

Information System (ECDIS) to display AIS targets.

Mariners are advised that U.S. regulations or SOLAS requirements have always called for paper charts that are relied upon for the navigation of the vessel to be correct and up to date, regardless of whether they have AIS or can view vessels on an electronic chart.

One commenter expressed concerns over the electronic display of AIS data, stating that the technical limitations of commercial radar or ECDIS to merge data from the AIS is an issue.

We acknowledge the concerns expressed by the commenter. There are no international standards, at this time, for a manufacturer to rely upon to assure AIS buyers that an AIS may be properly integrated into other display devices. All AIS units come with a display that allows the user to input AIS information (e.g., vessel identity, dimensions, navigation status, antenna location) and to access all information received from other units. AIS also has multiple output options that facilitate using or integrating AIS data on other navigational systems, such as radar, Advanced Radar Plotting Aid (ARPA), ECDIS, and electronic charts. We have purposely not required this integration, or chosen a one-size fits all approach to graphical displays, in order to leave the choice with the mariner, who is best positioned to decide which output option suits the mariner's vessel and operation. Additionally, we are working diligently on this matter, commissioning the Transportation Research Board to develop recommendations for us, and working with various standards bodies to develop guidelines and standards.

One commenter stated that the IMO guidelines on installation of AIS devices might not be well suited for smaller vessels.

We agree; the IMO Installation Guidelines (particularly regarding antenna placement) are not well suited for smaller vessels. We will develop further guidelines to assist these vessel owners and operators with the installation of their AIS, and will place a copy in the docket and post a copy on our website at http://www.navcen.uscg.gov/enav/ais/AIS_carriage_reqmts.htm as soon as we have completed these guidelines.

One commenter asked whether AIS would require a backup power source.

Given the importance and value of AIS data to possible search and rescue efforts, we have begun work with IMO to require back-up power requirements, similar to those imposed on Global Maritime Distress and Safety System (GMDSS) equipment. Should these requirements be adopted by IMO, we

will propose regulatory amendments in a separate rulemaking to do the same for those vessels subject to SOLAS and strongly encourage the same on other vessels that transit the high seas.

Five commenters asked the Coast Guard to consider its ability to develop and support the public infrastructure necessary to fully support AIS and the availability of the radio-frequency bandwidth, citing the Coast Guard's recent history with similar projects (e.g., GMDSS). Five commenters asked us to resolve questions involving frequency allocation, stating that vessel operators should not be required to keep track of different frequency requirements and manually adjust their AIS units for each VTS area. Three commenters stated that it is up to the Coast Guard, not the FCC, to ensure that frequencies are available for AIS use.

We have considered our ability to develop and support the public infrastructure necessary to fully support AIS. We have chosen to require carriage of AIS in those areas that are being upgraded through our Ports and Waterways Safety System acquisition program. The Coast Guard does not have the authority to designate frequencies for AIS use, therefore, we requested and received frequency authorizations from the Federal Communication Commission (FCC) and the National Telecommunication and Information Agency (NTIA). Pending a rulemaking by FCC, we rely on the FCC decision stated in FCC Notice DA-02-1362 that states that the Commission "will consider the use of shipborne AIS equipment to be authorized by existing ship station licenses, including vessels that are licensed by rule." We agree that the operation of AIS should be seamless to the user, who should not be required to manually adjust their AIS units for each VTS area. FCC policies currently authorize the use of AIS frequencies (AIS1, Channel 87B, 161.975 MHz and AIS2, Channel 88B, 162.025 MHz) on existing ship station licenses. Should AIS frequency management be required due to the unavailability of AIS1 or AIS2 in any one VTS area, we intend to have the infrastructure in place to perform frequency management through the base station capabilities of AIS.

Five commenters stated that interference to adjacent channels would potentially result in the loss of property and life at sea.

AIS devices must fully comply with ITU and IEC standards and undergo an additional level of review not applicable to most other FCC type certified devices prior to being authorized to operate in the VHF marine band. Further, IMO has developed detailed guidelines (IMO SN/

Circ. 227) to be followed regarding the installation of AIS. These guidelines have been incorporated by reference into this regulation, as a requirement, in 33 CFR 164.03 and 164.46.

Notwithstanding this requirement, as is the case with any radiating or receiving radio device, there is always a possibility for radio interference when numerous emission devices are operating in the near vicinity of each other, particularly in a congested and noisy environment as exists on the VHF FM maritime band. The Coast Guard will be diligent in monitoring AIS use for interferences and will promptly mitigate them by enforcing the required installation guidelines, through the AIS type approval process, and through frequency plan coordination with existing public coast station licensees.

One commenter noted that the interference to adjacent channels from the currently adopted AIS carriage requirement is an unconstitutional taking of private property without just compensation.

The Coast Guard does not believe the MTSA or these regulations effect a taking, *inter alia*, because these regulations rely on FCC decisions to authorize existing shipboard licensees to operate AIS on the AIS frequencies. See FCC Public Notice DA-02-1622 (June 13, 2002). Additionally, we do not believe that the commenter's license constitutes a sufficient property interest to justify its position that this regulation constitutes a "taking." Finally, even assuming, without admitting that there is a legally cognizable property interest in the commenter's license, this regulation does not create such an interference with the commenter's use of that license as to constitute a regulatory taking in violation of the Constitution.

One commenter asked whether a fleet manager could buy an AIS base station to assist with the company dispatch and logistics.

Shoreside AIS stations, mistakenly referred to by some as AIS base stations, are subject to FCC regulation and licensing. FCC Notice DA-02-1362 permits the use of AIS by ship station licenses but did not address its similar use by VHF shore stations. Shoreside AIS stations enhance the AIS network because they control matters regarding frequency management, power setting, and allocation of AIS data slots, which are all functions that will be performed by the Coast Guard or another government entity.

Three commenters stated that the utility of AIS is considerably diminished if the system, as installed, is not capable of relaying information from