ICAO FLIGHT PLAN 2012 POST-IMPLEMENTATION SURVEY

INTRODUCTION

The amendment to the Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444) announced by ICAO in 2008 for implementation on 15 November 2012, introduced some significant changes that go to the very core of flight plan processing. As indicated in the ICAO State letter, "the nature and scope of the amendment is to update the ICAO model flight plan form in order 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."

The changes to PANS-ATM are an important enabler for the use of advanced Communications, Navigation and Surveillance (CNS) capabilities, whereby aircraft can be distinguished on the basis of their specific capabilities, and allow for improved traffic and flow management processes and procedures, which will enhance overall network capacity and efficiency. However, these changes to data structures and syntax of flight planning messages affect a number of ATM systems as well as some operational procedures and required a significant collaborative effort on the part of all stakeholders to implement.

When the complexities of the upgrades and transition were recognised by industry stakeholders, CANSO worked with ICAO, the ANSP community, IATA, and with the regional implementation teams, leading the way towards a smooth transition in the 16-month period leading up to the applicability date. By all accounts, the implementation was a success with very few if any problems reported in the change-over to the new flight plan format. In the year that followed, it was felt appropriate to review the successes and lessons learned from the FPL2012 implementation experience as it can help chart a course forward in the implementation of other capabilities as envisioned by the Global Air Navigation Plan and its Aviation System Block Upgrade (ASBU) framework. CANSO therefore undertook to conduct a FPL2012 post-implementation survey in July 2013, the results of which are provided in this report.

EXECUTIVE SUMMARY

The collaborative engagement by ICAO with industry in the implementation of FPL2012 was a significant change in the way the industry responds to and manages the implementation of new or revised Standards and Recommended Practices (SARPs) and amendments to the Procedures for Air Navigation Services (PANS). What was clear from the Survey responses was that the complexity and level and degree of system and automation changes required came as a surprise to many ANSPs and Operators. This should serve as a warning sign for future changes that will come about with the introduction of such concepts as Flight and Flow – Information for a Collaborative Environment, or FF-ICE.

The significant learning point from the responses received is that awareness and early engagement and ownership by the relevant stakeholders of any future system changes is secured and that the costs and benefits for the change are understood and accepted by the industry. Ensuring that the transitions are flexible and managed effectively on a regional and a global basis to achieve a harmonized implementation across FIRs and with the operator is equally critical.

Planning and preparation for an implementation of an ICAO Amendment on such a large scale also poses the need to accommodate multiple and unique regional requirements. Going forward, it is clear that a more robust functionality and methodology will be needed for the FPL to accommodate specific regional requirements. Given the inherent global nature of flight operations, consultation with the air operators is critical in understanding the interoperability of their flight planning systems to cope with regional requirements. The response from air operators identified that some level of city-pair and individual State adaptations could be done, but that it was a costly and resource-intensive exercise.

While the ICAO Planning and Implementation Regional Groups (PIRGs) do collaborate on an intra-regional basis and promulgate their individual requirements by means of Regional Supplementary Procedures (SUPPs), the Survey indicated that further collaboration on an inter-regional scale will be required to address the implementation of FF-ICE. The need for planning towards future ICAO provisions would necessarily require validating impact statements, cost-benefit analyses and hazard risk assessments on a global level. Such coordination will also require early feedback from system users in developing product and service specifications and their operational procedures.

THE SURVEY FINDINGS

The Survey entitled **'Your Experience'** was launched on 1 July 2013, seven and a half months after transition to the new flight plan format. Two versions of the questionnaire were sent separately to:

- CANSO Member ANSPs and Associate Members; and

- Aircraft Operators, with assistance from IATA

THE ANSP SURVEY – NINE QUESTIONS

The survey received responses from **62** ANSPs with two thirds completing the survey in full. Key findings:

〉 Improve understanding among air operators for Field 10 and Field 18 associations

〉 Improve understanding among operators for use of CHG, DLA, CNL messages

〉 Involve ANSPs early in the planning process to identify and develop and design detailed global system specification requirements

〉 Design and identify system specifications and with provisions for scalability; e.g. emerging and future PBN services, A380 change from /H to /J, ICAO alternative to /HAZMAT and other Field 18 data sets, etc.

〉 Validate PANS ATM amendment changes with business case impact statements prior to promulgation of State Letter

〉 Need for stability in ICAO provisions and inability to perform ad-hoc system changes outside ANS upgrade cycle (typically 10 years)

〉 Develop ICAO provisions through regular multi-disciplinary expert groups, i.e. panels with a full consultative process and prior to issuance of State Letter

〉 That ICAO resolves the A380 wake turbulence category classification as a priority and publish the same as a PANS ATM amendment. This affects FPL filings and application of separation standards.

Analysis of the responses

1. **Rejections after November 15, 2012**
   27% of ANSPs reported issues with Flight Plans being rejected during the transition on 15 November. Some ground delays were experienced and an increase in workload was observed where FPL changes had to be done manually before they could be processed by the ground systems and in some cases was also verified over radio. Correlations between Items 10 (Equipment suffix) and 18 (PBN service qualifiers) seemed to be the main area of non-compliance and resultant rejection. These issues significantly reduced within a short period of time to the point that rejections are now rare and minimal. Some non-European based ANSPs reported rejection of FPLs using /RVR and similar fields that were a unique requirement for Europe. Although not configured, these issues were eventually resolved. At least one airline company's software system had not been updated after transition.

2. **Filing of 'old'[1] format after transition**

    Only 11% of ANSPs reported any period of time post transition where the 'old' format was still required. The issues are very isolated. For some ANSPs this also meant cross-border transfer of FPL data using the 'old' format which resulted in increased workload and cost. Handling of overflights was specifically affected, resulting in FPL loss due to the non-filing of FIR entry and exit points that in turn affected Situational Data Displays and Radar and ACC positions. A training element was therefore required.

3. **Deployment of a 'Converter'[2] solution**

    ANSPs were asked if they met the transition requirements by use of a converter and 25% responded positively, a surprisingly low number. At least one ANSP confirmed that the transition would occur at the end of 2014. In some cases, ANSPs deployed a 'converter' solution in addition to the new system in order to receive data from a neighboring FIR that was still transferring flight data in the old format.

4. **CPL transfer/receipt problems trans-FIR**

    When asked if ANSPs experienced issues with CPL transfer/receipt across FIR boundaries, less than 10% reported issues with bilateral agreements resolving them. Incompatibilities in trans-border automation capabilities to automatically process common 'new' formats was also highlighted.

5. **H or J: Upgrade plans for Airbus A380**

    Recognising the investments and efforts involved in meeting the FPL2012 changes, some ANSPs elected to build-in the new wake category (/J) as part of their system upgrades. In fact, most have built in some system scalability and already installed the capability to manage the 'J' category. Approximately 17% of the respondents reported an interim system adaptation capability to transition from /H to /J when required and promulgated by ICAO. Others made a deliberate decision to disregard the /J suffix pending clear ICAO guidelines questioning why /J was not included in the Amendment 1 changes. The vast

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[1] 'Old' denotes the format in use until the November 2012 cutover.

[2] A Converter served the purpose of accepting the 'new' format without causing rejection. The 'new' data is thereafter mapped against the pre-2012 format and converted to the pre-2012 data elements. This data conversion provided ANSPs with a relatively low-cost alternative that allowed them to meet the ICAO provisions without changing their Host or ground automation systems.

majority of ANSPs (74%) are not planning any intermediate system changes for subsequent minor amendments to the FPL including the A380 Wake Category. Some 9% reported an interim upgrade capability. Respondents clearly expressed their reliance on changes to PANS ATM provisions before proceeding with system changes.

6. **Regional disparities in data processing**

When asked if the ANSP saw regional disparities in data processing, 63% of respondents to the question said 'no'. Those that said 'yes' identified disparities such as Field 18 regional requirements and the way ADS-B entries are managed. The regional differences caused by the Eurocontrol requirements resulted in some ANSPs incorporating 'rules' in the system software to discard them or to accept them without rejection. One ANSP commented on the variations in the service levels offered against a single Item 18 descriptor – such as ADS-B which could be different in the US, Mexico, Canada and Australia.

7. **Other disparities: Standard messages**

Only 13% of ANSPs reported issues post implementation with CHG, DLA and CNL protocols, these issues were similar to those described by air operators. As seen in the air operators' survey, ANSPs also experienced the use of CNL followed by a refile instead of using a CHG or DLA message. Some air operators reported that they omitted the DOF/ field when filing CHG, DLA or CNL messages.

8. **Plans or need for interim upgrades through 2018 (ICAO ASBU Block 1)**

The question to ANSPs on the need to upgrade FPL systems before 2018 received 48% positive responses. Responses included: the need to perform life-cycle upgrades; the need to support new PBN capabilities; accommodation of /J for the A380; and compatibility of VFR flight plan filings. Some indicated that system upgrades were required from the migration of AFTN to AMHS. Some 53% of ANSPs indicated that they had no plans for further system upgrades till 2018.

9. **Future needs, ICAO and FF-ICE**

Finally, the majority of ANSPs at 55% were not aware of FF-ICE. This is not an encouraging response and many of those that replied positively were reliant on their participation in the ICAO ATMRPP Panel for these updates. Some of the ANSPs were familiar with the B0-FICE, B1-FICE, B2-FICE and B3-FICE ASBU modules but were unaware of the work under the ICAO ATMRPP Panel.

10. Respondent Details

In terms of regional dispersion, 45% of ANSP respondees originated from Europe; 21% from the Asia-Pacific; 16% from Africa; and 13% from Latin America and the Caribbean. The three respondents from the North American region were the FAA, SENEAM and NavCanada.

THE OPERATOR SURVEY – EIGHT QUESTIONS

Key findings

The survey received responses from **48** global aircraft operators. The key findings were:

- ⟩ Variations continue to exist. Need for a consolidated global list of State variances for reference and in order to control and pre-empt FPL rejection
- ⟩ Migrate from the use of 'converter solutions' where implemented as an interim solution and to fully meet Amendment 1 changes
- ⟩ Minimise the requirement for region specific fields (e.g. /RVR)
- ⟩ Global standardisation of Field 18 codes and sequence – primarily, the use of PBN concatenations
- ⟩ Compatibility and adaptability for future changes in PBN capability (Advanced RNP) as a globally accepted update
- ⟩ Avoid the use of non-ICAO fields (e.g. TCAS, HAZMAT)
- ⟩ Ensure fields such as /DOF do not get rejected in regions where not used.
- ⟩ Globally recognized provisions for the A380 wake category: alignment with other ICAO Publications - PANS ATM Doc.4444 and Doc. 8643 Aircraft Type Designators
- ⟩ Increase character Field length in Item 15 for long-haul route acceptance
- ⟩ Increase character Field length in Item 7 for flight number
- ⟩ Need for a higher awareness of ICAO activities and transition into ASBU Module B-FICE

Analysis of the responses

1. Flight Plan Rejects

Approximately 33% of the operators surveyed reported initial flight plan rejects during the transition to 15 November 2012, which were mainly associated with incorrect filing and invalid waypoints. These inconsistencies were rectified soon thereafter. Responses also indicated that filing of the paper format (in addition to filing via AFTN or other means) might continue to be a requirement in some States. In other instances, flight plans were held in abeyance and operators were contacted individually to modify specific elements – such as the A380 wake category. At least one ANSP would not accept early filings.

2. Filings in 'old'[3] format after 15 November 2012

The survey asked if operators were required to provide 'old' format plans since transition. There were a few of instances of this during the cutover itself and for brief periods of time but this was not of any significance.

3. Problems faced in use of standard prescribed ICAO fields

A significant portion of the feedback related to inconsistent implementation of the new Performance-Based Navigation (PBN) codes and their respective code combinations to derive capabilities. Further, in the US, there are specific requirements for additional content for a specific PBN field (e.g. NAV/RNVD1E2A1) has been established. However, in the event of a degradation of capability, manual correction of this field makes it confusing and prone to error.

4. Regional Disparities

The survey asked if operators faced problems with the standard ICAO format being rejected or requiring amendment. Some 17% of operators reported issues. Operators detailed non-standard requirements for Field 18 in China and Brazil mainly relating to unique ADS-B and TCAS/ACAS requirements. Further, long route descriptors in Field 15 filed at JFK-New York for example were truncated (length of FPL message limit). The State of Qatar required Destination Alternates to be filed and Dubai AIS was unable to process DLA messages, but required CHG messages instead over 0000UTC. Ethiopia, Hong Kong and Canada also experienced some initial difficulties with processing DLA messages. These exceptions have been mostly resolved since or are now promulgated within the air operator community. Some 17% of air operators reported regional discrepancies in data processing. Most of these issues are concerning Field 18 and are known to operators.

5. Disparities in message handling of pre-formatted messages

a. <u>Disparities in 'Standard Messaging Identification (SMI) requirements. 17% reported issues.</u>

These issues concern meeting regional requirements such as RVR/ for Europe and Brazil and a non-standard remark RMK/TCAS as in China and India, where the use of the ICAO prescribed format of ACAS would be rejected. Some host systems that were already supporting ADS-B out services with the use of /ADSB have since

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[3] OLD denotes the format in use until the November 2012 cutover.

modified their systems to comply with the current ICAO format. The CHG (change in flight parameters) and CNL (cancellation) message protocols are either being resolved by vendors through system changes or procedurally with operators requiring a CNL and refile.

One operator reported its inability to cancel a FPL after its filed departure time. This required a DLA message to be sent followed by a CNL. It was also reported that DLA and CNL messages are not supported by the FAA. Some systems were unable to process CHG messages requiring a CNL message followed by a FPL refile.

b. Airbus A380 requirements.

In addition, there were a large number of comments and specific issues relating to the Airbus A380 aircraft wake turbulence category. There is still a high level of confusion over the filing of the Wake Turbulence Category. Operators, for example, reported outright rejections for /J by more than one ANSP for the Wake Turbulence Category (WTC) in Field 9, while other States would make the adaptation manually. States such as China and Ethiopia would require /H based on ICAO Doc.8643 Aircraft Type Designators. Operators therefore need to know about flight plans being rejected based on individual State requirements. Hong Kong, China required an ADD/ entry.

6. Adaptations or Upgrades forecast through 2018 (Block 1)

CANSO asked air operators if they anticipated a need for any adaptations and upgrades between 2013 and 2018. Some 23% responded positively with 15 different suggestions on how systems should be changed. The only repeated theme was in changes to Field 18. One suggestion was to expand the field length for Flight Number to 7 alpha-numerics. Respondents also shared their need to see interim aircraft capabilities being recognised such as the enhanced FPL to support trajectory management and Advanced RNP in Europe.

7. Flight Planning service set-up

Finally the detailed data gives an indication of flight planning services used and air operators that responded to the survey. The vast majority of air operators (91%) sampled rely on commercial flight planning vendors to provide the software that is used to generate the ICAO Flight Plan. Several operators shared their future plans in updating their systems to comply with regional differences and future aircraft capabilities and likewise expected ICAO to consider the same. This includes FPL

updates after take-off as is currently the case with the Dynamic Airborne Reroute Procedure (DARP). Many responses indicated difficulties in complying with specific regional requirements on the one hand (e.g. RVR) and facing rejects in from their use in other regions where ground systems had not been adapted to receive/process such information (e.g. DOF).

FINAL ANALYSIS

In the final analysis, the survey results pointed to the need for a higher level of awareness and understanding of:

> **Business Impact**: Assessment on business impact of the changes and in relation to the perceived benefits. This will allow for sound business cases to be developed to justify investment outlays and integrate such changes into the normal system upgrade planning cycle. States and ANSPs can assess business impact and in doing so, against a declaration by operators to the benefits gained.

> **Long term stable specifications**: Providing supporting requirements for a common and stable set of system design specifications in interpreting and adapting these ICAO change requirements. This would enable an early start to contract negotiations with vendors. It will also allow for planning longer-term system scalability to add, expand or rearrange certain fields (e.g. route length in Field 15).

> **Cycle refreshes**: Based on the above, integration into long-term ATM investment cycle refreshes.

> **Promulgation to ANSP**: Methodology to mitigate the 'gap' between ANS provision decisions and State consultation via State Letter. In what is a direct ICAO-State relationship, it appears that many ANSPs were unaware of these impending changes announced by State Letter directly to States and/or left with little time to make informed investment and implementation decisions.

> **Costs and benefits**: there was a general feeling that the extent of the changes introduced by Amendment 1 and their impact on systems was disproportionate to the advantages that they provided to the users. Some confusion and doubt was expressed over the extent and range of CNS indicator use (e.g. the linkages between the suffixes in Item 10 and Item 18) and whether it would be feasible to rationalise and reduce their complexity.

> **Consultative process**: Several respondents indicated that the State Letter only addressed the impact of semantic changes to the ICAO FPL format itself – characters, syntax etc. – but did not extend the consultative process to the impact of implementation on automation, system upgrades and inter-FIR connectivity. One ANSP indicated system changes to accommodate Airport CDM applications. Others indicated the need for adaptation to Advanced RNP and ongoing enhancements from AFTN to ATN communication systems. The rationale for change provided in the State Letter must be more comprehensive.

> **Regional requirements**: Adapting to regional requirements, especially those promulgated by Eurocontrol through the Regional Supplementary process were problematic. Some elements such as Date of Flight (DOF) raised questions in other regions if such universal data field upgrades and being filed by air operators were needed when their ATM systems did not process such data. Conversely, if such data was to be processed, what would be the impact of upgrading the ATM systems and the benefits thereof?

> **Multi-disciplinary group**: The process leading up to the development of a proposal of the magnitude of Amendment 1 would be better served through a formal group of experts supported by a multi-disciplinary team of industry stakeholders. An informal study-group, as was the case leading to the development of Amendment 1 to the PANS ATM proposals, was found to be inadequate.

> **The 'Converter' solution**: The proliferation of the 'Converter' solution offered a practical and cost-effective short-term implementation to the ANSPs to meet the State Letter deadline with the added benefit of lower costs of implementation. The benefits of new aircraft capabilities were, however, lost in that backward conversion process, thus invalidating the overall intent of the PANS ATM changes. Some ANSPs decided to perform full system upgrades while also investing in parallel with a 'Converter' solution. The latter was required in cases where the neighbouring FIRs were operating with old data and to enable the correlation to the formats under the new system. While air operators will continue to file with the new capabilities, those ANSPs that have chosen to adopt the 'Converter' solution must not abandon plans to eventually migrate to deliver the full functionality of the PANS ATM changes. This should be planned for an early date.

> **Flow Management Unit hosting**: The availability of a 'Converter' capability within a flow management unit, such as with the Eurocontrol CFMU, enabled

many ANSPs to continue using their 'old' systems, while the IFPS parsed and converted messages in both directions to the new or old format as required. This is an onerous process and some ANSPs in Europe will likely continue to use this backward functionality through 2015. An early 'sunset' date is encouraged.

〉 **Airbus 380 Wake Turbulence Category**: The ambiguity surrounding the wake turbulence category for the Airbus 380 was the major concern for air operators and ANSPs alike. While air operators continue to be impacted by a medley of /H and /J implementations flying across FIRs, so too are ANSPs that remain dependent on ICAO for clear guidance in the form of PANS ATM provisions for FPL and separation minima purposes and the declaration of the aircraft reference category under Doc. 8643. Many ANSPs remain apprehensive about planning or investing in large-scale changes should the current review of an even larger set of wake turbulence categories currently underway result in more changes than just /J. It is incumbent on ICAO to announce its plans and associated timelines. At least one Member ANSP understood that its non-inclusion in Amendment 1 signaled that the /J had been dropped in favor of /H. The current implementation of the A380 wake category as /H or /J is not globally harmonised and requires ICAO to address this as a priority expressed by the industry as a whole. This has yet to be resolved.

LOOKING AHEAD TO FF-ICE

CANSO considers the introduction of the FPL2012 format as the first phase of significant changes we will see in ATM as it increasingly relies on more data and information sharing within a collaborative operational environment. Going forward, a flight plan captures a software definition of the operator's preferred business trajectory. After filing such a flight plan and its validation by the ATM system, this 4-dimensional trajectory is introduced into a common ATM operating environment and used by ATM stakeholders as a realistic reference business trajectory. As it evolves and is integrated into the complex ATM environment of the future, it will be constantly updated to adjust for the dynamics of ensuring smooth ATM flows, taking into account system weather, wake turbulence, special use airspace or capacity balancing. Likewise, air operators are afforded the ability to constantly 'calibrate' and update their preferred business trajectory as changes are required to meet aircraft performance capabilities, commercial needs or in-flight operational constraints.

Most importantly, a FPL is no longer a static data set of intent that was generated several hours or days prior to flight. ICAO's Flight and Flow - Information for a Collaborative Environment (FF-ICE) concept caters for such a dynamic re-interpretation of this reference business trajectory in real time and allows the airplane and ground system as two management nodes to continually interact. A common set of flight information parameters provides for current status and, more importantly, flight intent to constantly re-adjust their requirements. In this manner, the airspace 'bubble' around the aircraft that is required to be protected for safe separation at its current position can be fully maintained.

ENDS

APPENDIX 1 – DETAILED ANSP SURVEY

THE ANSP SURVEY – NINE QUESTIONS

Introduction

"Starting at varying levels of transition and readiness among ANSPs, 15 November 2012 marked the date where 'OLD' format Flight Plans would no longer be accepted.

62	**TOTAL RESPONDENTS**
41	**COMPLETED SURVEY**
	(66.1%)

How did your 15 November 2012 cut-over experience go? CANSO is collaborating with ICAO in a post-implementation review and would like to hear about your experiences.

ICAO Flight Plan Post-Implementation Survey November 2012 cut-over"

Questions asked:

Q1 ***Did you experience any FPL rejections/FPL data processing problems during/since the transition date of 15 November 2012? Please explain the impact on your operations in terms of efficiency and cost of these rejections.***

Possible responses: Yes, No. Details of rejections or additional information

Pie chart showing: YES 15 (27%), NO 41 (73%)

16
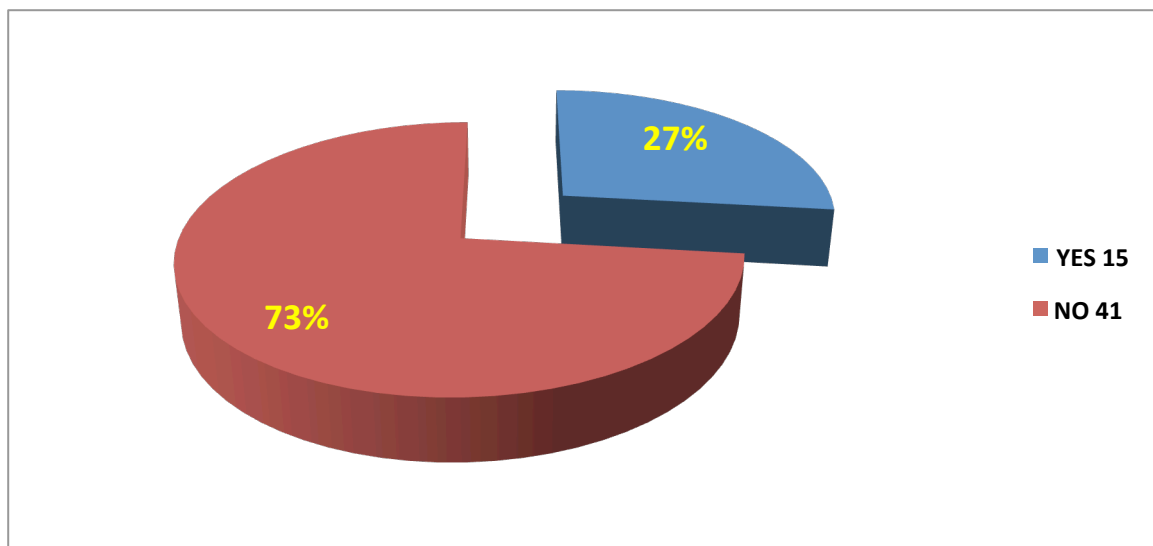
Text responses

〉 The companies have delays up to 20 min

〉 There were a number of rejections in the 2 weeks following the 15 Nov 2012 implementation. Most of these relating to item 10 and item 18 correlations. These were dealt with through telephonic coaching with the originating states (mostly AFI states). These have become significantly less as time has progressed. Rejections for FPL2012 errors are now a rare occurrence.

〉 Due to our system (Pre-Flight Data Management System : FDMC) is designed as rejected messages to sender, So we got some problem from the originators who may not observe the explanation words in those messages rejected to them. That caused the delay of clearance approval due to the ATC unit did not receive any FPL.

〉 Significant rejections in the early days after the transition due to airline company software systems not having been updated or having compliance issues. As at July 2013 some rejections are still being experienced due to some systems still not having been updated and necessitating manual message composition sometimes containing errors. No cost impact as rejected messages are handled by existing staff however processing of these rejected messages affects the efficiencies of our operations. We have seen extra workload created from Pilots to Controllers, Controllers to Flight Data Operators and Flight Data Operators to Briefing office.

〉 Yes we at Trinidad and Tobago still receive rejected FPL's. The rejected flight plans are corrected by our AIS operators which can be very time-consuming at times.

〉 In the first 2 months there were several examples for filling N in field 10b however these aircrafts were definitely equipped with transponder.

〉 Few rejections due to wrong indicators. ENAV took 24 hours to be fully operational and solve the problems.

〉 Yes, there were a few filers with problems. Overall the number was relatively small and we worked with filers to resolve issues. There was no significant impact on the operation.

〉 Data processing issue due to incorrect PBN FPL indication in FPL by aircraft operator: inconsistency between FPL PBN indication and airspace PBN requirements. Assumption is lack of PBN knowledge by some aircraft operators.

impact on OPS: increase of workload for ATCO to check PBN capacity with Pilot on Frequency

〉 Reason for rejections was due not completing item 10 as required

〉 Just after the change, we received couple of FPLs in OLD format, but only few.

〉 Contradiction of rules between ICAO and Eurocontrol, e.g. insertion of RVR/ in item 18 - resolved.

〉 Some incoming flight plans were rejected due to some States were still sending old format. This increased workload in follow up from the originator and increased telephone bills

〉 Flight plan data processing to the ATM system does not process over flights flight plans which have one exit waypoint or does not include both the entry and exit way points. Manual intervention process is done to enable the flight plan details reach the ATM end users.

〉 We did not go through the transition stage. Our system was implemented in April 04 2013.

〉 Problems in officers interpreting PBN from item 10 to item 18. But they are now okay coordinates for airports without location indicators ZZZZ

〉 Over flights flight plans which do not possess the entry and exit waypoints (reporting points) are not processed to the end-users automatically. Manual intervention process is done to enable the flight plan data reach the Situation Data Displays in Radar and Area control centers. Pilots and flight handling agents should be reminded to always include both entry and exit way points of a flight information region. Rejections were initially experienced due to errors made in flight planning especially in item 10 AND ITEM 18 and are not detected by the Briefing officer during the processing and transmission. However, these type of errors have reduced to the minimum through intensive training and supervision. The rejections are minimal and corrections are always done immediately.

## Q2 *Do any of your air operators or your operation still continue to file in the old format?*

Possible responses: Yes, No. If Yes, please provide details.
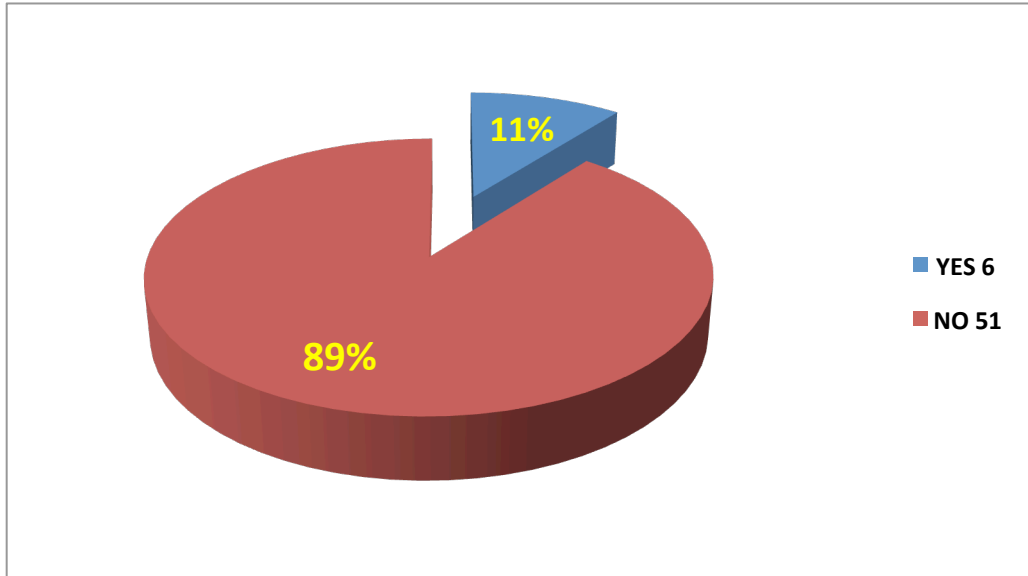
〉 Both Barbados and Grenada required the OLD format after November 15, 2012. This was provided by employing a FPL converter at the Piarco AFTN/AHMS switching center. This has now been discontinued since both islands have now upgraded their systems

〉 Some neighbouring States continue to send messages in the old format causing rejections.

〉 We are in the process of collecting data for the month of July which will give a representation of the air operators that still transmit FPLs in the OLD format. This report will be made available by end of August 2013 to the E/CAR AIS group.

〉 All FPLs from OIIIZQZX (Tehran FIS).

〉 One airport (Luton) only for VFR flights can only accept old format. IFR flights are not affected.

〉 It is only flights that fly Visual Flight Rules (VFR) with limited communication and surveillance equipment that do not meet New ICAO Flight Plan 2012 requirements. Otherwise all Instrument Flight Rules (IFR) file in the NEW ICAO FLIGHT PLAN 2012 Format.

Q3. *Did you meet the transition requirements by means of a "converter"?*

Possible responses: Yes, No. If Yes, please specify details of solution
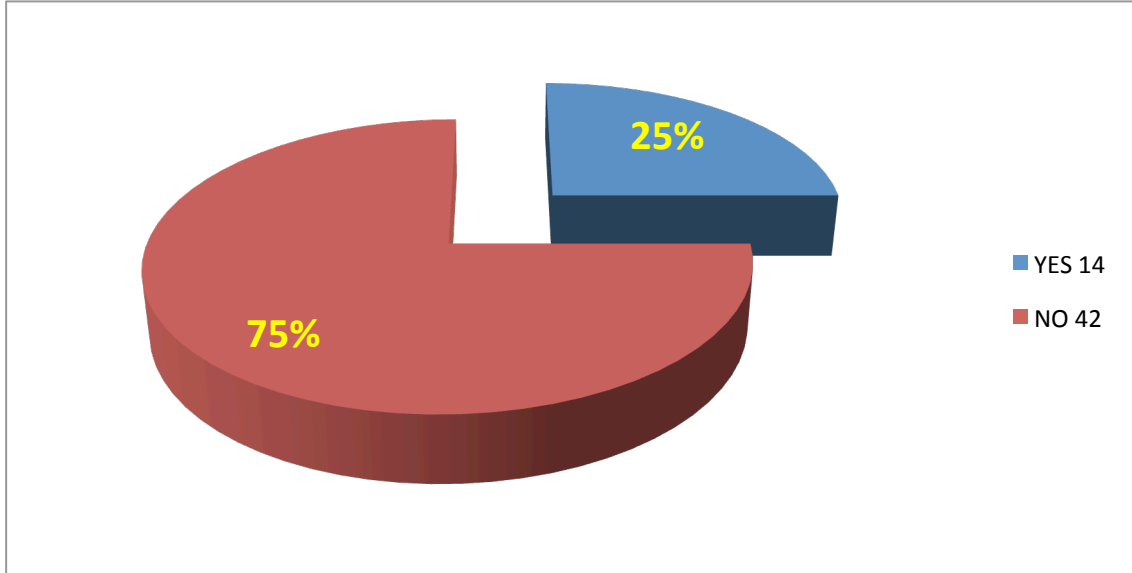
⟩ Comsoft converter

⟩ Flight plans IFR GAT (General Air Transport) are processed by PANSA ATM system (AMS2000+) in old format. PANSA plans introduce the new operational ATM system PEGASUS_21 with ATM supporting system TRAFFIC on 25 Nov 2013. In order to meet necessary safety requirements both ATM systems (the new PEGASUS and the old AMS2000+) will operationally work in parallel (i.e. Shadow) mode for at least several days. Decision concerning date of transition on process according to new format FPL will be taken after finished Shadow mode. According to Mr Breivik from EUROCONTROL, the IFPS will translate FPL IFR GAT from new into old format to the end 2014.

⟩ Not for operational use, but during test- and training-process

⟩ This is due to the ATC systems still cannot support the new format and on progress of new systems that is supposed to be set up at the end of 2014.

⟩ We used a converter for the first 3 days until our ATM system was able to be upgraded on the Saturday night after the transition. We continue to convert for some legacy internal only systems.

⟩ Front-end Flight Plan converter is used according to the guidance provided in - Asia/Pacific Guidance Material for the Implementation of Amendment 1 to the 15th Edition of the Procedures for Air Navigation Services.

⟩ At Piarco, a converter was used on our AFTN/AMHS Comsoft system for the purpose of converting NEW format FPLs to OLD format for the use by Grenada and Barbados. Both islands employ an FPPS ATOM system that used the OLD

version of the FPLs. This has now been discontinued as they have now updated their system to use the NEW FPL format.

〉 Use of Eurocontrol IFPS conversion function until the 16th November 2012
〉 However, Avitech provided a converter (new to old) for legacy ATC/Airport systems dependent on old format.
〉 COMSOFT - FPL2012 Message Converter
〉 During the implementation period of FPL 2012, we have changed our ATC FDP system. The old system was not able to process the new FPL form, the new system cannot process the old FPL form. For this reason for an intermediate period we use converters.
〉 Converter not required
〉 We were in the transition phase from the old operational room to the new one when the FPL change took place. We did not upgraded the old FDP for the new format therefor we used the converter service.
〉 The transition requirements are met by the Flight Data Display system in place .Where there is manual intervention ,expeditious manual entry of flight plan data is exhibited to meet the transition requirements

Q4. *Did you experience any CPL transfer/receipt problems across your FIR transfer points?*

Possible responses: Yes, No. Other (please specify)

Pie chart showing: 10% YES 5, 90% NO 46
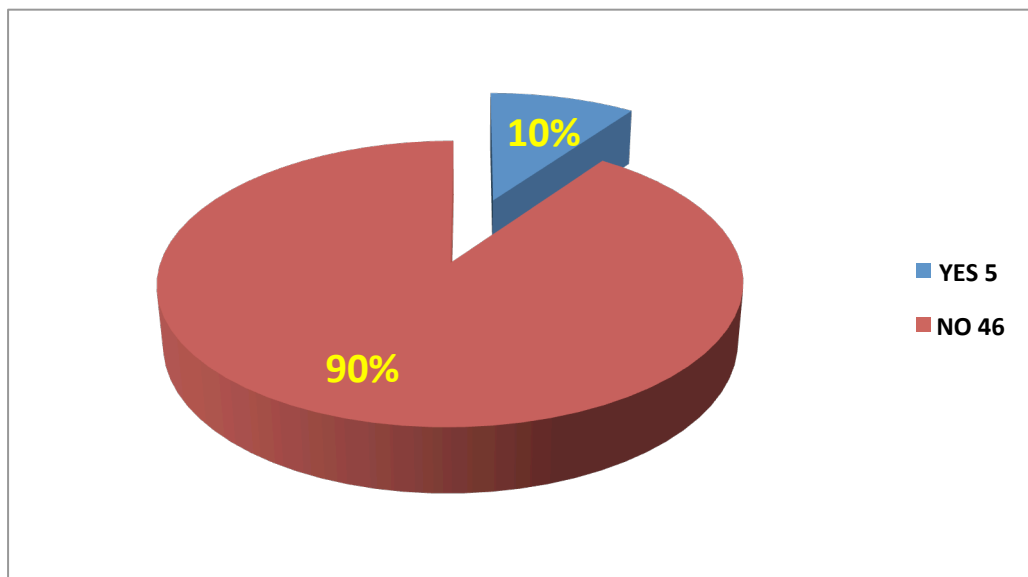
Software/System Ongoing issues

Most ANSPs were faced with major system and software upgrades to conform with the 'new' format. Are there any continuing system modifications that need to be addressed?

> The system providers are attending to current issues
> Occasional issues with VFR flight plans from filing services in the US, but not a significant number.
> None relating to FPL2012 specifically
> We do not use CPL across our FIR boundaries. We do share AIDC messages and we are unable to send ABI messages to some neighboring states as they have not upgraded their automation software and rely on down-conversion and they are unable to convert these types of messages.
> We had relatively small numbers of CPLs rejected because of some differences in validation checks implemented by us and by neighbors. For example, Cuba was performing some PBN/ validation that we did not initially do, which meant we accepted some flight plans that were then rejected when we sent to Cuba. Overall impacts were minor and have been mostly if not all resolved.
> Cannot answer as I am from ARO
> CPL transfer/receipt problems exist on the entry way points from the Democratic Republic of Congo FIR and from Southern Sudan. Air traffic that departs from Eastern Democratic Republic of Congo aerodromes with nil AFTN or H.F communication system, often enter our airspace with no prior filed flight plan. Consultations and meetings have been held to resolve this issue.
> CPL transfer /receipt problems across our western FIR transfer points bordering Kinshasa FIR is a still a big problem. Flights which originate from the Democratic Republic of Congo aerodromes that do not have AFTN and/or HF radio operations

Q5. *Are you planning for intermediate host upgrades (e.g. revised A380 wake-turbulence category to /J?)*

Possible responses: Yes, No, Other (please specify)

Pie chart legend:
- YES 4
- NO 35
- Other 8

Chart values: 9%, 17%, 74%
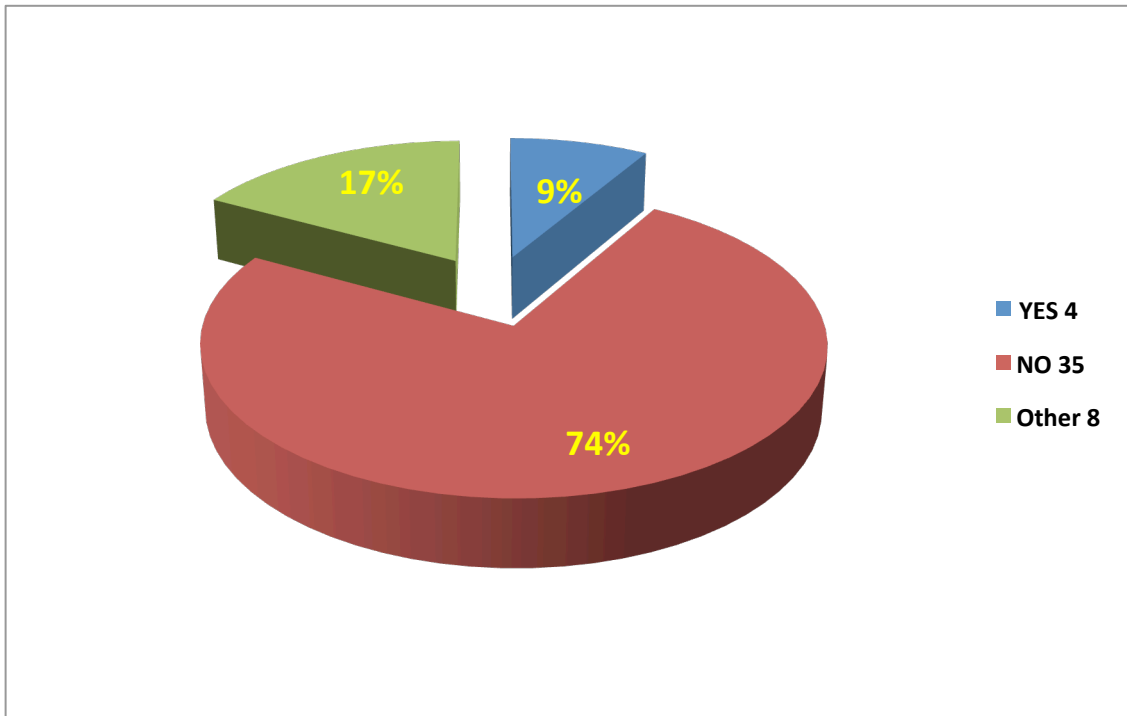
〉 The host upgrades is work of COCESNA

〉 Replacement of the ATM system, however not precipitated by FPL2012.

〉 already implemented

〉 No expected NEW format upgrades are planned to our main ATM system however minor changes are planned to some support systems to further ensure compliance with the amendment. The A380 issue is not being addressed due to the lack of guidance in the Amendment 1.

〉 Our FPL data base will be updated as required.

〉 It is not really clear whether J category is officially existing or not. Anyway J is implemented in the system.

〉 It is not clear on European level whether the turbulence category for A380 is H or J.

〉 The upgrade is already in place and operational.

〉 ICAO guidelines are awaited

〉 A number of validation checks and processing of some of the data (e.g. better use of PBN/) have been added and we still need some additional upgrades to fully take advantage of the info filed and to remove any FAA-specific requirements that are not fully compatible (e.g. requiring NAV/ info for PBN).

〉 ICAO guidelines awaited.
〉 The existing system can accommodate letter J and hence no need for host upgrade
〉 I am not responsible in this question
〉 We have upgraded already.
〉 Upgraded our system in June to accommodate J

Q6. *Do you see any regional disparities in data processing?* (e.g. Field 18 sequence, ''ADSB'' instead of ADS-B, special programming requirements to meet European needs – i.e. DOF, RVR etc., prioritising sequence of entries in item 18/19, persons on board, Pilot in Command, TCAS/ACAS (Version) entries etc.)

Possible responses: Yes, No, Other (please specify)
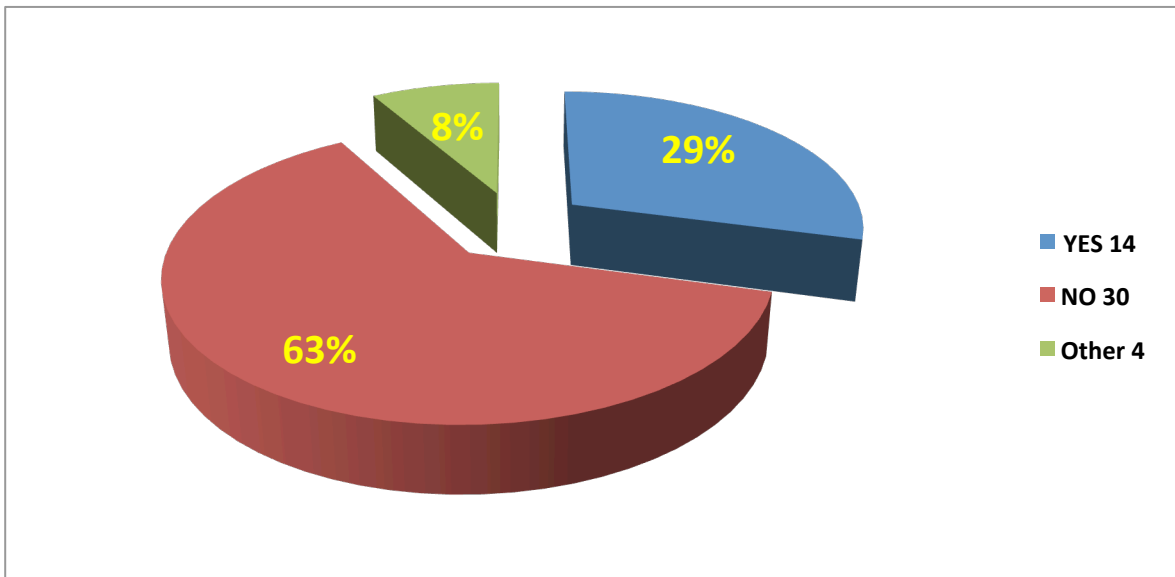
〉 The system providers are attending to the current issues
〉 Is work of COCESNA
〉 Many regional FPL are received with errors in box 18 PBN, where instead of a letter "O" they write the number 0.
〉 We have incorporated rules in our software to ignore European specific differences to Amendment 1 so that these FPLs and associated messages do not reject.
〉 The system providers are attending to the current issues.
〉 India is following ICAO guidelines

⟩ There are still some differences in validation performed, which can lead to trouble (e.g. Mexico might validate something that Canada does not)- but no significant issues there. There is an ADS-B difference in that FAA requires DO 260B or DO 282B and others accept DO 260A or DO 282A. FAA still requires NAV/ information for PBN but we should be able to remove that requirement very soon. There is a difference in how delay over midnight is handled (at a minimum U.S. and Europe are different) and this has caused issues for some filers. There have been other differences on occasion that have cause filers trouble- the filers would be the best source of these issues- but we could help in this area if someone wants to work on it (we should!)

⟩ Now much less, mostly from VFR operators

⟩ Avitech system conforms to ICAO standards. Any messages with irregularities (including quoted examples) is forwarded to a correction position.

⟩ ICAO is required to issue a standardized Flight plan format. Some flight plans received need to be edited before they are accepted in our system due to inconsistent harmonized data entry.

⟩ Messages ACH originated from MFS are being provided by IFPS with different field 18 rules than the ones applied to the CHG messages - only the field 18 items modified by the MFS are provided in the ACH message.

⟩ I am not responsible in this question

⟩ The European only RVR/ indicator appears in FPLs operating outside of Europe. Please note "ADSB" in your question is the correct format, it is not permissible to have hyphens in FPL except as field delimiters.

Q7. *Are you experiencing other disparities in Standard Messaging Identification requirements (SMI) such as use of CHG , DLA and/or CNL messaging?*

Possible responses: Yes, No, Other. Other (please specify)

2%

13%

85%

■ YES 6
■ NO 40
■ Other 1
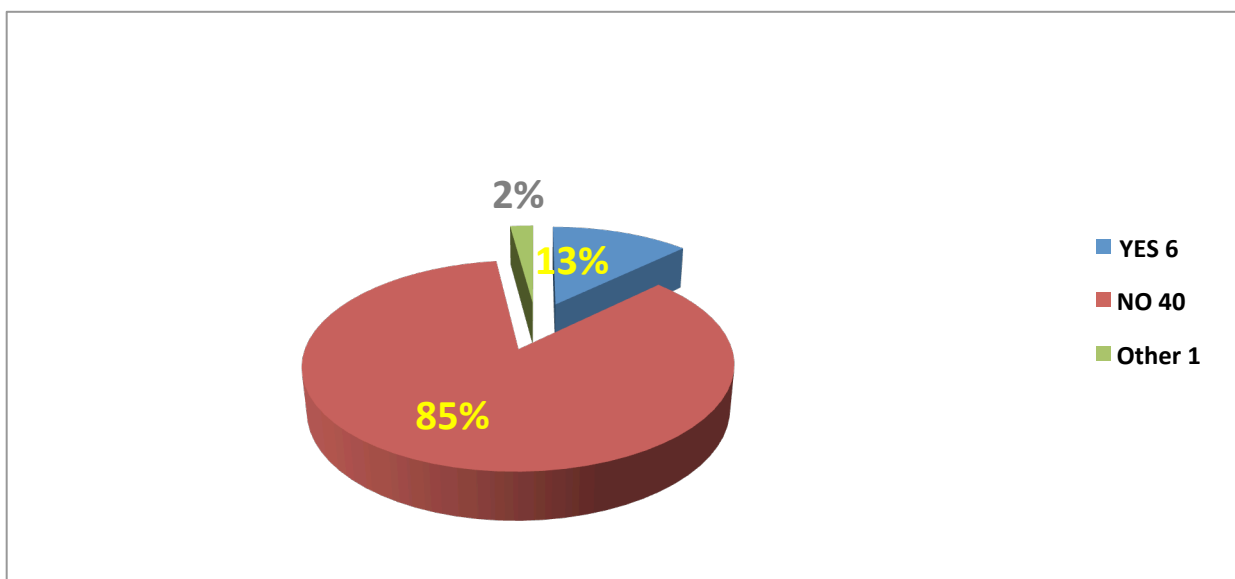
- ⟩ Some messages are received without the DOF indicator.
- ⟩ The system providers are attending to the current issues.
- ⟩ Many filers cancel and refile instead of using CHG and DLA. This causes problems when the CNL is not accepted. Many users failed to update CHG, DLA, CNL to include Field 18 (DOF/) as a required element. (FAA had this problem for DEP messages we sent out, and had to fix that on the transition day after causing problems for EUR).
- ⟩ When a flight is delayed over to the next day, some operators still use DLA instead of a CHG for a delay.
- ⟩ Departure messages for incoming aircraft that include radar squawk are rejected in the system
- ⟩ From origination point of view we user of the EAD BF tool. We do not experienced any disparities. From the complete FDP I am not responsible.
- ⟩ The only problem is that CHG,DLA and CNL messages are not automatically received in the ATM system. Manual intervention is required for processing them to the end users.

Future Needs

Planning requirements, upgrade and investment strategies are important. What do you foresee as your future needs and how can CANSO support you?

## Q8. *Do you foresee the need for any adaptations/upgrades between now and 2018?*

Possible responses: Yes, No. If Yes - please comment

Legend: YES 19 (blue), NO 21 (red) — 48% / 53%
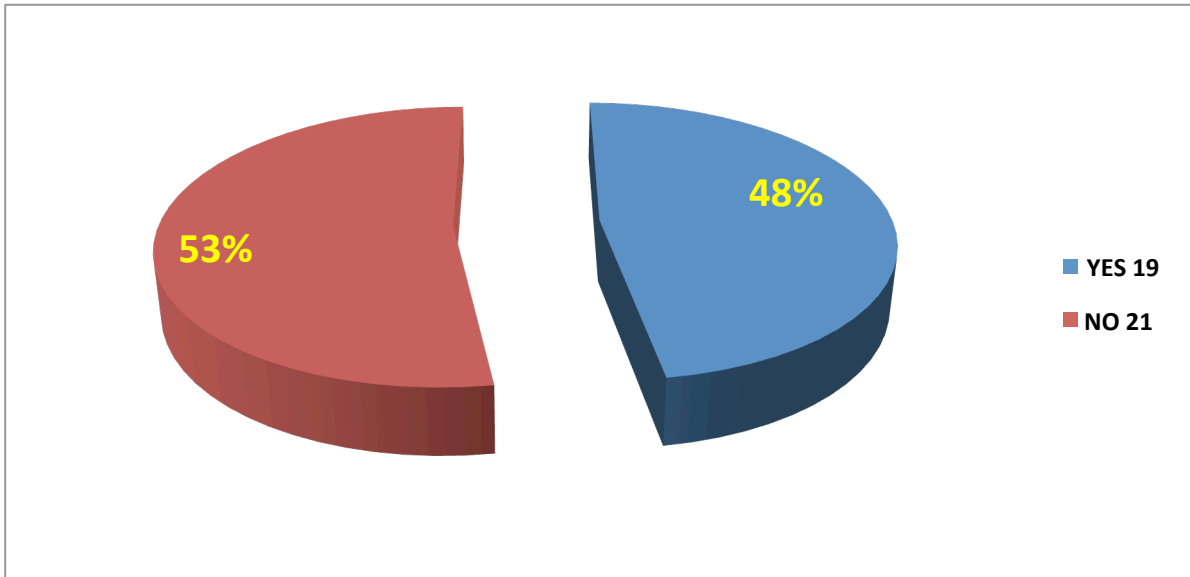
〉 We expect that COCESNA eliminates the converter.

〉 Canada is transitioning from a domestic AIRMET/SIGMET format to ICAO format on Nov 14th, 2013. System upgrades to accommodate this change are complete and testing is underway. Other than that, system upgrades continue according to our cyclical development plan.

〉 The ATS system is undergoing its half-life upgrade

〉 Upgrades of new ATM system - if necessary

〉 adaptions in the flight plan content to support future development in the area of surveillance, procedure design, communications and data exchange

〉 In PBN

〉 Clarity and a decision on the use of the J wake turbulence category.

〉 Adaptations and upgrades will be required based on ATM systems developments (new FDPS, A-CDM introduction, etc.)

〉 There are new capabilities coming (NEXTGEN programs, for example interval management) that will have to be filed somewhere in the flight plan. We expect changes because of this. As mentioned earlier, we still need upgrades to better use the FPL content. Also as mentioned earlier, there are regional variances that should be worked out and will presumably impact processing.

〉 cannot answer

〉 1. More precise definition of the FPL requirements for formation flying.

- 〉 2. More precise requirements for aerodromes expressed by ZZZZ (is the geographical name of the aerodrome is mandatory element or geographical coordinates are enough to put in Item 18 of the FPL).
- 〉 3. WTC J should be defined.
- 〉 Routine annual upgrades (system performance and latest changes)
- 〉 The Authority is planning to install AMHS to replace the current AFTN this year 2013. Funding for AIM System is required and will be budgeted in 2016/17. CANSO can support by requiring states to adhere to interoperability of systems when implementing
- 〉 Not for our core systems, but one regional airport - subject to commercial agreement - will need to upgrade to manage VFR flight plans in new format automatically.
- 〉 Upgrade of our ATM system to process ADS-B surveillance Traffic within Approach and Area environment. We request that CANSO prescribe definitive transitional plans to assist migration from purely Procedural environment to a Surveillance one. Would appreciate assistance in these areas.
- 〉 1. Migration from AFTN to AMHS shall require some adaptations
- 〉 2. Future migration to ATN from conventional AFTN circuit might call for change in message addressing and Routing plans.
- 〉 Transition to AIM - FF- ICE PROGRAM - Transition to SWIM
- 〉 We want to start online flight planning starting last quarter 2014 and wish to benchmark with States that are already doing online flight planning

Q9. *Are you aware of the ICAO Flight and Flow – Information for a Collaborative Environment (FF-ICE) program? If so how do you manage and influence the work undertaken by the ICAO ATMRP Panel? ICAO Block Modules B0-FICE, B1-FICE, B2-FICE and B3-FICE refer.*


45%

55%

■ NO 23
■ YES 19
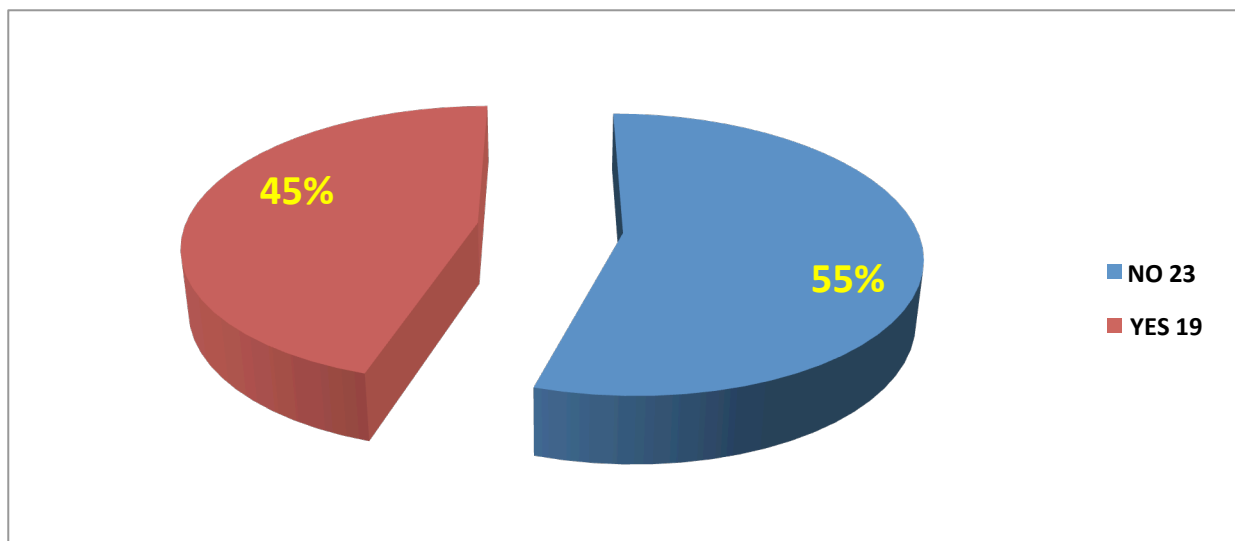
Possible responses: No, Yes, Other (please specify)

 〉 Are aware, still requires analysis
 〉 We have a member on the ATMRPP
 〉 Some case, the personnel of participated to ICAO ATMRPP provide as the material for discussion on the meeting which are the Working Group of CARATS, one of our future vision implementation groups.
 〉 Aware of FF-ICE but not the program.
 〉 More exposure and understanding to more officers on ICAO Block modules is required.
 〉 Consultation with technical experts in NATS does not appear to have started,
 〉 Aware of programme but not the work of the Panel.
 〉 I am aware of ASBU modules but not FF-ICE and ATMRP

Q10. *Respondent details (name of organisation required)*

ANSP Regional Dispersion

NAM 5%
LACC 13%
AFI 16%
APAC 21%
EUR 45%
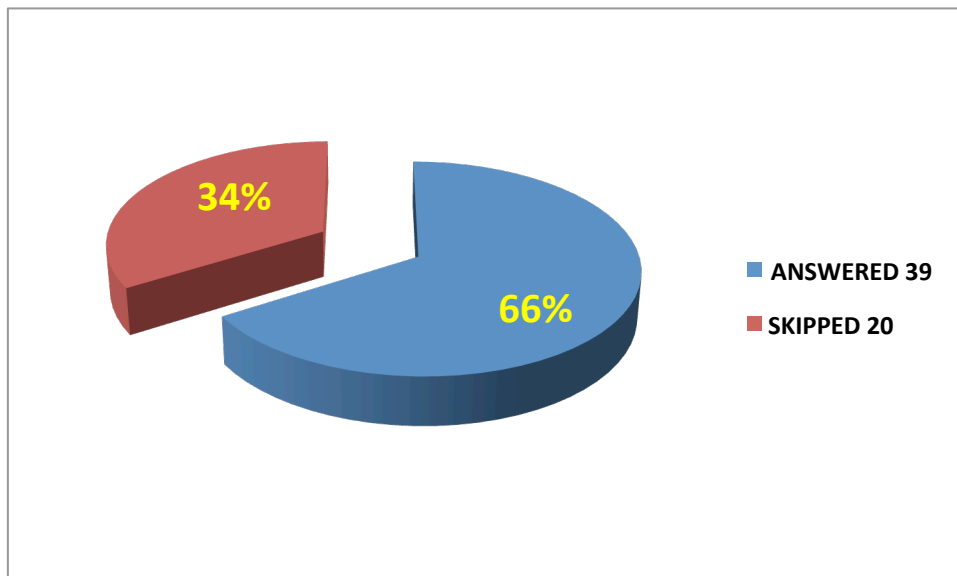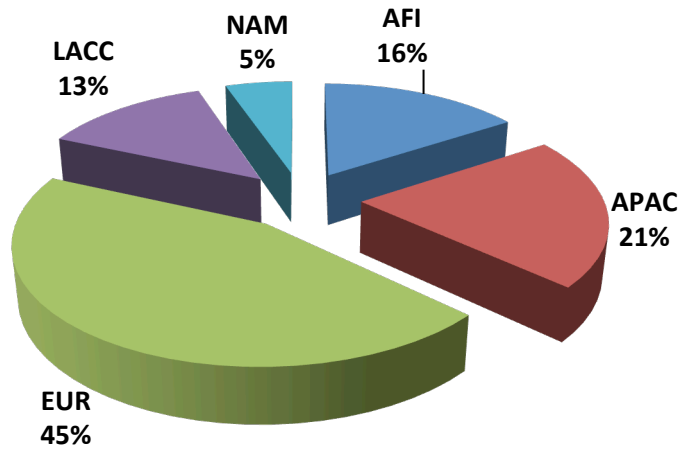
	ANSP	State	CANSO Region
1	Aeroportos de Moçambique E.P.	Mozambique	AFI
2	ATNS	South Africa	AFI
3	Civil Aviation Authority of Botswana	Botswana	AFI
4	Kenya Civil Aviation Authority	Kenya	AFI
5	Tanzania Civil Aviation Authority	Tanzania	AFI
6	Civil Aviation Authority of Uganda	Uganda	AFI
7	AEROTHAI	Thailand	APAC
8	Airports Authority of India	India	APAC
9	Airports Fiji Limited	Fiji	APAC
10	Airservices Australia	Australia	APAC
11	Airways New Zealand	New Zealand	APAC
12	Civil Aviation Authority of Bangladesh	Bangladesh	APAC
13	Japan Civil Aviation Bureau (JCAB)	Japan	APAC
14	PNG Air Services Limited	Papua New Guinea	APAC
15	Finavia Corporation	Finland	EUR
16	ALBCONTROL	Albania	EUR
17	ANS CR	Czech Republic	EUR
18	Austro Control	Austria	EUR
19	Belgocontrol	Belgium	EUR
20	DFS Deutsche Flugsicherung GmbH	Germany	EUR
21	DHMI	Turkey	EUR
22	ENAV S.p.A.	Italy	EUR
23	EANS	Estonia	EUR
24	HungaroControl	Hungary	EUR
25	Latvijas Gaisa Satiksme (LGS)	Latvia	EUR
26	DCA Cyprus	Cyprus	EUR
27	LPS SR š.p.	Slovakia	EUR
28	NATS	UK	EUR
29	NAV Portugal	Portugal	EUR
30	PANSA	Poland	EUR
31	skyguide	Switzerland	EUR
32	DC-ANSP	Curaçao,	LACC

		Dutch Caribbean	
33	Dirección General de Aviación Civil	Costa Rica	LACC
34	Dirección General de Control de Tránsito Aéreo (DGCTA)	Argentina	LACC
36	Trinidad and Tobago Civil Aviation Authority	Trinidad and Tobago	LACC
37	Dubai Air Navigation Services	UAE	MID
38	Federal Aviation Administration (FAA)	USA	NAM
39	NAV CANADA	Canada	NAM
35	SENEAM	Mexico	NAM

APPENDIX 2 – DETAILED AIR OPERATOR SURVEY

*Air Operator Survey- Eight Questions*

Overview

"15 November 2012 marked the changeover for multiple Field and content changes in the ICAO Flight Plan. CANSO worked closely with ICAO and other industry stakeholders during the transition and cut-over to make this a successful implementation. We would like to hear from you about your experience over this period".

48	**TOTAL RESPONDENTS**
48	**COMPLETED SURVEY**

Questions asked:

1. Did you face any Flight Plan 'rejects' over 15 November 2012?

Possible responses: Yes, No, Other… Other (please specify)
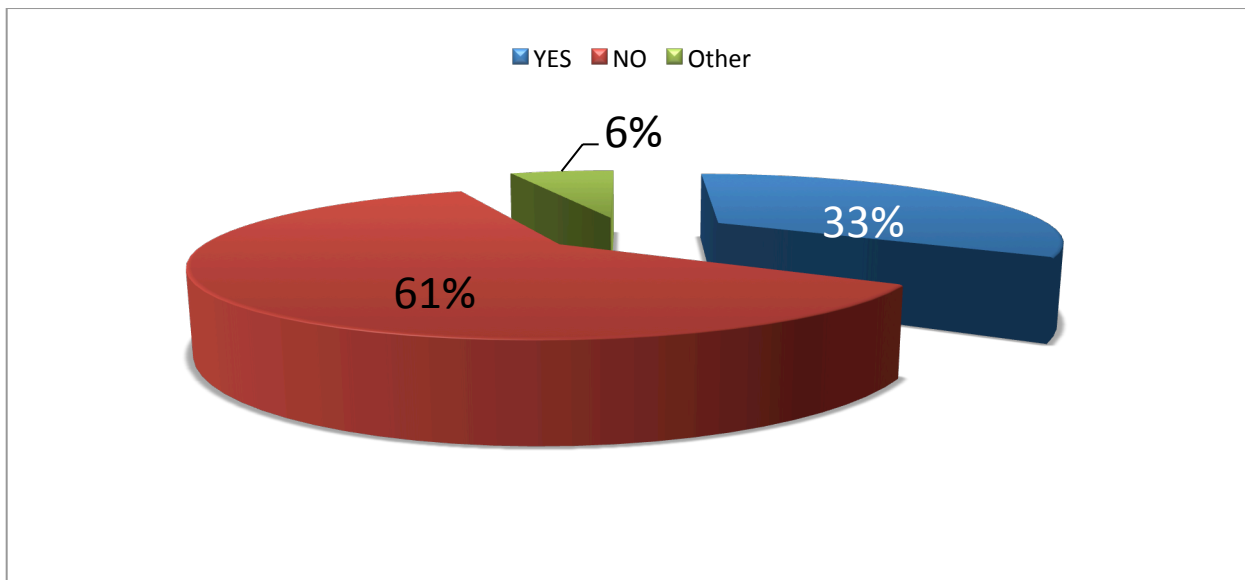
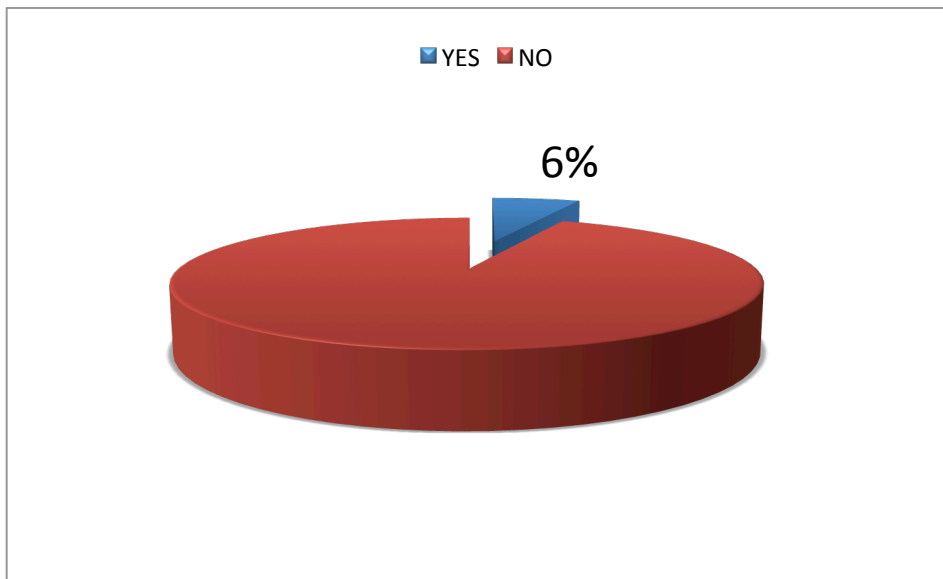## Text Responses (5)

〉 Invalid waypoint entry/exit in AORRA airspace

> ANSP X insisted that we fill out an ATC Flight Plan form despite it already being sent electronically to them. To date we are compelled to fill out a form. They are the only State in the Region doing this.

> Due to incorrect flight plan filings - however these cases were minimal.

> We experienced not 'rejects' in the form of the Eurocontrol CFMU, but received information that we had to change our filed FPLs, such as China or Ethiopia (A380 specific).

> China would not accept early filings

2. Since 15 November 2012 are you required by any AIS facility to file in the 'old' Format?

Possible responses: Yes, No. If Yes, please specify

Text responses (4)

> Both ANSP1 and ANSP2 required the old format after November 15, 2012. This was provided by employing a FPL converter at the ACC AFTN/AMHS switching center. This has now been discontinued since both islands have now upgraded their systems.

> US does not require old format filings.

> Global acceptance of the NEW ICAO FPL 2012 format.

> During the night of November 15th, Atlanta.

3. Do you currently face problems in the use of standard ICAO Formats or data sequences being rejected or requiring amendment?

Possible responses: Yes, No. If Yes, please specify (one line per AIS facility)
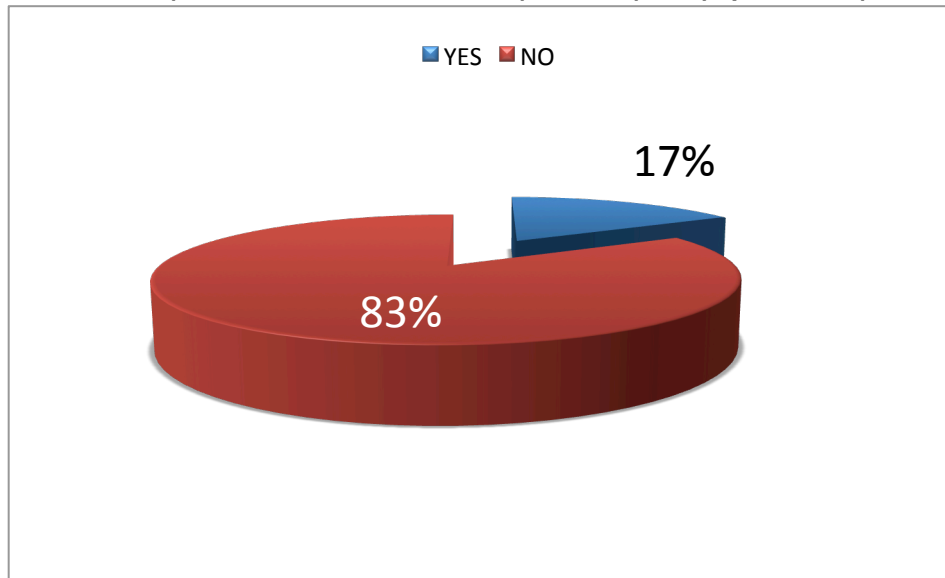
Text responses (10)

⟩ Wrong sequence
⟩ China requires non-standard remark RMK/TCAS in Item 18
⟩ Brazil (specifically SBGR) requires non-standard remark RMK/RVR75 in Item 18.
⟩ FAA requires NAV/RNVD1E2A1 data due to their inability to process the new PBN/ data. This is very confusing for Dispatchers and pilots to amend the ATC FPL when the Minimum Equipment List (MEL) degrades CNS capability
⟩ Qatar requires destination alternate in FPL.
⟩ Dubai AIS cannot process DLA message if flight delayed across 0000 UTC. CHG message required.
⟩ On occasion we get a call from an ATC facility that does not like the order of the information. Or tells us that the codes are wrong. After investigating we find the controllers typically are wrong.
⟩ A380 Wake Cat - H or J?
⟩ A380 WTC rejection with U.S. AIS Facility
⟩ Yes, for JFK departure flight, we always get reject message "too many elements", because our flight is KJFK-RCTP (JFK to Taipei). It's a long- haul flight, route is quite long , the JFK computer system

- ⟩ Any cases that occurred have been managed through the FAA Tech Center and monthly Flight Plan Filers teleconference. This has been an instrumental tool to getting issues addressed in a quick-time manner.
- ⟩ Item 9 Wake-turbulence Category (WTC) for acft type A380: 'J' is rejected by US FPL processing. No problem if filed with 'H'
- ⟩ US FPL processing does not seem to accept FPL if field 15 (route) contain too many items and we need to file FPL in parts for some flights.
- ⟩ China requires ACAS entry in item 18;
- ⟩ Ethiopia requires WTC "H" for Airbus A380;
- ⟩ FAA requires WTC "H" for Airbus A380;
- ⟩ FAA still cannot process long range FPLs;
- ⟩ FAA still requires NAV/-entry RNVD1E2A1 due to missing software upgrade;
- ⟩ Hong Kong requires ADD/-entry;
- ⟩ NavCanada requires ADSB entry in item 18, although the prerequisites are defined as per ICAO Doc 4444 for item 10;

4. Do you see any regional disparities in data processing? (e.g. Field 18 sequence, ''ADSB" instead of ADS-B, special programming requirements to meet European needs – i.e. DOF, RVR etc., prioritising sequence of entries in item 18/19, persons on board, Pilot in Command, TCAS/ACAS (Version) entries etc.)

Possible responses: No, Yes. If Yes, please specify
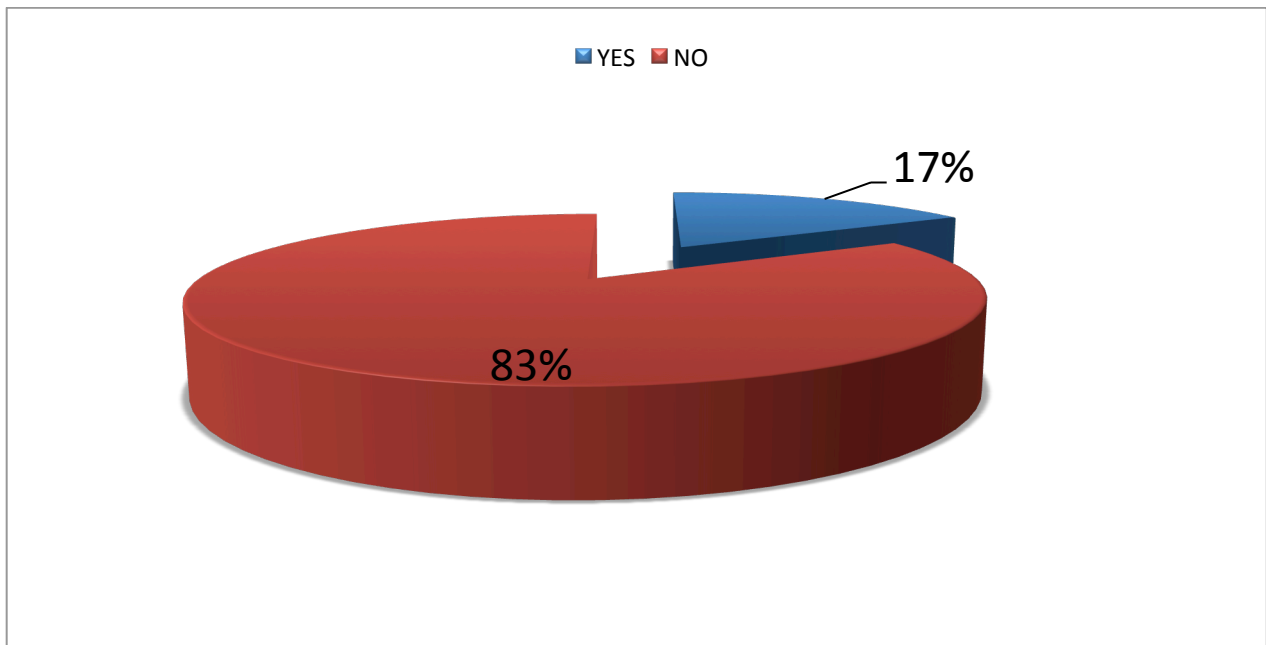
Text responses (12)

- ⟩ The system providers are attending to the current issues.
- ⟩ When B1 is included in item 10B, Canadian ACC required a remark (ADSB) to be added in item 18 for flight flying through CANADIAN FIR.
- ⟩ We have to manually add some field 18 items like DOF, RVR while filing to Eurocontrol. we file B1,B2, U1,U2,V1,V2 for field 10b ADS-B surveillance equipment
- ⟩ TCAS for India in RMK.
- ⟩ Some issues with Thailand in the beginning concerning sorting of 18/
- ⟩ China requires non-standard remark RMK/TCAS in Item 18.
- ⟩ SBGR (Sao Paolo) requires non-standard remark RMK/RVR75 in Item 18
- ⟩ FAA requires NAV/RNVD1E2A1 data due to their inability to process the new PBN/ data. This is very confusing for Dispatchers and pilots to amend the ATC FPL when Minimum Equipment List (MEL) degrades CNS capability
- ⟩ Qatar requires destination alternate in FPL
- ⟩ Dubai AIS cannot process DLA message if flight delayed across 0000 UTC CHG message required.
- ⟩ US still requiring "old" NAV data, i.e. RNVD1E2A1
- ⟩ But no more than already existed.
- ⟩ RVR required for CFMU filing
- ⟩ China requires TCAS...rest of the world does not.
- ⟩ J - JUMBO (A388) is not accepted.
- ⟩ As an example NavCanada requires ADSB entry in item 18, although the prerequisites are defined as per ICAO Doc 4444 for item 10;
- ⟩ the European requirement to include RVR/ in item 18 causes problems in several ICAO regions (- why not just 'ignore' this entry, if it could be analysed?);
- ⟩ Hong Kong AIC004/13 requires to include an ADD/ - entry in item 18;
- ⟩ China (AIP China GEN 1.5-2 para 2.2.4) does require that ACAS II equipped aircraft file "ACAS" in Item 18 RMK/ - this e.g. got rejected in Brasil;

5. Are you experiencing other disparities in Standard Messaging Identification requirements (SMI) such as use of CHG , DLA and/or CNL messaging?

Possible responses: No, Yes. If Yes, please specify
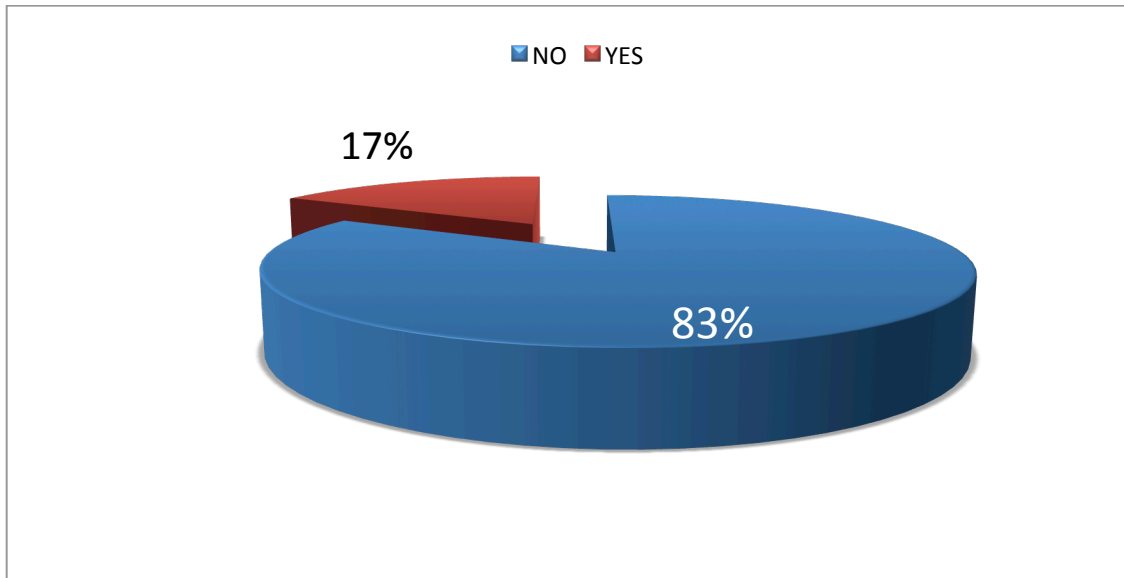
Text Responses (8)

〉 The system providers are attending to the current issues.
〉 After the file EOBT, unable to cancel the FPL, ATC had to send the DLA message first, then CNL and refiled. (only happened once)
〉 The United States DLA and CNL messages are rejected by ATC centers.
〉 Some confuses about sequencing of CHG message
〉 Majority of the issues are with those countries that never used these fields in the past. i.e: USA.
〉 No issues have been forwarded by airlines in North America.
〉 Some AIS/ANSPs does not seem to accept CHG (Change) message for changes in Field 15 (route), presumably not catered for in their automated processing. In this case, the AIS would prefer FPL originator to cancel and refile the FPL.
〉 DLA messages for delays over the mid-night UTC boundary create problems

6. Do you anticipate the need for any adaptations/upgrades between now and 2018?

Possible responses: No, Yes. If Yes, please specify

NO ■ YES

23%

77%
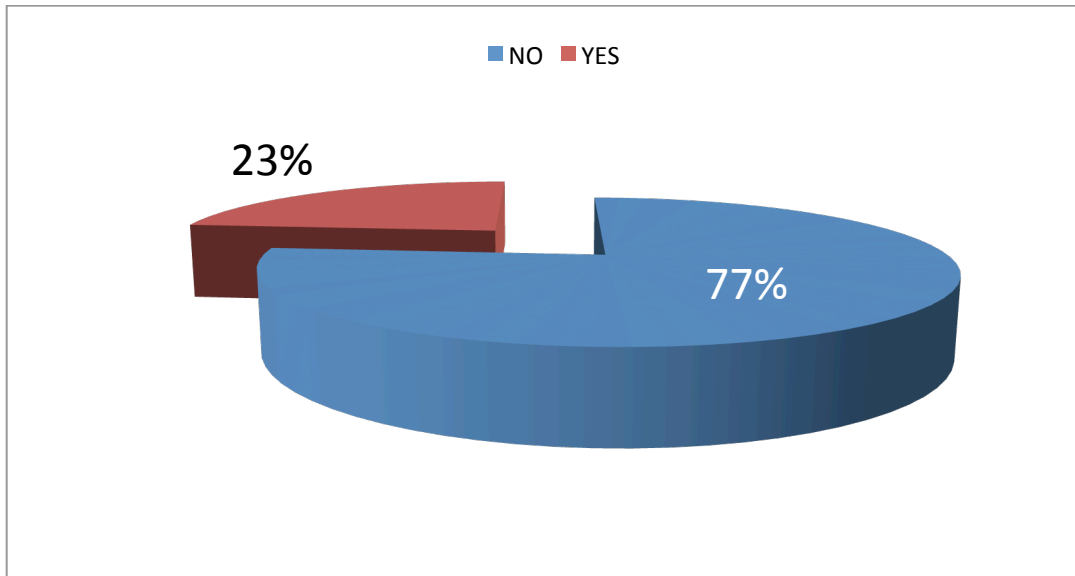
Text Responses

› In item 7, need to expand to 8 characters to cater for 7 digit delay flights by adding the suffix 'D"

› I would like to see some enhancements that cover the EFPL as an early enabler to trajectory management

› like file field 18 items including DOF automatically using flight planning systems

› Sequence of ITEM 18 Could they change position together?

› United is working with Sabre to develop the ability to add Item 18 remarks automatically to FPL when flying between specific city-pairs. This development work is expensive, however necessary to reduce Dispatcher manipulation of FPL.

› FPL length rejections continue to be a problem. As an operator performing long haul international flights this is annoying. Centers that cannot handle the full length flight plan and we must file an abbreviated flight plan.

› Advanced RNP & RNP-2.

› The platformed and future patches must allow for flexibility due to upgrades and ATM system changes.

› ICAO FPL 2012 was a big step forward in regards to inclusion of PBN requirements and capabilities, but we are wondering, if the FPL 2012 is good enough for the future considering the use of e.g. 4D-Trajectories for every flight

› Also, why do we express a Lat/Long in a total different format on the ATS-FPL compared to the use in the FMS?

› Why are we not able in the aviation community to create ONE FPL, which is accepted all over the world?

> ⟩ Why leads the European requirement for an RVR/-entry to reject in other ICAO regions?

> ⟩ Why do different ANSPs use different WTC for exactly the same aircraft (A380)?

> ⟩ Why do we use for some southbound flights a different WTC than for the same aircraft going northbound through the same FIRs/same Routes?

> ⟩ The current ICAO FPL still is based on the original philosophy to have it filed prior to departure, but what about inflight scenarios and 'DARPing' (Dynamic Airborne Reroute Procedure)?

7. Details of Flight Planning service used

Possible choices: EDS, Jeppessen, LIDO, Navtech, Sabre, Sabre f:wz, SITA, Other (please specify)
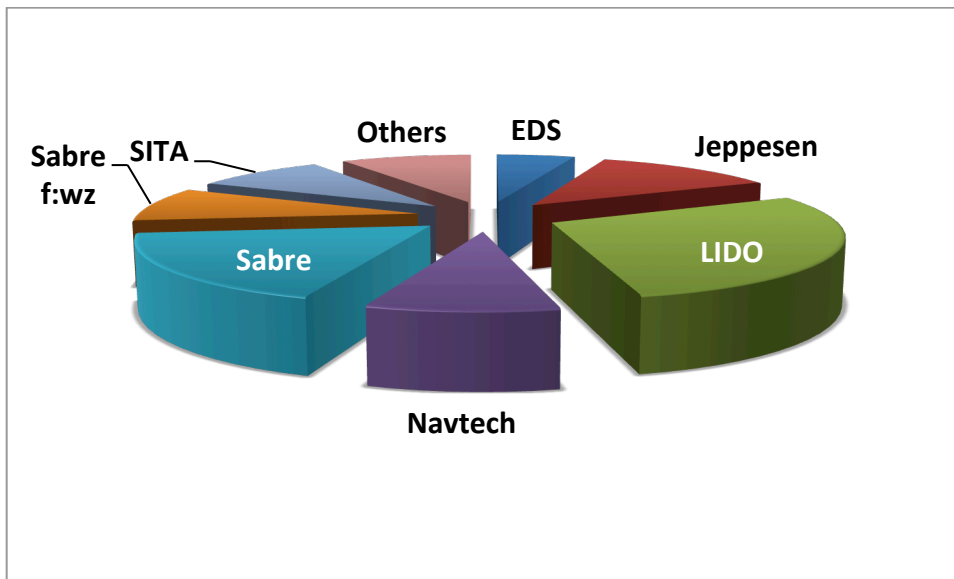
8. Air operator details (contacts optional)

Name of organisation

Contact details (optional)

1 ABX Air

2 Aeromexico

3 Air Canada

4 Air China

5 Air Malta plc

6 Air New Zealand

7 Air Arabia

8 Arik Air

9 Atlas Air

10 Austrian - Tyrolean

11 British Airways

12 COPA Airlines

13 Cathay Pacific Airways

14 CROATIA AIRLINES d.d.

14 Delta Airlines

15 DHL Air Limited

16 Thai Airways

17 Egyptair

18 Emirates

19 ETHIOPIAN AIRLINES

20 EVA airways

21 Flybe

22 IBERIA LAE

23 IndiGo

24 KENYA AIRWAYS LTD

25 KLM Dutch Airlines

26 LAM - LINHAS AEREAS DE MOCAMBIQUE

27 LAM- Mozambique Airlines

28 Lufthansa German Airlines

29 Mesa Air Group

30 Monarch Airlines

31 Omni Air International

32 Qatar Airways

33 Ryanair

34 SAA

35 SAS - Scandinavian Airlines System

36 SIA

37 Singapore Airlines

38 Southern Air Inc.

39 Spicejet Ltd, India

40 Star Air

41 TACA (TAI), LASCA (LRC) and TACA PERU (TPU)

42 United Airlines

43 United Airlines (south) Manager Intl Ops Planning

44 Vietnam Airlines

Others

1   IATA - Africa

2   IATA - LATAM

APPENDIX 3 - ICAO STATE LETTER WITH PANS ATM CHANGE REFERENCES

1.   Ref.: AN 13/2.1-08/50 dated 25 June 2008
Subject: Approval of Amendment 1 to the PANS-ATM

http://www2.icao.int/en/FITS/DocumentLibrary/FITS-library/PANS%20ATM%20Amendment.pdf

2.   Ref.: AN 13/2.1-09/09 6 February 2009
Subject: 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)

http://www2.icao.int/en/FITS/DocumentLibrary/FITS-Library/Transition%20guidance.pdf

3.   PANS ATM changes- Blue Cover amendment (download) – cancel PSW prompt

4.   ICAO Flight Plan Implementation Tracking System (FITS) interactive website: http://www2.icao.int/en/FITS/Pages/home.aspx

5.   Generic Guidance (PPT)

http://www2.icao.int/en/FITS/DocumentLibrary/FITS-Library/FPL%2020102%20Generic%20Guidance%20Material.pdf

APPENDIX 4: ICAO ANNEX EXTRACTS

ICAO Annex 2 to the Convention

Flight Plans Chapter 3

3.3 Flight plans

3.3.1 Submission of a flight plan

3.3.1.1 Information relative to an intended flight or portion of a flight, to be provided to air traffic services units, shall be in the form of a flight plan.

3.3.1.2 A flight plan shall be submitted prior to operating:

a) any flight or portion thereof to be provided with air traffic control service;

b) any IFR flight within advisory airspace;

c) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate the provision of flight information, alerting and search and rescue services;

d) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority to facilitate coordination with appropriate military units or with air traffic services units in adjacent States in order to avoid the possible need for interception for the purpose of identification;

e) any flight across international borders.

Note.— The term "flight plan" is used to mean variously, full information on all items comprised in the flight plan description, covering the whole route of a flight, or limited information required when the purpose is to obtain a clearance for a minor portion of a flight such as to cross an airway, to take off from, or to land at a controlled aerodrome.

3.3.1.3 A flight plan shall be submitted, before departure, to an air traffic services reporting office or, during flight, transmitted to the appropriate air traffic services unit or air-ground control radio station, unless arrangements have been made for submission of repetitive flight plans.

3.3.1.4 Unless otherwise prescribed by the appropriate ATS authority, a flight plan for a flight to be provided with air traffic control service or air traffic advisory service shall be submitted at least sixty minutes before departure, or, if submitted during flight, at a time which will ensure its receipt by the appropriate air traffic services unit at least ten minutes before the aircraft is estimated to reach:

a) the intended point of entry into a control area or advisory area; or

b) the point of crossing an airway or advisory route.

3.3.2

Note 1.— For flight plans submitted during flight, the information provided in respect of this item will be an indication of the location from which supplementary information concerning the flight may be obtained, if required.

Note 2.— For flight plans submitted during flight, the information to be provided in respect of this item will be the time over the first point of the route to which the flight plan relates.

Note 3.— The term "aerodrome" where used in the flight plan is intended to cover also sites other than aerodromes which may be used by certain types of aircraft, e.g. helicopters or balloons.

3.3.3 Completion of a flight plan

3.3.3.1 Whatever the purpose for which it is submitted, a flight plan shall contain information, as applicable, on relevant items up to and including "Alternate aerodrome(s)" regarding the whole route or the portion thereof for which the flight plan is submitted.

3.3.3.2 It shall, in addition, contain information, as applicable, on all other items when so prescribed by the appropriate ATS authority or when otherwise deemed necessary by the person submitting the flight plan.

3.3.4 Changes to a flight plan

Subject to the provisions of 3.6.2.2, all changes to a flight plan submitted for an IFR flight, or a VFR flight operated as a controlled flight, shall be reported as soon as practicable to the appropriate air traffic services unit. For other VFR flights, significant changes to a flight plan shall be reported as soon as practicable to the appropriate air traffic services unit.

Note 1.— Information submitted prior to departure regarding fuel endurance or total number of persons carried on board, if incorrect at time of departure, constitutes a significant change to the flight plan and as such must be reported.

Note 2.— Procedures for submission of changes to repetitive flight plans are contained in the PANS-ATM (Doc 4444).

3.3.5 Closing a flight plan

3.3.5.1 Unless otherwise prescribed by the appropriate ATS authority, a report of arrival shall be made in person, by radiotelephony or via data link at the earliest possible moment after landing, to the appropriate air traffic services unit at the arrival aerodrome, by any flight for which a flight plan has been submitted covering the entire flight or the remaining portion of a flight to the destination aerodrome.

3.3.5.2 When a flight plan has been submitted only in respect of a portion of a flight, other than the remaining portion of a flight to destination, it shall, when required, be closed by an appropriate report to the relevant air traffic services unit.

3.3.5.3 When no air traffic services unit exists at the arrival aerodrome, the arrival report, when required, shall be made as soon as practicable after landing and by the quickest means available to the nearest air traffic services unit.

3.3.5.4 When communication facilities at the arrival aerodrome are known to be inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the following action shall be taken. Immediately prior to landing the aircraft shall, if practicable, transmit to the appropriate air traffic services unit, a message comparable to an arrival report, where such a report is required. Normally, this transmission shall be made to the aeronautical station serving the air traffic services unit in charge of the flight information region in which the aircraft is operated.

3.3.5.5 Arrival reports made by aircraft shall contain the following elements of information:

a) aircraft identification;

b) departure aerodrome;

c) destination aerodrome (only in the case of a diversionary landing);

d) arrival aerodrome;

e) time of arrival.

Note— Whenever an arrival report is required, failure to comply with these provisions

CODES AND DEFINITIONS

Air traffic services reporting office. A unit established for the purpose of receiving reports concerning air traffic services and flight plans submitted before departure.

Note: An air traffic services reporting office may be established as a separate unit or combined with an existing unit, such as another air traffic services unit, or a unit of the aeronautical information service.

Flight plan. Specified information provided to air traffic services units, relative to an intended flight or portion of a flight of an aircraft.

Current flight plan. The flight plan, including changes, if any, brought about by subsequent clearances.

Estimated off-block time. The estimated time at which the aircraft will commence movement associated with departure.

Filed flight plan. The flight plan as filed with an ATS unit by the pilot or a designated representative, without any subsequent changes.

/H. Denotes a Heavy Wake Turbulence (WTC) category, the other two being M- Medium and L- Light. The category is based on certificated take-off mass of the aircraft. Aircraft certificated at 136,000 kg or more are designated H. This code is specified in ICAO Doc.8643 – *Aircraft Type Designators* and filed by air operators in Item 9 of the ICAO Flight Plan form.

/J. The Airbus A380-800 is certified to a take-off mass 560,000 kg. The /J designator was rendered by ICAO as interim guidance; the wake vortices generated by the A380 as having been found more substantial than existing aircraft in the 'Heavy' weight class. The /J designator is supported by the use of 'Super' in radio-telephony with air traffic control. Under the terms of interim guidance, ICAO also increased application of wake separation minima with A380 aircraft.

Operational flight plan. The operator's plan for the safe conduct of the flight based on considerations of aeroplane performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned.

Repetitive flight plan (RPL). A flight plan related to a series of frequently recurring, regularly operated individual flights with identical basic features, submitted by an operator for retention and repetitive use by ATS units.

'**Old**' denotes the format in use until the November 2012 cutover.

A Converter served the purpose of accepting the 'new' format without causing rejection. The 'new' data is thereafter mapped against the pre-2012 format and converted to the pre-2012 data elements. This data conversion provided ANSPs with a relatively low-cost alternative that allowed them to meet the ICAO provisions without changing their Host or ground automation systems.

GLOSSARY

4D	Four Dimensional (Latitudinal, Longitudinal, Vertical and Speed)
ACAS	Airborne Collision Avoidance System (ICAO)
ACC	Area Control Center
A-CDM	Airport Collaborative Decision Making
ADS-B	Automatic Dependent Surveillance – Broadcast (IN is the Receive mode; OUT is the Broadcast mode)
AFI	Africa (region)
AFTN	Aeronautical Fixed Telecommunication Network
AIC	Aeronautical Information Circular
AIDC	ATS Inter-facility Data Communications
AIRM	ATM Information Exchange Model
AIRMET	Airborne Meteorological Reports
AIXM	Aeronautical (data) Information Exchange Model
AMHS	Aeronautical Message Handling System
ANSP	Air Navigation Service Provider
AORRA	Atlantic Ocean Random Routing RNAV Area
ASBU	Aviation System Block Upgrade (ICAO)
APAC	Asia Pacific (region)
ATCAP	Air Traffic Control Automation Panel (ICAO)

ATCO	Air Traffic Controller
ATCSCC	Air Traffic Control System Command Center (FAA)
ATM	Air Traffic Management
ATMRPP	ATM Requirements and Performance Panel
ATS	Air Traffic Services Unit
ATSU	Air Traffic Services Unit
CANSO	Civil Air Navigation Services Organisation
CARATS	Collaborative Actions for Renovation of Air Traffic Systems (Japan)
CCO	Continuous Climb Operations
CDO	Continuous Descent Operations
CFMU	Centralized Flow Management Unit (Eurocontrol)
CHG	Change Message (to ICAO FPL)
CNL	Cancel Message
DARP	Dynamic Airborne Reroute Procedure
DLA	Delay Message (to ICAO FPL)
DOF	Date of Flight
EFPL	Enhanced or Extended Flight Plan
EOBT	Estimated Off-Block Time
FDP	Flight Data Processing (system)
FF-ICE	Flight and Flow- Information for a Collaborative Environment (ICAO)
FIR	Flight Information Region
FIS	Flight Information Service
FITS	Flight Plan Information Tracking System
FPL	Flight Plan
GANP	Global Air Navigation Plan (ICAO)

GAT	General Air Transport
GNSS	Global Navigation Satellite System
HF	High Frequency (communications)
HMI	Human-machine interface
ICAO	International Civil Aviation Organization
IFPS	Integrated Flight plan Processing System (Eurocontrol)
IFR	Instrument Flight Rules
LATAM	Latin America (region)
MEL	Minimum Equipment List
MID	Middle East (region)
NAM	North America (region)
NAV	Navigation
OSC	Operations Standing Committee (CANSO)
PANS ATM	Procedures for Air Navigation Services for Air Traffic Management (ICAO)
PBN	Performance Based Navigation
RBT	Reference Business Trajectory
RCP	Required Communications Performance
RNAV	Area Navigation Capability
RNP	Required Navigation Capability
RPL	Repetitive Flight Plan
RVR	Runway Visual Range
RVSM	Reduced Vertical Separation Minima (now usually 1000' between opposite direction or 2000' on the same direction)
SIGMET	Significant Meteorological Reports
SUPPS	Supplementary Regional Procedures (ICAO)

SWIM System-wide Information Management

TCAS Traffic Collision Avoidance System (Honeywell)

UTC Universal Time Coordinated

VFR Visual Flight Rules

WIXM Weather (data) Information Exchange Model

WTC Wake Turbulence Category

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CANSO – the Civil Air Navigation Services Organisation – is the global voice of air navigation service providers (ANSPs) worldwide. CANSO Members support over 85% of world air traffic. Members share information and develop new policies, with the ultimate aim of improving air navigation services (ANS) on the ground and in the air.

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— Belgocontrol
— Bulgarian Air Traffic Services Authority (BULATSA)
— CAA Uganda
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— Civil Aviation Authority of Botswana
— Civil Aviation Authority of Mongolia
— Civil Aviation Authority of Singapore (CAAS)
— Civil Aviation Authority of Swaziland
— Civil Aviation Regulatory Commission (CARC)
— Comisión Ejecutiva Portuaria Autonoma (CEPA)
— Croatia Control Ltd
— Department of Airspace Control (DECEA)
— Department of Civil Aviation, Republic of Cyprus
— DFS Deutsche Flugsicherung GmbH (DFS)
— Dirección General de Control de Tránsito Aéreo (DGCTA)
— DSNA France
— Dutch Caribbean Air Navigation Service Provider (DC-ANSP)
— ENANA-EP ANGOLA
— ENAV S.p.A: Società Nazionale per l'Assistenza al Volo
— Entidad Pública Aeropuertos Españoles y Navegación Aérea (Aena)
— Estonian Air Navigation Services (EANS)
— Federal Aviation Administration (FAA)
— Finavia Corporation
— General Authority of Civil Aviation (GACA)
— Ghana Civil Aviation Authority (GCAA)
— Hellenic Civil Aviation Authority (HCAA)
— HungaroControl Pte. Ltd. Co.
— Instituto Dominicano de Aviacion Civil (IDAC)
— Israel Airports Authority (IAA)
— Iran Airports Co
— Irish Aviation Authority (IAA)
— ISAVIA Ltd
— Japan Civil Aviation Bureau (JCAB)
— Kazaeronavigatsia
— Kenya Civil Aviation Authority (KCAA)
— Latvijas Gaisa Satiksme (LGS)

— Letové prevádzkové Služby Slovenskej Republiky, Štátny Podnik
— Luchtverkeersleiding Nederland (LVNL)
— Luxembourg ANA
— Maldives Airports Company Limited (MACL)
— Malta Air Traffic Services (MATS)
— National Airports Corporation Ltd.
— National Air Navigation Services Company (NANSC)
— NATS UK
— NAV CANADA
— NAV Portugal
— Naviair
— Nigerian Airspace Management Agency (NAMA)
— Office de l'Aviation Civile et des Aeroports (OACA)
— ORO NAVIGACIJA, Lithuania
— PNG Air Services Limited (PNGASL)
— Polish Air Navigation Services Agency (PANSA)
— PIA "Adem Jashari" - Air Control J.S.C.
— ROMATSA
— Sakaeronavigatsia Ltd
— S.E. MoldATSA
— SENEAM
— Serbia and Montenegro Air Traffic Services Agency (SMATSA)
— Serco
— skyguide
— Slovenia Control
— State Airports Authority & ANSP (DHMI)
— State ATM Corporation
— Sudan Air Navigation Services Department
— Tanzania Civil Aviation Authority
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— LEMZ R&P Corporation
— LFV Aviation Consulting AB
— Micro Nav Ltd
— The MITRE Corporation – CAASD
— MovingDot
— NLR
— Northrop Grumman
— NTT Data Corporation
— Núcleo de Comunicaciones y Control, S.L.U.
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— Tetra Tech AMT
— Washington Consulting Group
— WIDE