

NTSB SART Testing

Feb. 7, 2022

General Test Outline

Definitions

SART – The SART device to be tested

Vessel TX – The vessel transmitting radar/searching for the SART return (29' boat)

PRS – The example person activating the SART on Haines Point

Target – The radar return of the SART when activated

General

Test of the Tron SART20 is done using Vessel TX's own 3 cm X-band radar. The radar display will show different patterns depending on the range to the transponder. Radar images on Vessel TX will be documented by taking a photograph of the radar screen.

The Jotron TRON SART20 User Manual described the activation of the device, and the activation will be in accordance with the user's manual. The user's manual is attached with this document.

Test Plan

The test plan is generally described in the user manual in section 5.3 on pages 22 and 23.

Vessel RX radar range rings are set to 10 nautical miles (nm).

Test Point 1 – At approx. 1nm

1a. Vessel TX stays at a point midriver off of Haines Point, at TEST POINT 1. See MAP ATTACHEMENT A.

1b. SART is activated by PRS at Haines Point.

Time is Documented _____

1c. Radar images are examined and documented on Vessel TX. Radar gain and range settings may need to be adjusted to receive beacon.

A cone should be observed.

1d. Document position of Vessel TX when radar return is observed.

Time is Documented _____

1e. If SART is not observed after 30 minutes, move to test point 2. See MAP ATTACHMENT A.

1f. SART remains activated by PRS.

Test Point 2 – Inside 0.2nm

2a. Vessel TX moves to a point midriver off of Haines Point, at TEST POINT 2.

Time is recorded when vessel reaches TEST POINT 2 _____

2b. Radar images are examined and documented on Vessel TX. Radar gain and range settings may need to be adjusted to receive beacon.

A concentric ring should be observed.

Time is recorded _____

2c. If SART is not observed after 30 minutes, move to test point 3.

2d. SART remains activated by PRS.

Test Point 3 – Greater than 2nm

3a. Vessel TX moves to a point midriver off of Haines Point, at TEST POINT 3.

Time is recorded when vessel reaches TEST POINT 3 _____

3b. Radar images are examined and documented on Vessel TX. Radar gain and range settings may need to be adjusted to receive beacon.

A cone or line of dots should be observed

Time is recorded _____

3c. If SART is not observed after 30 minutes, END TEST

3d. SART is deactivated by PRS.