4DT Demonstration Project
Mark S. Hollinshead, FAA/ANG-C5
March, 2016
4DT Project Overview

• Project Objective:
  🔄 Demonstrate the feasibility and investigate the value of advanced TBO services enabled by ATN-baseline 2 (ATN-B2) technologies including: Dynamic-RNP, A-IM, and ATC Winds

• Expected Outcome:
  🔄 The feasibility of these services will build industry confidence to drive equipage by demonstrating value
Operational Scenarios

Sustained Metering

En Route to Terminal Transition
Upcoming Events (2016 & 2017)

- System Architecture Development continued
- Prototype Development
- Demonstration
FY18 and Beyond

• Live flight trials
  + We will use the results of the demonstration to focus the research questions of the live flight trials.
US vs. EUR

OC Gap  

US Desired Baseline 2  

SESAR  

Planned Baseline 2  

Validated Baseline 2  

FANS 1/A  

ATNB1  

IOC Dates  

2023+ US Segment 2  

Harmonization Time Gap  

2018+ EU SESAR  

2016 US DCL  

2013 EU ATNB1 (Link 2000)  

Notes:  
1 with ADS-C (Flight Path Intent)  
2 with ATC winds  
3 RNP by Leg Type; Variable Turns + ATC winds  
4 Voice replacement only  

Additional (US Desired) Baseline 2:  
- 4D Trajectory + Dynamic RNP² &³  
- Advanced Interval Mgt²  
- ATC Winds  

Planned Baseline 2  
- Tower and Airborne Clearance  
- Flight Information Services (NOTAM, VOLMET, Hazardous Weather, RVR)  

Validated Baseline 2  
- 4D Trajectory¹  
- Interval Management Spacing⁴  
- In Trail Management⁴  
- Enhanced Clearance  
- D-ATIS (text)  
- D-Taxi clearance  

FANS 1/A  
- Partial 4D Trajectory  
- Position Report  
- Dep/Oceanic/En-Route Clearances  
- Climb & Descent Procedure  
- Position Reporting  

ATN Baseline 1 (ATC COM)  
- Information exchange/report  
- En-Route Clearance Request/Delivery  
- Communication Management  
- Mic Check  

FAA  

NextGen