



International Civil Aviation Organization
CAR/SAM Regional Planning Implementation Group (GREPECAS)
**First Meeting of the Communications, Navigation and Surveillance / Air
Traffic Management Subgroup (CNS/ATM/SG/1)**
(Lima, Peru, 15 to 19 March 2010)

Agenda Item 4: Review to pending matters of the ATM/CNS/SG, ATM/COMM, CNS/COMM and respective Task Forces, for consideration in the CNS/ATM Subgroup work programme

IMPLEMENTATION OF THE NEW ICAO FLIGHT PLAN FORM (FPL)

(Presented by the Secretariat)

SUMMARY

State Letter AN 13/2.1-08/50 dated 25 June 2008, announced significant changes to the ICAO flight plan form (FPL), through amendment to PANS ATM, Doc 4444. These changes should provide a significant improvement to the service and shall require greater changes to the system, both to airspace users and air navigation service providers (ANSP). As per the implementation plan presented in this working paper, airspace users and ANSPs shall comply with the implementation date of the new FPL format on 15 November 2012, at a worldwide level.

References:

- State Letter AN 13/2.1-08/50 dated 25 June 2008; and
- Doc 4444, PANS-ATM

Strategic Objectives:

A – Safety
D – Efficiency

1. Introduction

1.1 State Letter AN 13/2.1-08/50 was published on 25 June 2008, amending the 15th Edition of PANS-ATM, Doc 4444. Even though the FPL format shall continue to be relatively consistent with that currently used, a number of changes will be required in the descriptions of fields used in the ICAO flight plan format.

1.2 Amendment 1 to the PANS-ATM (15th edition) was published to update the ICAO flight plan model format to comply with aircraft needs with advanced capabilities and requirements developed of air traffic management (ATM) automated systems, taking into account at the same time compatibility with existing systems, human factors, training, cost and transition aspects. To this end, GREPECAS/15 adopted Conclusion 15/35 for the implementation the new ICAO flight plan format.

2 Analysis

2.1 Taking into consideration that the transition to the current flight plan format and requirements related to the new flight plan may present a challenge to States and organizations involved in flight plans, ICAO drafted guidance material to facilitate implementation of the changes shown in **Appendix A** to this working paper. The primary objective of the guidance material is to support global coordination efforts during the transition period.

2.2 States/Territories/International Organizations should adopt implementation strategy and make the necessary efforts to ensure continuity of operations during the transition period, considering that the flight plan information presented is essential for the ATM System. Likewise, coordination should be made of their implementation plans with ICAO NACC and SAM Regional Offices, with sufficient time in advance to the valid date, so that airspace users and ANSPs may coordinate and resolve any unexpected situation.

2.3 As part of the implementation planning of the new flight plan format, **Appendix B** to this working paper presents a strategy document which contains a macro analysis of the impact in automated or non-automated ATM systems, as well as in data communication systems, both technical and operational in the CAR/SAM Regions. At the same time, the document analyses the operational impact and establishes criteria for the preparation during transition and post-transition, as well as administrative and financial aspects.

2.4 Also, **Appendix C** presents an action plan based in a performance scope, which identifies deadlines and individual parts responsible to monitor the progress, so as to achieve a successful and coordinated implementation of the new flight plan format.

2.5 The meeting should analyse and approve the strategy document and the action plan, based in a performance scope, so that the same may be used by CAR/SAM States/Territories, for the drafting of national plans for the implementation of the new flight plan format.

2.6 Some by CAR/SAM States have already adopted action plans to implement the new ICAO FPL format; however, it is necessary that efforts be regional and globally coordinated, to achieve a harmonious implementation of the new requirements on this matters.

2.7 One of the main concerns of airspace users is the possible post-implementation challenge after 15 November 2012, for those States and providers that may not implement by the target date and the consequences for them. To ensure an effective coordination, by States/Territories/International Organizations which have not done so yet, should nominate points of contact (POC) which shall become the link between ICAO and States/Territories/International Organizations for FPL implementation matters.

2.8 Additionally, ICAO has developed a website called Flight Implementation Tracking System (FITS), where the status of implementation of the new regulations in all flight information regions (FIRs) will be registered. Information related with the matter, and issues related to the implementation will be uploaded into this website, same which will be available so that points of contact designated by States/Territories/International Organizations exchange information on this matter. **Appendix D** includes a list of CAR/SAM States/Territories/International Organizations grouped by flight information regions (FIR) that ICAO has prepared for the FITS.

2.9 To ensure that States/Territories/International Organizations carry out a timely and homogeneous transition, from the CURRENT to the NEW ICAO FPL format, the Meeting should support the following Conclusion:

DRAFT

CONCLUSION 1/XX - IMPLEMENTATION OF THE NEW FLIGHT PLAN FORMAT IN THE CAR/SAM REGIONS

That, considering the importance of the implementation of amendment 1 to the Fifteenth Edition of Doc 444 which application is foreseen for 2010, CAR/SAM States/Territories/International Organizations:

- a) Develop action plans, taking into account the regional strategy and the action plan based in a performance scope, which includes, respectively, as Appendices B and C to this working paper, for the harmonious implementation of the new ICAO flight plan format and the ATS messages related;
- b) Designate experts who participate as points of contact to coordinate with other air navigation services providers of States/Territories/International Organizations from adjacent flight information regions (FIRs), implementation matters of ATS messages related with the implementation of the new ICAO flight plan format (FPL); and
- c) Send the information of points of contact and the result of this implementation to the ICAO NACC and SAM Regional Offices, not later than 30 November 2011.

3 Suggested action

3.1 The meeting is invited to:

- a) Take note of the information contained in this working paper;
- b) Analyse the strategy document and the action plan based on a performance scope, presented as Appendices B and C of this working paper;
- c) Examine and consider the adoption of the draft conclusion contained in paragraph 2.9 above; and
- d) Analyse other related aspects that the meeting may consider pertinent.

APPENDIX A

GUIDANCE FOR IMPLEMENTATION OF FLIGHT PLAN INFORMATION TO SUPPORT AMENDMENT 1 TO PANS-ATM, DOC 4444, FIFTEENTH EDITION

1. INTRODUCTION

1.1. The guidance contained herein is provided to assist airspace users and Air Navigation Service Providers (ANSP) implement the flight planning changes incorporated by Amendment 1 to Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM, Doc 4444) Fifteenth Edition.

1.2. This guidance do not change any provision in Annex 2 or PANS-ATM regarding completion and acceptance of a flight plan.

1.3. The changes were announced by ICAO on the 25 June 2008 in State Letter 50/2008 and will become applicable on 15 November 2012.

1.4. The changes have considerable consequences on ANSP flight data processing systems. Changes are required to ANSP flight data processing systems that check and accept flight plans and related messages, use flight plan data in displays for controller reference, use data in ANSP automation and affect information that is communicated between ANSPs as the flight progresses. Preparation for the changes should therefore be made well in advance of 15 November 2012.

1.5. The changes also have consequences for airspace users. If a flight plan with new content is sent to an ANSP that has not yet changed to accept the new content then it is likely that some information will be lost, misinterpreted or cause a rejection of the flight plan.

1.6. No start date has been given for implementation of the changes to commence, however one reason for the ICAO State Letter on 25 June 2008 was to allow recipients “to begin updating your flight plan data processing systems”. The transition period for the changes is therefore from 25 June 2008 until 15 November 2012.

1.7. It is recognized that changes will be implemented by airspace users and ANSPs on individual schedules due to individual needs, however some coordination will occur.

1.8. It is essential to the success of this implementation that all airspace users and ANSPs be able to submit and process flight information in accordance with Amendment 1 to PANS-ATM (Doc 4444) Fifteenth Edition by 15 November 2012, as processing via present methods is not assured after that date.

2. OBJECTIVE

2.1. The purpose of the guidance contained herein is to support a coordinated global effort during the transition period so that a successful transition is achieved by the applicable date of 15 November 2012.

3. APPLICABILITY

3.1. This guidance applies to airspace users, ANSPs, Planning and Implementation Regional Groups (PIRG). Note that flight planning services and related organizations involved in the processing of flight plans are considered part of the airspace user community and, as such, are covered under this guidance.

3.2. This document presents guidelines which should be considered when developing implementation plans for this Amendment. Adherence to these guidelines will mitigate risks associated with the technical challenges inherent during the transition period and assure that users are able to meet flight planning requirements as individual ANSPs implement changes.

3.3. This document applies with immediate effect and continues until the complete implementation of Amendment 1 to PANS-ATM Fifteenth Edition.

4. **SCOPE**

4.1. This guidance is limited to transitioning to flight planning and Air Traffic Services (ATS) message changes defined in Amendment 1 to PANS-ATM Fifteenth Edition, including message content and submission instructions.

5. **FLIGHT PLANNING ENVIRONMENT**

5.1. In order to allow performance case considerations to drive individual airspace user and ANSP implementation schedules, the ATM system will need to simultaneously support both present and new flight plan information and content for a period of time.

5.2. Amendment 1 to PANS-ATM Fifteenth Edition contains changes to length and content of items. The changes to content are:

- Change the way aircraft equipage and capabilities are communicated to provide more detail;
- Provide additional means of describing route way points (specifically bearing and distance from points other than navigation aids); and,
- Permit specification of the date of flight in a standardised manner.

5.3. The existing flight planning environment supports a variety of means of filing flight plans. For example flight plans can be filed directly by the airspace user to each ANSP individually or flight plans can be filed by the airspace user at one location and then the ATM system distributes the flight plan. Amendment 1 does not specifically change these options; however the means of transitioning to Amendment 1 may impose some requirements during the transition.

5.4. The existing ATM system supports a variety of means of ANSPs communicating flight plan data between ANSP systems, for example use of coordination messages where Amendment 1 implies changes of content.

6. **IMPLEMENTATION GUIDELINES**

6.1. **PRESENT** is defined as the present flight planning and ATS message formats as defined in the current version of PANS-ATM (Doc 4444) Fifteenth Edition.

6.2. **NEW** is defined as the flight planning and ATS message formats as specified in Amendment 1 to PANS-ATM (Doc 4444) Fifteenth Edition.

6.3. The transition period is from 25 June 2008 until the applicability date of 15 November 2012.

6.4. These guidelines have been developed to facilitate concurrent use of both **PRESENT** and **NEW** formats by airspace user and ANSP flight data processing systems during the transition period.

6.5. **Guideline 1:** As each ANSP transitions to **NEW** content, it is essential that they also support present content until the applicability date of 15 November 2012.

6.5.1. There is no requirement for ANSPs to accept and process PRESENT after the applicability date, unless specified by the appropriate authority.

6.5.2. This guideline relates directly to the transition environment in which a segment of airspace users (and ANSPs) do not amend their flight planning systems until the end of the transition period.

6.6. **Guideline 2:** PIRGs are encouraged to plan and publish regional implementations sufficiently in advance of the applicability date so that airspace users and ANSPs can respond to and resolve any unforeseen operational issues.

6.6.1. It is anticipated that implementation will occur progressively as each PIRG works with their member States/International Organizations and airspace users to coordinate a regional transition prior to 15 November 2012.

6.6.2. Transition plans should encourage all ANSPs transition to NEW a period of time before 15 November 2012 to allow airspace users a transition period to NEW before the applicability date.

6.6.3. Transition plans should take into account that the airspace user may not be able to make use of the new opportunities provided by NEW content until an ANSP has transitioned. Even then, use of NEW content may be restricted in its application if the flight still involves ANSPs who have not transitioned.

6.7. **Guideline 3:** During the transition period and after an ANSP has advised that they can accept NEW flight plans, the determination to file NEW content or PRESENT content with that ANSP is the choice of the airspace user.

6.7.1. It is expected that airspace users will make the decision on what format to file based on performance gains which may be achieved through capability information in Items 10 and/or 18 of the NEW flight plan form.

6.7.2. It is intended that all airspace users will file NEW from the applicability date forward, as using PRESENT is not assured after that date.

Note: The following guidelines apply only to situations where ANSPs affected by a flight have not all transitioned to NEW.

6.8. **Guideline 4:** During the transition period when not all ANSPs affected by a flight have transitioned to NEW, the airspace user must ensure that PRESENT flight plan information is filed with ANSPs who have not transitioned.

6.8.1. This can be achieved by the airspace user filing only PRESENT information with all ANSPs (as ANSPs supporting NEW will also support PRESENT during transition).

6.8.2. ANSPs using PRESENT may misinterpret, and may reject, flight plan information that is filed more than 24 hours in advance of flight. Filing more than 24 hours in advance of flight cannot be used if one or more ANSPs affected by a flight have not transitioned (unless those ANSPs already support filing more than 24 hours in advance of flight). Although ANSPs using NEW could accept the flight plan they may not be able to pass essential coordination to ANSPs using PRESENT.

6.8.3. The airspace user may choose to file NEW to ANSPs that have transitioned and PRESENT to ANSPs that have not transitioned. However without special transitional procedures, a situation can occur where the NEW information would only be useable until the first ANSP along route of flight using PRESENT. This is because the ANSP using NEW will not be able to coordinate NEW information with ANSPs using PRESENT.

6.9. **Guideline 5:** To facilitate user decisions on whether to file PRESENT, NEW or a combination of PRESENT/NEW, ICAO will maintain a repository of information on the ICAO website regarding the ability of each ANSP to accept PRESENT or NEW.

6.9.1. This information which will be publicly available is in addition to the normal methods of communication between an ANSP and its airspace users.

6.9.2. Each ANSP will communicate, via State and ICAO Regional Offices, their ability to accept NEW to ICAO as soon as possible so that ICAO can ensure that complete and updated information is posted. An ANSP advising NEW will mean that they can not only receive and process the new information but also coordinate with other ANSPs who have transitioned to NEW.

6.10. **Guideline 6:** During the transition period, ANSPs who accept NEW may need to convert flight information to PRESENT format for coordination with adjacent ANSPs who have not transitioned.

6.10.1. It is strongly suggested for consistency that all ANSPs utilize the conversion table provided below so airspace users and ANSPs have a common understanding of how NEW will be converted to PRESENT.

6.10.2. PIRGSs, States and ANSPs should be aware that valuable planning information may be lost during the conversion process, as shown in the conversion table.

6.10.3. There is no intent for PRESENT to be converted to NEW during the transition period.

CONVERSION OF NEW ITEMS 10 AND 18 TO PRESENT

It is strongly suggested that all ANSPs utilize the table below to convert NEW flight information in Items 10 and 18 to the PRESENT format for coordination with adjacent ANSPs which only accept PRESENT.

- Modified agreements may be worked between ANSPs for Item 18 information if the conversion would cause the message to be rejected by an ANSP which only accepts PRESENT.
- CAUTION: Some capability information will be lost during conversion.

	NEW data in these columns		Converts to PRESENT data in these columns	
	Item 10	Item 18	Item 10	Item 18
Com-Nav	N		N	
	S		VOL	
	SF		S	
	A		Z	NAV/GBAS
	B		Z	NAV/LPV
	C		C	
	D		D	
	E1		J	DAT/
	E2		J	DAT/
	E3		J	DAT/
	F		F	
	G	NAV/	G	
	H		H	
	I		I	
	J1		J	DAT/V
	J2		J	DAT/H
	J3		J	DAT/V
	J4		J	DAT/V
	J5		J	DAT/S
	J6		J	DAT/S
	J7		J	DAT/S
	K		K	
	L		L	
	M1		Z	COM/INMARSAT
	M2		Z	COM/MTSAT
	M3		Z	COM/IRIDIUM
	O		O	
	P1-P9(Reserved)			
	R	PBN/	R	
	T		T	
	U		U	
	V		V	

Com-Nav	NEW data in these columns		Converts to PRESENT data in these columns	
	Item 10	Item 18	Item 10	Item 18
	W		When prescribed by ATS	
	X		When prescribed by ATS	
	Y		When prescribed by ATS	
	Z	COM/NAV/DAT	Z	COM/ NAV
Surveillance	N		N	
	A		A	
	C		C	
	E			
	H		S	
	I		I	
	L		S	
	P		P	
	S		S	
	X		X	
	B1			
	B2			
	U1			
	U2			
	V1			
	V2			
	D1		D	
	G1		D	

APPENDIX B**STRATEGY FOR THE IMPLEMENTATION OF AMENDMENT 1 TO THE 15TH EDITION OF
THE ICAO PANS-ATM (DOCUMENT 4444) IN THE CAR/SAM REGIONS****TABLE OF CONTENTS**

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1. Objective

The purpose of this document is to establish the CAR/SAM Regions' strategy for the implementation of Amendment 1 to the 15th Edition of the ICAO PANS-ATM (Doc 4444), pursuant to Conclusion 15/35 of GREPECAS.

2. General considerations

ICAO, taking into consideration that:

- Dynamic management of information will provide the most appropriate and integrated vision of ATM status in historical terms--past, present, and planned or future---and will serve as a basis for decision-making by the whole ATM community;
- The *Global Air Traffic Management Operational Concept* (Doc 9854) requires information management actions to support ATM operations with accurate, quality, and timely information; and
- ATM requirement N° 87 of the *Manual on Air Traffic Management System Requirements* (Doc 9882) defines that 4-D paths will be used in traffic synchronisation applications, with a view to attaining the performance objectives of the ATM system. It also clarifies that automation in both "ground" and "air" applications will be fully used to create an efficient and safe air traffic flow in all flight phases.

Informed the States, through letter AN13/2.1-08/50 of 25 June 2008, about the publication of Amendment 1 to Doc. 4444 (PANS-ATM), aimed at updating the ICAO flight plan (FPL) form to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems, while taking into account compatibility with existing systems, human factors, training, cost, and transition aspects.

GREPECAS/15, when assessing the establishment of the new CNS/ATM Subgroup and its terms of reference and work programme, reviewed the new flight plan model. In this regard, considering that a CAR/SAM regional strategy will need to be established for its implementation, it formulated Conclusion 15/35 "*Implementation of the new ICAO flight plan model*" requesting States to adopt the necessary measures to prepare for the transition, and also requesting the CNS/ATM//SG to establish a contributory body to develop such transition strategy.

A previous analysis carried out in some CAR/SAM States has remarked that the implementation of the new flight plan format will impact on, among other systems, the flight plan dealing subsystems, the interface communications with other systems, in the screen control human-machine interface (IHM), and in the recording and re-visualization subsystems.

In view of the above, an initial plan has been developed, together with a description of the strategy for the implementation of said amendment.

3. Principles

In preparing this document, the following aspects have been considered:

1. The sovereign will of the States;
2. It is a guide for CAR/SAM States to develop their action plans for the implementation of the contents of Amendment 1 to Doc. 4444.

4. Scope

This document applies to all CAR/SAM States, Territories and International Organizations, specifically to all air navigation service providers and airspace users.

5. Reference documents

This strategy follows ICAO recommendations, as contained in the following documents:

- a) ICAO PANS-ATM, 15th Edition (Doc 4444)
- b) Amendment 1 to the 15th Edition of Doc 4444;
- c) Directives for the incorporation of flight plan information, pursuant to Amendment 1 to the Procedures for air navigation services - Air traffic management, 15th edition (PANS-ATM, Doc 4444)(State letter AN 13/2.1-09/9 of 6 February 2009); and
- d) GREPECAS 15 final report.

6. Analysis

6.1. Amendment 1 to the 15th edition of Doc 4444;

ICAO considered that, in order to meet the needs of aircraft with advanced capabilities and the evolving requirements of automated air traffic management (ATM) systems, the flight plan forms need to be updated.

In this regard, it published Amendment 1 to PANS-ATM, Doc 4444 - 15th Edition, which contains, basically, the following changes:

1. Flight plan
 - a. Flight plan form: operators and air traffic service units should comply with the restrictions established in aeronautical information publications (AIPs);
 - b. Filing of flight plan: changes in the deadlines for filing flight plans;
 - c. Item 7: Aircraft identification: use of alphanumeric characters;
 - d. Item 8: Flight rules: specification of one or more items of change in flight rules;
 - e. Item 10: Equipment: changes in the designation of equipment and capabilities

- f. Item 13: Aerodrome of departure and time
 - g. Item 15: Route
 - h. Item 16: Aerodrome of destination and total estimated duration, alternate destination aerodromes
 - i. Item 18: Other data
2. Messages from air traffic services
- a. Composition of CHG, CNL, DLA, DEP, RQP and RQS messages

6.2. Implementation directives

In Letter AN 13/2.1-09/9, dated 6 February 2009, ICAO defines the directives for the incorporation of flight plan information pursuant to Amendment 1 to the Procedures for air traffic services.

In general, ICAO highlights that the changes have significant repercussions for ANSP flight data processing systems that check and accept flight plans and related messages, use flight plan data from displays as a reference for controllers, use data for ANSP automation, and facilitate communications among ANSPs during flight, and also have consequences for airspace users.

Although a date has not been established for the implementation of flight planning changes, the transition is expected to begin on 25 June 2008 and finish on 15 November 2012.

It also recognises that the changes will be applied according to timetables specific to each ANSP and airspace user, based on their own needs, but there shall be some coordination.

Finally, it stresses that all those involved should be in a position to submit and process flight information in keeping with Amendment 1 to the PANS-ATM by 15 November 2012.

Some considerations regarding the planning environment follow:

1. EXISTING means the existing flight planning formats and ATS messages defined in the current version of the PANS-ATM;
2. NEW means the flight planning formats and ATS messages specified in Amendment 1 to the PANS-ATM;
3. The ATM system shall support simultaneously the EXISTING and NEW information for some period of time, in order to have time to deal with individual performance cases;
4. Amendment 1 does not change the filing of flight plans through different means (individual filing of flight plans before each ANSP, filing of flight plans at one location and then the ATM system distributes them), but the transition to the implementation of Amendment 1 might entail some requirements during the transition period;
5. The Amendment makes changes to the content of flight plan messages exchanged between ANSPs.

A summary of the contents of ICAO directives follows:

Directriz 1. Recommends that ANSPs be capable of operating with the two types of flight plan information, EXISTING and NEW, during the transition period. ANSPs are not required to accept and process EXISTING data after 15 November 2012. It applies to cases in which some ANSPs and/or airspace users do not implement flight plan changes until the end of the transition period.

Directriz 2. Regional planning and implementation groups are encouraged to plan and publish the changes sufficiently in advance to the date of application. It considers that transition plans should take into account the fact that it is possible that airspace users will not be able to use the new opportunities offered by the NEW information until such time that the ANSPs have made the transition and, even then, the use of the NEW information could be limited in its application if flights continue to involve ANSPs that have not made the transition yet.

Directriz 3. Clarifies that airspace users will determine whether they will submit NEW or EXISTING information to the ANSP during the transition period and after the ANSP has notified that it can accept the NEW information.

Directriz 4. In the event that not all ANSPs have made the transition to the NEW information, airspace users must make sure that the EXISTING information is submitted to the ANSPs that have not made the transition yet. It stresses the concern that ANSPs that use EXISTING information might misinterpret and reject the information submitted by airspace users more than 24 hours before the flight, as well as the case in which ANSPs that use the NEW information will not be in a position to transmit essential coordination to the ANSPs that use the EXISTING information.

Directriz 5. Informs that ICAO will maintain a website containing the list of capabilities of each ANSP to accept EXISTING or NEW information. Each ANSP will communicate to the respective ICAO Regional Offices, as soon as possible, its capability of accepting the NEW information.

Directriz 6. To supplement Directive 4, it is noted that the ANSPs that accept the NEW information could translate flight information into EXISTING information for purposes of coordination with adjacent ANSPs that have not made the transition.

6.3. Current scenario in the CAR/SAM Regions

Currently, the CAR/SAM Regions show different levels of technological evolution in terms of ATM automation, which can be classified into the following groups:

- States that have automated systems;
- States that have ATM automated systems and are in the process of updating them;
- States that do not have ATM automated systems, but are in the phase of implementing them in the short term;
- States that do not have ATM automated systems and no short- or medium-term plans to purchase them.

The implementation strategy must take into account the different degrees of technology evolution in each Region.

The main means used for the transmission of flight plans in the Region is the AFTN, which is in the process of transition to the AMHS system. It is expected that, by 2015, practically all CAR/SAM States will have the AMHS system installed.

6.4. Impact

Based on the changes defined by ICAO, on the directives for the implementation of these changes, and on the current scenario of the CAR/SAM Regions, a macro analysis is made of the impact on ATM systems, whether automated or not, as well as on data communication systems, both at the technical and operational level.

6.4.1. Technical impact

For States that do not have ATM automated systems, the changes in the new flight plan format would only affect data communication systems based on the AFTN or the AMHS, basically associated to the human-machine interface (IMH) at the system terminals available at AIS offices and other specific locations for the entry of flight plans.

It must be noted that changes in the flight plan format involve the introduction of more options for filling the boxes in the form, and this could imply more errors in the generation of messages from terminals, which do not have the capability of checking data consistency, only message syntax.

It must be noted that these changes in the flight plan form introduce many options that can increase the likelihood of errors when completing it.

In States that have ATM automated systems, changes have a significant technical impact, and it will be necessary, at least, to make adjustments in the sub-systems dealing with flight plan processing, communication interface with other systems, recording and re-display, and in the HMI of control displays.

Such adjustments must take into account, at least, the following aspects:

- The incorporation of all the changes contained in Amendment 1 and described in item 6.1 of this document;
- The provision to the air traffic controller of all the information required for air traffic planning and management, including the alerts of aircraft capability changes;
- Enabling the correct transmission of flight plan information, EXISTING or NEW, to all the control centres involved;
- A clear definition of box sizes and their respective sub-divisions, as well as data sequencing (for example, the sequence for the inclusion of data in Box 10);
- Including the updating of all the technical documentation of the system; and
- Early testing to validate the changes.

Consequently, the effort of modifying these systems must be considered, also taking into account the difficulties inherent to technological obsolescence and insufficient technical training of maintenance personnel, which may cause additional financial expenditures due to the need to hire third parties, and a higher risk of failure.

For States that are in the process of purchasing new automated systems, whether or not for changing the existing systems, the impact will be on the specification of such systems, which must be suitable to process the changes defined in the amendment.

Another important aspect is that ICAO considers a period of transition, in which ANSPs must be capable of processing EXISTING and NEW information, which implies making adjustments to the software so that it can recognise what format is being used.

6.4.2. Operational impact

The changes have a direct impact on operational personnel, especially air traffic controllers and flight plan operators.

However, many variables need to be considered, as well as the relationships between the data in the different boxes of the FPL (for example, boxes 10 and 18), which may change depending on aircraft status.

This impact is reduced if the ATM automated system can provide the air traffic controller with the information required for air traffic planning, and send alerts whenever there is a change in the scenario with respect to the data declared in the flight plan.

Consideration should also be given to the operational difficulty that will exist during the transition period, when it must be possible to operate with the two types of information: EXISTING and NEW

It is also necessary to clearly and formally define those aspects that are not totally defined in Amendment 1 and in the directives; for example, the use of item COM/NAV, in Box 10, where the letter S represents VHF RTF, VOR or ILS standard equipment, without making reference to NDB.

In order to mitigate the impact, a significant amount of training must be provided to the personnel on both the use of the new resources of the automated system and the manual processing of flight plan data, as well as on the adjustment of operational models and the clear definition of controversial issues.

7. Implementation strategy

7.1. Critical criteria

The following aspects must be taken into account for the implementation of Amendment 1 in the CAR/SAM Regions:

- Make sure that, by 15 November 2012, all States and airspace users implement all the changes contained in Amendment 1, and not just some selected aspects;

- States that do not fully implement the amendment will be obliged to publish the non-conformities in their AIPs as “SIGNIFICANT DIFFERENCE” before 15 November 2012. Likewise, failure to implement the changes will be considered as a deficiency and will be included in the List of Deficiencies of the SAM Region; and
- Make sure that, as of 15 November 2012, all States and airspace users will accept and disseminate only information of the NEW flight plan format and of associated ATS messages, and that the capability of processing the EXISTING format is deactivated.

7.2. Preparation

In order to succeed in the implementation of the changes, CAR/SAM States need first to develop an action plan that takes into account the impact of the change on their systems, taking into consideration the aspects included in this strategy.

In order to succeed, the States, under the coordination of the ICAO Regional Offices and GREPECAS, need to develop their action plans based on the impact on their systems, taking into account the changes, directives and critical criteria defined above.

Such plans must contain, as a minimum, the following topics:

- Classification of the level of evolution of their systems;
- A detailed assessment of the technical and operational impact;
- The solution to mitigate the impact, with the respective implementation timetable and those responsible for its execution;
- Deadline for the implementation of the solutions;
- Solution validation tests;
- Technical and operational training programmes; and
- Contingency measures.

Such plans must be submitted to the SAM/IG/5 meeting.

The ICAO NACC and SAM Regional Offices will monitor the following tasks:

TASK	START	END	RESPONSIBLE PARTY
Ensure that automated system requirements contain all the changes of the FPL form	2009	2012	Each State will indicate who is the responsible party
Ensure the proper modification of ATM automated systems for a correct analysis of the information, and the identification of the order in which messages are received, to make sure that there are no data interpretation errors.	2009	2012	Each State will indicate who is the responsible party
Carry out a comparative analysis between flight plan data processed in the NEW format and the same data treated in the EXISTING format.	2010	2011	Each State will indicate who is the responsible party

States must also agree on a joint definition of any items that are not clearly specified in the amendment before making adjustments to their systems.

7.3. Transition

The action taken in this transition phase must:

- Follow GREPECAS guidance;
- Follow the ICAO directives described in paragraph 6.2;
- Act together with the implementation coordinator;
- Carry out the activities foreseen in the action plan to mitigate technical and operational impact;
- Recognise that airspace users will only obtain benefits if the changes are implemented jointly.

In the CAR/SAM Regions, the transition period during which the ANSPs must be capable of processing both flight plan formats--EXISTING and NEW--starts on 18 July 2011 and ends on 15 November 2012.

However, States are urged to complete the implementation of the NEW format between 18 July 2011 and 20 July 2012, and not to use this NEW format before the transition period.

Therefore, States must maintain coordination with respect to the evolution of action plans, and report any changes in dates, deadlines, etc.

Likewise, airspace users must take steps to adjust their systems in a precise and correct manner, in accordance to the NEW and EXISTING flight plan formats.

Implementation coordination meetings will be held periodically in order to assess the plans, ending with the meeting to be held on 15 June 2011 to decide on the start-up of the transition.

Each State shall designate a contact person to coordinate with ICAO and other States during the transition to the new flight plan format.

7.4. Post-transition

States must discontinue the processing of the EXISTING flight plan format on 15 November 2012.

They must also ensure that ATM systems, whether or not automated, process all the information contained in the NEW flight plan format correctly, and provide support for their operation.

Any difficulties observed must be assessed and resolved by the parties involved, ANSPs and/or airspace users.

8. Administrative aspects

States must assess all the documents involved, including Letters of Operational Agreement, Contingency Plans, and Operational Models.

For all purposes, this document establishes the following process:

1. Periodic meetings and discussions to identify requirements and preferred technical solution(s), alternatives, and options for the implementation of the new flight plan format;
2. The exchange of reports, technical documentation, plans and programming required for ensuring a successful and timely implementation.
3. Planning, technical coordination and implementation of activities by the States, under the coordination of the ICAO Lima and Mexico Offices.

9. Financial aspects

The participating States, as individual administrations, will be responsible for any financial obligation to cover direct and indirect expenditures related to the implementation of this strategy, including those related to the acquisition of the equipment, spare parts, training of technical and operational personnel, lines of communication, and others.

States may establish mechanisms for the implementation of this strategy; for instance, through ICAO technical Cooperation projects, under the supervision of the ICAO Regional Offices.

APPENDIX C

8. IMPLEMENTATION OF NEW FLIGHT PLAN FORMAT				
Benefits				
Efficiency	<ul style="list-style-type: none"> • improved operational efficiency; • enhanced airspace capacity; 			
Safety	<ul style="list-style-type: none"> • improved implementation on a cost-effective basis; • improved safety management 			
Strategy Near term (2012)				
ATM Component	TASK DESCRIPTION	START-END	RESPONSIBLE	STATUS
SDM	a) Guidelines on transition to new Flight Plan Format	2009	ICAO	Completed
	b) Develop regional strategy for transition to new Flight Plan Format	April 2010	GREPECAS	Valid
	c) Identification of stakeholders involved and possible impact by implementation of New Flight Plan Format (FPL/RPL/CPL)	1/10/2009-30/6/2010	States, Territories, Int. Org	Valid
	d) Evaluation of current/future flight plan processing capabilities regarding the New Flight Plan Format.	1/10/2009-30/6/2010	States, Territories, Int. Org	Valid
	e) Conduct trials between systems with NEW flight Plan processing capacity.	1/1/2010-30/12/2010	States, Territories, Int. Org	Valid
	f) Develop of contingency procedures and determination of operational/ technical considerations for the transition	1/1/2011-30/6/2011	States, Territories, Int. Org	Valid
	g) Identification of major parties considering FP data flow and definition of transition steps based on: <ul style="list-style-type: none"> • Systems with capability to process both formats: current and NEW. • Systems to be upgraded/implemented before 2012 and that will be capable to process New Flight Plan Format. 	1/1/2011-30/6/2011	States, Territories, Int. Org	Valid
	h) Publication on Transition Actions, Trials and other publication for the users and stakeholders	30/10/2011-30/5/2012	States, Territories, Int. Org	Valid
	i) Assessment of Transition Actions and make adjustments	1/6/2012-30/9/2012	States, Territories, Int. Org	Valid
	j) Conduct Transition plan	15/11/2012	States, Territories, Int. Org	Valid
	k) Monitor the transition activities	1/10/2009-1/12/2012	ICAO	Valid
GPIs	GPI/1: flexible use of airspace; GPI/6: air traffic flow management; and GPI/7: dynamic and flexible ATS route management; GPI/9: Situational awareness; GPI/13: aerodrome design and management; GPI/14: runway operations; and GPI/16: decision support and alerting systems; GPI/17: implementation of data link applications; GPI/18: aeronautical information; GPI/19: meteorological systems; GPI-21: Navigation Systems; GPI-22: Communications Infrastructure and GPI-23: Aeronautical radio spectrum.			

Sistema de Rastreo de Impementacion del Plan de Vuelo/
Flight Plan Implementation Tracking System (FITS)

Contracting State	Region	POC	Action Plan
Antigua and Barbuda	NACC		
Bahamas	NACC		
Barbados	NACC		
Belize	NACC		
Canada	NACC		
Costa Rica	NACC		
Cuba	NACC		
Dominican Republic	NACC		
El Salvador	NACC		
Grenada	NACC		
Guatemala	NACC		
Haiti	NACC		
Honduras	NACC		
Jamaica	NACC		
Mexico	NACC		
Nicaragua	NACC		
Saint Kitts and Nevis	NACC		
Saint Lucia Saint Vincent and the Grenadines	NACC		
Trinidad and Tobago	NACC		
United States	NACC		
Argentina	SAM		
Bolivia	SAM		
Brazil	SAM		
Chile	SAM		
Colombia	SAM		
Ecuador	SAM		
Guyana	SAM		
Panama	SAM		
Paraguay	SAM		
Peru	SAM		
Suriname	SAM		
Uruguay	SAM		
Venezuela	SAM		