

08SAB15

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Honeywell FMC Equipped Boeing 747,757,767,777 and MD-88/90 Aircraft

US-ALPA has issued the following Operations Bulletin concerning Honeywell FMC some equipped Boeing aircraft

Background:

It has come to the attention of US-ALPA safety representatives that versions of the Honeywell FMC-equipped Boeings will “drop” a coded speed restriction if the associated “at or above” altitude constraint is met prior to reaching the waypoint during climb. If the pilot has the aircraft auto-flight system fully coupled to the procedure coded in the FMC, and if the aircraft reaches the altitude constraint prior to the fix for which it applies, the aircraft will begin to accelerate and may exceed the speed restriction. Interestingly, if the waypoint, or any subsequent waypoint, includes an “at or below” altitude constraint or a “window” constraint (“at or above” and “at or below”), then the speed constraint associated with that waypoint will remain.

Obviously, inadvertently exceeding speed constraints may compromise obstacle clearance and/or aircraft separation due to an increase in turn radius. This issue also increases the potential for pilot deviations which may become more prevalent due to the increasing use of RNAV procedures. However, this anomaly can occur on any database SID containing speed constraints.

US-ALPA has determined the issue may be unique to Boeing products equipped with the Honeywell FMC. This includes 747, 757, 767 and 777, as well as the MD-88/90. The Aircraft Design and Operations (ADO) group is corresponding with Boeing outlining our concerns and look forward to hearing proposed solutions.

Interim Recommendations:

1. Note any speed restrictions associated with altitude constraints at waypoints for the RNAV procedure for which cleared.
2. Exercise extra vigilance to the speed mode, especially if any preceding “at or above” altitude constraints are met prior to reaching that waypoint.
3. If it appears the speed constraint has been “dropped,” select a speed mode in accordance with your company procedures that will honor the associated speed constraint.
4. Consider using manual speed selections when departing on SIDs with coded speed constraints.



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