



中国船级社  
CHINA CLASSIFICATION SOCIETY

证书编号/Certificate No.  
BG19PTB00014

型式认可证书  
CERTIFICATE OF TYPE APPROVAL

兹证明本证书所述制造厂具备按照下列标准的要求生产本证书所列产品的能力和条件。

This is to certify that the manufacturer stated in the certificate meets the requirements of the standards listed below and is available with the ability and conditions to produce the products described in the certificate.

制造厂/Manufacturer

Navico Norway AS

地址/Address

Nyaskaiveien 2, N-4374 Egersund Norway

产品名称/Product

导航设备  
Navigation Equipment  
电子海图显示与信息系统 (ECDIS)  
Electronic Chart Display and Information System (ECDIS)

附加标志/Notations

无/Nil.

认可标准/Approval Standard

- IEC 61174:2015 《船用航行和无线电通信设备及系统-电子海图显示与信息系统-操作和性能要求、试验方法和要求的试验结果》  
IEC 61174:2015 Maritime Navigation and Radio communication Equipment and Systems - Electronic Chart Display And Information System (ECDIS) - Operational and Performance Requirements, Methods of Testing and Required Test Results
- 国际海事组织海安会决议MSC. 232 (82) 《通过经修订的电子海图显示与信息系统 (ECDIS) 性能标准》  
IMO Resolution MSC.232(82) Adoption of the Revised Performance Standards for Electronic Chart Display and Information Systems (ECDIS)
- IEC 60945:2002/COR1:2008 《船用航行和无线电通信设备及系统-通用要求-试验方法和试验结果的要求》  
IEC 60945:2002/COR1:2008 Maritime Navigation and Radiocommunication Equipment and Systems - General Requirements - Methods of Testing and Required Test Results
- 国际海事组织大会决议A. 694 (17) 《作为全球海上遇险和安全系统 (遇险和安全系统) 组成部分的船载无线电设备和电子助航设备的一般要求》  
IMO Resolution A.694(17) General Requirements for Shipborne Radio Equipment Forming Part of The Global Maritime Distress and Safety System (GMDSS) and for Electronic Navigational Aids
- 国际海事组织航行安全分委会266号通函《电子海图显示与信息系统软件维护》  
IMO SN.1/Circ.266/Rev.1 Maintenance of Electronic Chart Display and Information System (ECDIS) Software
- 国际海事组织海安会决议MSC. 191 (79) 《船载航行显示器有关航行信息显示的性能标准》  
IMO Resolution MSC.191(79) Performance Standards for the Presentation of Navigation-Related Information on Shipborne Navigational Displays

证书有效期至/This Certificate is valid until 2021年02月24日/ Feb. 24,2021

发证机构 中国船级社卑尔根办事处  
Issued by CCS Bergen Office

签发日期 2019年09月19日  
Date Sep. 19,2019

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Form No: T01.

联系方式/Contact Us, 见本社官方网站/See official web site of the Society (<http://www.ccs.org.cn>)

UTN:P019-94732197



**用于/Intended for**

船舶与海上设施/Ships and Offshore Installations

**产品明细/Product Description**

电子海图显示与信息系统 (ECDIS) /Electronic Chart Display and Information System (ECDIS) (M001)

名称/Name	属性(值)/Value	单位/Unit
型号/Type	Maris ECDIS 900 MK5 / MK5A	
系统组成/System Component	Refer to additional page	
屏幕尺寸/Screen Size	Refer to additional page	
电源/Power Source	DC 24 / AC 115/230	V
软件版本号/Software Version	5.0. x. x	
是否可作为后备布置/Whether for Back-Up Arrangements	Yes	
是否具有RCDS 模式功能/Whether Includes Rcds Mode of Operation	Yes	
是否具有雷达图像叠加功能/Whether Includes Radar Overlay Function	Yes	
S-57 版本号/S-57 Edition	Edition 3.1	
S-52 版本号/S-52 Edition	Edition 6.1.1	
表示库版本号/Preslib Edition	Edition 4.0.2	
S-63 版本号/S-63 Edition	Edition 1.2.0	
罗经安全距离/Compass Safe Distance	Refer to additional page	
ENC 文本格式/ENC Format	S63, S57	

**批准的图纸/Approved Drawings**

图纸批准号/ Drawings Approval No. : NP16A03097, BG19PPP20011

**产品认可试验报告/ Approval Test Report**

试验报告编号/ Test Report No. : Refer to additional pages

试验报告日期/ Test Report Date :

**认可后的产品检验方式/ Method of Product Inspection after Approval**

按规范认可后应进行产品检验的产品/The product should be inspected in term of the rules:

认可后的产品检验应由本社验船师根据本社规范规定按批准的产品检验计划进行检验, 经检验合格后由本社颁发船用产品证书。

After approval, product inspection should be carried out by the Surveyor of the Society in accordance with the approved product inspection scheme, and the Marine Product Certificate will be issued by the Society upon satisfactory inspection.

**认可保持条件/ Maintenance Requirements of Approval**

1. 型式认可后, 如果产品及其重要零部件的设计、所用材料或制造方法有所改变, 且影响到产品的主要特性、特征; 或产品的性能指标有所更改, 且超过认可的范围, 则有关图纸和文件应经检验机构审批。并在检验机构认为必要时, 经本社检验人员见证有关试验和进行检查, 其结果应能证实仍符合认可条件。

After type approval, if there are changes to the design, materials used or manufacturing method of the product and important components and such changes affect major characteristics and properties of the product, or property indexes of the product are changed and exceed the scope of approval, related drawings and documents are to be examined and approved by the concerned survey office. Where deemed necessary by the survey office, the surveyor to the Society will go to witness relevant tests and conduct inspection and the results should be able to demonstrate compliance with the approval conditions.

2. 工厂的质量管理体系应保持有效运行, 并且与认可时一致。如果质量管理体系发生改变, 应经原体系认证机构审核并报本社批准。

The quality management system of the factory shall ensure effective operation, and shall be the

same as the situation of approval. If there are any changes to the quality management system, auditing of the original certification organization for quality management system and the society's approval shall be obtained.

3. 认可证书有效期内, 如果出现可能导致本社取消认可的情况, 工厂应及时采取有效的纠正措施。

Within the validity of the approval certificate, if cases occur that may cause the Society to withdraw the approval, the manufacturer should take corrective actions in a prompt and effective manner.

4. 在认可证书有效期内, 本社检验人员可在未经事先通知的情况下对工厂的产品制造过程进行审核, 以验证产品的生产是否符合业经本社批准的图纸和文件。工厂应予以配合。

Within the validity of the approval certificate, the surveyor to the Society may pay unannounced audit to the manufacturing process of the product in order to confirm whether it is in compliance with the drawings and documents approved by the Society. The factory should provide an active cooperation and necessary for the surveyor.

5. 如果属于获得型式认可B 模式证书, 且无需颁发船用产品证书/等效证明文件的情况, 证书获得者应接受本社每年一次的定期审核, 定期审核日为认可证书期满之日对应的每一周年日, 检查工作应在周年日的前后三个月内进行。

If belong to the situation of the product has type approval mode B certificate, and marine product certificate/equivalent document is not necessary, those who have obtained the certificate should be subject to periodical audit every year. The date of periodical audit shall be each anniversary date which corresponds to the date of expiry of the relevant certificate and the periodical audit shall be done within a time span of three months before and after the annual surveillance date.

### 备注/Remarks

I. 本证书由原型式认可证书 (No. BG16T00027\_04) 变更并替代原证书。

This Certificate is modified from and supersedes the previous Type Approval Certificate No. BG16T00027\_04.

II. 本社已审核了产品厂无石棉声明, 但本社的审核不免除产品厂按照合同关系向订货方保证产品无石棉的责任。

The declaration of asbestos-free submitted by manufacturer has been reviewed by the Society.

However, liability of the manufacturer to guarantee the products are asbestos-free to purchaser under contract will not be exempted.

中国船级社卑尔根办事处

CCS Bergen Office

注: 本证书含有附页, 共6页

Note: The certificate is attached with additional 6 page(s)

**Product description**

Maris ECDIS900 MK5 / MK5A system consist of the following components:

Component	Item name	Item No.	Compass safe distance
1 Processor	Simrad-Maris ECDIS900 MK5	000-12425-xxx and 151-10462-xxx	1.70m (Standard), 1.70m (Steering)
2 Processor	Simrad-Maris ECDIS900 MK5A	000-14487-xxx	0.30m
3 Display	Simrad Monitor M5024,24"	000-11781-xxx and 151-10380-xxx	2.30m (Standard), 1.20m (Steering)
4 Display	Simrad Monitor M5027,27"	000-12726-00x	1.40m (Standard), 0.75m (Steering)
5 Display	Hatteland 20"MMID	JH20T17	0.80m (Standard), 0.40m (Steering)
6 Display	Hatteland 23"MMID	JH23T14	0.60m (Standard), 0.25m (Steering)
7 Display	Hatteland 26"MMID	JH26T11	1.30m (Standard), 0.80m (Steering)
8 Display	Hatteland 27"MMID	JH27T11	1.90m
9 Display	Hatteland Monitor 24 OEM Series-X	000-12521-xxx or 151-10463-xxx	0.65m (Standard), 0.40m (Steering)
10 Display	Hatteland Monitor 26 OEM Series-X	11559 or 151-10464-xxx	1.30m (Standard), 0.80m (Steering)
11 Alarm Panel	Simrad E0102(with M5024 only)	000-12264-xxx and 151-10381	/
12 Accessories	Maris ECDIS900 CT&A Cable	000-12549-xxx	/
13 Accessories	Keyboard Cherry-US/English,USB	11197	/
14 Accessories	Logitech Marble USD mouse	11008	/
15 Accessories	Logitech M570 mouse	000-12262-00x/151-10382-00x	/
16 Accessories	SIS4000 MK2-8CH Serial to LAN	11346	/
17 Accessories	Bracket for Maris ECDIS900 MK5 PC Dell	000-12522-001	/

Optional equipment:

Item name	Item No.
1 Logitech wireless trackball M570	000-12262-xxx
2 Radar Interface Box-MK 6.0	11393
3 Keyboard OP2010	11153
4 Keyboard OP3000	000-12524-xxx & 000-12525-xxx
5 ECDIS network switch	11298
6 Sis4000 MK2	-
7 Hatteland FPC NMEA0183 4 port Expander 4 *RS485/RS422 ports	-



## Prototype test reports

Test Report No.	Test Report Date	Laboratory	Test Address
2009-3395, rev.01	2009-07-15	DnV	Veritasveien 1 N-1322 HØVIK Norway
129073/Vi01	2009-10-07	Nemco	P.O. Box 73 Blindern, N-0314 Oslo, Norway
E11095.00	2011-08-05	Nemco	P.O. Box 73 Blindern, N-0314 Oslo, Norway
A-13392	2013-08-20	DnV	Veritasveien 1 N-1322 HØVIK Norway
2009-3161, rev.02	2009-03-17	DnV	Veritasveien 1 N-1322 HØVIK Norway
2010-3243, rev.04	2010-05-12	DnV	Veritasveien 1 N-1322 HØVIK Norway
0575/03	January 2015		
DOC100904-1, rev1	04-11-2010	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC100904-2, REV1	04-11-2010	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101936-1, rev2	2015-08-18	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC100904-3, rev1	04-11-2010	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101901-1, rev2	2015-08-18	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101763-1, rev1	18-02-2014	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101896-1, rev2	2015-08-18	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC100904-5, rev1	02-12-2010	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
2008-3528, rev.02	2008-10-31	DnV	Veritasveien 1 N-1322 HØVIK Norway
2010-3124	2010-04-20	DnV	Veritasveien 1 N-1322 HØVIK Norway



Test Report No.	Test Report Date	Laboratory	Test Address
2012-3372	2012-10-15	DnV	Veritasveien 1 N-1322 HØVIK Norway
2008-3464	18-09-2008	DnV	Veritasveien 1 N-1322 HØVIK Norway
A-12836	2012-07-13	DnV	Veritasveien 1 N-1322 HØVIK Norway
A-12838	2012-07-13	DnV	Veritasveien 1 N-1322 HØVIK Norway
881	2014-10-30	BSH	
140721.1	2-9-2010	EMC Technologies	PO Box 68-307, Newton Auckland 1145. 47 MacKelvie St Auckland 1021 New Zealand
20094390200	22-04-2010	Telefication	Telefication B.V. Edisonstraat 12A 6902 PK Zevenaar The Netherlands
DANAK-19/14501	19-09-2014	Delta	Venlighedsvej 4 2970 Hørsholm Denmark
913128	30-10-2009	Intertek Semko AB	PO Box 1103, SE-164 22 Kista, Sweden
279 693	12-01-2010	Innventia AB	Visit Torshamngatan 24   Mail Box 9, 164 93 Kista , Sweden
F917800-A	2009-08-11	SP Technical Research Institute of Sweden	Gibraltargatan 35 – Box 24036 – SE-400 22 Göteborg, Sweden
2009-3442	2009-08-11	DnV	Veritasveien 1 N-1322 HØVIK Norway
DOC101895-1R5	2015-08-18	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC102254-1R1	2016-06-02	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101832-5R1	08-07-2014	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
20282	2014-08-01	Applica	Rådhusveien 5, 4520 LINDESNES, Norway
EMCS42271	8-25-2014	MET Laboratories, Inc	3162 Belick St. Santa Clara, CA 95054



Test Report No.	Test Report Date	Laboratory	Test Address
ENV-2-ESLU42271	8-25-2014	MET Laboratories, Inc	3162 Belick St. Santa Clara, CA 95054
200314148001	2004-11-05	Nemko	P.O. Box 73 Blindern, N-0314 Oslo, Norway
310-04-0279	14-02-05	Teknologisk institutt	Hovedadresse Gregersensvej 1 2630 Taastrup
2005-3102	2005-02-24	DnV	Veritasveien 1 N-1322 HØVIK Norway
E14095.00	2014-04-02	Nemko	P.O. Box 73 Blindern, N-0314 Oslo, Norway
E15008.01	2015-02-26	Nemko	P.O. Box 73 Blindern, N-0314 Oslo, Norway
A-14217	2015-03-11	DnV	Veritasveien 1 N-1322 HØVIK Norway
3F-RT14009	26-09-2014	CNR	Largo E. Fermi 6 – 50125 Firenze
140122.1	10-June-2014	EMC Technologies	PO Box 68-307, Newton Auckland 1145. 47 MacKelvie St Auckland 1021 New Zealand
AAC20140622-00	10-February-2014	Navico, Inc.	44 Arrenway Drive, Rosedale 0632, Auckland New Zealand
Rev. 3	8-Jan-2015	Navico, Inc.	44 Arrenway Drive, Rosedale 0632, Auckland New Zealand
42271-Loc	08-August- 2014	MET Laboratories, Inc.	3162 Belick St. Santa Clara, CA 95054
ESL42271-IEC	25-August-2014	MET Laboratories, Inc.	3162 Belick St. Santa Clara, CA 95054
EMCS42271-EN 60945	25-August-2014	MET Laboratories, Inc.	3162 Belick St. Santa Clara, CA 95054
DE20_FS181214	18-12-2014	Navico, RBU.	Montagnana Val di Pesa Via Romita 26 Montespertoli (FI) 50025 Italy
0002 14B	16 – Dec – 2014	Navico	Nyåskaiveien 2 Egersund 4370 Norway
0018 14B	16 Dec 2014	Navico	Nyåskaiveien 2



Test Report No.	Test Report Date	Laboratory	Test Address
			Egersund 4370 Norway
2010-3124	2010-04-20	DnV	Veritasveien 1 N-1322 HØVIK Norway
2012-3372	2012-10-15	DnV	Veritasveien 1 N-1322 HØVIK Norway
2008-3464	18-09-2008	DnV	Veritasveien 1 N-1322 HØVIK Norway
20282	2014-08-01	Applica	Rådhusveien 5, 4520 LINDESNES, Norway
DOC101028-1, rev1	13-12-2011	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC100904-4, rev1	04-11-2010	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101900-1, rev2	2015-08-18	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
20689	2015-10-28	Applica	Rådhusveien 5, 4520 LINDESNES, Norway
8315 & 8346	2013-04-23	DnV	Veritasveien 1 N-1322 HØVIK Norway
20244943	23-1-2015	Navico	Nyåskaiveien 2 Egersund 4370 Norway
154317445	22-10-2015	Elma Instruments AS	Garver Ytteborgsvei 83 N-0977 Oslo
140721.1	2 september 2014	EMC Technologies	PO Box 68-307, Newton Auckland 1145. 47 MacKelvie St Auckland 1021 New Zealand
21583EMC16051	17-6-2015	Koncar Institute	Fallerovo šetalište 22, 10000 Zagreb, Croatia
21580ALL008	28-06-2016	Koncar Institute	Fallerovo šetalište 22, 10000 Zagreb, Croatia
AEP20160630-00	30 June 2016	Navico, Inc	44 Arrenway Drive, Rosedale 0632, Auckland New Zealand
Part#000-12726-001	2016-05-04	Navico	Nyåskaiveien 2 Egersund 4370 Norway





Test Report No.	Test Report Date	Laboratory	Test Address
3F-RT16008	July 22, 2016	CNR	Largo E. Fermi 6 – 50125 Firenze
DAP20160720-01	20-July 2016	Navico	Nyåskaiveien 2 Egersund 4370 Norway
EG-CE-20160705-01	2016-07-05	Navico	Nyåskaiveien 2 Egersund 4370 Norway
2013-3135	05.04.2013	DnV	Veritasveien 1 N-1322 HØVIK Norway
2012-3302	14.02.2012	DnV	Veritasveien 1 N-1322 HØVIK Norway
2011-3475	24.11.2011	DnV	Veritasveien 1 N-1322 HØVIK Norway
DOC101809-2, rev1	28.05.2014	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101809-1, rev1	28.05.2014	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
DOC101895-1, rev5	18.08.2015	Hatteland	Hatteland Display AS, Åmsosen, N-5578 Nedre Vats, Norway
20180411-IEC 61174 Edition 4.0	12.04.2018	Navico	Nyåskaiveien 2 Egersund 4370 Norway
20180411-S-64 Edition 3.0	12.04.2018	Navico	Nyåskaiveien 2 Egersund 4370 Norway
21111 rev.01	28.06.2017	Applica	Norway

