World Air Traffic Control as the Sun Rises
Legislation:

- FAA Reauthorization
- Annual Appropriation
- Sequester
FAA Strategic Initiatives:

- Make Aviation Safer and Smarter
- Deliver Benefits through Technology & Infrastructure
- Enhance Global Leadership
- Empower and Innovate with FAA’s people
NextGen is the largest infrastructure project in U.S. history.

- Move from a ground-based system to satellite-based and digital technologies
- The flying public is already enjoying NextGen benefits:
  - Shorter flights
  - Better on-time performance and
  - Fewer missed connections
NextGen Advisory Committee’s Top Priorities

4 categories

- PBN
- Multiple Runway Operations
- Surface Operations
- Data Communications

Going forward, ERAM and TAMR will be coupled with ADS-B and other developmental programs—such as Data Communications and a suite of traffic management and decision support tools — that will provide new ways to move aircraft safely and efficiently through the NAS. 2016 will be pivotal for the next stage of NextGen, as we make investment decisions for a series of future programs. These decisions are dependent on stable funding.
Delivering NextGen Improvements

Legacy System

- Radar
- Inefficient Routes
- Voice Communications
- Disparate Information
- Fragmented Weather Forecasting
- Weather Restricted Visibility
- Forensic Safety Systems
- Nationwide Focus

NextGen

- Satellite
- Performance Based Navigation (fuel savings)
- Voice & Digital Communications
- Automated Decision Support Tools
- Integrated Weather Information
- Improved Access in Low Visibility
- Prognostic Safety Systems
- Focus on Congested Metroplexes

Implementation

- TFDM
- PBN
- TBFM
- ASIAS
- AIM
- NWP

Transformational

- ADS-B
- CATM-T
- SWIM
- CSS-Wx
- NVS
- DataComm

Foundational

- Terminal Automation Modernization and Replacement
- En Route Automation Modernization
- Terminal Automation Modernization and Replacement
Delivering NextGen
Automatic Dependent Surveillance – Broadcast

Satellite-Based Surveillance

- Aircraft positions updated continuously instead of every 4.7 seconds or longer with radar
- 100 of 230 air traffic facilities use ADS-B to separate traffic
- 634 ground stations are smaller than radar installations making them cheaper to maintain and easier on the environment

Transformational Program

FAA

NextGen
Operational ADS-B Radio Stations
Delivering NextGen Performance Based Navigation (PBN)

Ground-Based Navigation  Performance-Based Navigation

Precision routes

• Reduced flight time and fuel
• Flexible weather reroutes
• Integrated traffic flow
• End-to-end PBN network
• Airspace deconfliction
Performance Based Navigation (PBN)
As of October 2014

Key
- Metroplex Future Site
- Metroplex Study Phase
- Metroplex Design Phase
- Metroplex Site Implementation Phase
- Metroplex Site Fully Implemented
- 3rd Party Vendor Site
- PBN Initiatives
- Core 30 Airport

Changes from Previous Month: South/Central Florida began the Design Phase.
Airports with WAAS LPV Instrument Approaches

As of October 16, 2014
3450 LPVs serving 1695 airports
2321 LPVs to non-ILS runways
1578 LPVs to non-ILS airports
1129 LPVs to ILS runways
NextGen Update: 2015

The *NextGen Update: 2015* will be a web-based product

- Links to additional information including program websites, reports, videos, etc.

- **Section One:** From Vision to Reality – A look back at from where NextGen has come, and a look ahead at where we’re going.

- **Section Two:** Progress and Plans – Key Programs, Environment, Safety and Controller Tools

- **Section Three:** Collaboration – NextGen Advisory Committee and International

- **Section Four:** General Aviation – ADS-B, Approach Procedures and Fuel Technology

- **Section Five:** Operator Investments and Airports

http://www.faa.gov/nextgen/update/
NAS Efficient Streamlined Services
Airport Infrastructure
Number of NPIAS Airports Regionally
(3,345 Total - 641 in AGL)
AIP Funding for ALL FY14 Grants Initiated
(National Summary)
Unmanned Aircraft Systems
Selected UAS Test Site Operators

North Dakota Department of Commerce
Griffiss International Airport
State of Nevada
Virginia Tech
University of Alaska
Texas A&M University - Corpus Christi
UAS: Getting to Integration

Today
• Accommodation

Mid-term
• Transition to NAS Integration

Long-term
• Integration into the NextGen NAS
For More Information Visit....

http://www.faa.gov