

INTERNATIONAL STANDARD

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**Maritime navigation and radiocommunication equipment and systems –
Integrated navigation systems (INS) –
Part 2: Modular structure for INS – Operational and performance requirements,
methods of testing and required test results**

**Matériels et systèmes de navigation et de radiocommunication maritimes –
Systèmes de navigation intégrés (INS) –
Partie 2: Structure modulaire des systèmes de navigation intégrés – Exigences
opérationnelles et de fonctionnement, méthodes d'essai et résultats d'essai
exigés**



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CONTENTS

FOREWORD.....	6
1 Scope.....	8
2 Normative references	8
3 Terms, definitions and abbreviated terms	9
3.1 Terms and definitions.....	9
3.2 Abbreviated terms.....	18
4 IMO resolutions	18
4.1 General.....	18
4.2 Purpose of integrated navigation systems	19
4.3 Application.....	20
5 Test requirements and results	22
5.1 General.....	22
5.2 Exceptions for tests previously performed.....	22
5.3 Test site.....	23
5.4 Methods of test.....	23
6 Module A – Requirements for integration of navigational information	23
6.1 Interfacing and data exchange	23
6.1.1 Combination, processing and evaluation of data.....	23
6.1.2 Availability, validity and integrity.....	23
6.1.3 Failure of data exchange	24
6.1.4 Interfaces in general.....	24
6.1.5 Interface to alert management	24
6.2 Accuracy.....	24
6.2.1 Requirement.....	24
6.2.2 Methods of test and required results	25
6.3 Validity, plausibility, latency	25
6.3.1 Validity	25
6.3.2 Plausibility.....	26
6.3.3 Latency.....	27
6.4 Consistent common reference system (CCRS).....	27
6.4.1 Consistency of data	27
6.4.2 Consistent common reference point (CCRP).....	28
6.4.3 Consistency of thresholds.....	29
6.5 Integrity monitoring.....	30
6.5.1 Requirement.....	30
6.5.2 Methods of test and required results	31
6.6 Marking of data.....	32
6.6.1 Requirement.....	32
6.6.2 Methods of tests and required results	33
6.7 Selection of sensors and sources.....	33
6.7.1 Requirement.....	33
6.7.2 Methods of test and required results	34
7 Module B – Task related requirements for integrated navigation systems	34
7.1 Description	34
7.2 Task and functional requirements for an INS.....	34
7.2.1 General	34

7.2.2	Task "Route planning"	35
7.2.3	Task "Route monitoring"	37
7.2.4	Task "Collision avoidance"	41
7.2.5	Task "Navigation control data"	45
7.2.6	Task "Alert management"	46
7.2.7	Task "Status and data display"	47
7.3	Functional requirements for INS task stations	48
7.3.1	Number of task stations	48
7.3.2	Track control	50
7.3.3	Automatic control functions	51
7.4	Functional requirements for displays of INS	52
7.4.1	General	52
7.4.2	Default display configurations and operational modes	55
7.4.3	Mode and status awareness	56
7.4.4	Information display	56
7.5	Human machine interface	58
7.5.1	General	58
7.5.2	Equipment design	58
7.5.3	Display	59
7.5.4	Input	59
7.6	INS back-up requirements and redundancies	60
7.6.1	General	60
7.6.2	Hardware redundancies (back-up)	62
7.7	System failures and fallback arrangements	62
7.7.1	General description	62
7.7.2	Restored operation	62
7.7.3	Failure or change of sensor or automatic control function	63
7.7.4	Failure of sensor	63
7.7.5	Storage of system related parameters	64
7.7.6	Safe response to malfunction	64
7.7.7	Alert management	65
7.7.8	Fallback for navigational information failure	65
7.8	Technical requirements	67
7.8.1	General	67
7.8.2	Hardware and/or processors	67
7.8.3	Power supply	68
7.8.4	Power interruptions and shutdown	68
7.8.5	Data communication interface and protocols	69
7.9	Installation	69
	Module C – Alert management	70
8.1	Description	70
8.1.1	Purpose of alert management	70
8.1.2	Scope of alert management	70
8.2	General requirements	71
8.2.1	Provisions	71
8.2.2	Requirement	71
8.2.3	Methods of test and required results	72
8.3	Transfer to BNWAS	72
8.3.1	Requirement	72

8.3.2	Methods of test and required results	72
8.4	Testing of alerts	72
8.4.1	Requirement	72
8.4.2	Methods of test and required results	73
8.5	Failures	73
8.5.1	Requirement	73
8.5.2	Methods of test and required results	73
9	Module D – Documentation requirements	73
9.1	Manuals	73
9.1.1	Requirement	73
9.1.2	Methods of tests and required results	74
9.2	Information regarding the system configuration	74
9.2.1	Requirement	74
9.2.2	Methods of tests and required results	75
9.3	Failure analysis	75
9.3.1	Requirement	75
9.3.2	Methods of test and required results	75
9.4	Onboard familiarization material	75
9.4.1	Requirement	75
9.4.2	Methods of test and required results	75
Annex A (informative)	Modular structure for IMO performance standards	76
A.1	Modular structure for radar performance standards	76
A.2	Modular structure for track control performance standards	78
Annex B (informative)	Guidance to equipment manufacturers for the provision of on-board familiarization material	79
B.1	General	79
B.2	On-board familiarization training for INS	79
B.3	Familiarization training framework	80
B.3.1	General description	80
B.3.2	Detailed operation (normal conditions)	80
Annex C (normative)	Classification of alerts	82
Annex D (normative)	Default display configurations	85
Annex E (informative)	Data flow diagram/consistent common reference system (CCRS)	87
Annex F (normative)	Interfaces	89
Annex G (informative)	Guidance for testing	94
G.1	Methods of test derived from ISO 9241-12	94
G.2	Observation	94
G.3	Inspection of documented evidence	94
G.4	Measurement	95
G.5	Analytical evaluation	95
Annex H (normative)	Verification of CCRP calculations	96
H.1	Scenario for verification of CCRP calculations	96
H.2	Stationary scenario	96
H.3	Dynamic scenario	97
Annex I (normative)	Sentence for integrity and plausibility	98
Annex J (normative)	INS alert related communication	99
J.1	Overview	99

J.2	Use of ALR for BNWAS.....	99
J.3	Use of ALR and ACK for legacy simple sensors	99
J.4	Use of HBT, ALF, ALC, ACN, AGL and ARC	99
J.5	INS standardized alert identifiers	99
J.6	Alert state transition diagram	99
Annex K (informative) Sentences for advanced alert related communication		100
Bibliography.....		101
Figure E.1 – Data flow diagram/consistent common reference system (CCRS)		88
Figure F.1 – INS logical interfaces		89
Table 1 – Applicable modules of performance standards of stand alone equipment		21
Table 2 – Applicable modules of other standards for INS to substitute for individual equipment.....		21
Table 3 – Marking of data		33
Table A.1 – Modular structure for radar performance standards		76
Table A.2 – Modular structure for track control performance standards.....		78
Table C.1 – Classification of INS alerts as specified in these performance standards		82
Table C.2 – Classification for INS for alerts specified in the individual equipment performance standards		83
Table D.1 – Task "Route monitoring"		85
Table D.2 – Task "Collision avoidance".....		86
Table F.1 – IEC 61162-1 sentences transmitted by the INS		90
Table F.2 – IEC 61162-1 sentences received by the INS.....		91
Table H.1 – Required results		96
Table H.2 – Required results		97
Table H.3 – Required results for dynamic scenario		97
Table H.4 – Required resolution for test.....		97

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND
RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS –
INTEGRATED NAVIGATION SYSTEMS (INS) –****Part 2: Modular structure for INS –
Operational and performance requirements,
methods of testing and required test results**

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International Standard IEC 61924-2 has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

This second edition cancels and replaces the first edition published in 2012, of which it constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) addition of a requirement for INS to provide capability for Maritime Safety Information to comply with requirements of the International Maritime Organization;

- b) modification of Clause 8 (Alert management) and associated annexes to align it with IEC 62923-1 concerning bridge management;
- c) modifications to Annex D to incorporate newer recommendations of the International Maritime Organization.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
80/977/FDIS	80/970/RVC

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 61924 series, published under the general title *Maritime navigation and radiocommunication equipment and systems – Integrated navigation systems (INS)*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – INTEGRATED NAVIGATION SYSTEMS (INS) –

Part 2: Modular structure for INS – Operational and performance requirements, methods of testing and required test results

1 Scope

This part of IEC 61924 specifies the minimum requirements for the design, manufacture, integration, methods of testing and required test results for an integrated navigation system (INS) to comply with the International Maritime Organization (IMO) requirements of Resolution MSC.252(83), as amended by Resolution MSC.452(99). In addition, it takes account of IMO Resolution A.694(17) to which IEC 60945 is associated. When a requirement in this document is different from IEC 60945, the requirement of this document takes precedence.

For bridge alert management, IMO Resolution MSC.302(87) supersedes IMO Resolution MSC.252(83). Accordingly, this document incorporates references to IEC 62923-1 and IEC 62923-2 which are associated with Resolution MSC.302(87) for requirements and tests, where applicable. This document indicates which requirements and associated tests of MSC.252(83) have been superseded by MSC.302(87).

NOTE All text of this document whose wording is identical to that in IMO Resolution MSC.252(83), as amended by MSC.452(99), is printed in *italics* and the Resolution and paragraph number indicated between brackets.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60945:2002, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61162-1:2016, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 1: Single talker and multiple listeners*

IEC 61162-2, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 2: Single talker and multiple listeners, high-speed transmission*

IEC 61162-450, *Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 450: Multiple talkers and multiple listeners – Ethernet interconnection*

IEC 61174:2015, *Maritime navigation and radiocommunication equipment and systems – Electronic chart display and information system (ECDIS) – Operational and performance requirements, methods of testing and required test results*

IEC 62065:2014, *Maritime navigation and radiocommunication equipment and systems – Track control systems – Operational and performance requirements, methods of testing and required test results*