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SSR MODE S - FLIGHT PLANS AND TRANSPONDERS

1 Introduction

1.1 The successful operation of SSR Mode S and, in particular, the automatic correlation of flight plans with tracks, relies upon the accuracy of the data submitted in the aircraft flight plan (FLP) as well as that entered into the aircraft transponder/FMS. If any of this information is omitted or incorrect it will have a significant impact on the effective introduction of Mode S. Further background on the operating principles for Mode S can be seen in AIC 27/2007 (Yellow 238).

1.2 The purpose of this Circular is to reinforce information detailed in AIC 94/2004 (Yellow 151) and to provide guidance regarding the Mode S specific fields on the FLP. The steps outlined below are detailed in ICAO Doc 4444 - Air Traffic Management and ICAO Doc 8168 - Aircraft Operations and must be followed precisely.

2 Flight Plans

2.1 The following diagrams show the correct method of completing Items 7 and 10 of the FLP:

Item 7 - Aircraft Identification

The diagram shows a standard ICAO Flight Plan form. Item 7, 'AIRCRAFT IDENTIFICATION', is highlighted with a red circle. A red arrow points from this field to a detailed view of the field on the right. The detailed view shows the field is divided into two parts: 'AIRCRAFT IDENTIFICATION' and 'TYPE OF AIRCRAFT'. The 'AIRCRAFT IDENTIFICATION' part contains the text 'BAW 213' and the 'TYPE OF AIRCRAFT' part contains 'W'. The 'AIRCRAFT IDENTIFICATION' part is further divided into '3-LETTER ICAO DESIGNATOR' and 'FLIGHT IDENTIFICATION'.

In the item 7 field, enter either:

The 3-letter ICAO designator for the aircraft, followed by the flight identification (eg, BAW213).

or:

The registration marking of the aircraft (eg, GIAKO)

Note: When the aircraft identification consists of less than 7 characters, no *additional* zeroes, dashes or spaces are to be inserted, either before, between or after the characters.

Note: What is entered at Item 7 must EXACTLY match what is entered in the Mode S Aircraft Identification (also known as Flight ID) in the cockpit. If it does not, ATC systems will not be able to correlate the aircraft with its stored FLP and delays will ensue.

Item 10 - Equipment

FLIGHT PLAN PLAN DE VOL	
PRIORITY Priorité	ADRESSE(E) Destination(s)
FLIGHT TIME Temps de vol	ORIGINATOR Origine
SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND/OR ORIGINATOR Identification précise du(s) destinataire(s) et/ou de l'expéditeur	
3 MESSAGE TYPE Type de message 1 (FPL) 2 NUMBER 3	7 AIRCRAFT IDENTIFICATION Identification de l'aéronef 1 TYPE OF AIRCRAFT Type d'aéronef 2 NAME Nom 3 NAME TURBULENCE CAT Cat. de turbulence de sillage
13 DEPARTURE AERODROME Aérodrome de départ	14 TIME Heure
15 CRUISING SPEED Vitesse croisière	16 LEVEL Niveau
17 DESTINATION AERODROME Aérodrome de destination	18 TOTAL EST Durée totale estimée
19 OTHER INFORMATION Autres renseignements divers	20 ALTITUDE AERODROME Aérodrome de départ
21 2ND ALTITUDE AERODROME 2 ^e aérodrome de départ	
SUPPLEMENTARY INFORMATION NOT TO BE TRANSMITTED IN FPL MESSAGE Renseignements complémentaires à ne pas transmettre dans les messages de plan de vol déposés	
19 ENDURANCE Durée	PERSONS ON BOARD Personnes à bord
20 SURVIVAL EQUIPMENT Équipement de survie	21 EMERGENCY RADIO Radio de secours
22 POLAR Polaire	23 DESERT Désert
24 MARITIME Maritime	25 JUNGLE Jungle
26 JACKETS Gilets de sauvetage	27 LIGHT Lampes
28 FLUORESCENT Fluorescentes	29 FLUORESCENT Fluorescentes
30 NUMBER Nombre	31 CAPACITY Capacité
32 COVER Couverture	33 COLOUR Couleur
34 AIRCRAFT IDENTIFICATION Identification de l'aéronef	35 COLOUR Couleur
36 REMARKS Remarques	37 PLATE NO Plaque d'immatriculation
38 COUNTRY OF ORIGIN Pays d'origine	39 PLATE NO Plaque d'immatriculation
FILED BY / Rempli par	
SPACE RESERVED FOR ADDITIONAL REQUIREMENTS Espace réservé à des fins supplémentaires	

10 EQUIPMENT Équipement

In the Surveillance Equipment/SSR Equipment element of item 10 field, the correct letter denoting the type of transponder fitted to the aircraft must be entered. The most likely entry will be:

'S' which specifies:

Transponder - Mode S, including both pressure altitude and aircraft identification transmission.

2.2 As alternatives to the letter 'S', the following letters are also available:

- 'N' Nil.
- 'A' Transponder capable of Mode A only.
- 'C' Transponder capable of Mode A and C.
- 'X' Transponder capable of Mode S but without either aircraft identification or pressure-altitude transmission functions.
- 'P' Transponder capable of Mode A, C and Mode S including pressure-altitude transmissions but no aircraft identification function.
- 'I' Transponder capable of Mode S including aircraft identification but no pressure-altitude function.

3 Further Information

3.1 Further information or guidance may be obtained from:

Head - Surveillance and Spectrum Management
 Directorate of Airspace Policy
 Civil Aviation Authority
 CAA House
 45-59 Kingsway
 London
 WC2B 6TE
 Tel: 020-7453 6530
 Fax: 020-7453 6565
 Email: modes@dap.caa.co.uk
<http://www.caa.co.uk/modes>

3.2 More general information concerning SSR Mode S in the context of the European Air Traffic Management Programme (EATMP) and access to the ECC registration process is available at the EUROCONTROL website address as follows:
http://www.eurocontrol.int/mode_s/

This Circular is issued for information, guidance and necessary action.