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**Maritime navigation and radiocommunication equipment and systems –
Automatic identification system (AIS) –
Part 2: AIS AtoN Stations – Operational and performance requirements, methods
of testing and required test results**

**Matériels et systèmes de navigation et de radiocommunication maritimes –
Système d'identification automatique (AIS) –
Partie 2: Stations d'aides à la navigation AIS – Exigences opérationnelles et de
fonctionnement, méthodes d'essai et résultats d'essai exigés**



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CONTENTS

FOREWORD.....	8
1 Scope.....	10
2 Normative references	10
3 Terms, definitions and abbreviations	11
3.1 Terms and definitions.....	11
3.2 Abbreviated terms.....	11
4 Description	12
4.1 Types of AIS AtoN stations	12
4.2 Type 1 AIS AtoN station.....	15
4.2.1 Characteristics.....	15
4.2.2 Capability	17
4.2.3 Alternatives	17
4.3 Type 2 AIS AtoN station.....	18
4.3.1 Characteristics.....	18
4.3.2 Capability	18
4.3.3 Control receiver	18
4.3.4 Alternatives	18
4.4 Type 3 AIS AtoN Station	19
4.4.1 Characteristics.....	19
4.4.2 Capability	19
4.4.3 AIS receiver (AIS Rx)	19
4.4.4 Alternatives	19
4.5 Optional direct configuration via VDL (types 2 and 3).....	20
4.6 Optional configuration via VDL chaining (type 3).....	20
5 Requirements for AIS AtoN station.....	23
5.1 Physical layer	23
5.1.1 Transmitter requirements.....	23
5.1.2 Receiver requirements.....	25
5.1.3 Power consumption	26
5.1.4 Environmental requirements	26
5.2 Link layer	26
5.2.1 General	26
5.2.2 AIS Messages	27
5.2.3 Synchronisation.....	27
5.2.4 VDL access schemes.....	28
5.2.5 Autonomous mode.....	30
5.2.6 Electronic position fix system.....	31
5.2.7 Built-in integrity test.....	32
5.3 Configuration method.....	33
5.3.1 General	33
5.3.2 Alternative for types 1, 2 and 3	33
5.3.3 Chaining of AIS AtoN stations.....	36
5.4 Repeat broadcast of active AIS-SART message.....	36
5.5 Other requirements.....	36
5.5.1 Additional features.....	36
5.5.2 Manufacturer's information	36

5.5.3	Marking and identification	37
5.5.4	Additional connection points	37
6	Tests of AIS AtoN stations	37
6.1	General	37
6.2	Test conditions	37
6.2.1	Normal test conditions	37
6.2.2	Extreme test conditions	37
6.2.3	Standard test environment	38
6.2.4	Test signals	38
6.2.5	Arrangements for test signals applied to the receiver input	39
6.2.6	Encoder for receiver measurements	40
6.2.7	Waiver for receivers	40
6.2.8	Impedance	40
6.2.9	Artificial antenna (dummy load)	40
6.2.10	Facilities for access	40
6.2.11	Modes of operation of the transmitter	40
6.2.12	Measurement uncertainties	40
7	RF tests	41
7.1	TDMA transmitter	41
7.1.1	General	41
7.1.2	Frequency error	41
7.1.3	Carrier power	42
7.1.4	Modulation spectrum slotted transmission	42
7.1.5	Transmitter test sequence and modulation accuracy	43
7.1.6	Transmitter output power versus time function (FATDMA and RATDMA)	45
7.2	TDMA receivers (types 2 and 3)	46
7.2.1	Sensitivity	46
7.2.2	Error behaviour at high input levels	47
7.2.3	Co-channel rejection	47
7.2.4	Adjacent channel selectivity	48
7.2.5	Spurious response rejection	49
7.2.6	Inter-modulation response rejection	52
7.2.7	Blocking and desensitization	53
7.3	Conducted spurious emissions at the antenna	54
7.3.1	Spurious emissions from the receiver	54
7.3.2	Spurious emissions from the transmitter	54
8	Functional tests	55
8.1	Configuration method	55
8.1.1	General	55
8.1.2	Configuration for Message 21	55
8.1.3	Schedule mode A FATDMA Message 21 (single report, alternating channel operation)	56
8.1.4	Schedule mode B FATDMA Message 21 (dual report, dual channel operation)	57
8.1.5	Schedule mode C FATDMA Message 21 (single report, single channel operation)	57
8.1.6	Schedule mode A RATDMA Message 21 (Type 3) (single report, alternating channel operation)	58
8.1.7	Schedule mode B RATDMA Message 21 (Type 3) (dual report, dual channel operation)	59

8.1.8	Schedule mode C RATDMA Message 21 (type 3) (single channel operation)	59
8.1.9	Scheduled transmission of Message 6	60
8.1.10	Scheduled transmission of Message 8	61
8.1.11	Scheduled transmission of Message 12	61
8.1.12	Scheduled transmission of Message 14	61
8.1.13	Unscheduled transmission	62
8.2	Synchronisation accuracy	62
8.2.1	Implemented synchronisation modes and synchronisation error	62
8.2.2	Synchronisation test without UTC (types 2 and 3)	63
8.3	EPFS	64
8.3.1	Position source	64
8.3.2	Invalid position	64
8.3.3	Off-position monitor	64
8.4	Receive addressed message (types 2 and 3)	65
8.4.1	Purpose	65
8.4.2	Method of measurement	65
8.4.3	Required results	65
8.5	Interrogation response (Type 3)	65
8.5.1	Purpose	65
8.5.2	Method of measurement	65
8.5.3	Required results	66
8.6	Repeat AIS-SART messages	66
8.6.1	Purpose	66
8.6.2	Method of measurement	66
8.6.3	Required results	66
8.7	Additional functionality as implemented by the manufacturer	66
8.7.1	Test for configuration of the receiver turn-on times (types 2 and 3)	66
8.7.2	Test for configuration of payload transmission	67
8.7.3	Test for forced broadcast	68
8.7.4	Test for version information	68
8.7.5	Test for DC to AtoN function ID capability	69
8.7.6	Test for assigning an encryption key for VDL configuration	69
8.7.7	Test for VDL configuration using chaining (Type 3)	70
8.8	BIIT	75
8.8.1	Purpose	75
8.8.2	Method of measurement	75
8.8.3	Required results	75
8.9	Transmitter shutdown procedure	75
8.9.1	Purpose	75
8.9.2	Method of measurement	75
8.9.3	Required results	75
8.10	Power supply	75
8.10.1	Purpose	75
8.10.2	Method of measurement	76
8.10.3	Required results	76
8.11	Environmental	76
8.12	External removable media	76
8.12.1	Purpose	76

8.12.2	Method of measurement	76
8.12.3	Required results	76
8.13	Other tests	76
8.13.1	Quality assurance	76
8.13.2	Additional features	76
8.13.3	Manual	77
8.13.4	Marking and identification	77
8.14	Optional TAG block encapsulation	77
8.14.1	Application	77
8.14.2	TAG block capabilities	77
8.14.3	Activation of source-identification for output	77
8.14.4	Activation of Destination-identification	78
8.14.5	Activation of Source-identification for input	79
8.14.6	Use of multiple source-identifications for input	80
8.14.7	Test of grouping by TAG blocks for output	81
8.14.8	Test of UNIX time output	82
8.14.9	Test of line-count output	82
Annex A (informative)	AIS AtoN station configuration structures	84
A.1	AIS AtoN station configuration structures	84
A.2	MMSI Identification configuration command (AID)	87
A.3	Extended/general AtoN station configuration command (ACF/ACG)	89
A.4	Configure broadcast rates for AtoN Station message command (CBR)	94
A.5	Configuration of encryption key (CEK)	97
A.6	Configure the receiver turn-on times (AIW)	98
A.7	Proprietary AtoN control command (MCR)	99
A.8	Configuration of message payload for broadcast (MEB)	101
A.9	Forced broadcast command (^FB)	101
A.10	Version information (VER)	102
A.11	AtoN function ID capability	104
A.12	Query via the VDL for Message 21 content	105
A.13	General query request	106
A.14	Configuration of receiver operational times command (COP)	107
A.15	Configuration of message payload for broadcast (MEB)	108
A.16	Query response via the VDL for Message 21 configuration	110
Annex B (normative)	Message 21 – AtoN status bits	113
Bibliography	114
Figure 1	– Functional block diagram of a Type 1 AIS AtoN Station	16
Figure 2	– Functional block diagram of a type 2 AIS AtoN station	18
Figure 3	– Functional block diagram of a type 3 AIS AtoN station	19
Figure 4	– VDL configuration decision tree	22
Figure 5	– Power versus time mask	29
Figure 6	– Reporting modes for Message 21	31
Figure 7	– Block diagram of AIS AtoN test setup	38
Figure 8	– Format for repeating four-packet cluster	39
Figure 9	– Measurement arrangement for frequency error	41
Figure 10	– Measurement arrangement for carrier power	42

Figure 11 – Emission mask.....	43
Figure 12 – Measurement arrangement for modulation accuracy.....	44
Figure 13 – Measurement arrangement for sensitivity.....	46
Figure 14 – Measurement arrangement for error behaviour.....	47
Figure 15 – Measurement arrangement for co-channel rejection.....	48
Figure 16 – Measurement arrangement for adjacent channel selectivity.....	49
Figure 17 – PER/BER or SINAD measuring equipment.....	50
Figure 18 – Measurement arrangement for inter-modulation.....	52
Figure 19 – Measurement arrangement for blocking or desensitisation.....	53
Figure 20 – Test scenario for basic chaining test.....	70
Figure 21 – Test scenario for linear chaining test.....	72
Figure 22 – Test scenario for forked chaining test.....	73
Figure B.1 – Use of AtoN status bits as IALA A-126 Page ID 7.....	113
Table 1 – Description of AIS AtoN stations.....	13
Table 2 – Use of VDL messages.....	14
Table 3 – Summary of optional Type 1 AIS AtoN Station messages.....	17
Table 4 – Summary of optional Type 3 AIS AtoN Station messages.....	20
Table 5 – Configuration of AIS AtoN stations via VDL.....	23
Table 6 – Required parameter settings for an AIS AtoN Station.....	24
Table 7 – Required settings of physical layer constants.....	24
Table 8 – Modulation parameters of the physical layer of the AIS AtoN station.....	24
Table 9 – Minimum required TDMA transmitter characteristics.....	25
Table 10 – Required receiver characteristics.....	26
Table 11 – Maximum allowed time error.....	27
Table 12 – Definitions of timing for Figure 5.....	30
Table 13 – AIS AtoN Station reaction to BIIT conditions.....	33
Table 14 – Standard sentences.....	34
Table 15 – DCR Capabilities.....	35
Table 16 – Optional AtoN Block functions.....	36
Table 17 – Content of first two packets.....	39
Table 18 – Filled MMSI data derived from ITU-T O.153.....	39
Table 19 – Maximum values of absolute measurement uncertainties.....	41
Table 20 – Peak frequency deviation versus time.....	45
Table 21 – Definition of timings.....	45
Table 22 – Frequencies for inter-modulation test.....	53
Table A.1 – Parameter setting in Message 25 for AIS AtoN Station applications.....	84
Table A.2 – Parameter setting in Message 6 for AIS AtoN Station applications.....	85
Table A.3 – Message 25 or 6 function identifier used for configuration and query via the VDL.....	86
Table A.4 – Configuration via the VDL for MMSI identification.....	88
Table A.5 – Query via the VDL for MMSI identification.....	88
Table A.6 – Query response via the VDL for MMSI identification.....	89

Table A.7 – Configuration via the VDL, Part 1	90
Table A.8 – Configuration via the VDL, Part 2	90
Table A.9 – Configuration via the VDL, Part 3	91
Table A.10 – Configuration via the VDL, Part 4 (first 12 characters of AtoN name).....	91
Table A.11 – Configuration via the VDL, Part 5 (second 12 characters of AtoN name)	92
Table A.12 – Configuration via the VDL, Part 6 (third (last) 10 characters of AtoN name)	92
Table A.13 – Query request via the VDL	92
Table A.14 – Query response via the VDL, Part 1	93
Table A.15 – Query response via the VDL, Part 2	94
Table A.16 – Configuration via the VDL for FATDMA	95
Table A.17 – Configuration via the VDL for RATDMA/CSTDMA.....	96
Table A.18 – Query request via the VDL for AtoN broadcast rates	96
Table A.19 – Query response via the VDL with AtoN broadcast rates.....	97
Table A.20 – Configuration via the VDL of encryption key	98
Table A.21 – Configuration via the VDL for receiver turn-on times	98
Table A.22 – Query request via the VDL for receiver turn-on times	99
Table A.23 – Query response via the VDL for receiver turn-on times.....	99
Table A.24 – Configuration via the VDL for proprietary information	100
Table A.25 – Query request via the VDL for proprietary information	100
Table A.26 – Query response via the VDL for proprietary information	100
Table A.27 – Configuration or function via the VDL of message payload	101
Table A.28 – Function via the VDL for forced broadcast.....	102
Table A.29 – Query request via the VDL for VER	103
Table A.30 – Query response via the VDL for VER	104
Table A.31 – Query request via the VDL for function ID	104
Table A.32 – Query response via the VDL for function ID.....	105
Table A.33 – Query request via the VDL for Message 21 content.....	106
Table A.34 – Query response via the VDL for Message 21 content	106
Table A.35 – General query request via the VDL	107
Table A.36 – Configuration via the VDL for COP	108
Table A.37 – Payload control configuration via the VDL	109
Table A.38 – Payload binary data via the VDL	110
Table A.39 – Query response via the VDL, Message 21 configuration.....	111
Table A.40 – Query response via the VDL, first 12 characters of AtoN name	111
Table A.41 – Query response via the VDL, second 12 characters of AtoN name	112
Table A.42 – Query response via the VDL, last 10 characters of AtoN name.....	112
Table B.1 – AtoN status pages.....	113

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT
AND SYSTEMS – AUTOMATIC IDENTIFICATION SYSTEM (AIS) –****Part 2: AIS AtoN Stations – Operational and performance
requirements, methods of testing and required test results**

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This second edition cancels and replaces the first edition, published in 2008, and constitutes a technical revision.

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

- additional cyber security measures;
- updated description of configuration via VDL;
- updated VDL access scheme requirements;
- new PI sentences and VDL message structures with added description for optional TAG blocks;

- added requirement for at least one standard method for configuration using Standard PI sentences;
- updated test methods and updated Annexes.

This bilingual version (2018-01) corresponds to the monolingual English version, published in 2016-10.

The text of this standard is based on the following documents:

FDIS	Report on voting
80/817/FDIS	80/822/RVD

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

The French version of this standard has not been voted upon.

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

A list of all parts in the IEC 62320 series, published under the general title *Maritime navigation and radiocommunication equipment and systems – Automatic identification system (AIS)*, can be found on the IEC website.

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MARITIME NAVIGATION AND RADIOCOMMUNICATION EQUIPMENT AND SYSTEMS – AUTOMATIC IDENTIFICATION SYSTEM (AIS) –

Part 2: AIS AtoN Stations – Operational and performance requirements, methods of testing and required test results

1 Scope

This part of IEC 62320 specifies the operational and performance requirements, methods of testing and required test results for AIS AtoN Stations compatible with the performance standards adopted by IMO Resolution MSC.74(69), Annex 3, Universal AIS. It incorporates the technical characteristics of non-shipborne AIS AtoN equipment, included in Recommendation ITU-R M.1371 and IALA Recommendation A-126. Where applicable, it also takes into account the ITU Radio Regulations. This standard takes into account other associated IEC International Standards and existing national standards, as applicable.

This document is applicable for automatic identification system (AIS) installations on aids to navigation (AtoN).

2 Normative references

The following referenced documents are indispensable for the application 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, *Maritime navigation and radiocommunication equipment and systems – General requirements – Methods of testing and required test results*

IEC 61108 (all parts), *Maritime navigation and radiocommunication equipment and systems – Global navigation satellite systems (GNSS)*

IEC 62287-1, *Maritime navigation and radiocommunication equipment and systems – Class B shipborne equipment of the automatic identification system (AIS) – Part 1: Carrier-sense time division multiple access (CSTDMA) techniques*

IEC 62320-3:2015, *Maritime navigation and radiocommunication equipment and systems – Automatic identification systems (AIS) – Part 3: Repeater station – Minimum operational and performance requirements – Methods of test and required test results*

ITU Radio Regulations, Appendix 18, *Table of transmitting frequencies in the VHF maritime mobile band*

ITU-R Recommendation M.1371-5:2014, *Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile band*

IALA Recommendation A-126, *The Use of Automatic Identification System (AIS) in Marine Aids to Navigation*