International Civil Aviation Organization
CAR/SAM Regional Planning and Implementation Group (GREPECAS)
Seventeenth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/17)
(Cochabamba, Bolivia (Plurinational State of), 21 to 25 July 2014)

Agenda Item 7: Other business

FPL errors

(Presented by IATA)

SUMMARY	
This working paper presents a proposal to help reduce the FPL errors and duplications in the collaboration with the airlines, by using the current and existing technologies. This proposal could bring benefits to all the regions and States.	
References: • Doc 4444 PANS/ATM, Chapter 11, Appendix 2 and corresponding formats in Appendix 3	
ICAO Strategic Objetives:	*A – Safety* *B – Air navigation capacity and efficiency*

1. Introduction

1.1. Several reports were issued by the States as well as the airlines, providing feedback of different types of ATS incidents, due to the FPL with errors, duplications as well as rejections, lack of FPL, etc.

1.2. As part of the analysis performed in coordination with some States and airlines, the following causes, were detected as start of the FPL missing, duplicated or with errors:

- ***Human factor***

  – When "retyping" into the AFTN/AMHS/FDP, the FPL filled format (paper) given to the AIM officer. Several errors were found on the route, especially when going to a far FIR from the Departure; also were found errors on, FL, aircraft type, NAV/COM/SUR equipment and STAR;

  – When 2 or more FPLs are sent by the operator (sender) to update a previous one;

  – When the AIM officer is using a pre-programmed addresses list to transmit FPLs, with edition mistakes on the destinations addresses (some FIR/ATS units are not on the list);

– Under a similar condition some local procedures uses a pre-programmed FPL (with routes, FL, etc. for certain flights) and the operator fails to update some fields to the AFTN/AMHS/FDP.

1.3. The chances to fail under the same conditions are increased when the departing aerodrome is a regional hub, a high movement aerodrome or when by local procedures, the ground staffs on these same aerodromes have to constantly amend the FPL for last moment changes (change of route due to weather, fleet changes, slots, etc.).

1.4. To reduce these and other possible subsequent events, IATA is encouraging the airlines and the Sates, to use the current technology available on both sides, to delegate to the airlines that meet the requirements, the transmission of the FPL and when applicable, the actualization messages to report delays, (DLA), Changes (CHG) and cancel (CNL), directly from the airline's operations control centre or dispatch, reducing the possibilities of errors for human factor.

1.5. These messages would be transmitted by the airlines up to a given time previous the pushback or EOBT, to ensure that the ATC have the latest correct information before the flight.

1.6. The Doc 4444 Chapter 11, states:

> 11.2.1.1.1 Messages for ATS purposes shall be originated by the appropriate ATS units or by aircraft as specified in Section 11.3, except that, through special local arrangements, ATS units may delegate the responsibility for originating movement messages to the pilot, the operator, or its designated representative.

1.7. If properly applied, this proposal will give the following safety and efficiency benefits to the CAR/SAM states and users:

- Reduce the FPL errors/ rejections;
- Reduce ATC delays when they don't have the FPLs on time;
- Reduce the LHD errors, between the ATS units when transferring flights using the wrong information;
- Reduce the workload of the ARO/AIM (especially in hubs) and ATC officers;
- AIRPROX that happened by having different information on-board and on the ATM systems.

1.8. Given the problems discussed, IATA presented this proposal to the SAM/IG/13 meeting and to the NACCWP04 meeting, to be reviewed by the States as a regional mitigation strategy getting the following results:

SAM/IG/13 Report

5.12 The Meeting took note of the IATA proposal to use a methodology for the submittance of flight plan information directly by the airlines through the AFTN/AMHS, with the aim of reducing human factor-related errors, which are around 90% of the errors in the flight plans. In this sense, taking into account that some States have started initiatives for the remittance of flight plans through the Internet or other means, it was decided that this proposal be sent to States for analysis by and applicability in each State and in the Region. In addition, the Meeting deemed convenient that the States of the Region inform

of the actions being undertaken to mitigate the errors presented in the flight plans. In this respect, the Secretariat will send a letter requesting the afore indicated information.

NACCWG04 Report

3.3.22 To carry on the analysis of the missing/duplication of FPLs, the Meeting agreed on the creation of a FPL Ad hoc Group to report on error situations and follow up on action items in each State regarding the mitigation of flight plan errors. This Ad hoc Group will report to the AIDC Task Force.

2. Special local arrangement/procedures publication

2.1. As a result of the efforts performed by the Peruvian ANSP- CORPAC and DGAC, an AIC sample is provided as **Appendix A** to this working paper, with general references and operational conditions to apply this procedure.

2.2. It is important to mention that some States are not fully compliant with the principles governing the identification of SID/STAR mentioned at the Annex 11, publishing names with more than 7 characters (transitions). In order to be accepted by the air traffic control system databases (compliant with the Annex 11), these "plain language designators" are coded differently at the air traffic control systems databases; nevertheless these coded procedures are not published by the States.

2.3. These differences create an environment where neither the airlines nor the FPL services providers, are aware of what the automated ATM systems are requiring on this specific item/field, to allow a FPL be sent without errors.

3. Suggested actions

3.1. The Meeting is invited to:

3.2.

a) Provide this activity to the technical groups of the region, to review the feasibility and implementation of this proposal in order to get the best of the current technological installed capabilities;

b) Review the AIC sample to be considered as a draft by the States if accept to implement this procedures.

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PERÚ

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AIC
05 / 14
JUN 26th, 2014

PRESENTACIÓN DEL PLAN DE VUELO VÍA AMHS O AFTN PARA LAS COMPAÑIAS QUE OPEREN VUELOS REGULARES

El procedimiento descrito en esta AIC, entrará en vigor a partir del 31 de Julio del 2014.

1. INTRODUCCIÓN

1.1 La presente Circular de InformaciónAeronáutica AIC, describe el procedimiento de presentación del plan de vuelo vía AMHS o AFTN.

1.2 Las disposiciones presentadas en esta AIC se aplican a todas las compañías aéreas que operan vuelos regulares, que posean una terminal de mensajería AMHS o AFTN o hayan contratado un servicio de transmisión de planes de vuelo vía AMHS o AFTN.

1.3 En caso la compañía aérea no transmita directamente el FPL vía AMHS o AFTN, procederá a presentar el formato de FPL en el Equipo AIS/ARO correspondientes.

1.4 El usuario será responsable por cualquier demora que pueda ocasionar el rechazo y reenvío de Planes de Vuelo remitido con errores o por falla en su sistema.

2. GENERALIDADES.

Este nuevo procedimiento deberá cumplir con:

2.1 Lo especificado en el documento 4444 PANS/ATM de la OACI, Capítulo 11, el Apéndice 2 y los formatos correspondientes explicados en el Apéndice 3;

2.2 Condiciones adicionales, especificadas en la AIP del Perú parte ENR.1.10 Planificación de vuelos y;

2.3 Regulación Aeronáutica del Perú- RAP 91.

3. DEFINICIONES

Gestión del tránsito aéreo (ATM). Administración dinámica e integrada-segura, económica y eficiente del tránsito aéreo y del espacio aéreo, que incluye los servicios de tránsito aéreo, la gestión del espacio aéreo y la gestión de la afluencia del tránsito aéreo, mediante el suministro de instalaciones y servicios sin discontinuidades en colaboración con todos los interesados y funciones de a bordo y basadas en tierra.

FLIGHT PLAN PRESENTATION VIA AMHS OR AFTN FOR AIRLINES OPERATING REGULAR FLIGHTS

The procedure described in this AIC, shall come into force on July 31st, 2014.

1. INTRODUCTION

1.1 This Aeronautical Information Circular - AIC, describes the flight plan filing procedure via AMHS or AFTN.

1.2 The provisions in this AIC apply to all airlines operating regular flights, that have a AMHS or AFTN messaging terminal or that have hired a flight plan transmission service via AMHS or AFTN.

1.3 If the airline does not directly transmit the FPL via AMHS or AFTN, then it shall accordingly submit the FPL to the AIS / ARO concerned.

1.4 The user shall be responsible for any delays that may be caused due to rejection and forwarding of Flight Plans that have been submitted with errors or due to their own system failure.

2. GENERAL INFORMATION

This new procedure must comply with the following:

2.1 As has been specified in ICAO Document 4444 PANS / ATM, Chapter 11, Appendix 2 and the corresponding formats explained in Appendix 3;

2.2 Additional conditions, specified in the Peruvian AIP part ENR.1.10 Flight Plans and;

2.3 Peruvian Aviation Regulation - RAP 91.

3. DEFINITIONS

Air Traffic Management (ATM): The dynamic, integrated management of air traffic and airspace including air traffic services, airspace management and air traffic flow management — safely, economically and efficiently — through the provision of facilities and seamless services in collaboration with all parties and involving airborne and ground-based functions.

Hora prevista de fuera calzos (EOBT). Hora estimada en la cual la aeronave iniciará el desplazamiento asociado con la salida.

Mensajes de demora (DLA). Se transmitirá un mensaje DLA cuando la salida de la aeronave para la cual se hayan enviado datos básicos de plan de vuelo (FPL o RPL) se demora más de 30 minutos después de la hora prevista de fuera calzos indicada en los datos básicos de plan de vuelo.

Mensajes de Modificación (CHG). Cuando haya de efectuarse un cambio de los datos básicos de plan de vuelo de los FPL o RPL transmitidos anteriormente, se transmitirá un mensaje CHG. El mensaje CHG se enviará a todos los destinatarios de datos básicos de plan de vuelo que estén afectados por el cambio.

Mensajes de cancelación de Plan de Vuelo (CNL). Se enviará un mensaje de cancelación de plan de vuelo (CNL) cuando se haya cancelado un vuelo con respecto al cual se hayan distribuido anteriormente datos básicos de plan de vuelo. La dependencia ATS que sirve al aeródromo de salida transmitirá el mensaje CNL a las dependencias ATS que hayan recibido los datos básicos de plan de vuelo.

Oficina de Notificación de los Servicios de Tránsito Aéreo (ARO). Oficina creada con objeto de recibir los informes referentes a los servicios de tránsito aéreo y los planes de vuelo que se presentan antes de la salida.

Plan de vuelo (FPL). Información especificada que, respecto a un vuelo proyectado o a parte de un vuelo de una aeronave, se somete a las dependencias de los servicios de tránsito aéreo.

Nota. Las especificaciones relativas a los planes de vuelo aparecen en el anexo 2. El Apéndice 2 del documento 4444 Gestión de Transito Aéreo PANS/ATM de la OACI, contiene un modelo de plan de vuelo.

Publicación de información aeronáutica (AIP). Publicación expedida por cualquier Estado, o con su autorización, que contiene información aeronáutica, de carácter duradero, indispensable para la navegación aérea.

Red de telecomunicaciones fijas aeronáuticas (AFTN). Sistema completo y mundial de circuitos Fijos aeronáuticos, dispuestos como parte de Servicio Fijo Aeronáutico, para el intercambio de mensajes o de datos numéricos entre estaciones fijas, que posean características de comunicaciones idénticas o compatibles.

Región de información de vuelo (FIR). Espacio aéreo de dimensiones definidas, dentro del cual se facilitan los servicios de información de vuelo y de alerta.

Estimated off-block time (EOBT): The estimated time at which the aircraft will commence movement associated with departure.

Delay messages (DLA): A DLA message shall be transmitted when the departure of an aircraft, for which basic flight plan data (FPL or RPL) has been sent, is delayed by more than 30 minutes after the estimated off-block time contained in the basic flight plan data.

Change Message (CHG): A CHG message shall be transmitted when any change is to be made to basic flight plan data contained in previously transmitted FPL or RPL data. The CHG message shall be sent to those recipients of basic flight plan data which are affected by the change.

Flight Plan Cancellation Message (CNL): A flight plan cancellation (CNL) message shall be transmitted when a flight, for which basic flight plan data has been previously distributed, has been cancelled. The ATS unit serving the departure aerodrome shall transmit the CNL message to ATS units which have received basic flight plan data.

Air traffic services reporting office (ARO): A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.

Flight plan (FPL). Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Note.— Specifications for flight plans are contained in Annex 2. A model flight plan form is contained in Appendix 2 of Document 4444 Air Traffic Management PANS / ATM, ICAO.

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.

Aeronautical Fixed Telecommunication Network (AFTN): Complete and Global System Fixed Aeronautical Circuits provided, as part of a Fixed Aeronautical Service, to exchange messages or digital data between fixed stations that have the same or compatible communications features.

Flight Information Region (FIR): An airspace of defined dimensions within which flight information service and alerting service are provided.

Servicio de Tránsito Aéreo (ATS).
Expresión genérica que se aplica, según el caso, a los servicios de información de vuelo, alerta, asesoramiento de tránsito aéreo, control de tránsito aéreo (servicios de control de área, control de aproximación o control de aeródromo).

Sistema de tratamiento o manejo de mensajes aeronáuticos (AMHS)
Conjunto de diversos componentes de software o hardware integrados, con el propósito de gestionar un sistema de enrutamiento de mensajería aeronáutica general, que maximiza las ventajas de las técnicas modernas en gestión de redes.

Usuario. Para fines de esta AIC, el término usuario se refiere a la línea aérea que presenta su Plan de vuelo cumpliendo con los requisitos exigidos en esta AIC.

Air Traffic Service (ATS):
A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Aeronautical message handling system (AMHS): Set of various software components, or integrated hardware, used to manage an aircraft message routing system, that maximizes the advantages of modern techniques in network management.

User: For purposes of this AIC, the term «user» refers to an airline that present its flight plan that complies with the requirements described in this AIC.

4. Directrices.

4.1 Los usuarios que harán uso del procedimiento de presentación de plan de vuelo vía AMHS o AFTN, deberán contar con una terminal de mensajería propia o contratada.
Sus direcciones de transmisión, deberán ser notificadas previamente a CORPAC, en calidad de administrador de la red de mensajería AMHS o AFTN, a las siguientes direcciones:
ccam@corpac.gob.pe
ranastacio@corpac.gob.pe

4.2 Se recepcionará el plan de vuelo vía AMHS o AFTN de todas las compañias Áéreas que cuenten con vuelos regulares aprobados por la DGAC PERÚ.

4.3 Las compañías aéreas que cumplan con los requisitos especificados en los numerales 4.1 y 4.2 de esta AIC, continuarán el proceso con el siguiente período de validación.

4.4 Periodo de validación.

4.4.1 Se requiere que la compañía aérea comunique a las direcciones de correo de CORPAC, mostradas en el numeral 4.1 de esta AIC, la siguiente información:

a) Nombre de su punto focal, que debe ser su representante operativo o quien lo reemplace,

b) Teléfono y dirección AMHS o AFTN y email del CCO o centro de despacho que opere H24 o en las operaciones del vuelo, para contactar en caso de alguna observación en el FPL.

4. Guidelines.

4.1 Users who make use of the flight plan presentation procedure via AMHS or AFTN, must have its own, or hired, messaging terminal. Transmission directions must be previously notified to CORPAC, as a network administrator of the AMHS or AFTN network, to the following addresses:

ccam@corpac.gob.pe
ranastacio@corpac.gob.pe

4.2 Flight plans via AMHS or AFTN shall be received from all airlines which have regular flights that have been approved by the DGAC PERU.

4.3 The airlines that meet the requirements specified in paragraphs 4.1 and 4.2 of this AIC shall continue the process with the following validation period.

4.4 Validation Period.

4.4.1 The airline is required to provide to the CORPAC e-mail addresses, shown in Section 4.1 of this AIC, the following information:

a) Name of the focal point, which should be its operating representative or his/her replacement,

b) Telephone and AFTN or AMHS address and CCO (Operations Control Center) e-mail or dispatch center that operates 24 hours a day or in flight operations so that they may be contacted in case of any observation in the FPL.

4.4.2 Por un periodo de 7 días las compañías aéreas deberán presentar simultáneamente el FPL en las respectivas oficinas ARO de la FIR Lima y el FPL directamente por el sistema AMHS o AFTN, para el control y verificación simultánea de información por CORPAC S.A. Transcurrido este periodo de manera satisfactoria, el Equipo AIS/ARO del Área de Información Aeronáutica de CORPAC se contactará con el punto focal designado, para confirmar que la aceptación de los FPL´s se efectuarán a partir de la fecha únicamente vía AMHS o AFTN.

5. Procedimiento.

5.1 El usuario presentará el plan de vuelo vía AMHS o AFTN a la dirección SPIMZQZX (ACCLIMA) y a las direcciones del aeródromo de destino, alternos y a los ACC correspondientes. En caso que la aeronave no despegue del aeródromo de Lima (SPIM), se consignarán en las direcciones del aeródromo de salida ZTZX y YOYX. En el caso de un vuelo desde/hacia el Cuzco se deberá agregar SPZOZAZX.

5.2 Los usuarios serán responsables de enviar sus programaciones diarias de manera física o vía email a la siguiente dirección:aislima@corpac.gob.pe; debiendo esperar la confirmación de recepción del Equipo AIS/ARO para asegurar el monitoreo y control de los Planes de Vuelo. Solo se aceptarán correos corporativos.

5.3 Los mensajes ATS aplicables a esta AIC son: ***FPL, CNL, CHG y DLA***.

5.4 El mensaje FPL, permite enviar un plan de vuelo a las dependencias ATS. En ningún caso se debe reenviar un FPL a una dependencia a la cual ya haya sido transmitido a menos que sea expresamente solicitada. De ser así, este FPL se debe enviar únicamente a la dirección que lo requiera. El tiempo mínimo para la transmisión de un FPL será de 1 hora previa al EOBT.

5.5 El usuario transmitirá mensajes normalizados ATS de ***CNL, CHG o DLA*** antes de los 30 minutos de su EOBT. Al cancelar un plan de vuelo se retornará al punto anterior (5.4)

5.6 El plan de vuelo que exceda 1 hora después de su EOBT será cancelado en forma automática por el sistema.

5.7 Las compañías aéreas serán responsables del correcto envío de los mensajes e itinerarios remitidos vía AMHS o AFTN, los cuales deben estar autorizados por la DGAC.

4.4.2 For a period of seven days the airlines must simultaneously submit the FPL in the respective ARO offices of the FIR Lima and the FPL directly via the AMHS or AFTN system, for the control and simultaneous verification of information by CORPAC S.A. After this period has passed successfully, the CORPAC's Flight Planning Area will contact the designated focal point, to confirm that FPL acceptance will be carried out as of that date only via AMHS or AFTN.

5. Procedure.

5.1 The user shall submit the flight plan via AMHS or AFTN to the address SPIMZQZX (ACCLIMA) and to the addresses of destination aerodrome, alternate and corresponding ACC. In case that the aircraft does not take off from Lima aerodrome (SPIM) it shall be entered in the aerodrome of departure ZTZX and YOYX addresses. SPZOZAZX should be added in the case of a flight from/to Cuzco.

5.2 Users shall be responsible for sending their daily schedules in either a physical format or by email to the following address: aislima@corpac.gob.pe having to wait for recepcion confirmation from the aro/ais office to ensure the monitoring and control of the flight plans. Corporate emails shall be accepted only.

5.3 The applicable ATS messages to this AIC are: **FPL, CNL, CHG and DLA.**

5.4 The FPL message allows to send a flight plan to the ATS units. In no case should an FPL be forwarded to the unit which has already been transmitted unless expressly requested; If this were to happen, then FPL should be sent only to the address required. The minimum transmission time of a FPL will be 1 hour prior to EOBT.

5.5 The user transmit standardized ATS messages of **CNL, CHG or DLA** within 30 minutes of their EOBT messages. When cancelling a flight plan, the user shall return to the previous point (5.4).

5.6 The flight plan exceeding 1 hour after its EOBT will be canceled by the system automatically.

5.7 The airlines shall be responsible for the proper delivery of messages as well as itineraries sent via AMHS or AFTN, according to the approved Flights Permit granted by the DGAC.

5.8 En caso la aeronave no pueda salir a tiempo por problemas técnicos, operacionales o de otra índole, el plan de vuelo se considerará cancelado y no podrá presentar plan de vuelo hasta cumplir con el procedimiento establecido por la DGAC según Oficio N° 0673 – 2007 MTC/ 12.

5.9 Los medios de comunicación, disponibles en el Equipo AIS/ARO de Lima, para el suministro, intercambio y coordinaciones entre las dependencias y usuarios serán los siguientes:

a) Dirección AFTN : SPIMYOYX
b) Números telefónicos: (511) 2301435, (511) 2301172
c) Email: aislima@corpac.gob.pe

5.8 If the aircraft can not depart on time due to technical, operational or other reasons, the flight plan will be considered to be canceled and shall not be able to present a flight plan until they comply with the procedures established by the DGAC according to Document No. 0673-2007 MTC/12.

5.9 The available communication means at the AIS /ARO Office in Lima, for the provision, exchange and coordination among agencies and users, shall be the following:

a) AFTN Address: SPIMYOYX
b) Telephone Numbers: (511) 2301435, (511) 2301172
c) Email: aislima@corpac.gob.pe

6. CORRECCIONES A MANO DE CARTAS SID/STAR PUBLICADAS EN LA AIP-PERU

MAKE HAND AMENDMENT SID/STAR CHARTS PUBLISHED IN AIP PERU

GENERAL *General*	**DESIGNADOR** *Actual Designator*	**UBICACION AIP** *AIP Location*	**DESIGNADOR NUEVO** New Designator
	Dice: /It reads		**Debe decir: / It should read**
STAR	MELIX-TEMOS	AD2 SPHI 11-15-15A	MELIX1A-TEMOS1A
STAR	RNAV ROKOL 1-ARGON 1 ALFA-RAYA1 RWY19 RNAV ARGON 1 BRAVO RWY01	AD2 SPHI 11-15B-15B1	ROKOL1C-ARGON1A-RAYA1-ARGON1B
SID	RWY19 CHICLAYO UNO TRANSICION: MELIX-TEMOS-BATAN	AD2 SPHI 11-13-13A	MELIX1F-TEMOS1F-BATAN1
STAR	EGASI 1-PAGUR 1-MACARA 1-ROKOL 1 RWY19/RWY01	AD2A SPUR 7-7_1	EGASI1A-PAGUR1A-MAC1A-ROKOL1
SID	PIURA 1 TRANSICION EGASI-PAGUR-MACARA	AD2A SPUR 5-5_1	EGASI1F-PAGUR1F-MAC1F
STAR	RWY35 ISRES 1 – UTKIK 1	AD2A SPST 3-9	ISRES1A-UTKIK1A
STAR	RWY35 ENPAP 1 ALFA- ENPAP 1 BRAVO	AD2A SPST 3-9A	ENPAP1A-ENPAP1B
STAR	RWY35 IKARO 2 – MOXOV 1	AD2A SPST 3-9B	IKARO2A-MOXOV-1A
SID	RWY17 IKARO 2 – MOXOV 1	AD2A SPST 3-7B	IKARO2F-MOXOV1F
SID	RWY17 ISRES 1 – UTKIK 1	AD2A SPST 3-7	ISRES1F-UTKIK1F
SID	RWY17 ENPAP1	AD2A SPST 3-7A	ENPAP1F
SID	RWY20 TRUJILLO1 TRANSICION MARCA Y VATES	AD2 SPRU 11-11A-11C	MARCA1F-VATES1F
STAR	RWY20 MARCA Y VATES	AD2 SPRU 11-11A-11D	MARCA1A-VATES1A
SID	RWY20 TACNA 3 TRANSICION ORALO – LOLES	AD2 SPTN 9-11	ORALO1-LOLES1
SID	RWY20 ILO 3 – GAVAR 2	AD2 SPTN 9-11A	ILO3F-GAVAR2G
SID	RWY12 KEVES2-JULIACA 3 TRANSICION ISAVO-NUXON-MUPET	AD2 SPJL 9-9A-13	KEVES2F-ISAVO2F-NUXON1F-MUPET1F
STAR	RWY30 ISAVO2-NUXON2-MUPET2 -KEVES2	AD2 SPJL 9-9A-13A	ISAVO2A-NUXON2A-MUPET2A-KEVES2A