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Certificate N°:

13567/A1 BV

The attached Schedule forms part of the certificate

File Number : RAD 7/54136/1

Product Code : 3418H

MARINE DIVISION

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**BUREAU
VERITAS**

CERTIFICATE OF TYPE APPROVAL

This is to certify that the product identified below was found to be in compliance with the relevant hereunder stated Regulations & standards

SHIP SECURITY ALERT SYSTEMS(SSAS)

ShipLoc (Ship Security Alert System).

MANUFACTURED BY:

CLS Collecte localisation satellites

Ramonville - FRANCE

SPECIFIED REGULATIONS & STANDARDS :

BV Rules for the Classification of Steel Ships - SOLAS 74 Convention, as amended, Reg. XI-2/6 - IMO Resolution MSC.136(76), revised by IMO Resolution MSC.147(77) - MSC Circ. 1072 - IEC 60945 Ed. 4.

The Approval is valid until : 18/12/2008

BUREAU VERITAS BORDEAUX

At Paris la Défense, on : 17/02/2004

J.BENOIT
For the Secretary

This Certificate remains valid until the date stated on, hereunder, unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory into service.

This Certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested.

This Certificate is not valid without the stamp of the above mentioned BUREAU VERITAS Inspection Center.

The manufacturer should notify BUREAU VERITAS of any modification or changes to the equipment in order to obtain a valid Certificate.

The latest published Regulations or Standards referred to, above, and the Marine Division General Conditions are applicable.



**BUREAU
VERITAS**
MARINE DIVISION

File Number : RAD 7/54136/1

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION :

1.1 - Description :

The ShipLoc SSAS (Ship Security Alert System) is a self-contained vessel tracking and monitoring system. The upper deck equipment consists of the following units :

1.1.1 - Units integrated in a single casing :

- ARGOS transmitter
- Integrated GPS receiver
- Flat antenna
- Internal NI rechargeable batteries (18 Vdc to 32 Vdc)
- Intelligent batteries charger
- Protective mounting brackets

1.1.2 - Two activation points - (fixed buttons)

1.1.3 - One junction box (below deck equipment) consists of :

- Data link interface for connecting the keypad terminal
- Power supply and Argos transmission LEDs
- 24-Volt DC power input
- Seven-wire cable output (to transmitter)
- Alarm button signal input
- One ON/OFF signal input (optional)

1.2 - Technical data :

- | | |
|----------------------------|--|
| - vessel main power supply | 24 Vdc (18 Vdc - 32 Vdc) operating range |
| - Battery autonomy | 48 hours |
| - Index of protection | IP 66 (upper deck equipment) |

Transmitter :

- | | |
|---------------------------------------|--------------------------------|
| - Transmitting frequencies band | 401.630 to 401.680 MHz |
| divided into 17 channels of 2KHz wide | |
| - Nominal output power | < 3 W \approx 32 dBm +3/-0dB |
| - Phase modulation | 16KGD1D |
| - Delta f_0 | \leq 2 Hz |
| - Speed data transmissions | 400 bps |
| - Operating temperature | (-25° C \pm 55° C) |

2. DESIGN DRAWINGS and/or SPECIFICATIONS

2.1 - ShipLoc presentation document

2.2 - General specification and certification

version 2 : July approved by CNES and ARGOS

2.3 - ADEOS-II / ARGOS-DCS General specifications

ref. : ADII-SP-423-601-CNES issue 1 dated 4/Aug)1999 issued by CNES

2.4 - Argos SHIPLOC IV transmitter installation and operation manual issued by CLS

2.5 - Casing drawings with bill of materials dated 19/Feb./02

2.6 - Electronic drawings with bill of materials :

- | | |
|--------------------|--------------------|
| - N° S41 03 3 01 F | - N° S41 02 201 J |
| - N° S45 22 3 03 A | - N° S45 22 2 03 B |
| - N° S41 04 2 03 B | - N° S41 04 3 03 B |
| - N° S41 04 401 A | - N° S41 05 802 A |
| - N° S41 03 2 01 F | - N° S41 03 3 01 F |
| - N° S41 03 404 C | - N° S41 03 407 B |
| - N° S41 02 3 01 J | - N° S41 05 802 A |
| - N° S41 02 802 C | - N° S41 05 801 A |
| - N° S41 04 2 03 B | - N° S41 03 804 C |

2.7 - MAR GE BEACON Type Approval file ref. : Doc 02-116 Rev. A dated 24/01/02.

3. TYPE TEST REPORTS / LABORATORY RECOGNITION STATUS

- 3.1 - SERPE - IESM test report dated 19/Oct./2000
 3.2 - LCIE test report N° 60015871-508801
 3.3 - Performance test dated 17/12/03 .

4. MATERIALS and/or COMPONENTS REQUIRED TO BE TYPE APPROVED

Nil.

5. OTHER MATERIALS and/or COMPONENTS

Nil.

6. APPLICATION / LIMITATION OF USE

- 6.1 - The ship security alert system, when activated, shall :
- initiate and transmit a ship-to-shore security alert to a competent authority designated by the Administration, which, in these circumstances, should include the Company, identifying the ship ²⁾, its location and indicating that the security of the ship is under threat or has been compromised ¹⁾ ;
 - not send the ship security alert to any other ships ;
 - not raise any alarm on-board the ship ;
 - continue the ship security alert until deactivated and/or reset.
 - the alert shall be confirmed by the Company to the Administration
- 6.2 - The security alert system shall :
- be capable of being activated from the navigation bridge and in at least one other location
 - be designated so as to prevent the inadvertent initiation of system.
- 6.3 - Alert deactivation / Re-setting :
- reset of deactivation of the alert shall be possible from the ship via a confidential procedure
 - the Administration shall be notified of the end of an alert or any false alert.
- 6.4 - Testing procedure
- the testing procedure is to be approved by the company
 - the system shall be tested annually by the Administration representatives or on their behalf by the recognized Classification Societies Surveyors.

Notes :

¹⁾ "In all cases, the transmission should include a unique code/identifier indicating that the alert has not been generated in accordance with GMDSS distress procedures."

²⁾ MMSI and IMO Numbers

7. PRODUCTION SURVEY REQUIREMENTS

7.1 - Arrangements shall be made for a Society's Surveyor to carry out, on a periodic basis, visits of the the Manufacturer's premises and product audits.



7.2 - Each equipment is to be supplied with manual (s) for installation, use and maintenance.

8. ON BOARD INSTALLATION & MAINTENANCE REQUIREMENTS

According to Manual for installation, use and maintenance (cf clause 2.4 above)

9. MARKING FOR IDENTIFICATION

- Identification of the manufacturer
- Serial number of the unit
- Equipment type number or model identification under which it was type tested.

10. OTHERS

10.1 - This approval is given with the understanding that the Society reserves the right to require check tests to be carried out on the system at any time and that **CLS, Ramonville - France** will accept full responsibility for informing shipbuilders, shipowners or their sub-contractors of the proper methods of use and general maintenance of the system and the conditions of this approval.

10.2 - This certificate supersedes Type Approval Certificate n° 13567/A0 BV issued on 18/12/2003 by the Society.

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