteen days in advance, details of any event that

may lead to an hourly increase in demand, e.g. football match, trade fair, European Minister meeting, etc.

NOTE: The above activity is in addition to any ATC to ATC co-ordination processes.

13.2 Information required:

a) Name of Airport;

b) Airport contact;

c) ATC contact;

d) Nature of the event;

e) The expected nature of increase in demand.

13.3 Event information is to be sent to:

Email: ATFCMEVENTSPLANNER@NATS.CO.UK
Fax: +44 (0) 1489 612497

13.4 Following the provision of the notice of an event, NATS Traffic Management Operations will assess the impact and co-ordinate any necessary ATFCM response.

Chapter 7 Special Procedures - Carriage of Airborne Collision Avoidance Systems (ACAS) in the United Kingdom FIR and UIR

1 Introduction

1.1 The requirements for the carriage of Airborne Collision Avoidance Systems (ACAS) are contained in Article 39 and Schedule 5 to the Air Navigation Order 2009. The Traffic Alert and Collision Avoidance System (TCAS) II is accepted as a suitable ACAS system provided its installation is certificated by the State of Registry, and that its operation by flight crew is in accordance with instructions for the use of this equipment specified in their company's operations manual.

1.2 With the exception of those circumstances at paragraph 2, all aeroplanes powered by one or more turbine jets or turbine propeller engines and either having a maximum take-off weight exceeding 5700 kg or a maximum approved passenger seating configuration of more than 19 passengers are to be fitted with, and operate, TCAS II software Version 7.1 of ACAS II with a Mode S transponder compliant with Annex 10 Mode S SARPs Amendment 73) within UK Airspace. Use of ACAS in the United Kingdom FIR and UIR is detailed at ENR 1.1.3 General Flight Procedures paragraph 5. This includes operation of aircraft when ACAS II is unserviceable.

2 Exemptions

2.1 A General Exemption from the requirements of Article 39(2) and Schedule 5 Scale (J) to the Air Navigation Order 2009 concerning the carriage of ACAS II in UK airspace has been granted for aeroplanes operating under certain conditions. Two classes of flights are affected:

a) **Delivery Flights**

Aeroplanes newly manufactured within European Civil Aviation Conference (ECAC) member states, which are not fitted with ACAS II. These will be permitted to transit on direct flights only, out of the airspace of ECAC member states to regions where the carriage and operation of ACAS II is not required. ECAC membership consists of the following States:

Albania, Armenia, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine and the United Kingdom.

b) **Maintenance Flights**

Direct flights by aeroplanes, which are not fitted with ACAS II, from outside ECAC member states, for the purpose of maintenance and engineering at facilities located within the ECAC member states.

2.2 Following notification approval of an ACAS II exemption for the flight, the aircraft operator should indicate on the flight plan that the flight is being operated under the provisions of the ACAS II Delivery and Maintenance Flight Exemption provisions, by inserting, in Item 18, the information:

a) 'RMK / Delivery flight - ACAS II exemption approved'; or

b) 'RMK / Maintenance flight - ACAS II exemption approved'.

2.3 Flights operated under the provisions of these exemptions must be non-revenue flights. An ACAS II delivery or maintenance flight exemption is not available for those flights seeking only to transit through the airspace of ECAC member states.

2.4 The following conditions apply:

a) Where agreed Regulations and Procedures exist, these shall be maintained.

b) An ICAO compliant altitude reporting transponder must be fitted and serviceable before departure.

c) An ACAS II exemption approval will be valid for a 3-day period from estimated departure date, and solely for the purpose for which it has been issued. If the flight is subsequently delayed beyond the maximum 3-day exemption period a fresh application must be submitted; this may take a further 3 working days to process.

d) An ACAS II Exemption Letter issued by the ASU, must be carried on-board the aircraft.

e) Conditions may be imposed by one or more ECAC Member States: such as operating within certain restrictive hours, or via specific routes, or at stated flight levels (for safety reasons or otherwise).

f) The flight must be conducted along the most direct (or permissible) route to the delivery or maintenance destination airport.

It must be noted that the onus is on the aircraft operator to ensure compliance with the above conditions and that the exempted flight is in accordance with the operator's originally stated intentions, and that it must comply with any conditions laid down by the ASU and subsequently by the ATC authorities.

2.5 In addition, test flights are to be subject to established national regulations, procedures and authorisation. Carriage of ACAS II equipment will be addressed under the current provisions for avionics equipment required for these flights.

2.6 Operators of aeroplanes intended to be operated under the provisions of these exemptions must apply for an exemption on an individual case-by-case basis, to the EUROCONTROL ACAS Support Unit (ASU) at least 3 working days before a flight is due to depart for or from one of the ECAC States. The ASU, on behalf of all ECAC member states, will then assess, process and notify to the aircraft operator, the ACAS II Delivery or Maintenance flight exemption, co-ordinating as appropriate with the national civil aviation authorities of the ECAC member states through whose airspace the aircraft is planned to fly.

2.7 Applications for an ACAS II exemption under the provisions of this procedure should be made to the ASU, at the following address:

ACAS Support Unit
Tel: +32-2-729-3133/3170/3113
Fax: +32-2-729-3719
SITA: BRUAC7X
E-mail: acas@eurocontrol.int
website: www.eurocontrol.int/acas

2.8 A further General Exemption from the requirements of Article 39(2) and Schedule 5 Scale (J) to the Air Navigation Order 2009 concerning the carriage of ACAS II in UK airspace has been granted for certain turbine-powered historical and ex-military aeroplanes into which it is recognised as being technically unfeasible to incorporate

ACAS II. These may be considered to be those types to which Article 4(1) to Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002 on Common Rules in the field of civil aviation and establishing a European Aviation Safety Agency does not apply, namely those:

a) Aircraft having a clear historical relevance, related to:

i) participation in a noteworthy historic event; or

ii) a major step in the development of aviation; or

iii) a major role played in the armed forces of a Member State;

and meeting one or more of the following criteria:

iv) its initial design is established as being more than 40 years old;

v) its production stopped at least 25 years ago;

vi) fewer than 50 aircraft of the same basic design are still registered in the Member States.

b) Aircraft whose initial design was intended for military purposes only.

2.9 This exemption is automatically invoked by the inclusion of 'RMK / Historic Aircraft - ACAS II exemption approved' in Item 18 of the ICAO Flight Plan Form (CA48). No further exemption application action is required.

2.10 Owners and operators of historical and ex-military aeroplanes intended to be operated under the provisions of this exemption must seek approval for flights through the airspace of other ECAC member states from the appropriate State authorities.

3 TCAS I

TCAS I system licensing policy is described in AIC 37/2006 (Yellow 199).

4 Further Information

Further information and advice concerning the operation and carriage of ACAS equipment in UK airspace can be obtained from:

Manager of Airspace Regulation
Directorate of Airspace Policy
CAA House
45-59 Kingsway
London
WC2B 6TE

Tel: +44 (0) 20 7453 6510
Fax: +44 (0) 20 7453 6565
E-mail: airspaceregulation@caa.co.uk

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Chapter 8 Special Procedures - 8.33 kHz Channel Spacing in the VHF Radio Communications Band

1 Introduction

1.1 As required by ICAO Regional Supplementary Procedures Doc 7030/5 EUR/RAC-4 and further to the delayed decision agreed by Eurocontrol ACG (23 July 1998), the carriage and operation of 8.33 kHz channel spacing radio equipment is mandatory throughout the ICAO EUR Region for flights above FL 245.

1.2 Non-equipped flights which are flight planned to enter any FIR/UIR in the EUR Region where no exemptions have been published, except for those applicable to UHF equipped State flights (refer to the AIP/Supplement of the State covering the FIR/UIR concerned), must flight plan to operate below FL 245 throughout the entire EUR Region.

2 8.33 kHz Exemptions

2.1 At the present time, with the exception of State aircraft, there are no exemptions.

2.2 It is anticipated that with effect from May 2007, aircraft that have been approved to operate as exempted from the requirements of carriage and operation of 8.33 kHz channel spacing radio equipment will be required to indicate STS/EXM833 in Item 18 of the FPL.

3 State Aircraft

3.1 Those State aircraft which are infrequent users of the FIR/UIR are permanently exempted from the above carriage requirements, provided that they are able to communicate on UHF, where available. Where UHF is not available, State (Military) aircraft not equipped with 8.33 kHz channel spacing equipment shall be excluded from 8.33 kHz Airspace.

3.2 Provision for State aircraft exempted from the carriage of 8.33 kHz channel spaced communications equipment will be made on a tactical basis through the provision of an alternative UHF channel, the details of which will be given at time of use.

4 Use of GPS for North Sea Operations

UK AOC Holders intending to use GPS for en-route navigation for North Sea flight operations are to use GPS equipment that meets or exceeds CAA Specification 22. AOC holders requiring further information should contact their assigned flight operations Inspector. Non UK AOC holders are recommended to operate to at least the CAA Specification 22 standard.

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Chapter 9 Special Procedures - Shanwick Oceanic Control Area (North Atlantic Region – NAT)

1 Flight Planning

1.1 Pilots are encouraged to flight plan on published NAT tracks, when appropriate, although it is not mandatory to do so (see UK AIP ENR 2-2-4-2, paragraph 5).

1.2 Pilots and operators are advised that Shanwick is now within the IFPS area and therefore Shanwick's address (EGGXZOZX) does not have to be included as an additional address for all flights which will enter Shanwick OCA.

1.3 For flights conducted along one of the organised tracks from the entry point into the NAT Flight Information Regions to the exit point, the organised track shall be defined in the flight plan by the abbreviation 'NAT' followed by the code letter assigned to the track. For flights wishing to join or leave an organised track at some point between entry and exit fixes, full track details should be specified in the flight plan, the track letter should not be used to abbreviate any portion of the route in these circumstances.

1.4 Flights planned wholly or partly outside the organised tracks shall be planned along great circle tracks joining successive significant points. The latitude and longitude of each designated reporting line (e.g. 010W, 020W, 030W, 040W, 050W, 060W, Fishpoint and landfall), should be entered in Item 15 of the flight plan.

1.5 Operators planning random routes that transit the Northern Oceanic Transition Area (NOTA) are required to include NOTA entry/exit points in their flight plan.

Example: a) MIMKU/M084F370 BILTO 57N020W ….
b) 56N020W ETARI MASIT/N0485F380…..

NOTE: Organised tracks that transit the NOTA will include NOTA entry/exit points as part of the Track definition.

2 Estimated Times

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

2.2 For flights conducted along one of the organised tracks from the entry point into the NAT FIR to the exit point, the accumulated estimated elapsed time to the first Oceanic FIR Boundary should be specified in Item 18 of the flight plan.

2.3 For flights entering Shanwick OCA directly from the Shannon Oceanic Transition Area (SOTA), the Estimated Elapsed Time (EET) for the Shanwick Boundary filed in Item 18 of the flight plan is to be the EET for the point of crossing the Shanwick/SOTA Boundary (DINIM/RODEL/SOMAX/KOGAD OR BEDRA).

2.4 For flights entering Shanwick OCA directly from the BOTA, the EET for the Shanwick Boundary filed in Item 18 of the flight plan is to be the EET for the point of crossing the Shanwick/BOTA Boundary (ETIKI/SEPAL or SIVIR).

2.5 For flights exiting Shanwick OCA directly to the SOTA, the EET for the Shannon Boundary filed in Item 18 of the flight plan is to be the EET for the point of crossing the Shanwick/SOTA Boundary (DINIM/RODEL/SOMAX/KOGAD OR BEDRA).

2.6 For flights exiting Shanwick OCA directly to the Brest Oceanic Transition Area (BOTA), the EET for the Brest Boundary filed in Item 18 of the flight plan is to be the EET for the point of crossing the Shanwick/BOTA Boundary (ETIKI/SEPAL or SIVIR).

3 Designated Reporting Lines within Shanwick OCA

The designated reporting lines within the Shanwick OCA are:

a) **For flights Europe - North America**
Eastern boundary of the OCA, and longitudes 02000W and 03000W;

b) **For flights Europe - Iceland**
01000W and latitude 6100N (RATSU);

c) **For flights Europe - Azores**
00845W and latitude 4500N.

4 North Atlantic European Routing System (NERS)

4.1 The North Atlantic European Routeing System (NERS) objectives are as follows:

a) to provide an organised air traffic interface between the NAT oceanic and EUR domestic airspace;

b) to organise the fluctuating and reversing traffic flows in the most efficient manner possible, consistent with the needs of the aircraft operators (AOs) and air traffic services;

c) to expedite flight planning and eventually, once systems have been adapted to cope;

d) to reduce the complexity of route clearances and thereby minimise the confusion and error potential inherent in lengthy transmissions and feedback; and

e) to minimise the time spent in the route clearance delivery function.

4.2 NERS is designed to accommodate airports in Europe where the volume of NAT traffic and route complexity dictate specific route management. It is for the use of traffic exiting the NAT region and consists of a series of pre-planned routes from Oceanic Entry/Exit Points (OEPs) to one of twelve NERS 'system airports' which are as follows:

EBBR	EDDM	EGLL	LIRF
EDDF	EGCC	EHAM	LIMC
EDDL	EGKK	LFPG	LSZH

4.3 For further information see UK AIP ENR 2.2 'Procedures - Eastbound North Atlantic European Routing System'.

5 MACH Numbers

5.1 Jet aircraft intending to operate in the Shanwick OCA must indicate the MACH number planned to be used for any portion of the flight within the area in Item 15 of the flight plan.

5.1.1 Jet aircraft should indicate their proposed speeds in the following sequence:

a) Cruising speed (TAS) in knots;

b) Oceanic Entry Point and cruising MACH number;

c) Landfall Fix and cruising speed (TAS) in knots.

5.2 All other aircraft should indicate their proposed speed in terms of TAS in knots.

6 Minimum Navigation Performance Specification (MNPS)

6.1 If the flight is certified as being in compliance with Minimum Navigation Performance Specification (MNPS) and intends to operate in MNPS airspace, for any portion of the flight, the letter 'X' shall be inserted after the letter 'S' in Item 10 of the flight plan to indicate that the flight has been approved for operations within the Minimum Navigation Performance Specification Airspace (MNPSA). It is the Captain's responsibility to ensure that specific approval has been given for such operations by the State of Registry of either the aircraft or of the operator. See UK AIP ENR 2-2-4-15, paragraph 18 (Application of MNPS in Shanwick OCA).

6.2 The submission of a Flight Plan alone does **NOT** constitute NAT MNPS operating approval. Pilots/Operators unable to provide such confirmation will be issued an Oceanic Clearance to operate outside MNPSA (below FL 285 or above FL 420). Details of the flight will be passed to the NAT Central Monitoring Agency (CMA) for follow-up action by the relevant State Aviation Authority.

7 Reduced Vertical Separation Minima (RVSM)

If the flight is certified as being in compliance with the Minimum Aircraft System Performance Specification (MASPS) and intends to operate in RVSM Airspace for any portion of the flight, the letter 'W' shall be inserted after the letter(s) 'S' and 'X' (if applicable) in item 10 of the flight plan to indicate that the flight has been approved for operations within RVSM Airspace. It is the Captain's responsibility to ensure that specific approval has been given for such operations by the State of registry of either the aircraft or the operator. See UK AIP ENR 2-2-4-17, paragraph 18.2 (Application of RVSM in Shanwick OCA).

8 Flight Level Allocation Scheme (FLAS)

8.1 Operators should use the Flight Level Allocation Scheme (FLAS) for flight planning guidance.

FL 430	May be flight planned for both eastbound and westbound non-RVSM certified aircraft.
FL 410	Eastbound FL.
FL 320, 340, 360, 380, 400	Westbound FL (except within Eastbound OTS).
FL 310, 330, 350, 370, 390	Eastbound FL (except within Westbound OTS).
FL 300 and below	Even FLs westbound. Odd FLs eastbound.

Table 5 Flight Level allocations under FLAS

8.2 To accommodate significant single direction demand during OTS times, OACCs may exchange Flight Levels on a tactical basis. This allows additional profiles for main direction flow.

8.3 During OTS times, aircraft intending to use the OTS may flight plan levels which are allocated to the published OTS.

Additionally, to accommodate demand:

During the eastbound OTS, eastbound non-OTS aircraft may flight plan at FL 360 or FL 380.

During the westbound OTS, westbound non-OTS aircraft may flight plan at FL 310 or FL 330.

8.4 Unless suitable eastbound Tracks exist, during the eastbound OTS times, eastbound traffic originating in New York OACC, planned to enter Shanwick OACC, is recommended to flight plan as follows:

a) FL 310 or FL 360 and restrict routeing to landfall BEDRA or south.

b) FL 340 or FL 380, and restrict routeing to landfall either: BEDRA or south, or to remain south of the OTS, whichever is further south.

8.5 During the westbound OTS, random westbound aircraft, flight planned to enter Shanwick via Scottish airspace and routeing at, or north of, PRAWN should not flight plan at FL 340. FL 340 is reserved for flights routeing between Reykjavik OACC and Gander OACC.

8.6 For aircraft opposing the main flows during OTS periods, operators should flight plan optimum levels, in accordance with the direction of flight. ATC will endeavour to accommodate any requested levels, however priority will be given to main flow traffic.

8.7 If a flight is expected to be level critical, Operators should contact the initial OACC prior to filing the flight plan to determine the likely availability of such level(s).

8.8 Request for a suitable alternative flight level may be included in Item 18 of the flight plan.

8.9 Flight plans for flights departing from points within adjacent regions and entering the NAT Region, without intermediate stops, should be submitted at least 3 hours prior to EOBT. For addressing of flight plan messages see UK AIP ENR 1.11.

8.10 Flight plans for flights through SOTA Airspace by aircraft not equipped with VHF RTF are to be annotated, in Item 18, COM/UHF only.

9 Air Traffic Services Messages

9.1 Filed flight plan messages for flights intending to operate within the Shanwick OCA, at a distance of 60 nm or less from the northern or southern boundaries of the Shanwick OCA, shall be addressed to the controlling authority for the adjacent OCA in addition to Shanwick.

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

9.3 Though co-located, Prestwick OACC and Scottish ACC (Scottish Control) operate as separate Units. Flight plans for flights intending to enter Shanwick OCA from the Scottish FIR/UIR should be addressed to both Shanwick and Scottish Control.

Chapter 10 Special Procedures - Implementation of Reduced Vertical Separation Minimum (RVSM)

1 Introduction

1.1 Reduced Vertical Separation Minimum (RVSM) operations have been mandated in the upper airspace (between FL 290 and FL 410) of the United Kingdom, other European Civil Aviation Conference (ECAC) member states and some adjacent states (referred to as EUR RVSM airspace). A list of the States participating in the European RVSM Programme, is contained in Annexe D.

IMPORTANT NOTE: Except where EUR RVSM States have made specific arrangements for RVSM airspace penetration by non-RVSM approved civil aircraft, such aircraft are not permitted in EUR RVSM airspace - see National AIPs for details.

1.2 The requirements for European RVSM are published in the ICAO document 'European Regional Supplementary Procedures - Fifth Edition (Doc 7030/5 - EUR)' and detailed information on the ATS routes, associated flight level allocation and RVSM entry/exit points in the London and Scottish UIRs are published in the UK AIP.

2 European RVSM Flight Planning Requirements - General

2.1 Flights are to be conducted in accordance with Instrument Flight Rules (IFR) when operated within or above the EUR RVSM airspace.

2.2 Except for operations within the EUR RVSM transition airspace, and within airspace designated for the purpose of transitioning non-RVSM approved aircraft operating to and from the North Atlantic Region, only RVSM approved aircraft and non-RVSM approved State aircraft shall be issued with an ATC clearance into the EUR RVSM airspace.

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

2.4 Operators shall ensure that any change to the RVSM approval status of a flight resulting from a change of aircraft or flight crew is addressed to the EUROCONTROL CFMU IFPS in the form of a modification (CHG) or a cancellation (CNL) message, as appropriate.

2.5 All operators filing Repetitive Flight Plans (RPLs) shall include in Item Q of the repetitive flight plan all equipment and capability information in conformity with Item 10 of the ICAO flight plan form.

NOTE: It is essential that RPL files, New Lists (NLST) and Revised Lists (RLST) are co-ordinated in time to allow processing by the EUROCONTROL CFMU IFPS and all ATS units within EUR RVSM airspace located outside the CFMU IFPS Zone.

2.6 Operators shall ensure that flight plans for aircraft intending to operate within EUR RVSM airspace from FIRs/UIRs located outside the CFMU IFPS Zone are also addressed to **all** appropriate ATS units concerned with the provision of Air Traffic Services to that aircraft. The flight plans for these aircraft shall be completed in accordance with the flight planning requirements for EUR RVSM, as described in this

paragraph. Operators shall also ensure that any change to the RVSM approval status of a flight due to a change of aircraft or flight crew is addressed to all appropriate ATS units outside the CFMU IFPS Zone in the form of a modification (CHG) or a cancellation (CNL) message as applicable.

NOTE 1: In order to ensure operational consistency between the flight plan data distributed within the IFPS Zone and flight plan data distributed outside, it is strongly recommended to use the IFPS Re-addressing function. Details on the IFPS Re-addressing function can be found in the IFPS Users Manual that is available on the CFMU web site (www.cfmu.eurocontrol.int).

NOTE 2: The EUR RVSM airspace is not coincident with the CFMU IFPS Zone. Full IFPS checking and flight plan distribution will therefore not be applied within the FIRs/UIRs of those states located outside the CFMU IFPS Zone. However, RVSM entry/exit conditions and EUR RVSM airspace penetration will be checked for the entire EUR RVSM airspace (See Tables 6 to 9 in this Chapter).

3 Modifications to the Eurocontrol CFMU IFPS for RVSM

The CFMU IFPS may invalidate a flight plan that does not comply with the flight planning requirements for European RVSM. ERROR messages will be inserted in REJECT (REJ) Operational Reply Messages and also within Item 18 of the ICAO flight plan form as applicable, for flight plans that do not comply with the flight planning requirements for European RVSM (See Table 10.1 and 10.2 in this Chapter).

4 Definitions and Descriptions

European (EUR) RVSM Airspace

RVSM is applicable in that volume of airspace between flight levels 290 and 410 inclusive in all or part of the following Flight Information Regions (FIRs)/Upper Flight Information Regions (UIRs):
Alger – Amman – Amsterdam – Ankara – Arkhangelsk – Baku – Barcelona – Beirut – Beograd – Berlin – Bodo – Bratislava – Brindisi – Bruxelles – Bucuresti – Budapest – Cairo – Casablanca – Chisinau – Damascus – France – Hannover – Hellas – Istanbul – Kaliningrad – Kazan – Kharkiv – Kirov – Kobenhavn – Kotlas – Kyiv – Lisboa – Ljubl–jana – London – L'viv – Madrid – Malta – Milano – Minsk – Moscow – Murmansk – Murmansk Oceanic – Naryan–Mar – Nicosia – Novosibirsk – Odesa – Oslo – Penza – Perm – Petrozavodsk – Praha – Rhein – Riga – Roma – Rostov – Rovaniemi – Samara – Sankt Peterburg – Saratov – Sarajevo – Scottish – Shannon – Simferopol – Skopje – Sofia – Stavanger – Sweden – Switzerland – Syktyvkar – Tallinn – Tampere – Tbilisi – Tel–Aviv – Tirana – Tripoli – Trondheim – Tunis – Ufa – Varna – Velikiye Luki – Vilnius – Vologda – Vorkuta – Warszawa – Wien – Yekaterinburg – Yerevan – Zagreb

EUR RVSM Transition Airspace

Transition tasks associated with the application of a 300 m (1000 ft) vertical separation minimum within the EUR RVSM airspace shall be carried out in all, or parts of, the following FIRs/UIRs:
Ankara – Baku – Finland – Kharkiv – Kyiv – Minsk – Nicosia – Riga – Rostov – Simferopol – Tallin – Tbilisi

EUR/North Atlantic (NAT) Interface

In addition to the European RVSM transition airspace, the State authorities responsible for the following FIRs may establish designated airspace within their FIRs for the purpose of transitioning non-RVSM approved aircraft operating to/from the NAT region:
Bodo (Domestic) – Brest – Lisboa – London – Madrid – Scottish - Shannon – Stavanger – Trondheim

General Air Traffic (GAT)

All flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation.

GPS Monitoring Units (GMUs)

The GMU is a portable carry-on recording system. Using antennae fitted to the rear flight deck windows using suction pads, it can receive and record the GPS data which, together with ground station differential corrections provides accurate 3D aircraft positions.
The GMU is totally self-contained and does not need to be connected to any aircraft systems. The system installation and subsequent removal can be accomplished during a normal turn round period.

Ground Based Height Monitoring Units (HMUs)

The HMU is a passive ground based system which measures aircraft height keeping over an approximately circular area. Each system consists of a set of ground stations arranged as a central site with four additional receivers arranged in a square. Each site receives aircraft SSR replies (Modes A, C and S) from which the 3D position of the aircraft is derived. Using meteorological information and the Mode C/S height data the altimetry system error is calculated. The HMUs are operating at the following locations:

a) Linz in Austria (centre 4812N 01418E);
b) Nattenheim in Germany (centre 4957N 00628E);
c) Geneva in Switzerland (centre 4622N 00556E); and
d) Strumble in Wales (centre 5156N 00440W).

Integrated Initial Flight Plan Processing System (IFPS) Zone

The objective of the EUROCONTROL Central Flow Management Unit (CFMU) Integrated Initial Flight Plan Processing System (IFPS) is to rationalise the reception, initial processing and distribution of Instrument Flight Rules (IFR)/General Air Traffic (GAT) flight plan data within the area covered by the participating States known as the IFPS Zone (IFPZ). The EUROCONTROL CFMU IFPS Zone covers the FIRs/UIRs within the EUR RVSM Airspace with the exception of the following:
Casablanca - Kaliningrad - Minsk - Riga - Sarajevo - Tallinn - Tunis - Vilnius

Reduced Vertical Separation Minimum (RVSM)

A vertical separation minimum of 300 m (1000 ft), which is, applied between flight levels 290 and 410 inclusive, on the basis of regional air navigation agreements and in accordance with conditions specified therein.

RVSM Approval The approval that is issued by the appropriate authority of the State in which the Operator is based, or of the State in which the aircraft is registered. To obtain such RVSM approval operators shall satisfy the said State that:

a) aircraft for which the RVSM approval is sought have the vertical navigation performance capability required for RVSM operations through compliance with the criteria of the RVSM Minimum Aircraft Systems Performance Specifications (MASPS);
b) they have instituted procedures in respect of continued airworthiness (maintenance and repair) practices and programmes; and
c) they have instituted flight crew procedures for operations in the EUR RVSM airspace.

RVSM Approved Aircraft Aircraft that have received State approval for RVSM operations within the EUR RVSM airspace.

RVSM Entry Point The first reporting point over which an aircraft passes or is expected to pass immediately before, upon or immediately after initial entry into EUR RVSM airspace, normally the first reference point for applying a 300 m (1000 ft) vertical separation minimum between RVSM approved aircraft.

RVSM Exit Point The last reporting point over which an aircraft passes or is expected to pass immediately before, upon or immediately after leaving EUR RVSM airspace, normally the last reference point for applying a 300 m (1000 ft) vertical separation minimum between RVSM approved aircraft.

State Aircraft For the purposes of EUR RVSM, only aircraft used in military, customs or police services shall qualify as State aircraft.

The following flight planning requirements apply to operators of RVSM approved civil aircraft intending to conduct flights within the European RVSM Airspace:

Table 6 Flight Planning Requirements for RVSM Approved Civil Aircraft

RVSM Approved Civil Aircraft	**Flight Planning Requirements for European RVSM**
Operators of RVSM approved civil aircraft.	Insert the letter **W** in **Item 10** of the ICAO flight plan form, regardless of the requested flight level.
Operators of RVSM approved civil aircraft filing repetitive flight plans.	Insert the letter **W** in **Item Q** of the repetitive flight plan (or in line 4 of the IFPS repetitive flight plan format) within the EQPT/ element, regardless of the requested flight level. If a change of crew or aircraft operated in accordance with the repetitive flight plan results in a modification of the RVSM approval status as stated in Item Q, a modification message (CHG) shall be submitted by the operator. **NOTE:** In all cases, if a CHG message would result in changes to the filed or repetitive flight plan that constitute a reason for rejection of that flight plan, the CHG message will be rejected by the CFMU IFPS. It is therefore essential to indicate all the modifications that are required in order to reproduce a valid flight plan.
Operators of RVSM approved civil aircraft intending to operate within the EUR RVSM Airspace.	Insert the following in **Item 15** of the ICAO flight plan form: • the entry point at the lateral limits of the EUR RVSM Airspace and the requested flight level for that portion of the route commencing immediately after the RVSM entry point; and • the exit point at the lateral limits of the EUR RVSM Airspace and the requested flight level for that portion of the route commencing immediately after the RVSM exit point.
NOTE: For flights whose planned trajectory indicates that they will be established in the descent phase at the RVSM entry/exit point to an adjacent destination aerodrome the following conditions in Item 15 shall apply: a) The RVSM entry/exit point shall be included and, where appropriate, the co-located STAR; b) There is no requirement to indicate a Requested Flight Level (RFL) or speed associated with the RVSM entry/exit point.	

The following flight planning requirements apply to operators of non-RVSM approved civil aircraft:

Table 7 Flight Planning Requirements for Non-RVSM Approved Civil Aircraft

Flight Planning Requirements For European RVSM Airspace Non-RVSM Approved Civil Aircraft		
	Destination Aerodrome within the lateral limits of European RVSM Airspace	**Destination Aerodrome outside the lateral limits of European RVSM Airspace**
Departure aerodrome within the lateral limits of European RVSM Airspace	In **Item 15** of the ICAO flight plan form insert a requested flight level below FL 290.	In **Item 15** of the ICAO flight plan form insert: a requested flight level below FL 290 for that portion of the route within the lateral limits of the EUR RVSM airspace; and the exit point at the lateral limits of the EUR RVSM airspace and the requested flight level for that portion of the route commencing immediately after the exit point.
Departure aerodrome Outside the lateral limits of European RVSM Airspace	In **Item 15** of the ICAO flight plan form insert: • the entry point at the lateral limits of the EUR RVSM Airspace; and • a requested flight level below FL 290 for that portion of the route commencing immediately after the entry point.	In **Item 15** of the ICAO flight plan form insert: • the entry point at the lateral limits of the EUR RVSM airspace and a requested flight level below FL 290 or above FL 410 for that portion of the route commencing immediately after the entry point; and • the exit point at the lateral limits of the EUR RVSM airspace and the requested flight level for that portion of the route commencing immediately after the exit point.
NOTE: For flights whose planned trajectory indicates that they will be established in the descent phase at the RVSM entry/exit point to an adjacent destination aerodrome the following conditions in Item 15 shall apply: a) The RVSM entry/exit point shall be included and, where appropriate, the co-located STAR; b) There is no requirement to indicate a Requested Flight Level (RFL) or speed associated with the RVSM entry/exit point.		

Except for operations within the EUR RVSM transition airspace and within airspace at the European/North Atlantic interface designated for transitioning non-RVSM approved civil aircraft operating to and from the NAT Region, operators of non-RVSM approved civil aircraft shall FPL to operate outside the EUR RVSM Airspace.

The following flight planning requirements will apply to operators of RVSM approved State aircraft intending to conduct flights within the European RVSM Airspace:

Table 8 Flight Planning Requirements for RVSM Approved State Aircraft

RVSM Approved State Aircraft	**Flight Planning Requirements for European RVSM**
In addition to military operations, operators of customs or police aircraft.	Insert the letter **M** in **Item 8** of the ICAO flight plan form.
Operators of RVSM approved State aircraft (except for formation flights of State aircraft).	Insert the letter **W** in **Item 10** of the ICAO flight plan form, regardless of the requested flight level.
Operators of formation flights of State aircraft.	**Do not** insert the letter **W** in **Item 10** of the ICAO flight plan form, regardless of the RVSM approval status of the aircraft concerned.
Operators of formation flights of State aircraft intending to operate within the EUR RVSM Airspace as General Air Traffic (GAT).	Insert **RMK/NONRVSM** in **Item 18** of the ICAO flight plan form, regardless of the RVSM approval status of the aircraft concerned.
Operators of RVSM approved State aircraft intending to operate within the EUR RVSM Airspace.	Insert the following in **Item 15** of the ICAO flight plan form: the entry point at the lateral limits of the EUR RVSM Airspace and the requested flight level for that portion of the route commencing immediately after the RVSM entry point; and the exit point at the lateral limits of the EUR RVSM Airspace and the requested flight level for that portion of the route commencing immediately after the RVSM exit point.
For flights whose planned trajectory indicates that they will be established in the descent phase at the RVSM entry/exit point to an adjacent destination aerodrome the following conditions in Item 15 shall apply: The RVSM entry/exit point shall be included and, where appropriate, the co-located STAR; There is no requirement to indicate a Requested Flight Level (RFL) or speed associated with the RVSM entry/exit point.	

The following flight planning requirements apply to operators of non-RVSM approved State aircraft intending to conduct flights within the European RVSM Airspace:

Table 9 Flight Planning Requirements for Non-RVSM Approved State Aircraft

Non-RVSM Approved State Aircraft	**Flight Planning Requirements for European RVSM**
In addition to military operations, operators of customs or police aircraft.	Insert the letter **M** in **Item 8** of the ICAO flight plan form.
Operators of non-RVSM approved State aircraft **shall not** insert the letter **W** in **Item 10** of the ICAO flight plan form.	
Operators of non-RVSM approved State aircraft with a requested flight level of FL 290 or above.	Insert **RMK/NONRVSM** in **Item 18** of the ICAO flight plan form.
Operators of formation flights of State aircraft.	**Do not** insert the letter **W** in **Item 10** of the ICAO flight plan form, regardless of the RVSM approval status of the aircraft concerned.
Operators of formation flights of State aircraft intending to operate within the EUR RVSM Airspace as General Air Traffic (GAT).	Insert **RMK/NONRVSM** in **Item 18** of the ICAO flight plan form.
Operators of non-RVSM approved State aircraft intending to operate within the EUR RVSM Airspace.	Insert the following in **Item 15** of the ICAO flight plan form: the entry point at the lateral limits of the EUR RVSM Airspace and the requested flight level for that portion of the route commencing immediately after the RVSM entry point; and the exit point at the lateral limits of the EUR RVSM Airspace and the requested flight level for that portion of the route commencing immediately after the RVSM exit point.
For flights whose planned trajectory indicates that they will be established in the descent phase at the RVSM entry/exit point to an adjacent destination aerodrome the following conditions in Item 15 shall apply: The RVSM entry/exit point shall be included and, where appropriate, the co-located STAR; There is no requirement to indicate a Requested Flight Level (RFL) or speed associated with the RVSM entry/exit point.	

The following EUROCONTROL CFMU IFPS output messages will be generated following the implementation of EUR RVSM when potential violations of the associated flight planning requirements are detected.

Table 10.1 Eurocontrol CFMU IFPS 'Error' Output Messages Related to RVSM

Filed Flight Plan (FPL) for Operations in the EUR RVSM Airspace	**IFPS 'Error' in 'REJ' Operational Reply Messages**
A non-RVSM approved civil aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace.	**NON RVSM APPROVED FLIGHT WITHIN EUR RVSM AIRSPACE** (as non-RVSM approved civil aircraft shall flight plan to operate outside the EUR RVSM Airspace except for operations within the EUR RVSM transition airspace).
A non-RVSM approved civil aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and which has inserted the RMK/NONRVSM indicator in Item 18.	**NON-RVSM APPROVED FLIGHT WITHIN EUR RVSM AIRSPACE AND RMK/NONRVSM IS NOT EXPECTED FOR A CIVIL AIRCRAFT** (as non-RVSM approved civil aircraft are not allowed to operate in the EUR RVSM Airspace and therefore an indication to ATS units for Special Handling is not applicable to non-RVSM approved civil aircraft).
A non-RVSM approved State aircraft with a requested flight level between FL 290 and FL 410 (inclusive) and no RMK/NONRVSM indicator in Item 18.	**STS/NONRVSM IS REQUIRED FOR NON-RVSM APPROVED STATE FLIGHT** (as non-RVSM approved State aircraft penetrating EUR RVSM airspace shall insert RMK/NONRVSM in Item 18 to indicate to ATS units the reason for Special Handling).
A formation flight of State aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and indicating a combination other than no W in Item 10 and RMK/NONRVSM in Item 18.	**ITEMS 10 AND/OR 18 INCORRECT FOR STATE FORMATION FLIGHT IN EUR RVSM AIRSPACE** (as formation flights of State aircraft will not be considered as RVSM approved regardless of the RVSM capability of the aircraft in the formation).
An RVSM approved aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and with an Aerodrome of Departure and/or Aerodrome of Destination outside the EUR RVSM airspace and which has failed to indicate the entry/exit conditions into/from the EUR RVSM airspace.	**INVALID EUR RVSM AIRSPACE ENTRY/EXIT CONDITION** (as flights intending to operate in EUR RVSM Airspace shall specify in Item 15 of the filed flight plan: the entry point at the lateral limits of EUR RVSM Airspace; and the exit point at the lateral limits of EUR RVSM Airspace, as designated in the AIP of the State concerned).

Table 10.1 (Continued)

Filed Flight Plan (FPL) for Operations in the EUR RVSM Airspace	**IFPS 'Error' in 'REJ' Operational Reply Messages**
An RVSM approved aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and with an Aerodrome of Departure and/or Aerodrome of Destination outside the EUR RVSM airspace, which has indicated the entry/exit conditions into/from the EUR RVSM Airspace but has requested an invalid flight level. Except in the case of a flight whose planned trajectory indicates that they will be established in the descent phase at the RVSM entry/exit point to an adjacent Aerodrome of Destination.	**INVALID RFL AT EUR RVSM AIRSPACE ENTRY/ EXIT** (as flights intending to operate in the EUR RVSM Airspace shall specify in Item 15 of the filed flight plan: the requested flight level for that portion of the route immediately after the RVSM entry point; and the requested flight level for that portion of the route immediately after the RVSM exit point, as designated in the AIP of the State concerned).
An RVSM approved aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and with an Aerodrome of Departure and/or Aerodrome of Destination outside the EUR RVSM airspace, which has indicated the entry/exit conditions into/from the EUR RVSM Airspace but has requested an invalid flight level. **NOTE:** Except in the case of a flight whose planned trajectory indicates that they will be established in the descent phase at the RVSM entry/ exit point to an adjacent Aerodrome of Destination.	**INVALID RFL AT EUR RVSM AIRSPACE ENTRY/ EXIT** (as flights intending to operate in the EUR RVSM Airspace shall specify in Item 15 of the filed flight plan: • the requested flight level for that portion of the route immediately after the RVSM entry point; and • the requested flight level for that portion of the route immediately after the RVSM exit point, as designated in the AIP of the State concerned).
An aircraft which has indicated a VFR portion of the route within or above the EUR RVSM airspace.	**VFR NOT PERMITTED IN OR ABOVE EUR RVSM AIRSPACE** (as flights shall be conducted in accordance with the IFR within and above the EUR RVSM airspace).
A formation flight of civil aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace.	**CIVIL FORMATION FLIGHT NOT PERMITTED IN EUR RVSM AIRSPACE** (as formation flights of civil aircraft are not permitted to operate in EUR RVSM airspace).

Table 10.1 (Continued)

Filed Flight Plan (FPL) for Operations in the EUR RVSM Airspace	**IFPS 'Error' in 'REJ' Operational Reply Messages**
An aircraft which has indicated W in Item 10, RMK/NONRVSM in Item 18 and a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace.	**RMK/NONRVSM IS NOT EXPECTED FOR AN RVSM APPROVED FLIGHT WITHIN EUR RVSM AIRSPACE** (as the indication of Special Handling to ATS units is not required for RVSM approved flights).

The following EUROCONTROL CFMU IFPS output messages will be generated following the implementation of EUR RVSM when potential violations of the associated flight planning requirements are detected.

Table 10.2 Eurocontrol CFMU IFPS Output Messages Related to RVSM

Filed Flight Plan (FPL) for Operation in the EUR RVSM Airspace	**IFPS 'Warning' Messages**
Aerodrome of Departure is located outside the CFMU IFPS Zone.	The IFPS may, in some circumstances, force acceptance of the flight plan. In such cases, the following text will be inserted in the COMMENT field of the ACKNOWLEDGEMENT (ACK) message: **THIS FLIGHT PLAN DOES NOT COMPLY WITH EUR RVSM REQUIREMENTS**
Aerodrome of Departure is located outside the **CFMU IFPS Zone**, and the flight plan cannot be corrected in co-ordination with the originator in one of the following cases: • A non-RVSM approved civil aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace. • A non-RVSM approved civil aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and which has inserted the RMK/NONRVSM indicator in Item 18. • A non-RVSM approved State aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and no RMK/NONRVSM indicator in Item 18.	The following **IFP/** indicator shall be inserted in Item 18 of the output flight plan (FPL) message distributed to ATS units: **IFP/NONRVSM** and in the COMMENT field of the ACK message: **THIS FLIGHT PLAN DOES NOT COMPLY WITH EUR RVSM REQUIREMENTS**

Table 10.2 (Continued)

Filed Flight Plan (FPL) for Operation in the EUR RVSM Airspace	IFPS 'Warning' Messages
Aerodrome of Departure is located outside the CFMU IFPS Zone, and the flight plan cannot be corrected in co-ordination with the originator in one of the following cases: • A formation flight of State aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace that indicates any combination other than **RMK/NONRVSM** in Item 18 and no **W** in Item 10. • An RVSM approved aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and with an Aerodrome of Departure and/or Aerodrome of Destination outside the EUR RVSM airspace and which has failed to indicate the entry/exit conditions into/from the EUR RVSM airspace. • An RVSM approved aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace and with an Aerodrome of Departure and/or Aerodrome of Destination outside the EUR RVSM airspace, which has indicated the entry/exit conditions into/from the EUR RVSM airspace but has requested an invalid flight level. • An aircraft that has indicated a VFR portion of the route within or above the EUR RVSM airspace. • A formation flight of civil aircraft with a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace. • An aircraft which has indicated **W** in Item 10, **RMK/NONRVSM** in Item 18 and a requested flight level between FL 290 and FL 410 (inclusive) in the EUR RVSM airspace.	The following **IFP/** indicator shall be inserted in Item 18 of the output flight plan (FPL) message distributed to ATS units: **IFP/RVSMVIOLATION** and in the COMMENT field of the ACK message: **THIS FLIGHT PLAN DOES NOT COMPLY WITH EUR RVSM REQUIREMENTS**

Table 10.2 (Continued)

Filed Flight Plan (FPL) for Operation in the EUR RVSM Airspace	**IFPS 'Warning' Messages**
One or more of the following conditions exists: • ATC Flight Plan (APL) resulting from an ATC Flight Plan Proposal Message (AFP) for a flight which is calculated to enter the EUR RVSM airspace, where Item 10 information is not known. • Air-Filed Flight Plan (AFIL) for a flight which is calculated to enter the EUR RVSM airspace, where Item 10 information is not known. **NOTE:** Wherever possible, ATC Flight Plan Proposal Message (AFP) and Air-Filed Flight Plan (AFIL) submissions by ATS units should also contain Item 8, Item 10, and Item 18 information.	The following **IFP/** indicator will be inserted in Item 18 of the output ATC Flight Plan (APL) or Air-Filed Flight Plan (AFIL) message distributed to ATS units: **IFP/RVSMUNKNOWN** and in the COMMENT field of the ACK message: **THIS FLIGHT PLAN DOES NOT COMPLY WITH EUR RVSM REQUIREMENTS**

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Annex A List of States Comprising IFPS Zone

Albania
Andorra
Armenia
Austria
Belgium
Bosnia-Herzegovina
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
FYROM
Germany
Greece
Hungary
Ireland
Italy
Latvia
Lithuania
Luxembourg
Malta
Moldova
Monaco
Montenegro
Morocco
Netherlands
Norway
Poland
Portugal
Romania
San Marino
Serbia
Slovak republic
Slovenia
Spain
Sweden
Switzerland
Turkey
Ukraine
United Kingdom

Maastricht UAC is included within this scope

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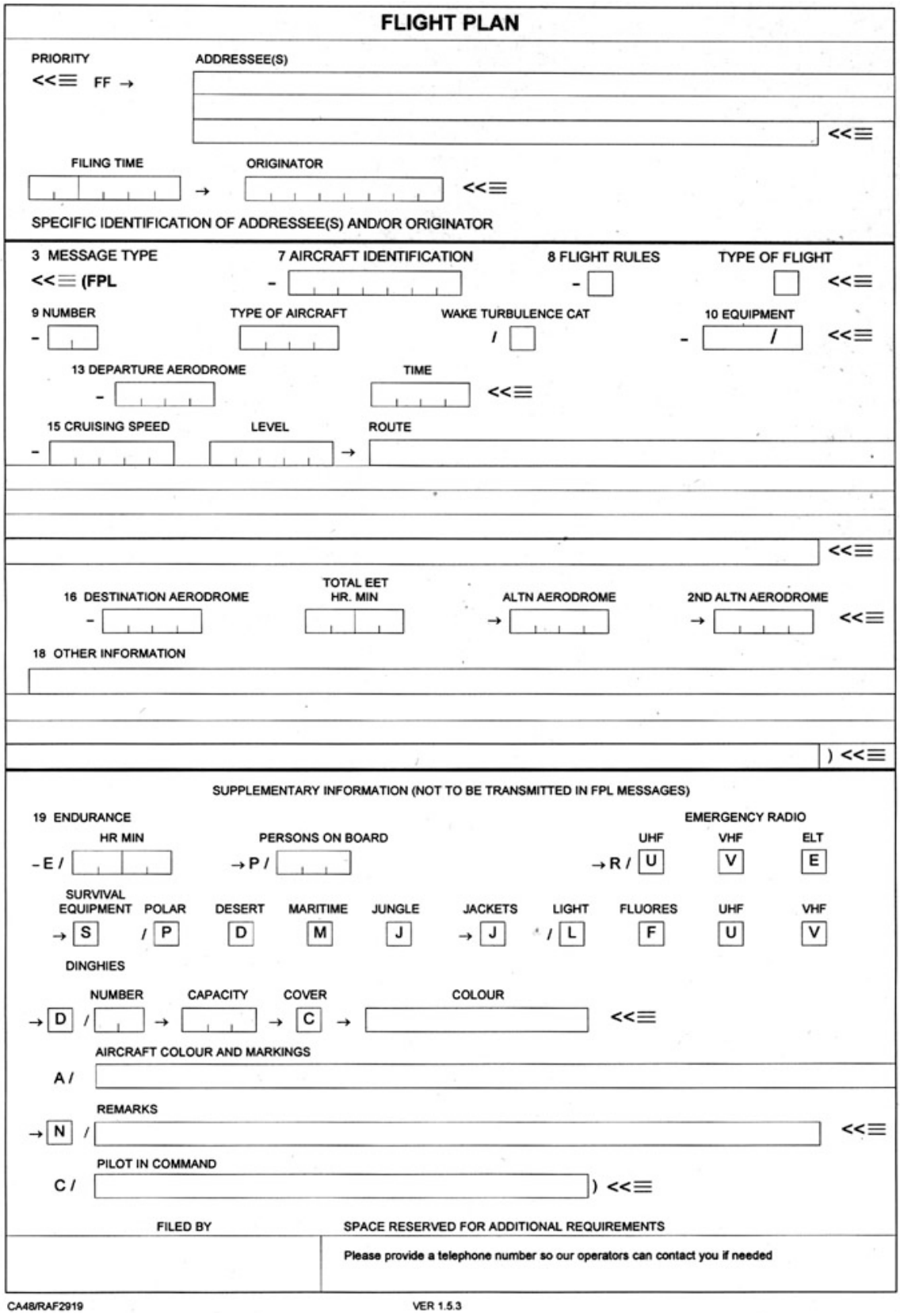
Annex B Flight Plan Form



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Annex C Application for Approval of STS/ATFMX

Application for approval of STS/ATFMX

This form only applies to flights that intend to use the STS/ indicator STS/HOSP, STS/HUM **or** STS/STATE. **Applications for ATFM exemption must be transmitted to the approval authority, when practicable, not less than 24 hours and not more than 48 hours before the date of flight. Supporting documentation must accompany the application or be made available on request.**

Flight Date		Aircraft Type	
R/T Callsign		Aircraft Registration	
From		ETD (UTC)	
To		ETA (UTC)	
STS indicator to be used (*delete as appropriate) **HOSP *** **HUM *** **STATE ***			

Application for STS/ATFMX:

Reason: (provide brief details)
Supporting Documentation provided: (provide brief details and attach copy(ies) as appropriate)

I hereby acknowledge and confirm that this application for exemption from ATFM measures conforms to the requirements of the CFMU procedure STS/ATFMX, as detailed in the CFMU Users Handbook.

Signed:	Name:	
Aircraft Operator:		Date:
Fax No:	Telephone No:	

Response from Approving Authority:

The application meets the requirements for exemption from ATFM measures and approval is given for the use of STS/ATFMX in Field 18 of the ICAO Flight Plan form.*

The application **does not meet** the requirements for granting STS/ATFMX. *

Reason for refusal:	
Signed:	Name:
AUS / LFMP *	AUS / LFMP Ref:

AUS Fax: 020-7453 6593

(* delete as appropriate)

LFMP Fax: 01489-612437

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Annex D List of FIRs Comprising European RVSM Airspace

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

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Annex E Guidance for the Provision of NAV/COM/SUR Information in the New ICAO 2012 Flight Plan

Introduction

Amendment 1 to PANS-ATM i.e. the 'FPL2012 changes', has provided a large number of new indications for the provision of Communication, Navigation and Surveillance (CNS) related capabilities and approvals within the flight plan. This paper offers guidance in the filing of CNS related information and in doing so addresses the two issues described in the following paragraphs.

Issues

The 2012 changes permit only 8 indications within the 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 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

Firstly, it is worth remembering :

- that the current P-RNAV Item 10a code will no longer exist;
- that the meaning of the Item 10a code 'R' will change from indicating B-RNAV to indicating PBN certification and operational approval;
- that specific PBN capabilities are to be amplified in Item 18;
- that flight plans will be rejected if R is filed in Item 10a and no PBN information is filed in Item 18.

1. Filing Navigation 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 spec "approvals" 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 **Attachment A** 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
Item 18	**PBN/**		
Phase of Flight			
Oceanic/Remote Continental	RNAV10	A1	A1
	RNP4	L1	L1
Continental En-Route	RNAV5 GNSS	B2	B1
	RNAV5 DME/DME	B3	
	RNAV5 VOR/DME	B4	
	RNAV5 INS	B5	
Continental En-Route & Terminal	RNAV2 GNSS	C2	C1
	RNAV2 DME/DME/IRU	C4	
	RNAV1 GNSS	D2	D1
	RNAV 1 DME/DME/IRU	D4	
Terminal only	RNP1 GNSS	O2	O1
	RNP1 DME/DME/IRU	O4	
Approach	RNP APCH with BARO-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.
- Field 10b contains one surveillance indication as oppose to the potential ‘S’, ‘H’, ‘L’
- Field 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 Field 18 also required removal of the ‘Z’ from Field 10a.
- removal of the unnecessary ‘ADSB’ text from within RMK/.

Attachment A

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			Precision Approach							Precision Approach	Precision Approach					
	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

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