International Civil Aviation Organization SAM/IG/24-IP/5.1
South American Regional Office 14/10/2019
Twenty-Fourth Workshop/Meeting of the SAM Implementation Group (SAM/IG/24) - Regional Project RLA/06/901
(Lima, Peru, 4 to 8 November 2019)

Agenda Item 5: Operational implementation of new ATM automated systems and integration of the existing systems

FOLLOW-UP OF ACTIONS TO MITIGATE FLIGHT PLAN ERRORS AND DUPLICATION/MULTIPLICITY IN THE SAM REGION

(Presented by Peru)

SUMMARY

This information paper presents the action taken by Peru to mitigate flight plan errors, duplication and multiplicity.

References:

- Report of the Meeting for AIDC implementation in the NAM/CAR/SAM Regions (Lima, Peru, 16-20 April 2018).
- Report of the Third AIDC implementation meeting (Lima, Peru, AIDC/3 – 24-26 April 2017).
- Report of the Second AIDC implementation meeting (Lima, Peru, AIDC/2 – 21-23 September 2016).
- Report of the Eighteenth meeting/workshop of the SAM Implementation Group (SAM/IG/18 - Lima, Peru, 17-21 October 2016).
- Report of the Twentieth meeting/workshop of the SAM Implementation Group (SAM/IG/20 - Lima, Peru, 16-20 October 2017)
- Summary of AIDC implementation follow-up teleconferences (14/12/2017 and 26/01/2018).

1. Background

1.1 On 24 July 2017, Peru, through CORPAC S.A., published Aeronautical Information Circular AIC 05/17 – Filing of flight plans via AMHS/AFTN for companies operating scheduled flights.

1.2 On 9 August 2018, Peru, through CORPAC S.A., replaced AIC 05/17 with AIC 09/18, updating the switch and its extensions.

1.3 The purpose of the AIC is to automate flight plan delivery, reducing errors and duplication, in addition to significantly reducing ARO position workload.

1.4 In October 2018, a Flight plan error/duplication reporting system was established at the ARO office of the Jorge Chávez international airport, to keep track of errors that prevent direct access to the system.

1.5 From August to October 2019, training was provided at national level to all AIS personnel involved in flight plan reception procedures via AMHS/AFTN, through the 2019 AIS update course.

1.6 At the SAM/IG/23, Peru presented a working paper informing that, to that date, 13 letters of agreement had been signed with airlines conducting international scheduled flights, covering 90% of FPLs, and that RPLs were no longer being used. Peru also informed the Secretariat of plans to incorporate ACK and REJ message processing capabilities.

1.7 On 1 May, Peru enabled REJ and ACK messaging with all airlines with which it has AMHS FPL reception agreements.

2. **Analysis**

2.1 The Lima ARO office monitors all flight plans entering the FDD system via AMHS, in order to identify airlines presenting flight plan errors and duplication. See **Appendices A** and **B** to this information paper.

2.2 Peru has now signed 14 letters of agreement with airlines conducting domestic and international flights. It is expected that domestic flight plans filed via AMHS/AFTN will increase in November 2019.

2.3 The Lima ARO office is constantly coordinating with those responsible for airline operations at the locations where flight plans originate, obtaining positive response to all the observed cases.

2.4 Peru, through CORPAC S.A, published aeronautical information circular AIC 07/19 – **CODED DESIGNATORS OF STANDARD INSTRUMENT DEPARTURES FROM JORGE CHAVEZ INTERNATIONAL AIRPORT (SPJC)** to eliminate the issue of direct access of FPLs to automated systems. See **Appendix C** to this information paper.

2.5 Peru requests the Secretariat to prepare, in coordination with the other States, a timetable for compliance with conclusion SAM/IG/23.02 Standardisation of the syntax and format of ACK and REJ messages for FPLs.

<table>
<tr><td colspan="2">CONCLUSIÓN SAM/IG/23-02 Estandarización de la sintaxis y formato de los mensajes ACK y REJ para FPL</td></tr>
<tr><td>Que:
Los Estados a través de sus Puntos Focales AIM y CNS conformen un sub-grupo de trabajo dentro del GT INTEROP para:

a). Estudiar los formatos existentes de mensajes ACK y REJ de FPL utilizados por los Estados que los tienen implementados, evaluando las ventajas y desventajas de cada uno, y la compatibilidad con los sistemas de la parte usuaria (aerolíneas).
b). Proponer un estándar a nivel regional e interregional para establecer un formato único y óptimo de mensajes ACK y REJ para los FPL.</td><td>Impacto esperado:
☐ Político / Global
☒ Inter-regional
☐ Económico
☐ Ambiental
☒ Técnico/Operacional</td></tr>
<tr><td colspan="2">Por qué: Para promover la estandarización de la sintaxis de los mensajes ACK y REJ, con el objeto de prevenir incompatibilidad a futuro.</td></tr>
<tr><td>Cuándo: De inmediato</td><td>Estatus: Adoptada por SAM/IG/23</td></tr>
<tr><td colspan="2">Quién: ☒ Coordinadores ☒ Estados ☒ Secretaría OACI ☐ OACI HQ ☒ Otros: Usuarios/Industria</td></tr>
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APPENDIX A

STATISTICAL REPORT OF FLIGHT PLANS RECEIVED VIA AMHS/AFTN

During the 2018/2019 period, the ARO office of the Lima airport signed 14 letters of agreement with different airlines conducting international flights, resulting in a significant flow of flight plans and CHG, DLA and CNL messages received.

Accordingly, an online reporting sheet has been created to report all flight plans that fail to enter the FDD system and that have flight data errors and/or duplication.

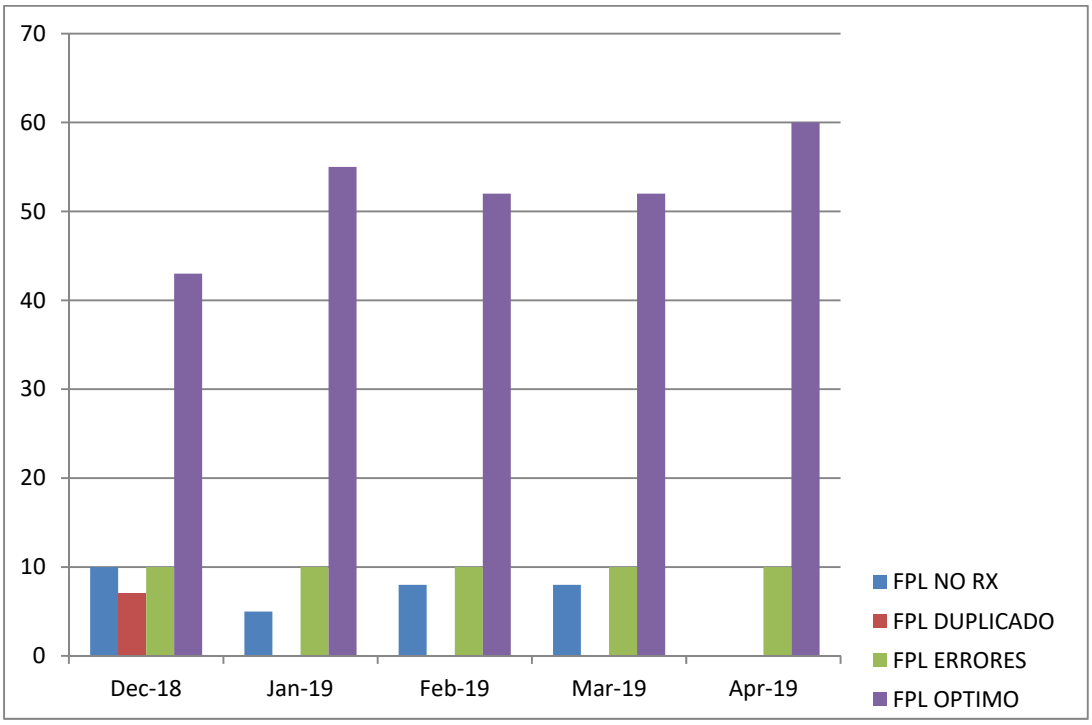
At all times during the shift, the staff will have access to the reporting sheet, which will capture the date of the report, the aircraft identification, the route, the remarks by the ARO specialist, the initials of the specialist responsible for the report, and the corrective action. Example:

Date	Flight ID	RTE	Remark	Initials of sp.	Corrective action
02/10/2018	LNE1450	SPJC - SEQM	FPL FILED AT WRONG TIME	JR	REPORTED TO CY
02/10/2018	LPE2535	SPJC/SPZO	NON-SCHEDULED FLIGHT – RESCHEDULED	EC	PHYSICAL FPL – non-scheduled
02/10/2018	KLM744	SPJC/EHAM	NOT ENTERED	EC	REPORTED TO CY

With the data captured in this online reporting system, it will be possible to work on flight plan reception error statistics, and provide solutions through meetings with airlines.

The companies with which letters of agreement have been signed to date are the following:

- UNITED AIRLINES
- AEROMEXICO
- AIR EUROPA
- AMERICAN AIRLINES
- IBERIA
- KLM
- AIR FRANCE
- JET BLUE
- SPIRIT AIRLINES
- COPA AIRLINES
- AIR CANADA ROUGE
- GRUPO AVIANCA INTERNACIONAL
- GRUPO LATAM INTERNACIONAL
- VIVA AIR



SUMMARY:

MAY 2019
The statistical chart above shows that a number of flight plans, mostly from Aero Galápagos, were not received. Failures were caused by the AMHS system of the company, which had message header issues and thus could not access the system directly. The representatives of the company were advised for the adoption of a prompt solution. It was also noted that TACA and Aero Galápagos were duplicating flight plans because they failed to use the cancellation (CNL) message, and they just changed the flight plans by filing a new one with different data in the route box.

JUNE, JULY AND AUGUST 2019
The statistical chart above shows a total reduction of duplicated flight plans. It also shows that the number of flight plans with errors remains the same due of lack of acronyms for AIJC SIDs.

SEPTEMBER 2019
In September, all flight plans entered the system, but some still went to the QUEUE because of the AIJC SID acronyms. An AIC is to be published to reduce errors in flight plans via AMHS/AFTN.

APPENDIX B

Flight plan ACK and REJ message templates

Acknowledgment **(ACK)** message**:**
If a flight plan or other standard message properly enters the system via AMHS/AFTN, the ARO position will send an ACK message.
Example:

Description of ACK: **ACK FPL SPIM CMP124 SPJC 1645 MPTO**

Type of response = ACK
Type of message = FPL
FIR issuing MSG = SPIM
Flight identification = CMP124
Aerodrome of DEP = SPJC
EOBT = 1645
Aerodrome of ARR = KMC

Description of REJ:

REJ FPL SPIM JBU1824 INCORRECT FL RVSM
FPL-JBU1824-IS
-A320/M-SWE3DFGHIM3RZ/SB1
-SPJC0359
-N464F350 BTE2F BTE UV1 TRU UL780 EVRED/N0456F360 UL780
TBG/N0452F380 UL465 GCM UG448 IKBIX Y183 PEAKY DCT DVALL CURSO5
-KFLL0534
-PBN/A1B1C1D1O1S2T1 NAV/RNVD1E2A1 SUR/260B DOF/190315
REG/N282JB EET/SEFG0110 SKED0156 MPZL0225 MKJK0345 MUFH0427
KZMA0501 SEL/AJKS CODE/AB4F5D

TYPE OF RESPONSE = REJ
TYPE OF MESSAGE = FPL
FIR ISSUING MESSAGE = SPIM
FLIGHT IDENTIFICATION = JBU1824
REASON FOR REJECTION = INCORRECT FL RVSM (PASTE FPL BELOW)

- END -

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PERÚ

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Corporación Peruana de Aeropuertos y Aviación Comercial S.A.
ÁREA DE INFORMACIÓN AERONÁUTICA
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AIC

07/19

OCT 21st, 2019

FIR LIMA (SPIM)

Nota. - La presente circular entrará en vigencia el día 21 octubre 2019.
***Note**. - The following circular will be in force on October 21, 2019.*

07/19 DESIGNADORES CIFRADOS DE LAS SALIDAS INSTRUMENTALES NORMALIZADAS DEL AEROPUERTO INTERNACIONAL "JORGE CHAVEZ" (SPJC)

1.- Propósito:

Esta Circular de Información Aeronáutica – AIC, establece los designadores cifrados de las Salidas Instrumentales Normalizadas del Aeropuerto Internacional Jorge Chávez (**SPJC**), utilizadas en los Procedimientos de Transmisión de Planes de Vuelo vía AMHS/AFTN.

2.- Procedimiento:

Las Compañías Aéreas con Vuelos Regulares aprobadas a presentar los Planes de Vuelo vía AMHS/AFTN, según lo establecido en la AIC 09/18, deberán ingresar el designador cifrado de las Salidas Instrumentales Normalizadas del Aeropuerto Internacional Jorge Chávez **(SPJC).**

Nota: Las disposiciones relativas a la aplicación de Designadores en Ruta figuran en el Anexo 11, Apéndice 1 de la OACI.

07/19 ENCRYPTED DESIGNATORS OF THE NORMALIZED INSTRUMENTAL DEPARTURES FROM THE JORGE CHAVEZ INTERNATIONAL AIRPORT (SPJC)

1. Purpose:

*This Aeronautical Information Circular - AIC, establish the encrypted designators of the standard instrumental departures from the Jorge Chavez International Airport **(SPJC)**, used in the flight plan transmission procedures via AMHS/AFTN.*

2.- Procedure:

*All airlines operating regular flights approved to submit flight plans via AMHS/AFTN, as stablished in AIC 09/18, must enter the encrypted designator of the Standard Instrumental Departure from the Jorge Chavez International Airport **(SPJC).***

***Note:** the provisions regarding the application of route designators are contained in ICAO annex 11, Appendix1.*

Nombre de Salidas Instrumentales ***Instrumental Departures Name***	**Designadores Cifrados para los Sistemas Automatizados** ***Encrypted designators for Automated Systems***
GAVOX 1F/1G	
• GAVOX 1F Transición SLS	**GX1FSLS**
• GAVOX 1F Transición BTE	**GX1FBTE**
• GAVOX 1G Transición SLS	**GX1GSLS**
• GAVOX 1G Transición BTE	**GX1GBTE**
LIMA 3F/3G	
• LIMA 3F Transición ILPIP	**L3FILPI**
• LIMA 3F Transición ILROL	**L3FILRO**
• LIMA 3F Transición AMVEX	**L3FAMVE**
• LIMA 3F Transición OPROS	**L3FOPRO**
• LIMA 3G Transición OPROS	**L3GOPRO**
• LIMA 3G Transición AMVEX	**L3GAMVE**
• LIMA 3G Transición ILPIP	**L3GILPI**
• LIMA 3G Transición ILROL	**L3GILRO**
• LIMA 3G Transición OPROS	**L3GOPRO**
• LIMA 3G Transición PAKOL	**L3PAKOL**
• LIMA 3G Transición REKEM	**L3GREKE**
• LIMA 3G Transición MEXUR	**L3GMEXU**
• LIMA 3G Transición AKSOL	**L3GAKSO**
PAKOL 3	
• PAKOL 3	**PAKOL3**
• PAKOL 3 Transición AKSOL	**P3AKSOL**
• PAKOL 3 Transición KULIS	**P3KULIS**
ASOXI	
• ASOXI 1F	**ASOXI1F**
• ASOXI 1G	**ASOXI1G**
ITAVU 1F/1G	
• ITAVU 1F Transición ILMAR	**I1FILMA**
• ITAVU 1F Transición PISCO	**I1FSCO**
• ITAVU 1G Transición ILMAR	**I1GILMA**
• ITAVU 1G Transición PISCO	**I1GSCO**

ISREN

- ISREN2F **ISREN2F**
- ISREN2G **ISREN2G**

ATATU

- ATATU2F **ATATU2F**
- ATATU2G **ATATU2G**

AMVEX

- AMVEX4G **AMVEX4G**
- AMVEX5F **AMVEX5F**

OPROS

- OPROS2F **OPROS2F**
- OPROS2G **OPROS2G**

ILROL

- ILROL4G **ILROL4G**
- ILROL5F **ILROL5F**