NY/NJ/PHL Airspace Redesign Implementation Schedule – April 2012

PLEASE READ BEFORE READING IMPLEMENTATION SCHEDULE

Schedule Overview:

The New York/New Jersey/Philadelphia Metropolitan Area Airspace Redesign Project Implementation Timeline (schedule) describes the tasks necessary to implement the project. The project's discrete work elements are grouped into four (4) stages and sequenced in a manner that facilitates an operationally feasible transition and implementation. As the project moves toward implementation, the dates will be adjusted to ensure all project requirements are met and the efficiency of the operation is maintained.

Project stages and implementation timeline:

- Stage 1: Partial implementation of dispersal headings at Newark and Philadelphia International Airports – Implemented December 2007. Additional procedures published up through June 2010 as indicated in the timeline.
- Stage 2a: Expansion of West Gate departure flows for all NY/NJ/PHL Airports. – Implemented October 2011
- Stage 2b: Full dispersal headings for Philadelphia International Airport – Implementation planned for May 2012
- Stage 3: South Gate and East Gate realignment—Implementation planned for 4th Quarter CY2015
- Stage 4: North Gate and final West Gate realignment; Complete Airspace Integration – Implementation planned for 4th Quarter CY2016

Line Items Overview (Left Pane):

The schedule only shows the main tasks required to implement key elements of the project. Many subtasks are not displayed because they are composed of steps that recur each time the subtask is done.

Schedule Bar Chart (Right Pane) and Legend:

Most of the bars appear in dark blue because they are comprised of many subtasks. Each of the main tasks has a milestone subtask that indicates the completion point. The milestone tasks are identified in blue print and also shown as blue diamonds on the chart. If the milestone is also a no later than (NLT) date, it is indicated by a blue down arrow on the chart. The stage deliverables are identified in red with a red star on the chart.

Each main task also has a critical path that is comprised of subtasks that impact the total duration of the main task. Many tasks do not appear on the schedule because they are included in the subtasks.

Extension of schedule and reformatting changes

The NY/NJ/PHL Airspace Redesign is the largest and most complex airspace redesign activity the FAA has undertaken to date. As with any implementation process that impacts live air traffic operations, the efficiency and safety of the current operation must be maintained while the project elements are implemented. Ensuring continuity of current operations in such a complex environment has resulted in design and implementation timeline delays. To accommodate such circumstances, adaptive management has been applied to the revised schedule to ensure the safety and efficiency of the current operation is preserved while transitioning to the final design.

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The revised schedule also reflects a restructuring that has reduced the number of line items from over 9,600 to approximately 4,000. This was accomplished by consolidating design work and more clearly defining stages 3 and 4 in a more geographic reference, thereby removing redundant or repetitive tasks. All design refinement is grouped together for clarity. Stage 3 now consists of implementation elements for NY/NJ/PHL airport arrival and departure flows to/from the south and east. Stage 4 consists of implementing realigned arrival and departure flows to/from north and west of NY/NJ/PHL airports.

In addition to the changes to Stages 3 and 4, Stage 2b has been revised to consist of final implementation of full dispersal headings from Philadelphia International Airport (PHL). The new dispersal headings will consist of one additional westbound heading and two additional eastbound headings as required for full compliance with the Final Environmental Impact Statement (FEIS).

The timelines in this schedule remain subject to change as the project continues to employ adaptive management techniques to maintain the safety and efficiency of air traffic operations in the New York Metropolitan Area and surrounding airspace. The Implementation schedule will be updated periodically and posted on the Project website. Look for the next update no later than September 2012.

Stage 1 Accomplishments and Status:

Dispersal Headings (Implemented December 2007)

- Newark Liberty International Airport (EWR): When EWR reaches moderate demand or greater, dispersal headings are used for Runway 22L.
  - Runway 22L dispersal headings are 215º and 239º. With light demand, the 190º heading is issued.
- Philadelphia International Airport (PHL) (props and jets) Dispersal Headings:
  - Runway 09L/R Dispersal Headings for jets departing the airport between 0700-2200 (Local time) headings 081º and 096º are used. Outside the designated schedule of 0700-2200 (Local time), heading 085º is used.
  - Runway 27L/R Dispersal Headings for jets departing the airport between 0700-2200 (Local time) headings 245º and 268º are used.
  - For props, daily pre-coordinated headings that vary from 220º – 230º are used during dispersal heading schedule. Outside of the dispersal heading schedule, heading 255º is used.
- Removed the JFK Rwy 31R Right Turn Departure - Conventional task due to cancellation because of unmitigated high risk.
- Moved the LGA Rwy 04 Conventional Dispersal Headings to Stage 4, because that is when the arrival routes will shift.

Stage 2 Accomplishments and Status:

- **Stage 2a - Expansion of 3 mile separation, Expansion of Westgate departure routes**:
  - Additional radar feeds brought into the New York Air Route Traffic Control Center enables air traffic controllers to reduce separation between aircraft over a larger geographical region west of the New York Metropolitan Area. **Implemented May 2011**
  - Implementation of a new departure route for John F. Kennedy International Airport (JFK), the addition of a new departure point for all NY metropolitan area airports, and a new arrival route to Washington Dulles International Airport (IAD), which increases air traffic efficiency and reduces airspace complexity for aircraft departing westbound from the New York Area. **Implemented October 2011.**

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- **Stage 2b PHL Final Implementation of Full Dispersal Headings:**
  - Design completed for full dispersal heading procedures at PHL.
  - An additional westbound dispersal heading and two additional eastbound headings will enhance PHL departure rate efficiency and mitigate the temporary noise impacts created by the current partial implementation.
  - The planned implementation for stage 2b is for **May 2012.**

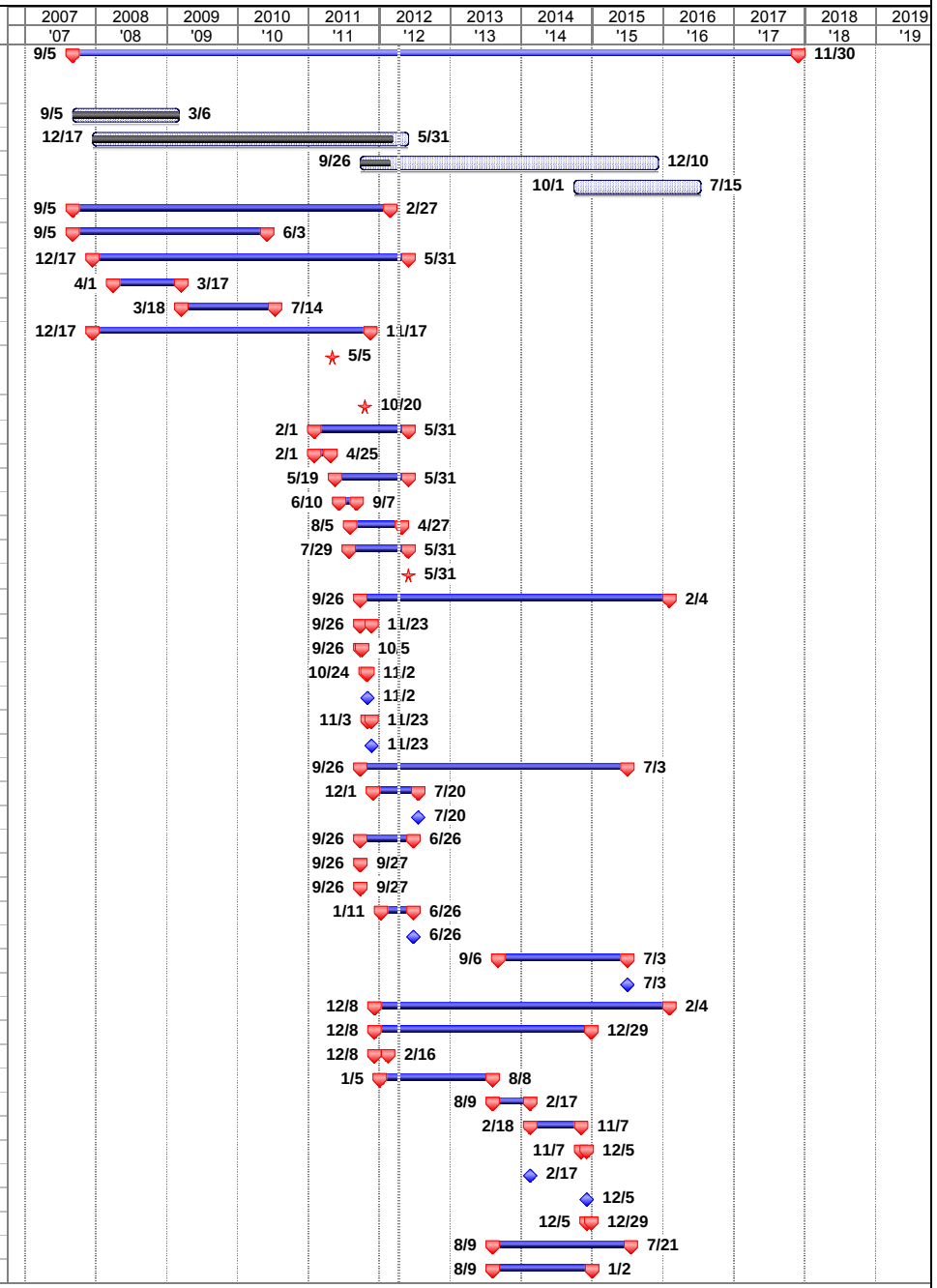
Stage 3 Accomplishments and Status:

- The remaining airspace design, which is broken down into four (4) geographical segments.
- Implementation of route realignment and supporting airspace redesign for NY/NJ/PHL South Gates and East Gates.
- The planned implementation is for **December 2015.**

Stage 4 Accomplishments and Status:

- Implementation of route realignment and supporting airspace redesign for NY/NJ/PHL West Gates (expanded from Stage 2a) and North Gates.
- The additional PHL westbound departure route originally planned for Stage 2b has been incorporated into Stage 4.
- The planned implementation is for **November 2016.**

NYNJPHL Airspace Redesign Implementation Schedule - FY12 Q3
(Time-Line in Calendar Years)



Task Name	
NY / NJ / PHL AIRSPACE REDESIGN IMPLEMENTATION PLAN (TPP: 11/10/2016) Version 1.0 4/4/2012	9/5 – 11/30
Stage 1 -- Procedural Changes	9/5 – 3/6
Stage 2 -- Integration of ZNY and N90	12/17 – 5/31
Stage 3 -- South and East Gates (Arrivals/Departures) All Design, South & East Gates Implementation	9/26 – 12/10
Stage 4 -- Southern West and North Gates (Arrivals/Departures) Implementation	10/1 – 7/15
Meetings	9/5 – 2/27
STAGE 1: Implementation - Procedural Changes	9/5 – 6/3
STAGE 2: Integration of ZNY and N90	12/17 – 5/31
Administrative Coordination & Meetings	4/1 – 3/17
F&E Implementation Tasks (Facility Build Determination Pending)	3/18 – 7/14
Stage 2a West Gate Expansion, Implemented 10/20/2011	12/17 – 11/17
Stage 2a Partial Deliverable: Integration of Key Operating Positions in N90 & Expanded Use of 3 NM Below FL180 for ZNY	5/5
Stage 2a Deliverable: West Gate Expansion	10/20
Stage 2b PHL -- Final Implementation of Full Dispersal Headings (TPP 5/31/2012)	2/1 – 5/31
Design Meetings	2/1 – 4/25
RNAV 18-Step Process - PHL (2 STARs and 1 Conventional SID)	5/19 – 5/31
Airspace Validation	6/10 – 9/7
Airspace Agreement	8/5 – 4/27
Implementation Tasks	7/29 – 5/31
Stage 2b Deliverable: PHL Final Implementation of Full Dispersal Headings	5/31
STAGE 3: Refine Stage 3 & 4 Design Elements & Implement South and East Gates (TPP: 12/10/2015)	9/26 – 2/4
INITIATE	9/26 – 11/23
Stage Kickoff Coordination (Full Article 48 Group)	9/26 – 10/5
Kickoff Meeting	10/24 – 11/2
Milestone 1: Design Refinement Initiation / Kickoff Complete Stage 3	11/2
Design Concept Finalization & Article 48 Consensus	11/3 – 11/23
Milestone 2: Finalize Design Refinement Milestones & Deliverables	11/23
PLANNING	9/26 – 7/3
Project Management Plan	12/1 – 7/20
Milestone 3: Project Management Plan Complete and Documented Article 48 Concur	7/20
Procedure Development SCOPE Pre-Planning with ESC (STARs/SIDs/ Q/J/T/V Routes)	9/26 – 6/26
Procedures To Be Implemented Stage 3 (STARs/SIDs/Routes) (Placeholders)	9/26 – 9/27
Procedures To Be Implemented Stage 4 (STARs/SIDs/Routes) (Placeholders)	9/26 – 9/27
Review Current Published & Proposed Procedures	1/11 – 6/26
Milestone 4: Procedure Development SCOPE Pre-Planning Coordinated	6/26
Engineering (F&E)	9/6 – 7/3
Milestone 5: Infrastructure Engineering Complete	7/3
EXECUTION	12/8 – 2/4
Design Refine, Modeling, and Validation	12/8 – 12/29
Article 48 Design Meetings (Placeholder--Dates TBD)	12/8 – 2/16
South Gate (Departures and Arrivals) & Southern West Gate	1/5 – 8/8
East Gate (Departures and ROBER Arrival)	8/9 – 2/17
Southern West Gate (Departures, Enroute, PHL)	2/18 – 11/7
North Gate and West Gate (Departures, Arrivals, Enroute)	11/7 – 12/5
Milestone 6a: Refine, Modeling, and Validation Complete & Article 48 Consensus (South & East Gates)	2/17
Milestone 6b: Refine, Modeling, and Validation Complete & Article 48 Consensus (West & North Gates)	12/5
Post Modeling Reporting - HITL Design Outcome (Summarize & Present Results)	12/5 – 12/29
Design Verification	8/9 – 7/21
Design Refinement Verification/Agreement (Sector Boundaries and Altitudes) for Engineering	8/9 – 1/2

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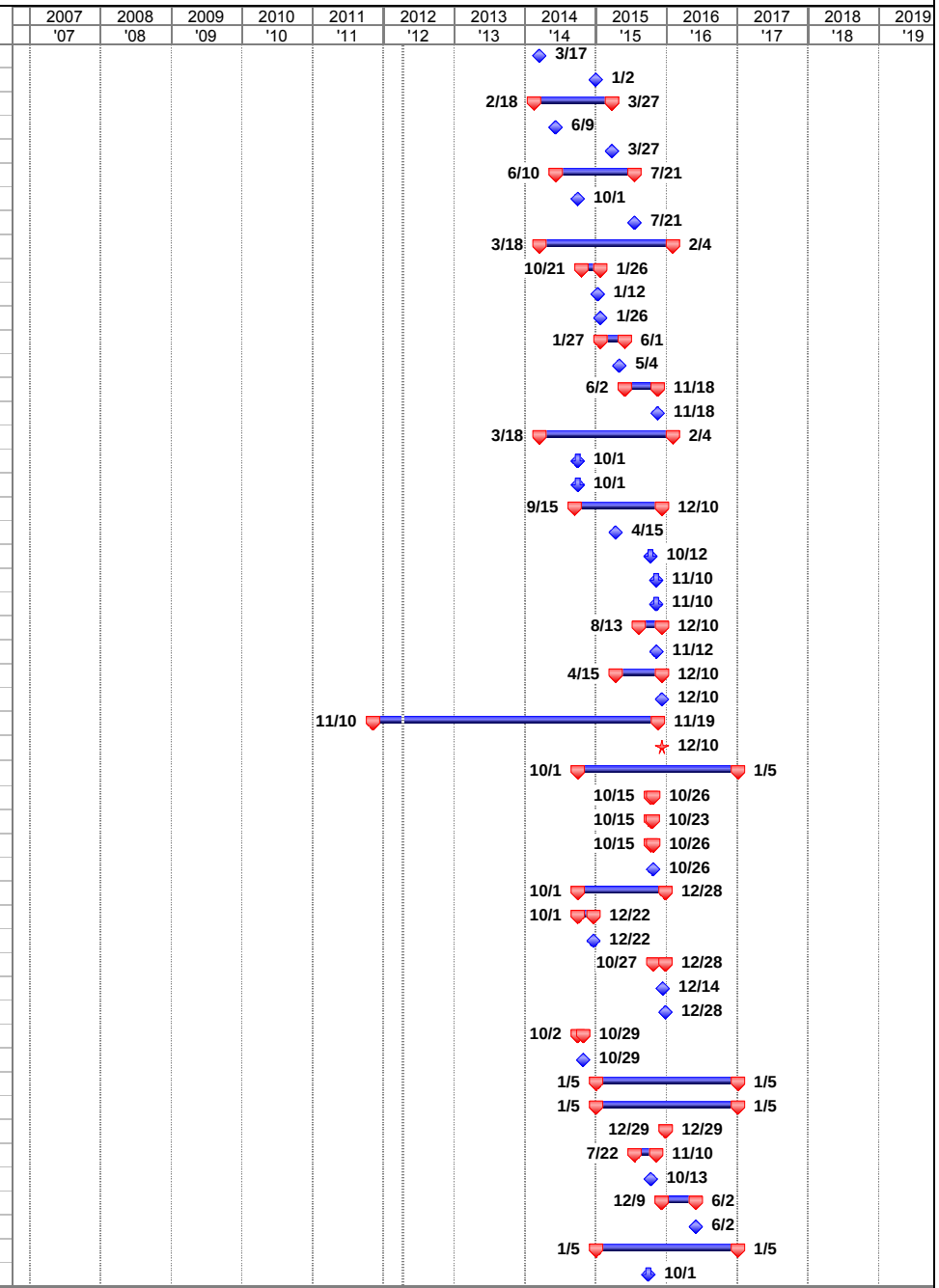

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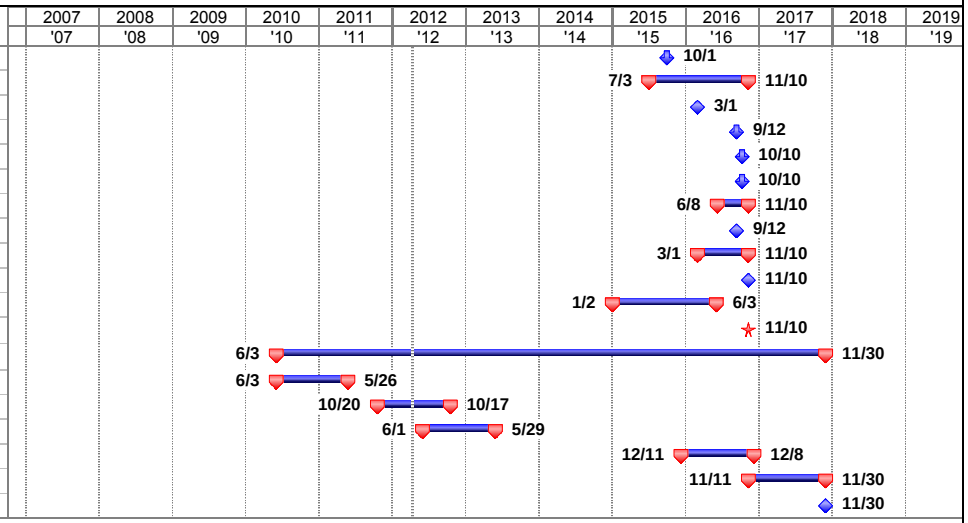

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Acronyms Related to Airspace Redesign Project

ACRONYM	EXPLANATION
ARD	Yardley VOR
ARTCC	Air Route Traffic Control Center
Article 48	The article in the National Air Traffic Controller Association (NATCA) contract that defines Union involvement in Technological/Procedural changes.
BDR	Bridgeport VOR
BWI	Baltimore Washington International Airport
CDA	Continuous Decent Approach
DCA	Reagan National Airport
DTW	Detroit International Airport
DYSIM	Dynamic Simulator
EIS	Environmental Impact Statement
ERAM	En Route Automation Modernization
ESC	Eastern Service Center
ETG	Enhanced Target Simulator
EWR	Newark International Airport
F&E	Facilities and Equipment
FTI	Federal Telecommunications Infrastructure
FEIS	Final Environmental Impact Statement
FIG	Flight Inspection Group
FPT	Flight Procedures Team
FQM	Williamsport VOR
GPS	Global Positioning System
HAR	Harrisburg VOR
HITL	Human in the Loop
HPN	White Plains/Westchester County Airport
IAD	Dulles International Airport
IFR	Instrument Flight Rules
ILS	Instrument Landing System

Acronyms Related to Airspace Redesign Project

ACRONYM	EXPLANATION
ISP	Long Island MacArthur Airport
JFK	JFK Airport
LDA	Localizer Directional Aid
LIB	Liberty Sector
LOA	Letters of Agreement
LOC	Localizer
LPV	A type of approach with vertical guidance based on WAAS, published on RNAV (GPS) approach charts
MMU	Morristown Airport
MXE	MODENA (Departure Fix for PHL & its Satellites)
N90	New York TRACON
NAP	Needs Assessment Program
NFDC	National Flight Data Center
NLT	No Later Than
OOD	Woodstown VOR
OPD	Optimal Profile Decent
OSG	Operations Support Group
PCT	Potomac TRACON
PDARS	Performance Data Analysis & Reporting System
PHL	Philadelphia Airport
PTW	Pottstown VOR
QA	Quality Assurance
RAPT	Regional Airspace Procedure Team
RBV	Robbinsville VOR
RNAV	Area Navigation
RNP	Required Navigational Performance
ROD	Record of Decision
ROMA	Route Optimization and Mitigation Analysis
RWY	Runway
SDAT	Sector Design & Analysis Tool

Acronyms Related to Airspace Redesign Project

ACRONYM	EXPLANATION
SID	Standard Instrument Departure
SMS	Safety Management System
SOP	Standard Operating Procedures
SRM	Safety Risk Management
SRMD	Safety Risk Management Document
STAR	Standard Terminal Arrival Route
SWAP	Severe Weather Avoidance Plan
TARGETS	Terminal Area Route Generation Evaluation Traffic Simulation
TEB	Teterboro NJ Airport
TEC	Tower En-route Control
TMA	Traffic Management Advisor
TPP	Terminal Procedures Publication
TRACON	Terminal Radar Approach Control
VCN	Cedar Lake VOR
VFR	Visual Flight Rules
VHF	Very high Frequency
VOR	VHF Omni-directional Radio Range Station
ZBW	Boston ARTCC
ZDC	Washington ARTCC, Leesburg, VA
ZID	Indianapolis ARTCC
ZNY	New York ARTCC
ZOB	Cleveland ARTCC
WAAS	Wide Area Augmentation System