

**GRANTED**

*John St John*  
7/12/18  
Re-submission  
Status

Federal Communications Commission  
Wireless Bureau Applications  
P.O. Box 979097  
St. Louis, MO 63197-9000  
United States of America

25<sup>th</sup> July 2018

**WAIVER REQUEST – EXPEDITED ACTION**

**Request for Waiver of FCC Rules Covering Equipment Authorisation**

Dear Sir or Madam,

In this letter, Ocean Signal Ltd. requests a waiver of the rules of 47 CFR part 80 concerning the requirements of Class B AIS transponders for the reasons discussed below.

CFR 47 part 80.231 requires that class B Automatic Identification System (AIS) equipment must meet the requirements of International Standard IEC 62287-1, incorporated by reference in part 80.7 of the same chapter. IEC 62287-1 covers the requirements of an AIS transponder using carrier sense TDMA (CS-TDMA) to control the access of transmissions to the AIS network. CS-TDMA was originally developed as an alternative to the SO-TDMA system used by class A AIS transponders. The SO-TDMA system was seen as overly complex for low cost recreational products and was covered by a patent, which would have added cost to the product in licensing fees.

The CS-TDMA has several limitations over SO-TDMA to reduce the probability of CS-TDMA equipment interfering with the VHF Data Link (VDL). This results in low transmission power and low reporting rates. Subsequent to the introduction of the IEC CS-TDMA standard, it became clear that for fast moving vessels there was a need for faster reporting rates, but that equipment conforming to the class A standard was overkill. IEC then developed a new standard using SO-TDMA with 5 Watts transmission power and reporting rates up to once every five seconds and conforming to ITU-R M.1371-5 Annex 2. The patent covering SO-TDMA had by this time expired. The new standard is IEC 62287-2 and was published in 2013, revised in 2017.

Ocean Signal is designing a new class B AIS transponder using SO-TDMA technology. This technology will give users the advantage of greater visibility to other vessels because of the increased transmission power. In addition, the faster reporting rates, increasing with vessel speed up to once every five seconds will improve the navigational awareness of other vessels nearby.



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Ocean Signal hereby requests a waiver for the rules of CFR 47 part 80 to allow the approval of Class B AIS equipment to the IEC standard IEC 62287-2.

Yours sincerely



David Sheekey  
Type Approval and Quality Improvement Facilitator