International Civil Aviation Organization

Tenth Meeting of the APIRG Air Traffic Services, Aeronautical Information Services and Search and Rescue Sub-Group

[Dakar, Senegal 12 – 15 May 2009]

Agenda Item 2: Review of Special RAN AFI 08 Recommendations pertaining to ATS, AIS and SAR fields

Changes to the ICAO Flight Plan – 2012

(Presented by IATA)

Summary

State Letter AN13/2.1-08/50, announced significant changes to the ICAO Flight Plan (FPL) by amendment to PANS ATM, Doc 4444. Furthermore, the ICAO AFI Special Regional Air Navigation (24-28 November 2008) adopted an ATM performance objective: Transition to the new ICAO model Flight Plan Form (Recommendation 6/5 refers). These changes should bring a marked improvement in service and benefits. However, such changes will require major system changes for both airlines and ANSPs. As airlines plan to meet the effective date of 15 November 2012, they are concerned with the logistics of managing a long-term random transition among the ANSPs at a global level.

References:
- ICAO PANS-ATM (Doc 4444)
- ICAO State Letter AN13/2.1-08/50 dated 25 June 2008
- ICAO State Letter AN 13/2.1-09/09 dated 6 February 2009

1. **Introduction**

1.1 On 25 June 2008 ICAO issued State Letter AN13/2.1-08/50 amending the 15th edition of the PANS-ATM, Doc 4444. Accordingly, the ICAO AFI Special Regional Air Navigation (24-28 November 2008) adopted its Recommendation 6/5 on Implementation of the new ICAO model Flight Plan. ICAO State Letter AN 13/2.1-09/09 of 6 February 2009 provides additional guidance for implementation of flight plan information to support Amendment 1 of the PANS-ATM. Although the format will remain relatively consistent with that being used today, numerous changes will be required in the abbreviations and various Field descriptors used in the ICAO Flight Plan form.

1.2 Substantial system and work practice changes will be required by Airlines and ANSPs alike, as a consequence of these modifications. Therefore, IATA considers non-implementation of these changes as a 'significant difference' to ICAO PANS-ATM – Doc.4444.

1.3 Airline systems will need to conform to the new data fields, sequence and alphanumeric coding. Likewise, adaptation within the ATS Providers' flight data processing systems will need to ensure that the new flight plans filed are accepted without any cause for reject or denial of service. Although the effective date for the changes in the Filed Flight Plan (FPL) is November 15, 2012, airlines and States can transition to the new format at any time.

1.4 Airlines have the following concerns:

a) The unusually long transition period <u>prior</u> to the November 15, 2012 effective date may result in Regulators, airlines and ANSPs changing over at random.

b) The possible post-implementation challenges <u>after</u> November 15, 2012, by those States and providers unable to implement by the deadline and the consequences to airlines.

2.   **Discussion**

2.1   The main rationale for the new FPL format is to allow users to benefit from modern aircraft capabilities, such as PBN. Such changes are fully embraced by the airlines.

2.2   During the transition period, users will face the decision whether to maintain the functionality of the 'old' system ahead of the 15 November 2012 applicability date. This is typically the challenge for operations that flies across multiple FIRs. In all likelihood, some of the ANSPs will transition early. However, supporting and maintaining two FPL systems for an extended period, as well as planning for a flight that crosses successive FIRs in different stages of implementation is impractical from a service and logistical point of view.

2.3   Changes to airline flight planning systems will entail major modifications to the automation, databases and formatting. A large part of the reconstructed Field descriptors and sequence of entries will result in major software changes and/or system replacement, all with consequent costs.

2.4   In view of the enhanced services that these new data elements should provide, they can only be justified by airlines as a one-time effort. Moreover in managing the transition effectively, airline flight planning/dispatch services work to high degree with automation. Without a significant increase in workload it would be inconceivable to anticipate any manual modifications.

2.5   The functional nature of airline Flight Planning operations whereby FPLs are filed from a remote and centralized location precludes awareness of local requirements, peculiarities, host system limitations etc. This is particularly the case with medium to large airlines operating an international network. Filing of the FPL is done electronically.

3.   **Implications on Users**

3.1   The implications on Users will be two-fold:

    3.1.1   Adaptability to current airline flight planning software and work practices.

        a) **Costs**: Most airline flight planning systems are vendor-solutions. Hence, it will not be a viable option for airlines to sustain both systems simultaneously either during or after the transition.

        b) **Automation**: Sequencing and formatting the FPL format to allow a partial dissemination of 'some OLD' and 'some NEW' during the transition will be impractical for a dispatcher in terms of workload and manual interventions.

        c) The challenge of accurately **tracking Transition dates** - as States randomly migrate from 'OLD' to 'NEW', as well as

        d) **Tracking States** that have not or chose not to adopt the PANS ATM changes.

    3.1.2   Adaptability to local and en-route host Air Traffic Information Systems.

        a) The possibility for an airline needing to support the 'OLD' and 'NEW' **during** the Transition period. This dual requirement could stem from the airline route network, operating across a mix of many airports

        b) The possibility for an airline that is required to support the 'OLD' and 'NEW' **after** the Transition period. This requirement could stem from a decision by a local AIS facility that decides not to convert.

        c) Specific residual ANSP peculiarities or host limitations that remain post-2012 (e.g. restricted number of characters in Item 10, required sequences in field 18, etc.) The logistics of tracking and compliance would be extremely complex.

        d) That **all** host systems interpret new fields and transform data globally and seamlessly to deliver service at departure and downstream points.

        e) With the possibility of airline changeover decision being the dictate of an ANSP service, it is foreseeable in some rare cases that some airlines will remain with the 'old' well after the 2012 deadline.

4. **Implementation of the new ICAO model Flight Plan Form in the AFI Region**

4.1. The Special RAN AFI/08 adopted its Recommendation 6/5, which reads as follows:

Recommendation 6/5 — Implementation of the new ICAO model Flight Plan Form

That:

> *a) APIRG adopt the ATM Performance Objective: Transition to the New ICAO Model Flight Plan Form as contained in the performance framework form (PFF) in Appendix A to this working paper; and*

> *b) States coordinate, through APIRG, their transition to the new ICAO flight plan and follow the checklist in the PFF in Appendix A to this working paper in order to ensure harmonization and orderliness in their transition to the new flight plan by 15 November 2012.*

4.2. It is proposed that a Task Force be established to ensure a coordinated and timeous transition of AFI States and ANSPs the new ICAO model flight plan, and address all related issues (see **Appendix B)**.

5. **Side Notes**

5.1 Although outside the scope of this working paper, it remains worthwhile to mention the legal status of the ICAO flight plan format. Many have questioned why the ICAO flight plan format contained in the PANS-ATM is not an ICAO Standard? ICAO Doc 8143 (Directives to Divisional-type Air Navigation Meetings and Rules of Procedure for their Conduct) outlines the following criteria for the development of SARPS:

a) To qualify as a Standard, the specification must be such that its <u>uniform application by all Contracting States is necessary in the interests of safety or regularity of international air navigation</u>.

b) To qualify as a Recommended Practice, a specification must be such that its uniform application by all Contracting States <u>is considered desirable</u>, but not essential, in the interests of safety, regularity or efficiency of international air navigation.

5.2 It should be further noted that the Standards of Annex 2 and Annex 11 govern the application of the Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444). Although the contents of a flight plan are an Annex 2 Standard, the format is not. However, the flight planning automation systems of airlines and the flight data processing systems of ANSPs are totally dependant upon clearly defined fields and format. In today's world of required automation support, IATA is of the opinion that a uniform application of the ICAO flight plan into a specific electronic format is necessary for the interests of safety and regularity of international aviation.

6. **ACTION BY THE MEETING**

6.1 On the basis of feedback from Airline users, and in accordance with ICAO Special RAN AFI 08 Recommendation 6/5, IATA urges the meeting to adopt without exception, that:

1) Effective 15 November 2012 all AFI States:

a) Will accept and disseminate 'NEW' FPLs only; and

b) Implement the new FPL system in order to assure a seamless and timely transition with no loss of service. If this cannot be agreed then it is preferable to set a minimum transition period;

2) In the unlikely event that an ANSP does not implement, the concerned State shall notify the fact in part 1 of its AIP as a 'significant difference' to the PANS-ATM as described under Annex 15, 4.1.2-c, prior to November 15, 2012; and

3) A Task Force on the implementation of the ICAO New Flight Plan be established with the terms of reference shown at **Appendix B**.

— END —

ATM PERFORMANCE OBJECTIVE: BASIC CHECKLIST FOR IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN (FPL) FORM				
Benefits				
Environment	reductions in fuel consumption.			
Efficiency	ability of air navigation service providers t make maximum use of aircraft capabilities ability of aircraft to conduct flights more closely to their preferred trajectories facilitate utilization of advanced technologies thereby increasing efficiency optimized demand and capacity balancing through the efficient exchange of information			
Safety	enhance safety by use of modern capabilities onboard aircraft			
Strategy: Short term (2010) - Medium term (2011 - 2015)				
ATM OC COMPONENTS	**TASKS**	**TIME FRAME START-END**	**RESPONSIBILITY**	**STATUS**
SDM	***En-route airspace*** ensure that the automation and software requirements of local systems are fully adaptable to the changes envisaged in the new FPL form.	2009		
	ensure that issues related to the ability of FDPSs to parse information correctly and to correctly identify the order in which messages are received, to ensure that misinterpretation of data does not occur.	2009-2012		
	analyze each individual data item within the various fields of the new flight plan form, comparing the current values and the new values to verify any problems with regard to applicability of service provided by the facility itself or downstream units.	2009		
	ensure that there are no individual State peculiarities or deviations from the flight plan provisions.	2009-2012		
	ensure that the accepting ATS Reporting Office accepts and disseminates all aircraft capabilities and flight intent to all the downstream ACCs as prescribed by the PANS-ATM provisions.	2012		
	plan the transition arrangements to ensure that the changes from the current to the new ICAO FPL form occur in a timely and seamless manner and with no loss of service.	2009-2012		
	in order to reduce the change of double indications it is important that any State having published a specific requirement(s) which are now addressed by the amendment should withdraw those requirements in sufficient time to ensure that aircraft operators and flight plan service providers, after 15 November 2012, use only the new flight plan indications.	2009-2012		
	establish a central depository in order to track the implementation status and inform the ICAO regional offices on an ongoing basis.	2009		
Link to GPIs	*GPI-5: Performance based navigation.* GPI-18: Aeronautical Information. *GPI-9: Situational awareness.* *GPI-11: RNP and RNAV Standard Instrument Departures (SIDs) and Standard Terminal Arrivals (STARs).* *GPI-17: Implementation of data link applications.*			

<div align="right">**APPENDIX B**</div>

AFI New ICAO Flight Plan Implementation Task Force (NFPL /TF)

1-Terms of Reference

The terms of reference of the NFPL/TF are:

1) To conduct a comprehensive review of Amendment 1 to the Fifteenth Edition of the PANS ATM (Doc 4444, effective 15 November 2012) in order to identify, study and address implementation issues arising from the adoption of amended PANS-ATM Chapter 4, Chapter 11, Appendix 2 and Appendix 3 provisions relating to the ICAO Flight Plan and associated ATS Message formats; and

2) As a result of the review, and in accordance with relevant additional ICAO provisions, prepare and promulgate coordinated AFI transition strategies and plans with associated timelines to enable the streamlined implementation of the amended Flight Plan and ATS Message provisions contained in Amendment 1 to the Fifteenth Edition of the PANS-ATM.

In addressing these terms of reference, the Task Force should consider, *inter alia,* the following aspects:

1) Likelihood that such changes within local systems will differ between Regions and systems, therefore global transition is not feasible in view of the localized issues and APIRG is best placed to authorize regional transition plans;

2) Inter and intra regional issues;

3) Impact on inter-system co-ordination messaging (e.g. AIDC)

- AIDC guidelines and other regional documents will need to be updated;

4) Contingency arrangements for States that cannot comply by the due date;

- How to handle staged implementations by States and/or airspace users,

- Expectations across ANSPs with different implementation dates, and

- Systems that transition early will need to be capable of handling both new and current instruction sets.

5) Inter-system exchanges need to take account of differing automation capabilities in order to avoid excessive message rejection;

6) Establishment of an Information Management system to track implementation timelines for various States/systems;

7) Management of Repetitive Flight Plans;

8) Implications for presentation formats, including paper and electronic flight progress strips;

9) Impacts to users (flight planning systems etc); and

10) Appropriately timed withdrawal of existing State or Regional specific requirements to ensure consistency with new instruction set.

2-Membership

Proposed membership of the Task Force should include, but is not limited to, operational and systems engineering personnel from the following States:

Algeria, Cape Verde, Ghana, Kenya, Morocco, Nigeria, Senegal, Seychelles, South Africa, Spain (Canary Island), ASECNA, IATA, IFATCA and IFALPA.

Industry participation, if required, is to be included under responsibility of State delegations or with approval from the ICAO AFI Regional Offices.

3-Reporting

Report progress to ATM/AIS/SAR/SG, CNS/SG, TAG, and APIRG.

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