IBAC Technical Report Summary

Subject: North Atlantic Scrutiny Group

Meeting: SG/15 Reykjavik, Iceland 19 – 23 September 2016

Reported by: Mitch Launius

Summary:

The meeting was attended by Air Navigation Service Provider (ANSP) representatives from the New York, Gander, Shanwick, Brest, Santa Maria, and Reykjavik. The users were represented by IBAC and IFALPA.
The meeting focused on the root cause analysis of the reported events associated with the loss of separation that were observed from January through June 2016. It is important to note that this report addresses the "loss of separation." In some instances, the crew executed all the correct procedures but lost technical separation, they were recorded without judgement on the crew actions. There were a number of incidents in the NAT where a crew correctly executed contingency procedures and no loss of separation occurred, these incidents were not reported to the Scrutiny Group and not identified in this report.
The following is a summary of the events involving International General Aviation (IGA) aircraft.

Lateral Interventions (10) FFPISOC is when the crew followed flight planned instead of clearance

FA7X	FFPISOC ADS-C
G200	FFPISOC HF Position Report
Global 5000	*Crew error*, HF Position Report
Global 5000	FFPISOC ADS-C
Global 5000	FFPISOC ADS-C
Global 5000	FFPISOC ADS-C
Global Expr	*Crew error*, HF Position Report
GLF4	FFPISOC Position Report
GLF4	FFPISOC ADS-B
Boeing 737	*Crew error*, Relayed position report after HF failure

Lateral Deviations (9)

Beech 400	12NM error on radar contact *waypoint insertion error*
Mustang	15NM error on radar contact *waypoint insertion error*
Global Expr	5NM ADS-C *ATC error*
GLF5	24NM ADS-C *Weather deviation without coordination*
GLF5	33NM ADS-C *ATC error*
LR35	50NM on radar contact *Crew error*

LR60	107NM error on radar contact *Crew error*
Socata TBM7	30NM error on ADS-B contact *waypoint insertion error*
Airbus 319	50NM error on ADS-B contact *waypoint insertion error*

Vertical Large Height Deviations (LHD 6)

G200	*Flight plan coding errors* created confusion and resulted in 4,000-foot error on oceanic entry
G280	Contingency execution due to freezing fuel *incorrectly executed* and resulted in a loss of separation
GLF4	Wave induced 300-foot error, *correctly reported*
LR35	500-foot error due to performance (ISA+); *descended WOC* and did not execute contingency execution
LR45	Entered Scottish FIR incorrect altitude, *ATC error*
LR55	1000-foot error due to performance (ISA+); *descended WOC* and did not execute contingency execution

Longitudinal Deviations

Hawker 800	Changed Mach from .70 to *.72 without approval*

IGA Below FL285 With out clearance (*WOC*)

Beech 18	2,000 foot LHD *climbed WOC* due to Ice
Caravan	2,000 foot LHD *descended WOC* due to weather
Dash 8	2,000 foot LHD, *crew error*
King Air 350	1,500-foot error LHD, *crew error* due to altimetry QNH
Pilatus	Diverted due to icing *without stating intentions*
Piper Malibu	*Crew error*, proceeded direct to exit point after entry

Implications for Business Aviation

The International General Aviation sample size is too small to make simple statistical conclusions. There are however reoccurring trends that we see from previous Scrutiny Groups conclusions that are important to emphasis. Lateral errors increased from 12 in the previous reporting period to 19 in this period, 16 of which were crew error. At least 7 of the 16 crew errors were confirmed to be where the crew "Followed Flight Plan Instead of Clearance" (FFPISOC). This subject should be addressed at every opportunity.

The ability for some FANS 1/A systems that allow the crew to accept and automatically inset the revised route into the FMS active route via a FANS 1/A Uplink Message 79 "Cleared to (waypoint) via (route clearance)" has not reduced this trend. There are several documented instances in the airline community where crew went direct to the waypoint identified manually and not via the route that would have been automatically loaded. The manner in which the

route portion of the message presents itself to the crew varies from simply not being shown in the body of the original message to sometimes being listed as *LL01, *LL03, etc. or WPT01, WPT02, etc.
The suggested method is to trust the uplink message and load the route, then verify the route through a waypoint list that illustrates the full 13 digit coordinates. This is the only method that removes the human error element involved in transcribing what was perhaps identified in the body of the original message to an abbreviated waypoint name (5450N or H5450).

The North Atlantic continues to see increasing traffic density and representatives from both Gander and Shanwick acknowledged the increased use of reroutes to facilitate the capacity issue. They also stated they attempted to limit reroutes that change all the waypoints where possible. This will, on occasion, result in several crews receiving amended route clearances involving 2 or 3 waypoints to avoid another crew getting a fully amended route.

The use of FANS 1/A Uplink Message 137 "Confirm Assigned Route" is intended to assist the Air Traffic Service Providers (ANSPs) in identifying flight plan route errors early in the oceanic segment. There are however a number of FANS 1/A approved aircraft that do not support the use of this message. For those aircraft, it is vital that crews establish and adhere to SOPs that address receipt of amended routes.

The incorrect execution of contingency procedures to include weather deviations is an additional trend that is present within this time period, and has been in previous periods and reports. This manifests itself sometimes as an incorrect offset distance (for example 10NM instead of 15NM) or a lack of coordination with the ATSU. While it is sometimes critical for the crew to aviate first and communicate later (for example engine failure), what frequently occurs is the crew is in contact with the ATSU but when approval is unavailable, they fail to state their intentions.

1. When possible, state the nature of the problem and attempt to obtain a revised clearance
2. When a revised clearance is not possible, clearly state your intentions to include the direction and distance (Left 15NM descending to FL275)

An updated version of the NAT OPS BULLETIN OESB (Oceanic Error Safety Bulletin) will be released soon and will address each of these issues as well as other frequently identified concerns. The members of the IGA community should be reminded that the Bulletin's contents are based on actual incidents within NAT airspace and make every effort to increase awareness and distribution of the Bulletin.