

# ASSAP MOPS AI #4 Status

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# ASSAP MOPS AI #4

- **AI #4: Determine the minimum number of tracks ASSAP will be required to send to the CDTI. The MASPS specified the CDTI will support a minimum of 30 tracks**
  
- **Status:**
  - **CDTI MOPS AI #114: Find reasoning for requirement for 30 targets on TCAS display (assigned to M. Petri)**
    - **AI #114 Comment: It appears there is a requirements to track up to 30, but there does not appear to be any number of targets required for display. We cannot use this reasoning (since there is none) to determine a minimum number for CDTI.**

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- **But, I think this number was also based on meeting a minimum number for visual acquisition**

- **Except from TCAS II MOPS DO-185A:**

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## **2.2.4.6.1 Surveillance Target Track Capacity**

**The TCAS II tracking function shall have the capacity for active surveillance of at least 30 aircraft which can include any mix of Mode C- and Mode S-equipped targets.**

***Note: A density of 0.06 aircraft per sq. nmi. in enroute airspace will result in 26 targets within the required surveillance range of 14 nmi. In terminal areas, a density of 0.3 aircraft per sq. nmi. will result in 24 targets within the required surveillance range of 5 nmi. A peak capacity of 30 targets will allow for sufficient margin.***

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- **The EV Acquisition application requires a coverage volume of 10 NM and +/- 3500 ft**
  - According to the ASA MASPS EV Aq Appendix, the specified coverage volume satisfies visual aid/acquisition based on TCAS experience
- **ASSAP tracking capacity should cover the other applications for alerting purposes**
  - If an ASA Application alert is active, then it will be raised in priority causing it to be displayed. Selected and coupled traffic will also be raised in priority.
- **According to the ASA MASPS, the ASSA and FAROA applications define a “surface” coverage as follows (excerpt from the ASA MASPS; same for FAROA):**
  - “The ASSA application shall be able to process and display all operationally significant traffic.
  - *Note: Operationally significant traffic for ASSA includes at least the 10 closest airborne vehicles and the 30 closest surface A/Vs.”*



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## ■ Proposed ASSAP Requirement:

- ASSAP shall provide a minimum number of 30 airborne and 30 ground traffic to the CDTI.
- *Note: A minimum number of 30 airborne aircraft is based on satisfying the EV Acquisition application based on basic visual aid criteria learned from TCAS experience. The minimum number of 30 ground traffic is based on satisfying the operationally significant number of traffic required for the ASSA and FAROA applications.*

## ■ Need to verify the TCAS requirement for 30 aircraft with the TCAS group and the CDTI group.

