



CENTER FOR ADVANCED AVIATION SYSTEM DEVELOPMENT (CAASD)

Status on TIS-B and ADS-R Service Volume Message

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Summary

- **Purpose of proposed message:**
 - Let the airborne applications know when they are within the service volume and the service is available.
 - UAT approach uplinks a list of customer addresses via the UAT Ground Uplink Message--if onboard application sees its ICAO address in the list it puts the TIS_B AVAIL annunciation on the display.
 - 1090ES approach describes the extent of the service volume and avionics would have to decide when its inside vs outside of this volume via the 1090ES Management Message.
- **Status:**
 - The material has been discussed in the Ground specification meeting.
 - There is currently no consensus on the need of such Management messages or the information such messages should contain. RTCA (our group and other groups in SC-186) must determine the needs of the applications. Also need feedback from flight stds on whether supporting such an indication is a necessity for the service (ADS-R and TIS-B).
 - 1090ES MOPS and TSO166A would (1) define only the framework for these management message and (2) require the airborne extended squitter airborne receiver to output the message contents.
- **Questions:**
 - Does the airborne user need to know when they are receiving TIS-B and ADS-R service?
 - If yes, where in the ASSAP MOPS would we define the details of the management message content?
 - Wouldn't ADS-R have an additional difficulty in that even with an indication (assuming we could figure out and agree on how) it will never be bullet proof since you could always slam into someone unequipped during an extended transition to ADS-B?