

RTCA Special Committee 186, Working Group 5
ADS-B UAT MOPS
Meeting #11

Aircraft Track Acquisition, Action Item 10-6

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SUMMARY

Aircraft Track Acquisition Assumptions

- Epoch message sequence as defined in Atlanta
- 16-second transmission sequence
 - ◆ Four 4-message epochs
 - ◆ Rotation of start message
- Requirements for acquisition vary by aircraft type
 - ◆ A3 – reception of TSR, TCR0, TCR1, MS
 - ◆ A2 – reception of TSR, TCR0, MS
 - ◆ A1H – reception of TSR, MS
 - ◆ A1L/A0 – reception of SV

Acquisition Methodology

- Use probes in head-on scenario
- Starting ranges vary by aircraft type
 - ◆ A3 – 180 NM
 - ◆ A2/A1 – 80 NM
 - ◆ A0 – 50 NM
- Determine 95th percentile for range at acquisition

Acquisition Results

	A3 xmt	A2 xmt	A1 xmt	A1L xmt	A0 xmt
A3 rcv	173	63	66	51	28
A2 rcv	178	64	67	44*	30
A1 rcv	175	54	62	38	23

Results are 95th percentile for range at acquisition.

*This run was done starting at 50 NM, rather than 80.