

## Coast Guard, DOT

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(b) The device must meet the following specifications:

(1) The display must be easily readable on the bridge by day or night.

(2) Errors in the indicated speed, when the vessel is operating free from shallow water effect, and from the effects of wind, current, and tide, should not exceed 5 percent of the speed of the vessel, or 0.5 knot, whichever is greater.

(3) Errors in the indicated distance run, when the vessel is operating free from shallow water effect, and from the effects of wind, current, and tide, should not exceed 5 percent of the distance run of the vessel in one hour or 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 one of the following:

(1) A Type I or II LORAN C receiver as defined in Section 1.2(e), meeting Part 2 (Minimum Performance Standards) of the Radio Technical Commission for Marine Services (RTCM) Paper 12-78/DO-100 dated December 20, 1977, entitled "Minimum Performance Standards (MPS) Marine Loran-C Receiving Equipment". Each receiver installed must be labeled with the information required under paragraph (b) of this section.

(2) A satellite navigation receiver with:

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

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

(3) 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 Assistant Commandant for Operations, 2100 Second Street SW., Washington, DC 20593-0001. 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

(b) Each label required under paragraph (a)(1) of this section must show the following:

(1) The name and address of the manufacturer.

(2) The following statement by the manufacturer:

This receiver was designed and manufactured to meet Part 2 (Minimum Performance Standards) of the RTCM MPS for Marine Loran-C Receiving Equipment.

(Sec. 12, 92 Stat. 1477 (33 U.S.C. 1231); 49 CFR 1.46(n)(4))

[CGD 81-081, 47 FR 58244, Dec. 30, 1982, as amended by CGD 88-052, 53 FR 25122, July 1, 1988; CGD 96-026, 61 FR 33669, June 28, 1996; CGD 97-023, 62 FR 33365, June 19, 1997; USCG-1998-3799, 63 FR 35532, June 30, 1998]

### § 164.42 Rate of turn indicator.

Each vessel of 100,000 gross tons or more constructed on or after September 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.

(a) Each vessel required to provide automated position reports to a Vessel Traffic Service (VTS) must do so by an installed Automatic Identification System Shipborne Equipment (AISSE) system consisting of a:

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(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

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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]

### § 164.51 Deviations from rules: Emergency.

Except for the requirements of § 164.53(b), in an emergency, any person may deviate from any rule in this part to the extent necessary to avoid endangering persons, property, or the environment.

[CGD 74-77, 42 FR 5956, Jan. 31, 1977]

### § 164.53 Deviations from rules and reporting: Non-operating equipment.

(a) If during a voyage any equipment required by this part stops operating properly, the person directing the movement of the vessel may continue to the next port of call, subject to the directions of the District Commander or the Captain of the Port, as provided by Part 160 of this chapter.

(b) If the vessel's radar, radio navigation receivers, gyrocompass, echo depth sounding device, or primary steering gear stops operating properly, the person directing the movement of the vessel must report or cause to be reported that it is not operating properly to the nearest Captain of the Port, District Commander, or, if participating in a Vessel Traffic Service, to the Vessel Traffic Center, as soon as possible.

(Sec. 2, Pub. L. 95-474, 92 Stat. 1471 (33 U.S.C. 1221); 49 CFR 1.46(n)(4))

[CGD 74-77, 42 FR 5956, Jan. 31, 1977]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 164.53, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.