

Report on testing of Navi light as per inquiry by Navisafe.

The Red Cross vessel Tjøme and the Hvasser Search and Rescue Corps were contacted by Jo Engebriksen with an inquiry involving performing a test of the Navi light 360° and Navi light Tricolor. The Search and Rescue Corps has operated a very active sea rescue service for a number of years from its base at Tjøme. The Search and Rescue Corps is also one of two national competence centres of the Norwegian Red Cross for sea rescues. Besides its search and rescue services, it also conducts training and tests materials for the Norwegian Red Cross and other organisations. The Corps received the material that Jo Engebriksen desired to test in March of 2008. The tests were primarily carried out in connection with the Holiday Service of the Search and Rescue Corps. The distances were measured using a chartplotter and radar.

4-6/4-2008 Test of Navi light 360°.

The test was carried out in the dark from 9:00 pm to 12:30 am. The weather was nice, but slightly misty. One Navi light 360° was placed on the island of Ildverket, and tests were performed of the ability to see the light source from different distances. The test was carried out at distances of up to 2.53 Nm (4685 m) with a free line of sight between the source and the location of the observer. The source was quite easy to see for the entire test team (three men between 30 and 55 years of age), regardless of precisely which function (16 diodes, blinking, 4 diodes) was being used.

11-13/4-2008 Test of fastening material for Navi light

Two pullpit fasteners were mounted on the Red Cross vessel (a fast SAR boat). The pullpit fasteners were mounted on the pullpit on the roof of the boat. Navi light units were then placed in the fasteners, where they were held in place by magnets. The Navi light system was first exposed to very active manoeuvring at speeds of up to 39 knots in the area west of Tjøme. As the fastening system functioned without any hint of any problems, the test was continued on the open sea, southwest of World's End with waves of up to 3 metres. The speed was adjusted to 30 knots, which subjected the fastening system to substantial stresses. The test was performed for approx. 10 minutes without the fastening system exhibiting any signs of weakness.

11-13/4-2008 Test of Navi light in water

The test was performed in the dark, from 10:00 pm to 12:30 am in the Vrengen Sound area. The weather was nice with a light breeze. A Navi light 360° was fastened using the straps that come with the Navi light package to the arm of a corps member who was equipped with a wet suit (without reflectors). The corps member went into the water and tests were performed to examine the possibilities for observing the person. Observers both on land as well as in a boat had no difficulty observing and following the corps member. The test was carried out with a distance of up to 400 m.

30/4-2008 Test of Navi light 360°


The tests were performed in the dark from 11:30 pm to 2:00 am in the area by Sandøya. The weather was nice and the visibility was good. A Navi light 360° was placed relatively high up on the island of Sandøya. The boat sailed 4.8 Nm (8890 m) away from the Navi light in order to test its visibility at a long distance. The crew of the boat (three men between 30 and 55 years of age) saw the Navi light clearly when all 16 of the LEDs were on and the unit was set to flash. When only 4 LEDs were used, it was difficult to observe the unit, especially when none of the LEDs were turned towards the boat. When binoculars were used (7X50) it was easy to observe the light source even with only 4 LEDs in use.

30/4-2008 Test of Navi light Tricolor.

This test was carried out right after the test of Navi light 360° had been concluded. A Navi light Tricolor was placed at the same location on Sandøya. The boat first sailed 2 Nm (3700 m) away from the Navi light Tricolor. At this distance the crew of the boat could see the lantern clearly, and could differentiate the red and green colours. Then the boat sailed 4.8 Nm (8890 m) away from the Tricolor in order to test its visibility at a long distance. The unit was quite visible, however it was difficult to separate the colours. When binoculars (7X50) were used, it was easy to observe the light source as well as separate the colours.


The test team from the Red Cross vessel Tjøme and the Hvasser Search and Rescue Corps finds the products provided by Navisafe to be suitable for use in small craft (dinghies, kayaks, etc.) as well as for emergency/spare lanterns in recreational boats, including sailboats. The units functioned flawlessly even after what to some extent was rough use onboard the Tjøme

Regards



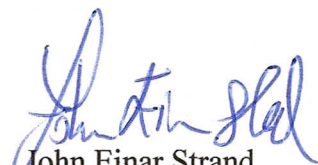
Atle Rønning

Leader at Red cross Tjøme og Hvasser Hjelpekorps



Fredrik Oscar Brandt

Test manager



John Einar Strand

Technical manager