

**RTCA Special Committee 186, Working Group 5**

**ADS-B UAT MOPS**

**Meeting #2**

**Review of the ADS-B Operational Safety Assessment (OSA)  
Report**

**(Presented by Jerry Anderson)**

**SUMMARY**

This is a report on the review of the ADS-B Operational Safety Assessment (OSA) Report to determine if there are any link-specific requirements resulting from the OSA study.

Review of the ADS-B  
Operational Safety Assessment  
(OSA) Report  
Dated September 2000

RTCA/SC186/WG5  
February 2001

# Purpose of the Review

To determine if there are any link-specific requirements resulting from the OSA study

# Results of the Review

- No link-specific requirements were identified.
- However....

# Other OSA Requirements

- OSA looked at safety requirements for vehicle and ground equipment and cockpit and ATS procedures.
- OSA was done across a range of operational applications. “Worst case scenarios were utilized.”
- These applications & scenarios resulted in the following stringent safety proposals.

# Candidate Vehicle Safety Requirements From the OSA

- A velocity vector data integrity comparison function in the vehicle shall be based on independent sources.
- Altitude data integrity shall be checked using independent sources.
- The system shall cross check independent navigation sources.
- None of these demanding requirements are link specific. However....

# I Lied! Other Candidate Safety Requirements From the OSA

- The following appear to be ASA/ADS-B MASPS and/or link level requirements.
- ADS-B data shall be encoded/encrypted so that the probability of successful spoofing is extremely improbable.
- ADS-B shall consider frequency hopping spread spectrum techniques to protect against spoofing.

# Recommendation

Refer the issue of spoofing (security)  
to SC-186