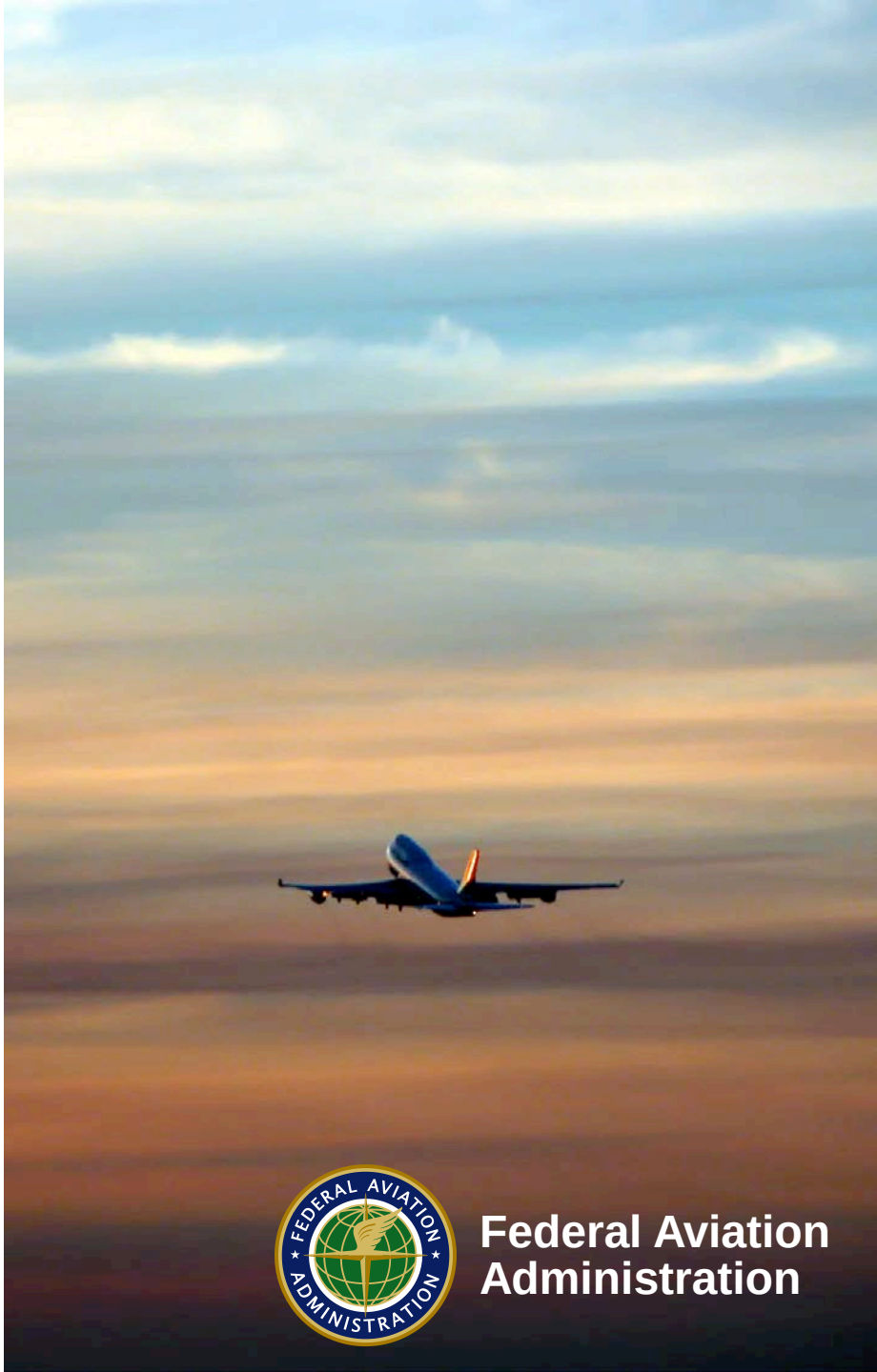
Welcome to

New York Air Route Traffic Control Center

Federal Aviation Administration

Updates in the New York Center Oceanic FIR (KZWY)



Presented to: **New York Oceanic Work Group**

Date: **April 7, 2016**

Agenda topics

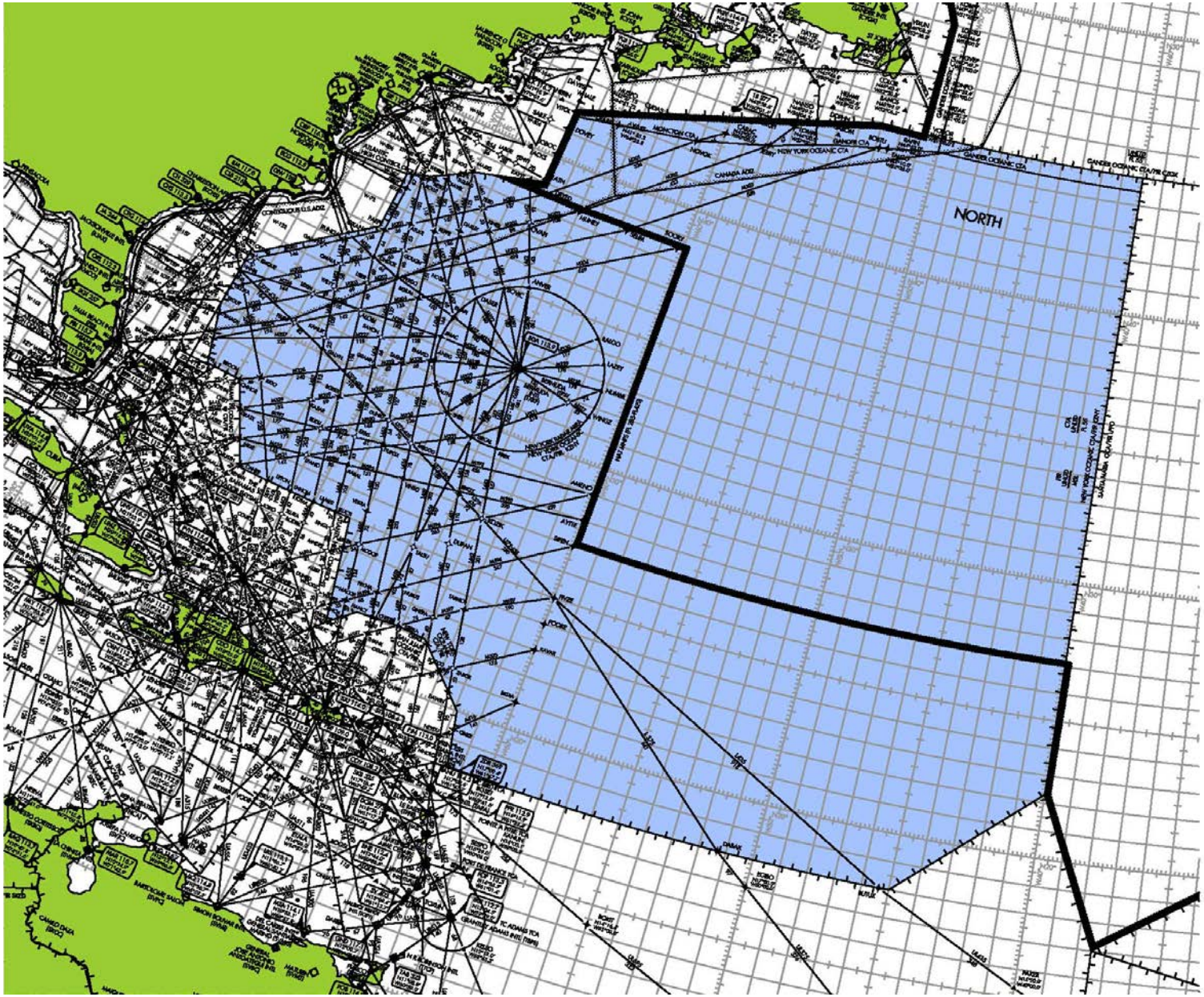
1. New York Center Oceanic Airspace Overview
   a) New York OCA East vs OCA West
   b) ICAO Region Affiliation
2. New York Center Oceanic Operating System Review
   a) How control personnel use the ATOP System to communicate with aircraft
   b) How control personnel use the ATOP System to coordinate with other facilities
3. Planned ATOP System Implementation
   a) ADS-C Climb/Descend Procedure
   b) ADS-B In Trail Procedure
4. Current Aircraft Equipage Statistics and Performance Metrics
5. New Requirements for Monitoring RCP and RSP for ANSP's, and new PBCS filing requirements for Aircraft Operators
6. ADS-C Periodic Reports and TCAS Anomalies

Agenda Topics

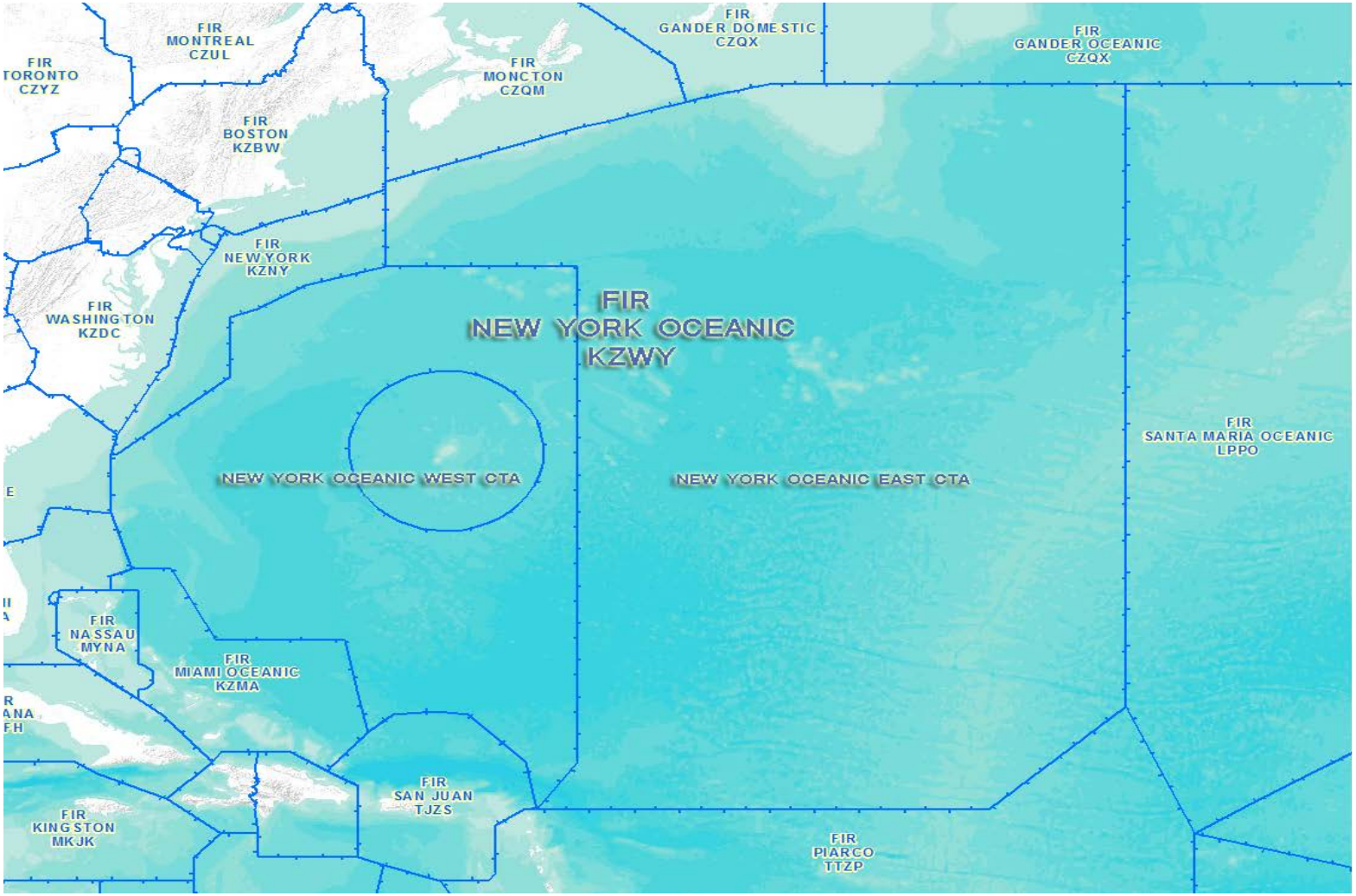
7. New York Center Safety Office Presentation
   a) Weather Deviations
   b) Conditional Clearances
   c) Position Reports
8. Piarco Area Control Center Overview
   a) Planned procedural changes between Piarco ACC and New York Center
9. Review of ICAO/IATA/CANSO Caribbean PBN and Harmonization Meeting
   a) New Planned PBN Route to Brazil
10. Updates on New York Airspace Initiatives
    a) L453 ADS-B Only Surveillance Project
    b) New Airspace Fixes
    c) New Miami PBN Route RENAH-CARPX
    d) TXKF Approach Control Project
       i. SID's/STAR's Development

Agenda Topics

11. Operator Flight Planning Issue Transitioning to Gander ACC
12. Review of Action Items from the August 2015 OWG
13. New Business Items


NORTH

New York Oceanic FIR - KZWY



New York Oceanic FIR - KZWY

The New York Oceanic FIR is divided into two Oceanic Control Areas:

- OCA East – Part of the ICAO North Atlantic Region (NAT)
- OCA West – Part of the ICAO North American/Central American/Caribbean Region (NACC) and formerly called WATRS airspace.

The acronym WATRS is still maintained to describe the ATS route structure of the OCA West.

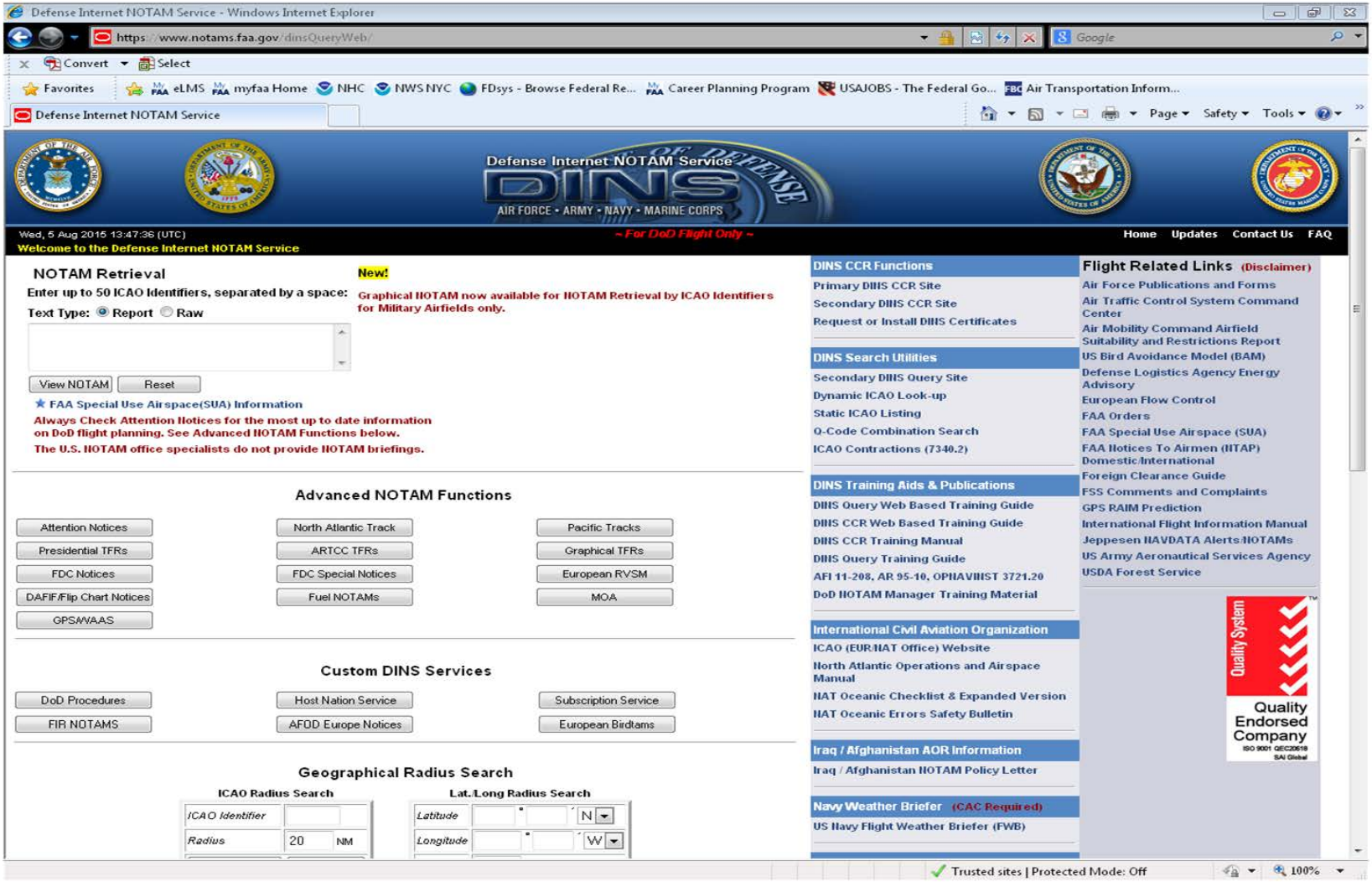
Since one operating system controls all of the airspace, the singular KZWY FIR aligns with the New York Oceanic CPDLC/ADS-C logon address, as well as the Oceanic flight plan filing address, KZWYZOZX.

New York Oceanic NOTAMS/SIGMETS

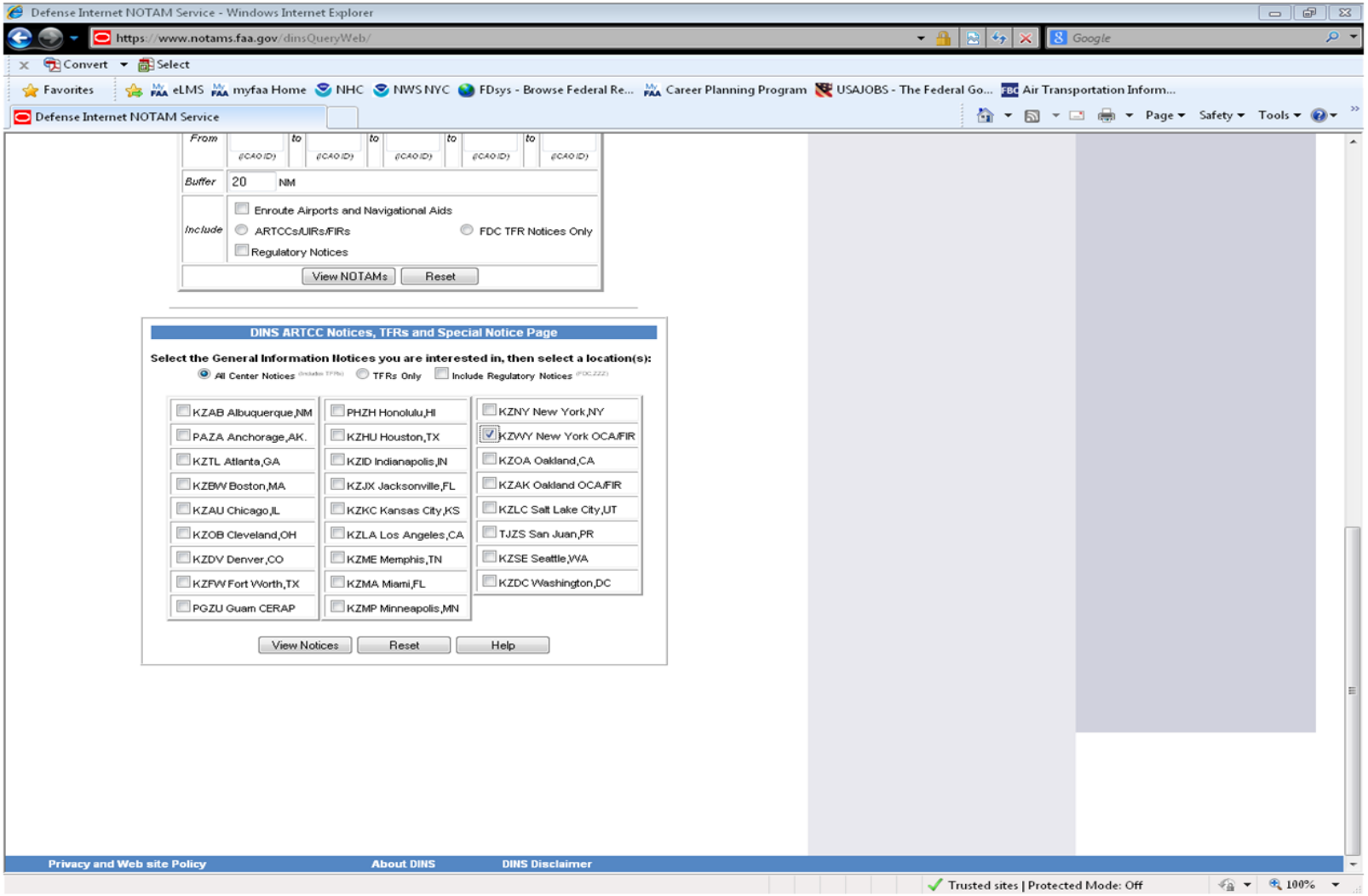
- All NOTAM's that affect Oceanic Airspace are issued under the KZWY banner.
- On April 14, 2016, all New York Oceanic SIGMETS will also be issued under KZWY
- The following slides illustrate where to access and how to retrieve oceanic NOTAM's

Note: NOTAMS affecting both the domestic and oceanic operation will be issued under both KZNY *and* KZWY.

KZWY NOTAMS are available at: https://www.notams.faa.gov/dinsQueryWeb/



Scroll down to the DINS ARTCC Notices box , click on KZWY and then “view notices



The ATOP System

The New York Center Oceanic operating platform is called the Advanced Technologies and Oceanic Procedures (ATOP) System

Similar systems are currently in use by Portugal (Santa Maria ACC), Iceland (Reykjavik ACC), and Norway (Bodo ACC)

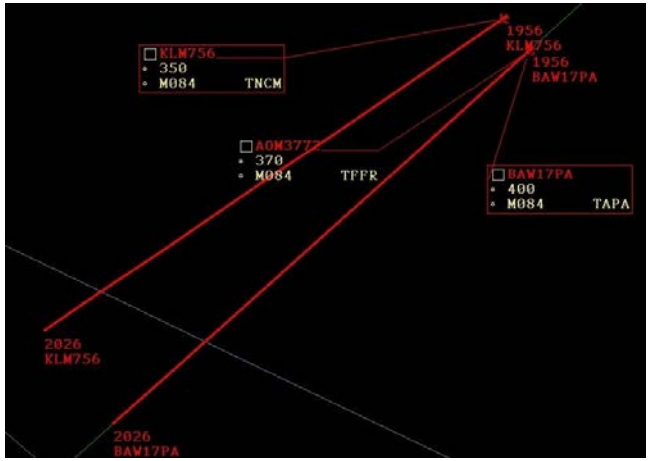
New York Center has been operational on this system since June 5, 2005, and we are currently on the 23rd version of the hardware/software.

The following slides illustrate how the ATOP system is used to provide air traffic services

Conflict Prediction and Resolution

Conflict Probe

- Ocean21 Detects All Conflicts - Controller Resolves Conflicts
- Aircraft/Aircraft and Aircraft/Airspace
- Probe Runs Automatically on All Trajectory Updates
- Applies Appropriate Separation Standard
- Conflict Probe is 4-dimensional and calculated down to the second.



2nd PROF CONFLICTS FOR BAW17PA

Override Help

Intruder	Att	Active	Att	Ovrd	Type	StartTime	EndTime
*BAW17PA	D	AOM3772	-		>>	1956	2122
*BAW17PA	D	KLM756	-		>>	1956	2027

CONFLICT REPORT

same direction REQUIRED 10 minutes (50 nm) 1000 ft

7.7 degrees LOS NOW ACTUAL 0 min 03 sec (17 nm) 0 ft

		PASSING POINT			CONFLICT SEGM	
B744	F400↓				2438N	2201N
*BAW17PA	F340				05151W	05513W
M084					1956	2026
B744					2452N	2242N
KLM756	F350				05203W	05545W
M084					1956	2026

Draw Close

Conflict Resolution

- Conflict Probe is 4-dimensional and calculated down to the second.
- As a result, almost all clearances are time based.
- Probed and accepted clearances are protected against other aircraft and airspace
- This provides us the capability to issue future altitude and route changes and “reserve” those altitudes and routes

Airspace Management

New York Oceanic control personnel and supervisors manage and control air traffic by interacting with the ATOP system via a series of message queues and operating windows. All aircraft profile data must be maintained and kept as accurate as possible in order for Conflict Prediction and Resolution (CPAR) functionality to operate properly. The four main ATOP message areas that control personnel utilize are:

- **Sector Queue**
- **Error Queue**
- **Clearance Window**
- **Coordination Window**

Supervisors have their own Air Traffic workstation position and interact with their own **Supervisor Queue.**

Sector Queue

The ATOP system was designed under the “monitor by control and exception” theory. Thus, all normal system messages, e.g. aircraft position reports that are in conformance with its protected profile, are processed by the system automatically with no controller interaction.

Messages that *are* presented in the sector queue include:

- any aircraft messages received that are ***not in conformance*** with the profile
- aircraft requests for a profile change (altitude/speed/route)
- messages that indicate the receipt of an inbound automated coordination message
- Messages that prompt outbound coordination, or when a revision to previous coordinated data becomes necessary
- emergency messages, including potential losses of separation

Messages in the sector queue are prioritized at three levels: emergency, urgent, and normal.

Supervisor Queue

The supervisor queue is always active at the Supervisor workstation, which are located in each Oceanic Area, as well as another station at the watch desk for midnight operations. Certain control personnel also have Sup Queue permissions as well.

The supervisor queue receives various system messages that need to be addressed at that level. Most important among those is the receipt of all oceanic SIGMET information. Because the National Weather Service does not format those messages in a way that can be automatically processed by ATOP, Supervisors must manually re-format each one and input into the system. Once input, the ATOP system will automatically disseminate the SIGMET to any aircraft affected at a specified distance prior to the area.

Error Queue

The Error Queue is a window that is shared by all operational personnel, and can be assigned to multiple positions simultaneously.

Many messages are received by the system that cannot be processed automatically, mostly due to errors in the message format.

Operational personnel are trained to examine these messages, process them, and:

- repair those which are pertinent to the operation and re-input into the system
- delete those which have no impact
- forward messages to the attention of the supervisor that might need further examination.

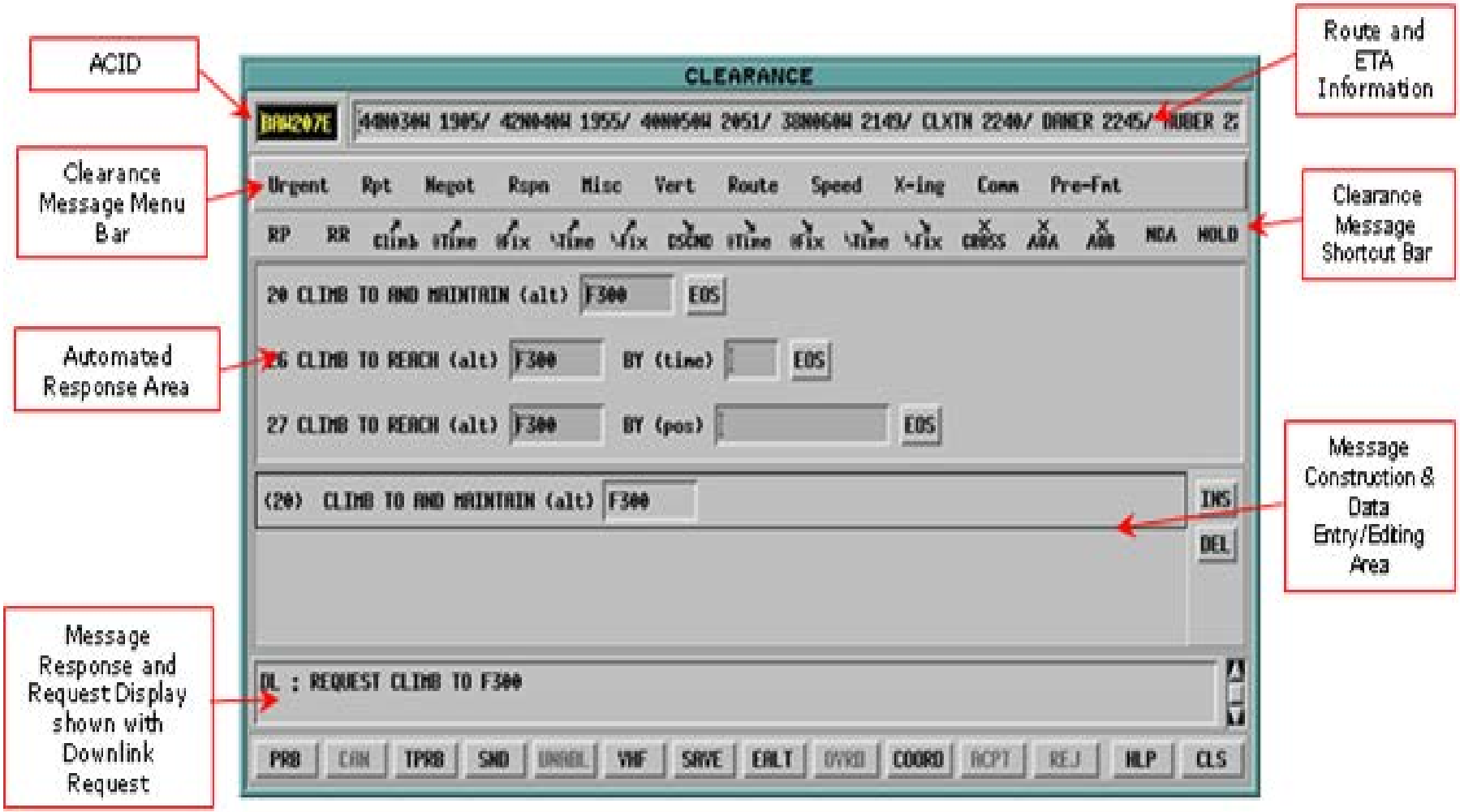
Communications with Aircraft

Using the ATOP system, control personnel perform ALL communications with aircraft through one source – the clearance window.

The clearance window recognizes the system capabilities of each aircraft based on the filed flight plan, and either routes the message directly to the flight deck via CPDLC, or through New York Radio (ARINC) for delivery via HF.

If a controller issues a clearance verbally either via then phone to ARINC, or directly to an aircraft, they must still update the aircraft's profile vis the clearance window.

Issuing clearances

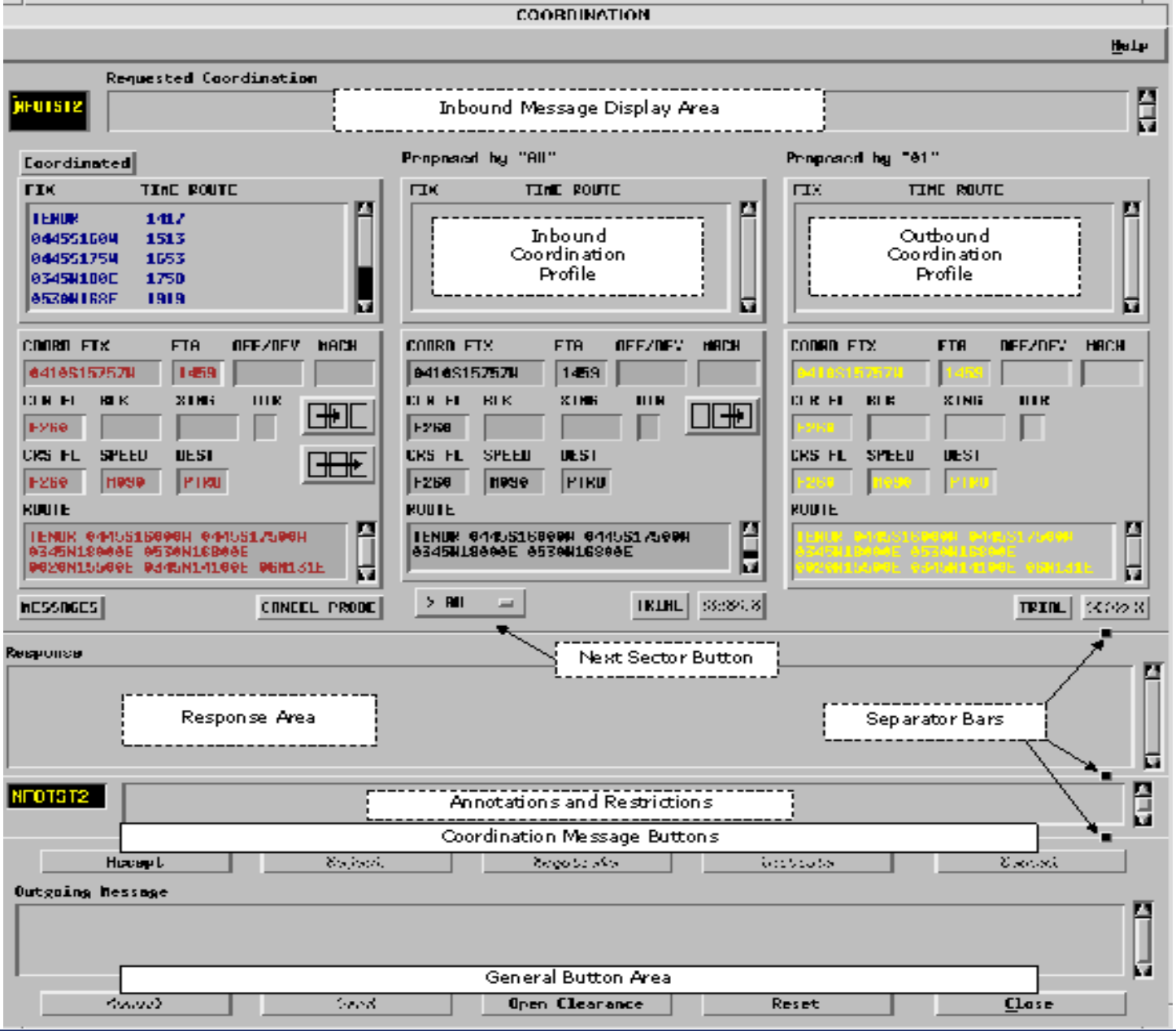


The Coordination Process

All Aircraft are coordinated into and out of New York Oceanic via the ATOP system coordination window. The coordination window can handle all areas of manual or automated data transfer. The coordination window also has functionality to probe all inbound aircraft for conflicts, and any that are identified by the system must be examined by the controller prior to accepting the aircraft into the airspace. Currently, depending on the facility, we have four ways to coordinate flight plan data:

1) Fully functional Inter-facility Data Communications (AIDC) 2.0 - Santa Maria
2) Partially functional AIDC - Gander
3) No AIDC, but with current active flight plan data transfer - FAA NAS facilities
4) No AIDC, and no active flight plan data transfer – Moncton/Piarco ACC's

New York Center Oceanic controllers interact with all adjacent facilities, using the coordination window, with varying degrees of automated capability identified by Letter of Agreement (LOA).


COORDINATION
Help
Requested Coordination
Inbound Message Display Area
Coordinated
Prepared by "All"
Prepared by "01"
FIX
TIME ROUTE
Inbound Coordination Profile
Outbound Coordination Profile
COMRN FIX
ETA
OFF/DEV
MACH
CRS
SPEED
ROUTE
MESSAGES
CANCEL PROBE
Next Sector Button
Response Area
Separator Bars
Annotations and Restrictions
Coordination Message Buttons
Outgoing Message
General Button Area
Open Clearance
Reset
Close

Planned ATOP System Enhancements

In the first half of CY2016, the 24th software version will introduce two new system capabilities that will enable the further reduction of longitudinal separation to as little as 15NM for aircraft climbing or descending through the altitude of another. These capabilities are:

1. **ADS-C Climb/Descent Procedure (CDP)**
2. **ADS-B In Trail Procedure (ITP)**

The following provides details about each function, which will illustrate one main and important difference between the two.

ADS-C Climb/Descent Procedure (CDP)

- **Climb/descent procedure when less than standard separation exists**
  - Aircraft on same track
  - Difference between CDP and blocking aircraft 2000ft. or less
- **Minimum of 15 nautical miles (NM) longitudinal separation**
  - 25 NM at initiation for faster aircraft in back (no more than 0.02M)
- **Requires CPDLC and position report accuracy of 0.25 NM or better (Figure of Merit 6 or higher)**
- **Controller-initiated procedure**
  - Climbing/descending and blocking aircraft may see aircraft at less than standard separation
- **ATOP designed to check for required minima**
- **ICAO State Letter with ADS-C CDP proposal currently out for comment**
  - Expected publication in November 2016
- **Expected operational implementation June 2016**
- **AIP and FAA JO 7110.65 procedures under development**

ADS-B In Trail Procedure (ITP)

- **Climb/descent procedure when less than standard separation exists**
  - Aircraft on same track
  - Difference between ITP and reference aircraft 2000ft. or less
- **Minimum of 15 nautical miles (NM) longitudinal separation at procedure initiation**
  - PANS ATM/Doc. 4444 minimum is 10 NM.
    - 15 NM used to account for compression during climb/descent
- **Pilot requested/initiated procedure**
- **Requesting aircraft equipped with ADS-B in/out and controller pilot datalink communication (CPDLC)**
- **ATOP verifies speeds to check for overtake situations**
- **Expected operational implementation June 2016**
- **AIP and FAA JO 7110.65 procedures under development**
- **Ref. PANS-ATM Doc. 4444 5.4.2.7; FAA AC 90-144A**

New York Center Datalink Procedures

Datalink Procedures

The logon for the entirety of New York Center CTA/FIR, both east and west is: **KZWY**

Flight crews *must* logon to both CPDLC and ADS-C

ADS-C contracts are set for:

WPC – Waypoints

LDE – Lateral Deviation Events – set to 5NM or greater

PER – Periodic reporting set to:

832 seconds for RNP-10 (14 minutes)

576 seconds for RNP-4 (10 minutes)

On Demand Contracts are also available at any time for control personnel

- In 2017, FAA will add Level Range Deviation Event contracts (LRDE)
- There is an ICAO task force underway to examine reducing the time of the periodic reporting interval even further.

LOGON Procedures for Aircraft Entering/Exiting the KZWY Data-link Service Area From Adjacent Data-link Airspace.

- ADS-C and CPDLC services will transfer automatically between Santa Maria ACC, Gander Oceanic and New York Center.
- CPDLC will transfer automatically between Moncton ACC, Gander Oceanic and New York Center.
- Pilots should check the ACTIVE Center as they cross the FIR boundary inbound to New York to ensure that the KZWY is the ACTIVE Center. When exiting New York Oceanic airspace, check to ensure the connection is ACTIVE with correct next ANSP.
- If the active center is not correct within 5 minutes after the boundary is crossed, pilots shall ensure all open uplinks from the previous ATC unit have been responded to, then terminate the CPDLC connection and log on to KZWY.

Position Reporting- Data-Link

- After entering the New York Oceanic FIR (KZWY), normal waypoint position reports will be received via ADS.
- Due to the types of ADS contracts that are established, time revisions need not be passed via CPDLC or HF.
- Operators should ***NOT*** use CPDLC for position reports. If ADS is not available, revert to HF voice position reports.
- **DO** use CPDLC for clearance requests, or for communication not associated with waypoint position reports.
- The ATOP system cannot accept CPDLC position reports containing latitude and longitude (Lat/Long) in ARINC 424 format (e.g. 4050N). CPDLC position reports containing Lat/Long waypoints within the KZWY Data-link service area will be accepted in whole latitude and longitude format only (e.g. 40N050W).

Current Datalink Equipage Statistics

United States FAA Reporting on Equipage in New York FIR - EAST

Period: **Jan 01, 2015 to Dec 31, 2015**

Month	ALL FLIGHTS							
	Total Flights	% Using ADS-C	% Filing ADS-C	% Using CPDLC	% Filing CPDLC	% Filing RNP4	% Using ADS-B	% Filing ADS-B
Jan-15	9,540	83%	77%	84%	82%	49%		49%
Feb-15	8,490	85%	78%	85%	83%	51%		49%
Mar-15	9,909	85%	76%	85%	84%	52%		52%
Apr-15	9,124	84%	76%	85%	84%	52%		51%
May-15	9,950	86%	80%	86%	86%	53%		55%
Jun-15	10,399	86%	82%	87%	86%	52%		55%
Jul-15	9,761	86%	79%	87%	87%	49%		51%
Aug-15	9,875	87%	80%	87%	87%	49%		50%
Sep-15	8,979	87%	83%	88%	88%	50%		53%
Oct-15	8,914	89%	85%	89%	89%	52%		56%
Nov-15	9,219	90%	85%	90%	89%	64%		58%
Dec-15	9,876	89%	84%	90%	88%	61%		55%
Average	***9,503***	***86.4%***	***80.4%***	***86.9%***	***86.1%***	***52.8%***		***52.8%***

Month	OTS FLIGHTS							
	% of Total Flights	% Using ADS-C	% Filing ADS-C	% Using CPDLC	% Filing CPDLC	% Filing RNP4	% Using ADS-B	% Filing ADS-B
Jan-15	11%	91%	91%	92%	92%	63%		62%
Feb-15	12%	94%	94%	94%	95%	68%		63%
Mar-15	14%	94%	93%	95%	95%	70%		64%
Apr-15	13%	95%	96%	96%	96%	67%		69%
May-15	21%	95%	96%	96%	96%	66%		70%
Jun-15	23%	94%	95%	95%	95%	64%		68%
Jul-15	13%	95%	96%	96%	95%	65%		67%
Aug-15	11%	96%	97%	96%	97%	66%		67%
Sep-15	14%	94%	96%	95%	95%	65%		70%
Oct-15	15%	95%	96%	95%	95%	62%		73%
Nov-15	16%	96%	97%	97%	96%	87%		77%
Dec-15	10%	95%	96%	96%	96%	82%		77%
Average	***15%***	***94.5%***	***95.25%***	***95.25%***	***95.25%***	***68.75%***		***69%***

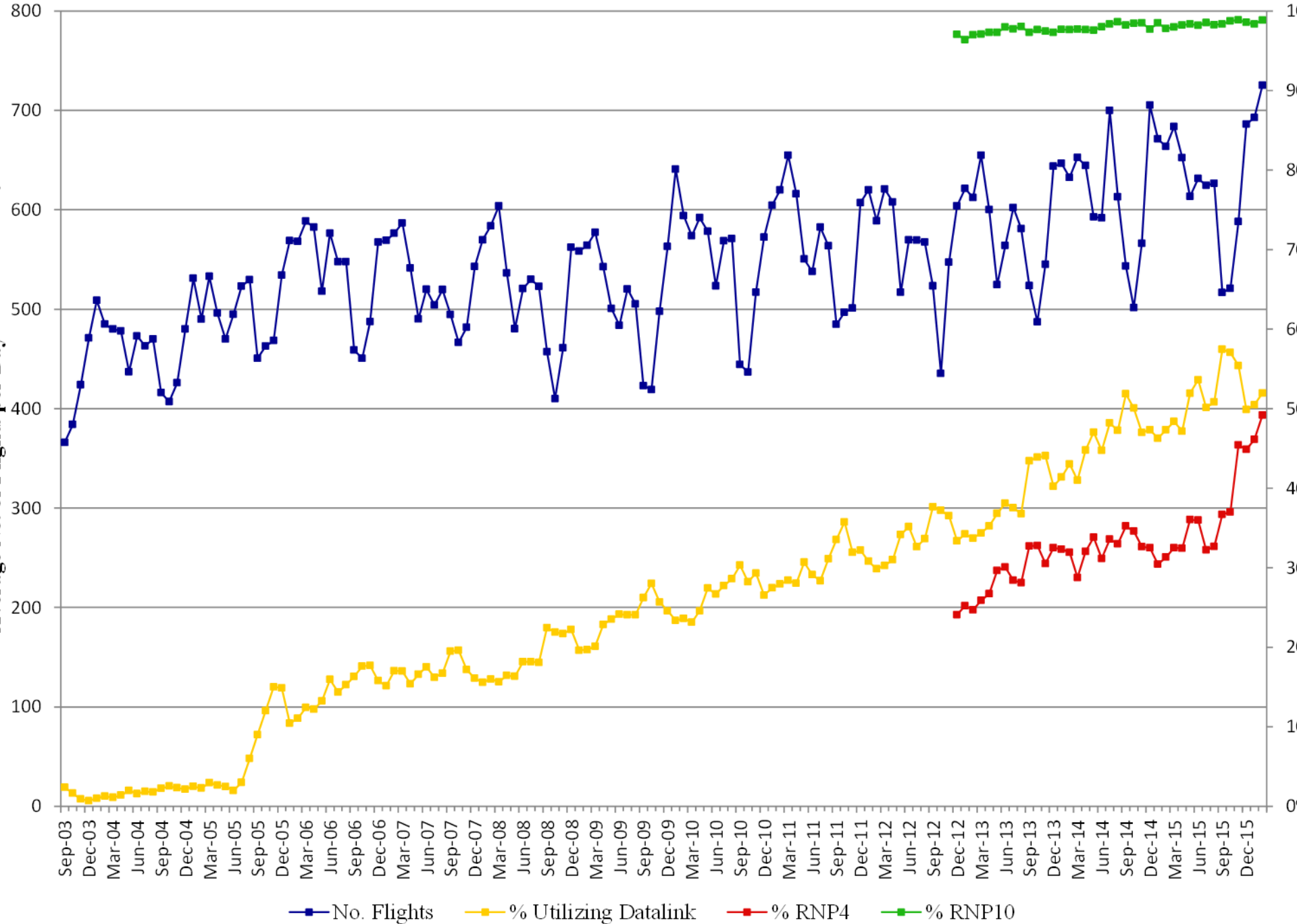
United States FAA Reporting on Equipage in New York FIR - WEST

Period: **Jan 01, 2015 to Dec 31, 2015 (12 months)**

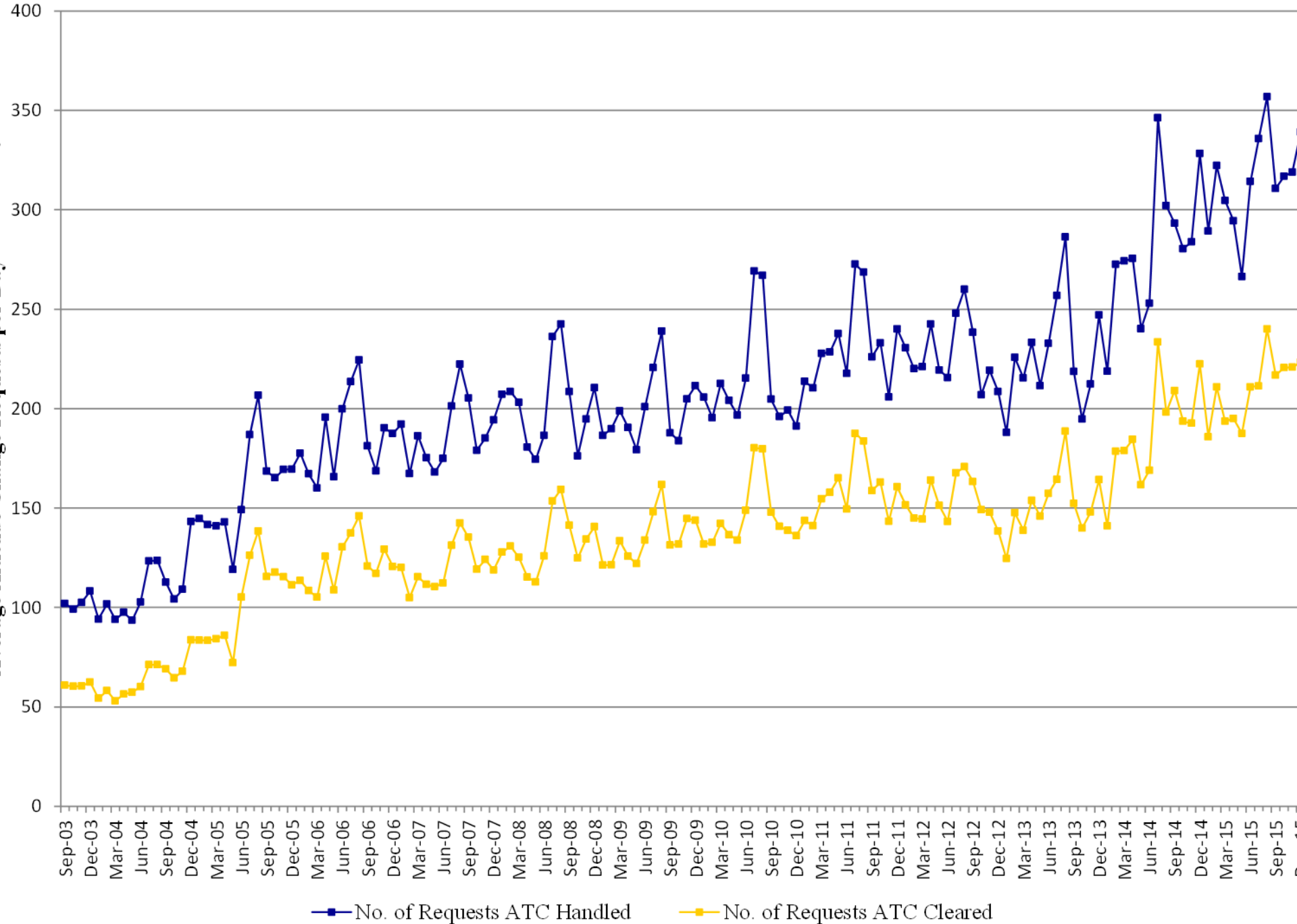
Month	ALL FLIGHTS							
	Total Flights	% Using ADS-C	% Filing ADS-C	% Using CPDLC	% Filing CPDLC	% Filing RNP4	% Using ADS-B	% Filing ADS-B
Jan-15	17,978	43%	41%	43%	43%	30%		22%
Feb-15	16,021	43%	41%	43%	43%	31%		23%
Mar-15	18,441	45%	41%	45%	45%	32%		25%
Apr-15	17,161	44%	40%	45%	44%	31%		24%
May-15	15,943	48%	45%	48%	48%	34%		29%
Jun-15	15,446	49%	46%	50%	49%	34%		29%
Jul-15	16,634	47%	43%	48%	47%	32%		26%
Aug-15	16,172	46%	42%	47%	46%	30%		25%
Sep-15	12,677	54%	50%	54%	54%	35%		31%
Oct-15	13,167	52%	49%	53%	52%	35%		32%
Nov-15	15,220	52%	49%	52%	51%	45%		33%
Dec-15	18,517	46%	44%	46%	45%	45%		29%
Average	***16,115***	***47%***	***44%***	***48%***	***47%***	***34%***		***27%***

Current Performance Metrics

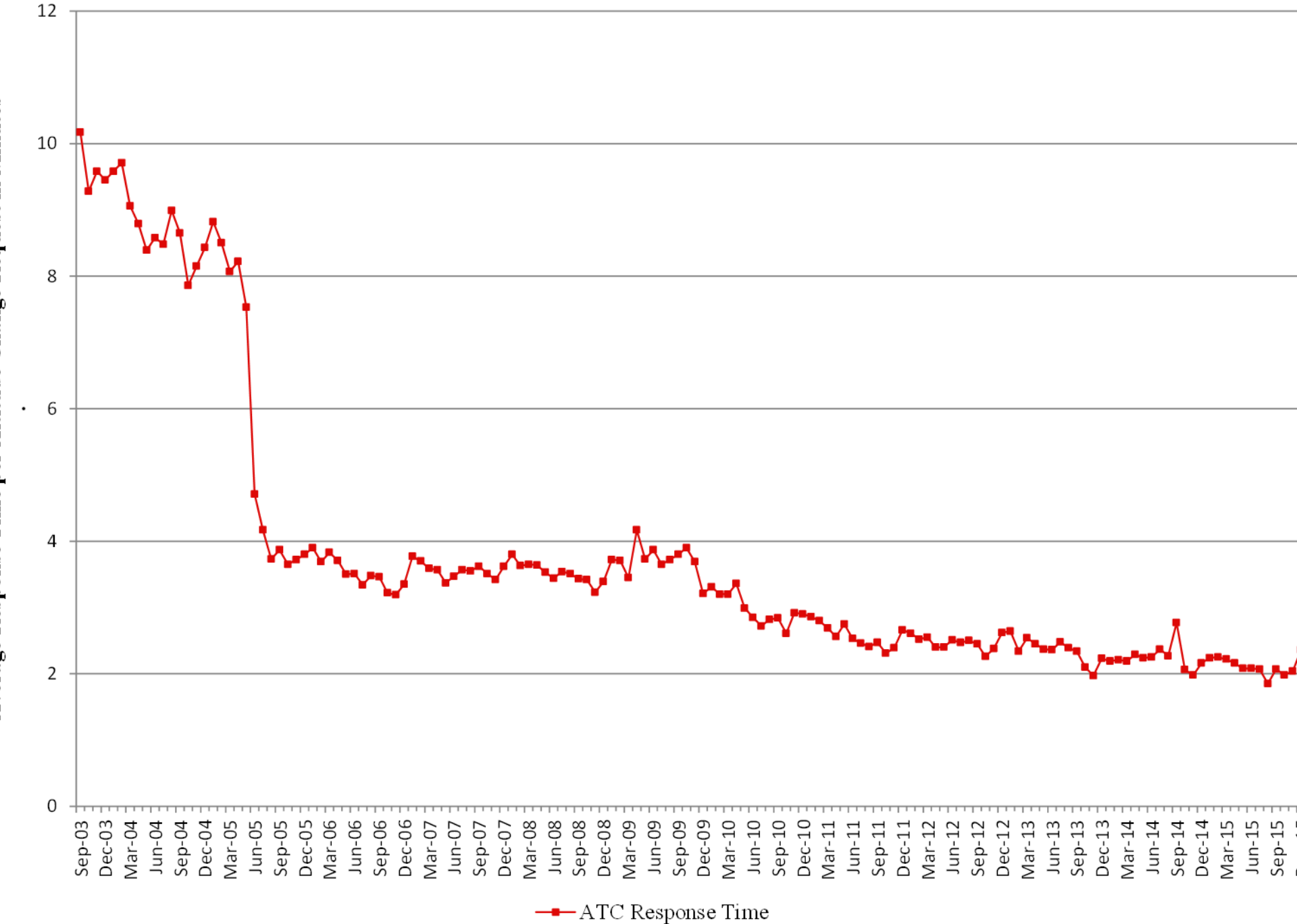
ZNY Flights & Equipment Utilization



ZNY Altitude Change Requests



ZNY ATC Response Time to Altitude Change Requests



FAA PBCS Monitoring Process to Support Inclusion of RCP/RSP in Data Link Approvals

Datalink Analysis

ADS-C Reports and aircraft TCAS operational Status Anomalies

ADS-C Reports and TCAS Operational Status

During a review of Data Recording and Analysis (DR&A) archives automatically generated from the FAA ATOP Ocean21 system through the System Analysis Recording (SAR) system, ADS-C periodic (PER) and waypoint change (WCE) reports received at ZWY during February 2016 were examined. Of the **306,511** reports, approximately **14%** contained “TCAS is OFF.” These messages were further studied by operator and aircraft type. It was found that the proportion of ADS-C PER and WCE reports containing “TCAS is OFF” was approximately 30% for the IGA operations and 13% for commercial operations.

ADS-C Reports and TCAS Operational Status

Table 1 shows the observed percentage of ADS-C PER and WCE reports indicating “TCAS is OFF” for IGA aircraft types. The aircraft types with 100% are highlighted in yellow.

Aircraft Type/ Airframe	Total ADS-C periodic and waypoint change reports	% with "TCAS is OFF"
GLF5	1,534	0.1%
GLF4	717	1.5%
GLEX	666	62.5%
GL5T	625	94.7%
F900	580	1.0%
F2TH	559	1.3%
GLF6	285	0.0%
CL35	262	100.0%
G280	194	100.0%
B737	99	100.0%
FA7X	90	0.0%
CL30	66	100.0%
B762	28	0.0%
CL60	24	100.0%

Table 2 shows the observed percentage of ADS-C PER and WCE reports indicating “TCAS is OFF” for commercial operators with 1 or more ADS-C downlink reports indicating TCAS is off. The operators with 100% are highlighted in yellow.

OPER	Total ADS-C periodic and waypoint change reports	% with "TCAS is OFF"	OPER	Total ADS-C periodic and waypoint change reports	% with "TCAS is OFF"
AAL	29,133	7.6%	VJT	456	100.0%
AFR	27,778	2.0%	EIN	361	5.0%
BAW	18,233	1.2%	ETH	361	100.0%
DAL	15,316	6.8%	NWS	316	2.5%
IBE	14,315	0.3%	NJE	307	40.1%
UAL	13,172	16.5%	LCO	221	5.9%
VIR	12,609	8.8%	BOX	173	62.4%
CFG	9,895	69.5%	LAE	173	9.8%
DLH	9,478	0.3%	TGM	170	11.8%
TOM	9,225	93.5%	EJM	166	1.8%
BER	8,763	0.1%	JAI	152	0.7%
AVA	7,425	54.6%	VQB	99	7.1%
AEA	7,229	17.9%	CGS	92	1.1%
FWI	6,925	0.2%	LUC	77	100.0%
SWR	5,004	0.1%	RJA	73	100.0%
XLF	4,461	0.1%	CFJ	66	100.0%
AZA	4,367	2.2%	LEA	64	6.3%
AMX	3,865	2.0%	MAA	63	100.0%
RCH	3,737	19.0%	WJA	57	100.0%
TSC	3,570	28.1%	CST	53	9.4%
TAM	3,280	0.2%	ROC	53	5.7%
TFL	3,280	90.4%	AUH	41	100.0%
QTR	3,241	1.0%	PRB	38	100.0%
THY	3,156	4.3%	WDY	30	100.0%
CRL	3,005	5.5%	ULC	29	100.0%
NAX	2,104	96.6%	PPF	27	100.0%
ROU	1,526	2.1%	XAO	27	100.0%
JAF	1,493	66.4%	EJA	19	100.0%
ETD	1,019	5.8%	OPM	18	100.0%
GEC	865	4.3%	SPA	18	100.0%
RAM	794	100.0%	JAS	17	100.0%
CMB	749	0.4%	CNV	13	100.0%
ORB	556	6.8%	MLN	6	100.0%
LOT	531	100.0%			

ADS-C Reports and TCAS Operational Status

While RTCA DO-258 (*Interoperability Requirements for ATS Applications Using ARINC 622 Data Communications*) states that “Because of interface differences on different aircraft and different implementations of the TCAS discrete outputs, the TCAS Health bit does not give a reliable and consistent indication and should not be used for ATS purposes,” the issue is being further explored to determine the prevalence of its occurrence and whether or not further action is required.

Datalink Analysis

Altitude Changes in ADS-C Reports NEXT and NEXT+1

Datalink analysis

The second area identified at ZNY for further investigation involves the inclusion of anticipated altitude changes in the flight plan. When these changes are entered in the flight plan and are then included in the altitude fields of the NEXT/NEXT+1 positions of the ADS-C periodic (PER) and waypoint change (WCE) downlink reports, they can be used to inform the controller about the flight's expected vertical movement**.**

For the purpose of conflict resolution, the controllers at ZNY occasionally consult the altitudes in the current position and next positions to identify anticipated changes. They use this information to offer altitude changes that will mitigate predicted conflicts.

An examination of the 306,511 ADS-C PER and WCE downlink reports received by ZNY during the month of February 2016, revealed that 25% of the reports contained an altitude in the NEXT and/or NEXT+1 position information that differed by 1,000 feet or more from the altitude in the current position information.

Datalink Analysis

The ADS-C reports indicating altitude changes in the NEXT and/or NEXT+1 positions were then matched to CPDLC vertical clearances. The uplink elements considered were UM19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, and 34.

The results indicated that approximately 7% of these messages were matched to an uplink vertical clearance within 10 minutes, 12% were matched to an uplink vertical clearance within 20 minutes, and 17% were matched to an uplink vertical clearance within 30 minutes.

It is noted that there was possibly a corresponding request from the aircraft that resulted in the clearance being given, but the purpose of the information is to show the correlation between aircraft intent to change altitude and the altitudes entered into the flight plan.

New York Center Quality Control Office Safety Discussion

Piarco Area Control Center

Piarco/New York Procedural Changes

In late February, a Bi-Lateral meeting was held at Piarco ACC, in Port of Spain, Trinidad, between FAA (San Juan CERAP, and New York Center) and Piarco. Due to the new Selex automation platform implementation, agreements were reached between ZWY and TTZP which will greatly improve the procedures by which aircraft are transferred between the facilities. These include:

For aircraft entering the continental airspace (at or west of 18N057W):

- Piarco will accept aircraft at any altitude regardless of direction prior to 2000Z
- Piarco will tactically accept aircraft from New York at every ONE degree of longitude, with a goal to also eliminate the current AIP restriction of filing with TWO degrees of longitudinal spacing at 18N.
- Piarco will have Datalink service capability in their Oceanic Airspace, and be able to receive and send connection transfers with New York Oceanic
- Piarco will submit a PfA to the Caribbean Region to enable their airspace to have a 50 NM lateral standard for RNP/RNAV-10 or greater equipped aircraft

This will result in fewer altitude profile changes and/or reroutes.

ICAO/CANSO/IATA Caribbean PBN and Harmonization Meeting

During the week of March 28, a meeting was held in Fort Lauderdale that brought together over 100 representatives from various stakeholders that both manage and operate in the Caribbean. The goal of the meeting was to bring everyone together in order in an attempt to modernize the Caribbean operations by:

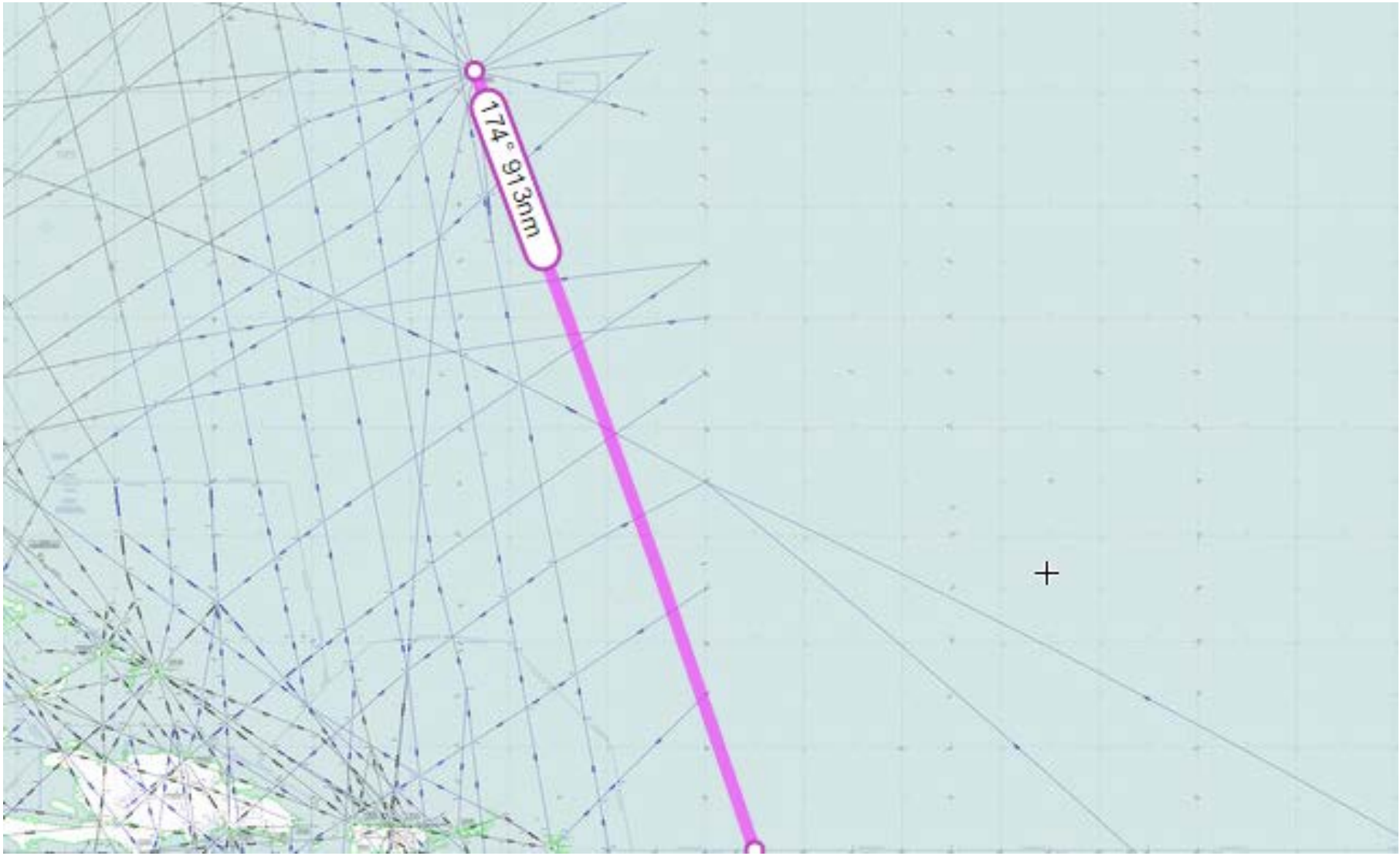
1. Revising the antiquated VOR dependent route system into a PBN based structure
2. Allow various neighboring ANSP's to be able to have meetings to be able to discuss the possible reduction of the amount of separation currently being applied at common boundaries
3. Provide an avenue for affected airlines to be able to communicate their needs and provide input on how the route system could be modified.

Everyone in attendance agreed that this meeting was an important first step, and that much work remained to be accomplished in order to continue to move this initiative forward.

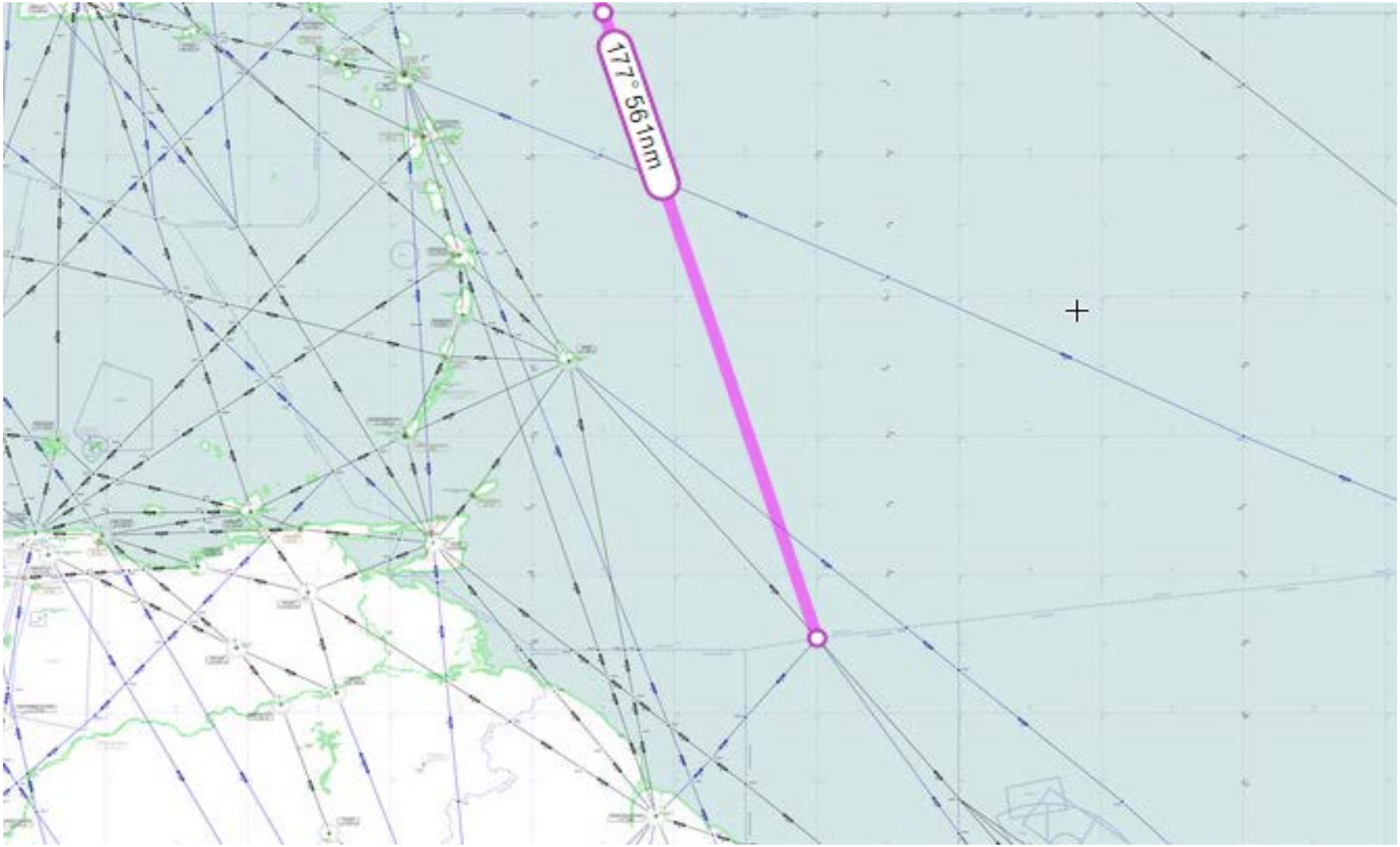
New Notional PBN Route to Brazil

One interest the aircraft operators in attendance clearly stated was the need to have more routing options to various destinations. To this effect, one such route has been agreed upon in principal for further developement. This new PBN route will originate from the Bermuda VOR, and head south/southeast bound on a nearly straight linear path into South America, traversing New York, Piarco, and Suriname FIRS, and joining the existing South American route structure.

Notional Route



Notional Route



New York Oceanic Airspace Initiatives

ADS-B Single Surveillance Operations

New York Center is continuing to allow operations on L453 southbound to properly equipped ADS-B out aircraft during an Oceana Radar system outages where ADS-B surveillance is available. Although this initiative has proven to be successful, New York Center has also identified and mitigated many issues during the past six months. ZNY will continue to search for solutions to the remaining system issues in order to eventually allow for northbound aircraft to also use the airway.

As a reminder, the Domestic automation platform, ERAM, will only process and generate targets for aircraft that meet the FAA protocol - types 260B (1090ES – Class A airspace) or 282B (UAT – Class B/C/E airspace). Suitably equipped aircraft must also meet proper ICAO flight plan filing requirements as well.

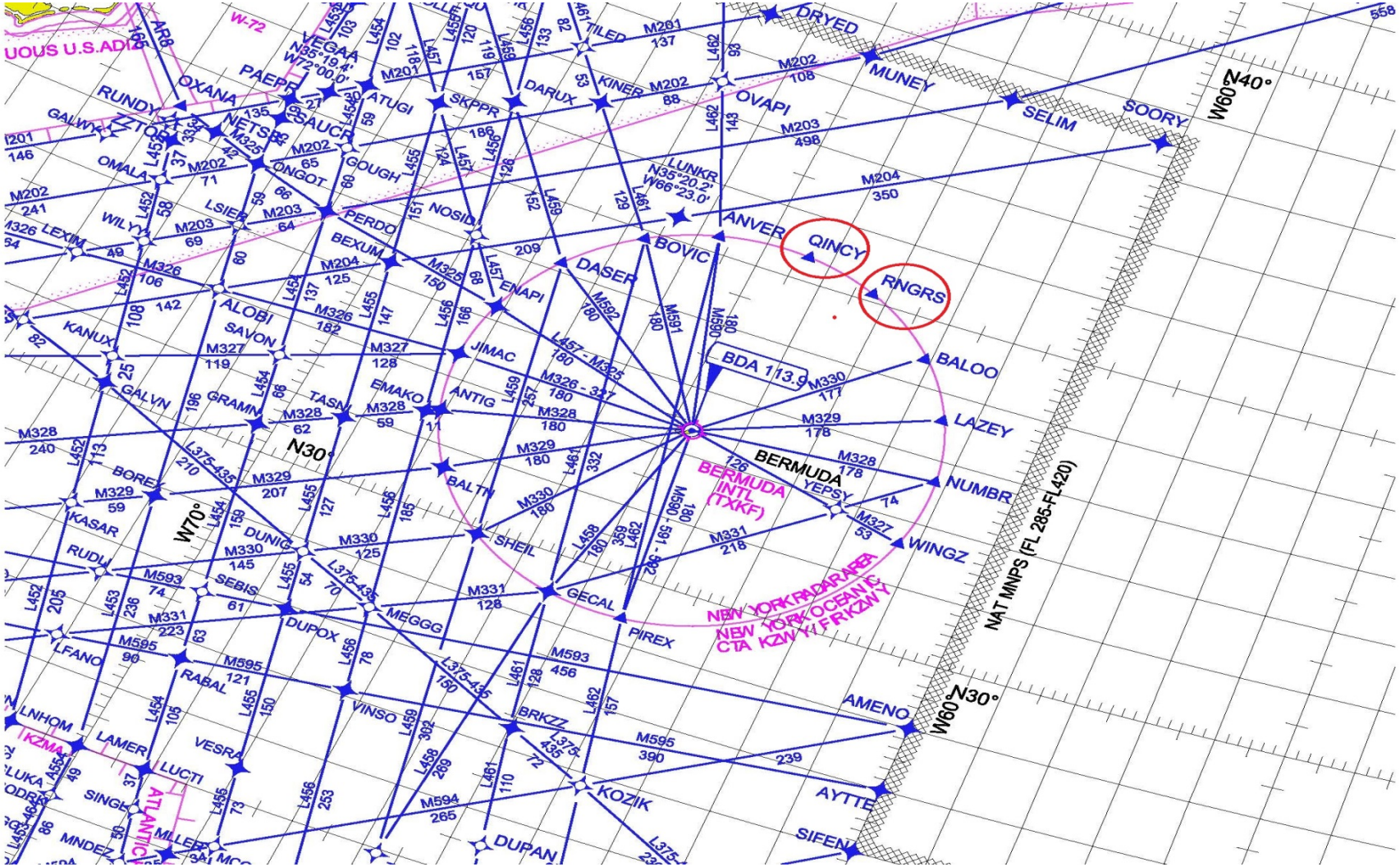
New Airspace Fixes

New Bermuda Airspace Fixes

One request that was first mentioned during a NAM-EUR task force meeting, and reiterated at New York OWG-1, was the desire to have some additional Bermuda Airspace entry fixes to the Northeast of the island.

As of February 4, 2016 two such new fixes have been added.

New Bermuda Fixes

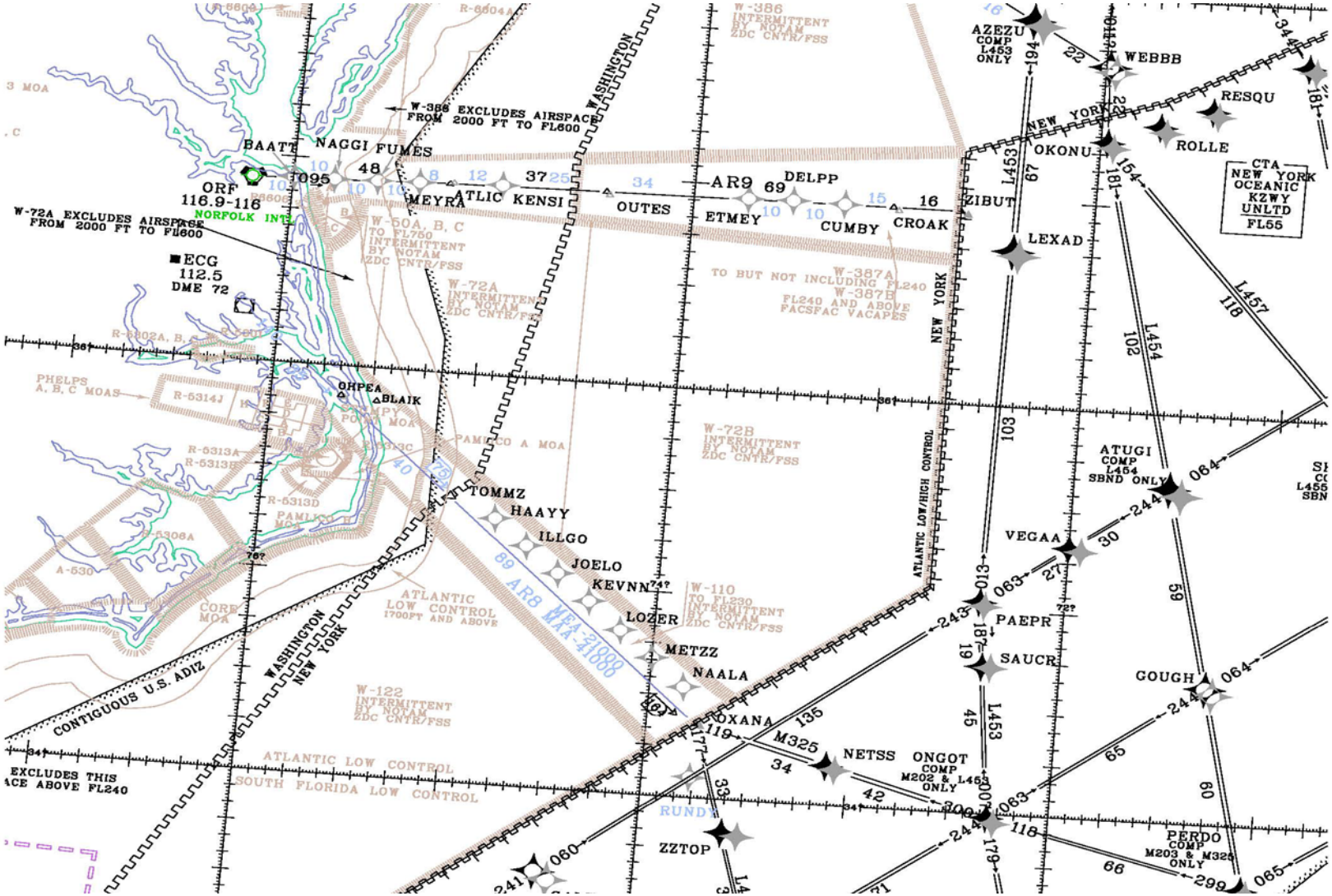


Fixes in Support of HARP

As previously briefed at OWG-2, a series of fixes adjacent to AR8 southeast of Elizabeth City, were requested to be published for eventual inclusion into a revise route plan to both manage and optimize traffic flows during the period of the Holiday Airspace Release Program (HARP). These fixes were published as of March 31, 2016.

As a reminder to operators, these fixes are designed for FUTURE development, and must *not* be filed as part of any current flight plan. Any and all authorization and/or direction to file via these fixes will only be officially authorized by the FAA system command center.

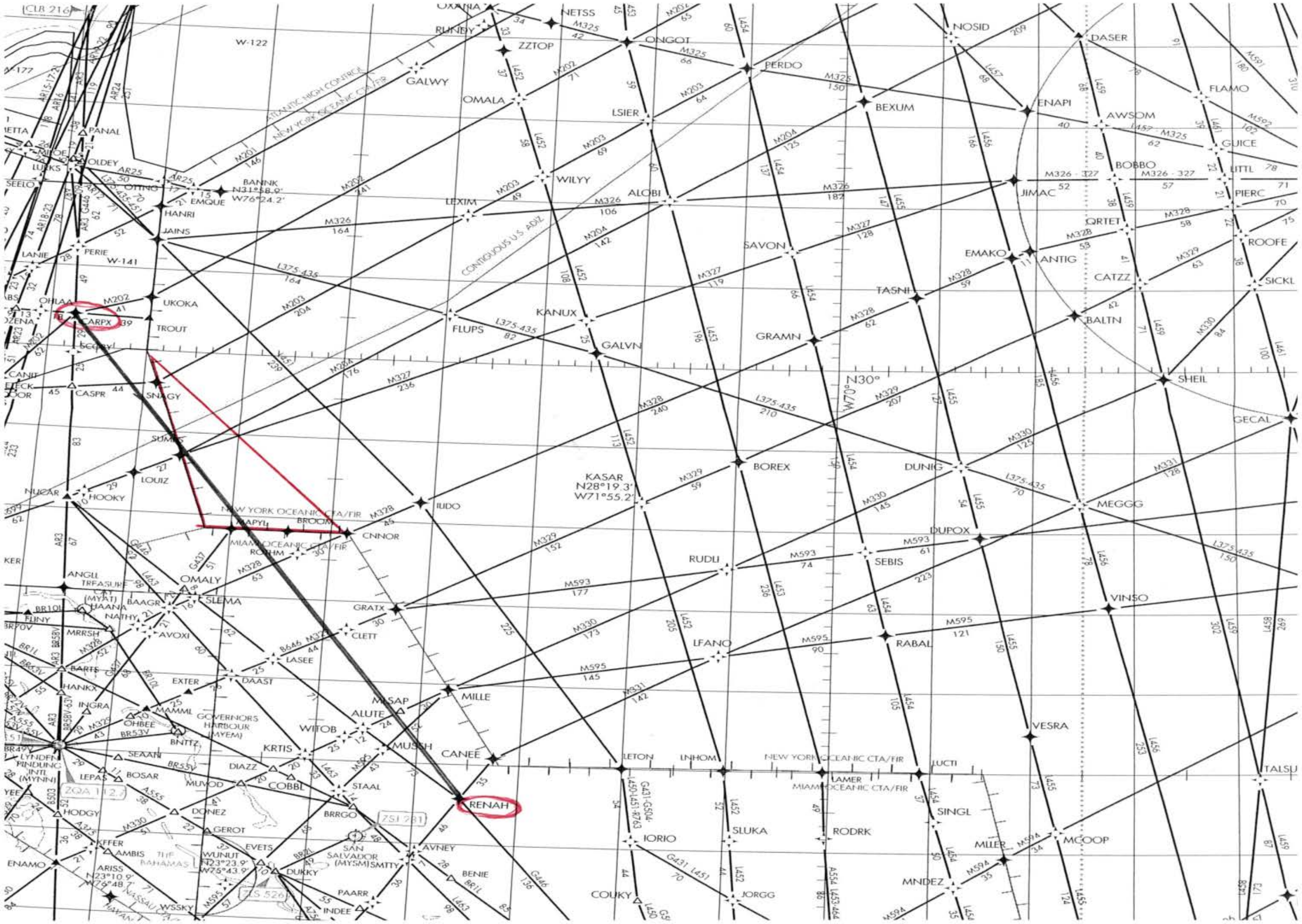
New Fixes Along AR8



New Miami Center Route

In collaboration between New York and Miami Centers during last years Eastern Region Task Group (ERTG) meetings, a new PBN route is being developed that will take advantage of increased surveillance in the Bahamas. The new route, running from RENAH to CARPX, will shave a significant amount of distance off the current route structure

Procedural and automation platform (Miami ERAM and New York ATOP) work that involves a small divestment of airspace from New York to Miami, must still be coordinated, processed, and properly communicated and trained before implementation can occur. Both facilities will work to get this accomplished in a timely manner.


CARPX
RENAH
NEW YORK OCEANIC CTA/FIR
MIAMI OCEANIC CTA/FIR
CONTIGUOUS U.S. ADIZ
ATLANTIC HIGH CONTROL
NEW YORK OCEANIC CTA/FIR
W-122
W-141
KASAR
N28°19.3'
W71°55.2'
N30°
W70°
BANNK
N31°58.9'
W76°24.2'
OXANA
RUNBY
NETSS
ONGOT
ZZTOP
PERDO
NOSID
DASER
GALWY
OMALA
BEXUM
ENAPI
AWSOM
FLAMO
LSIER
GUICE
WILYY
BOBBO
LITTL
LEXIM
ALOBI
JIMAC
PIERC
PANAL
OLDEY
HANRI
JAINS
QRTET
SAVON
EMAKO
ANTIG
ROOFE
PERIE
UKOKA
TROUT
FLUPS
KANUX
TASNI
CATZZ
SICKL
BALTN
GALVN
GRAMN
SHEIL
CASPR
SNAGY
GECAL
LOUIZ
BOREX
DUNIG
HOOKY
IUDO
MEGGG
CNNOR
DUPOX
OMALY
SLEMA
RUDU
SEBIS
VINSO
GRATX
CLETT
LFANO
RABAL
LASEE
DAAST
EXTER
MILLE
MSAP
ALUTE
WITOB
MUSSH
KRTIS
CANEE
LETON
LNHOM
LAMER
LUCTI
TALSU
VESRA
STAAL
COBBL
BRRGO
SINGL
SLUKA
RODRK
IORIO
MCOOP
AVNEY
BENIE
COUKY
JORGG
MNDEZ
SAN SALVADOR (MYSM)
THE BAHAMAS
GOVERNORS HARBOUR (MYEM)

Bermuda Approach Project

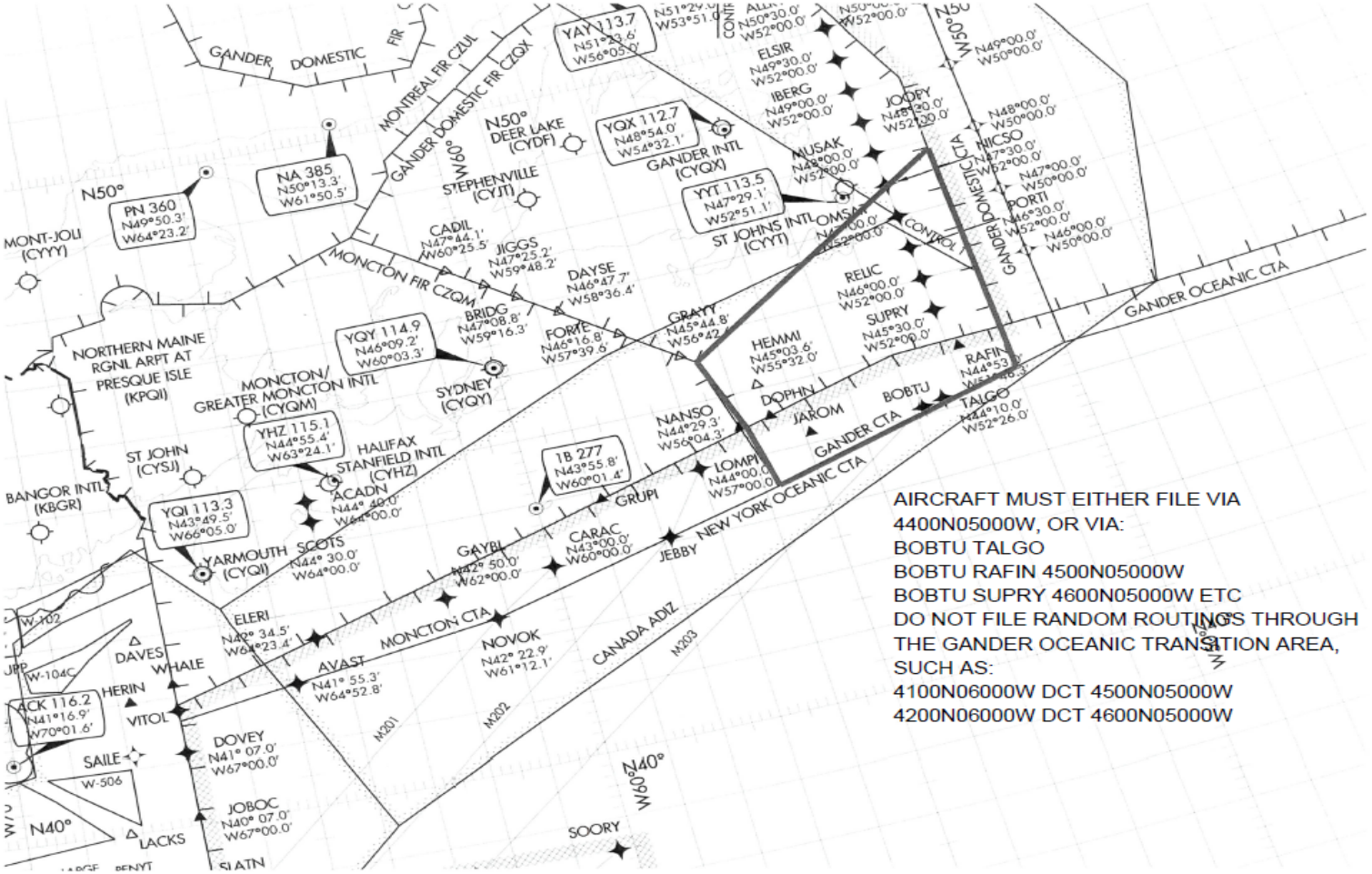
In accordance with Memorandums of Cooperation between Bermuda and FAA, new SID and STAR procedures are being developed for L.F Wade International airport.

These new SID's and STAR's are being designed to join the existing airport arrival paths. They will also be developed to a standard that will allow them to be used during periods of Radar outage time, which is expected to greatly enhance and reduce controller workload. A project team consisting of representatives of FAAHQ, Eastern Service Area, Bermuda, and ZNY management and Union has begun preliminary development work. The expected timeline for implementation is early 2017.

Flight Planning Issue

One area of the airspace that has proven to cause the greatest amount of controller necessitated reroutes is the area where aircraft transition from KZWY airspace into Gander Airspace, either Domestic or Oceanic. There are certain protocols that must be filed in order to facilitate the processing of traffic through this region

Gander Transition Area



Review Of Action Items From August 2015