

**§ 164.41**

0.5 nautical mile in each hour, whichever is greater.

[CGD 83-004, 49 FR 43467, Oct. 29, 1984, as amended by USCG-1998-3799, 63 FR 35532, June 30, 1998]

**§ 164.41 Electronic position fixing devices.**

(a) Each vessel calling at a port in the continental United States, including Alaska south of Cape Prince of Wales, except each vessel owned or bareboat chartered and operated by the United States, or by a state or its political subdivision, or by a foreign nation, and not engaged in commerce, must have a satellite navigation receiver with—

(1) Automatic acquisition of satellite signals after initial operator settings have been entered; and

(2) Position updates derived from satellite information during each usable satellite pass.

(b) A system that is found by the Commandant to meet the intent of the statements of availability, coverage, and accuracy for the U.S. Coastal Confluence Zone (CCZ) contained in the U.S. “Federal Radionavigation Plan” (Report No. DOD-NO 4650.4-P, I or No. DOT-TSC-RSPA-80-16, I). A person desiring a finding by the Commandant under this subparagraph must submit a written application describing the device to the Coast Guard Deputy Commander for Operations (CG-DCO), 2100 2nd St. SW., Stop 7471, Washington, DC 20593-7471. After reviewing the application, the Commandant may request additional information to establish whether or not the device meets the intent of the Federal Radionavigation Plan. Note: The Federal Radionavigation Plan is available from the National Technical Information Service, Springfield, Va. 22161, with the following Government Accession Numbers:

- Vol 1, ADA 116468
- Vol 2, ADA 116469
- Vol 3, ADA 116470
- Vol 4, ADA 116471

[USCG-2011-0257, 76 FR 31838, June 2, 2011]

**§ 164.42 Rate of turn indicator.**

Each vessel of 100,000 gross tons or more constructed on or after Sep-

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tember 1, 1984 shall be fitted with a rate of turn indicator.

[CGD 83-004, 49 FR 43468, Oct. 29, 1984]

**§ 164.43 Automatic Identification System Shipborne Equipment—Prince William Sound.**

(a) Until December 31, 2004, each vessel required to provide automated position reports to a Vessel Traffic Service (VTS) under §165.1704 of this subchapter must do so by an installed Automatic Identification System Shipborne Equipment (AISSE) system consisting of a:

(1) Twelve-channel all-in-view Differential Global Positioning System (dGPS) receiver;

(2) Marine band Non-Directional Beacon receiver capable of receiving dGPS error correction messages;

(3) VHF—FM transceiver capable of Digital Selective Calling (DSC) on the designated DSC frequency; and

(4) Control unit.

(b) An AISSE must have the following capabilities:

(1) Use dGPS to sense the position of the vessel and determine the time of the position using Universal Coordinated Time (UTC);

(2) Fully use the broadcast type 1, 2, 3, 5, 6, 7, 9, and 16 messages, as specified in RTCM Recommended Standards for Differential NAVSTAR GPS Service in determining the required information;

(3) Achieve a position error which is less than ten meters (32.8 feet) 2 distance root mean square (2 drms) from the true North American Datum of 1983 (NAD 83) in the position information transmitted to a VTS;

(4) Achieve a course error of less than 0.5 degrees from true course over ground in the course information transmitted to a VTS;

(5) Achieve a speed error of less than 0.05 knots from true speed over ground in the speed information transmitted to a VTS;

(6) Receive and comply with commands broadcast from a VTS as DSC messages on the designated DSC frequency;

(7) Receive and comply with RTCM messages broadcast as minimum shift keying modulated medium frequency signals in the marine radiobeacon

band, and supply the messages to the dGPS receiver;

(8) Transmit the vessel's position, tagged with the UTC at position solution, course over ground, speed over ground, and Lloyd's identification number to a VTS;

(9) Display a visual alarm to indicate to shipboard personnel when a failure to receive or utilize the RTCM messages occurs;

(10) Display a separate visual alarm which is triggered by a VTS utilizing a DSC message to indicate to shipboard personnel that the U.S. Coast Guard dGPS system cannot provide the required error correction messages; and

(11) Display two RTCM type 16 messages, one of which must display the position error in the position error broadcast.

(c) An AISSE is considered non-operational if it fails to meet the requirements of paragraph (b) of this section.

NOTE: Vessel Traffic Service (VTS) areas and operating procedures are set forth in part 161 of this chapter.

[CGD 90-020, 59 FR 36334, July 15, 1994, as amended by CGD 97-023, 62 FR 33365, June 19, 1997; USCG-2003-14757, 68 FR 39367, July 1, 2003; 68 FR 60569, Oct. 22, 2003]

#### § 164.46 Automatic Identification System (AIS).

(a) The following vessels must have a properly installed, operational, type approved AIS as of the date specified:

(1) Self-propelled vessels of 65 feet or more in length, other than passenger and fishing vessels, in commercial service and on an international voyage, not later than December 31, 2004.

(2) Notwithstanding paragraph (a)(1) of this section, the following, self-propelled vessels, that are on an international voyage must also comply with SOLAS, as amended, Chapter V, regulation 19.2.1.6, 19.2.4, and 19.2.3.5 or 19.2.5.1 as appropriate (Incorporated by reference, see § 164.03):

(i) Passenger vessels, of 150 gross tonnage or more, not later than July 1, 2003;

(ii) Tankers, regardless of tonnage, not later than the first safety survey for safety equipment on or after July 1, 2003;

(iii) Vessels, other than passenger vessels or tankers, of 50,000 gross ton-

nage or more, not later than July 1, 2004; and

(iv) Vessels, other than passenger vessels or tankers, of 300 gross tonnage or more but less than 50,000 gross tonnage, not later than the first safety survey for safety equipment on or after July 1, 2004, but no later than December 31, 2004.

(3) Notwithstanding paragraphs (a)(1) and (a)(2) of this section, the following vessels, when navigating an area denoted in table 161.12(c) of § 161.12 of this chapter, not later than December 31, 2004:

(i) Self-propelled vessels of 65 feet or more in length, other than fishing vessels and passenger vessels certificated to carry less than 151 passengers-for-hire, in commercial service;

(ii) Towing vessels of 26 feet or more in length and more than 600 horsepower, in commercial service;

(iii) Passenger vessels certificated to carry more than 150 passengers-for-hire.

NOTE TO § 164.46(a): "Properly installed" refers to an installation using the guidelines set forth in IMO SN/Circ.227 (incorporated by reference, see § 164.03). Not all AIS units are able to broadcast position, course, and speed without the input of an external positioning device (e.g. dGPS); the use of other external devices (e.g. transmitting heading device, gyro, rate of turn indicator) is highly recommended, however, not required except as stated in § 164.46(a)(2). "Type approved" refers to an approval by an IMO recognized Administration as to comply with IMO Resolution MSC.74(69), ITU-R Recommendation M.1371-1, and IEC 61993-2 (Incorporated by reference, see § 164.03). "Length" refers to "registered length" as defined in 46 CFR part 69. "Gross tonnage" refers to tonnage as defined under the International Convention on Tonnage Measurement of Ships, 1969.

(b) The requirements for Vessel Bridge-to-Bridge radiotelephones in §§ 26.04(a) and (c), 26.05, 26.06 and 26.07 of this chapter also apply to AIS. The term "effective operating condition" used in § 26.06 of this chapter includes accurate input and upkeep of AIS data fields.

(c) The use of a portable AIS is permissible only to the extent that electromagnetic interference does not affect the proper function of existing navigation and communication equipment on board and such that only one