

Certificate of Type Approval



Certificate No. 37 280 - 12 HH

This is to certify that

Germanischer Lloyd

specified as a "person" under the terms of The Merchant Shipping (Delegation of Equipment Approval) Regulations 1996, did undertake the relevant type approval procedures of the equipment identified below which was found to be in compliance with the essential crew accommodation requirements subjects to any conditions in the schedule hereto.

Producer	Raytheon Anschütz GmbH
Address	Zeyestraße 16-24 24106 Kiel, GERMANY
Equipment Description	Integrated Navigation System (INS)
Type	SYNOPSIS INS
Specified Standard	IMO Resolutions MSC.252(83), MSC.191(79), A.694(17), IEC 60945(2002) incl. corr. 1 (2008), IEC 62288(2008), IEC 61162 series, IEC 61924-2 (CDV)

The attached schedule forms part of this certificate.


This certificate remains valid until **2017-04-26** unless cancelled or revoked, provided the conditions in the attached schedule are complied with and the equipment remains satisfactory in service.

Issued by **Germanischer Lloyd**

Signed

Name

Date of issue


Marco Rinkel


Harald Bluhm

2012-04-27

NOTE This certificate is not valid for equipment, the design or manufacture of which has been varied or modified from the specimen tested. The manufacturer should notify the nominated body named on this certificate of any modification or changes to the equipment in order to obtain a valid certificate.

Sheet No. 1 of 3



Maritime and Coastguard Agency

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At least the tasks collision avoidance and route monitoring shall be integrated in one of the multifunctional workstations.
A multifunctional workstation for SYNOPSIS INS contains of the following equipment necessary for functioning:

Mandatory:

Hardware:

Box PC Type 950-019NGxxx

Alternatively one of the following Ethernet switches :

Types: 950-020.xxx, MOXA EDS-G509T, MOXA EDS-508A-T, MOXA EDS-516AMMSCT

Alternatively one of the following displays :

Monitor TFT 26," Type 950-055.NGxxx

Monitor TFT 26," Type 6026SD009-001 to 6026SD009-004

Monitor TFT 26", Type 6026SD002-005

Monitor NSC26" TFT, Type 900-031NG001/NG002/SA200

Display unit 23,1", Type: 900-017 NGxxx/SAxxx or Type 900-021 NGxxx/SAxxx

Monitor TFT 23,1" Type 950-056.NGxxx

Monitor TFT 23,1" Type BPM723-RDA-AC-xx-xx

Monitor TFT 23", Type 950-054NGxxx

Monitor TFT 23,1" Type Ray 23,1" Chassis FFF CHR

Monitor NSC34 TFT 23", Type 900-021 NGxxx

Display TFT 23,1", Type: JH 23 T02 MMD-Rx

Display TFT 23,1", Type: JH 23 T02 MMD

Display TFT 23,1", Type: JH 23 T12 MMD-Rx

Display TFT 23,1", Type: JH 23 T12 MMD

Monitor TFT 23,1", Type: 950-050 NG or SA

Monitor TFT 22", Type 6022SD001/SD002

Display TFT 20,1", Type: JH 20 T06 MMD-Rx

Display TFT 20,1", Type: JH 20 T06 MMD

Monitor TFT 20,1", Type: 950-051 NG or SA

Monitor TFT 19", Type 950-053 NGxxx

Monitor NSC25 TFT 19", Type 900-015 NGxxx

Display TFT 19", Type: JH 19 T02 MMD-Rx

Display TFT 19", Type: JH 19 T02 MMD

Display TFT 19", Type: JH 19 T14 MMD-Rx

Display TFT 19", Type: JH 19 T14 MMD

DisplayTFT 19", Type: 6019SD002-001

Operator Unit:

ECDIS Control Panel, Type: 948-016 NG001 and

RADAR Operator Panel 948-002 NGxxx/Saxxx and

Trackball 50mm NSC, Type 948-001 NGxxx and

Remote Panel NSC, Type 948-007 NGxxx/Saxxx

Software:

Sheet No.

2 of 3



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NB46-001.P0001 (Bridge Integration Platform)

NB48-001.P0001 (Synopsis Service tool)

including an arbitrary combination of one or several of the following software:

NB44-14.PROG (Synopsis Ecdis)

NB45-14.PROG (Synopsis Radar)

NB47-001.PROG (Synopsis Conning)

This INS type approved equipment is also type approved according to IEC62388 (Radar) and IEC 61174 (ECDIS) and contains additional components listed in the corresponding certificates.

Optional:

Heading Control System (HCS) NP 5xxx

Track Control System (TCS) Nautoguide B

Track Control System (TCS) Nautoguide C

NAV Manager NA06-U01.NGxxx/SAxxx for additional interfaces

Alarmmanager NA07-U01.NGxxx/SAxxx

Analog Converter 146-100.NGxxx

UPS (120V), Type UPS-SUA 1000 (1500) or

UPS (230V), Type UPS-SUA 1000I (1500I) or

UPS (230V), Type VL-SUA1000I (1500I)

Documentation:

Testreports:

SYNOPSIS_Test_Protocol_INS_performance_standard_2012_01_25

Manuals:

SYNOPSIS ECDIS 4165.DOC012, 4165.DOC032, 4165.DOC042

SYNOPSIS RADAR 4166DOC020102, 4166DOC020302

SYNOPSIS NAUTOCONNING 4168.DOC000002

SYNOPSIS SYSTEM MANUAL 4167.DOC000002

SYNOPSIS SERVICE TOOL 4169.DOC000302

Raytheon Anschütz Box-PC 4090,DOC0102

19" LCD TFT Ship Display 4178 DOC0102

26" LCD TFT Ship Display 4179 DOC0102

Sheet No.

3 of 3



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