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TECHNICAL BULLETIN TB07-2009
Regarding: Tron AIS-SART Test Procedure, rev.14.03.2011

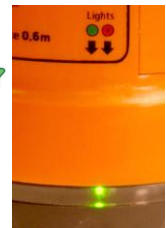## To do a successful test of Tron AIS-SART, do the following

1. Test must be conducted outdoors with a clear view to the sky to maximize GPS location.

2. Move the switch to "TEST" position until the LEDs start flashing.

Tron AIS-SART will now run through a self test procedure. If a Red LED flashes, it is indication of critical faults. See table below for error codes.

3. Release the switch when both LEDs start flashing. The unit will now search for GPS position for maximum 15 minutes.

4. A successful test is indicated by 15 second beep and Green LED . See next page for description of indication on a AIS transponder/ Electronic chart etc

5. An unsuccessful test is indicated by 15 second beep and Red LED. Please relocate the unit and restart test.

6. To cancel ongoing test, hold the switch on the Tron AIS-SART in the "TEST" position until the buzzer starts to beep.

Number of Red LED flashes	Fault indication
2	Transmitter Power failure
3	Low battery
4	Transmitter Frequency Failure
5	ID Code not programmed
6	Undefined: Contact Jotron
7	Internal communication failure

Error codes if RED flash in"**2.**"

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7. To conduct a complete test of a Tron AIS-SART, reception on the ships AIS transponder should also be checked. Today (March 2011), most AIS transponders installed are not compliant with AIS-SART, but will still receive them as another ship, both with ID code, Position, Range, Bearing, and Text message

- **Reception an a non AIS-SART compliant AIS transponder:**

  o will be shown as a ship without name, with MMSI (here "ID code"), range, bearing and position:

  ```
                                     1/2
     RNG    BRG   Name
  > 0.01   222
     15     150   Havhesten
  ```

  ```
                                    1/14
  > MMSI: 970010001
     Call: ---
     ETA: --/-- 00:00n
  ```

  o Some AIS transponders will show MMSI (here "ID code") when no vessel name is received
  o In addition, a text message will be received:

  ```
     Menu Message                   1/2
  > 97001001:SART TEST
  ```

- **Reception an a non AIS-SART compliant electronic chart (ECS/ECDIS):**

  o will be shown as a ship

  o With the same text message received: SART TEST

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- **Reception on a AIS-SART compliant AIS transponder/AIS receiver:**

  The requirement of reception/ visibility on an AIS-SART compliant AIS transponder:

  There **shall be** a separate menu item in the AIS to activate reception of AIS-SART in "TEST"
  - Furuno FA-150 implementation: [USER SETTINGS] -> DISP SART TEST = ON

  When this function is activated:

  - AIS-SART will be shown on top of the list with vessel name **SART TEST** since this is an emergency product to show ships/people in Distress. (Normally this list is sorted on range, but AIS-SART has higher priority than normal vessels)
    AIS-SART will be shown with ID, Range, Bearing and Position:

    ```
                                   1/2
       RNG    BRG   Name
    >  0.01   222   SART TEST
       15     150   Havhesten
    ```

    ```
                                   1/14
    >  MMSI: 970010001
       Call: ---
       ETA: --/-- 00:00n
    ```
  - In addition, a text message will be received:

    ```
       Menu Message              1/2
    >  97001001:SART TEST
    ```

  - AIS will forward message received from AIS-SART to ECDIS/ ARPA Radar or other chart plotter

- **Reception on a AIS-SART compliant electronic chart (ECS/ECDIS):**

  Even though the AIS transponder is not AIS-SART compliant, the electronic chart may show the correct symbol when receiving an AIS-SART in "TEST" or "ON" if it is updated to the latest revisions defined below:

  - will be shown with this special symbol as defined here:

    TEST   ON
            (DISTRESS)

    NB!

    The symbol for TEST is not internationally agreed and may be implemented differently

    as in SN.1/Circ.243/Add.1 and in lates revision of IEC 62288:

    An AIS Search And Rescue Transponder (SART) shall be presented as a circle with an "X" inscribed inside it. The circle shall be 5 millimetres in diameter. The symbol shall be drawn using a thick dashed line style with the colour red.

    The symbol shall flash until acknowledged by the user.

    Once acknowledged, the symbol shall cease flashing.

  - With the same text message received: SART TEST