

IBAC Technical Report Summary

Subject: NAT Operations and Air Traffic Management

Meeting: *North Atlantic (NAT) Systems Planning Group 42nd Meeting (NAT SPG/42)*

IBAC File:

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Summary: *NAT SPG/42 was held in Paris, France, 13 to 16 June, 2006. Mr. Asgeir Palsson chaired the meeting and Mr. Karsten Theil assisted by Mr. Jacques Vanier from the Paris ICAO EUR/NAT office provided secretarial support. The adopted Agenda was as follows: 1) Developments, 2) Planning and implementation, 3) Air navigation system review, 4) Documentation update, 5) Any other business.*

The NAT SPG noted the decision by the recent Director(s) General of Civil Aviation (DGCA) meeting and the Fifth All Planning and Implementation Regional Groups (ALLPIRG) Meeting that, when either Area Navigation (RNAV) or Required Navigation Performance (RNP) were required, the implementation should be done on the basis of the evolving performance based navigation concept. This item had already been included in the NAT IMG work programmes.

The Government of The Bahamas intended to establish its own Flight Information Region (FIR). The FAA had met with the Ministry of Transport and Aviation and proposed a government-to-government agreement to establish a mutually acceptable FIR and share responsibility for the control of Bahamian airspace. The FAA continued to work with the Government of the Bahamas to meet ICAO's requirements for global airspace management to preserve the safety, efficiency and capacity and provide a seamless operational environment for users.

The FAA recently set up an ADS B programme office to support plans to create the Next Generation Air Transportation System (NGATS). Canada indicated that it was giving consideration to the implementation of ADS B in its Northern airspace in order to cope with increasing traffic levels.

The FAA is investigating the possibility of implementing reduced horizontal separations and a possible reorganization of the route systems within the West Atlantic Route System (WATRS) area. The FAA estimates this project could be implemented in approximately two years, following sufficient analysis, risk assessment and user coordination. There is no expectation of/or plan to eliminate the current exemptions that Part 91 operators enjoy within the airspace.

The NAT Service Development Roadmap is an essential tool to be used for planning purposes and for decisions on implementation. The Roadmap must be based on the development of the various trials and on the data regarding rate of equipage of the various categories of aircraft. **Airspace users** (e.g. IBAC) are encouraged to actively cooperate in the provision of all necessary data as identified by the NAT

Implementation Management Group (NAT IMG) regarding rate of equipage (including trends). Such data is an essential element for the development of a business case before establishing any mandatory equipment status.

After evaluating the options proposed by the United Kingdom, on behalf of the NAT SPG, concerning replacement for the Strumble Height Monitoring Unit (HMU), the NAT SPG agreed the replacement should proceed with refitting the existing HMU in such a way that it be modified to work on a current Commercial of the Shelf (COTS) Hardware platform.

The Automatic Dependent Surveillance-Contract (ADS-C) and Flight Management Computer (FMC) Waypoint Position Reporting (WPR), as well as the Controller Pilot Data Link Communications (CPDLC) trials, had proceeded successfully. It was expected that the full Phase 4 CPDLC message set would be implemented throughout the NAT Region by mid 2007. Approximately 40% of NAT traffic use data link.

Efforts had been undertaken to meld the NAT and Pacific Region data link guidance materials into one document to be called the International Data Link Operations Manual (IDLIM). Differences between the regions would exist and provisions had been made to document such differences within the IDLM.

Proving the viability of SATCOM voice as a suitable means of providing routine ATS communication has been important cog in the HF regression programme. The NAT IMG had therefore agreed that the trial should have a high priority and that progress would be reported to NAT SPG/43.

The annual traffic estimate for 2005 shows that flights in the North Atlantic have now exceeded 400,000 for the first time. A doubling of traffic has occurred in 17 years, with 200,000 movements exceeded for the first time in 1988. The previous doubling took 24 years with 100,000 movements first exceeded in 1964. Flight forecasts are projected to grow from 400,600 flights in 2005 to 727,600 flights in 2020 with successive five year average annual growth rates of 4.7%, 3.9% and 3.6%.

The NAT Air Navigation Plan (ANP) stated that ground based navigation aids should be progressively replaced with satellite based navigation systems. However The current requirement for NDBs in Greenland and the Faroe Islands had been essential to maintain the Blue Spruce routes and to provide navigation aids to international aviation that required reference to ground based navigation aids. The Blue Spruce routes remained a requirement and some alternative navigation capability would need to be put in place or the requirements to operate on these routes in MNPS airspace would need to be changed prior to the removal of the NDBs. Portugal indicated that they still had a requirement for NDBs in the Azores. It was agreed that no change to the existing policy was needed and that the NDBs should remain until such time as the aforementioned issues can be resolved.

The Safety Management Coordination Group (SMCG) as presently constituted is somewhat unbalanced due to lack of sufficient representation from the pilot community. The **user community** (i.e. IBAC) was strongly encouraged to ensure pilot participation in the SMCG.

The lack of utilization of the Strategic Lateral Offset Procedure (SLOP) by pilots is

disappointing. Although offsetting by 1 or 2 Nm is a Standard Operating Procedure, it would appear that pilots are not adhering to the procedure either due to misunderstanding or unawareness of requirements. The NAT SPG was reminded that the use of SLOP was to mitigate risk of overlap and that it was not a contingency procedure. There is a risk within the system due to the probability that two aircraft on the same track are in lateral overlap. This risk can be mitigated. If only one third of aircraft flew the SLOP the risk would decrease by 50%.

The NAT SPG recognized the need to raise awareness of SLOP, the misuse of data link applications and other such issues. The group concluded that ICAO with the assistance of NAT service providers should convene regular meetings to explain operations to those directly involved with the NAT region current and future operations, especially those involved with operations that affect safety.

The NAT SPG/43 will be held at the ICAO EUR/NAT office June 12 to 15, 2007.

Implication for Business Aviation: Business Aviation should remain abreast of new requirements and availabilities within the NAT Region and adjoining interface airspaces.

Pilots of business aviation aircraft should start flying (i.e. if capable off offsets and not already complying) the SLOP as a standard operating procedure.

Business Aviation representative organizations need to start accumulating, collating and providing aircraft Communications, Navigation, Surveillance (CNS) equipage data to NAT groups as required.

Decisions Required: In-depth consideration of the NAT areas under discussion will be necessary to keep equal with or ahead of requirements.

Operators, flight training institutions, flight planning agencies and other service providers must keep aware of ICAO Document amendments, and future airspace/navigation requirements.

Consideration must be given to providing a pilot representative for attendance at the SMCG.

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