

**Status of the Boston Runway 27, WYLYY RNAV Departure Revision
Proposal
February 21, 2007**

The Boston RWY 27 Advisory Committee requested that a study be undertaken to determine if track compliance within the RWY 27 flight corridor could be improved by revising the WYLYY RNAV departure procedure.

The first step in this study was to review the *Air Traffic Airspace (ATA) Lab Analysis of “Jets Departures from Boston-Logan RWY 27” to determine how aircraft and their navigation equipment performed when the procedure was flown.

The ATA analysis concluded that the A320 and B737 aircraft performed better than other aircraft. These aircraft had better compliance rates because of their advanced navigation equipment, pilot technique and operations in engaging lateral navigation. The analysis also determined that the MD88 and B752 aircraft did not perform as well.

With the assistance of two air carriers that regularly used MD88 and B752 aircraft on the Boston RWY 27 Departure, it was possibly not only to determine why the compliance rate for these two aircraft types was not as good as the others but also to help identify possible methods of improving their compliance. The initial results showed that both types of aircraft use a type of Flight Management System that could possibly benefit from moving the first waypoint “GARVY” closer to the departure end of the runway.

Early modeling results of moving the “GARVY” waypoint 2/10 of a mile closer to the end of the runway have not been promising. However, further study is continuing, using a more refined modeling tool in order to support a criteria waiver request.

Additionally, Northwest Airlines has agreed to complete flight simulator trials and has offered to perform a B752 aircraft operational in-flight trial when flying the WYLYY RNAV departure. Delta Airlines has been asked for its support in MD88 simulator trials.

It is hoped that the results from the more refined modeling tool, and from the simulator trials and/or in-flight trial will be available for the next RWY 27 Advisory Committee Meeting.

If the modeling and simulation/operational trials indicate that the procedure can be revised safely and that it improves corridor compliance, a waiver to the FAA procedure criteria will be requested. If the waiver is approved, the procedure documentation for a modification will be filed to move the GARVY waypoint closer to the end of the runway.

* The ATA Lab analysis can be found on this RWY 27 Web site.