



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. A-9758
This Certificate consists of 4 pages

This is to certify that the
Ship Security Alert System (SSAS)

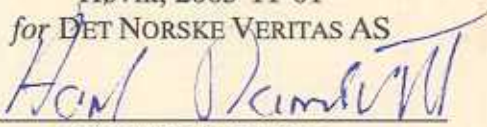
with type designation(s)
ECI H4122; Sailor H4122; Skanti H4122

Manufactured by
Thrane & Thrane A/S
Aalborg, Denmark

is found to comply with
IMO Resolution MSC.147(77) Revised Performance Standards for a Ship Security Alert System
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards
IEC 60945 Ed. 4 (2002-08) Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results

Application
Approved for the GMDSS Sea Areas A1-A2-A3-A4

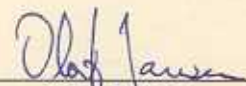
Place and date
Høvik, 2005-11-01
for DET NORSKE VERITAS AS


for Knut Svein Ording
Head of Section



Local Office
DNV Aalborg

This Certificate is valid until
2008-12-31


Olaf Jansen
Surveyor

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: A-9758
File No.: 849.01

Product description

Hardware alternatives:

ECI H4122 Iridium Ship Security Alert System						
Controller Box	Alert Buttons (2 units required)	Test Button (1 unit required)	Transceiver	Antenna	Handset (optional)	Power Supply (optional)
ECI H4122 Iridium SSAS Box	H4125 Iridium SSAS Alert Button Box	H4126 Iridium SSAS Test Button Box	Iridium ITU1000	Iridium IAU1000	Iridium ICHU1000	Iridium N163S
P.no.: 8041220206	P.no.:8041250206	P.no.:8041260206				
Location: Protected				Exposed	Protected	

Sailor H4122 Iridium Ship Security Alert System						
Controller Box	Alert Buttons (2 units required)	Test Button (1 unit required)	Transceiver	Antenna	Handset (optional)	Power Supply (optional)
Sailor H4122 Iridium SSAS Box	H4125 Iridium SSAS Alert Button Box	H4126 Iridium SSAS Test Button Box	Sailor ST4120	Sailor SA4110 or Sailor SA4111	Sailor SC4150	Sailor N163S
P.no.: 8041220006	P.no.:8041250206	P.no.:8041260206				
Location: Protected				Exposed	Protected	

Skanti H4122 Iridium Ship Security Alert System						
Controller Box	Alert Buttons (2 units required)	Test Button (1 unit required)	Transceiver	Antenna	Handset (optional)	Power Supply (optional)
Skanti H4122 Iridium SSAS Box	H4125 Iridium SSAS Alert Button Box	H4126 Iridium SSAS Test Button Box	Skanti ITU 7701	Skanti IAU 7701	Skanti ICUH 7701	Skanti P 2406
P.no.: 8041220906	P.no.:8041250206	P.no.:8041260206				
Location: Protected				Exposed	Protected	

Software version:

Release 01.xxx



Handwritten signature



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Application/Limitation

The GMDSS Sea Areas referred to on page 1 are as defined in SOLAS Chapter IV Regulation 2 and IMO Resolution A.801(19) Annex 3.

The SSAS is to be installed and used according to the manufacturer's guidelines and is not to be used in areas requiring intrinsically safe equipment.

Type Approval documentation

- EuroCom Industries A/S: SAILOR H4122 Iridium Ship Security Alert System Operating/Installation Manual, PRELIMINARY, Doc. No. B4122GB0, Issue: 9/3-04
- EuroCom Industries A/S: SAILOR H4122 Iridium Ship Security Alert System Operating/Installation Manual, Doc. No. B4122GB0, Issue: E/0435, (applicable from software version 01.018)
- Note from ECI describing the numbering system of software releases, dated Sept. 2004
- Description of changes on EuroCom Industries H4122 SSAS, 11 Aug 2004
- EuroCom Industries A/S: Ship Security Alert System Functional Test Specification, update of 14 March 2004
- EuroCom Industries A/S: SAILOR SC4150 Installation Manual Single-channel Unit, Doc.no.: M4150GB0, Issue: G/0303
- Eurocom Industries A/S: SAILOR SC4150 Operating Instructions, Doc.no.:B4150GB0, Issue: E/0303
- DANAK Test Report: Type approval of Iridium SSAS Box, Alert Button Box and Test Button Box, DANAK-197363, 27 February 2004
- VELUX Support Systems: Vind- og vandtest af IRIDIUM antenne SA4110 (Mastercom) og SA4111 (Motorola), 3. august 1999
- EuroCom Industries A/S: Declaration of Conformity, EN 60945, 8.12 Corrosion (Salt mist), 29 March 2004
- EuroCom Industries A/S: Declaration of Conformity, EN 60945, 10.8 Immunity to power supply failure, 29 March 2004

Applicable for SSASs with Iridium transceivers with type numbers 824120xx:

- Telefication: EMC test report, 99365720, carried out 4 November 2002 to 8 November 2002
- General Dynamics: EUROPEAN ELECTROMAGNETIC COMPATIBILITY TEST REPORT FOR THE IRIDIUM L-BAND TRANSCEIVER (LBT) SATELLITE SERIES MODEL NO. 9522 (REV.P1), 23 April 2003, 97069-1400-03

Applicable for SSASs with Iridium transceivers with type numbers 834120xx:

- Telefication: EMC test report, 99605620, carried out 18 to 29 April 2005
- Telefication: EMC test report, 99676720, carried out 5 to 15 September 2005





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Tests carried out

- IEC 60945 Ed. 4 (2002-08) Maritime navigation and radiocommunication equipment and systems - General requirements - Methods of testing and required test results.
- Det Norske Veritas' SSAS Type Approval Programme, Appendix A, Performance Tests

Marking of product

The products are to be clearly marked with the type as described under product description on page 2 and when applicable CE marking according to the R&TTE Directive.

Certificate retention survey

The scope of the retention/renewal survey is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials. The main elements of the survey are:

- Ensure that type approved documentation is available.
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines.
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications.
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given.
- Ensuring traceability between manufacturer's product type marking and the type approval certificate.

END OF CERTIFICATE

