

BEBS No. 3

Candidate Scenario Title: ADS-B East Coast Offshore Routes

Operational Description	<p>This operational incentive would require the use of ADS-B Out in order to use the M201 Route along the East Coast when Oceana and/or Fort Fisher long-range radars (LRR) are not in service.</p> <p>The use of ADS-B East Coast Off-shore routes relieves congestion by enabling equipped flights to depart the NY Metro airports enroute to Florida and Caribbean destinations during severe weather or high volume conditions.</p> <p>Route M201 begins just off the coast of Florida, east of Jacksonville. M201 is currently the only radar route from the East Coast and New York airports to Miami and the Caribbean. M201 is used primarily as relief from Traffic Flow Management (TFM) initiatives and delay constrained routes along the eastern seaboard between the northeastern United States and southern Florida. It is also used extensively as a weather offload route during Severe Weather Avoidance Plan (SWAP) operations.</p> <p>The addition of surveillance beyond the current radar limit will allow deviations east around weather impacting route M201. M201 is normally closed to air traffic when Oceana and/or Fort Fisher long-range radars (LRR) are not in service.</p> <p>The impact of closing M201 to traffic goes well beyond any additional distance that would be required for an alternate route. The available alternate routes are all along the congested East Coast corridor. Frequently, the reason a flight chooses M201 is to escape extremely high departure delays for flights scheduled along the East Coast mainland routes.</p> <p>Because the southern third of the route is within 200 miles of the U.S. coastline--the approximate range of LRR--ADS-B coverage of 225 nm provided by ADS-B ground stations along the coastline is feasible. This would provide surveillance redundancy and continuity of operations along M201 for rule-compliant ADS-B equipped aircraft in the event of loss of radar.</p> <p>The benefits of using M201 are described and quantified in an August 2006 National Business Aviation Association (NBAA) briefing called "Reduce East Coast Departure Delays: Fly the Offshore Radar Routes" [6]. The briefing contains two examples of offshore route usage. In both cases, flights are able to get off the ground sooner, but their flight time increases. Departure time savings was 55 minutes in one case and</p>
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	<p>30 minutes in the other, with an average of 42.5 minutes. Extra flight time incurred was 5 minutes in one case and 30 minutes in the other, with an average of 17.5 minutes.</p> <p>In order for ADS-B flying operations on M201 to occur, the New York Center (ZNY) must be equipped with the En Route Automation Modernization (ERAM) system Release 3 (R3), which will allow the display of these aircraft as ADS-B targets. Procedures must be developed to support controller use of ERAM for this objective. Also, a specific ADS-B flight planning filing change must be implemented to support identification of those aircraft properly equipped to fly the ADS-B routes, and is part of the ICAO Flight Plan 2012 initiative. Procedures for Air Traffic Control (ATC) will also be necessary for ZNY and would need to be integrated with the New York Area Program Integration Office (NYAPIO) Delay Reduction Program.</p>	
Target Operational Time Frame		2013
Technology (equipage) Targeted		ADS-B Out equipage
Impact on equipped and capable a/c		Expedited departure time during M201 closure, due to LRR outages in combination with weather related and other severe volume events.
Impact to non-equipped and not capable a/c		Removing ADS-B equipped aircraft from the departure queue will improve efficiency for remaining aircraft.
Impact on NAS efficiency or capacity		Positive impact- by reducing NY Metro departure delays, there is a NAS-wide reduction in system delays.

