



The ADS-B Link Decision Workshop Breakout Sessions

June 25-26, 2001

Ron Jones

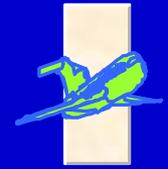
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Overview

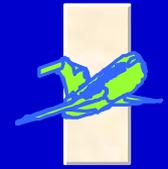
- **Objectives of the Breakout Sessions**
- **Organization of the Breakout Sessions**
- **Baseline Assumptions**



Overall Objectives of the Breakout Sessions

- **Session A Objective: Collect vendor inputs that will help determine the relative airborne costs, technical risks and market factors associated with the ADS-B link alternatives that:**
 - identify areas of industry consensus
 - provide qualitative inputs that can be followed up with one-on-one meetings to obtain quantitative information
 - support a more conclusive cost/benefit analysis

- **Session B Objective: Collect user inputs that will help estimate the expected rate of ADS-B user equipage**
 - sensitivity of equipage rates to benefits offered
 - sensitivity of equipage rates to costs
 - will support a more conclusive cost/benefit analysis



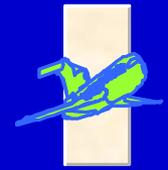
Breakout Session Organization

- **After the 20 minute coffee break we will reconvene in two breakout sessions**
 - **The meeting room will be divided into two rooms to accommodate concurrent breakout sessions**
 - **Session A will focus on information gathering with the avionics/airframe manufacturers**
 - **Session B will focus on information gathering with the user community**



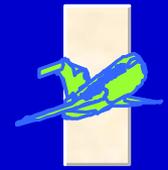
Breakout Session A Organization

- Facilitator: Ron Swanda (GAMA)
- Review baseline assumptions
- Review desired industry inputs
- Review alternative ADS-B link configurations and the associated capabilities and limitations so as to have a common basis for comparison
- Have manufactures provide qualitative inputs via completing worksheets (specific vendor inputs to be kept confidential)
 - for alternative ADS-B link configurations and by aircraft category
 - input on factors that will help identify the most viable ADS-B link alternatives (both technically and commercially)



Breakout Session B Organization

- Session Facilitator: Col. Allen Overbey (USAF)
- Review baseline assumptions
 - Baseline set of ADS-B enabled applications and availability timeframe
- Review types of data required for the cost/benefit analysis
- Review desired user inputs
- Have users provide inputs via completing worksheets
 - Focus on factors that would impact user equipage rates
 - What capabilities/benefits must be enabled for voluntary equipage
 - **Sensitivity of equipage rates to costs**



Baseline Assumptions

- **The ADS-B enabled applications as defined in the FAA's Operational Evolution Plan (OEP) are assumed to be the baseline applications through 2010**
 - **Expand Use of 3-Mile Separation Standard**
 - **Coordinate for Efficient Surface Movement**
 - **Enhance Surface Situational Awareness**
 - **Space Closer to Visual Standards**
 - **Reduce Offshore Separation**

- **The ADS-B ground infrastructure may be implemented in pockets to support early operational trials and/or limited operational use of the baseline or other applications**

- **Deployment of the ADS-B NAS-wide ground infrastructure will begin in 2006**



Baseline Assumptions (Cont.)

- **The U.S. ADS-B link technology decision will be made by the FAA in 2001**
- **The U.S. link decision may support one or more than one ADS-B link technologies**
- **Aircraft that fly international routes may need to equip to support multiple ADS-B link technologies**
- **The choice of a link technology (or technologies) will have minimal impact on the cost of the ADS-B application processing and display functions**



Baseline Assumptions (Cont.)

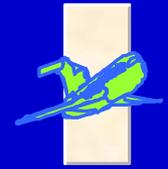
- **Multi-link ADS-B alternatives will have some additional costs associated with implementation**
 - additional cost may be incurred by some or all users through equipage, on the FAA via additional ground infrastructure, or a combination of both

- **The NAS ATC surveillance capabilities will continued to be principally radar-based in controlled airspace until at least 2020**
 - supplemented by ADS-B where radar and ADS-B coverage co-exists
 - with ADS-B coverage used to extend radar-like services into low density, non-radar airspace



Baseline Assumptions (Cont.)

- The ADS-B ground station coverage will become similar to the current radar coverage with additional coverage in selected low altitude, remote, and airport surface locations
 - coverage for TIS-B service will essentially be that of current radar coverage
- ADS-B ground stations would support multiple links and an ADS-B ground gateway function if an ADS-B multi-link alternative requiring those capabilities is selected
- FIS-B (e.g., weather information) may be offered non-exclusively via the ADS-B link
 - some FIS-B services may continue to involve a user service fee



20 Minute Break