



International Civil Aviation Organization

CAR/SAM Regional Planning and Implementation Group (GREPECAS)

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Agenda Item 2: Global and inter-regional activities

2.1 Inter-regional and intra-regional CNS/ATM activities and coordination

MULTIPLE FLIGHT PLANS AND IMPLEMENTATION OF NEW ICAO FLIGHT PLAN

(Presented by Colombia)

SUMMARY

This working paper puts in to consideration of GREPECAS the impact of multiplicity of flight plans and its impact on implementation of the new flight plan, describes how this situation has affected the automated flight plan systems in Colombia and sets up operational conditions and the risk introduced into the system. It puts into consideration of GREPECAS urgent measures to resolve this situation and be able to structure a joint group with the industry to have and build effective solutions to this situation.

1. Introduction

1.1 Colombia has risen to the ICAO Regional Office in Lima some concerns about the multiplicity of plans for international or domestic flight that are affecting the operation of the Flight Data Processors (FDP) and have even caused several incidents within our airspace or in coordination with other adjacent FIRs. This situation takes place because flight plans has a Repetitive / RPL; is presented again in an AIS Office and not as an update of the RPL, it is sent from one or more operators dispatch centers and all as if they were a new flight plan.

1.2 It is important that GREPECAS be aware of these concerns, especially when trying to develop a program for the introduction of the new ICAO flight plan, if today, with our system, there are some issues related to the flight plans that may constitute risks to safety, especially due to multiplicity and duplication of flight plans received by air navigation services, this must be fixed before taking a step to change this reality.

1.3 The responsibility of multiplicity rests in the operators, who typically have more than one office that distributes FPL information to the FIR's with responsibility in its flights on different routes. Just to mention one example, Air France is headquartered in France, has offices in the U.S. and in our case also in Bogota, from where they initially process a RPL, then process one or more FPL's that not always concur on the routes to follow, which usually differ from each other, generating ATS incidents as we have documented in Colombia, when the ATC has received a FPL for an instrumental departure or route different from that the crew follows.

1.4 About the Multiplicity of flight plans and their impact on automated systems, the ICAO Regional Office in Lima has indicated to the Colombian government, that in this regard and in consideration of the importance of this issue, it was discussed during the Thirteenth Meeting / Workshop Authorities and Planners of the ATM CAR / SAM (Bogota, Colombia, 9 to July 13, 2007) and among other issues, it was suggested that States should:

- Urge the operators to avoid mixing / duplicate CPL and / or RPL messages, only one should be effective for specific flight plans;
- Establish a program to coordinate flight plans and update changes related;
- Follow up on provisions related to the delivery of ATC clearances established in ICAO Doc. 4444, for flights operating from a FIR to an adjacent FIR;
- Start the interface between automated ATS systems in accordance with the Interface Control Document (ICD) approved by GREPECAS.

It was also mentioned that ICAO had requested that this matter will be discussed at the Automation Task Force, in order to obtain their recommendations and other appropriate actions.

1.5 The Regional Office has also mentioned that this issue was discussed extensively during the Sixth Meeting of the ATM / CNS Subgroup (Ref. Item 2, paragraph 2.3 of the Report of the Sixth ATM Committee of the ATM / CNS Subgroup of GREPECAS). Taking into account its impact on safety matters due to the exchange of flight plan data (FPL) between adjacent ACCS, the ATM/CNS/SG/6 meeting considered that CAR / SAM States, Territories and International Organizations should:

- Report and document duplicated FPL and errors in the transmission of FPL data to an adjacent facility and / or the operator, as appropriate, within 24 hours after learning of such occurrence;
- Implement Safety Management System (SMS) measures to investigate, to track and to implement appropriate mitigation measures;
- Coordinate research results and / or mitigations with the adjacent ACC operators, as appropriate;
- Send tracking and corrective actions information to the ICAO Regional Offices for processing and monitoring; and
- That the ICAO serves as a focal point for data collection and monitor activities within the CAR/SAM Regions.

1.6 Finally, they indicated that this issue has been included in Item 7 of the agenda of the Second Workshop/Meeting of the SAM Implementation Group (SAM/IG/2) to be held from November 3rd to 7th, 2008.

1.7 Colombian authority has found that FAA had raised the same concern in the NACC/WG/2 as shown in the working paper 31, entitled "Safety Concerns with Multiple/Duplicate International Flight Plans" calling for the review of the impact on safety for automated systems when receiving multiple flight plans for a single flight usually from international commercial air carriers, as well as its relationship with the various messages ATS and ATFM.

1.8 The FAA report the problems faced by the Air Route Traffic Control Centers (ARTCC) from Miami and the FAA ARTCC have recently experienced a large increase in multiple / duplicate ICAO Flight Plans in their respective databases to a level which is causing a concern for safety and reported how several incidents have occurred in the ATS Flight Information Regions (FIR) of Miami and / or New York as a result of aircraft who change course and join ATS routes not listed in the flight plan as was transmitted to ARTCC.

1.9 The Flight Data Processor (FDP) of the Bogota ACC has experienced two recent technical problems that are compounded by the amount of not appropriate information that is receiving by the multiplicity or duplicates flight plans, and many of those are in their database as repetitive flight plans, this issue add a variable technique that increase the apparent operational risk. The same applies to the AFTN channel which at times has come to have up to 100 flight plans lined to be incorporated to the FDP.

1.10 On August 27th, 2008, the FAA reported that there was a problem in the automatic system that manages flight plans; this situation was the first of its kind and required a technical investigation to determine its cause. Although not related to the multiplicity of flights, it generates an unnecessary extra load on any system, like in the Salt Lake City NADIN backup, that in this situation it could not handle the extra volume of traffic, how much useless information can be circulating in our networks, and the impact it can have on the efficiency of the system is obvious.

1.11 It seems in sight that this problem, mostly concentrated in the regular operators, has been extended to cargo operators, and now to business aviation operators and in some cases to general aviation for whom a service provider is processing their flight plans.

1.12 We agree and we have indicated to the ICAO Regional Office in Lima that flight plans should be processed by a flight plan office of a State, also that the ICAO standards for submission of flight plans require an upgrade to the current reality, which affects the flight data processors - FDP, the same is reflected in the current recommendations on Repetitive Flight Plans (RPL).

2. Discussion

2.1 Facing the described problem is imperative to involve specifically international operators who have operational infrastructure that generates FPL information from different locations in the region or in the world or an organization to represent them (such as IATA or ALTA), it is due to convene those who are operating and sending these flight plans for airlines, should review their internal processes to process the relevant information, so that there is only one external generator to the ATC universe. The duplicate flight plans increase the risk that air traffic service providers to have a flight plan different from that on the aircraft has in the flight management system (FMS) and this may occasioned an incident, especially when ATC automated systems, in an area not covered by radar, that are currently processing a synthetic track.

2.2 GREPECAS should study the scope of this problem, and due to its magnitude should classify it as a matter of "U" in the hemispheric context, and proceed according to that classification. Similarly, although no immediate action, is needed to explore solutions that are under review and to warn States of this condition (the probability and severity) to put the defenses to this as appropriate as it is shown in the SMS.

2.3 GREPECAS must ensure the correct use of the messages "FPL", "CPL", "CHG", "DLA" for a proper management and implementation of these messages that will facilitate the flow management units or ATFM.

2.4 It is not possible to solve the problem under an individual scheme due to it is hemispherical and ICAO must contribute in such a solution as soon as possible.

3. Conclusion

3.1 Because of the confusion that this issue is generating, for the possible operational risk that is derived, for the inefficiency that it is introducing into the system, the multiplicity of flight plans is a matter that must be resolved by a task force group.

3.2 ICAO standards are not properly applicable today, the repetitive flight plans rather than helping it seems that add information that can not be trusted today, the automated flight plan data processors associated with automated ATC lose its reason to be at the high percentage of inaccurate information they handle.

3.3 There are too many sources of error (airline Dispatcher, local Dispatcher office, repetitive flight plans, etc.) where you can deliver and / or amend flight plans. It is therefore important to limit the sources and find a method to determine the latest and most accurate flight plan as the FAA said in his paper presented at the NACC/WG/2

3.4 The responsibility of multiplicity rests in the operators, who typically have more than one office that distributes FPL information to the FIR's with responsibility in its flights on different routes. Each State may resolve the problem of an individual way or with specific requirements, the individual solutions are not recommended, it requires a supranational solution.

4. Action by the GREPECAS

4.1 The meeting is invited to:

- a) Take note of the information presented in this working paper
- b) Consider this situation as a matter of hemispheric Level "U" due to its operational implications, and to instruct the Regional offices in Lima and Mexico to structure a high level task force group to address this specific problem.
- c) Request the Industry and the services providers that integrate this task force group, and recognize the operational risk that is introduced into the system by this situation.