DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **A-13105**

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

with type designation(s)
DSAS Mk2

Manufactured by

Pole Star Space Applications Ltd
London, United Kingdom

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards
ISPS Code - SOLAS Chapter XI-2 Regulation 6 Ship Security Alert System
IMO Resolution MSC.147(77) Revised Performance Standards for a Ship Security Alert System

Application
See page 2

This Certificate is valid until **2017-06-30**.

Issued at **Høvik** on **2013-01-22**

DNV local station: **London**

Approval Engineer: **Steinar Kristensen**

for **Det Norske Veritas AS**

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Jan Tore Grimsrud
Head of Section

Product description

DSAS Mk2 Security Alert System, consisting of :

Component	Article no	Software
• DSAS Mk2 box, comprising		
o Skywave Inmarsat Mobile User Equipment	IDP-690	
o Pole Star Circuit - / Charger Board	PCB-E184	V184A
o Power pack, 18Ah		

• 2x Alert Activiation points (Normally Closed, N/C)

The DSAS Mk2 is configured via the Pole Star PurpleFinder® Application web interface

Application/Limitation

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

Coverage area:
The DSAS ship security alert system uses an Inmarsat Type Approved IDP-690 IsatData Pro M2M tranceiver.
Coverage area will be as defined by Inmarsat IsatData Pro service coverage area, roughly corresponding to the between 70° North and 70° South.

Type Approval documentation

Doc Id.	Description
PS-TN-DSAS-MK2-SIG_V1.0	MANUAL: Pole Star, DSAS Mk2 Manual
Issue 3.0 March 2012	MANUAL: Pole Star, DSAS Range Alert Advanced User Guide
TL1587 EMC Pole Star	REPORT: Mariner Systems, EMC Test report
TL1587-ENV Pole Star	REPORT: Mariner Systems, Environmental Test report
2012-11-08	REPORT: Pole Star, DSAS MKII Performance Test Report
ELS 163378/1/R/ID/12	REPORT: SGS, Ingress Protection (IP) test report

Tests carried out

• Environmental testing: IEC 60945 (2002)
• Performance testing: Det Norske Veritas' SSAS Type Approval Programme No 849.01

Marking of product

The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Certificate Retention Survey

A retention survey is to be performed at least once every second year, and again upon renewal of this certificate.
The scope of the retention/renewal survey is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.

<div align="center">END OF CERTIFICATE</div>