
ENR 1.10 FLIGHT PLANNING

The following documentation should be referred to prior to filing a flight plan

- EU Reg. No 923/2012 - Section 4 Flight plans SERA.4001 Submission of a flight plan.
- ICAO DOC 4444 ATM/501 Air Traffic Management.
- ICAO DOC 7030 Regional Supplementary Procedures (Part: EUR).
- Network Operations HANDBOOK and Integrated Initial Flight Plan Processing System (IFPS) Users Manual

1. REQUIREMENT FOR THE SUBMISSION OF A FLIGHT PLAN

1.1 A flight plan shall be submitted in accordance with the above prior to operating,

- a. Any flight or portion thereof to be provided with air traffic control service;
- b. any IFR flight within advisory airspace;
- c. any flight within or into designated areas, joining designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services;
- d. any flight within or into designated areas, or joining designated routes, when so required by the appropriate ATS authority to facilitate co-ordination with appropriate military units or with air traffic services units or with air traffic services units in adjacent states in order to avoid the possible need for interception for the purpose of identification;
- e. any flight across international borders;
- f. within the State, for any flight of which at least a total of 30 nautical miles is over water.

1.2 *VFR flight plan for alerting service only*

An alerting service is, in principle, provided to flights for which a flight plan has been submitted

1.3 Adherence to Airspace Utilization Rules and Availability

No Flight plans shall be filed via the airspace of EISN FIR/UIR or ACC/UAC or CTA/UTA deviating from the state restrictions defined within the route availability document (RAD). This common European Reference Document contains all airspace utilization rules and availability for EISN FIR/UIR or ACC/UAC or CTA/UTA and any reference to them shall be made via

URL: <https://www.nm.eurocontrol.int/RAD/index.html>

2. CONTENTS AND FORM SUBMISSION OF A FLIGHT PLAN

ICAO flight plan forms are available at ARO's.

The instructions for completing these forms shall be followed.

- A flight plan may be submitted by Telefax on condition that the flight plan is forwarded on an ICAO form.
- A flight plan may be submitted by Email on condition that the flight plan is forwarded on an ICAO form, or that the message complies with AFTN format.
- When filing a flight plan by telephone the sequence of items in the flight plan form shall be strictly followed

3. TIME OF SUBMISSION

Flight plans relating to flights which may be subject to ATFM regulation or which intend to operate in the North Atlantic area (NAT) shall be submitted at least 3 hours before EOBT and may be submitted up to 120 hours before EOBT provided the Date of Flight is included in item 18 of the ICAO flight plan form.

Flight plans for flights other than those described above should be submitted at least 30 MIN before EOBT.

4. PLACE OF SUBMISSION

4.1 IFR or IFR/VFR Flight Plans

Responsibility for the reception, checking, initial processing and distribution of flight plan data relating to IFR GAT flights originating within the SHANNON FIR or overflying the SHANNON FIR, UIR or SOTA/NOTA has been delegated to the IFPS.

IFPS is the sole source for the distribution of IFR GAT flight plan information to ATS units within the IFPS Zone. The Network Manager Flight Planning area provides a flight plan validation service as well as a flight plan management and route finding service for secure access users.

<https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html>

<https://contentzone.eurocontrol.int/FPL/default.aspx>

IFPS also provides the flight plan data necessary for the operation of the Air Traffic Flow Management (ATFM) elements of the CFMU.

Flight plans can be submitted at the Air Traffic Service Reporting Office (ARO) at the departure aerodrome.

Aircraft Operators who have appropriate facilities for communications with IFPS may submit flight plans and associated messages, for flights departing from aerodromes within the SHANNON FIR, or over flying the SHANNON FIR, UIR, SOTA or NOTA directly to the IFPS. This "Direct Filing" is the preferred procedure.

Air Filed Flight Plans (AFIL)

ATS Unit will accept flight plans from aircraft in the air. This procedure (AFIL) should only be used when no other means of submission is practicable.

Flights requesting AFIL may be required to remain clear of controlled airspace until such time as the concerned ATS Unit has sufficient time to accept and process the message.

Rejection of such a flight plan by IFPS may result in subsequent and significant delay to the concerned flight.

Responsibility for Flight Plan Submission (IFR or IFR/VFR flights)

Aircraft Operators (AO) are responsible for all matters associated with the submission of IFR flight plans and associated messages (including correct compilation and submission in addition to reception of IFPS Operational Reply Messages.

IFPS OPERATIONAL REPLY MESSAGES (ORM)

- AO who use the direct filing procedure receive ORM directly from IFPS.
- AO who file through an ARO may – if the AO AFTN/SITA address is known to IFPS – receive ORM directly from IFPS. The ORM will also be sent systematically by IFPS to the ARO Office, which originally transmitted the message to IFPS.

It is the sole responsibility of the AO to make suitable arrangements to determine the contents of ORM and to respond to them accordingly. This responsibility applies regardless of the method used to submit the flight plan.

4.2 VFR Flight Plans

In the case of flights involving a mix of VFR and IFR rules, the procedures relating to flight plan submission for IFR flights must be followed. The addresses of ATS Units affected by VFR portions of the flight must be included in addition to the two IFPS addresses. The re-addressing function may be used to satisfy this requirement.

It is essential that the point on the route where the change of rules is intended to take place is identified correctly in the route field of the flight plan.

Flight plans can be submitted at the Air Traffic Service Reporting Office (ARO) at the departure aerodrome.

Air Filed Flight Plans (AFIL)

ATS Unit will accept flight plans from aircraft in the air, however this procedure (AFIL) should only be used when no other means of submission is practicable.

Flights requesting AFIL may be required to remain clear of controlled airspace until such time as the concerned ATS Unit has sufficient time to accept and process the message.

Note: IFPS does not handle flight plans relating to flights conducted totally in accordance with VFR flight rules, therefore the addresses of the two IFPS units should not be entered on such flight plans.

In the absence of such an office at the departure aerodrome, a flight plan shall be submitted by AFS, Email, Telefax, or in extreme circumstances by telephone to the ARO listed below:

National Air Traffic Services Reporting Office (ARO)

Post: Aeronautical Information Service,
AirNav Ireland,
Ballycasey Cross,
Shannon,
Co. Clare,
V14 C446,
Ireland.

Phone: + 353 (0)61 703 750

Fax: + 353 (0)61 366 245

Email: aisops@airnav.ie

AFS: EINNZPZX

5. COMPLETION OF AN ICAO FLIGHT PLAN AND RELATED MESSAGES**5.1 ICAO Flight Plan****1. General**

Adhere closely to the prescribed formats and manner of specifying data.

Commence inserting data in the first space provided. Where excess space is available, leave unused spaces blank.

Insert all clock times in 4 figures UTC.

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

Shaded area preceding Item 3 — to be completed by ATS and COM services, unless the responsibility for originating flight plan messages has been delegated.

Note.— The term “aerodrome” where used in the flight plan is intended to cover also sites other than aerodromes which may be used by certain types of aircraft, e.g. helicopters or balloons.

2. Instructions for insertion of ATS data

Complete Items 7 to 18 as indicated hereunder.

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

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

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

3. Filed by

INSERT the name of the unit, agency or person filing the flight plan.

4. Acceptance of the flight plan

Indicate acceptance of the flight plan in the manner prescribed by the appropriate ATS authority.

5. Instructions for insertion of COM data Items to be completed

COMPLETE the top two shaded lines of the form, and COMPLETE the third shaded line only when necessary, in accordance with the provisions in PANS-ATM, Chapter 11, 11.2.1.2, unless ATS prescribes otherwise.

**Item 7 AIRCRAFT IDENTIFICATION
(MAXIMUM 7 CHARACTERS)**

INSERT one of the following aircraft identifications, not exceeding 7 alphanumeric characters and without hyphens or symbols:

- a. the ICAO designator for the aircraft operating agency followed by the flight identification (e.g. KLM511, NGA213, JTR25) when in radiotelephony the call sign to be used by the aircraft will consist of the ICAO telephony designator for the operating agency followed by the flight identification (e.g. KLM511, NIGERIA 213, JESTER 25); Or
- b. the nationality or common mark and registration mark of the aircraft (e.g. EIAKO, 4XBCD, N2567GA), when:
 1. in radiotelephony the call sign to be used by the aircraft will consist of this identification alone (e.g. CGAJS), or preceded by the ICAO telephony designator for the aircraft operating agency (e.g. BLIZZARD CGAJS);
 2. the aircraft is not equipped with radio

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

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

**Item 8 FLIGHT RULES AND TYPE OF FLIGHT
(ONE OR TWO CHARACTERS)**

Flight rules

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

I	if it is intended that the entire flight will be operated under the IFR
V	if it is intended that the entire flight will be operated under the VFR
Y	if the flight initially will be operated under the IFR, 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.	

Type of flight

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

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

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

Item 9 **NUMBER AND TYPE OF AIRCRAFT AND WAKE TURBULENCE CATEGORY**

Number of aircraft

(1 or 2 characters)

INSERT the number of aircraft, if more than one

Type of aircraft

(2 to 4 characters)

INSERT the appropriate 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/.

Wake turbulence category

(1 character)

INSERT an oblique stroke followed by one of the following letters to indicate the wake turbulence category of the aircraft:

H	HEAVY to indicate an aircraft type with a maximum certificated take-off mass of 136 000 kg or more;
M	MEDIUM to indicate an aircraft type with a maximum certificated take-off mass of less than 136 000 kg but more than 7 000 kg;
L	LIGHT to indicate an aircraft type with a maximum certificated take-off mass of 7 000 kg 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, authorization from the appropriate authority.

Radio communication, navigation and approach aid equipment and capabilities

INSERT one letter as follows:

N	if no COM/NAV/approach aid equipment for the route to be flown is carried, or the equipment is unserviceable, Or
S	if standard COM/NAV/approach aid equipment for the route to be flown is carried and serviceable (see Note 1), And/Or

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

A	GBAS landing system	J7	CPDLC FANS 1/A SATCOM (Iridium)
B	LPV (APV with SBAS)	K	MLS
C	LORAN C	L	ILS
D	DME	M1	ATC RTF SATCOM (INMARSAT)
E1	FMC WPR ACARS	M2	ATC RTF (MTSAT)
E2	D-FIS ACARS	M3	ATC RTF (Iridium)
E3	PDC ACARS	O	VOR
F	ADF	P1 - P9	Reserved for RCP
G	GNSS (See Note 2)	R	PBN approved (See Note 4)
H	HF RTF	T	TACAN
I	Inertial Navigation	U	UHF RTF
J1	CPDLC ATN VDL Mode 2 (See Note 3)	V	VHF RTF
J2	CPDLC FANS 1/A HF DL	W	RVSM approved
J3	CPDLC FANS 1/A VDL Mode 4	X	MNPS approved
J4	CPDLC FANS 1/A VDL Mode 2	Y	VHF with 8.33 kHz channel spacing capability
J5	CPDLC FANS 1/A SATCOM (INMARSAT)	Z	Other equipment carried or other capabilities (See Note 5)
J6	CPDLC FANS 1/A SATCOM (MTSAT)		
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 Inter-operability 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 (PBN) Manual (Doc 9613).

Note 5.— If the letter Z is used, the other equipment carried or other capabilities shall be specified in item 18 preceded by “COM/”, “NAV/”, and/or “DAT/”, as appropriate. Exemptions for CPDLC and 8.33KHZ are to be indicated by inserting the letter Z in item 10a and then inserting the appropriate descriptors in the following indicators in item 18 (“DAT/CPDLCX or “COM/EXM833”)

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

Surveillance equipment and capabilities

INSERT N

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

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

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

SSR Mode S	
E	Transponder Mode S, including aircraft identification, pressure-altitude and extended squitter (ADS-B) capability
H	Transponder Mode S, including aircraft identification, pressure-altitude and enhanced surveillance capability
I	Transponder Mode S, including aircraft identification, but no pressure-altitude capability
L	Transponder Mode S, including aircraft identification, pressure-altitude, extended squitter (ADS-B) and enhanced surveillance capability
P	Transponder Mode S, including pressure-altitude, but no aircraft identification capability
S	Transponder Mode S, including both pressure altitude and aircraft identification capability
X	Transponder Mode S with neither aircraft identification nor pressure-altitude capability

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

ADS-B	
B1	ADS-B with dedicated 1 090 MHz ADS-B “out” capability
B2	ADS-B with dedicated 1 090 MHz ADS-B “out” and “in” capability
U1	ADS-B “out” capability using UAT
U2	ADS-B “out” and “in” capability using UAT
V1	ADS-B “out” capability using VDL Mode 4
V2	ADS-B “out” and “in” capability using VDL Mode 4

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

Alphanumeric characters not indicated above are reserved.

Example: ADE3RV/HB2U2V2G1

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

Item 13 DEPARTURE AERODROME AND TIME
(8 CHARACTERS)

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

OR, if no location indicator has been assigned,

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

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

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

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

THEN, WITHOUT A SPACE,

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

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

Item 15 **ROUTE**

INSERT the first cruising speed as in (a) and the first cruising level as in (b), without a space between them.
THEN, following the arrow,
INSERT the route description as in (c).

a. **Cruising speed**

(maximum 5 characters)

INSERT the True airspeed for the first or the whole cruising portion of the flight, in terms of:

- Kilometres per hour, expressed as K followed by 4 figures (e.g. K0830), or
- Knots, expressed as N followed by 4 figures (e.g. N0485), or
- True Mach number, when so prescribed by the appropriate ATS authority, to the nearest hundredth of unit Mach, expressed as M followed by 3 figures (e.g. M082).

b. **Cruising level**

(maximum 5 characters)

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

- Flight level, expressed as F followed by 3 figures (e.g. F085; F330), or
- *Standard metric level in tens of metres, expressed as S followed by 4 figures (e.g. S1130), or
- * When so prescribed by the appropriate ATS authorities.
- Altitude in hundreds of feet, expressed as A followed by 3 figures (e.g. A045; A100), or
- Altitude in tens of metres, expressed as M followed by 4 figures (e.g. M0840), or
- for uncontrolled VFR flights, the letters VFR.

c. **Route**

(including changes of speed, level and/or flight rules)

Flights along designated ATS routes

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

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

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

FOLLOWED IN EACH CASE

by the designator of the next ATS route segment, even if the same as the previous one,

OR by DCT, if the flight to the next point will be outside a designated route, unless both points are defined by geographical coordinates.

Flights outside designated ATS routes

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

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

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

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

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

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

ATS route (2 to 7 characters)

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

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

Significant point (2 to 11 characters)

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

Degrees only (7 characters):

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

Degrees and minutes (11 characters):

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

Bearing and distance from a reference point:

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

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

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

Cruise climb (maximum 28 characters)

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

Examples: C/48N050W/M082F290F350

C/48N050W/M082F290PLUS

C/52N050W/M220F580F620.

Item 16 DESTINATION AERODROME AND TOTAL ESTIMATED ELAPSED TIME, DESTINATION ALTERNATE AERODROME(S)

Destination aerodrome and total estimated elapsed time

(8 characters)

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

OR, if no location indicator has been assigned,

INSERT ZZZZ and SPECIFY in Item 18 the name and location of the aerodrome, preceded by DEST/
THEN WITHOUT A SPACE

INSERT the total estimated elapsed time.

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

Destination alternate aerodrome(s)

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

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

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

Item 18 **OTHER INFORMATION**

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

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

INSERT 0 (zero) if no other information,

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

STS/	Reason for special handling by ATS, e.g. a search and rescue mission, as follows
ALTRV	for a flight operated in accordance with an altitude reservation;
ATFMX	for a flight approved for exemption from ATFM measures by the appropriate ATS authority;
FFR	fire-fighting;
FLTCK	flight check for calibration of nav aids;
HAZMAT	for a flight carrying hazardous material;
HEAD	a flight with Head of State status;
HOSP	for a medical flight declared by medical authorities;
HUM	for a flight operating on a humanitarian mission;
MARSA	for a flight for which a military entity assumes responsibility for separation of military aircraft;
MEDEVAC	for a life critical medical emergency evacuation;
NONRVSM	for a non-RVSM capable flight intending to operate in RVSM airspace;
SAR	for a flight engaged in a search and rescue mission;
STATE	for a flight engaged in military, customs or police services.

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

PBN/ Indication of RNAV and/or RNP capabilities.

Include as many of the descriptors below, as apply to the flight, up to a maximum of 8 entries, i.e. a total of not more than 16 characters.

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

RNAV SPECIFICATIONS	
C2	RNAV 2 GNSS
C3	RNAV 2 DME/DME
C4	RNAV 2 DME/DME/IRU
D1	RNAV 1 all permitted sensors
D2	RNAV 1 GNSS
D3	RNAV 1 DME/DME
D4	RNAV 1 DME/DME/IRU

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

Combinations of alphanumeric characters not indicated above are reserved.

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

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

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

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

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

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

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

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

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

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

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

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

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

Examples: EET/CAP0745 XYZ0830

EET/EINN0204

SEL/ SELCAL Code, for aircraft so equipped.

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

Example: TYP/2F15 5F5 3B2

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

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

Example: DLE/MDG0030

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

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

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

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

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

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

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

RIF/ The route details to the revised destination aerodrome, 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.

Item 19 SUPPLEMENTARY INFORMATION

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 and survival equipment

(RADIO) **R/**

- CROSS OUT U if UHF on frequency 243.0 MHz is not available.
- CROSS OUT V if VHF on frequency 121.5 MHz is not available.
- CROSS OUT E if emergency locator 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 or V or both 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 INDICATE any other survival equipment carried and any other remarks regarding survival equipment.

(PILOT) **C/**

INSERT name of pilot-in-command.

5.2 Flight Plan Associated Messages

5.2.1 Modification Message (CHG)

All significant changes to flight plans submitted for both IFR and VFR flights shall be notified to ATS as follows:-

- before Departure;
utilizing, where possible the same procedures used to submit the original flight plan.
- after departure;
through the responsible ATS unit.

Items in the flight plan that cannot be modified by a CHG message.

- Aircraft Identification.
- Departure Aerodrome.
- Destination Aerodrome.
- Estimated Off-Block Date.
- Estimated Off-Block Time.

5.2.2 Cancellation Message (CNL)

Flight plan originators shall ensure that flight plans which are no longer required or which relate to flights for which a new flight plan has or will be submitted, are cancelled at the earliest opportunity by means of a cancellation message (CNL) addressed to all addressees on the original flight plan.

Failure to cancel redundant flight plans may result in unnecessary delay to air traffic since such flight plans will be dealt with by the ATFM service as though the flights are taking place.

A replacement flight plan (RFP) in the form of an FPL with identical call sign shall be transmitted with a delay not less than 5 minutes.

The RFP shall contain, as the first element of Item 18, the indication RFP/Qn, where RFP signifies "Replacement Flight Plan" and "n" is "1" for the first replacement, "2" for the second replacement.

The last RFP shall be filed at least 30 minutes before EOBT.

5.2.3 Delay Message (DLA)

In the event of a delay in excess of fifteen (15) minutes in the estimated off-block time, for an IFR flight (except if the IFR flight has a SLOT allocated) or in excess of thirty (30) minutes for a VFR controlled flight, a DLA message must be sent.

5.2.4 Departure Message (DEP)
Departures messages are sent for IFR/VFR flights when requested.

5.2.5 Arrival Message (ARR)
Arrival messages are sent for IFR/VFR flights when requested.

6. FLIGHT PLANNING IN SHANNON UTA, NOTA AND SOTA

6.1 No upper ATS routes exist in the SHANNON UTA, NOTA or SOTA except areas where the provision of ATM is delegated to another ANSP.

6.2 General Procedures

The following condition apply

- Airspace users are permitted to flight plan direct routeing “DCT” between any of the published 5 letters waypoints or radio navigation aids within the SHANNON UTA, NOTA or SOTA.
- Routeing between these points should be indicated by means of the “DCT” instruction subject to a max distance limit of 600 nautical miles.
- Cross UIR boundary DCT is not permitted. Airspace users may connect to the lower ATS network by flight planning “DCT” to any significant point on the lower ATS network.
- Airspace may connect from the lower ATS route by flight planning “DCT” from any significant point on that network to any of the exit points in the SHANNON UTA, SOTA and NOTA.
- Airspace users should flight plan clear of Danger Areas which are notified active. Waypoints are established which allow flight plan routes to remain clear of active Danger Areas and may be used for flight planning purposes. For EID1 ULTAG, ASKUP, LAPMO, and GIMRO. For EID13 BIBLA, ORTOM, LILNO and KOMAG. For EID14 LODLA, AMDEP, UNLID and LINRA

These points are depicted on Charts ENR 6-2, ENR 6-3 and ENR 6-4

Radar monitoring is provided to ensure separation from Danger areas when active.

- Flights not entering Shanwick OCA which Flight Plan to route through SHANNON Oceanic Transition Area are not subject to MNPS approval. ICAO State Letter PFA/SUP/NAT/2009/S09-05-09-0336.SLG refers.

6.3 Overflights

Over flight traffic should plan directly from entry point to exit point, except as required to remain clear of Active Danger areas. The following conditions do however apply:

- i. Airspace Users entering the SHANNON UTA from the Shanwick OCA should plan direct from the last point (Landfall) on their Oceanic Route to exit point of the UTA or delegated airspace.
- ii. Airspace users intending to enter the Shanwick Oceanic Area should plan direct routes from entry points of the SHANNON UTA to entry points on the Oceanic boundary

6.3.1 Waypoints for overflight flight planning of UTA, NOTA and SOTA (See [Table 1](#): below)

Table 1:

Name-code Designator	Route
BOFUM, ENDEQ, LIFFY, NORLA, ROTEV	Eastbound only
BAGSO, MOPAT, NIMAT, VATRY	Westbound only
ARKIL, BOYNE, MORAG, SAMON, TURLU, KUGUR	Night Route only
ASKUP, GIMRO, LAPMO, ULTAG	EID1 avoidance
ADMUP, GURGA, KOMER, LUSAT	EID5 avoidance
BIBLA, KOMAG, LILNO, ORTOM	EID13 avoidance
AMDEP, LINRA, LODLA, UNLID	EID14 avoidance

Table 1:

Name-code Designator	Route
ADARA, AGORI, ALUTA, ATSUR, BAKUR, BAMLI,	
BANBA, BEDRA, BEGID, BEXET, BILTO, BIMGO	
DEGOS, DINIM, DOGAL, ELSOX, EMPER, ENJEX, EPUNA	
ERNAN, ETARI, EVBAK, EVRIN, GAPLI, GELPO, GISTI	
GOMUP, GUNSO, IBROD, JABEX, KESIX, KOGAD, KOKIB	
LARLA, LASNO, LEDGO, LEKVA, LESLU, LIMRI	
LIPGO, LULOX, MALOT, MAPAG, MIMKU, MOGLO	
MOLAK, NASBA, NEBIN, NERTU, NETKI, NEVRI	
NIBOG, NIPIT, OLGON, OMOKO, OSBOX	
PIKIL, RATKA, RESNO, REVNU, RILED, RODEL	
SLANY, SOMAX, SOVED, SUNOT, TAKAS, TAMEL,	
TOBOR, TUGSI, TULTA, VENER, XETBO	

6.4 Traffic landing at aerodromes within the SHANNON FIR

Traffic landing at aerodromes within the SHANNON FIR should plan from the SHANNON UTA entry point or from the last point (Landfall) on their flight plan (if entering from the SHANWICK Oceanic Area) as follows;

6.4.1 If the destination aerodrome has published STAR then flight plan to the initial way-point on the most appropriate STAR.

6.4.2 If the destination aerodrome does not have published STAR then flight plan to the radio navigational aid or significant point associated with the destination aerodrome. (See [Table 2:](#) below)

Table 2:

Aerodrome	ICAO Code	Radio Navigational Aid	Significant point
Donegal	EIDL	CFN	
Sligo	EISG	SLG	
Ireland West	EIKN	CON	ENULA
SHANNON	EINN	SHA	
Kerry	EIKY	KER	INRAD
Cork	EICK	CRK	
Waterford	EIWF	WTD	

•Note; Aircraft not equipped to fly a STAR shall flight plan as per [6.4.2](#) and expect Radar vectoring.

6.5 Traffic departing aerodromes within the SHANNON FIR

Traffic departing aerodromes within the SHANNON FIR and flight planning FL250 and above should

6.5.1 If the departing aerodrome has published SID then flight plan from last point on the SID procedure to the exit point of the UTA

6.5.2 If the departing aerodrome has not published SID then flight plan from the radio navigational aid serving the

departure aerodrome to the exit point of the UTA. (See [Table 3](#):below)

Table 3:

Aerodrome	ICAO Code	Radio Navigational Aid
Donegal	EIDL	CFN
Sligo	EISG	SLG
Ireland West	EIKN	CON
SHANNON	EINN	SHA
Kerry	EIKY	KER
Cork	EICK	CRK
Waterford	EIWF	WTD

•Note; Aircraft not equipped to fly a SID shall flight plan as per [6.5.2](#) and expect Radar vectoring.

7. FLIGHT PLANNING FOR DEPARTING/ARRIVING TRAFFIC WITHIN THE SHANNON FIR

7.1 Dublin

Standard Instrument Departure (SID) and Standard Instrument Arrival (STAR) routes are published for Dublin (EIDW). Departing/Arriving flights should file the SID/STAR appropriate to their planned route.

RWY 10L/R STARs

Each STAR length from CTA boundary to the STAR Termination waypoint (IFBAP or OSLEX, as appropriate) is provided in Table 4 below. These include the full sequencing leg length for each STAR. Normally only a section of the sequencing leg will be flown before the aircraft is cleared to either IFBAP (from the northern sequencing leg) or OSLEX (from the southern sequencing leg).

Table 4:

STAR EIDW RNAV 10L/R (with lateral Holding/Point Merge) AD2.24-23	STAR EIDW RNAV 10L/R (with lateral Holding/Point Merge) length NM including Sequencing Leg (CTA BDR - IFBAP OR OSLEX)
LIPGO3R	71 (to OSLEX)
BAGSO3R	73 (to IFBAP)
BAML13R	56 (to IFBAP)
BOYNE3R	75 (to IFBAP)
BUNED3R	69 (to OSLEX)
NIMAT3R	82 (to IFBAP)
OLAPO3R	61 (to IFBAP)
OSGAR3R	68 (to OSLEX)
SUTEX3R	61 (to OSLEX)
NIRIF1R	111 (to OSLEX)
VATRY3R	96 (to OSLEX)

RWY 28L/R STARs

Each STAR length from CTA boundary to the STAR Termination waypoint (PIZSA or OBINU as appropriate) is provided in Table 5 below. These include the full sequencing leg length for each STAR. Normally only a section of the sequencing leg will be flown before the aircraft is cleared to the relevant IF for the runway in use: ABIVU or

LAPMO.

Table 5:

STAR EIDW RNAV 28L/R (with lateral Holding/Point Merge) AD2.24-22	STAR EIDW RNAV 28L/R (with lateral Holding/Point Merge) length NM including Sequencing Leg (CTA BDR - PIZSA or OBINU)
ABLIN4L	73 (to PIZSA)
BAGSO4L	49 (to OBINU)
BAMLI4L	94 (to OBINU)
BOYNE4L	51 (to OBINU)
BUNED4L	103 (to PIZSA)
NIMAT4L	58 (to OBINU)
OLAPO4L	93 (to OBINU)
OSGAR4L	102 (to PIZSA)
SUTEX4L	95 (to PIZSA)
VATRY4L	82 (to PIZSA)
NIRIF1L	97 (to PIZSA)

Dublin Oceanic arrivals and departures flight plans shall use the SID and STAR in accordance with [Table 6](#):

Transatlantic Dublin Arrivals

In order to enable Aircraft Operators to manage their descent profiles as efficiently as possible, between the hours of 0600Z-0800Z (Winter) & 0500Z-0700Z (Summer) EIDW transatlantic arrivals shall plan their flight to be at 250kts indicated airspeed and FL170 prior to the commencement of the Dublin STAR.

Pilots should request descent in accordance with this procedure however actual descent and speed control shall be as directed by ATC.

Table 6:

Route/Entry/Exit point	SID	STAR
NEBIN and North of NEBIN	via SUROX	via OLAPO
MALOT and TOBOR	via INKUR	via OLAPO or OSGAR as appropriate
LIMRI and South of LIMRI	via INKUR or OLONO as appropriate	via OSGAR or SUTEX as appropriate

Dublin SID and STAR for the following aerodromes are specified in [Table 7](#):

Table 7:

Aerodromes	SID	STAR
EICK	via OLONO	via SUTEX
EIDL, EGAE	via BAMLI	via BAMLI
EIKN, EISG	via SUROX	via OLAPO
EIKY	via OLONO	via SUTEX/OSGAR
EINN	via INKUR	via OSGAR or OLAPO
EIWF	via OLONO	via SUTEX

Table 7:

Aerodromes	SID	STAR
EIWT	N/A	N/A

Operators should note that the listed SID and STAR are for flight planning purposes only. The SID or STAR contained in ATC clearances may differ depending on Runway in use and/or Hold in use.

7.2 SHANNON

Standard Instrument Departures (SID) and Standard Terminal Arrivals (STAR) routes are published for SHANNON (EINN). Departing/Arriving flights should file the SID/STAR appropriate to their planned route.

Flight plans for flights *NOT capable* of flying SHANNON SID or STAR or where SID or STAR do not exist should contain “SHA” in item 15 of the ICAO flight plan form as a start point for departures and an end point for arrivals.

7.3 Cork

Standard Instrument Departures (SID) and Standard Terminal Arrivals (STAR) routes are published for Cork (EICK). Departing/Arriving flights should file the SID/STAR appropriate to their planned route.

Flight plans for flights *NOT capable* of flying Cork SID or STAR or where SID or STAR do not exist should contain “CRK” in item 15 of the ICAO flight plan form as a start point for departures and an end point for arrivals.

7.4 Kerry

Runway For Filing,

Runway 26 is the designated runway for filing both arrivals and departures.

Instruction for IFR traffic:

- a. Arriving aircraft will normally be cleared to INRAD for the appropriate approach.
- b. The designated hold for runway 26 is at ROTSO.
- c. Departures to the Southwest or southeast should file on a CRK3A or CRK3B SID,
- d. Departures to the Northwest or northeast should file on a SHA3A or SHA3B SID.
- e. Where the reciprocal runway (08) is in use arriving traffic will be routed to the “KER” for approach to runway 08,
- f. The designated hold for runway 08 is at KER.
- g. Where 08 is active ATC will clear departing aircraft on the associated SID, CRK3C, CRK3D, SHA3C, SHA3D.
- h. Kerry ATC shall utilise the KER SID for contingency procedures.

7.5 Weston

Standard Instrument Arrivals (STAR) routes are published for the Dublin CTA. For Flight Planning for Weston flights should file the Dublin (EIDW) RWY34 STAR to SORIN or KERAV as appropriate.

Flight plans for flights not capable of flying Dublin (EIDW) RWY34 STAR should contain “WST” in item 15 of the ICAO flight plan form as an end point for arrivals.

7.5 Waypoints on the FIR boundary available for flight planning direct routes from EIDL and EISG (See [Table 8:](#) below)

Table 8:

Name-code Designator	Route
GILAN	CFN (NDB) to MAC (DVOR)

8. FLIGHT PLANNING INVOLVING 8.33 KHZ CHANNEL SPACING CAPABLE RADIO EQUIPMENT

IFR Flight Plans for flights planned to operate in SHANNON FIR, UIR, SOTA, and NOTA, should in respect of items 10 and 18 of the ICAO flight plan form, be completed as follows;

Whenever an aircraft is equipped with 8.33KHz channel spacing radio equipment, the letter Y shall be inserted in Item 10 (Equipment), of the filed flight plan;

If Item 10 (Equipment) of the submitted IFR flight plan contains Y, then that flight is considered to be 8.33 Channel compliant and the flight plan is automatically processed by the IFPS;

With the exception of STATE aircraft; if Item 10 (Equipment) of the submitted IFR flight plan does not contain Y, then the flight plan is **NOT** processed by the IFPS.

For non 8.33 equipped, but UHF equipped State aircraft planning to fly in 8.33KHz airspace where UHF coverage is provided, the letters U and Z shall be inserted in item 10a and "COM/EXM833" shall be inserted in Item 18 of the flight plan. State aircraft operating below F195 (non UHF and non 8.33) are exempted. The letters Y and U shall not be inserted in item 10 equipment, STS/STATE shall be inserted in item 18 of the filed flight plan.

The ACK message for exempted STATE aircraft flights shall contain the following comment: "THIS FLIGHT MAY REQUIRE SPECIAL HANDLING BY ATC DUE TO 8.33KHz CARRIAGE REQUIREMENT";

Medical flight specifically declared by the medical authorities and aircraft engaged in search and rescue missions, are automatically exempted from the 8.33KHz mandatory carriage requirements (i.e no error is raised if item 10a does not contain Y and item 18 contains STS/SAR or STS/HOSP);

Additional information on how non 8.33 equipped STATE aircraft flights are processed by the IFPS is published in section 38 of the IFPS USERS Manual <https://www.eurocontrol.int/publications/ifps-users-manual>

8.33KHz Change of Status: Where the status of the 8.33KHz radio capability changes prior to departure, they shall be notified to the IFPS by means of a modification message (CHG) or by cancelling the existing flight plan and filing a new flight plan.

VFR flights planned to operate in SHANNON FIR, SOTA and NOTA, below FL195 should, in respect of Field 10 of the ICAO flight plan form, be completed as follows:

Whenever an aircraft is equipped with 8.33KHz channel spacing radio equipment, the letter Y shall be inserted in Item 10 (Equipment), of the filed flight plan: and

Requirements for VFR flights related to VHF 8.33KHz channel spacing radio equipage are described in GEN 1.5