

IBAC Technical Report Summary

Subject: North Atlantic Procedures

Meeting: North Atlantic Implementation Management Group

IBAC File:

Reported by: David Stohr

Summary:

The NAT IMG/31 meeting was held in Paris, France from November 12th through November 14th 2007. David Stohr, the IBAC IMG member, attended the meeting. The following items of discussion are of importance to business aviation:

a.) It was agreed that IATA would coordinate the convening of a NAT users conference with Iceland as host. Preparations will be commenced and conference dates will be announced later. The meeting will be held in 2008.

b.) While it has been agreed that HF Volmet service must remain, the information to be included in the broadcast must be defined. The users are tasked with providing which aerodromes should be included and the schedule to be used for the broadcasts. Responses should be forwarded to the Secretary.

c.) The "On the Right Track" video is being updated. When completed the video may be downloaded from the ICAO EUR/NAT web site. Video streaming of the video will also be available at www.trainati.com/ICAO/#2.

d.) Work is under way to determine the rate of aircraft equipage, with ADS C and CPDLC. The group emphasized the need for user groups to provide their equipage rate forecasts.

e.) It was reported that the FANS Central Monitoring Agency (FCMA) had been working with the International General Aviation (IGA) community so specified aircraft could utilize the NAT ADS C Waypoint Position Reporting (WPR) system without interoperability problems. The initial problems encountered have now been resolved. The NAT FCMA has produced a set of Success Criteria and a Process Document for managing the IGA ADS WPR trials. Since publishing the document one operator has been participating actively in the trial.

f.) It was reported that work was progressing toward full adoption of the 5 minute climb/descent separation minimum between Global Navigation Satellite Systems (GNSS) equipped aircraft. Additional information will be presented to IMG 32.

g.) Work continues toward a reduction of lateral separation between aircraft from one (1) degree within the designated MNPS airspace to one-half (1/2) degree separation. Accommodating this reduction in separation will require replacing the MNPS concept with an RNP. The issue at present is whether the

RNP to be implemented will be RNP 4 or RNP 2.

h.) Phase IV of the CPDLC implementation is scheduled to take place on January 17, 2008.

i.) The NAT is in the process of developing a communication strategy for the future. The strategy must provide for end-to-end monitoring of aircraft operating in the airspace.

j.) Operators have not been utilizing Strategic Lateral Offset Procedures. To date only 20% of the aircraft in the airspace utilize it. Target participation is 67%. If the target participation were reached, the vertical target level of safety should be met.

k.) A draft copy of the new MNPS Operations Manual is available for comment. Comments are due by December 15, 2007. Publication of the manual on the NAT PCO website should be some time in January 2008.

l.) It was reported that the revisions to the General Oceanic Contingency Procedures was being processed. The revised procedures should be included in the next amendment to ICAO Document 4444 scheduled for November of 2008.

m.) It was reported that ICAO Document 7030, Regional Supplementary Procedures was being reformatted. The change will be in place with the publishing of Edition 5 scheduled for early 2008. When the document is published the NAT Contingency Procedures that were inadvertently removed will be reinserted.

A more detailed report is attached.

Implication for Business Aviation:

The work program in the North Atlantic Region is concentrating on reductions in separation standards. To participate in these reductions in separation business aircraft must be appropriately fitted with the necessary equipment. While progress has been made toward ADS C and CPDLC equipment availability for new aircraft, legacy aircraft are not being addressed. Also, the reduction in lateral separation will require aircraft to be either RNP 2 or RNP 4 capable under the new Performance Based Navigation (PBN) manual. The new definition of RNP will not only require accuracy it will also require monitoring and/or alerting capability so pilots can confirm their navigation system is operating to the prescribed RNP. While any aircraft equipped with GNSS will be able to meet the accuracy requirement, many of the legacy aircraft are not capable of satisfying the monitoring and/or alerting requirement. If the equipment is not available to satisfy the functional requirements operators could find themselves being locked out of some desirable altitudes.

Decisions Required:

A representative should be selected to attend the user's conference to be held in Iceland.

Someone from the CNS/ATM Advisory Group should be attending the meetings of the NAT FANS Implementation Group.

The CNS/ATM Advisory Group should determine ADS C and CPDLC availability for all business aircraft. The NAT is looking for a forecast of aircraft equipage rates and timelines to be applied to planning factors.

IBAC should conduct a survey of operators to determine which aerodromes should be included in the HF Volmet broadcasts and the desired scheduled times of the broadcasts.

IBAC should publish a bulletin to announce the availability of the new "On The Right Track" video and where the video may be accessed.

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- a.) The IMG recalled that IATA had volunteered to coordinate with all users to schedule a NAT user's conference. While no progress was reported, at the meeting IATA confirmed they would carry out the task. Iceland has volunteered to host the conference. What remains to be accomplished is determining the date and venue. That information will be provided in the future.
- b.) Based on previous information it had been determined the HF Volmet service would be continued. However, the service providers have asked the users to provide them with a list of aerodromes they would like included in the broadcast. Also requested was operator input as to the scheduling of the broadcast.

- c.) The “On the Right Track” video is being updated. It should be available sometime during the month of December 2007. No CDs will be published. It will be available for download from the ICAO EUR/NAT web site. It was also decided that the video would be made available through the URL www.trainati.com/ICAO/#2 using video streaming technology.
- d.) In order for the NAT to continue its work program information concerning equipage of aircraft with ADS C and CPDLC is necessary. The working groups are asking that users provide information relative to current levels of equipage and what their future plans are. Any reduction in HF service and providing for SATCOM utilization are infrastructure changes that require long range planning. With the probable increases in traffic counts in the NAT especially with imminent implementation of the Open Skies Agreement the NAT is scrambling to determine what the future surveillance and communication requirements will be.
- e.) The NAT FANS Central Monitoring Agency reported that most of its work was associated with providing official recognition of specified IGA aircraft to utilize the NAT ADS C Waypoint Position Reporting system. Earlier performance issues which were unacceptable were now found to be resolved. However, there would be an operational test required to prove the quality of the ADS C data. This would require 50 crossings by the particular type aircraft. Also, a draft set of Success Criteria and a Process Document for managing the IGA WPR trials had been produced. One company has been actively participating since the publication of the document. To use ADS avionics for ATS purposes it must be certified to level C minimum. In response to a request for clarification by the operator the FMCA will clarify the meaning of Certificate C and Certificate D. Another issue was whether or not the IGA aircraft would be able to make periodic weather reports. The OPS/AIR subgroup was also tasked to consider the issue of IGA FANS avionics certification.
- f.) Work is being finalized for the introduction of a 5 minute climb/descent through procedure in the NAT. In order to utilize this procedure aircraft must be equipped with a Global Navigation Satellite System (GNSS). It is hoped that NAT SPG/44 will be able to endorse this procedure.
- g.) The working groups in the NAT have continued to work towards a reduction in lateral separation. The area of controversy is whether the separation standard should be a half degree separation or a 30 nautical mile separation. The 30 nautical mile track separation doesn't work well in the NAT because track separation will not always be 30 miles based the strategic system operation. If a half degree separation is used the actual track separation would vary between 25 and 30 nautical miles. While RNP 4 supports a 30 nautical mile separation it currently will not support a 25 nautical mile separation. AN RNP 2 standard

supports a 20 nautical mile separation and would therefore support a half degree separation standard. One of the NAT service providers is opposed to the introduction of RNP 2 and supports the introduction of a 30 nautical mile separation using RNP 4 as currently used in the Pacific. This conflict looms at the various working levels within the NAT and will eventually be worked out. The IMG was adamant that there not be two different lateral separation standards within the airspace.

- h.) It was reported that all of the NAT Oceanic Control Areas would be capable of implementing CPDLC Phase IV. Based on this information it was agreed that the implementation date would be January 17, 2008.
- i.) Since NAT SPG/43 the NAT FANS Implementation Group has been working on developing a communications strategy for the region. It reported the following highlights:
- the future communications strategy should not rely on a system that included single points of failure;
 - the future communications strategy must meet the Annex 2 requirements for two-way voice communications;
 - the percentage of the total NAT fleet with data link equipment may decrease with the implementation of the Open Skies Agreement;
 - further reductions in separation would require a reliable intervention capability;
 - the volume of HF traffic was likely to increase for the foreseeable future; and
 - the future impact of Iridium on aviation data link and voice communications is uncertain and will remain so until the 2009 time frame.
- j.) SLOP was implemented to mitigate the possibility of lateral overlap of aircraft operating in oceanic and remote airspaces. The common misconception is that SLOP was developed as a contingency for use relative to wake turbulence encounters. The target is for 67% of the aircraft operating in the NAT would utilize SLOP but to date only about 20% participate. The IMG asked again that the user groups emphasize the reasoning for the implementation of SLOP and to ask that all training programs emphasize proper execution of SLOP and the importance of participating.
- k.) It was reported that the revised NAT MNPS Operations Manual was ready for comment. Copies of the manual were made available through the IMG part of the NAT PCO website. Comments are due by December 15, 2007 with a publication date in January 2008.

- l.) It was also reported that the modifications to the General Oceanic Contingency Procedures was well under way. It is anticipated the modified contingency procedures will be included in the next amendment to ICAO Document 4444 slated for publication in November of 2008.

- m.) The group was notified that the 5th edition of Regional Supplementary Procedures (ICAO Document 7030) was being re-formatted. The new document would contain procedures that were inadvertently removed when contingency procedures were moved to ICAO Document 4444. The new Document 7030 should be available in early 2008.