



International Civil Aviation Organization
Western and Central African Office

**Twelfth Meeting of the Air Traffic Management/Aeronautical
 Information Management/Search and Rescue Sub-Group
 (ATM/AIM/SAR SG/12)
 (Dakar, Senegal, 25 - 29 July 2011)**

Agenda Item 7: Transition to the New ICAO Flight Plan

Preparation for Implementation of the New ICAO Flight Plan Format

(Presented by the Secretariat)

SUMMARY

This paper highlights outcome of the first two seminars/workshops planned pursuant to APIRG Conclusion 17/62, as well as outcome of FPLT TF/2 meeting, for consideration by the Sub-Group.

Action by the meeting is **at paragraph 3**.

REFERENCES

APIRG/17 Report
 FPLT TF/2 Report

This Working Paper is related to Strategic Objectives: **A**

1. INTRODUCTION

1.1 The Second meeting of the AFI Flight Plan Transition Task Force (FPLT TF/2) was held at the Silver Springs Hotel in Nairobi, Kenya, from 16 to 18 February 2011. The two and half day meeting was convened at the end of the *Workshop on ICAO 2012 Flight Plan Provisions* (14-16 February 2011), in order to benefit from the Workshop proceedings and expertises.

1.2 Amongst others, the FPLT TF/2 meeting updated the Regional Strategy for implementation of Amendment 1 to 15th edition of Doc 4444, reviewed the Regional Performance Objectives and developed a model for National performance framework form (PPF), as well as a Conversion Table for New and Present content of the flight plan. Copies the above are provided at **Appendixes A, B, C and D** respectively.

1.3 The FPLT TF/2 also reviewed its terms of reference (TOR) and formulated two Draft Conclusions as at **Appendix E and Appendix F** respectively, for consideration by the

ATM/AIM/SAR SG/12 and APIRG/18.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this working paper;
- b) endorse the FPLT TF/2 Conclusions at **Appendix F** to this working paper; and
- c) endorse the updated TOR of the FPLT Task Force at **Appendix E** to this working.

APPENDIX A

**(DRAFT) AFI STRATEGY FOR THE IMPLEMENTATION OF
NEW ICAO FLIGHT PLAN FORMAT AND SUPPORTING ATS MESSAGES****Recognizing that:**

- 1) The Global Air Traffic Management Operational Concept (Doc 9854) requires information management arrangements that provide accredited, quality-assured and timely information to be used to support ATM operations;
- 2) ATM Requirement 87 in the Manual of Air Traffic Management System Requirements (Doc 9882) provides that 4-D trajectories be used for traffic synchronization applications to meet ATM system performance targets, explaining that automation in the air and on the ground will be used fully in order to create an efficient and safe flow of traffic for all phases of flight;
- 3) The amended ICAO Flight Plan and associated ATS Message formats contained in Amendment 1 to the Fifteenth Edition of the PANS ATM (Doc 4444, applicable 15 November 2012) have been formulated to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management systems;
- 4) The complexities inherent in automated computer systems preclude the adoption of a single regional implementation date and transitions to the new flight plan format will therefore occur in accordance with the declared transition period described in this document.
- 5) All States shall implement all provisions of Amendment 1 to the Fifteenth Edition of the PANS ATM (Doc 4444, applicable 15 November 2012).
- 6) APIRG 17 established the AFI FPLT TF under Decision 17/61 to facilitate and guide the transition and implementation.

The AFI implementation of Amendment 1 to the PANS-ATM shall:

- 1) Ensure that all States and airspace users implement all the provisions of Amendment 1 from 15 November 2012, not just selected aspects of the Amendment;
- 2) Acknowledge that States, having taken all practical efforts to fully implement all the Amendment 1 provisions in accordance with guidelines, are obliged, in event of any non-implemented provisions, to inform ICAO about the “significant difference” in accordance with established ICAO procedures by 30 June 2011 and publish such difference in their State AIPs. However, that such action may not be taken before interested stakeholders including international organizations have been given an opportunity to intervene in pre-empting the “significant difference.”

Note: *The “significant difference” in this context does not relate to Standards and the obligation imposed by Article 38 of the Convention. It however, relates to provisions of Annex 15 to the Convention, inter alia, under section 4.1 thereof, regarding*

publication of significant differences between State practices and SARPs and procedures.

- 3) Ensure that, from 15 November 2012, all States and airspace users accept and disseminate the 'NEW' flight plan and associated ATS message formats only, and capabilities for 'PRESENT' flight plan provisions are forthwith discontinued.

(Note: In the context of the implementation, 'PRESENT' refers to the existing flight planning and ATS message formats as defined in the current version of the PANS-ATM and 'NEW' refers to the amended provisions as contained in Amendment 1 to the PANS-ATM.)

The AFI transition to the PANS-ATM Amendment 1 provisions shall:

- 1) Comply with the regional guidance provided by APIRG's FPLT TF;
- 2) Preserve global consistency in implementation by basing implementation activities, to the extent possible, on Guidelines 1 to 6 described in the ICAO guidance material circulated under cover of State Letter AN 13/2.1-09/9 dated 6 February 2009;
- 3) Ensure that the FPLT TF undertakes coordination to facilitate harmonization with implementations in neighbouring regions;
- 4) Take all necessary measures to ensure that State specific constraints are reduced, if not eliminated;
- 5) Declare a transition period from 1 January 2012 until 14 November 2012, comprising:
 - 1 January to 31 March 2012 - ANSPs software delivery and internal testing,
 - 1 April to 30 June 2012 – ANSPs implementation, and
 - 1 July to 14 November 2012 – airspace users testing and implementation.
- 6) Notwithstanding paragraph 5 above, commence with implementation process as soon as practical, and not await the transition period;
- 7) Not implement 'NEW' capability by States before the commencement of the ANSPs external testing and implementation period.
- 8) Insofar as possible, complete ANSP implementation of 'NEW' capability by the end of the ANSPs external testing and implementation period.
- 9) Recognizing the risk to automated systems of having all airspace users simultaneously commencing 'NEW' on the common implementation date (15 November 2012), encourage users to take full advantage of the airspace users testing and implementation period to ensure operational readiness of flight planning systems;
- 10) Encourage States (ANSPs) and airspace users to coordinate appropriate implementation methodologies in order to ensure a staggered migration of airspace users to 'NEW' during the airspace users testing and implementation period (i.e. 1 July – 14 November 2012);

- 11) Encourage States (ANSPs) and airspace users to immediately commence preparations to implement Amendment 1 provisions in accordance with the declared transition period and report progress to the Regional Offices quarterly (i.e., January, April, July and September).
- 12) Require States to inform the Regional Offices of scheduled transition dates immediately (not later than 30 June 2011);
- 13) Make necessary preparations in order to accommodate up to 120 hours prior to Estimated Off Blocks Time (EOBT) as of 15 November 2012; and
- 14) Require that States retain capability to simultaneously support 'PRESENT' and 'NEW' provisions (flight plan and ATS message format) from the activation of their 'NEW' capabilities until the end of the transition period (i.e. until and inclusive of 14 November 2012), at which point 'PRESENT' capability shall be discontinued.

APPENDIX B

ATM PERFORMANCE OBJECTIVES

REGIONAL PERFORMANCE OBJECTIVE - IMPLEMENTATION OF THE NEW ICAO FPL PROVISIONS BY 15 NOVEMBER 2012				
Benefits				
Environment Efficiency	<ul style="list-style-type: none"> • reductions in fuel consumption • ability of air navigation service providers to 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	<ul style="list-style-type: none"> • enhance safety by use of modern capabilities onboard aircraft 			
<i>Strategy</i>				
<i>Short term (2010-2012)</i>				
ATM OC COMPONENTS	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AUO SDM	<ul style="list-style-type: none"> • 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-June 2011	States	Ongoing
	<ul style="list-style-type: none"> • ensure that the capabilities of local systems are fully adaptable to the changes envisaged in the new FPL form 	2010	States	Ongoing
	<ul style="list-style-type: none"> • ensure the ability of FDPS's to parse information correctly to guarantee that misinterpretation of data does not occur 	2010	States	Ongoing
	<ul style="list-style-type: none"> • 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 issue regarding the provision of service by the flight planning facility itself or downstream units 	2010	States	Ongoing
	<ul style="list-style-type: none"> • ensure that there are no individual State peculiarities or deviations from the flight plan provisions 	2011	States	Ongoing
	<ul style="list-style-type: none"> • 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	States	Ongoing

	<ul style="list-style-type: none"> • 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 • inform on the implementation status to the ICAO regional offices on an ongoing basis • keep the Flight Plan Implementation Tracking System (FITS) up to date based on the information provided by the States 	2010-2012	States	Ongoing
		2010-2012	States	Ongoing
		2010-2012	ICAO Regional Offices	Ongoing
<p>linkage to GPIs</p>	<p>GPI/5 RNAV and RNP (Performance-based navigation) GPI-12 Functional integration of ground systems with airborne system GPI/18 Aeronautical Information</p>			



APPENDIX C

ATM PERFORMANCE OBJECTIVES

NATIONAL PERFORMANCE OBJECTIVE - IMPLEMENTATION OF THE NEW ICAO FPL PROVISIONS BY 15 NOVEMBER 2012				
Benefits				
Environment Efficiency	<ul style="list-style-type: none"> • reductions in fuel consumption • ability of air navigation service providers to 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	<ul style="list-style-type: none"> • increase airspace capacity • enhance safety by use of modern capabilities onboard aircraft • enhance the success of SAR operations • generally enable PBN and other advanced navigation capabilities 			
<i>Strategy Short term (2010-2012)</i>				
ATM OC COMPONENT S	TASKS	TIMEFRAME START-END	RESPONSIBILITY	STATUS
AUO SDM	<ul style="list-style-type: none"> • Negotiation and Approval - Acceptance and agreement of the changes to the flight plan form 	May 2010	States	Completed
	<ul style="list-style-type: none"> • Assembly of Focus Team <ul style="list-style-type: none"> ○ Composition of Team ○ Appoint Members ○ Issue Identification ○ 	Until 31 December 2010	States / ANSP's	Completed
	<ul style="list-style-type: none"> • Compilation of Action Plan <ul style="list-style-type: none"> ○ GAP Analysis ○ Identify actions and assign responsibilities ○ Assign Target Dates & Milestones 	Until 31 December 2010	States / ANSP's	Completed

	<ul style="list-style-type: none"> • Maintain awareness of impact of changes <ul style="list-style-type: none"> ○ Regional task force meetings ○ Regional seminars and workshops ○ National awareness campaigns and stakeholder meetings 			2009
	<ul style="list-style-type: none"> • Solution Production <ul style="list-style-type: none"> - Inventory of ATM Systems. - Audit the inventory of the ATM systems and identify those impacted and the changes required e.g. flight data processing systems (FDPs), AMHS, AFTN, Flight Planning etc - Solution identification - Determine specifications - Solution production - Factory Acceptance testing - Identify actions and assign responsibilities 	Until 31 December 2011	States / ANSP's	Ongoing

	<ul style="list-style-type: none"> • ANSP Implementation • Solution delivery and testing <ul style="list-style-type: none"> - Development - Offline - Training • Identify key translation entry criteria <ul style="list-style-type: none"> - Safety assurance - Training (ongoing beyond Mar 2012) - Documentation production. distribution - Operational interface checks - Transition rehearsals - Transition plans (Document) - Reversion plan development - Operational readiness demonstrations (ORD) <p>(Note this list is far from exhaustive and should be expanded based on the GAP analysis)</p>	February 2011 – 31 Mar 2012	States/ANSP's	Planning of activities to start as soon as possible
	<ul style="list-style-type: none"> • Transition into operations 	1 April 2012 - 30 June 2012	States	
	<ul style="list-style-type: none"> • 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 <u>withdraw those requirements</u> in sufficient time to ensure that aircraft operators and flight plan service providers, after 14 November 2012, use only the new flight plan indications <ul style="list-style-type: none"> ○ <u>withdraw requirements</u> ○ <u>issue notification of withdrawal</u> 	2010-December 2011	States/ANSP's	Ongoing
	<ul style="list-style-type: none"> • Review SUPPS and align (remove any items which have become obviated by Amendment 1) <ul style="list-style-type: none"> ○ Review Doc 7030 and identify procedures that need action ○ Identify recommendable implementation dates ○ Develop and circulate amendment proposal 	Feb 2011 to June 2012	FPLT TF and Regional Offices	Review to start immediately.
	<ul style="list-style-type: none"> • Inform on the implementation status to the ICAO regional offices on an ongoing basis (Quarterly, at end of each quarter) 	2010-2012	States/ANSP's	Ongoing
	<ul style="list-style-type: none"> • Keep the Flight Plan Implementation Tracking System (FITS) up to date based on the information provided by the States 	2010-2012	ICAO Regional Offices	Ongoing

	<ul style="list-style-type: none"> Airspace users implementation (Present and New) 	1 July 2012 - 14 November 2012	Airspace users	
	<ul style="list-style-type: none"> Only filing of new flight plans 	15 November 2012 onwards.	States Airspace users	
Linkage to GPs	GPI/5 RNAV and RNP (Performance-based navigation) GPI-12 Functional integration of ground systems with airborne system GPI/18 Aeronautical Information GPI/8 Collaborative Airspace Design and Management			

APPENDIX D

CONVERSION TABLE FOR NEW ITEMS 10 AND 18 TO PRESENT ITEMS 10 AND 18

The following table has used as a basis the attachment to State letter AN 13/2.1 – 09/9 providing **Guidance for implementation of flight plan information to support Amendment 1 of the Procedures for Air Navigation Services — Air Traffic Management, Fifteenth Edition (PANS-ATM, DOC 4444)**.

NEW data in these columns		Converts to PRESENT data in these columns		
Field 10a	Field 18	Field 10a	Field 18	
COM / NAV	N	N		
	S	VOL		
	SF	S		
	A		Z	NAV/ GBAS
	B		Z	NAV/ LPV
	C		C	
	D		D	
	E1		Z	COM/ E1 RMK/FMC WPR ACARS
	E2		Z	COM/ E2 RMK/DFIS ACARS
	E3		Z	COM/ E3 RMK/PDC ACARS
	F		F	
	G	(NAV/nnnn)	G	(NAV/nnnn)
	H		H	
	I		I	
	J1		J ¹	DAT/ V COM/ J1
	J2		J	DAT/ H COM/ J2
	J3		J	DAT/ V COM/ J3
	J4		J	DAT/ V COM/ J4
	J5		J	DAT/ S COM/ J5
	J6		J	DAT/ S COM/ J6
	J7		J	DAT/ S COM/ J7
	K		K	
	L		L	
	M1		Z	COM/ M1 RMK/INMARSAT
	M2		Z	COM/ M2 RMK/MTSAT
	M3		Z	COM/ M3 RMK/IRIDIUM
	O		O	
	P1-P9	Reserved		
	R	PBN/ A1	R and Z	NAV/ A1 RMK/RNAV10 RNP10
		PBN/ B1	R	NAV/ B1 RMK/RNAV5
		PBN/ B2	R	NAV/ B2 RMK/RNAV5
		PBN/ B3	R	NAV/ B3 RMK/RNAV5
PBN/ B4		R	NAV/ B4 RMK/RNAV5	
PBN/ B5		R	NAV/ B5 RMK/RNAV5	
PBN/ B6		R	NAV/ B6 RMK/RNAV5	
PBN/ C1		R and Z	NAV/ C1 RMK/RNAV2	
PBN/ C2		R and Z	NAV/ C2 RMK/RNAV2	
PBN/ C3	R and Z	NAV/ C3 RMK/RNAV2		

¹ In Old format, the DAT/ element is compulsory if 'J' is present in Field 10a. However, the PRESENT DAT/ element can only contain the descriptors 'S', 'H', 'V', 'M'.

NEW data in these columns		Converts to PRESENT data in these columns	
Field 10a	Field 18	Field 10a	Field 18
	PBN/ C4	R and Z	NAV/ C4 RMK/RNAV2
	PBN/ D1	P and R	NAV/ D1 RMK/RNAV1
	PBN/ D2	P and R	NAV/ D2 RMK/RNAV1
	PBN/ D3	P and R	NAV/ D3 RMK/RNAV1
	PBN/ D4	P and R	NAV/ D4 RMK/RNAV1
	PBN/ L1	R and Z	NAV/ L1 RMK/RNP4
	PBN/ O1	P, R and Z	NAV/ O1 RMK/RNP1
	PBN/ O2	P, R and Z	NAV/ O2 RMK/RNP1
	PBN/ O3	P, R and Z	NAV/ O3 RMK/RNP1
	PBN/ O4	P, R and Z	NAV/ O4 RMK/RNP1
	PBN/ S1	G and Z	NAV/ S1 RMK/RNP APCH
	PBN/ S2	G and Z	NAV/ S2 RMK/RNP APCH BARO VNAV
	PBN/ T1	G and Z	NAV/ T1 RMK/RNP AR APCH RF
	PBN/ T2	G and Z	NAV/ T2 RMK/RNP AR APCH
T		T	
U		U	
V		V	
W		W	
X		X	
Y		Y	
Z	COM/ nnnn	Z	COM/ nnnn
Z	NAV/ nnnn	Z	NAV/ nnnn
Z	DAT/ S, H, V, M or DAT/ nnnn	J and Z Z	DAT/ S, H, V, M COM/ nnnn ²

² The NEW definition of DAT/ allows free text, the OLD definition does not. If the NEW DAT/ is compliant with the OLD definition it shall be retained within DAT/ and a 'J' added in Field 10a, if the NEW DAT/ contains free text it shall be translated into COM/.

NEW data in these columns		Converts to PRESENT data in these columns		
Field 10a	Field 18	Field 10a	Field 18	
SUR/	N		N	
	A		A	
	C		C	
	E		S and D	COM/ E
	H		S	COM/ H
	I		I	
	L		S and D	COM/ L
	P		P	
	S		S	
	X		X	
	B1		D	COM/ B1
	B2		D	COM/ B2
	U1		D	COM/ U1
	U2		D	COM/ U2
	V1		D	COM/ V1
	V2		D	COM/ V2
	D1		D	COM/ D1
	G1		D	COM/ G1

APPENDIX E**AFI Flight Plan Transition Task Force (FPLT TF)
Terms of Reference (TOR)****Terms of reference:**

- 1) 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 complexities 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;
- 2) Collect and analyze information on the status of AFI ANSP flight plan processing systems including ongoing upgrades to such systems;
- 3) On the basis of the above, and in accordance with relevant additional ICAO provisions and the SP AFI/8 RAN Recommendation 6/5, develop a coordinated AFI transition strategy and plan with associated timelines to enable the streamlined coordinated implementation of the amended Flight Plan and ATS Message provisions contained in Amendment 1 to the Fifteenth Edition of the PANS ATM; and
- 4) Periodically review the status of preparedness and propose solutions.

Considerations:

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

- a) Likelihood that changes within the systems in the AFI Region could differ from systems in other ICAO Regions and accordingly provide recommendable Regional action with global goals;
- b) Inter and intra regional issues;
- c) Impact on inter-system co-ordination messaging (e.g. ATS AIDC);
- d) Systems that transition early will need to be capable of handling both “NEW” and “PRESENT” instruction sets;
- e) Inter-system exchanges need to take account of differing automation capabilities in order to avoid excessive message rejection;
- f) Establishment of an Information Management system to track implementation timelines for various States/systems;
- g) Management of Repetitive Flight Plans;
- h) Implications for presentation formats, including paper & electronic flight progress strips;
- i) Impacts to users (flight planning systems etc);
- j) Appropriately timed withdrawal of existing State or Regional specific requirements to ensure consistency with new (global) instruction set; and
- k) Existing ICAO guidance material.

Membership

Core members:

- ATM specialist and systems engineering experts (CNS) from AFI States and ANSPs with existing and planned automated flight plan processing systems
- ASECNA, IATA, IFALPA, IFATCA,

Note:

Algeria, Kenya, Senegal, Seychelles, South Africa, Sudan and Tanzania have offered their expertise as core members.

Other members

AFI States and ANSPs other than the above

Expertise from States, ANSPs outside the AFI Region that may be invited by the Task Force based on beneficial inputs they may contribute

Note:

Industry participation including systems providers, if required, is to be included under responsibility of State delegations. The Task Force may however, invite specific expertise from international organizations and relevant aviation industry entities (including vendor organizations) in order to enhance information available for the Task Force to progress its work. Such invitations shall be managed to exclude promotion commercial interests.

Reporting

The Task Force shall report progress to the AFI ATM/AIM/SAR Sub-Group. However, owing to the limited time available for planning and in some cases acquisition of systems, valuable planning information emanating from the Task Force may, after coordination with the Secretary of APIRG be provided to States without waiting for forthcoming meetings of the AFI ATM/AIM/SAR Sub-Group.

FOLLOW UP ON CONCLUSIONS & DECISIONS FROM THE FIRST MEETING OF THE AFI FLIGHT PLAN TRANSITION TASK FORCE (FPLT TF/1)

Conclusions/Decisions No. Strategic Objectives	Title of Conclusion /Decision	Text of Conclusion/Decision	Follow-up Action	To be initiated by	Deliverable Intended Outcome	Target Dates	Status of Implementation
DRAFT CONCLUSION 1/1 A	STRATEGY FOR IMPLEMENTATION OF NEW ICAO FLIGHT PLAN FORMAT	<p>That, in order to implement the NEW flight plan format in a progressive and harmonized manner:</p> <p>a) the AFI Strategy for Implementation of NEW ICAO Flight Plan format is adopted as at Appendix 3A to the report on agenda item 3; and</p> <p>b) States and users are urged to continue their implementation planning based on the Strategy</p>	Develop national strategy	States	National Strategy	2010	Completed
			Implement national strategy	States	Implemented national strategy	2010-2012	On-going
DRAFT DECISION 1/2 A	REVISED TERMS OF REFERENCE OF THE AFI FLIGHT PLAN TRANSITION TASK FORCE (FPLT TF)	That, in order to enable the work of the FPLT TF, the Terms of Reference of the Task Force is revised as at Appendix B to the report on agenda item 4.	Give effect to TOR	FPLT TF	Revised FPLT TOR	2010-2012	On-going

Note 1: ICAO has established the following Strategic objectives for the period 2011-2012-2013

A: Safety: Enhance global civil aviation safety;

B: Security: Enhance Global civil aviation security;

C: Environmental Protection and Sustainable Development of Air Transport: Foster harmonised and economically viable development of international civil aviation that does not unduly harm the environment.
