

NT/RADIO COMMUNICATION/03/2005

No. 38-NT(14)/2005

Date : 2nd Dec

**SUBJECT : Operational/Test Performance Standards of SAR Radar Transponders - Regarding**

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The Survival Craft 9 GHz SAR Transponder (SART) for use in Search and Rescue operations, forming part of GMDSS Indian Flag Ships conforms to performance standards prescribed in IMO Resolution A 530 (13), A 694(17), A 802 (19), M.S. Rules 7<sup>th</sup> Schedule Part V and recommendations ITU-R M. 628-3. The SART should be capable of indicating the location of distress on the assisting unit Radars by means of a series of equally spaced dots. The following guidelines on operational / tests during the servicing / tests of this appliance, while the vessel is in port and at sea would avoid any misconception and in the minds of the user.

1. Pulse emission should be 100 us nominal.
2. Response signal of SART should consist of 12 sweeps.
3. The SART should be capable of being interrogated by 3 cm. - X Band Marine Radar complying with IMO Resolution (VII) and A 447 (XII) with an Antenna height of 15 meters at a distance upto at least 5 nautical miles.
4. The detectable range of SART should be between 7.6 to 8.09 nautical miles when 12 distinct sweeps are present of the Marine Radar (spacing between the sweeps 0.63 to 0.67 nautical miles).
5. In the event of 11 distinct sweeps instead of 12 as stated above, which generally happens in port during the servicing SART is operated at close proximity of the Radar. The acceptable detectable range under these conditions should be between 6.93 to 7.37 nautical miles (spacing between the sweeps 0.63 to 0.67 nautical miles).
6. The SART should operate correctly when interrogated at a distance of upto 30 nautical miles by an air borne Radar with at least 10-kilowatt peak output power at height of 3000 feet.
7. If on board test is performed using a ship borne 9 GHz Radar activation of the SART should be limited to a few seconds to avoid harmful interference with other ship borne Radars and excessive consumption of battery energy.

Sd/-

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