TCAS-201: Frequently Asked Questions & Answers

Q: I cannot display either an ATCRBS or Mode S intruder?
A: Check List:

1. Where possible, refer to airframe manufacturer's system test procedure.
2. Ensure weight on wheels discrete is overridden, (i.e. system is airborne.)
3. Ensure barometric system (air data computer) is pressurized to test altitude (i.e. 10K ft.)
4. Ensure Radio Altimeter is above 2500 ft. (i.e. use Radio Altimeter test set or isolate TX antenna(s) with radar absorbent foam.)
5. If testing in a hangar, elevate test antenna on gantry or cherry picker to be at same height as or above top TCAS directional antenna.
6. On test set ensure intruder simulation has range rate applied (i.e. 350 knots)
7. On test set ensure Altitude Reporting is set to ON in setup menu #1.
8. On test set ensure Mode S discrete address (HEX) in Mode S Reply Test screen is valid (i.e. not all F's or 0's.)
9. On test set ensure altitude is 1000 ft. above aircraft altitude for testing top antenna and 1000 ft. below aircraft altitude for testing bottom antenna.

Q: I cannot display a Mode S intruder?
A: Check that squitters are turned on in the setup menu #1, and a valid Mode S discrete address is entered in the Mode S Reply Test screen.

Q: Can I test TCAS 1 systems with the TCAS-201?
A: Yes but you will need to send your test set to an Authorized Service Center and request that service bulletin 3 is incorporated (software version 3.01).

Q: The TCAS-201 intruder appears to be at the wrong bearing or is displayed intermittently?
A: This is more likely to happen when testing in the hangar and is due to multi-path reflections. If a problem exists, conduct testing outside hangar with the aircraft positioned away from buildings and gantries.

Q: Do I need a software update to my TCAS-201 to test change 7 TCAS II systems?
A: No software update is necessary.

Q: My local ATC complains every time I test TCAS. They see my aircraft at altitude I am using for testing?
A: Use the antenna shield supplied with the TCAS-201 and ATC-601 to shield both upper and lower Mode S transponder antennas. The 20 dB isolation that the shield provides prevents ATC from seeing any transponder replies that may contain altitude information.