



Furuno Radars Compliant With 2010 USCG/DOT Regulations For Towing Vessels Under 300 Gross Tons

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This bulletin provides an updated list of Furuno Compliant Radars that meet or exceed the Category I and Category II USCG/DOT Carriage Requirements.

Background

The U.S.C.G. and the Department of Transportation adopted mandatory Radar carriage regulations for "Towing Vessels Over 12 Meters and Under 300 Gross Tons" in 1996. The Radar requirements for these regulations are based upon an RTCM Standard specifically developed for vessels under 300 gross tons. The USCG Carriage Requirements, and the RTCM Radar Requirements, have not changed since becoming effective in 1996.

2010 Update

Furuno has been in direct contact with the RTCM on this issue as recently as May 2010. While the RTCM has made some specific comments to the USCG to improve and update the existing standard, there has yet to be any notice of an update to this standard in the Federal Register. It is the opinion of the RTCM and Furuno that **there will be no changes to the existing Radar requirements within the next two years**. However, Furuno strongly recommends that new installations on all Category I and Category II Towing Vessels take advantage of the new Radar navigation features available with the latest generation of compliant Furuno Radars. These features include Automatic Radar Plotting (ARPA), AIS Target Overlay and Navigation Data Integration available on the newer Furuno Radar products listed in the applicable section of this bulletin.

There are two different categories of Radar display requirements set forth by these regulations. These two categories are defined only by the geographic area where a particular towing vessel under 300 gross tons operates.

Category I Towing Vessels - Category Definition

Any U.S. Registered Vessel, under 300 gross tons and over 12 meters, which engages in towing operations "seaward" of navigable waters of the U.S. (this means the vessel tows in the ocean) or more than three miles from shore on the Great Lakes.

Furuno Compliant Radar Systems for a Category I Vessel

The Furuno Radar system must minimally have an effective Radar display diameter of 180mm (Without External Magnification) and the Radar display must be "Stabilized". A "Stabilized Display" means that Course-Up, North-Up and any other stabilized display mode must all be available to the Radar Operator. The Radar's antenna system must also have a maximum horizontal beamwidth of 2.5 degrees.

For example: A new Furuno Radar installed on a Category I Vessel must minimally be an FR8062 Radar with display stabilization capability. This means that the FR8062 must be interfaced with a heading source, preferably an SC30, SC50 or SC110 Satellite Compass, or in the case of a non-steel hulled vessel, one of several Furuno fluxgate compass models.

The following is a comprehensive list of all current and older Furuno Radars which are compliant for a Category I Vessel:

Current Furuno Radars Compliant for a Category I Vessel:

- All NavNet 3D MFDBB Open Array systems w/ MU120C 12" displays or larger *
- All NavNet vx2 "BB" Series Open Array systems w/ MU120C 12" displays or larger *
- All FR8002 Series
- All FAR2107/FAR2807 Series

Previous Furuno Radars Compliant for a Category I Vessel:

- All NavNet 1 "BB" Series Open Array systems w/ MU120C 12" displays or larger *
- All FR7001/FR7002/FR8002 Series
- All FR8000/FR8001 Series
- All FR1500/1500MK2/1500MK3 Series
- All FR2000 Series
- All FR2100/FR2105 Series
- All FR2800/FR2805 Series

**Note that any video display matched to a Furuno "BB" Radar is considered an integral part of the system and MUST be tested to a vigorous set of environmental conditions, such as the IEC60945 Standard! Installations using common off-the-shelf computer monitors may be rejected during inspection if they cannot be proven to meet IEC60945 or equivalent. All Furuno Video Displays are compliant with the IEC60945 standard. Furthermore, there are also "Office PC Hardware Based Radar Systems" on the market that may also be rejected, because they do not comply with these strict environmental condition requirements! Check with the Video Display and/or PC Manufacturer prior to sale and installation.*

Category II Towing Vessels - Category Definition

Any U.S. Registered Vessel, under 300 gross tons and over 12 meters, which engages in towing operations in navigable U.S. waters.

Furuno Compliant Radar Systems for a Category II Vessel

The Furuno Radar system must have a maximum horizontal beamwidth of 2.5 degrees. Display Stabilization is optional for Category II Vessels. Currently, there is no display size requirement for any Furuno Radar System installed on Category II Vessels.

The following is a comprehensive list of all current and older Furuno Radars which are compliant for a Category II Vessel. Note: Any Furuno Radar system from the Category I list is also compliant for a Category II Vessel.

Current Furuno Radars Compliant for a Category II Vessel:

- NavNet 3D MFD8 or MFD12 Open Array systems
- NavNet vx2 1934C, 1944C, 1954C, 1964C and C/NT Versions
- 1935
- 1945
- 1942MK2

Previous Furuno Radars Compliant for a Category II Vessel:

- 1760, 1761, and 1762 Series Mono and Color systems
- M851
- FR7000, FR7001, FR7002 Series
- 1930, 1931, 1932, 1932MK2 and 1933 Series
- 1940, 1941, 1942, and 1943 Series