AFI PLANNING AND IMPLEMENTATION REGIONAL GROUP
TWENTY FIRST MEETING (APIRG/21)
(Nairobi, Kenya (9 to 11 October 2017)

Agenda Item 5: Regional Air Navigation Deficiencies

5.1 Review and Update of the list of Air Navigation Deficiencies

MISSING ATS MESSAGES IN THE AFI REGION

(Presented by South Africa)

SUMMARY
This paper contains information on the identification of the main causes which contribute to the loss of ATS Messages in the AFI Region and possible solutions to decrease the amount of missing ATS Messages.
REFERENCE(S): **- Annex 10 -** Aeronautical Telecommunications - **Annex 11** – Air Traffic Services **- AFI AMHS Manual** **- APIRG** - Meeting Reports
Related ICAO Strategic Objective(s): (Which objectives are the?)

1. INTRODUCTION

1.1 The issue related to loss of Flight Plans has been regularly discussed during this last decade without tangible definitive solutions. The phenomenon is characterized by flights reaching aerodromes of destination with no Flight Plan having been transmitted.

1.2 Missing air traffic service (ATS) messages, especially flight plan messages, in the AFI region have a direct impact on safety. From the planning phase, through to the dynamic operations of any flight, ATS messages are required to be seamlessly transmitted, via the Aeronautical Fixed Telecommunication Network/ Aeronautical Message Handling System (AFTN/AMHS) network, from originator to recipient.

1.3 Traditionally AFTN relied on the "Communication centre" to ensure message delivery of all messages in a State's area of responsibility. The modern AMHS shifts that responsibility to the originator of a given message, as automatic non-delivery reports give a direct indication of whether a message has reached its intended destination or not.

2. DISCUSSION

2.1 The following, amongst others, have been identified as the main causes of missing flight plans[1]:

a) **Not sending a flight plan** - This is not likely for scheduled flights that operate the same route daily, but these messages do have a tendency of going missing from time to time.
b) **Addressing** - Sending a flight plan, but not addressing the flight plan correctly.
c) **Error in transmission** - A flight plan is sent but does not reach its destination.
d) **Error in reception** - The flight plan is sent and delivered, but cannot be interpreted by the receiving system (this could be because of formatting differences, or corruption of the flight plan in transit).
e) **Rejected flight plan** - The flight plan is transmitted and received, however the flight plan may need corrective action by the originator.

2.2 The following possible solutions/mitigation should be implemented to decrease the amount of missing ATS Messages:

2.2.1 Scheduled flights operating daily are repetitive in nature and missing messages for these flights can easily be requested from the originator of the message.

2.2.2 Processes and procedures needs to be implemented to ensure flight plans are addressed correctly. The use of automated flight planning systems capable of addressing flight plans according to the route flown and use of collective addressing is required.

2.2.3 Flight plans for long haul flights crossing multiple Flight Information Regions (FIRs) require collaboration between the ANSP's of the affected FIR's. Neighbouring Air Traffic Service Units (ATSU's) should include coordination points/FIR crossing points along common boundaries with relevant flight plan addressing and ATUS contact details within their Letters of Procedures as defined by Annex 11.

2.2.4 Corruption of AFTN messages can be mitigated by the deployment of automated systems. These automated systems can request a repeat of the relevant missing messages from originator of the message (QSP, RQP, RQN, etc.) automatically

2.2.5 Any flight plan that is rejected should be replied to with a reject message. A clear reason as to why the flight plan was rejected should be provided. There is an automatic option available for this (-TITLE REJ message), however it can also be done with a manual message that is sent back to the operator.

[1] Flight plans are used as an example, the same can be said for any missing ATS messages

2.3 Traditional AFTN Routings changed with the implementation of AMHS. AFTN addresses using an incorrect prefix (“FJ” instead of “FA” for South Africa), is now managed systematically within AMHS. An automatic message is sent back to the originator advising them of all unknown AFTN indicators. It is expected that these unknown AFTN addresses will not be used, just as a non-delivered message in AMHS means the address used does not exist.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:-

a) Take note of the information provided in this working paper;
b) Adopt the possible solution provided in 2.2 above as action plans items for AFI States under the APIRG Information and Infrastructure Sub-group (IIM/SG); and
c) Encourage States to utilise automated flight planning systems.

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