CHARLOTTE Metroplex

National Customer Forum

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May 11, 2016
Agenda

- Metroplex Overview
- CLT Summary of Changes
- Implementation Schedule
- 5/26/16 Chart Date
- 7/21/16 Chart Date
- Additional Industry Briefings
- The Big Day
- Questions
Metroplex Overview

• Purpose of the project is to optimize airspace and procedures
• Success of this project is dependent upon the successful and collaborative efforts of Industry, FAA, NATCA & lessons learned from previous Metroplex implementations
• The project is focused on enabling full utilization of these new procedures
• Full utilization will maximize benefits:
  • Reduction in fuel consumption
  • Reduction in flight times
  • Reduction in carbon emissions
  • Reduce pilot/controller communications
  • Reduce task complexities for pilots and controllers
  • Repeatable predictable flight paths
• Charlotte began staged implementation on 6/25/15
Implementation Schedule

- **5/26/16 & 5/31/16 - NE Corner**
  - Airspace Changes
    - CLT, ZTL & ZDC
  - 1 CLT STAR
  - 3 CLT SIDS

- **7/21/16 - South**
  - Airspace Changes
    - CLT, GSP, ZTL, ZJX & ZDC
  - 6 CLT STARS
  - 3 CLT SIDS

- **1/5/17**
  - CLT – 2 STARS & 2 SIDS
  - 1 RDU STAR
  - 2 CHS STARS
  - GSO – 1 STAR & 3 SIDS
  - GSP – 3 STARS & 1 SID
05/31/16 Implementation

- 5/26/16
  - 18 Airspace Changes
  - 3 New Procedures Published—NOTAM’d NA until 5/31/16
  - LILLS RNAV SID (up-number)

- 5/31/16
  - Implementation Day
  - CHSLY RNAV STAR
  - KILNS and BARMY RNAV SIDs
CHSLY RNAV OPD

- Replaces the existing IVANE OPD

- En route transitions begin at Lynchburg VORTAC (LYH), Franklin VORTAC (FKN), NUUMN (waypoint), SDAIL (waypoint), and SKLES (waypoint).

- The NUUMN transition is established for aircraft transitioning from the LYH transition to the FKN transition and will be primarily used during reroute scenarios.

- The SDAIL and SKLES transitions are designed for aircraft that depart airports “inside” the LYH and FKN Transitions and help ensure DataComm compliance.
CHSLY RNAV OPD

Based on lessons learned from our 10/15/15 and input from Industry the following changes were made:

- EPAYE moved 1.5 nm south of original location
- EPAYE altitude changed from 6000B7000 to 6000 and 210 kts
- JOHSN altitude changed from 8000B10000 to 9000 and 230 kts
KILNS & BARMY replace the existing MERIL SID

This SID will incorporate earlier route divergence, decreased track miles flown, decrease departure delays, and increased departure efficiency.

3 en route transitions:
- RDU (Raleigh Durham VORTAC)
- TYI (Tar River VORTAC)
- NUTZE
**BARMY RNAV SID**

**KILNS & BARMY are City Pair specific**

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KILNS RNAV SID

- KILNS & BARMY replace the existing MERIL SID
- One en route transition for traffic routed north of RDU to serve east coast city-pairs to and north of Washington D.C.
- Incorporates radar vectoring that allows for quicker course divergence while creating flexibility and minimizing level-offs
## KILNS RNAV SID

**KILNS & BARMY** are City Pair specific

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LILLS RNAV SID

- Incorporates radar vectoring that allows for quicker course divergence while creating flexibility and minimizing level-offs
5/31/16 Implementation TMI

- Departures
  - 10 MIT on the BARMY and KILNS for first 7 to 14 days. Re-evaluate after 7 days or sooner if possible.
  - ZTL will pass the ZDC 10 MIT back to CLT due to little airspace/time in ZTL30 to establish the 10 MIT
  - CLT—does not believe this will be major impact, not likely to affect arrival rate unless there is an unforeseen impact
  - ATCSCC—believes one week is proper amount of time to make evaluations

- Arrivals
  - CLT expects no MIT issues
  - ZDC will not be passing any additional TMIIs to ZNY outside of the normal passbacks, same as today
  - ATCSCC see no issues
07/21/16 Implementation

- 7/21/16
  - 12 Airspace Changes
  - 9 New Procedures
    - BEAVY, ICONS, KWEEN SIDs
    - JONZE, BANKR, STOCR, MLLET RNAV STARs
    - KABEE, RASLN Conventional STARs

- 3 Post Implementation Procedures Published
  - FILPZ2, PARQR2 RNAV STARs
  - KRITR2 SID
7/21/16 Publication – CLT SE-S-SW
7/21/16 Publication – CLT SE-S-SW
7/21/16 Publication – Re-designs
KRITR2 RNAV SID

- Turbojet only with two transitions
- Built new transition that goes from KRITR direct to new WP FILDS, this transition is to eliminate point out issues associated with ZTL29/47
- SMIAM transition will remain
FILPZ2 RNAV SID

Prototype - Not for Navigation

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Expect "descend via" clearance and landing direction assignment (north or south) by ARTCC. For vertical navigation planning, landing south, select RWY 18R, landing north, select RWY 36L.
NOTE: CLT approach will assign landing runway.
NOTE: Descend via mach number until intercepting 270K. Maintain 270K until slowed by the STAR or assigned by ATC.

(NARRATIVE ON FOLLOWING PAGE)
FILPZ2 RNAV SID

- Added WP NIZAM between SKYWA and COMDY (137.90 heading and 14.98nm from SKYWA)
- Changed MEA on TAZZA/SKYWA to request lowest possible MEA for July 2016 implementation
- Started common route at JJENY for Data Comm compliance
- New transition at COMDY will also be the point for the TYS/CHA departures
- Removed speed at JJENY
- FILPZ changed from at or above 17000 to at or above 16000 added 270kts speed
- Removed speed/altitude at BLAYQ
- Removed CHLOW
- Added WP PIPPS between FILPZ and JOBOT with at or above 12000
- Added 250kts at PIPPS and JOBOT
- BACKK changed from 260kts to 250kts
- Straightened route between BACKK and CEDOX
- Moved associated fixes (INWAL heading 16.26 and .91nm & JELNO heading 127.45 and .91nm) with route straightening
- Removed WELKY
- Changed altitude on JELNO from 10000 to 12000 to 10000 to 11000 added 230kts
- CEDOX changed to at 9000/210kts versus 9000 to 11000
- Removed DOSBE and added new WP VALLL (heading 182.83 and 2nm south of the DOSBE location)
- Satellite airports removed and associated transitions removed
- Add LIINN holding
PARQR RNAV STAR
Changes on 7/21/16

- Removed altitudes/speeds at MAHAF and LNDIZ
- Created ATC assigned only transition at WILUM
- Started common route at SUZNN for data comm compliance and terminated at PARQR
- Made RWY23 transition the same as RWY18 transition
- Changed PAYKN to at or below 15000 (previously 12000/16000 block)
- Added WP THACK between PAYKN and BBQEE with 12000/250kts restriction (heading 154.01 and 5.64nm from PAYKN), placed so if CLT ATCT needs a/c to cross CEDOX at 9000/210kts industry can comply
- Removed altitude and speed from BBQEE
- Removed HIKNG waypoint
- Removed DOSBE and added new WP VALLL (heading 182.83 and 2nm south of the DOSBE location)
- Satellite airports removed and associated transitions removed
- Remove LIINN holding
ICONS RNAV SID

- **BEAVY, ICONS & KWEEN** replace existing ANDYS/BUCKLS
- Turbojet only
- Incorporates radar vectors which allows for quicker course divergence as close to the airport as possible, while creating flexibility and minimizing level-offs.
- Used for F11 airports (MCO, ORL, ISM, MLB), DAB, JAX, and arrivals into ZMA routed over SAV/CRG/OMN/TRV
BEAVY RNAV SID

- **BEAVY, ICONS & KWEEN replace existing ANDYS/BUCKLS**
- **Turbojet only**
- **Incorporates radar vectors which allows for quicker course divergence as close to the airport as possible, while creating flexibility and minimizing level-offs.**
- **Used for ATL, AGS, and arrivals into ZMA routed J75 or TAY, or aircraft landing TLH or points west**
KWEEN RNAV SID

- BEAVY, ICONS & KWEEN replace existing ANDYS/BUCKLS
- Turbojet only
- Incorporates radar vectors which allows for quicker course divergence as close to the airport as possible, while creating flexibility and minimizing level-offs.
- Used for flights to CHS, MYR, International Departures routed over the AR’s
MLLET RNAV STAR

- MLLET & STOCR replace existing HUSTN STAR
- Jets and Turboprops.
- Two en route transitions to replace the existing HUSTN STAR.
STOCR RNAV STAR

- MLLET & STOCR replace existing HUSTN STAR
- Jets Only
- Three en route transitions to replace the existing HUSTN STAR
- OPD
JONZE RNAV STAR

- JONZE & BANKR replace existing ADENA STAR

- Jets Only

- De-conflict with ATL departures

- Two enroute transitions – one for ATL departures

- OPD
JONZE RNAV STAR

NOTE: RADAR required.
NOTE: RNAV 1.
NOTE: DME/DME/IRU or GPS required.
NOTE: Turbojet aircraft only.
NOTE: Expect "descend via" clearance and landing direction assignment (north or south) by ARTCC.
For vertical navigation planning, landing south, select Rwy 18R, landing north, select Rwy 36L.
NOTE: CLT approach will assign landing runway.
NOTE: Descend via MACH number until intercepting 270 Kias. Maintain 270 Kias until slowed by the STAR or assigned by ATC.

CAUTION: Parachute jumping 14 NM east DUBBB, 3 NM radius Chester-Catawa Regional airport, AOB 14500 MSL.

(NARRATIVE ON FOLLOWING PAGE)
BANKR RNAV STAR

- JONZE & BANKR replace existing ADENA STAR

- Jets.

- OPD
KABEE RNAV

- RNAV Procedure
- Replaces southern transition of the current NASCR STAR
- Serves JQF, RUQ, KSVH and KVUJ
RASLN CONV STAR

- Conventional Procedure from southeast
- Replace CTF STAR
7/21/16 NFDC PREF Routing & Implementation TMI

• NFDC Pref Routing will be distributed via the Flight Filers Telcon in July.

• Currently in discussion with facilities to determine TMI requirements

• Utilizing lessons learned from previous Metroplex implementations

• TBFM Ops Team is working to identify impact based on new adaptation changes
Additional Industry Outreach

- Industry Day - May 16, 2016
- Dispatcher’s Telcons
  - June 1, 2016
  - July 6, 2016
The Big Day!

- Onsite implementation teams at CLT, ZTL, ZDC & Eastern Service Center
- TBFM SMEs at Facilities
- Open Conference bridge
  - Daily Telcons at 6:30am, 10:30am and 1:30pm – May 31st only
  - May 31 through June 2 --- 6:00am - 4:00pm EST
    - Dial In Access: (USA only)  888-335-6670
    - Dial In Access: (Direct Dial)  405-225-2375
    - Dial In Access (Alternate USA Only)  888-924-3230
    - Dial In Access (Alternative Direct Dial)  609-916-1975

  - Participant Passcode: 853231
  - Chairperson Passcode: 962439

- Collect feedback forms
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