

Step2: Verification of CDTI Traffic Display Capability – Negative

Set up the ADS-B Transmitting Subsystem to transmit ADS-B Messages. Set the CDTI Traffic Display Capability input to Negative. Verify that bit 1 of byte 27 is set to ZERO (0).

Step 3: Verification of Data Lifetime (§2.2.7.1)

Set up the ADS-B Transmitting Subsystem to enable transmission of ADS-B Messages that include the CDTI Traffic Display Capability. Disconnect the CDTI Traffic Display Capability input and verify that, after 60 seconds, bit 1 of byte 27 in the next transmitted message is set to ZERO (0).

Resume CDTI Traffic Display Capability input with a value of “1” and verify that this value is reflected in the next transmitted message.

**2.4.4.5.4.12.2 Verification of “TCAS/ACAS Installed and Operational” Subfield (§2.2.4.5.4.12.2)**Purpose/Introduction:

The Capability Code for “TCAS/ACAS installed and operational” **shall** be set to ONE if the transmitting aircraft is fitted with a TCAS (ACAS) computer and that computer is turned on and operating in a mode that can generate Resolution Advisory (RA) alerts. Likewise, this Capability Code shall be set to ONE if the transmitting ADS-B equipment cannot ascertain whether or not a TCAS II or ACAS computer is installed, or cannot ascertain whether that computer, if installed, is operating in a mode that can generate RA alerts. Otherwise, this Capability Code **shall** be ZERO.

If the “TCAS/ACAS installed and operational” field is “unavailable” for the “Data Lifetime” value listed for this input in [Table 2-98](#), then the “TCAS/ACAS installed and operational” field **shall** default to a value of ~~ZERO~~ONE.

Measurement Procedure:Step 1: Verification of TCAS/ACAS installed and operational – Affirmative

Set up the ADS-B Transmitting Subsystem to transmit ADS-B Messages. Set the TCAS/ACAS installed and operational input to Affirmative. Verify that bit 2 of byte 27 is set to ONE (1).

Step2: Verification of TCAS/ACAS installed and operational – Negative

Set up the ADS-B Transmitting Subsystem to transmit ADS-B Messages. Set the TCAS/ACAS installed and operational input to Negative. Verify that bit 2 of byte 27 is set to ZERO (0).

Step 3: Verification of Data Lifetime (§2.2.7.1)

Set up the ADS-B Transmitting Subsystem to enable transmission of ADS-B Messages that include the contents of the “TCAS/ACAS installed and operational” subfield. Disconnect “TCAS/ACAS installed and operational” input and verify that, after 60 seconds, bit 2 of byte 27 in the next transmitted message is set to ~~ZERO (0)~~ONE (1).

Resume “TCAS/ACAS installed and operational” input with a value of “~~4~~0” and verify that this value is reflected in the next transmitted message.

#### 2.4.4.5.4.13 Verification of “OPERATIONAL MODES” Field Encoding (§2.2.4.5.4.13)

Appropriate test procedures required to validate the requirements of §2.2.4.5.4.13 are included in §2.4.4.5.4.13.1, §2.4.4.5.4.13.2, and §2.4.4.5.4.13.3.

##### 2.4.4.5.4.13.1 Verification of “TCAS/ACAS Resolution Advisory” Flag (§2.2.4.5.4.13.1)

###### Purpose/Introduction:

A transmitting ADS-B participant **shall** set the TCAS/ACAS Resolution Advisory Active Flag to ONE in the messages that it transmits to support the MS report so long as a TCAS/ACAS resolution advisory is in effect. At all other times, the transmitting ADS-B participant **shall** set the TCAS/ACAS Resolution Advisory Active Flag to ZERO.

If the “TCAS/ACAS Resolution Advisory” field is “unavailable” for the “Data Lifetime” value listed for this input in [Table 2-98](#), then the “TCAS/ACAS Resolution Advisory” field **shall** default to a value of ZERO.

###### Measurement Procedure:

###### Step 1: Verification of “TCAS/ACAS Resolution Advisory Flag – Affirmative

Set up the ADS-B Transmitting Subsystem to transmit ADS-B Messages. Set the TCAS/ACAS Resolution Advisory Active input to Affirmative. Verify that bit 3 of byte 27 is set to ONE (1).

###### Step 2: Verification of “TCAS/ACAS Resolution Advisory Flag – Negative

Set up the ADS-B Transmitting Subsystem to transmit ADS-B Messages. Set the TCAS/ACAS Resolution Advisory Active input to Negative. Verify that bit 3 of byte 27 is set to ZERO (0).

###### Step 3: Verification of Data Lifetime (§2.2.7.1)

Set up the ADS-B Transmitting Subsystem to enable transmission of ADS-B Messages that include the contents of the “TCAS/ACAS Resolution Advisory” flag. Disconnect “TCAS/ACAS Resolution Advisory” input and verify that, after 60 seconds, bit 3 of byte 27 in the next transmitted message is set to ZERO (0).

Resume “TCAS/ACAS Resolution Advisory” input with a value of “1” and verify that this value is reflected in the next transmitted message.

##### 2.4.4.5.4.13.2 Verification of “IDENT Switch Active” Flag (§2.2.4.5.4.13.2)

###### Purpose/Introduction:

The “IDENT Switch Active” Flag is activated by an IDENT switch. Initially, the “IDENT switch active” code is ZERO. Upon activation of the IDENT switch, this flag