



RECORD OF CONVERSATION

Date: May 9, 2017
Time: Approximately 1500 eastern daylight time
Location: Clearwater Beach, Florida
Person Contacted: Andrew Loretta
Director, Maritime Business Development
ORBCOMM
Subject: Weather Reporting from Maritime Vessels

On May 9, 2017, at approximately 1500 eastern daylight time (EDT), Mike Richards and Doug Mansell from the NTSB had a conversation with Mr. Andrew Loretta, Director of Maritime Business Development at ORBCOMM. The conversation took place in Clearwater Beach, Florida. Mr. Loretta reported the following:

Many, but not all, of ORBCOMM's low-earth orbit satellites have the capability to receive and record Automatic Identification System (AIS) messages disseminated from vessels, on the AIS 1 and AIS 2 frequencies [161.975 MHz and 162.025 MHz, respectively]. Existing ORBCOMM satellites with AIS functionality are not capable of receiving or transmitting on the ASM 1 or ASM 2 frequencies [161.950 MHz and 162.000 MHz, respectively]. Under ORBCOMM's global satellite coverage, a vessel at sea might go approximately 15 minutes (at most) between satellite AIS reception windows. Once an AIS message is received by a satellite, the message is stored and forwarded to one of ORBCOMM's ground station receivers, and subsequently processed and made available to end users. End-to-end AIS message latency for ORBCOMM's shore-based customers accessing a given vessel's AIS data broadcast is on the order of minutes. ORBCOMM notes that only the last AIS message from a vessel, per AIS message type, per satellite pass, is retained. A satellite pass typically consists of a 12- to 15-minute listening window for a given location on the surface of the earth. Other companies' satellites that receive AIS traffic essentially provide the same AIS data, perhaps with different filtering schemes, for their customers. Upon discussing future VHF data exchange system (VDES) proposals, it was noted that essentially all ships would have to update their communications equipment. Specifically regarding weather reporting by AIS, it was noted that it is common for vessels to have weather information in electronic format on or near the bridge. Conceptually, it would just be a matter of 'connecting the boxes' – weather and AIS. Communications – including AIS and VDES – in the polar regions was an additional topic of conversation; current AIS satellite coverage is limited in remote polar regions, which may experience increases in marine traffic.

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