An Update on Charlotte Airspace Modernization

Phase 3

July 13, 2016
Why We Must Modernize

NEXT GEN Components: RNAV/RNP
Moving to Performance-Based Navigation

Conventional Routes
Area Navigation (RNAV) routes follow defined "waypoints"

RNAV
Increased Airspace Efficiency

RNP
Required Navigation Performance (RNP) routes within specified "envelope area"

Limited Design Flexibility
Optimize Use of Airspace

Source: Federal Aviation Administration
Top 10 Airports in the United States

1. Atlanta
2. Chicago
3. Dallas/Ft Worth
4. Los Angeles
5. Charlotte
6. Denver
7. Las Vegas
8. Houston
9. New York JFK
10. Phoenix
Challenges of the Charlotte Airspace

• Charlotte is the 5th busiest airport in the United States.
• It is adjacent to Atlanta, the busiest airport in the world.
• Traffic moving along the East Coast represents some of the greatest areas of congestion and potential delay in the system.
The Process

- Metroplex Implemented over Phases
  - Phase 1 implemented on October 15, 2015
  - Phase 2 implemented on May 31, 2016
  - Phase 3 will occur July 21, 2016
Why do we fly this way?

NORTH FLOW – 45% OF THE TIME

CLT
What are the Changes

Departure SIDs

**Pre** Metroplex Departures – North Flow

**Post** Metroplex Departures – North Flow
NORTH FLOW
Departures out of the Airspace
Departure SIDs (Slide 1)

**Pre - Metroplex Departures**

Jet radar tracks prior to Oct 15, 2015 – Pre Metroplex

**Post - Phase 1, Phase 2 and Future Phase 3 Departures**

Jet radar tracks after May 30, 2016 – New Phase 1 & 2 tracks only
What are the Changes
Arrivals STARs

Pre Metroplex Arrivals – North Flow

Post Metroplex Arrivals – North Flow

PHASE 1
Oct 15, 2015

PHASE 2
May 31, 2016

PHASE 3
July 21, 2016
NORTH FLOW

Arrivals into the Airspace

Arrival STARs (Slide 1)

Pre - Metroplex Arrivals

Jet radar tracks prior to Oct 15, 2015 – Pre Metroplex

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Jet radar tracks after May 30, 2016 – New Phase 1 & 2 tracks only
SOUTH FLOW

Departures out of the Airspace

Departure SIDs (Slide 1)

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**Post** - Phase 1, Phase 2 and Future Phase 3 Departures

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Increased Altitudes
SOUTH FLOW

Arrivals into the Airspace

Arrival STARs (Slide 1)

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Our Commitments

• To partner with our local airports and aviation teams to adhere to established noise abatement policies.
• To update the community on changes the Metroplex project is making to the airspace.
• To make the images from this presentation available on the web and in other mobile applications.
  • [www.faa.gov/go/charlotte/](http://www.faa.gov/go/charlotte/)