

# Service Road Map Legend

FY 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

ATC-Separation Assurance / Separation Management

TM-Synchronization / Trajectory Management

TM-Strategic Flow / Flow Contingency Management (Strategic Flow)

Airspace Management / Capacity Management (Airspace)

ATC-Advisory & Flight Planning, Emergency and Alerting, Infrastructure-Information Management / Flight and State Data Management

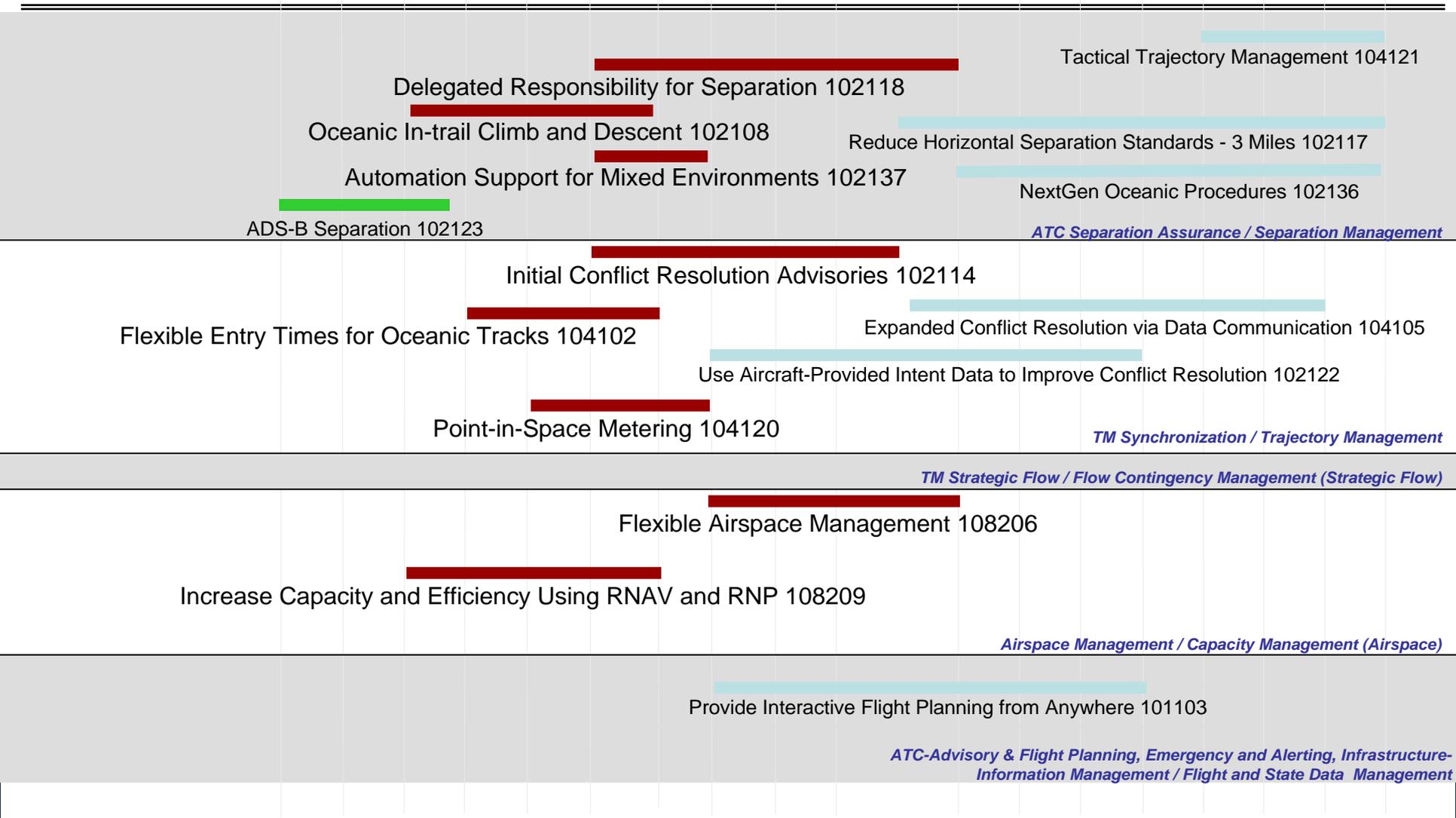
## Key

### •NAS EA Service / NIP Function

- 
 •Near-Term Commitment  
 •2008-2012
- 
 •MidTerm Capability  
 •2012 -2018
- 
 •Far Term Capability
- 
 •In the FAA EA; Not in the NAS EA
- (Initial Operating Capability targeted within the box)

# Initiate Trajectory-Based Operations

FY 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025



# Increase Arrivals/Departures at High Density Airports

FY 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

Delegated Responsibility for Horizontal Separation (lateral and longitudinal) 102143

Improved Parallel Runway Operations 102141

*ATC-Separation Assurance / Separation Management*

Initial Surface Traffic Management 104209

Wake Vortex Incorporated into Flow 102142

Time Based Metering Using RNAV and RNP Route Assignments 104123

Improved Management of Arrivals/Surface/Departure Flow Operations 104117

Use Data Messaging To Provide Flow and Taxi Assignments 104208

Full Surface Traffic Management with Conformance Monitoring 104206

Use Aircraft-Provided Intent Data to Improve Flow and Conflict Resolution 102139

*TM-Synchronization / Trajectory Management*

*TM Strategic Flow / Flow Contingency Management (Strategic Flow)*

Integrated Arrival/Departure Airspace Management 104122

*Airspace Management / Capacity Management (Airspace)*

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# Increase Flexibility in the Terminal Environment (1 of 2)

FY

2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

Wake Turbulence Mitigation for Departures (WTMD): Wind-Based Wake Procedures 102140

Ground Based Augmentation System (GBAS) Precision Approaches 107107

Provide Surface Situation to Pilots, Service Providers and Vehicle Operators for All Weather Operations 102409

ADS-B Services to Secondary Airports 102138

Wake Turbulence Mitigation for Arrivals: CSPRs 102144

Wake Turbulence Mitigation for Arrivals: Single Runway 102145

*ATC-Separation Assurance / Separation Management*

Use Optimized Profile Descent 104124

Low Visibility Surface Operations 107202

Low Visibility/Ceiling Approach Operations 107117

Low Visibility/Ceiling Landing Operations 107118

Low Visibility/Ceiling Takeoff Operations 107115

Low Visibility/Ceiling Departure Operations 107116

Expanded Low Visibility Operations using Lower RVR Minima 107119

*TM-Synchronization / Trajectory Management*

# Increase Flexibility in the Terminal Environment (2 of 2)

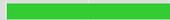
FY

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*TM-Strategic Flow / Flow Contingency Management (Strategic Flow)*

*Airspace Management / Capacity Management (Airspace)*

Expanded Traffic Advisory Services Using Digital Traffic Data 103206



Provide Full Surface Situation Information 102406



Enhanced Surface Traffic Operations 104207



Improved Runway Safety Situational Awareness for Controllers 103207



Improved Runway Safety Situational Awareness for Pilots 103208



*ATC-Advisory & Flight Planning, Emergency and Alerting, Infrastructure-Information Management / Flight and State Data Management*

# Improve Collaborative ATM

FY 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025

*ATC-Separation Assurance / Separation Management*

*TM-Synchronization / Trajectory Management*

Continuous Flight Day Evaluation 105302

Traffic Management Initiatives with Flight Specific Trajectories 105208

Full Collaborative Decision Making 105207

*TM-Strategic Flow / Flow Contingency Management (Strategic Flow)*

Improved Management of Airspace for Special Use 108212

Manage Airspace to Flow 108207

*Airspace Management / Capacity Management (Airspace)*

Provide Full Flight Plan Constraint Evaluation with Feedback 101102

On-Demand NAS Information 103305

*ATC-Advisory & Flight Planning, Emergency and Alerting, Infrastructure-Information Management / Flight and State Data Management*

# Reduce Weather Impact

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*ATC Separation Assurance / Separation Management*

Initial Integration of Weather Information into NAS Automation and Decision Making 103119

Automatic Hazardous Weather Alert Notification 103117

*TM Synchronization / Trajectory Management*

Full Operational Weather Capability 103121

*TM Strategic Flow / Flow Contingency Management (Strategic Flow)*

*Airspace Management / Capacity Management (Airspace)*

Initial Improved Weather Information from Non-Ground Based Sensors 103116

Near-real Time Dissemination of Weather Information to all Ground and Air Users 103120

Deploy FIS-B Nationally 103104

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# Increase Safety, Security, and Environmental Performance

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*ATC-Separation Assurance / Separation Management*

*TM-Synchronization / Trajectory Management*

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## Safety

Enhance Emergency Alerting 106202

ASIAS-Information Sharing and Emergent Trend Detection 109303

Enhanced Aviation Safety Information Analysis and Sharing 109304

Improved Safety for NextGen Evolution 109305

Increased International Cooperation for Aviation Safety 109306

Improved Safety Across Air Transportation System Boundaries 109307

Enhanced (Automated) Aviation Safety Information Sharing and Analysis Scope and Effectiveness 109308

*ATC-Advisory & Flight Planning, Emergency and Alerting, Infrastructure-Information Management / Flight and State Data Management*

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Operational Security Capability for Threat Detection and Tracking, NAS Impact  
Analysis and Risk-Based Assessment 109302

*ATC-Advisory & Flight Planning, Emergency and Alerting, Infrastructure-  
Information Management / Flight and State Data Management*

**Security**

# Increase Safety, Security, and Environmental Performance

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## Environment

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NEXTGEN Operational Initiatives Implemented that Reduce Environmental Impacts

# Transform Facilities

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*TM-Synchronization / Trajectory Management*

*TM Strategic Flow / Flow Contingency Management (Strategic Flow)*

NAS Wide Sector Demand Prediction and Resource Planning 105104

*Airspace Management / Capacity Management (Airspace)*

Remotely Staffed Tower Services 109402

*ATC-Advisory & Flight Planning, Emergency and Alerting, Infrastructure-Information Management / Flight and State Data Management*