

#### 2.2.3.3.2.4 ADS-B Aircraft Identification and Type Message Broadcast Rate

- a. Once started, ADS-B Aircraft Identification and Type Messages shall be broadcast by the transmission device at random intervals that are uniformly distributed over the range of 4.8 to 5.2 seconds relative to the previous Identification and Type Message, when the ADS-B transmitting device is reporting the Airborne Position Message, or when reporting the Surface Position Message at the high rate.
- b. When the Surface Position Message is being reported at the low surface rate, then the Aircraft Identification and Type Message shall be broadcast at random intervals that are uniformly distributed over the range of 9.8 to 10.2 seconds relative to the previous Identification and Type Message.
- c. When neither the Airborne Position Message nor the Surface Position Message is being transmitted, then the Aircraft Identification and Type Message shall be broadcast at the rate specified in subparagraph a.
- d. Exceptions to these transmission rate requirements are defined in subparagraph 2.2.3.3.2.9.

#### 2.2.3.3.2.5 ADS-B Velocity Information Message Broadcast Rate

- a. Once started, ADS-B Velocity Information Messages shall be broadcast by the transmission device at random intervals that are uniformly distributed over the range of 0.4 to 0.6 seconds relative to the previous Velocity Information Message.
- b. Exceptions to these transmission rate requirements are defined in subparagraph 2.2.3.3.2.9.

#### 2.2.3.3.2.6 ADS-B Trajectory Intent, Operational Coordination, and Status Message Broadcast Rates

##### 2.2.3.3.2.6.1 ADS-B Aircraft Trajectory Intent Message Broadcast Rates

- a. The Aircraft Trajectory Intent Message(s) (subparagraph 2.2.3.2.7.1) shall be initiated only when either TCP (or TCP+1) Latitude, TCP (or TCP+1) Longitude, TCP (or TCP+1) Altitude, or TCP (or TCP+1) TTG is available and valid as a minimum.
- b. ~~b.~~—The Aircraft Trajectory Intent Message shall be broadcast at random intervals that are uniformly distributed over the range of 1.6 to 1.8 seconds relative to the previous Aircraft Trajectory Intent Message for as long as data is available to satisfy the requirements of subparagraph “a.” above.
- c. Aircraft Trajectory Intent Message(s) shall not be transmitted during the high-rate transmission of the Aircraft Operational Status Messages as defined in subparagraph 2.2.3.3.2.6.3.
- d. Exceptions to these transmission rate requirements are defined in subparagraph 2.2.3.3.2.9.

**Note:** *The ADS-B system must be capable of processing TCP and TCP+1 Trajectory Intent Messages that are independent each other. That is, that one message is used to transfer of Current TCP information while the other message is used to*

*transfer Next TCP (TCP+1) information. Likewise, the broadcast rates for each of the two messages shall be independent.*

#### **2.2.3.3.2.6.2 ADS-B Aircraft Operational Coordination Message Broadcast Rates**

- a. The Aircraft Operational Coordination Message(s) (subparagraph 2.2.3.2.7.2) shall be initiated only when either Paired Address, Runway Threshold Speed, Roll Angle, Go Around, or Engine Out data is available and valid as a minimum.
- b. Once initiated, or if the message data content changes, the Aircraft Operational Coordination Message shall be broadcast at random intervals that are uniformly distributed over the range of 1.9 to 2.1 seconds relative to the previous Aircraft Operational Coordination Message for a period of 30 +/- 1 seconds, assuming no additional change in data content occurred during this period. If data does change, the timer is reset, and the content is updated and sent for 30 +/- 1 seconds.
- c. After the initial broadcast period defined in subparagraph b. above, expires, the Aircraft Operational Coordination Message shall be broadcast at random intervals that are uniformly distributed over the range of 4.8 to 5.2 seconds relative to the previous Aircraft Operational Coordination Message for as long as data is available to satisfy the requirements of subparagraph “a.” above.
- d. Exceptions to these transmission rate requirements are defined in subparagraph 2.2.3.3.2.9.

#### **2.2.3.3.2.6.3 ADS-B Aircraft Operational Status Message Broadcast Rates**

- a. The Aircraft Operational Status Message (subparagraph 2.2.3.2.7.3) shall be broadcast at random intervals that are uniformly distributed over the range of 1.6 to 1.8 seconds relative to the previous Aircraft Operational Status Message. ~~initiated only when either Capability Class or Operational Mode data is available and valid as a minimum.~~
- b. In the event that the values of NIC or NAC or SIL decrease, then the Aircraft Operational Status Message shall be broadcast at random intervals that are uniformly distributed over the range of 0.5 to 0.7 seconds relative to the previous Aircraft Operational Status Message, for a period of [12] seconds. During this [12] second period, the Aircraft Trajectory Intent Message(s) shall not be transmitted. ~~The Aircraft Operational Status Message shall be broadcast at random intervals that are uniformly distributed over the range of 1.6 to 1.8 seconds relative to the previous Aircraft Operational Status Message for as long as data is available to satisfy the requirements of subparagraph “a.” above.~~
- c. Exceptions to these transmission rate requirements are defined in subparagraph 2.2.3.3.2.9.

#### **2.2.3.3.2.6.4 “Extended Squitter Aircraft Status” ADS-B Event - Driven Message Broadcast Rate**

The “Extended Squitter Aircraft Status” (Type 28), “Emergency/Priority Status” ADS-B Event - Driven Message (Subtype =1) shall be broadcast at random intervals that are uniformly distributed over the range of 0.8 to 1.2 seconds relative to the previous Emergency/Priority Status Message for the duration of the emergency condition established in accordance with Appendix A, Figure A-8-9, Note 2. The delay conditions specified in 2.2.3.3.2.9 shall be observed.