

all ADS-B Messages that appear at the receiver with an adequate SIR for Successful Message Reception.

4. *See Appendix H for one potential method to implement a “re-trigger” capability of the synchronization mechanism, and for a recommended synchronization threshold value for ADS-B.*
5. *During decoding of an ADS-B trigger, it is acceptable for the receiver to be “locked out” to Ground Uplink triggers.*
6. *In the case of “full receiver diversity” (§2.2.8.1 a.), the requirements of this subparagraph apply to each receiver channel individually.*

2.2.8.3.4 Receiver Processing of Ground Uplink Synchronization “Trigger”

Receivers **shall** meet the following message processing requirements:

- a. When an initial Ground Uplink trigger occurs (no message decode in progress), the decode process associated with this trigger **shall** be completed regardless of other trigger activity subsequently detected.
- b. A second, subsequent Ground Uplink trigger event that occurs during the decode process of an initial Ground Uplink trigger event **shall** also be completed regardless of other trigger activity subsequently detected.

Notes:

1. *This two-level decoding depth assures that a strong Ground Uplink Message will be decoded when a distant (>200 NM) station on the preceding time slot triggers the receiver. This minimizes planning constraints when assigning slot resources to ground stations.*
2. *See Appendix H for one potential method to implement a “re-trigger” capability of the synchronization mechanism.*
3. *During reception of a Ground Uplink Message, it is acceptable for the receiver to be “locked out” to ADS-B triggers.*

2.2.8.3.5 Receiver Time of Message Receipt

The receiver **shall** declare a Time of Message Receipt (TOMR) and include this as part of the report issued to the on-board application systems. The TOMR value **shall** be reported to within the parameters listed below:

- a. Range of at least 25 seconds expressed as seconds since GPS midnight modulo the range.
- b. Resolution of 100 nanoseconds or less.
- c. Accuracy of +/- 500 nanoseconds relative to the optimum sample point of the first bit of the synchronization sequence applied at the receiver terminals ~~of the actual time of receipt~~ for UAT equipment using either an internal, or external UTC coupled time source.