

KTEB Chief Pilot Webinar

May 31, 2016

1100 EST

Webinar Guidelines

- Please mute your phone, questions will be entertained by email.
- During the presentations please submit any questions to tle@panynj.gov and we will answer as many as possible at the end of all presentations.
- Any questions not answered during the webinar will be answered over the next several days.

Agenda

- ZNY ADSB
- SWAP Briefing
- Fix Balancing
- Airport Delay Metrics
- GBAS & Construction Update
- Charted Visual Procedure for runway 19
- Helicopter Route Review

Presenters

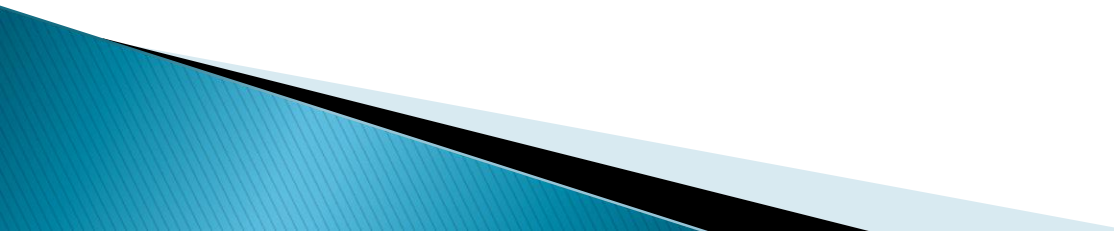
- **Pam L. Phillips**, Mgr., Operations & Security, Port Authority of NY & NJ, TEB
- **James C. Schultz III**, Traffic Management Officer, FAA En Route and Oceanic Services, NY
- **Michael Porcello**, N90 Traffic Management Officer
- **Ralph Tamburro**, Delay Reduction Project Manager, Port Authority of NY & NJ, Aviation Dept.
- **Gary Palm**, KTEB Air Traffic Control Tower Manager, FAA
- **Gabriel Andino**, Noise Abatement & Environmental Compliance Manager, KTEB

Please email any questions to
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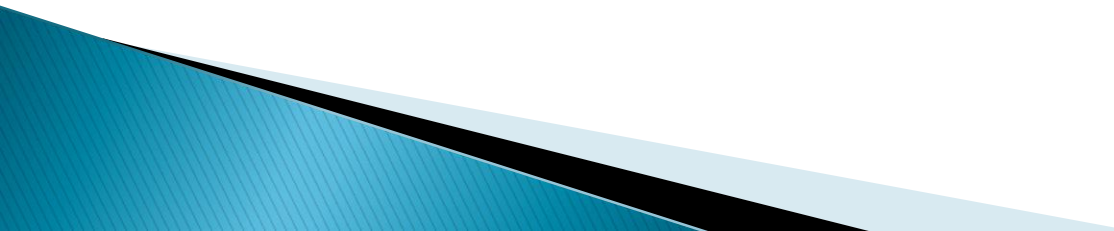
ADS-B Briefing

Presented By:
James C. Schultz III, TMO ZNY

ZNY ADSB Operation

- ▶ Continue Use of ADS-B during Oceania and Fort Fisher Radar Outages
 - ▶ The ZNY workforce is highly trained as to the advantages and uses of ADS-B during RADAR outages
 - ▶ Continue to use Southbound on L453 currently unavailable Northbound
- 

Process When Oceania Or Fort Fisher OTS

- ▶ NOTAM issued
 - ▶ System Impact Report Issued through ATCSCC
 - ▶ Controllers notified to expect use of ADS-B
 - ▶ ERAM System enabled to show ADS-B is operational
- 

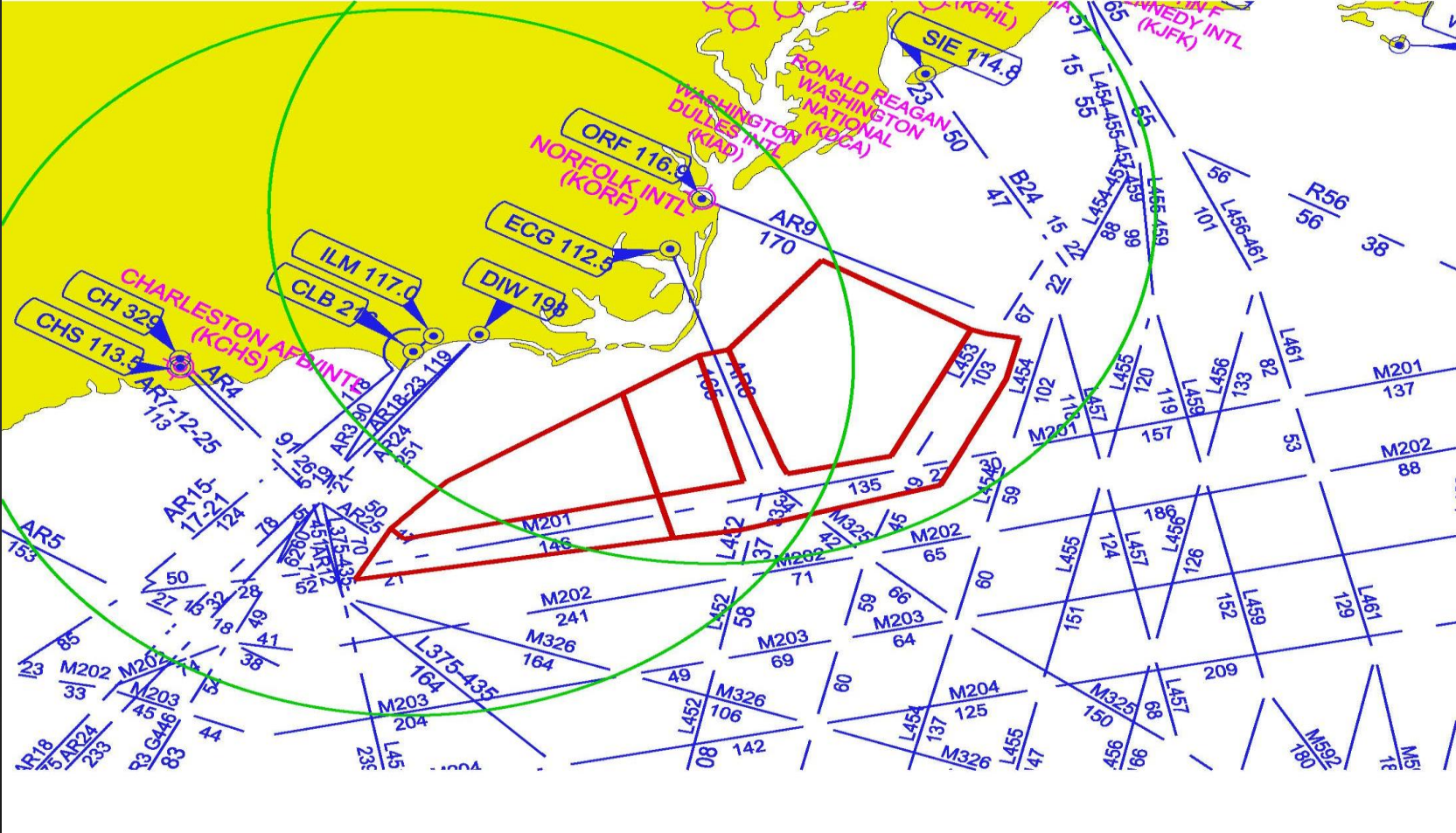
Oceania Radar Outage – Sample

- ▶ A0136/16 – OCEANA (QVR) RADAR WILL BE U/S. DURING THE OUTAGE THE FOLLOWING RESTRICTIONS ARE IN PLACE:
1)NORTHBOUND: L453 WILL BE CLOSED. 2)SOUTHWEST BOUND: M201 WILL BE CLOSED BETWEEN INTERSECTIONS ATUGI AND HANRI. ONLY AIRCRAFT EQUIPPED WITH OPERATIONAL ADS-260B OUT MAY USE THE FOLLOWING ROUTES: 3)SOUTHBOUND: L453 BETWEEN INTERSECTIONS LEXAD AND ONGOT 4)NORTHEAST BOUND: M201 BETWEEN INTERSECTIONS HANRI AND ATUGI.

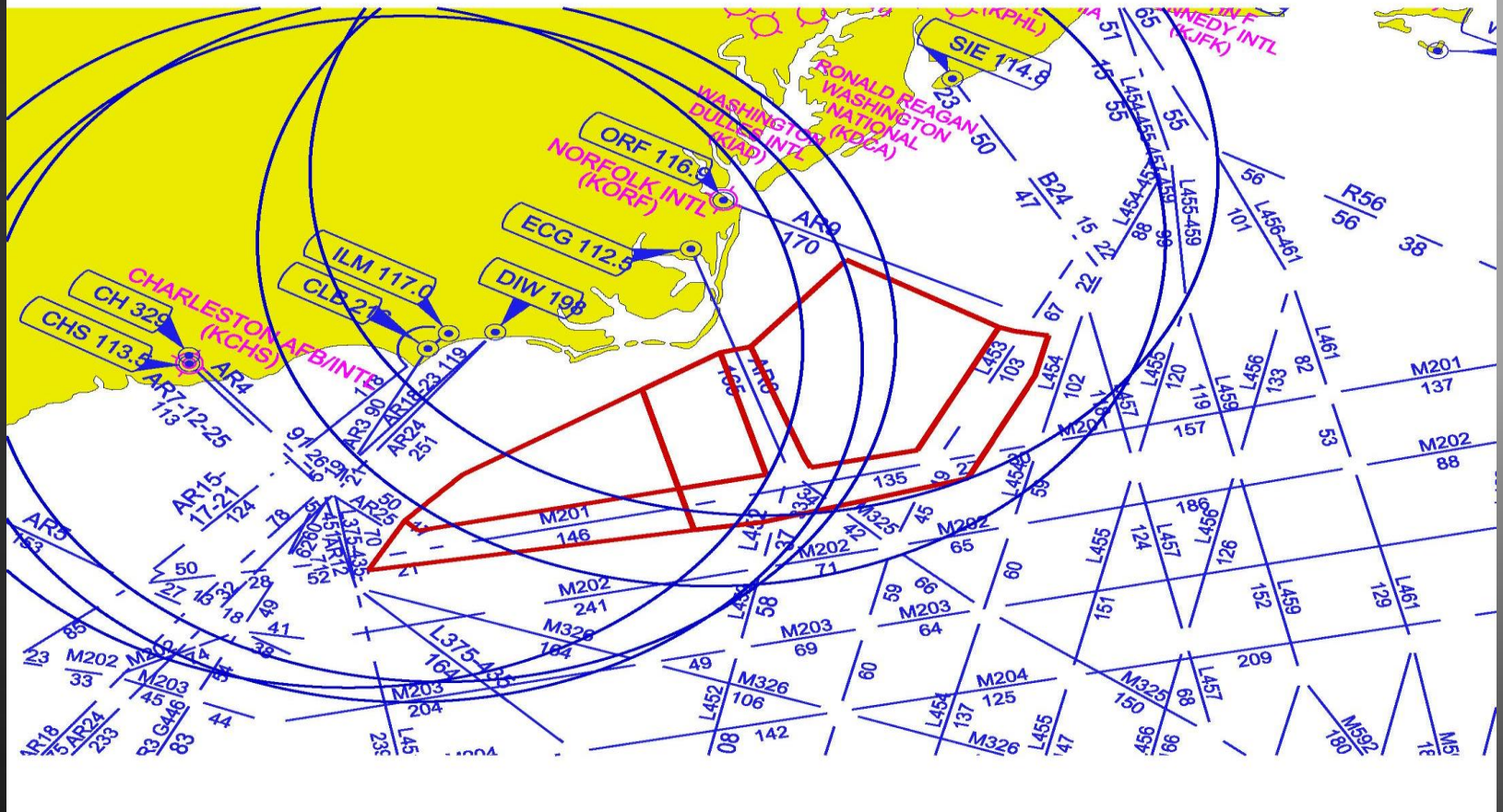
Sample NOTAM (continued)

- ▶ ALL ADS 260B OUT AIRCRAFT MUST FILE AN ICAO FLIGHT PLAN IAW AC 90- 114 AS WELL AS AIM 5-1-9(4) AND 5-1-9(8). DLY 1200-2130, 22 MAR 12:00 2016 UNTIL 24 MAR 21:30 2016. CREATED: 21 MAR 13:52 2016

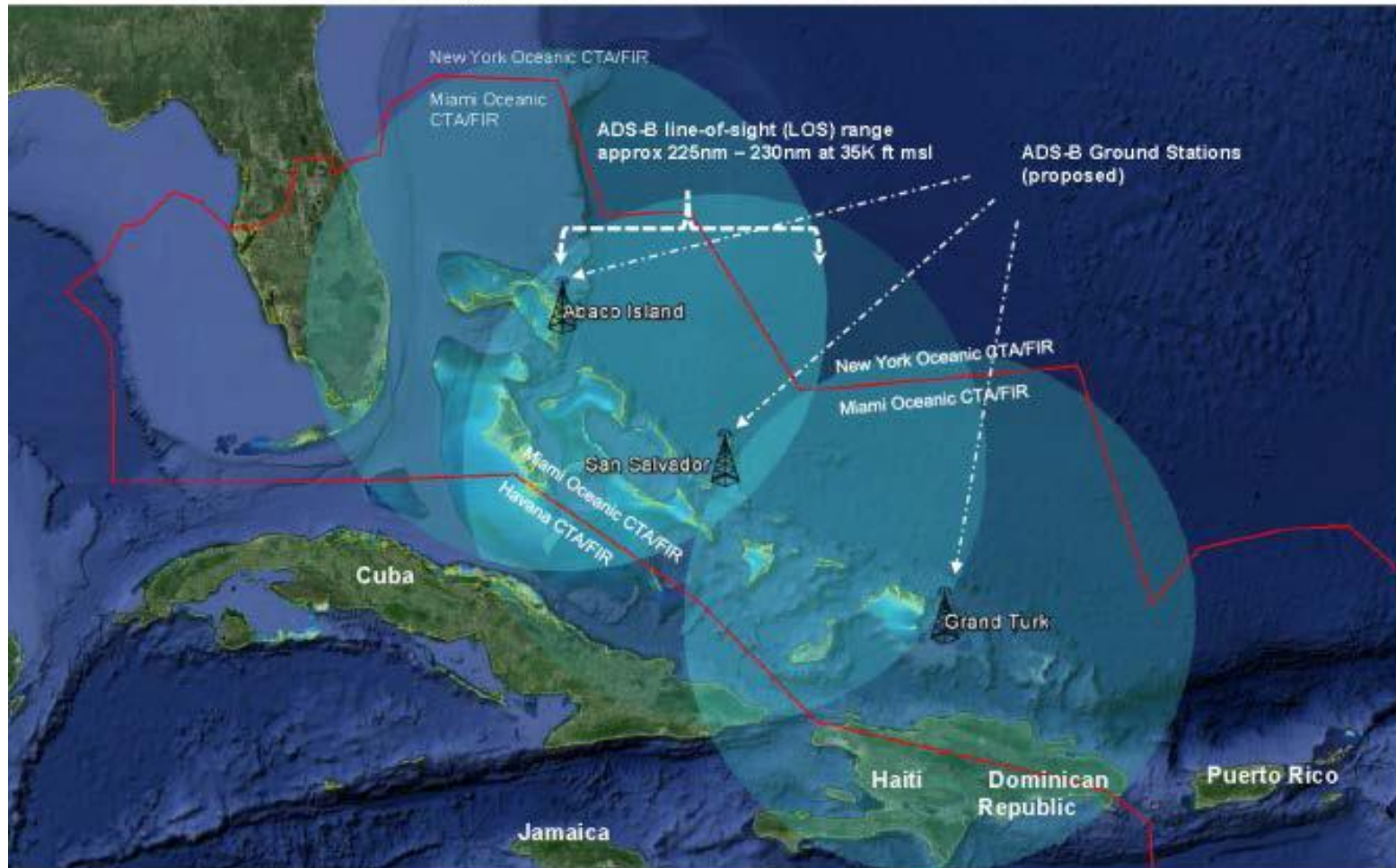
Radar Coverage



ADS-B Coverage



ADS-B Coverage at 35K MSL with Ground Stations at Abaco Island, San Salvador and Grand Turk



Non-ADS-B Indicators

- ▶ Pink/Coral "A" indicators will be present for all non-ADSB aircraft



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SWAP 2016

- ▶ SWAP – Severe Weather Avoidance Plan
- ▶ Initiated when Severe Weather impacts routes in ZNY airspace
- ▶ May be initiated for weather outside of ZNY when reroutes become excessive
- ❖ Based on historical data, during May, June, July and August there is a 48% chance of New York Center implementing SWAP on any given day.
- ❖ New York Center's SWAP Goal – mitigate the inevitable delays associated with the event through the timely opening and closing of routes and issuance of amended clearances.



Reroute Process – Normal Day

- ▶ Center gets flight strip 45 min before P time
- ▶ Tower gets strip 30 min before P time
- ▶ Ideally, any amendment is done by the Center within that 15 min window
- ▶ Amendments are done to pref route, route around WX or for fix balancing
- ▶ If amendment is entered less than 15 min before P time, Center advises Tower
- ▶ If a/c will depart more than 15 min before P time, Tower aprepqs w/ Center



Reroute Process – SWAP day

- ▶ Route determined when Tower “moves” flight to TAXI status in DSP
- ▶ Flight is Cleared as Filed or Revised
- ▶ Ideally, flight will depart within 30 minutes
- ▶ Not unusual to have multiple revisions due to dynamic nature of WX




ATCSCC Route Advisories

FYI – means that the routing in the Advisory is available for those that wish to use it to avoid possible delays on the normal routes.

RMD – means that the routing in the Advisory is **RECOMMENDED** to avoid delays on the normal routes.

RQD – means that the routing in the Advisory is **REQUIRED** due to constraints on the normal routes.



Route Strategies for GA Aircraft

- ▶ AZEZU route to/from Florida – always available unless an Advisory or System Impact Report (SIR) signifies otherwise. Often issued as FYI or RMD
- ▶ SERMN (SWAP Escape Routes Metro New York) – low altitude routes designed to keep aircraft out of high altitude structure. 3 separate SERMN scenarios, or playbooks:
 - 1) North (really west) – to upstate NY, YYZ, western PA, Ohio, as far west as Michigan
 - 2) East – to New England
 - 3) South – to DC Mets, ORF, RIC, RDU, ROA, CHS, GSO, CAE, SAV – Often issued as RQD
- ▶ Use GREKI routes to upstate NY, YYYZ ORD, MSP and further west – often issued as RMD
- ▶ J75, J48 or J6 routes to Florida to avoid delays via WHITE

Filing Flight Plans out of the NY area – first 200 miles must be via one of the routes indicated

Q812		GAYEL Q818 STOMP Q812 SYR
Q818		GAYEL Q818 WOZEE
Q436		COATE Q436 RAAKK
J60		NEWEL J60 DJB
J64		NEWEL J60 DANNR RAV J64 EWC
J80/J110/Q480		ZIMMZ Q42 MIKYG Q480 AIR
J6		PARKE J6 MRB
J48		LANNA J48 MOL
J75		BIGGY J75 GVE
J209		WHITE J209 SBY
J174		WAVEY EMJAY J174 SWL
Q42		ZIMMZ Q42 PSYKO

How can Business Aviation help?

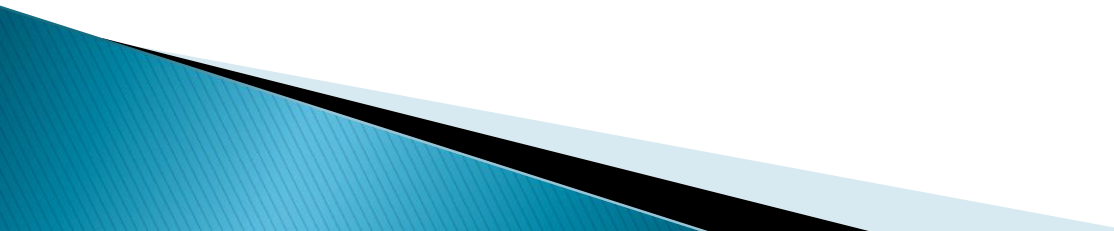
- ❖ File in compliance with ATCSCC Advisories.
- ❖ DO NOT REFILE if less than 45 min prior to original P time.
- ❖ If refileing, ALWAYS call center to remove original flight plan.
- ❖ Use NRP rules when filing routes (first and last 200 miles on a preferred IFR route)
- ❖ Utilize Alternative Routes if they are FYI or RMD:



Please email any questions to
tlee@panynj.gov

Fix Balancing for N90 Departures

WHITE Avoidance

- ▶ Most restricted fix
 - ▶ BIGGY is only available for select destinations (DCA, BWI, CLT)
 - ▶ ZNY Sector 55 volume is a factor for LANNA departures
 - ▶ PARKE makes use of available capacity in ZID airspace
 - ▶ Takes advantage of under-utilized fix
- 

Examples of Playbook Routes 2016

TEB

USING NE TO FL VIA J6 PLAYBOOK

-TO ALL FL DESTINATIONS: PARKE J6 HVQ BULEY J91 ATL

APF KTEB PARKE J6 HVQ BULEY J91 ATL J43 SZW TYNEE1

BCT KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK PRRIE2 KBCT

FLL KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK JINGL4 KFL

FMY KTEB PARKE J6 HVQ BULEY J91 ATL J43 SZW TYNEE1 KFM

FXE KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK JINGL4 KFXE

MCO KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK PIGLT4 KMCO

MIA KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK SSCOT3 KMIA

PBI KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK WLACE2 KPBI

PIE KTEB PARKE J6 HVQ BULEY J91 ATL J43 SZW KPIE

RSW KTEB PARKE J6 HVQ BULEY J91 ATL J43 SZW TYNEE1 KR

SRQ KTEB PARKE J6 HVQ BULEY J91 ATL J43 SZW TEEGN1 KSRQ

TMB KTEB PARKE J6 HVQ BULEY J91 ATL J89 OTK SSCOT2 KTMB

TPA KTEB PARKE J6 HVQ BULEY J91 ATL J43 SZWFOOXX4 KTPA

Playbook Routes 2016 Cont'd

MMU/CDW

USING NE TO FL VIA J48 PLAYBOOK

-TO ALL FL DESTINATIONS: MOL J22 VXV J91 ATL J89 OTK/J43 SZW

APF LANNA J48 MOL J22 VXV J91 ATL J43 SZW TYNEE1

BCT LANNA J48 MOL J22 VXV J91 ATL J89 OTK PRRIE2 KBCT

FLL LANNA J48 MOL J22 VXV J91 ATL J89 OTK JINGL4 KFLL

FMY LANNA J48 MOL J22 VXV J91 ATL J43 SZW TYNEE1 KFMY

FXE LANNA J48 MOL J22 VXV J91 ATL J89 OTK JINGL4 KFXE

MCO LANNA J48 MOL J22 VXV J91 ATL J89 OTK PIGLT4 KMCO

MIA LANNA J48 MOL J22 VXV J91 ATL J89 OTK SSCOT3 KMIA

PBI LANNA J48 MOL J22 VXV J91 ATL J89 OTK WLACE2 KPBI

PIE LANNA J48 MOL J22 VXV J91 ATL J43 SZW KPIE

RSW LANNA J48 MOL J22 VXV J91 ATL J43 SZW TYNEE1 KRSW

SRQ LANNA J48 MOL J22 VXV J91 ATL J43 SZW TEEGN1 KSRQ

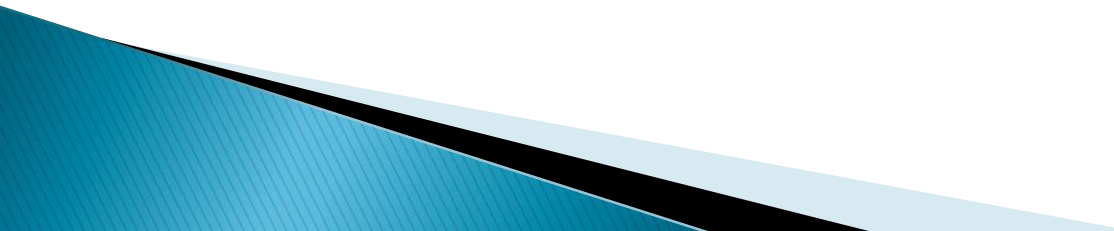
TMB LANNA J48 MOL J22 VXV J91 ATL J89 OTK SSCOT2 KTMB

TPA LANNA J48 MOL J22 VXV J91 ATL J43 SZWFOOXX4 KTPA

Playbook Routes

- ▶ Beneficial during the winter when most satellite traffic is southbound
- ▶ Dynamic re-routes outside of the published routes will continue based on weather and volume
- ▶ Low altitude routes for close-in destinations are probable
- ▶ Playbook routes are listed as departure airport specific but can be used at any of the three listed
 - http://www.fly.faa.gov/rmt/coded_departure_routes.jsp
 - <http://www.fly.faa.gov/PLAYBOOK/pbindex.html>

High Volume and SWAP Strategies

- ▶ Playbook Routes always on option depending on weather
 - ▶ Provide a game plan for top destinations (IAD, CLB, YYZ, etc.)
 - ▶ Avoid GAYEL
 - ▶ DUCT, SERMN
 - ▶ NEION Available?
- 

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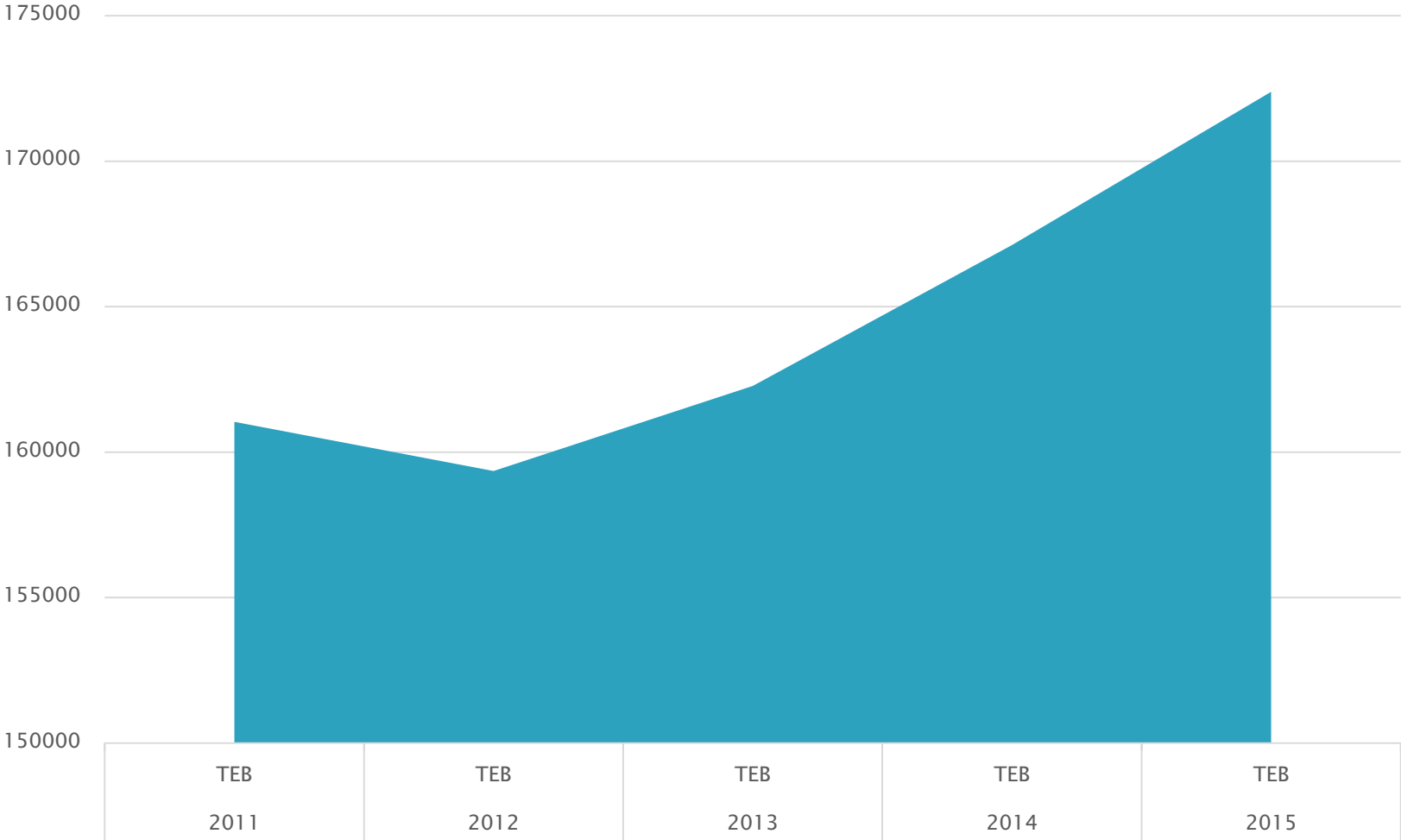
TEB Delay Metrics

Presented By:

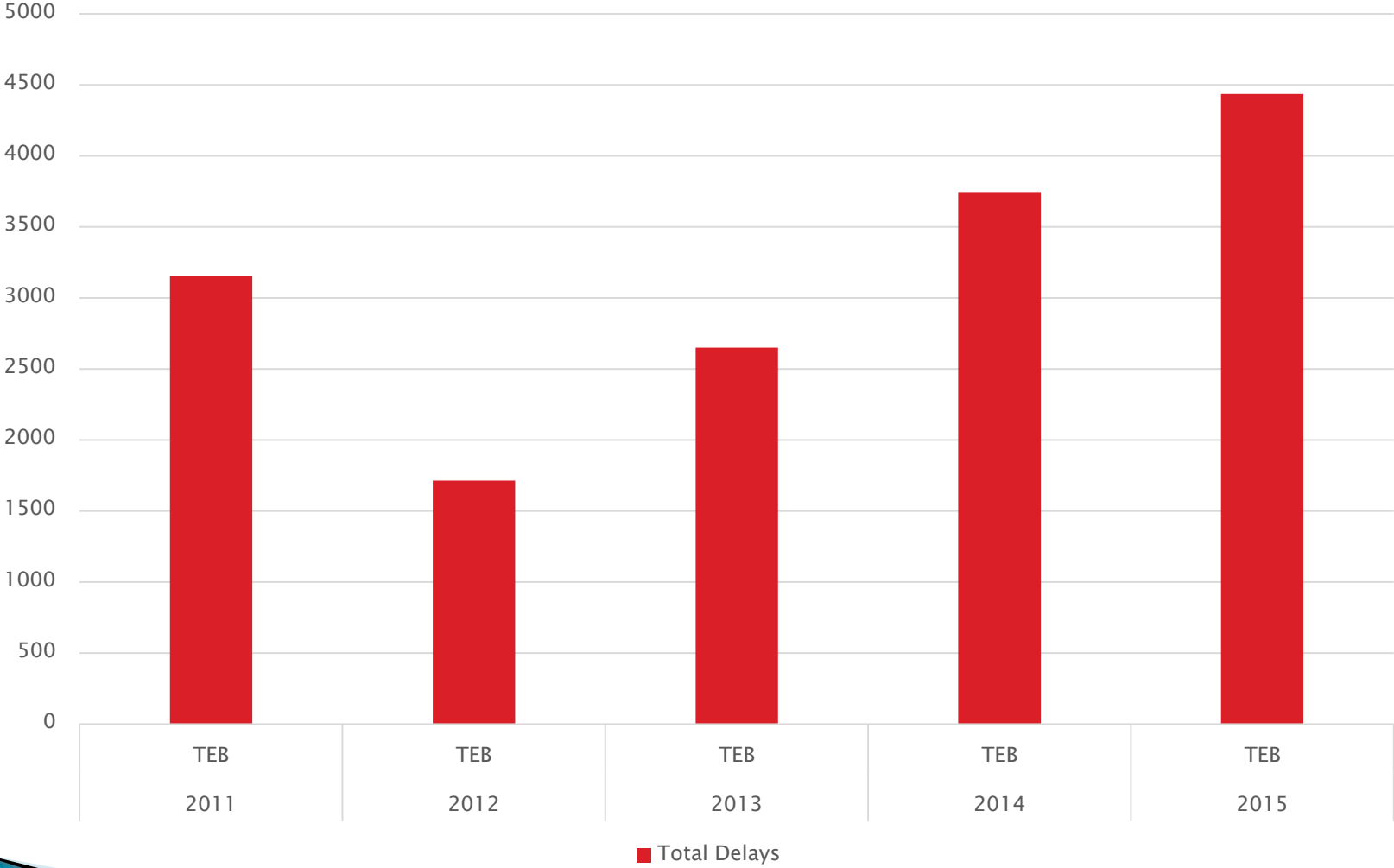
Ralph Tamburro, Delay Reduction Project Manager
The Port Authority of NY & NJ Aviation Dept.

TEB DELAYS 2011-2015

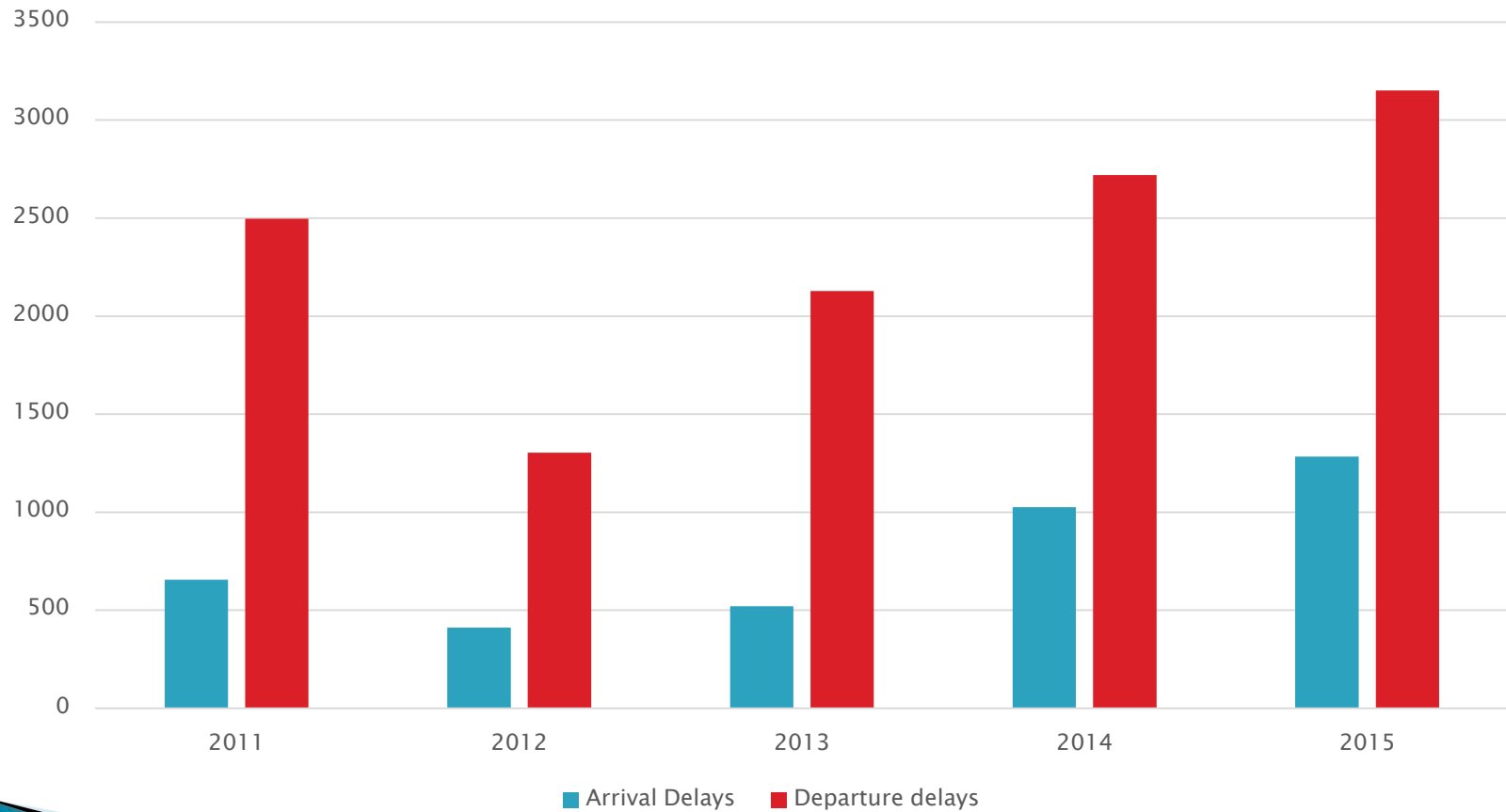
TEB OPERATIONS



TEB TOTAL DELAYS



ARRIVAL AND DEPARTURE DELAYS



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GBAS & Construction Update

Presented By:

Ralph Tamburro, Delay Reduction Project Manager
The Port Authority of NY & NJ Aviation Dept.

Port Authority's Construction

JFK runway 4R/22L

High potential for ILS 13L operations

LGA Central Terminal Building project

EWR Terminal A project

Resurface the runway
New High speed F and H
Remove old F and H

3 Closure periods

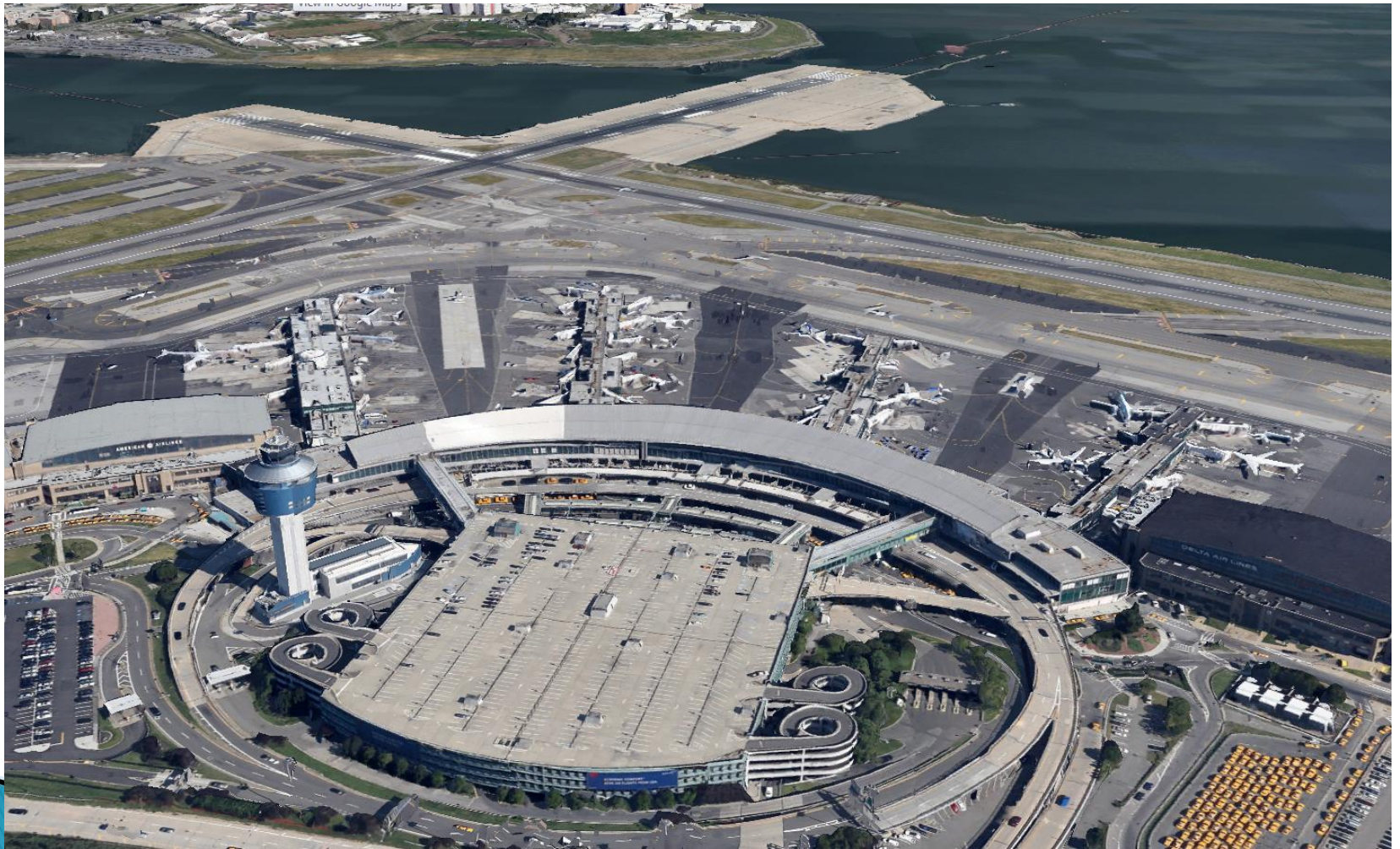
Feb 27–Jun 1

Jun 1–Sept 6 (Nightly)

Sept 6–Nov 17



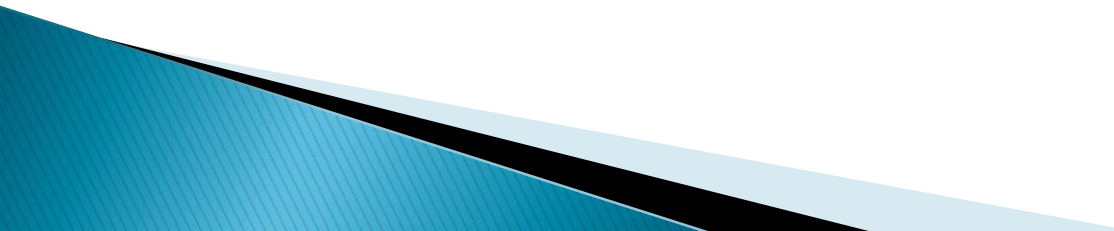
LGA CTB existing



LGA CTB Future



Ground Based Augmentation System Update

- ▶ GBAS is planned for future installation at JFK, LGA and TEB
 - ▶ EWR system Upgrade which will allow Cat II approaches
- 

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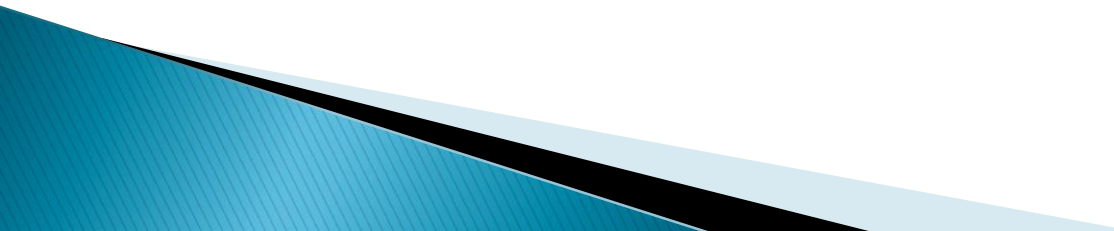
TEB Runway 19 Quiet Visual

Test not to exceed 6 months

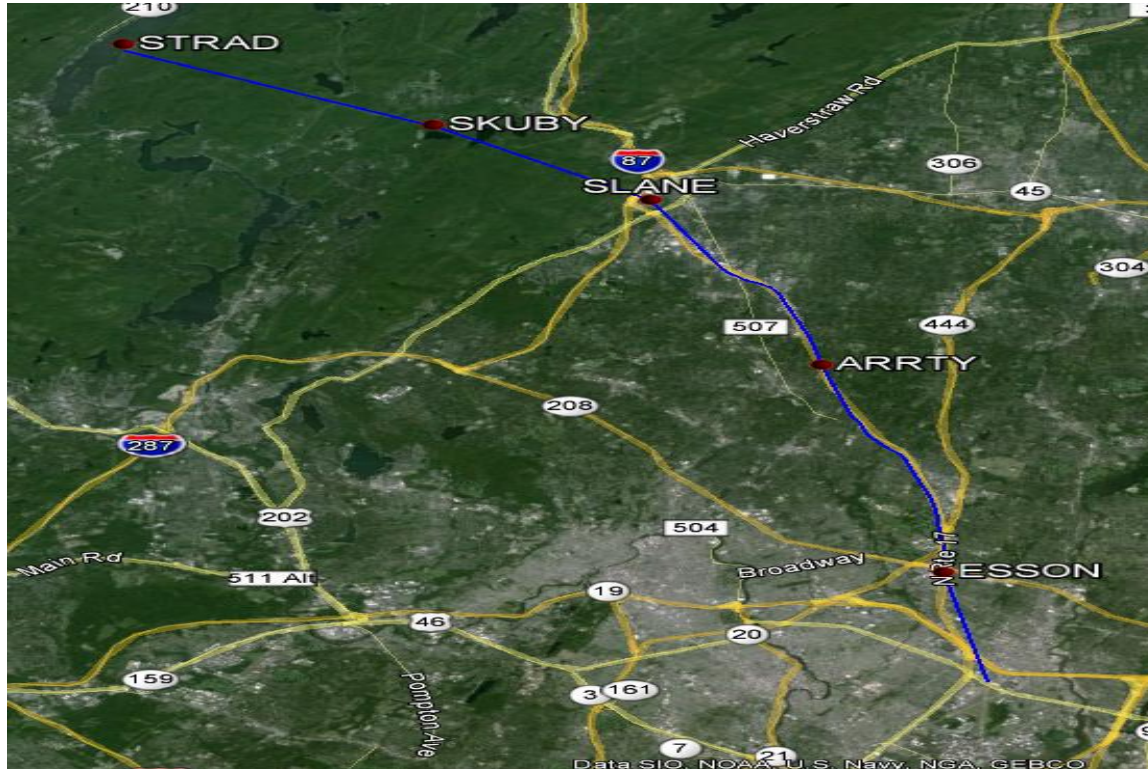
Presented By:

Gary Palm, TEB Air Traffic Manager

TEB Runway 19 Quiet Visual

- ▶ This new visual approach was developed to avoid the Hackensack Medical Center area and reduce noise.
 - ▶ In February 2016 the new Charted “Quiet Visual’ Runway 19 approach passed flight check inspection.
 - ▶ April 4, 2016- test not to exceed 6 months.
- 

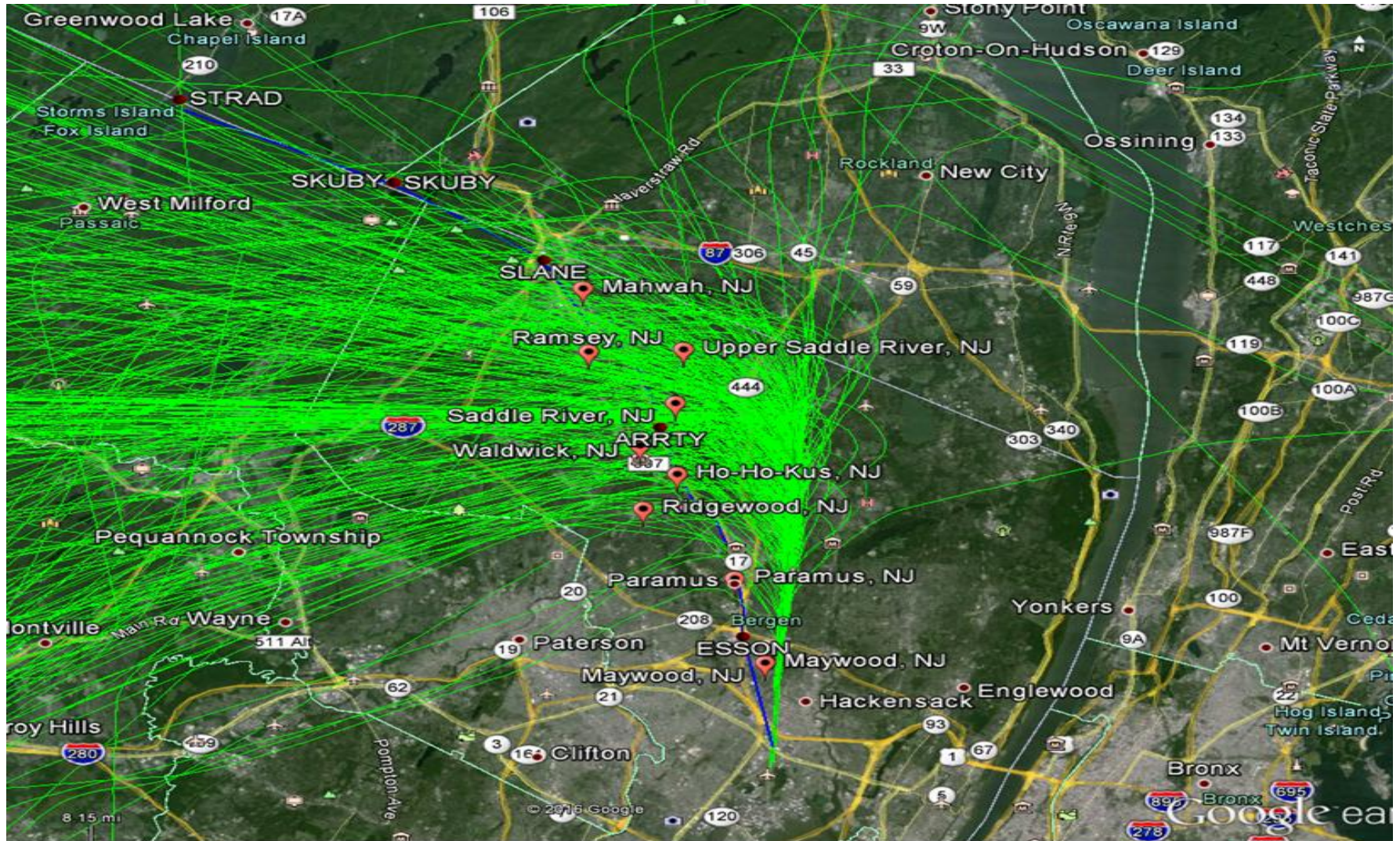
TEB Runway 19 Quiet Visual



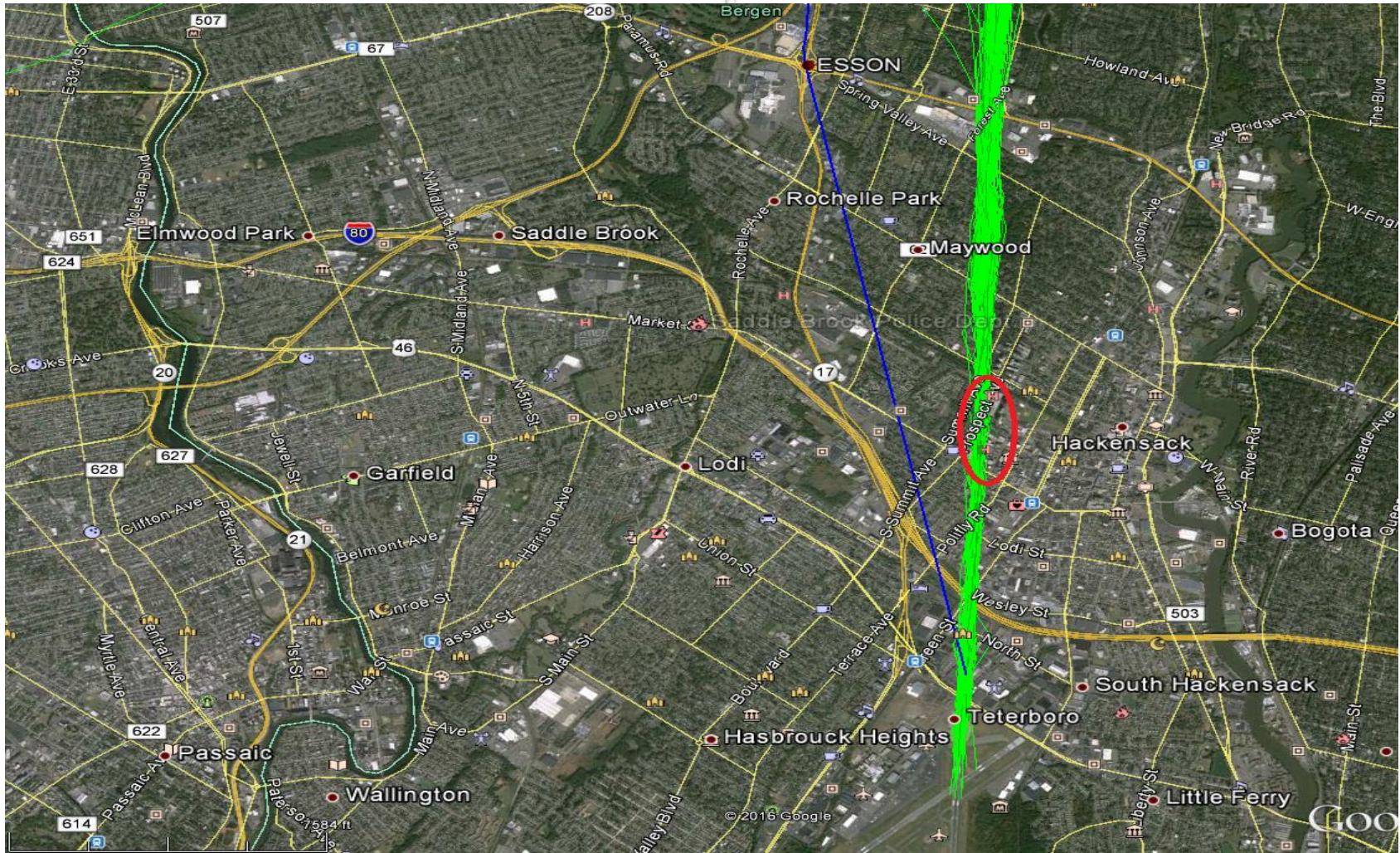
Proposed TEB Rwy 19 Charted Visual Flight Procedure (in blue)

(STRAD- SKUBY- SLANE- ARRTY- ESSON)

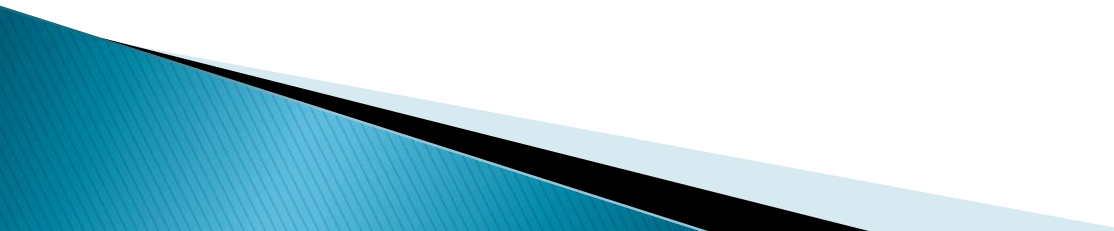
Current Flight Tracks to TEB Rwy 19 (In Green)



TEB Runway 19 Quiet Visual (Enlarged view)



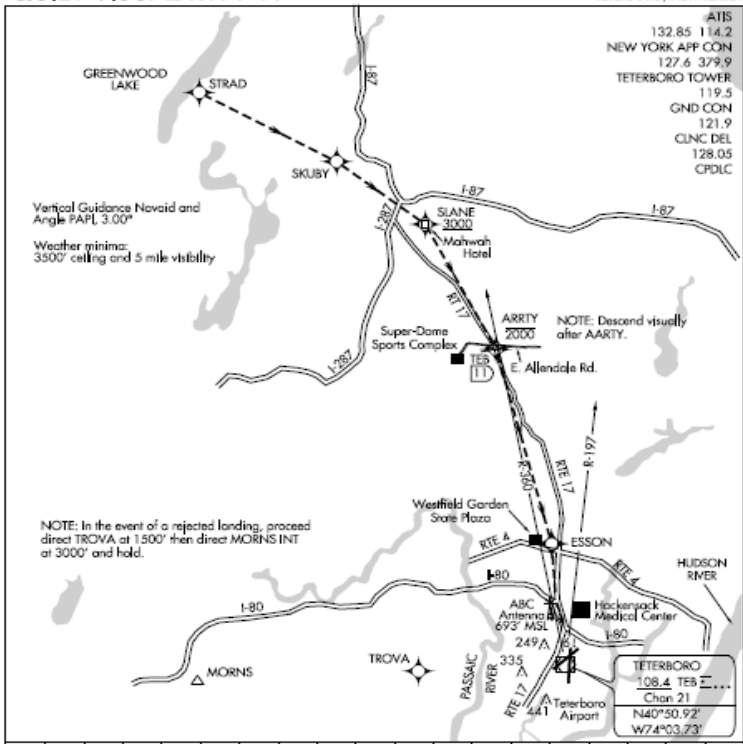
TEB Runway 19 Quiet Visual

- ▶ Date of Publication:
March 31, 2016
 - ▶ Weather Minima:
Ceiling 3,500
Visibility 5
 - ▶ Chart will be updated to provide route and visual landmark clarity
- 

Side-by-side Comparison of Charts

Orig 16091 AL-890 (FAA) TETERBORO (TEB)
TETERBORO, NEW JERSEY

QUIET VISUAL RWY 19



QUIET VISUAL RWY 19

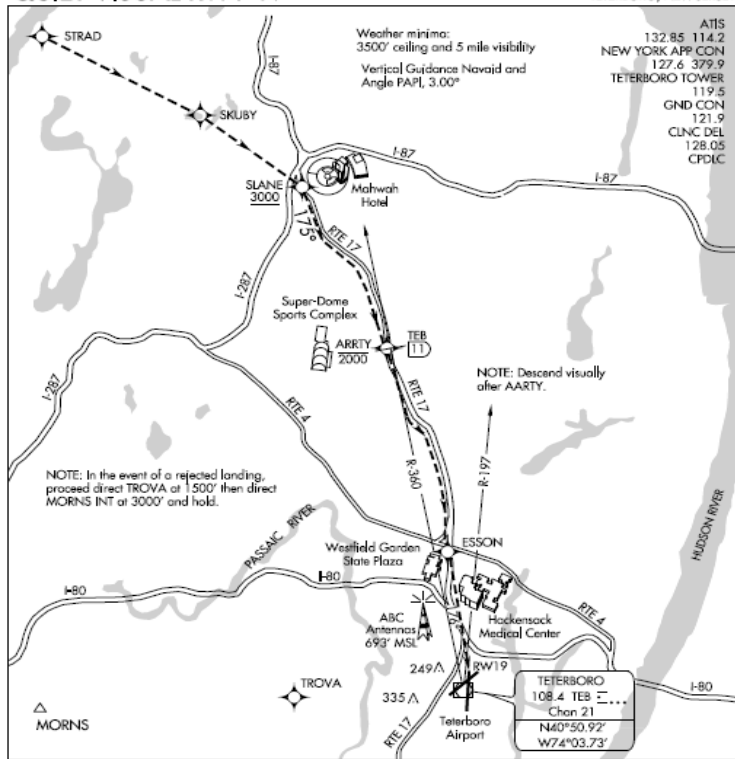
Orig 31MARI6

40°51'N-74°04'W

TETERBORO, NEW JERSEY
TETERBORO (TEB)

16147 AL-890 (FAA) TETERBORO (TEB)
TETERBORO, NEW JERSEY

QUIET VISUAL RWY 19



QUIET VISUAL RWY 19

Orig 31MARI6

40°51'N-74°04'W

TETERBORO, NEW JERSEY
TETERBORO (TEB)

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Teterboro Airport



Helicopter Noise Abatement Routes

Teterboro Airport Helicopter Routes



WABC (770)
Tower 694 MSL

CAUTION: Multiple obstructions in the proximity of the helicopter routes – refer to current aeronautical charts for location and heights!

NOT FOR NAVIGATION!

NOVEMBER

ECHO

ECHO

George Washington Bridge

TEB VOR

MEADOWLAND/WHISKEY

SIERRA

Lombardi Service Area

WHISKEY

Meadowlands Sports Complex

MEADOWLAND

MEADOWLAND

Radio Towers
450 MSL

SIERRA (LOW NOISE)

MEADOWLAND/SIERRA

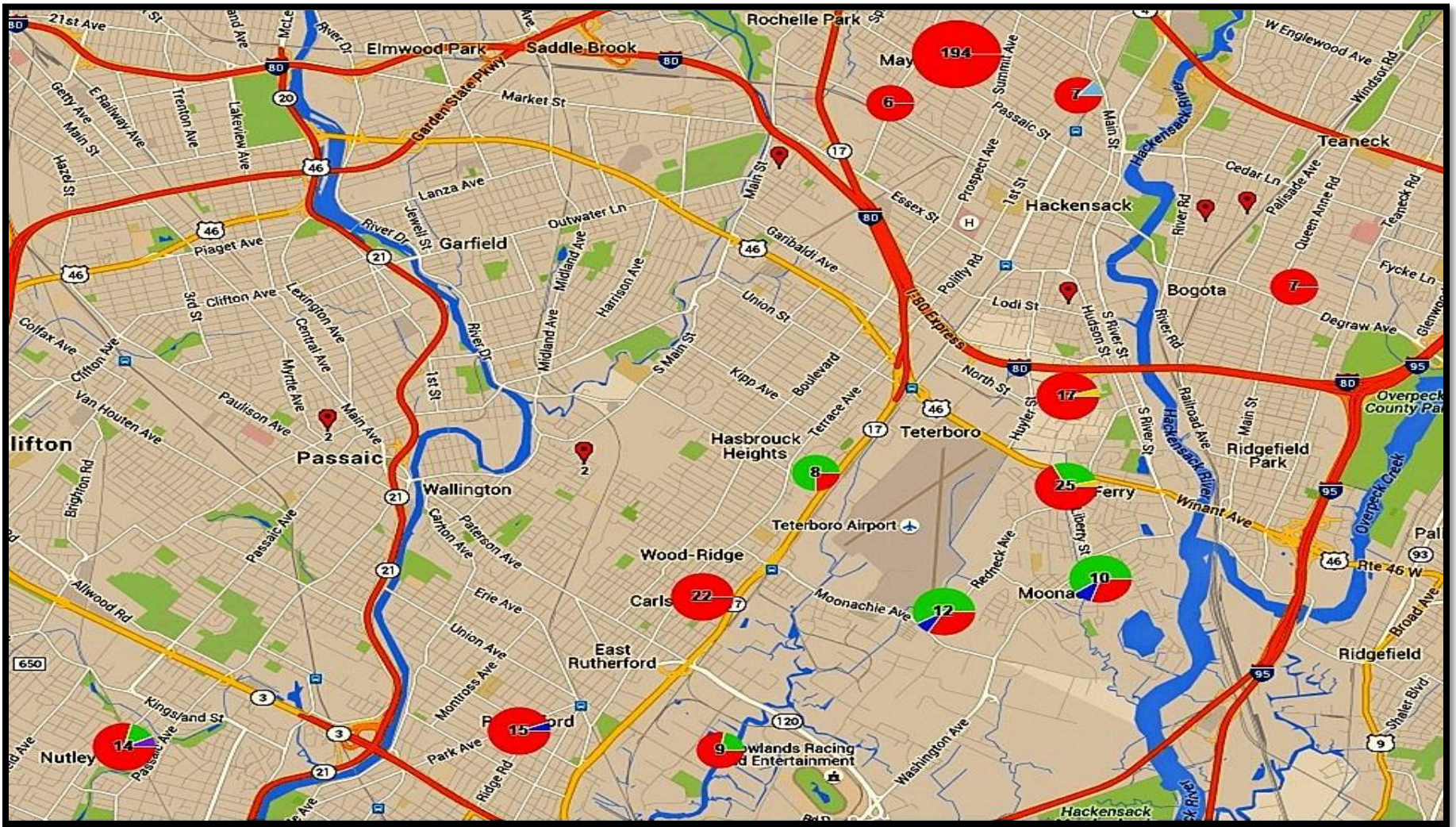
Radio Tower
416 MSL

Radio Tower
510 MSL

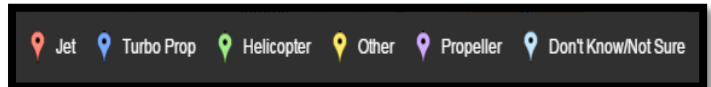
NEWARK/WHISKEY

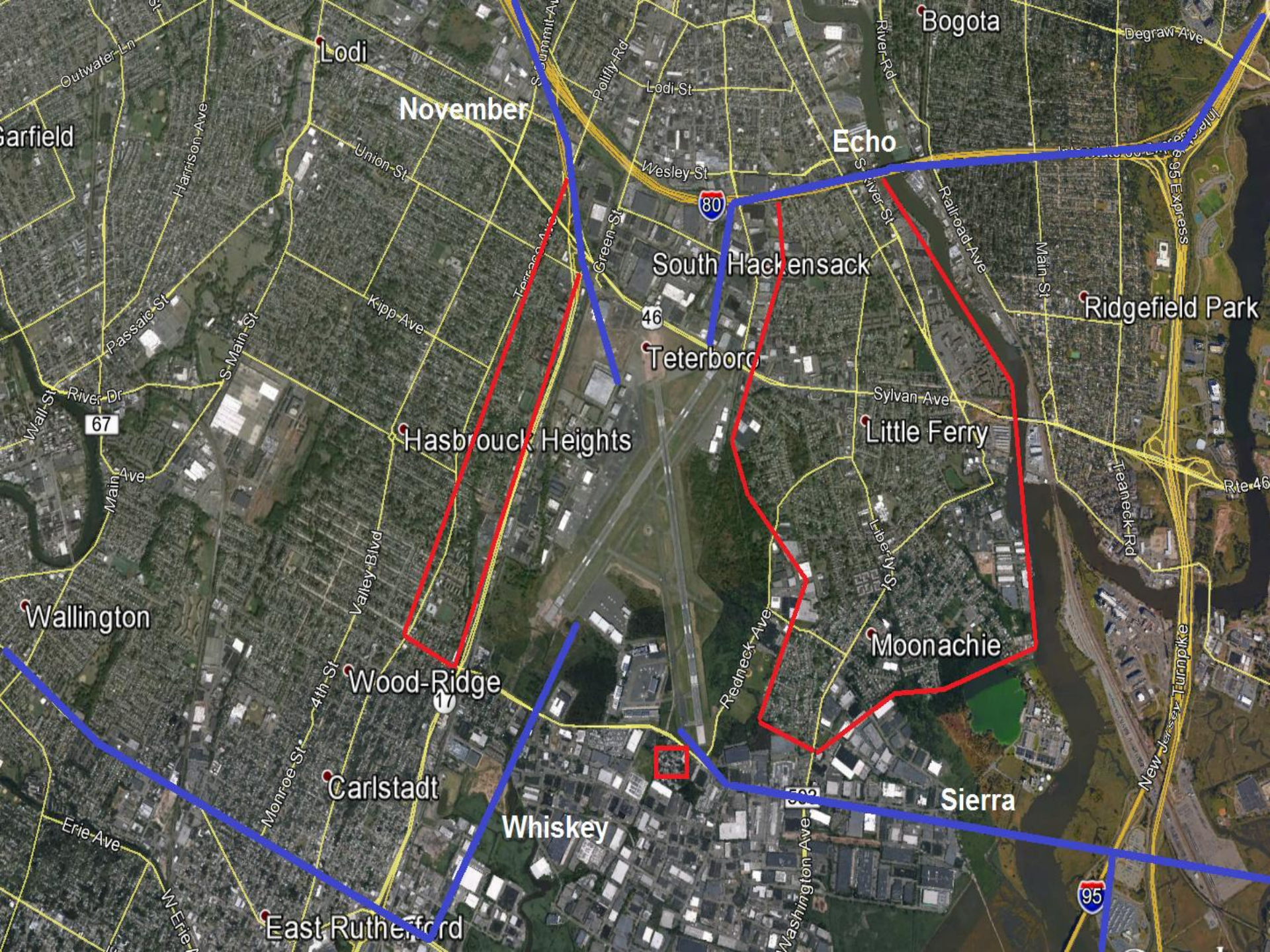
Helicopter Noise Abatement

- Most helicopter complaints originate east of the airfield (Moonachie/Little Ferry) and west of the airfield (Hasbrouck Heights).
- Helicopter operators are advised to:
 - Adhere to routes whenever possible.
 - Avoid residential areas.
 - Maintain 1,000 ft. altitude if overflying residential areas.



Local Complaint Locations: Fourth Quarter – 2015





Lodi

November

Bogota

Echo

South Hackensack

Teterboro

Hasbrouck Heights

Little Ferry

Moonachie

Wood-Ridge

Carlstadt

Whiskey

Sierra

East Rutherford



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Upcoming Issues & Fall Webinar Items

- ▶ Fall Webinar: RSAT, Winter Operations, Suggestions?
- ▶ What TEB delay information do you as users actually receive from FAA?

Email questions to tle@panynj.gov

FINAL NOTES

Follow up questions–Please email tlee@panynj.gov

Next Webinar–Fall 2016, please submit agenda suggestions to Pam Phillips at pwalden@panynj.gov

Helpful websites:

<http://www.fly.faa.gov/ratreader/jsp/index.jsp>

<http://www.panynj.gov/airports/teb-flight-crew-briefing.html>

<https://www.youtube.com/watch?v=gDKuPB2I0UA>

<http://nbaa.org>

<http://fly.faa.gov>

<http://teterborousersgroup.org>



Question & Answer

Q: When SWAP is in effect where would we find the FYI or RCD routes for that particular day?

A: <http://www.fly.faa.gov/ratreader/jsp/index.jsp>