



**Federal Aviation  
Administration**

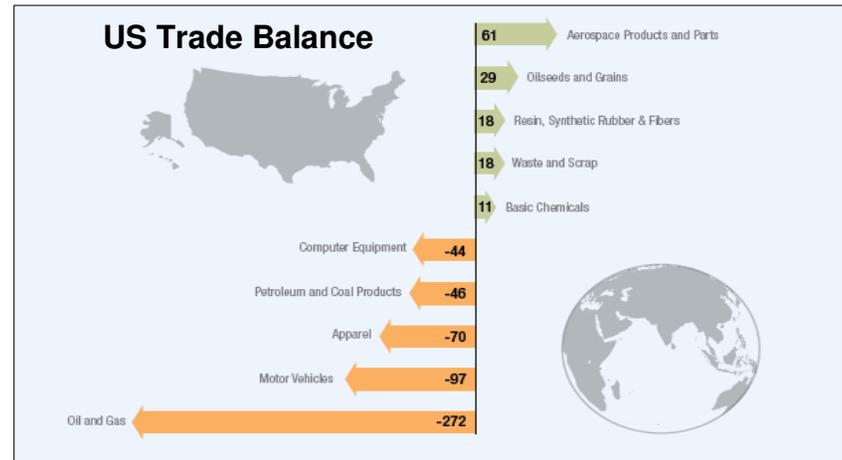
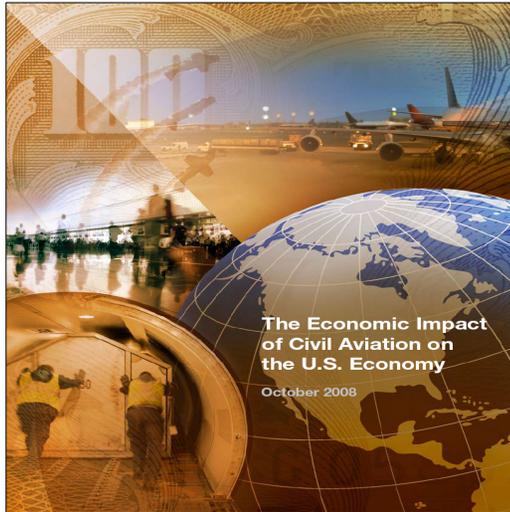
# **The Next Generation Air Transportation System (NextGen) and Global Partnership**

**Presented to: APEC 14<sup>th</sup> GNSS Implementation Team (GIT/14)**

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**Date: June 21-24, 2010**

# Impact of Aviation on the U.S. Economy



## The Aviation Industry contributes to the U.S. Economy and International Trade

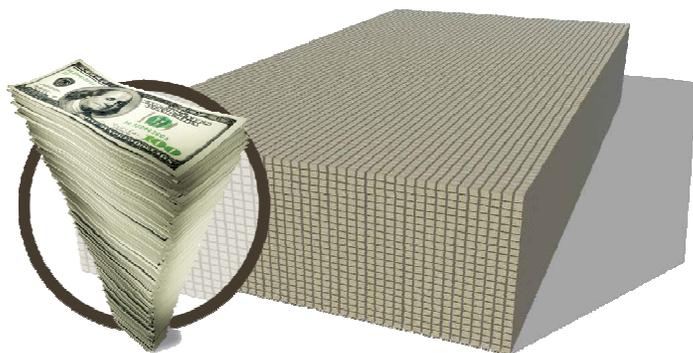
- In every region of the U.S., communities depend on civil aviation to stimulate economic growth and strengthen business by linking economic activity through aviation to the larger global economy
- Aviation accounts for
  - 12 million aviation-related jobs
  - \$1.3 trillion in economic activity
  - 5.6 Percent Contribution to Gross Domestic Product
  - Adds \$61 Billion to the US Trade Balance

# Aviation's Impact on the U.S. Economy Drives the Importance of NextGen

- 12 Million Jobs



- \$1.3 Trillion in Economic Activity



- 5.6% of GDP



# NextGen is more. . .

*Than just a single project...* It is the integration of many projects, concepts, and technologies.

*Than just a program plan...* It is the integration of many program plans, some new and some ongoing, to deliver new service capabilities to meet increasing demand.

*Than just a new system...* It is the integration of new systems, new procedures, new aircraft performance capabilities, renewable fuels, new supporting infrastructure, and a new way to do business as the Air Transportation System.



# NextGen Capabilities

## Broad Ranging for Broad Benefits



# NextGen: Improving Service Delivery

## From Today...

- Ground-based navigation and surveillance
- ATC communications by voice
- Air traffic “control”

## ... To the NextGen System

- Increased use and reliance on satellite-based navigation and surveillance
- Digital communications and routing of aviation data throughout the system
- Air traffic “management”



***The transition to NextGen has already begun and we are seeing real benefits***

# NextGen is Already Underway...

## Transformational Programs

NextGen technologies and procedures, along with airspace redesign, have already enabled more direct routes and efficient operations, using less fuel and reducing emissions

- **Automatic Dependent Surveillance – Broadcast (ADS-B)** is in operation at several key sites throughout the U.S., including Miami, Louisville, Gulf of Mexico and Philadelphia.
- **Performance Based Navigation (PBN)** procedures are saving fuel, reducing flight times, and decreasing aviation's carbon footprint across the globe.
- **System Wide Information Management (SWIM)** will deliver “the right information to the right location at the right time.”



# RTCA Task Force 5

## Objectives

- **Study the difficult “transition” issues of NextGen to:**
  - Accelerate near-term user benefits
  - Provide a solid foundation for NextGen
  - Maximize existing capabilities and equipment



## Product

- **Provide a short list of recommendations, with sufficient detail for each area**

## Constraints

- **Recommendations must be implementable by the FAA**
- **Keep alignment with the current plans for NextGen**

# RTCA Task Force 5 Report

- Prioritized the Operational Capability Sets
- Defined “What,” “Where,” “Who,” and “When” for each capability
- Recommended strategies and means to accelerate NAS-wide operational benefits
- Recommended business strategies to ensure delivery of benefits and encourage equipage
- The report was delivered to the FAA September 2009
- The FAA integrated the Task Force 5 recommendations into NextGen planning activities, making significant adjustments where necessary.

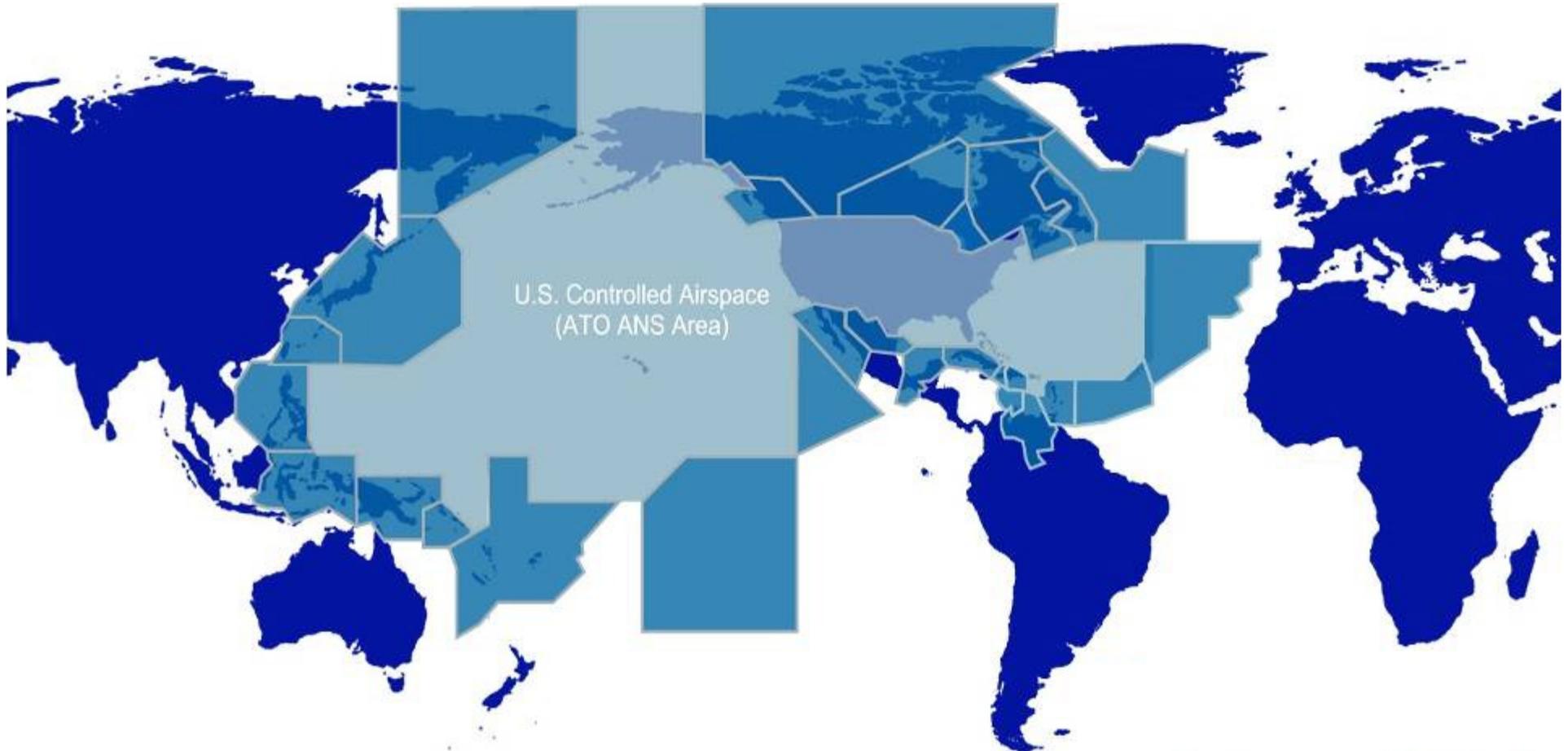


# NextGen Implementation Plan 2010

- Detailed overview of the Mid-Term NextGen operating environment
- Response and updates from Task Force 5 report
- Greater emphasis of existing technologies and procedures
- Focus on dependencies and progress of transformational programs



# International Cooperation... A Necessity



- *Daily interaction with 18 foreign ANSPs*

# NextGen Strategic Partnerships

- FAA must promote harmonization with key strategic partners
- Bilateral and Multilateral partnerships
  - FAA/China NextGen Air Traffic Management Steering Group (NATMSG)
  - FAA/Japan Future Air Traffic Systems Working Group (FATS)
  - US/Canada/Mexico NextGen Trilateral Steering Group
  - NextGen and European SESAR Harmonization
  - Asia and Pacific Initiative to Reduce Emissions (ASPIRE)
  - Atlantic Interoperability Initiative to Reduce Emissions (AIRE)
- ICAO and Regional Planning Groups (PIRGs)



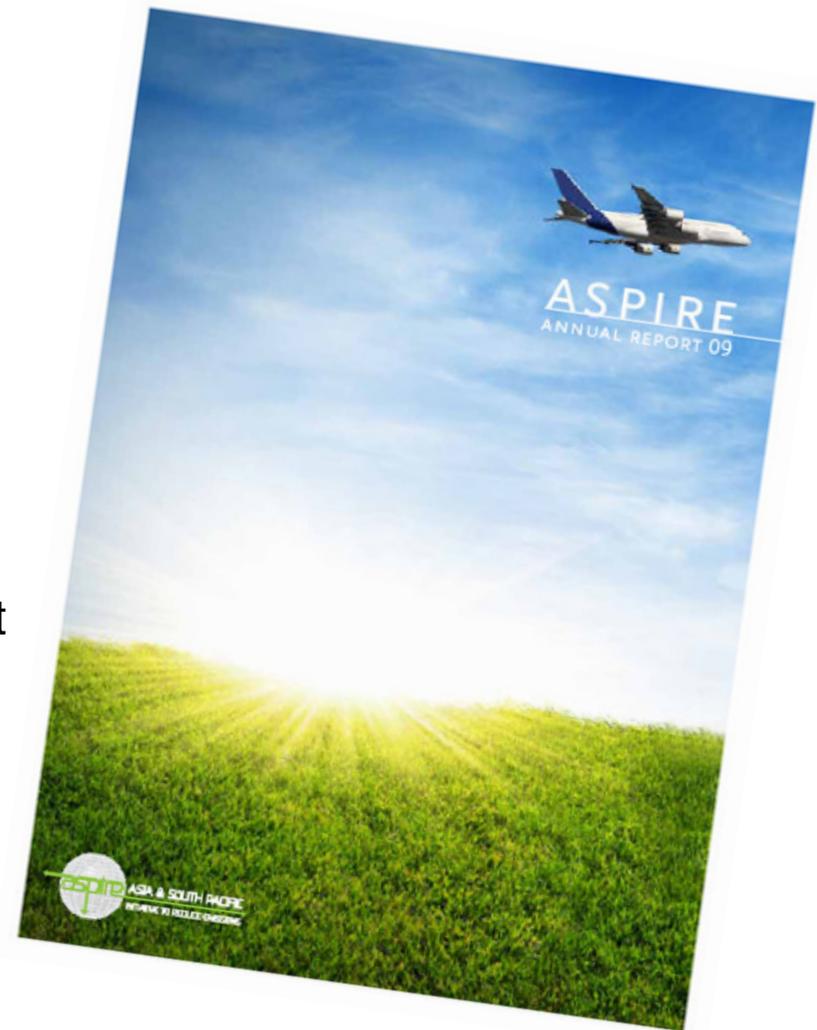
# NextGen – SESAR Collaboration

- Single European Skies ATM Research (SESAR) – the European future vision
- NextGen – SESAR harmonization is uniquely critical to success
- The FAA and SESAR partners are building a new framework for collaboration
- Developing agreements with the SESAR Joint Undertaking/European Commission and Eurocontrol



# The ASIA and Pacific Initiative to Reduce Emissions (ASPIRE)

- **ASPIRE is a regional approach to air traffic efficiency and environmental stewardship**
- **Emphasizes:**
  - Best Practices for Asia Pacific international flights
  - Shared performance measurement
  - Collaborative efficiency improvement through enhanced procedures and technologies
  - Shared operational demonstrations
- **February 2010 - Civil Aviation Authority of Singapore joined the ASPIRE Partnership**





## 2010 NextGen Implementation Plan

*Published March 8, 2010*

Please visit our website for the latest information on NextGen and the RTCA Task Force 5

<http://www.faa.gov/nextgen>

