



**ITT**

# U.S. ADS-B Ground Infrastructure Program

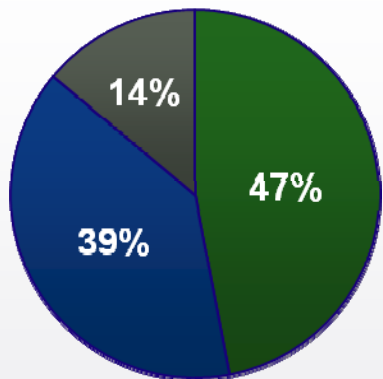
January 28, 2010

*Engineered for life*

# ITT – At a Glance

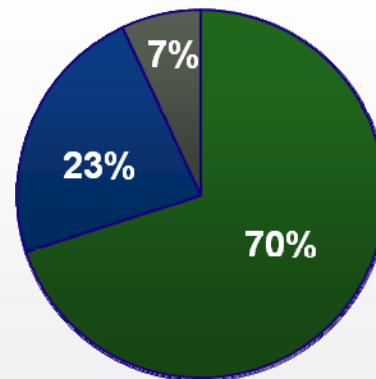
- A global, diversified manufacturing and engineering company headquartered in White Plains, NY
- A Fortune 300 company
- 40,000+ employees in 50 countries

Revenue Profile  
\$11.7b (2008)



■ **Defense Electronics & Services** 47%  
■ **Fluid Technology** 39%  
■ **Motion & Flow Control** 14%

Global Profile  
(2008)

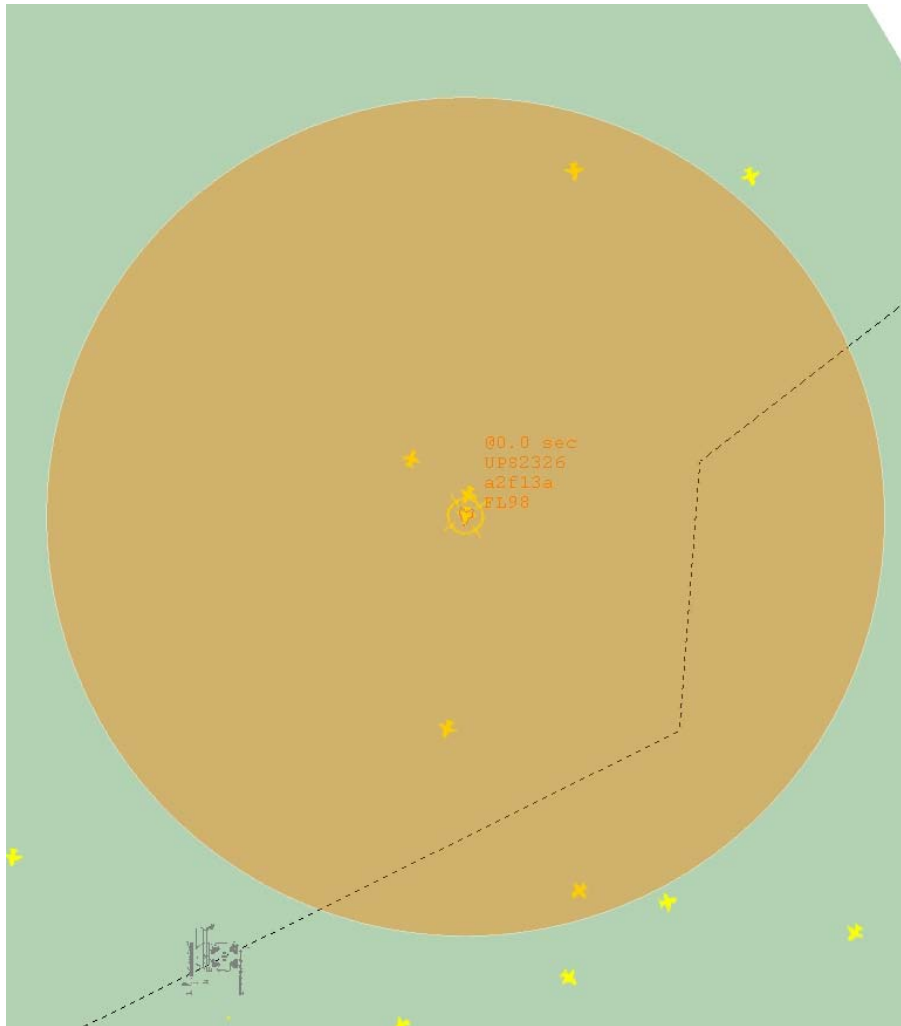


■ **Americas** - 70%  
■ **Europe** - 23%  
■ **Asia-Pacific** - 7%

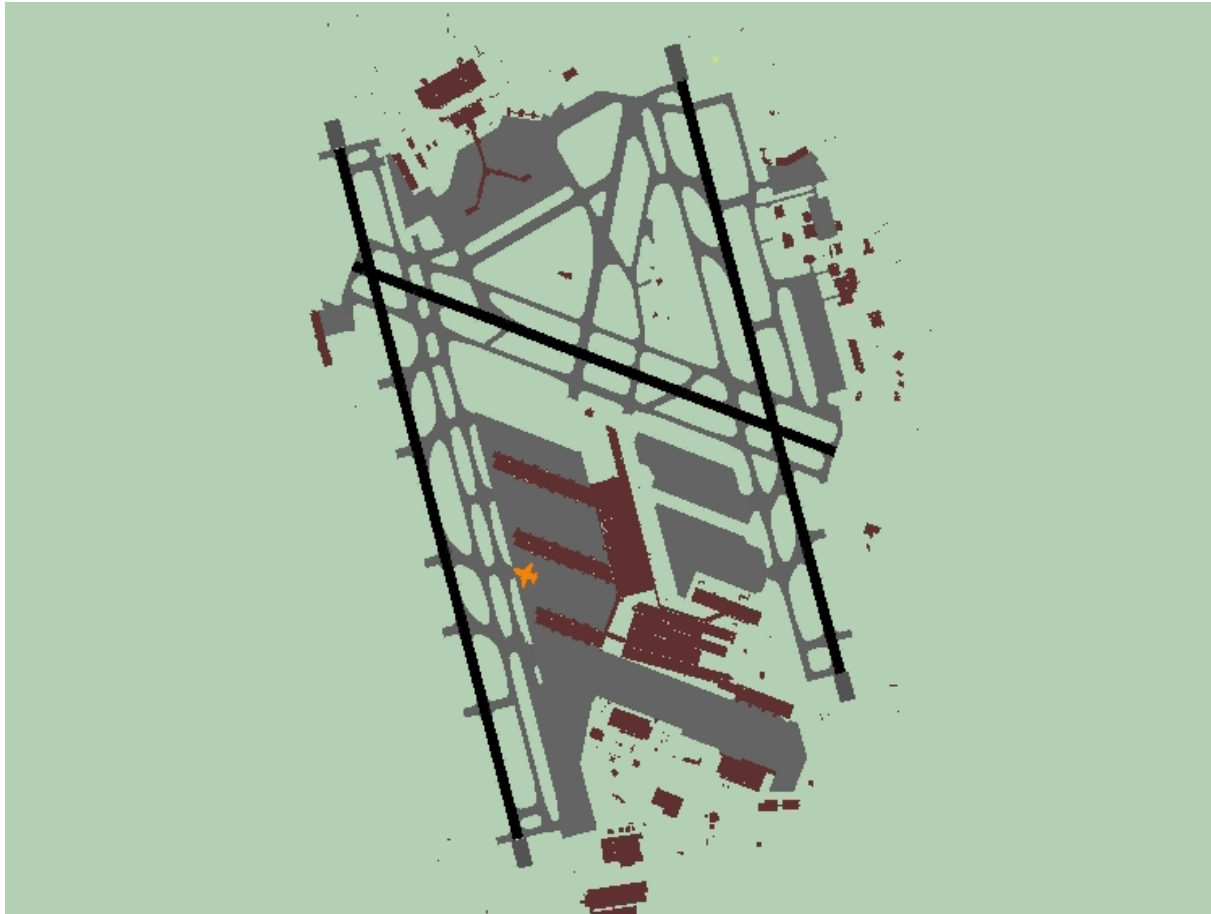
# ADS-B is a Vital Element of the Next Generation Air Transportation System

- Why Automatic Dependent Surveillance – Broadcast (ADS-B)
  - Lower cost, more accurate and more frequently updating surveillance infrastructure
  - Allows surveillance deployment where previously not possible, e.g. Gulf of Mexico
  - Provides vehicle for safety services to the cockpit
  - Provides unprecedented pilot situational awareness
  - Enabler of air traffic control procedures that will provide increased airspace capacity and efficiency

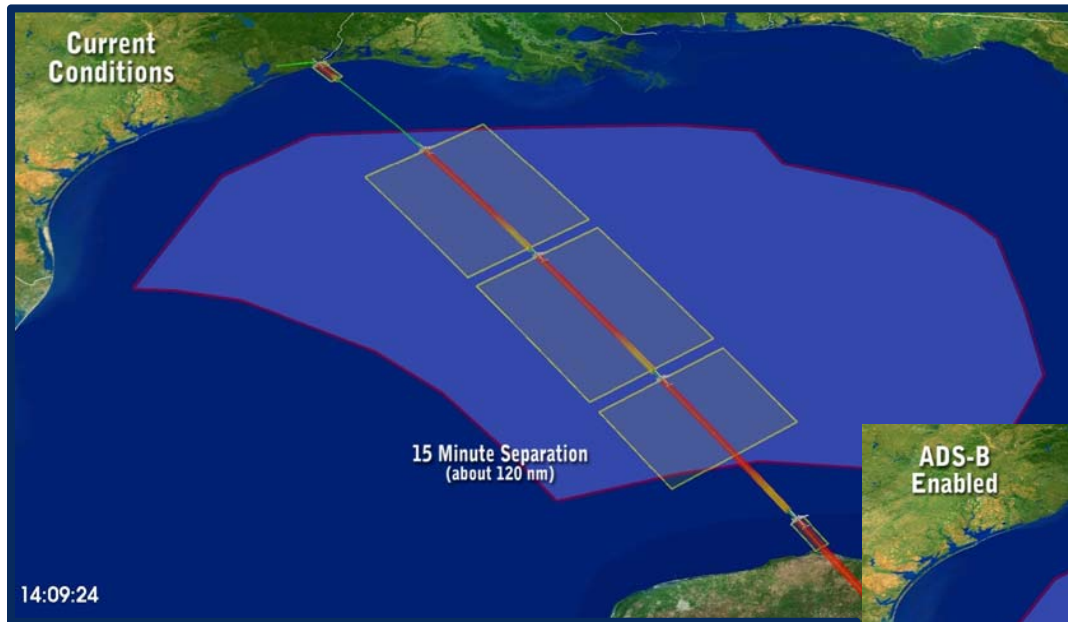
# Lower Cost, More Accurate and More Frequently Updating Surveillance



# Unprecedented Surveillance Coverage



# Surveillance Deployment Where Not Previously Possible – Substantial Benefit



Reduced Gulf Separation

# Broadcast Services Deliver Vital Safety Services to the Cockpit

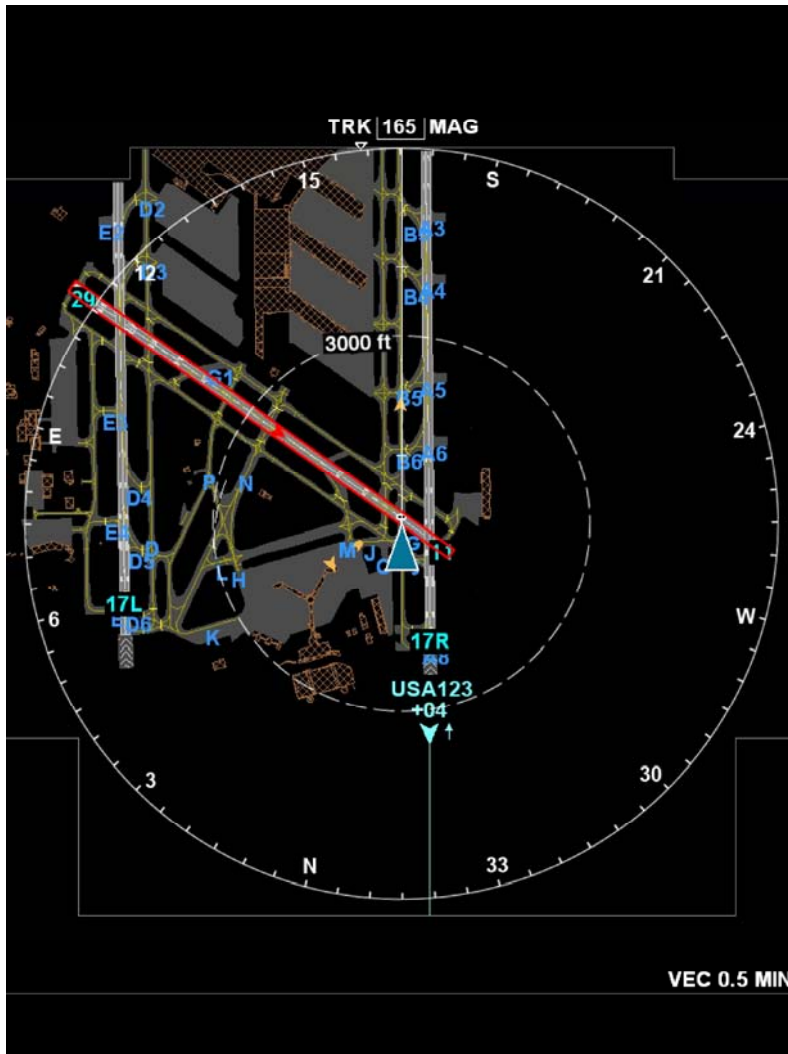
## Traffic Information Services - Broadcast



## Flight Information Services - Broadcast



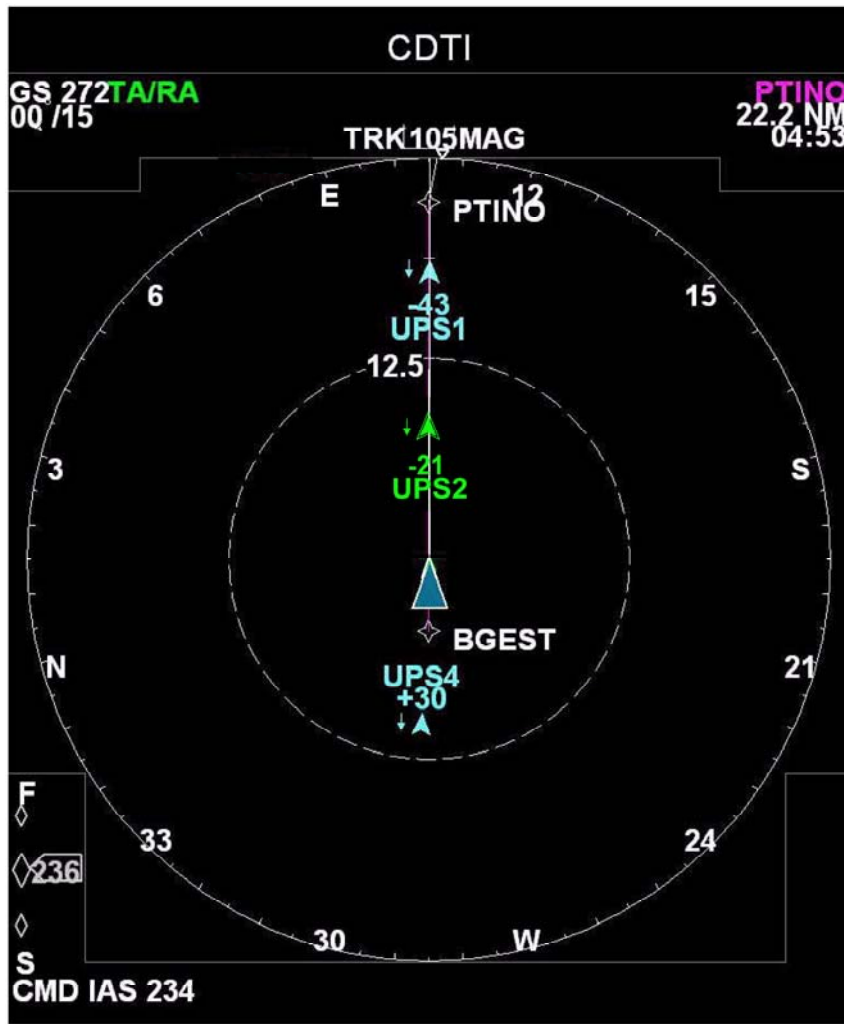
# The Technology Provides Unprecedented Situational Awareness



# Surface Situational Awareness With Indications and Alerts

**Image of SafeRoute-SAMM™  
(Surface Area Movement  
Management) display  
courtesy of ACSS**

# Enabler of Advanced Air Traffic Control Procedures



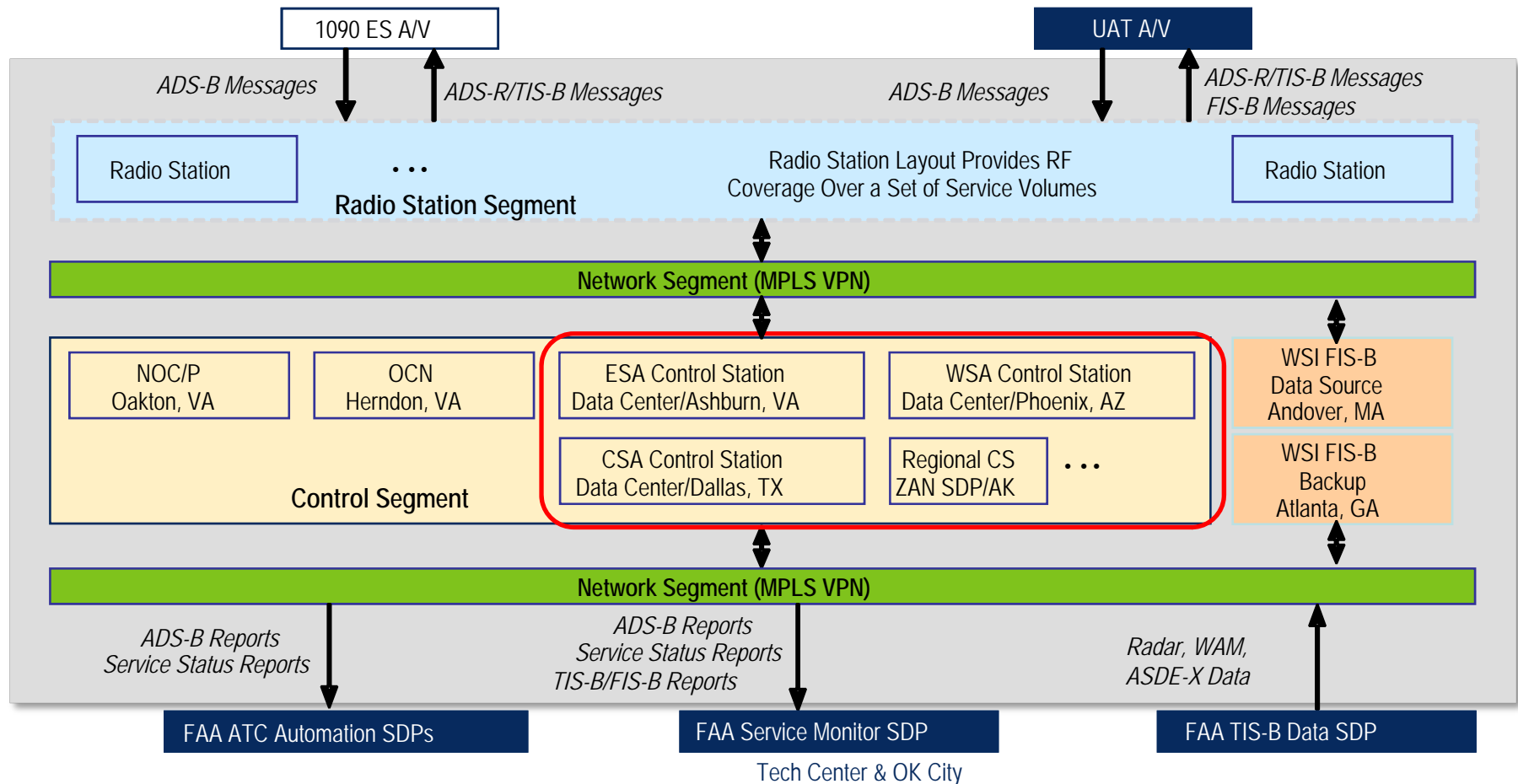
## Interval Management Application

Image of SafeRoute-M&S™  
(Merging & Spacing) display  
courtesy of ACSS

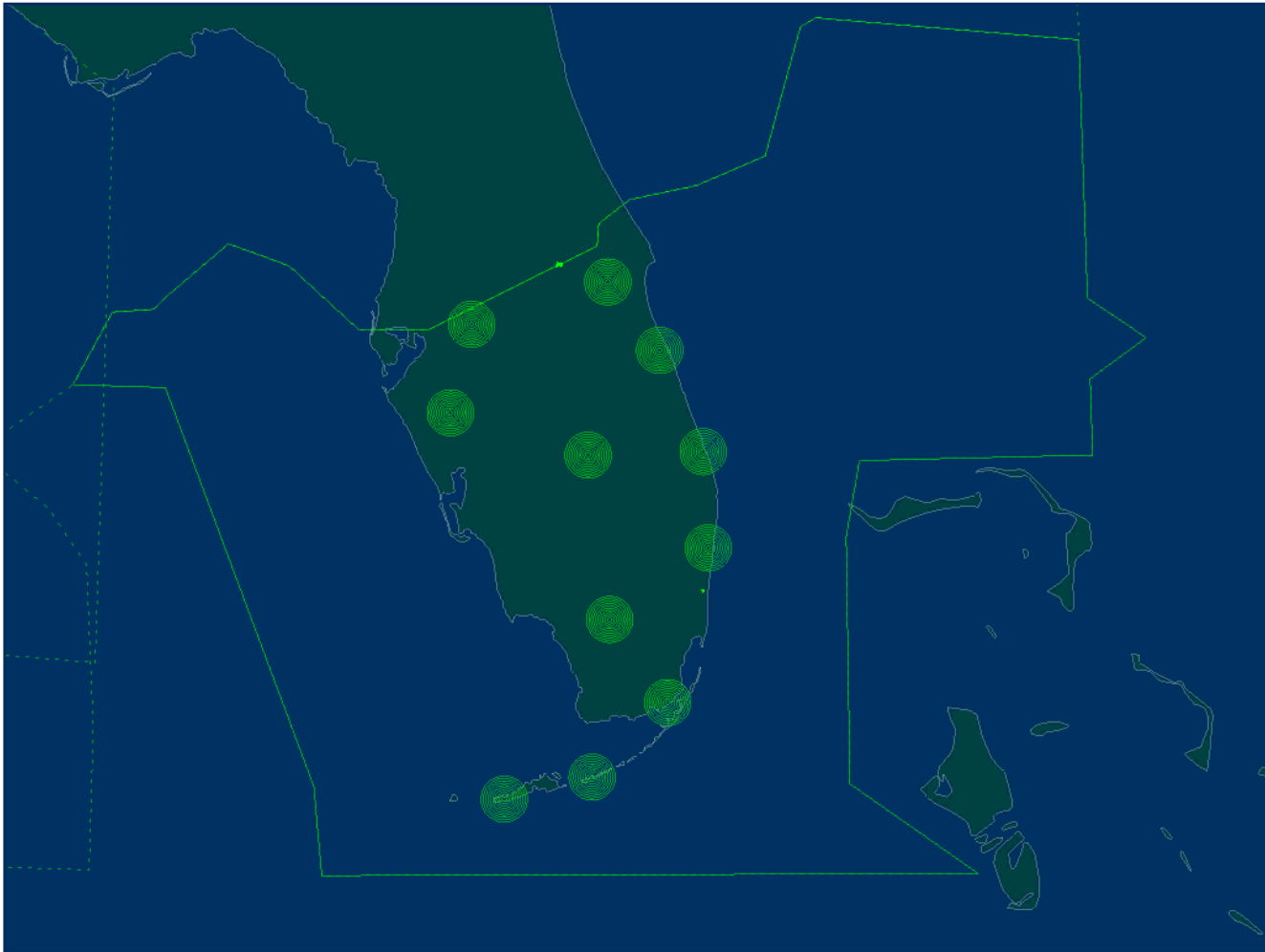
# ITT Corporation is Deploying ADS-B Ground Infrastructure in Support of the FAA

- ADS-B requires ground infrastructure
  - Collection of ADS-B reports and distribution to ATC facilities
  - Collection, processing and broadcast of TIS-B and FIS-B data
- ITT was awarded the ground infrastructure contract on the basis of a cost effective exceptional technical solution
- Base contract - Design, Development, Key Site Testing, Significant Broadcast Services Deployment
- Optional Contract Line Items for nation wide deployment and operations and maintenance of the system through 2025
  - Deployment capital expense funded by ITT
  - Nationwide deployment has begun

# The Ground System Architecture – Robust, Safe, and Secure



# A Networked Architecture



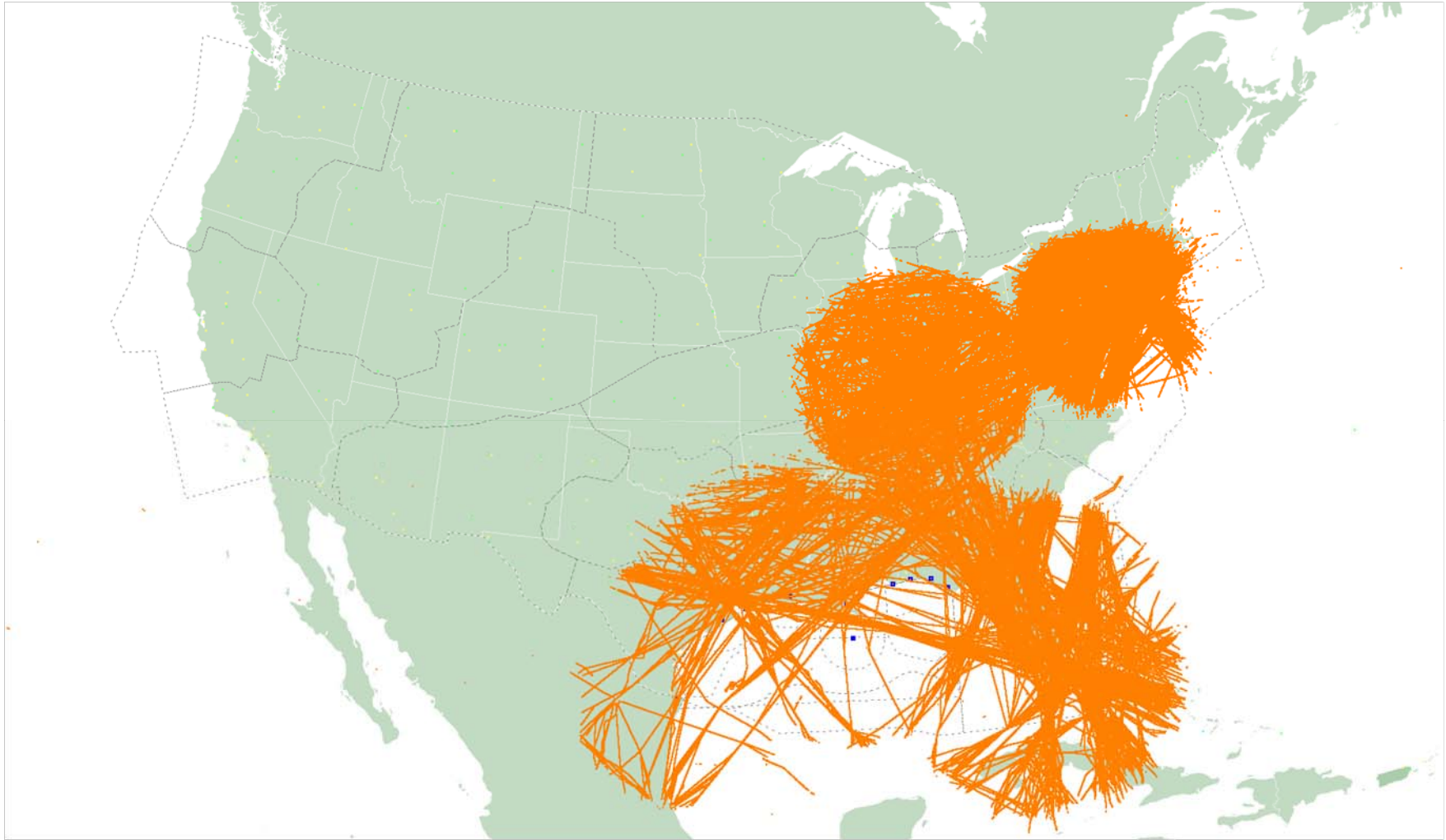
# ADS-B Program Ground Infrastructure Schedule

	FY2008				FY2009				FY2010				FY2011				FY2012				FY2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>ESSENTIAL SERVICES</b>																								
Key Site - Initial Operational Capability (IOC)																								
In-Service Date (ISD)																								
Segment 1 Continued Roll-Out																								
Segment 2 Roll-Out																								
<b>CRITICAL SERVICES</b>																								
Key Sites - Initial Operational Capability (IOC)																								
In-Service Date (ISD)																								
Segment 2 Roll-Out																								
<b>WEATHER OBSERVATION</b>																								
Gulf of Mexico Roll-Out																								
Alaska Roll-Out																								

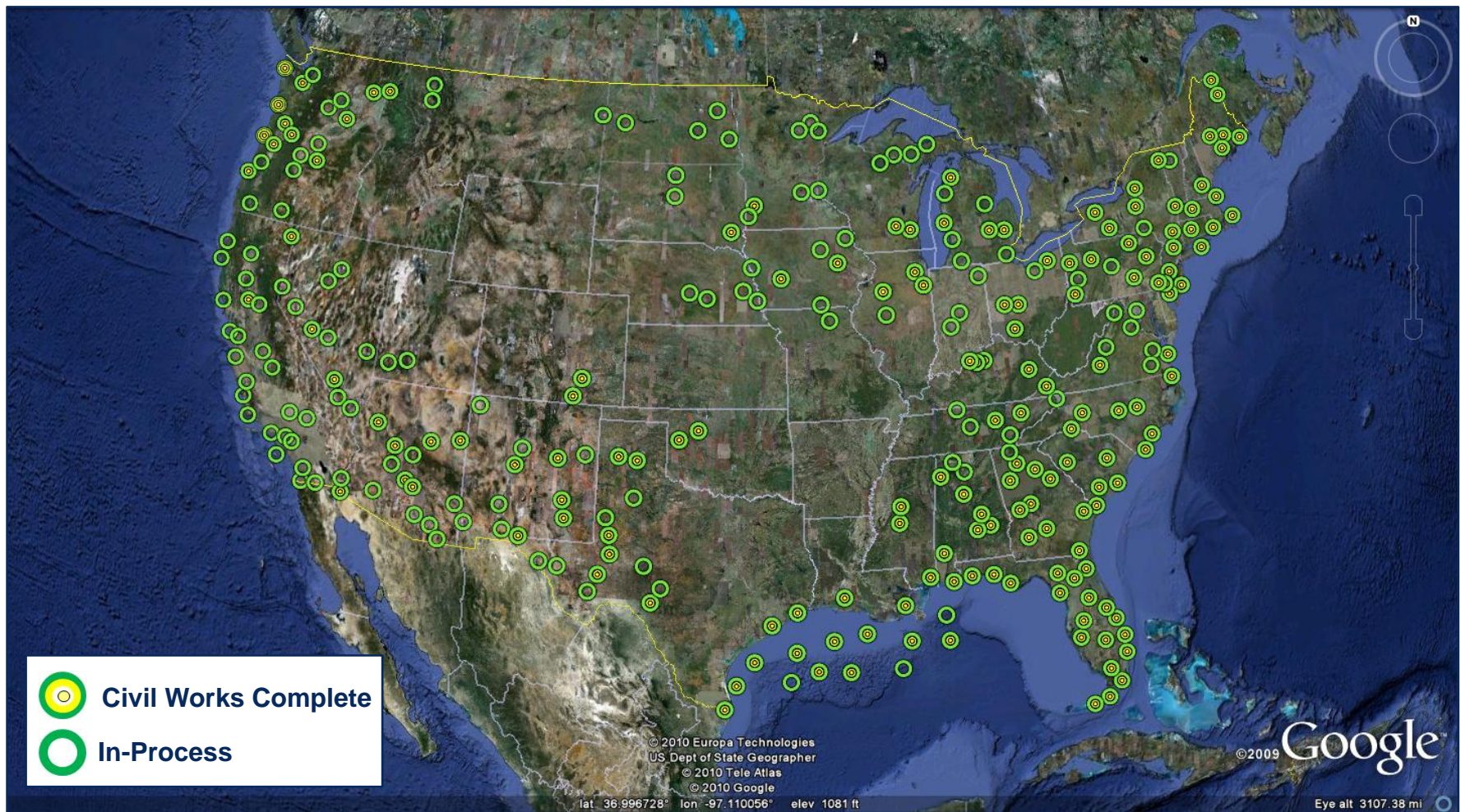
# Key Site Status

Key Site	ITT SAT Date	SAT Status	FAA IOC Date	IOC Status
Miami En Route (Essential Services)	May 2008	Complete – May 2008	August 2008	Complete – August 2008
Louisville Terminal and Surface	April 2009	Complete – April 2009	October 2009	Complete – November 2009
Gulf of Mexico	June 2009	Complete – June 2009	December 2009	Complete – December 2009
Philadelphia Terminal and Surface	August 2009	Complete – August 2009	February 2010	In Progress
Juneau	October 2009	Complete – October 2009	April 2010	In Progress

# High Altitude Coverage from 27 Key Site Radio Stations



# U.S. National Deployment is Well Underway



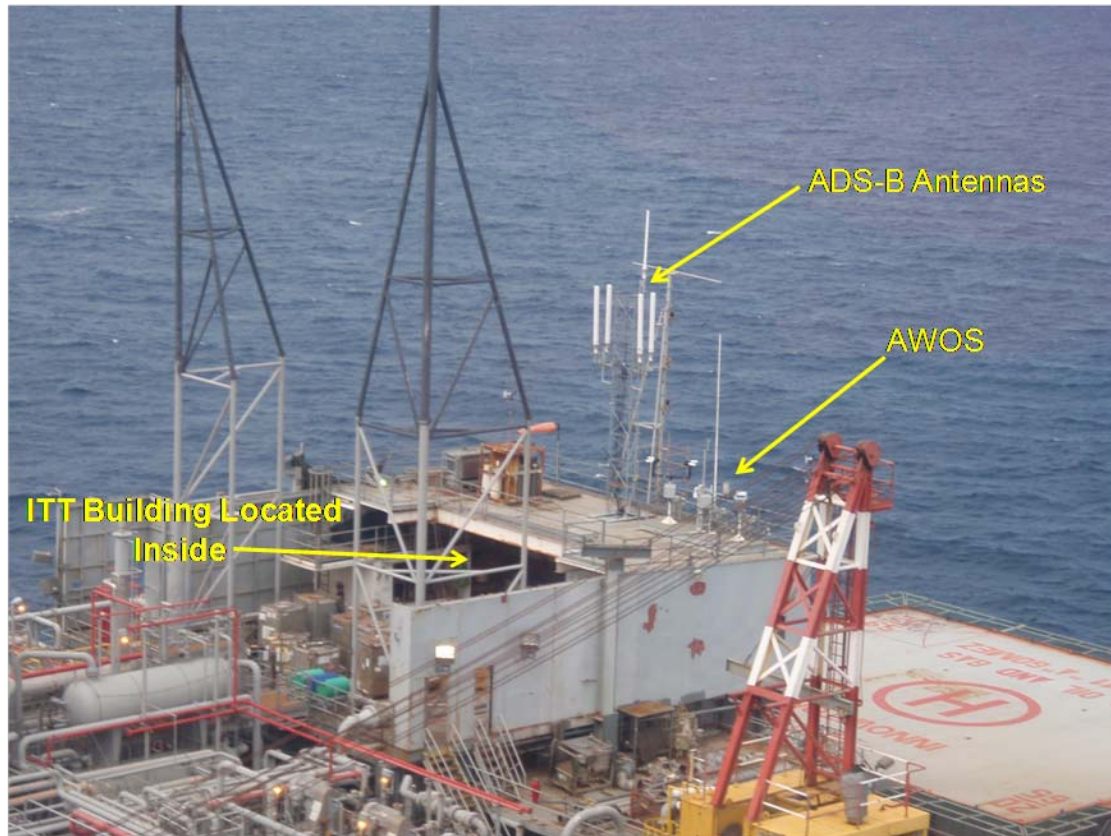
# A Typical Airport Site



# A Typical Co-Location



# Oil Platform Installation – ATP Innovator



**ADS-B Radios**



# Conclusion

- ADS-B Technology is proven
- The ITT solution is delivering outstanding performance and is robust, scalable, safe and secure
- We are very appreciative of having the opportunity to discuss our work with the Aviation Cooperation Panel