2. Only those Successful Message Receptions from ground stations within the range criteria from Table 2-68.

Table 2-68: Range Criteria for Ground Uplink Messages

Equipment Class	Minimum Number of Ground Uplink Reports Required (per second)
A0	16 closest to ownship
A1L	16 closest to ownship
A1H/A2	16 closest to ownship
A3	16 closest to ownship

2.2.10.4 Message Reception-to-Report Completion Time

All ADS-B Applicable Messages **shall** be output from the Report Assembly Function within 200 milliseconds of message input.

All Ground Uplink Applicable Messages **shall** be output from the Report Assembly Function within 500 milliseconds of message input.

2.2.11 Special Requirements for Transceiver Implementations

2.2.11.1 Transmit-Receive Turnaround Time

A transceiver **shall** be capable of switching from transmission to reception within 2 milliseconds.

Note: *Transmit to receive switching time is defined as the time between the optimum sampling point of the last information bit of one transmit message and the optimum sampling point of the first bit of the synchronization sequence of the subsequent receive message.*

2.2.11.2 Receive-Transmit Turnaround Time

A transceiver **shall** be capable of switching from reception to transmission within 2 milliseconds.

Note: *Receive to transmit switching time is defined as the time between the optimum sampling point of the last information bit of one receive message and the optimum sampling point of the first bit of the synchronization sequence of the subsequent transmit message.*

2.2.12 ~~Response to~~ Mutual Suppression Pulses

~~UAT equipment **shall not** provide suppression signals.~~

~~***Note:*** *Adequate compatibility to other systems is achieved because of the power levels, frequency separation and duty factor of UAT transmissions without providing suppression signals.*~~

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UAT equipment **shall** provide an output signal suitable for sending suppression signals. The UAT equipment **shall** provide a mutual suppression signal whenever the transmitter output power exceeds –20 dBm. In addition, the suppression signal **shall not** become active prior to 5 microseconds before the start of the ADS-B Message Transmission Interval defined in §2.2.2.5, and the suppression signal **shall not** remain active later than 5 microseconds after the end of the ADS-B Message Transmission Interval defined in §2.2.2.5.

Note: *The tolerance at the beginning and end of the mutual suppression interval insures that the suppression interval is minimized to prevent excessive receiver blanking of on-board L Band equipment sharing the mutual suppression bus, but adequately protects the SSR Transponder from triggering on UAT transmissions. The UAT equipment must adhere to the electrical characteristics of the on-board mutual suppression bus and is recommended to provide protection circuitry to prevent against UAT equipment failure disabling the mutual suppression.*

UAT equipment **shall not** respond to suppression signals.

Note: ~~*Adequate compatibility from other on-board systems is provided by the requirement of §2.2.8.2.4.*~~ *UAT equipment is not to inhibit or delay its transmissions based on suppression signals. There is no need to desensitize the UAT receiver based on suppression signals.*

2.2.13 Self Test and Monitors

2.2.13.1 Self Test

If the equipment transmits special ADS-B Messages for self test:

a. The device which radiates test ADS-B Messages or prevents messages from being broadcast during the test period **shall** be limited to no longer than that required to determine the status of the system.

b. The self-test message signal level at the antenna end of the transmission line **shall** not exceed -40 dBm.

c. If provision is made for automatic periodic self-test procedure, such self-testing **shall** not radiate ADS-B Messages at a rate exceeding one broadcast every ten seconds.

2.2.13.2 Broadcast Monitoring

A monitor **shall** be provided to verify that ADS-B Message transmissions are generated per the schedule defined in §2.2.6.1. If any of the ADS-B Message types for which the equipment is certified is not transmitted, then the equipment **shall** be considered as failed and the appropriate "Fail/Warn" indicators **shall** be set to the "Fail/Warn" state.

2.2.13.3 Address Verification

The ADS-B transmission device **shall** declare a device failure in the event that its own ICAO 24-bit Address (if required to have a ICAO 24 bit address) is set to all "ZEROs" or all "ONEs."

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