



U.S. Department
of Transportation

**Federal Aviation
Administration**

SAFO

Safety Alert for Operators

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Flight Standards Service
Washington, DC

http://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo

A SAFO contains important safety information and may include recommended action. SAFO content should be especially valuable to air carriers in meeting their statutory duty to provide service with the highest possible degree of safety in the public interest. Besides the specific action recommended in a SAFO, an alternative action may be as effective in addressing the safety issue named in the SAFO.

Subject: Large Height Deviations (LHD) in Oceanic Airspace

Purpose: This SAFO advises operators of the potential impact on safety due to LHDs (300 ft or more from the cleared flight level) in oceanic airspace. Additionally, this SAFO directs operators to the International Civil Aviation Organization (ICAO) Oceanic Errors Safety Bulletin (OESB), which discusses current focus areas, standard operating procedures (SOP), and best practices. The OESB also recommends safety controls and mitigations, which should be incorporated into the operator's international training programs.

Background: The causes for LHDs include, but are not limited to, air traffic control (ATC) coordination errors, pilot deviations including improper execution of pilot contingency procedures and turbulence encounters. Worldwide, air traffic agencies are tasked with monitoring the level of risk in their assigned airspace. The evaluation of oceanic error reports show LHDs present a potential hazard to continuous operational safety in the airspace. LHDs are the most common pilot errors. These deviations have caused some oceanic airspace to surpass the established Target Level of Safety and resulted in an elevated vertical risk.

Discussion: LHD present a potential hazard to overall flight safety. Collected data indicates that a majority of crew-related errors center on misinterpretation/application of the "**Conditional Clearances**" (CC). CC add efficiency to the airspace, which in many cases, allows ATC and flightcrews the flexibility to climb to altitudes that are more efficient. Event reports from ATC and flightcrews indicate that pilots misapply terms in the clearance such as "BY" or "AT," which have completely different meanings. Pilots should report to ATC immediately when leaving and reaching a new flight level per the guidance in NAT Doc 007.

Flightcrews must be trained to utilize procedures that ensure that all ATC clearances are complied with correctly, particularly clearances with en route restrictions such as changing flight levels based on a coordinated time or a specific geographic position.

Pilots are reminded that the Strategic Lateral Offset Procedure (SLOP) (ICAO Doc. 4444, Chapter 16) continues to have a very positive impact on airspace safety. It is highly recommended that SLOP be part of individual international training programs and be endorsed as an SOP on all oceanic and remote airspace flights.

Civil Aviation Authorities (CAA), e.g., FAA, have been provided reports of LHDs. When the CAA receives the report, it is scrutinized, and based on specific safety parameters, e.g., in OpSpecs/MSpecs/LOAs and Federal Aviation Regulations, it is determined whether additional operator action is required.

Operators are advised that a continuous analysis process should be used to evaluate oceanic errors in order to meet the Safety Management System (SMS) objectives. ICAO North Atlantic Groups have developed an OESB, which discusses trends and provide best practices to help operators mitigate hazards. The OESB, which can be found at http://www.paris.icao.int/documents_open/show_file.php?id=448, is intended for distribution to industry and training centers and available to all pilots. In addition, the OESB should be used in conjunction with the guidance detailed in the current edition of *Guidance Concerning Air Navigation In and Above NAT MNPS Airspace* (NAT Doc 007). Effective in November 2012, the revised NAT Doc 007 will be renamed “North Atlantic Operations and Airspace Manual.” Additional resources can be found in Advisory Circular 91-70 (as amended), Oceanic and International Operations, as well as resources on the FAA Oceanic Operations Web site http://www.faa.gov/pilots/intl/oceanic_ops/.

Recommended Action: Directors of safety, directors of operations, chief pilots, fractional ownership program managers, training managers, and operators of aircraft should make their aircrews aware of the content of this SAFO. It is highly recommended that operators periodically review the OESB and related Web sites for current updating of best practices for Oceanic Airspace procedures.

Point of Contact: Any questions regarding this SAFO should be directed to Trent Bigler, Performance Based Flight Systems Branch, AFS-470, at (202) 385-4504.