



**ROYAL CANADIAN MARINE
SEARCH & RESCUE**
Saving Lives on the Water

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Equipment Bulletin Approved RADAR Replacement

May 21, 2021

Station Leaders & Maintenance/Equipment Officers,

RCMSAR HQ continues to evaluate equipment and new electronics in the industry to ensure that certain standards are met, and our crews are being outfitted with equipment that works for SAR, our vessel platforms, and helps keep our members safe.

The Quantum (CHIRP/Doppler) RADARs from Raymarine has been on the market for a couple of years now and was authorized for testing at specified units. Recent tests have confirmed that the 12kw 48" Open Array is by far the superior unit, the 4kw 24" HD Colour Radome (RD424HD) is adequate for a smaller vessel, and the Quantum RADAR units from Raymarine are not satisfactory for RCMSAR crew needs. In addition, the Axiom Pro MFDs offer the best definition/display for the RADAR information.

Effective immediately:

- Any RCMSAR unit with a Quantum RADAR on their vessel has three (3) months to replace their RADAR with a Raymarine 12kw 48" Open Array.
- Any unit planning or undergoing a RADAR/electronics upgrade on their vessel must replace the RADAR with the Raymarine 12kw 48" Open Array, if not already affixed.
- If the station believes their vessel is not reasonably capable of hosting an Open Array RADAR, they may submit a STC Equipment Request form for the approval of the Radome (RD424HD).

Further recommendations for units with existing Raymarine Magnetron Radomes, and any future approved Radome installs:

- Consider raising the Radome height so it is not obstructed in any fashion by other equipment. Ideal height 3+ meters above waterline.
- Consider the need for a wedge or forward RADAR tilt depending on how the vessel rides when getting on step/trimmed up. (suggested angle 5°-7°)
- Test RADAR for limitations in target detection, ranges, and filter settings (auto vs manual), and identify appropriate settings for your area of operations

STC Request Forms and RADAR testing reports and results can be found on the SMS. If you have any questions or concerns about adhering to the requirements above, please contact the Manager Operations.

Sincerely,

Amber Sheasgreen
Manager Operations
RCMSAR