

RES Laboratory Ltd.
517,83, V.O., Bolshoy, St.-Petersburg, Russia,199106,
Tel./Fax:+7(812)325-67-32
E-mail: res@mail.lanck.net

TEST REPORT N 01.10

SHIPBORNE EQUIPMENT OF DIGITAL SELECTIVE CALLING SYSTEM (DSC) (class D)

Equipment Under Test Trade mark	<i>SAILOR 6215 VHF DSC Radio</i>
Manufacture	<i>Thrane & Thrane A/S</i>
Type of test and normative references	<i>Draft ETSI EN 300 338-1 v1.3.1 (2009-12)</i> <i>Draft ETSI EN 300 338-3 v1.3.1 (2009-12)</i> <i>Rec. ITU-R M.493-13 (2009)</i> <i>IEC 61162-1, ed.3; (2007)</i>
Place of testing	<i>Aalborg, Denmark</i>
Date of testing	<i>08.01.2010-15.01.2010</i>

Date: 19.01.2010

Director of Test Laboratory:  (V.Sokolov)

Chief adviser:  (I.Bukanov)





Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Product

No.	The name of components	Type, model	Serial number	Software version
1	VHF DSC Transceiver	SAILOR 6215 VHF DSC Radio	0561950033	2.00.0422
2	Parts of equipment	SAILOR 6215 SAILOR 6202		
3	Power supply	Laborator NETZGRAT EA-3021S 12V	4466	
4	Manual	User and installation manual	TT98-128471- THR-C	



SAILOR 6215 VHF DSC Radio
(SAILOR 6215 and SAILOR 6202)



Power supply
Laborator NETZGRAT EA-3021S 12V



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Test equipment

No.	The name of components	Type, model	Serial number	Software version
1	RES DSC-TEST System Approved by: ROSSTANDARD N POCC RU.0001.21 MP 14 valid: 27.02.2011 Russian Maritime Register of Shipping N 07.01413.011 valid: 28.05.2012 MINTRANS RF (MARSAT): N AKP.07.09-16 PTH valid: 01.07.2014			Ver. 1.12
2	SAILOR SP3515 Portable VHF Radio			



RES DSC-TEST System



Company:	Thrane & Thrane A/S	
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Conclusions

The sample of the product SAILOR 6215 VHF DSC Radio was found conform with the specifications Draft ETSI EN 300 338-1(2009-12), Draft ETSI EN 300 338-3(2009-12), IEC 61162-1 (2007) and Rec. ITU-R M.493-13 (2009-10) within the framework of the carried out tests

The deviations to normative documents and numbered as 1, 2, 3 and 4 have non-critical character and are recommended to remove by development of the next version of the software of a product.

The results of the tests as started in this report, are exclusively applicable to the product item as identified in the report.

The above conclusions have been verified by the following signatory.

Date: 19.01.2010

Name: Dr. Bukanov Ivan

Function: Chief adviser

Signature:





Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Result summary

1	General requirements	
1.1	Distress button and initiation of distress alert test	yes
1.2	Input Own MMSI test	yes
1.3	Input Group MMSI test	yes
1.4	Operation check test	yes
1.5	Facilities of routine testing test	yes
1.6	Interruptions in the power supply test	yes
2	Controls and Indicators in Class D DSC Equipment	
2.1	Primary DSC alphanumeric display test	yes
2.2	Additional display information test	yes
2.3	Handling visual information test	yes
3	Non-automated features	
3.1	Verification of correct of dot pattern test	yes
3.2	Distress call attempt consisting of repeated call sequences	yes
3.3	Transmission of DSC messages and prioritized wait	yes
3.4	Shipborne specific aural alarm to indicate receipt of distress or urgency call or a call having distress category test	yes
3.5	Shipborne aural alarm to indicate receipt calls other than distress and urgency test	yes
3.6	Standby state test	yes
3.7	Distress messages storage test	yes
3.8	Non Distress message storage test	yes
3.9	Send DSC messages storage test	yes



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	4	Sending distress automated procedure	
	4.1	Distress button sub procedure tests	yes
	4.2	Default distress alert attempt test	yes
	4.3	Default distress alert attempt consistency tests	yes
	4.4	Display test	yes
	4.5	Operator options prior to receiving distress alert acknowledgement test	yes
	4.6	Automatic resending of the distress alert attempt test	no
	4.7	Cancelling the distress alert test	yes
	4.8	Cancelling during the sending of a distress alert attempt test	yes
	4.9	Handling distress alert acknowledgements test	yes
	4.10	Handling additional distress DSC messages pertinent to the automated procedure test	Yes NOTE
	4.11	Handling distress alert acknowledgements for other distress event test	yes
	4.12	Handling distress alert acknowledgements for same distress event test	yes
	4.13	Use of the distress button priority test	yes
	4.14	Handling received DSC messages prior and after to acknowledgement the sending distress alert automated procedure test	yes
	4.15	Termination of the acknowledged sending distress alert automated procedure test	yes
	4.16	Distress alert composition test	yes
	4.17	Updating position test	yes



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	5	Receiving distress automated procedure	
	5.1	Received distress automated procedure started by a distress alert test	yes
	5.2	Received distress automated procedure started by a distress relay test	yes
	5.3	Received distress automated procedure started by a distress alert acknowledgement test	yes
	5.4	Received distress automated procedure started by a distress relay acknowledgement test	yes
	5.5	Received distress automated procedure started by an individually addressed distress relay test	Yes NOTE
	5.6	Distress event self cancel recognition receiving test	yes
	5.7	Handling received DSC messages pertinent to the automatic procedure	yes
	5.8	Handling received DSC messages pertinent to the station, but not pertinent to the automatic procedure test	no
	5.9	Acknowledgement of receiving distress automated procedure activated by distress call (RT) test	yes
	5.10	Acknowledgement of receiving distress automated procedure activated by Distress relay to All ships (RT) test	yes
	5.11	Handling received DSC messages pertinent to the automatic procedure after acknowledgement	yes
	5.12	Handling received DSC messages pertinent to the station, but not pertinent to the automatic procedure after acknowledgement	no
	5.13	Manually termination of automated procedure test	yes
	5.14	Termination of automated procedure by automated timeout	yes
	5.15	Reception of Distress call with different position and nature of distress test	yes
	5.16	Verification of correct decoding of distress call acknowledgment	yes
	5.17	Verification of correct decoding of distress relay call	yes
	5.18	Verification of decoding of distress relay acknowledgment	yes



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	6	Sending non distress automated procedure	
	6.1	Sending non distress procedure sequence with “able to comply” test	yes
	6.2	Sending non distress procedure sequence with “comply with frequency change” (able to comply) test	yes
	6.3	Sending non distress procedure sequence with “comply with frequency change” (new channel is not available) test	yes
	6.4	Sending non distress procedure sequence with “unable to comply” test	no
	6.5	Sending non distress procedure sequence with no acknowledgement required test	yes
	6.6	Delayed Acknowledgements after terminating sending non distress procedure test	yes NOTE
	6.7	Acknowlodge Alarms of Sending non distress automated procedure	yes
	6.8	Termination of tehe automated procedure before acknowledgement	yes
	6.9	Manually termination of automated procedure test	yes
	6.10	Termination of automated procedure by automated timout	yes
	6.11	Frequency information input in DSC messages	yes
	6.12	Verification of correct generation, encoding and transmission of DSC call sequences to all ships	yes
	6.13	Verification of correct generation, encoding and transmission of Geographic area calls	yes
	6.14	Verification of correct generation, encoding and transmission of Urgency and safety calls, to individual station	yes
	6.15	Verification of correct generation, encoding and transmission of Urgency and Safety calls to individual station acknowledgement	yes
	6.16	Verification of correct generation, encoding and transmission Routine call, to a group of stations	yes
	6.17	Verification of correct generation, encoding and transmission Routine call to individual station	yes
	6.18	Verification of correct generation, encoding and transmission Routine acknowledgement calls to individual station	no



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	7	Receiving non distress automated procedure	
	7.1	The received non distress automated procedure with ‘able to comply’ tests (Manual acknowledgement)	no
	7.2	Received non distress automated procedure with ‘comply with channel change’ tests (Manual acknowledgement)	yes
	7.3	Received non distress automated procedure with ‘unable to comply’ (‘Unable to use proposed channel’) tests (Manual acknowledgement)	yes
	7.4	Received non distress automated procedure if acknowledgement not requested tests (Manual acknowledgement)	yes
	7.5	The received non distress automated procedure with ‘able to comply’ (DSC test call) tests (Manual acknowledgement)	yes
	7.6	Termination of the automated procedure by the automated timeout options	yes
	7.7	The received non distress automated procedure with ‘able to comply’ with auto acknowledging tests	yes
	7.8	The received non distress automated procedure with ‘able to comply’ (DSC test call) with auto acknowledging tests	yes
	7.9	Termination of the automated procedure options test	yes
	7.10	Manually termination automated procedure test	yes
	7.11	Termination of automated procedure by automated timeout	yes
	7.12	Decoding frequency information in DSC messages	yes
	7.13	Verification of decoding of DSC call sequences “All ships call”	yes
	7.14	Verification of decoding of Urgency and Safety Geographic area calls	yes
	7.15	Verification of decoding of DSC Urgency and safety calls, to individual station	yes
	7.16	Verification of decoding of acknowledgment sequences Urgency and Safety acknowledgements calls, to individual station	no
	7.17	Verification of decoding of Routine call to a group of stations	yes
	7.18	Verification of decoding of Routine call to individual station	yes
	7.19	Verification of decoding of Routine acknowledgement calls to individual station	no



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	8	Communications automated procedure	
	8.1	Communications automated procedure setup tests	yes
	8.2	Handling incoming DSC calls while the equipment is engaged (acceptance)	yes
	8.3	Handling incoming DSC calls while the equipment is engaged (non acceptance)	yes
	8.4	Termination of the automated procedure options test	yes
	8.5	Manually termination automated procedure test	yes
	8.6	Termination of automated procedure by automated timeout	yes
	9	Decoding and error correction	
	9.1	Specified phasing (character synchronization)	yes
	9.2	Decoding format specifier with mutilations	yes
	9.3	Decoding call with no allowed format specifier	yes
	9.4	Decoder's ability to detect mutilate-type errors in ten-bit code	yes
	9.5	Decoder's ability to correct mutilate-type errors in the ten-bit code	yes
	9.6	Decoder's ability to detect wrong characters in the legal ten-bit code set	yes
	9.7	Decoder's ability to detect errors using an error-check character	yes
	9.8	Decoder's ability to correct serial mutilate-type errors in ten-bit code	yes
	9.9	Mutilated distress call reception	yes
	9.10	Decoding distress call attempt with one mutilated sequence	yes
	9.11	Iterative decoding process with adequate provision	yes
	9.12	Decoding end of sequence with mutilations	yes
	9.13	Errors in received distress DSC messages	yes
	9.14	Handling incoming Distress DSC messages with errors test	yes
	9.15	Handling incoming Distress DSC messages with symbol "subsequent communication" error test	yes



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	9.16	Handling incoming Distress DSC acknowledgment with errors (MMSI ship in distress is known)	yes
	9.17	Handling incoming Distress DSC acknowledgment with errors (MMSI ship in distress is unknown)	yes
	9.18	Test of comparison error correction Distress DSC messages (the entire set of received information characters is identical to the previously received set)	yes
	9.19	Test of comparison error correction Distress DSC messages (the set of received distress information characters is identical to the distress information)	yes
	9.20	Test of comparison error correction Distress DSC messages (error in the enhanced position information characters)	yes
	9.21	Errors in received non distress DSC messages (Frequency information errors)	yes
	9.22	Errors in received non distress DSC acknowledgement (Frequency information errors)	yes
	10	Own position and Interfaces	
	10.1	Facilities of input own ship position information test	Yes NOTE
	10.2	Position update alarm test	Yes NOTE
	10.3	Facilities for automatic entry of position information test	yes
	10.4	Protocol test of the entry position information interface of the EUT	yes
	10.5	Test under maximum interface workload	yes



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	11	Handling incoming calls while the equipment is engaged	
	11.1	The option to handle a single background non-terminated automated procedure test	Yes NOTE
	11.2	Handling incoming DSC calls while the equipment is engaged (Higher priority calls - acceptance)	yes
	11.3	Handling incoming DSC calls while the equipment is engaged (Higher priority calls – non acceptance)	yes
	11.4	Handling incoming DSC calls while the equipment is engaged (Lowest priority calls)	yes
	11.5	Termination of the automated procedure (there are not unread messages)	yes
	11.6	Termination of the automated procedure (there are unread messages)	yes
	11.7	Handling incoming DSC calls while the equipment is engaged when the equipment is designed with the option to handle a background procedure (Higher priority calls - acceptance)	yes
	11.8	Handling incoming DSC calls while the equipment is engaged when the equipment is designed with the option to handle a background procedure (Higher priority calls – non acceptance)	n.a
	11.9	Handling highest priority incoming DSC calls while the equipment is engaged (there is hold procedure in the background)	yes
	11.10	Handling lower priority incoming DSC calls while the equipment is engaged (there is hold procedure in the background)	yes
	11.11	Termination of the automated procedure (there is hold procedure in the background)	yes
	11.12	Controlling non-terminated automated procedures (there is hold procedure in the background)	Yes NOTE



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The deviations to normative documents

Clause 4.6

(1)

Automatic tuning of EUT on channel 16 occurs after each automated resending distress alert attempt while automatic tuning on 16 channel only after transmission of the first distress alert attempt is required.

[Draft ETSI EN 300 338-3(2009-12), n.6.4.10]

Clauses 5.8; 5.12

(2)

Reception DSC messages pertinent to the station but not the current automated procedure sounds the discrete alarm. While it is required only automatically placed in the received call memory.

[Draft ETSI EN 300 338-3(2009-12), n.6.5.4, n.6.5.5]

Clauses 6.4; 6.18; 7.16

(3)

EUT receives and displays acknowledgement «Unable to comply». While DSC equipment class D should not accept the reception of acknowledgement «Unable to comply».

[Draft ETSI EN 300 338-3(2009-12), n.5.2.4, Table 1]

[Rec. ITU-R M.493-13, Annex 1, Table 4.7; Table 4.9]

Clauses 7.1; 7.19

(4)

EUT has option for acknowledge “Unable to comply”. While for DSC equipment class D for acknowledgement of calls of category Routine the option «Unable to comply» should be absent.

[Draft ETSI EN 300 338-3(2009-12),n.5.2.4, Table 1]

[Rec. ITU-R M.493-13, Annex 1, Table 4.9]



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Cross-references to Draft ETSI EN 300 338-1(2009-12) and Draft ETSI EN 300 338-3(2009-12)

Draft ETSI EN 300 338-3	Test report
4.1.1	2.1;
4.1.1.1	2.2;
4.1.2	2.2;
4.1.3	2.3;
5.1.1	All clauses;
5.2.1	6.12;6.14;6.15;6.16;6.17;6.18;
5.2.2	6.14;6.15;6.16;6.18;
5.2.3	6.12;
5.2.4	5.1;5.2;6.4;6.13;6.17;7.7;7.13;7.14;7.15;7.16;7.17;7.18;7.19;
6.2.1	3.1; 3.2;
6.2.2	3.3;
6.2.3	3.4; 3.5;4.9;
6.3	3.6;3.7;3.8;3.9;4.16;6.8;6.9;6.10;7.6;7.7;7.9;7.10;7.11;8.4;8.5;
6.4.1	All clauses chapter 4;
6.4.2	4.4;4.5;4.6;4.9;
6.4.3	4.4;4.9;
6.4.4	4.1;4.2;4.3;4.13;4.16;4.17;
6.4.5	4.1;4.2;4.3;
6.4.6	4,17;
6.4.7	4.10;4.11;4.12;4.14;
6.4.8	4.10;4.11;4.12;4.14;
6.4.9	4.4;
6.4.10	4.2;
6.4.11	4.7;4.8;
6.4.12	4.9;4.11;4.12;4.14;
6.4.13	4.5;4.9;4.15;
6.4.14	All clauses chapter 4;



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Draft ETSI EN 300 338-3	Test report
6.5.1	All clauses chapter 5;
6.5.2	5.1;5.2-5.4;5.6;
6.5.3	5.1;5.2-5.4;5.7;5.8;5.9;5.10;5.11;5.12;5.13;5.14;
6.5.4	5.5;5.7;5.8;5.11;5.12;
6.5.5	5.1;5.2-5.4;5.7;5.8;5.9;5.10;5.11;5.12;
6.5.6	5.1;5.2-5.4;
6.5.7	All clauses chapter 5;
6.5.8	5.8;5.9;5.10;9.16;9.17;
6.5.9	5.13;5.14;
6.5.10	All clauses chapter 5;
6.6.1	All clauses chapter 6;
6.6.2	6.1;6.2;6.3;6.5;
6.6.3	6.1;6.2;6.3;
6.6.4	6.8;6.9;6.10;
6.6.5	6.1;6.2;6.3;6.7;
6.6.6	6.1;6.2;6.3;6.4;6.5;
6.6.7	6.6;
6.6.8	6.8;6.9;6.10;
6.6.9	All clauses chapter 6;
6.7.1	All clauses chapter 7;
6.7.2	7.1;7.2;7.3;7.4;
6.7.3	7.1;7.2;7.3;7.4;
6.7.4	7.5;7.6;7.7;7.8;7.9;7.10;7.11;
6.7.5	7.8;
6.7.6	7.1;7.2;7.3;7.4;
6.7.7	6.15;7.1;7.2;7.3;7.5;7.7;
6.7.8	7.5;7.6;7.7;7.8;7.9;7.10;7.11;
6.7.9	All clauses chapter 7;



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Draft ETSI EN 300 338-3	Test report
6.8.1	All clauses chapter 8;
6.8.2	All clauses chapter 8;
6.8.3	8.1;8.2;8.3;
6.8.4	8.2;8.3;
6.8.5	8.1;
6.8.6	8.4;8.5;8.6;
6.9.1	5.14;6.9;7.10;
6.9.2	5.14;6.9;7.10;8.5;8.6;11.1;
6.9.2.1	4.13;5.14;6.10;7.10;7.11;8.2;8.3;8.5;8.6;11.2; 11.3; 11.7;11.8;11.9;11.10;
6.9.2.2	7.10;8.2;8.5; 11.4;
6.9.2.3	11.5; 11.6; All clauses "Termination"
6.9.2.4	11.5; 11.6; 11.11; All clauses "Termination"
6.9.2.5	11.7; 11.8; 11.9; 11.10; 11.11; 11.12;
6.9.2.6	11.7; 11.8; 11.9; 11.10; 11.11; 11.12;
Annex C.1	3.4; 3.5;6.7;
Annex C.2	3.4; 3.5;9.14;
Annex C.3	3.4;9.14;
Annex C.4	3.4;



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Draft ETSI EN 300 338-1	Test rerport
4.7	1.1
4.8	1.2
4.9	1.3
4.10	4.17;10.1;10.2;
4.12	1.4
4.13	1.5
4.15	1.6
8.1,a	9.1;9.4;9.5;9.6;
8.1,b	
8.1.c	
8.1.d	
8.1.e	9.4;9.5;9.6;
8.1.f	
8.1.g	9.3;
8.1.h	9.2;
8.1.j	9.2;
8.1.k	9.7;9.8;
8.1.l	9.11;
8.1.m	9.12;
8.1.n	9.9;9.12;
8.1.o	9.9;9.12;
8.2.1	9.13;
8.2.2	9.10;9.11;9.14;9.15;9.16;9.17;9.18;9.19;
8.2.3	9.20;9.21;9.22;
9.3	10.1;10.3;10.4;10.5;
12.1	6.11;7.12;
13	



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Normative references

- 1) Finale draft ETSI EN 300 338-1(2009-12): “Electromagnetic compatibility and Radio spectrum Matters (ERM); Technical characteristics and methods of measurement for equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service; Part 1: Common requirements.”
- 2) Finale draft ETSI EN 300 338-3(2009-12): “Electromagnetic compatibility and Radio spectrum Matters (ERM); Technical characteristics and methods of measurement for equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service; Part 3: Class D DSC.”
- 3) ITU-R Recommendation M.493-13 (2009): “Digital selective-calling system for use in the maritime mobile service”.
- 4) ITU-R Recommendation M.541-9 (2004): "Operational procedures for the use of digital selective-calling equipment in the maritime mobile service".
- 5) ITU-R Recommendation M.821-1 (1997): "Optional expansion of the digital selective-calling system for use in the maritime mobile service".
- 6) IEC 61162-1 (2007): "Maritime navigation and radio communication equipment and systems - Digital interfaces - Part 1: Single talker and multiple listeners".
- 7) IMO Circular MSC/Circ-862: “ Clarifications of certain requirements in IMO performance standards for GMDSS equipment”.
- 8) IMO Resolution MSC.68(68): “Adoption of amendments to performance standards for shipborne radiocommunication equipment”.
- 9) IMO Circular MSC/Circ-803: "Participation of non-SOLAS ships in the Global Maritime Distress and Safety System (GMDSS)".



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Abbreviations

AIS Universal Automatic Identification System
COG Course over ground
DGPS Differential GPS
DSC Digital selective calling
DTE Data terminal equipment
DX First transmission
EPFD electronic position-fixing device
ETSI EN European standard
EUT Equipment under test
GMDSS Global maritime distress and safety system
GNSS Global Navigation Satellite System
GPS Global positioning system (US)
IEC International Electrotechnical Commission
IMO International Maritime Organization
ITU International Telecommunication Union
ITU-R ITU Radiocommunication sector (formerly CCIR)
ITU-T ITU Standardization sector (formerly CCITT)
MMSI Maritime mobile service identity
NE Nord-East
NW Nord-West
RR Radio Regulations
RX Second transmission
SOG Speed over ground
SOLAS Safety of Life at Sea (International convention)
SE South-East
SW South-West
UTC Universal time coordinated
VHF Very high frequency



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1. General requirements

[Draft ETSI EN 300 338-1(2009-12), n.4]



Company:	Thrane & Thrane A/S	
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1.1 Distress button and initiation of distress alert test

[Draft ETSI EN 300 338-1 (2009-12), n.4.7]
[MSC/Circ.862]

Definition

This test checks distress button sub-procedures.

Method of measurement and required results

Set the EUT into standby condition. Verify that:

Distress alert activation					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
A distress alert should be activated only by means of a dedicated distress button that has no other function other than activating distress alerts.	X		X		
This button should not be any key of a digital input panel or a keyboard provided on the equipment.	X		X		
This button shall only operate if an own MMSI (clause 4.8) is installed.	X		X		
The distress button should be clearly identified and be protected against inadvertent operation with a spring loaded lid or cover.	X		X		
This button shall be red in colour and marked "DISTRESS". Where a non-transparent protective lid or cover is used, it shall also be red and marked "DISTRESS".	X		X		
It shall not be necessary for the user to remove seals or to break the lid or cover in order to operate the distress button.	X		X		
The distress alert initiation should require at least two independent actions.	X		X		
<u>At all times it shall take a maximum of 5 seconds for lifting the spring loaded lid and continually pressing the dedicated distress button before a distress alert is transmitted.</u>	X		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Distress alert activation					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
No other button or control on the equipment shall initiate a distress alert however it is composed.	X		X		
The equipment shall indicate the status of the distress alert transmission.	X		X		
The use of the dedicated distress button shall automatically have priority over any other operation of the equipment.	X		X		
The button shall not be used for activating any other function or accessing any menu.	X		X		
It should be possible to interrupt repetitive transmissions of distress messages. Such operation should not interrupt the transmission of a distress alert or distress message in progress but should prevent repetitive transmissions of a distress message.	X		X		See Distress alert cancel

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

1.2. Input Own MMSI test

[Draft ETSI EN 300 338-1 (2009-12), n.4.8]

[Rec. ITU-R M.493-13, Annex1, n.12.4]

Definition

This test checks facilities of entering and storing own MMSI.

Method of measurement and required results

Verify that:

Own MMSI					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
The EUT shall have facilities for entering and storing its own 9-digit MMSI with the 10th digit set automatically to 0 in its use in any DSC message unless the equipment is designed to use the 10th digit in accordance with ITU-R recommendation M.1080.	X		X		
The factory default for the MMSI shall be some indicator to the equipment that it is invalid.	X		X		
Once an own-MMSI is programmed, this number shall not be able to be edited by means of any of the user controls. Intervention by the manufacturer or authorized representative shall be required.	X		X		
No DSC message shall be able to be sent without the proper entry of a valid own-MMSI.	X		X		
No DSC message shall be able to be received without the proper entry of a valid own-MMSI.	X		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Own MMSI					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
If there is no valid own-MMSI entered, on power up the EUT shall sound a warning alarm and display the reason for the alarm and the means to silence it. The aural alarm may self terminate. Until an MMSI is entered, the EUT shall display at all times that "there is no MMSI entered, DSC is disabled, your distress button will not work" or equivalent.	X		X		
Once stored, it possible for user to change the MMSI number	X		X		
On start-up display a warning that MMSI is not configured [<i>old requirement</i>]	X		X		
Readily display MMSI when the DSC equipment is on	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

1.3. Input Group MMSI test

[Draft ETSI EN 300 338-1 (2009-12), n.4.9]

[Draft ETSI EN 300 338-1 (2008-12), n.4.6.1]

Definition

This test checks facilities of entering and storing Group MMSI.

Method of measurement and required results

Verify that:

Group MMSI				
Subject	Value	Result		Comment
		OK	NO	
The equipment shall provide at least 20 user programmable group MMSIs to enable the equipment to recognize DSC messages addressed to either the ship's MMSI or the Group MMSIs.	>20	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

1.4. Operation test

[Draft ETSI EN 300 338-1 (2009-12), n.4.12]

Definition

This test checks facilities of operation EUT.

Method of measurement and required results

Verify that:

Operation					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
The equipment shall be so designed that misuse of the controls cannot cause damage to the equipment or injury to personnel.	X		X		
For integrated equipment means shall be provided to interrupt the transmissions and to reset the equipment manually.	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

1.5. Facilities of routine testing test

[Draft ETSI EN 300 338-1 (2009-12), n.4.13]

Definition

This test checks facilities of routine testing EUT.

Method of measurement and required results

Verify that:

Routine testing					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
Means shall be provided to enable routine testing of the DSC unit <u>without activating the associated radio transmitter.</u>	X		X		EUT uses the Low-power emission.
Typically this could be a DSC encode/decode loop test of a DSC call. Manufacturers shall declare the process employed	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

1.6. Interruptions in the power supply test

[Draft ETSI EN 300 338-1 (2009-12), n.4.15]

Definition

This test checks interruptions in the power supply EUT.

Method of measurement and required results

Verify that:

Memory						
Subject		Value		Result		Comment
		YES	NO	OK	NO	
The information in programmable memory devices shall be protected from interruptions in the power supply of at least 10 hours duration.	Own MMSI	X		X		
	Configuration data inherent to the DSC process	X		X		
	All DSC call logs	X		X		
Non volatile memory shall be used for the following:	The fact the equipment is turned on	X		X		
If the equipment was interrupted during an active sending distress automated procedure, the user shall be presented with the options to resume or cancel this procedure after power has been restored		X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

2. Controls and Indicators in Class D DSC Equipment

[Draft ETSI EN 300 338-3(2009-12), n.4]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

2.1. Primary DSC alphanumeric display test

[Draft ETSI EN 300 338-3 (2009-12), n.4.1.1]

Definition

This test checks primary DSC alphanumeric display.

Method of measurement and required results

Verify that:

N	Primary DSC display	Value	Results		Com-ment
			OK	NO	
1	Total number of characters are displayed should be minimum 32	>32	X		Should be minimum 32
2	Number of lines	7	X		
3	Number of characters per line should be minimum 12	>12	X		Should be min 12
4	Any displayed information shall be static	Yes	X		
5	Horizontal scrolling techniques are not permitted	Yes	X		
6	The display shall be capable of prompting the operator if an incorrect operation is attempted	Yes	X		
7	The display shall be capable of displaying error messages	Yes	X		
8	The display shall be capable of displaying incoming and logged calls in plain language	Yes	X		
9	The display shall be capable of displaying all the user programmable information content of a DSC call.	Yes	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

2.2. Additional display information test

[Draft ETSI EN 300 338-3 (2009-12), n.4.1.1.1]

Definition

This test checks additional display information.

Method of measurement and required results

Verify that:

N	Additional display information	Value	Results		Com-ment
			OK	NO	
1	Additional display characters or symbols shall be capable of showing the functions and options currently available	Yes	X		
2	Additional display characters or symbols shall be capable of displaying that unread received DSC calls are present in memory	Yes	X		
3	Additional display characters or symbols shall be capable of displaying other visual alarms	Yes	X		
4	Additional display characters or symbols shall be capable of displaying whether the position and time information is automatically entered or manually entered	Yes	X		
5	For integrated equipment there shall be additional display characters and symbols as required for displaying channel designator and other radio parameters	Yes	X		
6	Any graphical symbols shall be clearly defined in the operation manual	Yes	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

2.3. Handling visual information test

[Draft ETSI EN 300 338-3 (2009-12), n.4.1.3]

Definition

This test checks handling visual information.

Method of measurement and required results

Verify that:

N	Handling visual information	Value	Results		Com- ment
			OK	NO	
1	In case all information, or user options, required for the active automated procedure, cannot be contained on a single screen, means shall be available to inform the user that more information is available	Yes	X		
2	In case all information, or user options, required for the active automated procedure, cannot be contained on a single screen, means shall be available to inform the user how to select the relevant information not yet displayed, e.g. by means of a next button or info key	Yes	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3. Non-automated features

[Draft ETSI EN 300 338-3(2009-12), n.6.2]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.1 Verification of correct of dot pattern test

[Draft ETSI EN 300 338-3(2009-12), n.6.2.1]

[ITU-R M.493-13, Annex 1, n. 3.4]

Definition

This test checks the dot pattern length for the DSC messages.

Method of measurement and required results

The EUT and TE are connected. The EUT generates and transmits to the TE the standard legal call sequences for the class of equipment. The TE receives, displays the sequences in the ten-bit error-detecting code. The dot pattern preceding the phasing sequence is then identified and quantified.

Verify that:

N	Technical format of a call sequence	Result		Comment
		OK	NO	
1	Dot pattern of Distress call shall have length to 20 bits.	X		
2	Dot pattern of Distress acknowledgement call shall have length to 20 bits. (Self cancel)	X		
3	Dot pattern of Distress relay acknowledgement call shall have length to 20 bits.	X		
4	Dot pattern of call sequence (except Distress, Distress acknowledgement, Distress relay, Distress relay acknowledgement) to ship stations shall have length to 20 bits..	X		
5	Dot pattern of acknowledgement call sequence shall have length to 20 bits.	X		
6	Dot pattern of call sequence (except Distress, Distress acknowledgement, Distress relay, Distress relay acknowledgement) to coast stations shall have length to 20 bits..	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.2 Distress call attempt consisting of repeated call sequences

[ITU-R M.493-12, Ann.1, n.11]

[Draft ETSI EN 300 338-3(2009-12), n.6.2.1]

[ITU-R M.493-13, Annex 1, n. 3.4]

Definition

This test checks the dot pattern length for the DSC messages.

Method of measurement and required results

The EUT and TE are connected. The EUT generates a distress call attempt consisting of repeated call sequences. The TE receives, displays and prints the sequences in the ten-bit code. The transmitted distress call attempt is then analyzed.

	Technical format of a call sequence	Result		Comment
		OK	NO	
1	Presence of repeated transmit of a calling sequence (Should be 5 sequences)	X		
2	Dot pattern between the end of one call and the start of the following call Should be 20 bits.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.3 Transmission of DSC messages and prioritized wait

[Draft ETSI EN 300 338-3 (2009-12), n.6.2.2]

[ITU-R M.541-9, n.3.6]

Definition

This test checks that the EUT properly implements the prioritized wait prior to sending a DSC message. The tests include assuring that wait times are of proper length according to the type and priority of the message and that the random component is random, and that the EUT checks for a free channel after the wait time has elapsed. Since the method of testing involves timing the interval from when the TE stops sending a signal to when the time the EUT sends the DSC message, the time reported will be longer than the proposed wait times due to latency for signal detection (noting that the channel becomes free) and transmitting the signal even though the transmitter and any antenna coupler has been powered up and tuned prior to checking the channel. This 'latency time' will be dependent upon the EUT. Therefore an estimate of this latency time will be made by timing the reported interval in the case of sending a distress alert attempt on the EUT. (With no latency, the reported interval would be zero.) The actual value shall be subtracted from all subsequent measurements.

Method of measurement and required results

a)The EUT and TE are connected. From TE simulate channel busy.

The EUT encodes and sequentially transmits the following DSC calls:

- distress;
- urgency;
- non-test safety;
- test safety;
- routine.

The EUT should correctly monitoring the DSC channel to determine the presence of signal. Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Type of call		Automati- cally preventing the transmis- sion		Results		Com- ment
		YES	NO	OK	NO	
The alert shall be transmitted as soon as the channel becomes free or after 1s, which ever occurs first.	Distress alert	X		X		
The automated procedure on the EUT never transmits and continues to indicate that it is waiting for a free channel	Distress Alert Cancel	X		X		
	Distress call (Ind. Distress relay Ack)	X		X		
	Urgency call	X		X		
	Safety call	X		X		
	Test safety call	X		X		
	Routine call	X		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) The EUT and TE are connected. From TE simulate channel busy for more than 1 sec. While sending DSC message from TE try to send from EUT the following DSC calls:

- distress;
- urgency;
- non-test safety;
- test safety;
- routine.

Verify that:

	Type of call	Wait time			Results		Comment
		Number of repetition	Average (msec)	Minimum time (msec)	OK	NO	
1	Distress call (Ind. Distress relay Ack)	10	206	185	X		
2	Urgency call	10	273	225	X		
3	Safety call	10	370	344	X		
4	Test safety call				n.a		Not tested
5	Routine call	10	350	320	X		

Item	Result		Comment
	YES	NO	
The alert shall be transmitted after 1s	X		
The EUT shall wait for the channel to become free and then the equipment shall delay transmission of the DSC message for a specified wait time.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.4 Shipborne specific aural alarm to indicate receipt of distress or urgency call or a call having distress category test

[Draft ETSI EN 300 338-3(2009-12), n.6.2.3]

[Draft ETSI EN 300 338-3(2009-12), Annex C]

[Rec. ITU-R M.493-13, An. 1, n.12.1]

Definition

This test checks that the EUT properly implements two-tone and urgency alarms.

Shipborne alarms should start softly and increase in volume if not silenced by the operator. Distress and urgency calls should have a distinctive two tone alarm. The alarm should consist of two substantially sinusoidal audio-frequency tones, transmitted alternately. One tone should have a frequency of 2 200 Hz and the other a frequency of 1 300 Hz. The duration of each tone should be 250 ms.

Method of measurement and required results

a) Reset EUT into Standby. From TE send DSC message for initiate the receiving distress automatated procedure:

- Distress call;
- Distress relay to All ship;
- Distress relay to Individual (EUT) station;
- Distress relay to Geographic area.

Verify that:

Two-tone alarm	Result		Com- ment
	YES	NO	
Alarm shall have both a visual and aural component [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Alarm shall provide the reason for and means to terminate alarm [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
The operator shall not be unable to customize the two-tone alarms [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
The operator shall not be unable to use for other purpures the two-tone alarms [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
Initially be of a power that is clearly distinguishable for first 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Start softly to rise within next 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Audio-frequency tones are 2200 Hz and 1300 Hz [Draft ETSI EN 300 338-3(2009-12), C.3]	X		
Duration of tones is 250 ms [Draft ETSI EN 300 338-3(2009-12), C.3]	X		
There is no possibility to disable alarm and indication [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Reset only manually [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
In the event that an alarm is not cancelled manually then automatic cancellation shall take place after 2 minutes [Draft ETSI EN 300 338-3(2009-12), C.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset EUT into Standby. From TE send DSC message for initiate the receiving distress automatated procedure. And next acknowledge the procedure by sentence:

- Distress acknowledgement;
- Distress relay all ship acknowledgement;
- Distress relay Individual acknowledgement.

Verify that:

Distress ack alarm	Result		Com-ment
	YES	NO	
Alarm shall have both a visual and aural component [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Alarm shall provide the reason for and means to terminate alarm [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
The operator shall not be unable to customize the distress ack alarms [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
The operator shall not be unable to use for other purpures the distress ack alarms [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
Not the alarm shall inrease in volume over the first 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Audio-frequency tones are 2200 Hz and 1300 Hz [Draft ETSI EN 300 338-3(2009-12), C.3]	X		
Duration of tones is 500 ms [Draft ETSI EN 300 338-3(2009-12), C.3]	X		
There is no possibility to disable alarm and indication [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Reset only manually [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
In the event that an alarm is not cancelled manually then automatic cancellation shall take place after 2 minutes [Draft ETSI EN 300 338-3(2009-12), C.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Reset EUT into Standby. From TE send urgency DSC message for initiate the receiving no distress automatated procedure.

Verify that:

Urgency alarm	Result		Com-ment
	YES	NO	
Alarm shall have both a visual and aural component [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Alarm shall provide the reason for and means to terminate alarm [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
The operator shall not be unable to customize the urgency alarms [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
The operator shall not be unable to use for other purpures the urgency alarms [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
Initially be of a power that is clearly distinguishable for first 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Start softly to rise within next 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Audio-frequency tones are 2200 Hz and Silence [Draft ETSI EN 300 338-3(2009-12), C.3]	X		
Duration of tones is 250 ms [Draft ETSI EN 300 338-3(2009-12), C.3]	X		
There is no possibility to disable alarm and indication [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Reset only manually [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
In the event that an alarm is not cancelled manually then automatic cancellation shall take place after 2 minutes [Draft ETSI EN 300 338-3(2009-12), C.1]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.5 Shipborne aural alarm to indicate receipt calls other than distress and urgency test

[Draft ETSI EN 300 338-3(2009-12), n.6.2.3]
[Draft ETSI EN 300 338-3(2009-12), Annex C]
[Rec. ITU-R M.493-13, An. 1, n.12.1]

Definition

This test checks that the EUT properly implements routine alarms.

Method of measurement and required results

a) Reset EUT into Standby. From TE send Safety and Routine DSC message for initiate the receiving non distress automatated procedure:

- All ships RT call Safety;
- Individual RT call Safety (to EUT);
- Individual test call (to EUT);
- Routine group call RT;
- Routine individual RT call (to EUT).

Verify that:

Routine alarm	Result		Com-ment
	YES	NO	
Alarm shall have both a visual and aural component [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Alarm shall provide the reason for and means to terminate alarm [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Disabling of aural alarm does not affect handling of call [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
Not the alarm shall increase in volume over the first 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
The alarm shall auto shutdown [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Shall be possibility to disable alarm and indication [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
In the event that an alarm is not cancelled manually then automatic cancellation shall take place after 2 minutes [Draft ETSI EN 300 338-3(2009-12), C.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset EUT into Standby. From EUT send Routine DSC message for initiate the receiving no distress automatated procedure. Next acknowledge the automated procedure.
Verify that:

Routine ack alarm	Result		Com-ment
	YES	NO	
Alarm shall have both a visual and aural component [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Alarm shall provide the reason for and means to terminate alarm [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
Disabling of aural alarm does not affect handling of call [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
Not the alarm shall increase in volume over the first 10 sec [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
The alarm shall auto shutdown [Draft ETSI EN 300 338-3(2009-12), C.1]	X		
Shall be possibility to disable alarm and indication [Rec. ITU-R M.493-13, An. 1, n.12.1]	X		
In the event that an alarm is not cancelled manually then automatic cancellation shall take place after 2 minutes [Draft ETSI EN 300 338-3(2009-12), C.1]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.6 Standby state test

[Draft ETSI EN 300 338-3 (2009-12) n.6.3]

[Rec. ITU-R M.493-13, Ann.1, 12.2]

Definition

This test checks options for Standby condition.

Method of measurement and required results

a) Set EUT into standby mode. Test top level information. Verify that:.

N	Top level information	Value	Results		Com- ment
			OK	NO	
	Dedicated distress button shall be available to the operator at top level while in standby	yes	X		
	a clearly labelled means to compose/send a non distress DSC message	yes	X		

b) Set EUT into standby mode. Check non-top level functions. Verify that:.

N	The following functions and or information shall be accessible to the operator via a maximum of two menu layers	Value	Results		Com- ment
			OK	NO	
	the station MMSI	yes	X		
	the latest (enhanced) position of the vessel	yes	X		
	the UTC time of that position	yes	X		
	a clearly labelled means to compose a distress alert prior to sending	yes	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Set EUT into standby mode. Check options. Verify that:.

The option to auto acknowledge test DSC messages				
Item	Value	Result		Com-ment
		YES	NO	
Facilites to set Auto acknowledge	yes	X		Should be option to set
Default setting	ON	X		Should be ON

The option to auto acknowledge position request messages				
Item	Value	Result		Com-ment
		YES	NO	
Facilites to set Auto acknowledge	yes	X		Should be option to set
Default setting	ON	X		Should be ON

The option to auto acknowledge individually addressed, non distress DSC messages				
Item	Value	Result		Com-ment
		YES	NO	
Facilites to set Auto acknowledge	yes	X		Should be option to set
Default setting	OFF	X		Should be OFF



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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The option to set the no activity timeout to exit any non automated procedure activity to some value that includes no timeout

Item	Value	Result		Comment
		YES	NO	
There are facilities of timeout	yes	X		Should be option
Possibility of change value of timeout	yes	X		
Limits of timeout	1-30 min	X		
Default value of timeout	10	X		10 min
Facilities to set Active / No active timeout	yes	X		Yes
Default setting	Active	X		Active

the option to set the no activity timeout of non distress DSC automated procedures to some value that includes no timeout

Item	Value	Result		Comment
		YES	NO	
There are facilities of timeout	yes	X		Should be option
Possibility of change value of timeout	yes	X		
Limits of timeout	1-30 min	X		
Default value of timeout	15	X		15 min
Facilities to set Active / No active timeout	yes	X		Yes
Default setting	Active	X		Active



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

The option to set the no activity timeout of received distress DSC automated procedures to some value that includes no timeout

Item	Value	Result		Comment
		YES	NO	
There are facilities of timeout	yes	X		Should be option
Possibility of change value of timeout	yes	X		
Limits of timeout	1-30 min	X		
Default value of timeout	Off	X		No timeout
Facilities to set Active / No active timeout	yes	X		Yes
Default setting	Active	X		

The option to set the no activity timeout of communications automated procedures to some value in the range [10 s to 10 min

Item	Value	Result		Comment
		YES	NO	
There are facilities of timeout	yes	X		Should be option
Possibility of change value of timeout	yes	X		
Limits of timeout	10-600 sec	X		10 sec to 10 min
Default value of timeout	30	X		30 sec
Facilities to set Active / No active timeout	No	X		
Default setting	Active	X		Active



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

The option to set that there is no option to set any timeout of the unacknowledged sending distress automated procedure;

Item	Value	Result		Comment
		YES	NO	
There are facilities of timeout	No	X		Should NOT be option

The option to set that timeout of the acknowledged sending distress automated procedure;

Item	Value	Result		Comment
		YES	NO	
There are facilities of timeout	yes	X		optionally
Possibility of change value of timeout	yes	X		
Limits of timeout	1-30 min	X		
Default value of timeout	Off	X		
Facilities to set Active / No active timeout	yes	X		
Default setting	Active	X		

The equipment meets the requirements (yes / no /n.a)

yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.7 Distress messages storage test

[IMO Resolution A.806(19), n.3.1]
[Resolution MSC.68(68), Annex 3]
[Draft ETSI EN 300 338-3(2009-12) , n.6.3]

Definition

This test checks distress messages storage.

Method of measurement and required results

Reset EUT into Standby. Send from TE to EUT Distress alerts (calls distress category).
Verify that:

N	Subject	Value	Results		Com-ment
			OK	NO	
1	Capacity for storing of different received DSC distress calls and calls having distress category should be at least 20 [IMO Resolution A.806(19), n.3.1] [Draft ETSI EN 300 338-3(2009-12) , n.6.3]	20	X		
2	The most recently received DSC distress alert attempts is stored	yes	X		
3	Storing calls of a single frequency distress call attempt	yes	X		
4	Storing the messages until readout and should be erased 48 hours after their reception [Resolution MSC.68(68), Annex 3]	yes	X		
5	DSC alerts received within a period of 5 seconds shall be considered part of the same distress alert attempt.	yes	X		
6	Received messages shall be stored or printed out even if the received Error Check Character (ECC) does not match.	yes	X		
7	If any errors in the information characters of a received alert are corrected by the reception of other alerts within the attempt, only the corrected version shall be recorded.	yes	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.8 Non Distress message storage test

[Draft ETSI EN 300 338-3, n.6.3]

Definition

This test checks non distress messages storage.

Method of measurement and required results

Reset EUT into Standby. Send from TE to EUT calls No distress category. Verify that:

N	Subject	Value	Results		Com-ment
			OK	NO	
1	Capacity for storing of different received Non DSC distress calls should be at least 20	20	X		Should be at least 20
2	The most recently received Non DSC distress message is stored	yes	X		
3	Received messages shall be stored or printed out even if the received Error Check Character (ECC) does not match.	yes	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

3.9 Send DSC messages storage test

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

Definition

This test checks sendbDSC messages storage.

Method of measurement and required results

Reset EUT into Standby. Initiate from EUT calls sending up to limit of storage capacity.
Verify that:

N	Subject	Value	Results		Com-ment
			OK	NO	
1	Capacity for storing of send calls messages should be at least 20	20	X		
2	The most recently message is stored	yes	X		
3	Storing calls of a single frequency distress call attempt	yes	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4. Sending distress automated procedure



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.1. Distress button sub procedure tests

[Draft ETSI EN 300 338-3, n.6.4.4, n.6.4.5]

Definition

This test checks the distress button sub procedure on the EUT.

Method of measurement and required results

Have the EUT and TE in standby. Stop any automatic updates that lead to changes of the position on the EUT and note the MMSI, position, and UTC time of position of the EUT. Make sure the position has enhanced resolution in seconds or fractional minutes. The tests are to be performed using only the distress button (DB) on the EUT. The last test will require returning the EUT to standby. Verify that:

Item	Result		Com- ment
	YES	NO	
Pressing the DB sounds an audio alarm such that one can count seconds by it, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, b]	X		
pressing the DB invokes a visual indicator such that one can count seconds by it, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, b]	X		
the seconds remaining to transmission of the alert attempt are displayed, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, b]	X		
release of the DB before 3 s have elapsed stops the sub procedure, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, c]	X		
after the 3 s have elapsed there a steady tone of 2 s duration, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d,e]	X		
the distress alert attempt is sent if the DB is then released after the 3 s, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the distress alert attempt is sent if the DB is continued to be held down. [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.2. Default distress alert attempt test

[Draft ETSI EN 300 338-3, n.6.4.4, n.6.4.5]

Definition

This test checks the sending of the default distress alert attempt on the EUT from standby.

Method of measurement and required results

Place the TE in standby. Using only the distress button on the EUT, send the default distress alert attempt and verify that:

Item	Result		Com-ment
	YES	NO	
The distress button is required to send the distress alert attempt, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, a,b,d]	X		
the nature of distress on the TE is undesignated, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the MMSI of the vessel in distress on the TE is that of the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the position on the TE is that of the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the position on the TE includes the enhanced resolution, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the UTC time of the position on the TE is that of the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the means of subsequent communication on the TE is radio telephone, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, d]	X		
the frequency of subsequent communication is channel 16 on VHF , [Draft ETSI EN 300 338-3(2009-12), n.6.4.10]	X		
You can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.3. Default distress alert attempt consistency tests

[Draft ETSI EN 300 338-3, n.6.4.4, n.6.4.5]

Definition

This test checks that sending the default distress alert attempt always transmits the default values.

Method of measurement and required results

From standby on the EUT select the option to compose a distress alert. Select any nature of distress except “undesigned”. Send the distress alert attempt from the EUT and verify that:

Item	Result		Com-ment
	YES	NO	
The distress button is required to send the distress alert attempt, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, a,b,d]	X		
the enhanced position information is only sent on the 5 th distress alert, [Draft ETSI EN 300 338-3(2009-12), n.6.4.5, f]	X		
the nature of distress on the TE is that selected on the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4, c]	X		
You can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT.	X		

Return the EUT and TE to standby and use the distress button without entering parameters of the alert attempt via a menu or equivalent on the EUT to send the default distress alert attempt. Verify that:

Item	Result		Com-ment
	YES	NO	
all the conditions listed under the default distress alert attempt are true (nature of distress is “undesigned”). [Draft ETSI EN 300 338-3(2009-12), n.6.4.4,d]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.4. Display test

Definition

This test checks that the required items of the automated procedure are properly displayed on the EUT.

Method of measurement and required results

This test requires visual inspection only of the EUT interface upon/after sending a distress alert attempt from the EUT without handling the equipment. Send the default distress alert attempt from the EUT and verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,e(1)]	X		
the remaining time to the next automated sending of the distress alert attempt is displayed, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,f(a)]	X		
the time to the next automated sending from the start of transmission is between 3,5 min and 4,5 min, (this test is repeated several times; the test personnel shall check that the interval is different each time.) [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(2)]	X		
the five items of the sent distress information are displayed, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,b]	X		
the operator is able to view the frequency of subsequent communication (VHF Ch 16), [Draft ETSI EN 300 338-3(2009-12), n.6.4.9]	X		
the EUT indicates that it is waiting for an acknowledgement after the distress alert attempt is sent, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,e(2)]	X		
the option to pause the countdown to the next distress alert attempt is available, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)]	X		
the option to cancel the distress alert is available, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)],	X		
the option to resend the distress alert attempt is available. [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.5. Operator options prior to receiving distress alert acknowledgement test

Definition

This test checks the operator options previous to being acknowledged. The cancel option shall be tested in its own section.

Method of measurement and required results

Continuing from the automated procedure of the previous test or after sending a default distress alert attempt from the EUT verify that:

Item	Result		Com-ment
	YES	NO	
the operator is able to pause the countdown to the next distress alert attempt, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)]	X		
the operator is able to resume the countdown to the next distress alert attempt, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)]	X		
the operator able to resend the distress alert attempt before the countdown has elapsed, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)]	X		
the unacknowledged procedure cannot be terminated either by the operator or the equipment, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)] [Draft ETSI EN 300 338-3(2009-12), n.6.4.13]	X		
upon resending, the EUT indicates that it is retransmitting, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,e(1)]	X		
the time to the next automated sending is reset to between 3,5 min and 4,5 min, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(2)]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.6. Automatic resending of the distress alert attempt test

Definition

This test checks that the distress alert attempt is automatically resent at the proper time.

Method of measurement and required results

Continuing from the automated procedure of the previous test or after sending a default distress alert attempt from the EUT let the countdown to the automatic resending of the distress alert attempt elapse and verify that:

Item	Result		Com-ment
	YES	NO	
the operator is notified of the resending at least 10 s before the resending, [Rec.ITU-R M.493-13, Ann.4, n.3.1.3.2]	X		
after the warning the operator is able to easily pause and then resume the countdown, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(7)]	X		
the distress alert attempt is automatically resent when the remaining time goes to zero, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,b(6)]	X		
the EUT indicates that it is transmitting,	X		
the time to the next automated sending from the start of transmission is between 3,5 min and 4,5 min,	X		
the TE receives the distress alerts.	X		
Automatic tuning to chnnel 16 shall occur after transmission of the first distress alert attempt [Draft ETSI EN 300 338-3(2009-12), n.6.4.10]		X	(1)

(1)

Automatic tuning of EUT on chnnel 16 occurs after each automated resending distress alert attempt while automatic tuning on 16 channel only after transmission of the first distress alert attempt is required.

[Draft ETSI EN 300 338-3(2009-12), n.6.4.10]

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
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4.7. Cancelling the distress alert test

[Draft ETSI EN 300 338-3(2009-12), n.6.4.11]

Definition

These tests check that the sending distress automated procedure follows the proper distress alert cancellation protocol. Cancelling a distress alert involves sending the self addressed distress alert acknowledgment followed by a voice cancel on the channel 70 DSC and channel 16 voice.

Method of measurement and required results

Send a default distress alert attempt from the EUT. The received distress automated procedure shall start on the TE. Upon completion of the alert attempt on the EUT select the option to cancel the alert attempt and verify that:

Item	Result		Com-ment
	YES	NO	
a warning is displayed that one is trying to cancel the distress,	X		
The channels that need to be cancelled are displayed (16 on VHF),	X		
prior to selecting a channel to cancel, the operator is able to exit the cancel procedure	X		
upon selection of a channel it is indicated to the operator that the self cancel is being sent	X		
The self cancel is displayed and recognized on the TE,	X		
The operator is informed when the EUT is ready to give the manual (voice) cancel	X		
The appropriate text for the manual (voice) cancel is provided,	X		
The cancelled channel 16 is indicated to the operator,	X		
The operator is able to re-do the cancel operation on a channel 16,	X		
A warning is provided that the cancellation has already been done,	X		
The operator's voice cancellation is heard on the TE,	X		
upon exiting the cancel the sending distress automated procedure is acknowledged.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.8. Cancelling during the sending of a distress alert attempt test

Definition

This test makes sure that no distress alert attempt is stopped in the middle of a distress alert (a distress alert attempt consists of several distress alerts).

Method of measurement and required results

Place the TE and EUT in standby. Send a default distress alert from the EUT. If possible, on VHF cancel the distress alert attempt quickly enough to stop the distress alert attempt before all the constituent distress alerts of the distress alert attempt are sent. The received distress automated procedure shall start on the TE. Verify that:

Item	Result		Com-ment
	YES	NO	
any distress alert started is sent to completion, [Draft ETSI EN 300 338-3(2009-12), n.6.4.11] [IMO MSC/Circ.862, 1.5]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.9. Handling distress alert acknowledgements test

Definition

This test checks that the sending distress automated procedure responds correctly to distress alert acknowledgements and that any auto timeout option that may be provided for the acknowledged sending distress automated procedure functions properly. (Recall that unacknowledged sending distress procedures SHALL NOT have an auto timeout option).

Method of measurement and required results

Set the EUT and TE in standby and send a default distress alert attempt from the EUT such that the received distress automated procedure is once again initiated on the TE. A distress acknowledgement shall then be sent from the TE. If the EUT provides an automatic timeout option for the acknowledged sending distress procedure, set the automated timeout to a value that gives one enough time to complete the first 16 tests. After the entire set of tests is completed, reset the timeout on the EUT to 'no timeout'. Verify that:



Company:	Thrane & Thrane A/S	
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Item	Result		Com-ment
	YES	NO	
a received distress alert acknowledgment message appears and corresponding alarm sounds, [Draft ETSI EN 300 338-3(2009-12), n.6.4.12] [Draft ETSI EN 300 338-3(2009-12), Ann.C, Table C.1]	X		
the means to silence the alarm is displayed on the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.2.3]	X		
the alarm can only be silenced manually, [Draft ETSI EN 300 338-3(2009-12), Ann.C, Table C.1]	X		
the automatic resending of the alert attempt is terminated, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,c(1)]	X		
the EUT indicates that the distress event has been acknowledged, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,e]	X		
the time since acknowledgment is displayed, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,a]	X		
the MMSI of the sender is displayed, [Draft ETSI EN 300 338-3(2009-12), n.6.4.3,d]	X		
the operator can speak to the TE from the EUT,	X		
the operator can speak to the EUT from the TE,	X		
the operator is no longer able to resend the distress alert attempt, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,c(4)]	X		
the option to pause the countdown (or elapsed time) is no longer available, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,c(4)]	X		
the option to <i>cancel</i> the alert is no longer available,	X		
the option to terminate the sending distress automated procedure is now available, [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,c(4)]	X		
the option to put the sending distress automated procedure on hold is now available (if implement background procedure), [Draft ETSI EN 300 338-3(2009-12), n.6.4.2,c(4)]	X		
if there is a timeout, a visual and aural warning appears at least 10 s before termination with the option to stop the termination. [Draft ETSI EN 300 338-3(2009-12), n.6.4.13]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.10. Handling additional distress DSC messages pertinent to the automated procedure test

Definition

This test checks the handling of distress DSC messages pertinent to the sending distress automated procedure after acknowledgement.

Method of measurement and required results

The sending distress automated procedure on the EUT shall first be acknowledged by the TE. Additional distress DSC messages shall then be sent from the TE concerning the same distress event being handled by the sending distress automated procedure on the EUT. The region of any area addressed DSC messages composed on the TE shall be specified to encompass the EUT. Verify that:

Item	Result		Com-ment
	YES	NO	
a repeat distress alert acknowledgment sounds the self-terminating alarm on the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]		X	NOTE

Change the MMSI of the TE and verify that:

Item	Result		Com-ment
	YES	NO	
a repeat distress alert acknowledgment sounds the self-terminating alarm on the EUT, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]		X	NOTE
the procedure on the EUT is unaffected upon receiving distress relay for the same distress event (only record in the log), [Draft ETSI EN 300 338-3(2009-12), n.6.4.7, n.6.4.8]	X		

NOTE

A repeat distress alert acknowledgment does not any alarms on the EUT. It agrees [Draft ETSI EN 300 338-3 (2009-12), n.6.4.8] repeated reception of acknowledgement should be accompanied sound self terminating alarm. But it agrees [Draft ETSI EN 300 338-3 (2009-12), n.6.4.7] all DSC messages describing the same distress event may be ignored. The requirement has contradictory character.

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.11. Handling distress alert acknowledgements for other distress event test

[Draft ETSI EN 300 338-3, n.6.4.12]

Definition

This test checks that the sending distress automated procedure responds correctly to distress alert acknowledgements with not are pertinent the currently active automated send distress attempt procedure.

Method of measurement and required results

Set the EUT and TE in standby and send a default distress alert attempt from the EUT. Send from TE DSC distress acknowledgements as listed in the table. Verify that the stage of the procedure is “waiting for acknowledgement”:

EUT MMSI ship in distress: 273000000

Nature of distress: Undesignated

Position: 00 00.0000N 000 00 0000E



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

a) Reset EUT into standby. Initiate from EUT automated sending distress alert procedure.
Next without delay send calls:

Distress call (other distress event) MMSI another	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress acknowledgement (other distress event) MMSI another	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress acknowledgement (other distress event) Ship in distress MMSI same Nature another	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress relay ACK Individual (to EUT other distress event)	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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Distress relay RT All ships (same distress event)	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress relay ACK RT All ships (same distress event)	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress Alert Cancel (Other distress event)	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.12. Handling distress alert acknowledgements for same distress event test

[Draft ETSI EN 300 338-3(2009-12), n.6.4.12]

[Draft ETSI EN 300 338-3(2009-12), n.6.4.7]

[Draft ETSI EN 300 338-3(2009-12), n.6.4.8]

Definition

This test checks that the sending distress automated procedure responds correctly to distress alert acknowledgements with are pertinent the currently active automated send distress attempt procedure.

Method of measurement and required results

Set the EUT and TE in standby and send a default distress alert attempt from the EUT. Send from TE DSC distress acknowledgements as listed in the table. Verify that the stage of the procedure is “alert acknowledged”:

EUT MMSI ship in distress: 273000000

Nature of distress: Undesignated

Position: 00 00.0000N 000 00 0000E



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

a) Reset EUT into standby. Initiate from EUT automated sending distress alert procedure.
Next without delay send calls:

Distress acknowledgement (same distress event) Distress coordinates another	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should be changed to: “alert acknowledged”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should sounds the distress acknowledgement alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress acknowledgement (same distress event) Time of Distress coordinates another	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should be changed to: “alert acknowledged”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should sounds the distress acknowledgement alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress acknowledgement (same distress event) Distress coordinates and time another	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should be changed to: “alert acknowledged”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should sounds the distress acknowledgement alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

Distress acknowledgement (same distress event) Distress coordinates unknown	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should be changed to: “alert acknowledged”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should sounds the distress acknowledgement alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.13. Use of the distress button priority test

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1]

[Rec. ITU-R M.493-13, Ann.4, n.3.3.2]

[Draft ETSI EN 300 338-3(2009-12), n.6.4.4]

Definition

This test checks the critically important feature that the distress button is able to send the default distress alert attempt regardless of the state of the EUT.

Method of measurement and required results

This test requires that the EUT be placed in as many as reasonable of its possible states. Instructions are given to place the EUT in one of these states. The default distress alert attempt is then started using the distress button.

a) From standby on the EUT select the option to send an individual DSC message of priority routine. Enter/select the MMSI of the desired recipient. Before the DSC message is actually sent, start the default distress alert attempt using the dedicated distress button and verify that:

Item	Result		Com-ment
	YES	NO	
the three second countdown is followed by the two second steady alarm,	X		
the received distress procedure is started on the TE,	X		
the distress information on the TE is the default values and the sender is the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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b) From standby on the EUT select the option to send an individual DSC message of priority routine. Enter/select the MMSI of the desired recipient and send the DSC message. The sending non distress DSC automated procedure shall start on the EUT. Start the default distress alert attempt using the dedicated distress button and verify that:

Item	Result		Comment
	YES	NO	
the three second countdown is followed by the two second steady alarm,	X		
the received distress procedure is started on the TE,	X		
the distress information on the TE is the default values and the sender is the EUT,	X		

c) From standby start the default distress alert attempt on the EUT using the dedicated distress button. When transmission begins, release the distress button. When the received distress DSC automated procedure starts on the TE, press the dedicated distress button on the EUT once again and verify that:

Item	Result		Comment
	YES	NO	
the action of pushing the distress button is ignored or activate resend procedure, [Draft ETSI EN 300 338-3(2009-12), n.6.4.4]	X		
the ongoing sending distress alert automated procedure on the EUT is uninterrupted.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

d) Set the EUT into standby. Send a distress alert attempt from the TE. After the received distress DSC automated procedure starts on the EUT, return the TE to standby and start the default distress alert attempt on the EUT using the dedicated distress button and verify that:

Item	Result		Com-ment
	YES	NO	
the three second countdown is followed by the two second steady alarm,	X		
the received distress procedure is started on the TE,	X		
the distress information on the TE is the default values and the sender is the EUT,	X		

e) Set the EUT into standby. Send an individual non distress DSC message of priority urgency from the TE addressed to the EUT. After the received non distress DSC automated procedure starts on the EUT, start the default distress alert attempt on the EUT using the dedicated distress button and verify that:

Item	Result		Com-ment
	YES	NO	
the three second countdown is followed by the two second steady alarm,	X		
the received distress procedure is started on the TE,	X		
the distress information on the TE is the default values and the sender is the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.14. Handling received DSC messages prior and after to acknowledgement the sending distress alert automated procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.4.7]

Definition

This test checks that the sending distress automated procedure responds correctly to incoming calls which are not pertinent to the currently active automated send distress attempt procedure but pertinent to the station.

Method of measurement and required results

Set the EUT and TE in standby and send a default distress alert attempt from the EUT. Send from TE DSC calls as listed in the table prior and after acknowledge. Verify that:

a) Reset EUT into Standby. From EUT send Distress call attempt. Verify that automated procedure is initiated. From TE send serially the calls listed in the table which are pertinent to the station, but not for the currently active automated procedure. Verify that:

N	DSC sentence	Verify				Comment
		Procedure sub-stage	Alarm	Indication	Logged	
1	Distress relay RT Individual	Wait for ack	no	no	Yes	
2	All ships RT call Safety	Wait for ack	no	no	Yes	
3	All ships RT call Urgency	Wait for ack	no	no	Yes	
4	Distress alert	Wait for ack	no	no	Yes	
5	Individual RT call Urgency	Wait for ack	no	no	Yes	
6	Distress relay RT All ships	Wait for ack	no	no	Yes	
7	Distress relay RT Individual	Wait for ack	no	no	Yes	
8	Distress acknowledgement	Wait for ack	no	no	Yes	
9	Routine individual RT call	Wait for ack	no	no	Yes	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Item	Result		Com-ment
	YES	NO	
The sub-stage of the procedure should not be changed: “waiting for acknowledgement”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		
The calls should be recorded in the log, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

b) Repeat the test after acknowledgement the automated procedure.

N	DSC sentence	Verify				Com-ment
		Procedure sub-stage	Alarm	Indica-tion	Logged	
1	Distress relay RT Individual	Wait for ack	no	no	Yes	
2	All ships RT call Safety	Wait for ack	no	no	Yes	
3	All ships RT call Urgency	Wait for ack	no	no	Yes	
4	Distress alert	Wait for ack	no	no	Yes	
5	Individual RT call Urgency	Wait for ack	no	no	Yes	
6	Distress relay RT All ships	Wait for ack	no	no	Yes	
7	Distress relay RT Individual	Wait for ack	no	no	Yes	
8	Distress acknowledgement	Wait for ack	no	no	Yes	
9	Routine individual RT call	Wait for ack	no	no	Yes	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Item	Result		Com- ment
	YES	NO	
The sub-stage of the procedure should not be changed: “alert acknowledged”, [Draft ETSI EN 300 338-3, n.6.4.12]	X		
The reception of the call should not sounds the alarm, [Draft ETSI EN 300 338-3(2009-12), n.6.4.8]	X		
The reception of the call should not flagged “Unread call in the memory”, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		
The calls should be recorded in the log, [Draft ETSI EN 300 338-3(2009-12), n.6.4.7]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.15. Termination of the acknowledged sending distress alert automated procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]

Definition

This test checks the termination of the acknowledged sending distress alert automated procedure.

Method of measurement and required results

Set the EUT and TE in standby and send a default distress alert attempt from the EUT. Send from TE DSC acknowledgement and next calls as listed in the table pertinent to station, but not for the currently active automated procedure.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

a) Manually terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
Prior to acknowledgement the procedure shall not be terminated by the operator or the equipment [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		
After acknowledgement the termination options is available [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		
After termination the EUT NOT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Set timeout of the acknowledged sending distress alert automated procedure (if available - optionally). Repeat the test. Verify that:

Item	Result		Com-ment
	YES	NO	
Prior to acknowledgement the procedure shall not be terminated by the operator or the equipment [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		
After acknowledgement the auto termination options is available [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		
At least 10 seconds prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-12, Ann.4, n.3.1.9.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec. ITU-R M.493-12, Ann.4, n.3.1.1.1]	X		
The option to stop of termination is available [Rec. ITU-R M.493-12, Ann.4, n.3.1.9.2]	X		
After termination the EUT NOT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.16. Distress alert composition test

[Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3,d]

[Rec. ITU-R M.493-13, Ann.3 n.3.2.1]

Definition

This test checks the ability of the EUT to transmit the distress information correctly for different values of the nature of distress and from different positions on the globe.

Method of measurement and required results

a) Set the EUT and TE into standby. Select the option to send a distress. Choose the nature of distress, position information as listed in the tables.

N	Nature of Distress	Possibility of sending		Result		Comment
		YES	NO	OK	NO	
1	Fire, explosion	X		X		
2	Flooding	X		X		
3	Collision	X		X		
4	Grounding	X		X		
5	Listing, in danger of capsizing	X		X		
6	Sinking	X		X		
7	Disabled and adrift	X		X		
8	Undesignated distress	X		X		
9	Abandoning ship	X		X		
10	Piracy/armed robbery attack	X		X		
11	Man overboard	X		X		
12	Other		X	X		Should not be possible of sending of distress call



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Manual entry position information

Distress coordinates and Time						
Item	EUT	Received by TE		Result		Comment
				YES	NO	
Latitude	12°34' 5 N	Main	1234N	X		
		Expansion	5000	X		
Longitude	065°43' 9 W	Main	06543W	X		
		Expansion	9000	X		
UTC	12:34	12:34		X		

Subsequent communication	Possibility of sending		Result		Comment
	YES	NO	OK	NO	
F3E/G3E All modes TP	X		X		
F3E/G3E duplex TP		X	X		Should not be possible of sending
No information		X	X		Should not be possible of sending

Send the distress alert attempt and verify that:

Item	Result		Comment
	YES	NO	
the dedicated distress button is required to send the alert attempt on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]	X		
a received distress automated procedure starts on the TE,	X		
the nature of distress as selected by operator,	X		
the position information as selected by operator,	X		
the subsequent communication is F3E/G3E All modes TP,	X		
one is able to speak to the TE from the EUT,	X		
one is able to speak to the EUT from the TE.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Set the EUT and TE into standby. Configure the EUT to be located in the NE Hemisphere and different nature of distress as listed in the tables.

N	Nature of Distress	Possibility of sending		Result		Comment
		YES	NO	OK	NO	
1	Fire, explosion	X		X	X	
2	Flooding	X		X	X	
3	Collision	X		X	X	
4	Grounding	X		X	X	
5	Listing, in danger of capsizing	X		X	X	
6	Sinking	X		X	X	
7	Disabled and adrift	X		X	X	
8	Undesignated distress	X		X	X	
9	Abandoning ship	X		X	X	
10	Piracy/armed robbery attack	X		X	X	
11	Man overboard	X		X	X	
12	Other		X	X		Should not be possible of sending of distress call

Manual entry position information

Distress coordinates and Time						
Item	EUT	Received by TE		Result		Comment
				YES	NO	
Latitude	12°34' 5 N	Main	1234N	X		
		Expansion	5000	X		
Longitude	065°43' 9 E	Main	06543E	X		
		Expansion	9000	X		
UTC	12:34	12:34		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Send the distress alert attempt and verify that:

Item	Result		Com-ment
	YES	NO	
the dedicated distress button is required to send the alert attempt on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]	X		
a received distress automated procedure starts on the TE,	X		
the nature of distress as selected by operator,	X		
the position information as selected by operator,	X		
the subsequent communication is F3E/G3E All modes TP,	X		
one is able to speak to the TE from the EUT,	X		
one is able to speak to the EUT from the TE.	X		

c) Set the EUT and TE into standby. Configure the EUT to be located in the SW Hemisphere and different nature of distress as listed in the tables.

N	Nature of Distress	Possibility of sending		Result		Comment
		YES	NO	OK	NO	
1	Fire, explosion	X		X	X	
2	Flooding	X		X	X	
3	Collision	X		X	X	
4	Grounding	X		X	X	
5	Listing, in danger of capsizing	X		X	X	
6	Sinking	X		X	X	
7	Disabled and adrift	X		X	X	
8	Undesignated distress	X		X	X	
9	Abandoning ship	X		X	X	
10	Piracy/armed robbery attack	X		X	X	
11	Man overboard	X		X	X	
12	Other		X	X		Should not be possible of sending of distress call



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Manual entry position information

Distress coordinates and Time						
Item	EUT	Received by TE		Result		Comment
				YES	NO	
Latitude	00°12' 3456 S	Main	0012S	X		
		Expansion	3000	X		
Longitude	000°12' 6543 W	Main	00012W	X		
		Expansion	6000	X		
UTC	08:08	08:08		X		

Send the distress alert attempt and verify that:

Item	Result		Com-ment
	YES	NO	
the dedicated distress button is required to send the alert attempt on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]	X		
a received distress automated procedure starts on the TE,	X		
the nature of distress as selected by operator,	X		
the position information as selected by operator,	X		
the subsequent communication is F3E/G3E All modes TP,	X		
one is able to speak to the TE from the EUT,	X		
one is able to speak to the EUT from the TE.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

d) Set the EUT and TE into standby. Configure the EUT to be located in the SE Hemisphere and different nature of distress as listed in the tables.

N	Nature of Distress	Possibility of sending		Result		Comment
		YES	NO	OK	NO	
1	Fire, explosion	X		X	X	
2	Flooding	X		X	X	
3	Collision	X		X	X	
4	Grounding	X		X	X	
5	Listing, in danger of capsizing	X		X	X	
6	Sinking	X		X	X	
7	Disabled and adrift	X		X	X	
8	Undesignated distress	X		X	X	
9	Abandoning ship	X		X	X	
10	Piracy/armed robbery attack	X		X	X	
11	Man overboard	X		X	X	
12	Other		X			Should not be possible of sending of distress call



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Manual entry position information

Distress coordinates and Time						
Item	EUT	Received by TE		Result		Comment
				YES	NO	
Latitude	00°12' 3456 S	Main	0012S	X		
		Expansion	3000	X		
Longitude	000°12' 6543 E	Main	00012E	X		
		Expansion	6000	X		
UTC	08:08	08:08		X		

Send the distress alert attempt and verify that:

Item	Result		Com-ment
	YES	NO	
the dedicated distress button is required to send the alert attempt on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]	X		
a received distress automated procedure starts on the TE,	X		
the nature of distress as selected by operator,	X		
the position information as selected by operator,	X		
the subsequent communication is F3E/G3E All modes TP,	X		
one is able to speak to the TE from the EUT,	X		
one is able to speak to the EUT from the TE.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

4.17. Updating position test

[Draft ETSI EN 300 338-3 (2009-12), n.6.4.6]

Definition

This test checks the ability of the EUT to updating of position information in the automated distress alert sending procedure.

Method of measurement and required results

a) Set the EUT and TE into standby. Select the option to send a distress alert. Manually input position information and send distress call. Next try to change the position information. Verify that:

Item	Result		Com-ment
	YES	NO	
the dedicated distress button is required to send the alert attempt on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]	X		
a received distress automated procedure starts on the TE,	X		
the position reported on the TE is that of the EUT,	X		
the nature of distress as selected by operator,	X		
When the distress alert attempt is resend the position and UTC time is updated,	X		
one is able to speak to the TE from the EUT,	X		
one is able to speak to the EUT from the TE.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Set the EUT and TE into standby. Set automatically input position information. Select the option to send a distress alert and send distress call. Next try to change the position information. Verify that:

Item	Result		Com-ment
	YES	NO	
the dedicated distress button is required to send the alert attempt on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.4.4]	X		
a received distress automated procedure starts on the TE,	X		
the position reported on the TE is that of the EUT,	X		
the nature of distress as selected by operator,	X		
When the distress alert attempt is resend the position and UTC time is updated,	X		
one is able to speak to the TE from the EUT,	X		
The option to set manually input position updating is available	X		
one is able to speak to the EUT from the TE.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Set the EUT and TE into standby. Set position information "Distress coordinates" and "UTC time" cannot be included. Send default distress alert. Verify that:

"Distress coordinates" cannot be included					
Item	Received by TE		Result		Comment
			YES	NO	
Latitude	Main	the digit 9 repeated 10 times.	X		The EUT should transmit "distress coordinates" as the digit 9 repeated 10 times. [Rec. ITU-R M.493-12, Ann.1, n.8.1.2.4]
	Expansion	command character 126	X		EUT should transmit expansion sequence with command character 126 [ITU-R M.821, Table 3]
Longitude	Main	the digit 9 repeated 10 times.	X		The EUT should transmit "distress coordinates" as the digit 9 repeated 10 times.
	Expansion	command character 126	X		EUT should transmit expansion sequence with command character 126 [ITU-R M.821, Table 3]
UTC	the digit 8 repeated 4 times		X		The EUT should transmit "UTC time" as the digit 8 repeated 4 times. [Rec. ITU-R M.493-12, Ann.1, n.8.1.3.3]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

d) Set the EUT and TE into standby. Set position information "Distress coordinates" with expansion sequences:

- 1) with position information (4 digits is used);
- 2) with position information (1 digits is used);
- 3) no data available.

Send default distress alert. Verify that:

[Draft ETSI EN 300 338-1 (2009-12), n.4.10]

Rec.ITU-R M.493-13, Annex 1, n. 11.4.

Rec.ITU-R M.821, Table 3.

(1)

Item	EUT	Received by TE		Result		Comment
				YES	NO	
Latitude	00°12' 3456 S	Main	0012S	X		
		Expansion	3456	X		
Longitude	000°12' 6543 E	Main	00012E	X		
		Expansion	6543	X		
UTC	08:08	08:08		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

(2)

Item	EUT	Received by TE		Result		Comment
				YES	NO	
Latitude	12°34' 8 N	Main	1234N	X		The EUT should transmit as 8000 [Rec. ITU-R M.821-1, Ann.1, n.2.1.2.4.]
		Expansion	8000	X		
Longitude	089°45' 9 W	Main	08945W	X		The EUT should transmit as 9000 [Rec. ITU-R M.821-1, Ann.1, n.2.1.2.4.]
		Expansion	9000	X		
UTC	00:00	00:00		X		

(3)

Item	Received by TE		Result		Comment
			YES	NO	
Latitude	Main	Can not be included	X		The EUT should transmit "distress coordinates" as the digit 9 repeated 10 times.
	Expansion	No data available	X		EUT should transmit expansion sequence with command character 126 [ITU-R M.821, Table 3]
Longitude	Main	Can not be included	X		The EUT should transmit "distress coordinates" as the digit 9 repeated 10 times.
	Expansion	No data available	X		EUT should transmit expansion sequence with command character 126 [ITU-R M.821, Table 3]
UTC	Cannot be included		X		The EUT should transmit "UTC time" as the digit 8 repeated 4 times.

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5. Receiving distress automated procedure

[Draft ETSI EN 300 338-3 (2009-12), n.6.5]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.1. Received distress automated procedure started by a distress alert test

[Draft ETSI EN 300 338-3, n.6.5.1]

Definition

This test checks the behaviour of the automated procedure through the “normal” sequence of receiving a distress alert attempt.

Method of measurement and required results

a) Make sure that the position on the TE has enhanced resolution in fractional minutes. Send the default distress alert attempt from the TE. Verify that:

Default Distress alert			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the two tone alarm, [Draft ETSI EN 300 338-3, n.6.5.5]	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.5]	X		
the distress information is displayed and correct, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,d]	X		
the position contains the enhanced resolution data (fractional minutes or seconds of lat and lon),	X		
the sender, intended recipients, and DSC message type are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,e]	X		
the frequency of subsequent communication is channel 16 (VHF), [Draft ETSI EN 300 338-3 (2009-12), n.6.5.6]	X		
the elapsed time since receiving the first alert is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,b]	X		
the operator is informed that the procedure is waiting for an acknowledgement, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,i(1)]	X		
the option to send a distress relay is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress alert acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress relay acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.2,d]	X		
the history of at least the received DSC messages reveals that the following have been received, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,h]	X		
the elapsed time, stage, and operator options are visible at top level, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3]	X		
upon selection of the option to terminate the procedure a warning is provided that one is terminating the procedure, [Rec. ITU-R M.493-13, Ann.4, n.3.4.8]	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset the EUT to standby. From the TE send a distress with Nature of distress EPIRB and verify that:

Distress alert EPIRB emission			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the two tone alarm, [Draft ETSI EN 300 338-3, n.6.5.5]	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.5]	X		
the distress information is displayed and correct, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,d]	X		
the position contains the enhanced resolution data (fractional minutes or seconds of lat and lon),	X		
the sender, intended recipients, and DSC message type are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,e]	X		
the frequency of subsequent communication is channel 16 (VHF), [Draft ETSI EN 300 338-3 (2009-12), n.6.5.6]	X		
the elapsed time since receiving the first alert is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,b]	X		
the operator is informed that the procedure is waiting for an acknowledgement, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,i(1)]	X		
the option to send a distress relay is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress alert acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress relay acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.2,d]	X		
the history of at least the received DSC messages reveals that the following have been received, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,h]	X		
the elapsed time, stage, and operator options are visible at top level, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3]	X		
upon selection of the option to terminate the procedure a warning is provided that one is terminating the procedure, [Rec. ITU-R M.493-13, Ann.4, n.3.4.8]	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.2. Received distress automated procedure started by a distress relay test

Definition

This test checks the set up of the automated procedure when the first received distress DSC message of a distress event is a distress relay.

Method of measurement and required results

a) Reset the EUT to standby. From the TE send a distress relay on behalf of someone else addressed to all ships (VHF). Provide parameters for all five components of the distress information (Distress relay RT - undesignated). Verify that:

Distress Relay to All ships RT undesignated			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the two tone alarm, [Draft ETSI EN 300 338-3, n.6.5.5]	X		
the reason for and means to silence the alarm is displayed	X		
the alarm can only be silenced manually, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.5]	X		
the distress information is displayed and correct, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,d]	X		
the position contains the enhanced resolution data (fractional minutes or seconds of lat and lon),	X		
the sender, intended recipients, and DSC message type are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,e]	X		
the frequency of subsequent communication is channel 16 (VHF), [Draft ETSI EN 300 338-3 (2009-12), n.6.5.6]	X		
the elapsed time since receiving the distress relay is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,b]	X		
the operator is informed that the procedure is waiting for an acknowledgement, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,i(1)]	X		
the option to send a distress relay is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress alert acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress relay acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.2,d]	X		
the history of at least the received DSC messages reveals that the following have been received, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,h]	X		
the elapsed time, stage, and operator options are visible at top level, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3]	X		
upon selection of the option to terminate the procedure a warning is provided that one is terminating the procedure, [Rec. ITU-R M.493-13, Ann.4, n.3.4.8]	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset the EUT to standby. From the TE send a distress relay on behalf of someone else addressed to all ships (VHF). Provide parameters for all five components of the distress information (Distress relay EPIRB). Verify that:

Distress Relay to All ships EPIRB emission			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the two tone alarm, [Draft ETSI EN 300 338-3, n.6.5.5]	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.5]	X		
the distress information is displayed and correct, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,d]	X		
the position contains the enhanced resolution data (fractional minutes or seconds of lat and lon),	X		
the sender, intended recipients, and DSC message type are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,e]	X		
the frequency of subsequent communication is channel 16 (VHF), [Draft ETSI EN 300 338-3 (2009-12), n.6.5.6]	X		
the elapsed time since receiving the distress relay is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,b]	X		
the operator is informed that the procedure is waiting for an acknowledgement, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,i(1)]	X		
the option to send a distress relay is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress alert acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to send a distress relay acknowledgement is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.2,d]	X		
the history of at least the received DSC messages reveals that the following have been received, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3,h]	X		
the elapsed time, stage, and operator options are visible at top level, [Draft ETSI EN 300 338-3 (2009-12), n.6.5.3]	X		
upon selection of the option to terminate the procedure a warning is provided that one is terminating the procedure, [Rec. ITU-R M.493-13, Ann.4, n.3.4.8]	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.3. Received distress automated procedure started by a distress alert acknowledgement test

Definition

This test checks the set up of the automated procedure when the first received distress class DSC message of a distress event is a distress alert acknowledgement.

Method of measurement and required results

a) Reset the EUT to standby. From the TE send a distress alert acknowledgement and verify that:

Distress alert acknowledgement			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (<u>distress ack</u>),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the position contains the enhanced resolution data (fractional minutes of lat and lon),	X		
the sender, intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the relay is displayed,	X		
the operator is informed that the procedure is " <u>acknowledged</u> ",	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset the EUT to standby. From the TE send a distress alert acknowledgement EPIRB and verify that:

Distress alert EPIRB emission acknowledgement			
Item	Result		Comment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (distress ack),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the position contains the enhanced resolution data (fractional minutes of lat and lon),	X		
the sender, intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the relay is displayed,	X		
the operator is informed that the procedure is “acknowledged”,	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.4. Received distress automated procedure started by a distress relay acknowledgement test

Definition

This test checks the set up of the automated procedure when the first received distress class DSC message of a distress event is a distress relay acknowledgement.

Method of measurement and required results

a) Reset the EUT to standby. From the TE send a distress relay acknowledgement (Distress relay ACK RT All ships) and verify that:

Distress relay alert acknowledgement			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (distress ack),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the position contains the enhanced resolution data (fractional minutes of lat and lon),	X		
the sender, intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the relay is displayed,	X		
the operator is informed that the procedure is "acknowledged",	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset the EUT to standby. From the TE send a distress relay acknowledgement (Distress relay ACK EPIRB All ships) and verify that:

Distress relay alert EPIRB emission acknowledgement			
Item	Result		Comment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (distress ack),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the position contains the enhanced resolution data (fractional minutes of lat and lon),	X		
the sender, intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the relay is displayed,	X		
the operator is informed that the procedure is “acknowledged”,	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received	X		
the time since acknowledgement, stage, and operator options are visible at top level	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.5. Received distress automated procedure started by an individually addressed distress relay test

[Draft ETSI EN 300 338-3(2009-12), n.6.5.4]

[Rec. ITU-R M.493-13, Ann.1, Table 4.3]

Definition

This test checks the set up of the automated procedure when the first received distress DSC message of a distress event is a distress relay addressed only to the station.

Method of measurement and required results

Reset the EUT to standby. From the TE send a distress relay addressed to the EUT..
Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Individual Distress relay alert acknowledgement			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the two-tone alarm,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the position contains the enhanced resolution data (fractional minutes or seconds of lat and lon),	X		
the sender, intended recipient, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF)	X		
the elapsed time since receiving the initial relay is displayed,	X		
the operator is informed that the DSC message needs to be acknowledged,	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is AVAILABLE , [Rec. ITU-R M.493-13, Ann.1, Table 4.3]	X		NOTE
the option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the elapsed time, stage, and operator options are visible at top level.	X		

NOTE:

Draft ETSI EN 300 338-3 (2009-12) does not allow to send of Individual distress relay alert acknowledgement while on Rec. ITU-R M.493-13 sending of acknowledgement should be supported by the DSC equipment of class D.

This requirement has contradictory character.

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.6. Distress event self cancel recognition receiving test

[Draft ETSI EN 300 338-3(2009-12), n.6.5.2,c]

Definition

This test checks that the automated procedure recognizes the distress event self cancel (a distress alert self cancel is a distress alert acknowledgement sent by the vessel in distress) and that the automated timeout option functions properly.

Method of measurement and required results

Reset the EUT into standby. Set the automated timeout of received distress procedures on the EUT to a value that gives one enough time to complete the first ten tests. Note that some manufacturers may provide more sophisticated timeout options in the equipment setup as well as more sophisticated operation options to control the automated timeout and respond to any warnings. These tests only address the minimum requirement of at least a 10 s aural and visual warning and stopping the timeout. After the entire set of tests is completed, reset the timeout on the EUT to 'no timeout. Send the default distress alert attempt from the TE. Silence the alarms on the EUT. When the TE is finished sending the distress alert attempt, send the self addressed distress alert acknowledgement and verify that:

Distress alert self cancel acknowledgement			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the distress acknowledgement alarm,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the sender, intended recipients, and DSC message type are displayed,	X		
the procedure indicates it is acknowledged,	X		
the acknowledgement is recognized as a self cancel, ясно указывается, что подтверждение есть аннулирование,	X		
the time since acknowledgement , stage, and operator options are visible at top level, Stage is " Cancelled " [Draft ETSI EN 300 338-3(2009-12), n.6.5.2,c]	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.7. Handling received DSC messages pertinent to the automatic procedure

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3]

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.4]

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.5]

Method of measurement and required results

Reset the EUT into Standby. From TE send Distress call. Verify that the automated procedure is initiated. Silence the alarm manually.

a) Change the position information (position and UTC time). From TE send the same distress event Distress call. Verify that:

Item Distress call (new distress coordinates and time)		Result		Com- ment
		YES	NO	
The reason for and means to silence the self-terminating alarm displayed, [Draft ETSI EN 300 338-3, n.6.5.5]		X		
The alarm self terminates,		X		
The changed position is displayed in the distress information on the EUT. [Draft ETSI EN 300 338-3, n.6.5.3,e]		X		
Elapsed time since the procedure started should not be changed, [Draft ETSI EN 300 338-3, n.6.5.3,b]		X		
The type (alert , relay, alert acknowledgement, relay acknowledgement), sender, and intended destination (individual, area, all ships) of the latest received DSC message is displayed [Draft ETSI EN 300 338-3, n.6.5.3,e]		X		
The ability to display information about the history of at least the received DSC messages pertinent to the procedure; [Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3, h]		X		
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Change the position information (position and UTC time) and send from TE the DSC distress relay to All ships for same distress event.

Item Distress relay to All ships (new distress coordinates and time)	Result		Com- ment
	YES	NO	
The reason for and means to silence the self-terminating alarm displayed, [Draft ETSI EN 300 338-3, n.6.5.5]	X		
The alarm self terminates,	X		
The changed position is displayed in the distress information on the EUT. [Draft ETSI EN 300 338-3, n.6.5.3,e]	X		
Elapsed time sinc the procedure started should not be changed, [Draft ETSI EN 300 338-3, n.6.5.3,b]	X		
The type (alert, relay , alert acknowledgement, relay acknowledgement), sender, and intended destination (individual, area, all ships) of the latest received DSC message is displayed [Draft ETSI EN 300 338-3, n.6.5.3,e]	X		
The ability to display information about the history of at least the received DSC messages pertinent to the procedure; [Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3, h]	X		
Top level displyed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X	
	Stage of the automated procedure	X	
	Options	X	

c) Change the position information (position and UTC time) and send from TE the DSC distress relay to Individual station (MMSI is EUT) for same distress event.
Verify that:

Item Distress relay to Individual station EUT (new distress coordinates and time)	Result		Com- ment
	YES	NO	
The reason for and means to silence the self-terminating alarm displayed, . [See NOTE 1] [Draft ETSI EN 300 338-3, n.6.5.5]	X		
The alarm self terminates,	X		
The changed position is displayed in the distress information on the EUT. [See NOTE 1] [Draft ETSI EN 300 338-3, n.6.5.3,e]	X		
Elapsed time sinc the procedure started should not be changed, [Draft ETSI EN 300 338-3, n.6.5.3,b]	X		
The ability to display information about the history of at least the received DSC messages pertinent to the procedure; [Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3, h]	X		
Top level displyed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X	
	Stage of the automated procedure	X	
	Options	X	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

d) Change the position information (position and UTC time) and send from TE the DSC distress relay to All (MMSI ship in distress is unknown). Verify that:

Item Distress relay to All ships (MMSI is unknown) (new distress coordinates and time)	Result		Com- ment
	YES	NO	
The reason for and means to silence the self-terminating alarm displayed, [Draft ETSI EN 300 338-3, n.6.5.5]	X		
The alarm self terminates,	X		
Allow updated position and time [Draft ETSI EN 300 338-3, n.6.5.4]	X		
Elapsed time since the procedure started should not be changed, [Draft ETSI EN 300 338-3, n.6.5.3,b]	X		
The type (alert, relay , alert acknowledgement, relay acknowledgement), sender, and intended destination (individual, area, all ships) of the latest received DSC message is displayed [Draft ETSI EN 300 338-3, n.6.5.3,e]	X		
The ability to display information about the history of at least the received DSC messages pertinent to the procedure; [Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3, h]	X		
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X	
	Stage of the automated procedure	X	
	Options	X	

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.8. Handling received DSC messages pertinent to the station, but not pertinent to the automatic procedure test

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.4]

Reset the EUT into Standby. From TE send Distress call. Verify that the automated procedure is initiated. Silence the alarm manually.

a) Send from TE Distress call for new distress event (change MMSI ship in distress). Verify that:

Item Distress call (New MMSI ship in distress)		Result		Comment
		YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]		X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]		X		
There is discrete alarm [Draft ETSI EN 300 338-3, n.6.5.5]			X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		

b) Send initiate Distress call with new Nature of distress and distress coordinates. It is new distress event. Verify that:

Item Distress call for initiate MMSI (new Nature of distress)		Result		Comment
		YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [NOTE 1] [Draft ETSI EN 300 338-3, n.6.5.4] [Draft ETSI EN 300 338-3, n.6.5.8]		X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]		X		
There is discrete alarm [Draft ETSI EN 300 338-3, n.6.5.5]			X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Send from TE Distress relay to All ship with new distress event (new MMSI ship in distress). Verify that:

Item Distress relay to All ships (new MMSI ship in distress)		Result		Com- ment
		YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]		X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]		X		
There is discrete alarm [Draft ETSI EN 300 338-3, n.6.5.5]			X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		

d) Send from TE distress ACK with new distress event (new MMSI ship in distress). Verify that:

Item Distress ACK (new MMSI ship in distress)		Result		Com- ment
		YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]		X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]		X		
There is discrete alarm [Draft ETSI EN 300 338-3, n.6.5.5]			X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

e) Send from TE DSC urgency All ships. Verify that:

Item Urgency All ships call		Result		Com- ment
		YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]		X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]		X		
There is discrete alarm [Draft ETSI EN 300 338-3, n.6.5.5]			X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		

e) Send from TE DSC urgency Individual call to EUT. Verify that:

Item Urgency Individual call		Result		Com- ment
		YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]		X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]		X		
There is discrete alarm [Draft ETSI EN 300 338-3, n.6.5.5]			X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X		
	Stage of the automated procedure	X		
	Options	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

g) Repeat test for sequences listed in the summary table.

Item	Placed in the received call memory	Flagged as an "unread call in memory"	Alarm	Any actions	Comments
Distress alert (other distress event)	yes	yes	discrete	no	
Distress acknowledgement (other distress event)	yes	yes	discrete	no	
Distress relay RT Individual (to EUT other distress event)	yes	yes	discrete	no	
Distress relay RT Geographic area (other distress event)	yes	yes	discrete	no	
Distress relay RT All ships (other distress event)	yes	yes	discrete	no	
Distress relay EPIRB Individual (to EUT other distress event)	yes	yes	discrete	no	
Distress relay EPIRB Geographic area (other distress event)	yes	yes	discrete	no	
Distress relay EPIRB All ships (other distress event)	yes	yes	discrete	no	
Distress relay ACK Individual (to EUT other distress event)	yes	yes	discrete	no	
Distress relay ACK RT All ships (other distress event)	yes	yes	discrete	no	
Distress relay ACK EPIRB (other distress event)	yes	yes	discrete	no	
Distress relay ACK EPIRB All ships (other distress event)	yes	yes	discrete	no	
All ships RT call Urgency	yes	yes	discrete	no	
All ships RT call Safety	yes	yes	discrete	no	
All ships Duplex RT call Urgency	yes	yes	discrete	no	
All ships Duplex RT call Safety	yes	yes	discrete	no	
Individual RT call Urgency (to EUT)	yes	yes	discrete	no	
Individual RT call Safety (to EUT)	yes	yes	discrete	no	
Individual RT call acknowledgement Urgency (to EUT)	no	no	no	no	Ignore
Individual RT call acknowledgement Safety (to EUT)	no	no	no	no	Ignore
Individual test call (to EUT)	yes	yes	discrete	no	



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Item	Placed in the received call memory	Flagged as an "unread call in memory"	Alarm	Any actions	Comments
Individual test call acknowledgement (to EUT)	no	no	no	no	Ignore
Routine group call RT (to EUT)	yes	yes	discrete	no	
Routine individual RT call (to EUT)	yes	yes	discrete	no	
Routine individual RT ACK (to EUT)	no	no	no	no	Ignore
Distress Alert Cancel (Other distress event)	yes	yes	discrete	no	

Item	Result		Com-ment
	YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]	X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]	X		
There is no any alarm [Draft ETSI EN 300 338-3, n.6.5.5]		X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X	
	Stage of the automated procedure	X	
	Options	X	

(2)

Reception DSC messages pertinent to the station but not the current automated procedure sounds the discrete alarm. While it is required only automatically placed in the received call memory.

[Draft ETSI EN 300 338-3(2009-12), n.6.5.4, n.6.5.5]

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.9. Acknowledgement of receiving distress automated procedure activated by distress Default RT call test

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.8]

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.5]

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3]

a) Reset the EUT to standby. From the TE send a distress alert. Silence alarm manually. From TE send DSC distress acknowledgement. Verify that:

Distress alert acknowledgement (Default RT)			
Item	Result		Comment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (<u>distress ack</u>),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the sender (MMSI), intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the ACK is displayed,	X		
the operator is informed that the procedure is " <u>acknowledged</u> ",	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset the EUT to standby. From the TE send a distress alert. Silence alarm manually. From TE send DSC distress relay acknowledgement to all ships (BQ) for current distress event. Verify that:

Relay distress alert acknowledgement All Ships (BQ)			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (<u>distress ack</u>),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the sender (MMSI), intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF,	X		
the elapsed time since receiving the ACK is displayed,	X		
the operator is informed that the procedure is " <u>acknowledged</u> ",	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.10. Acknowledgement of receiving distress automated procedure activated by Distress relay to All ships (Default RT) test

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.8]

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.5]

[Draft ETSI EN 300 338-3 (2009-12), n. 6.5.3]

a) Reset the EUT to standby. From the TE send a distress relay alert. Silence alarm manually. From TE send DSC distress alert acknowledgement for current distress event (BQ). Verify that:

Distress alert acknowledgement			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (<u>distress ack</u>),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the sender (MMSI), intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the ACK is displayed,	X		
the operator is informed that the procedure is " <u>acknowledged</u> ",	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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b) Reset the EUT to standby. From the TE send a distress relay alert. Silence alarm manually. From TE send DSC distress relay acknowledgement for current distress event (BQ). Verify that:

Relay distress alert acknowledgement All Ships (BQ)			
Item	Result		Com-ment
	YES	NO	
the EUT sounds the distress alert acknowledgement alarm (<u>distress ack</u>),	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the distress information and correct,	X		
the sender (MMSI), intended recipients, and DSC message type is displayed,	X		
the frequency of subsequent communication is channel 16 (VHF),	X		
the elapsed time since receiving the ACK is displayed,	X		
the operator is informed that the procedure is " <u>acknowledged</u> ",	X		
the option to send a distress relay is unavailable,	X		
the option to send a distress alert acknowledgement is unavailable,	X		
the option to send a distress relay acknowledgement is unavailable,	X		
The option to terminate the procedure is available,	X		
the history of at least the received DSC messages reveals that the following have been received,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.11. Handling received DSC messages pertinent to the automatic procedure after acknowledgement

[Draft ETSI EN 300 338-3 (2008-12), n.6.5.4]

[Draft ETSI EN 300 338-3 (2008-12), n.6.5.5]

Reset the EUT to standby. From the TE send distress alert.

Silence the alarm manually. Send from TE the distress acknowledgement. Silence the alarm manually.

Send DSC sequences from table. Verify that:

Item
Distress alert (same distress event)
Distress acknowledgement (same distress event)
Distress relay RT Individual (to EUT same distress event)
Distress relay RT All ships (same distress event)
Distress relay ACK RT All ships (same distress event)

Item	Result		Com-ment
	YES	NO	
There is self-terminating alarm [Draft ETSI EN 300 338-3, n.6.5.5]	X		
the history of at least the received DSC messages reveals that the following have been received, [ETSI EN 300 338-3, n.6.5.3,h]	X		
the elapsed time since acknowledgement is no changed, [ETSI EN 300 338-3, n.6.5.3,c]	X		
The latest distress information is available [ETSI EN 300 338-3, n.6.5.3,c]	X		
Top level displyed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time	X	
	Stage of the automated procedure	X	
	Options	X	

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.12. Handling received DSC messages pertinent to the station, but not pertinent to the automatic procedure after acknowledgement

[Draft ETSI EN 300 338-3 (2008-12), n.6.5.4]

[Draft ETSI EN 300 338-3 (2008-12), n.6.5.5]

a) Reset the EUT to standby. From the TE send distress alert. Silence the alarm manually. Send from TE the distress acknowledgement. Silence the alarm manually.

Send DSC sequences from table. Verify that the calls are stored and the status of automated procedure is “acknowledged”.

Item	Placed in the received call memory	Flagged as an "unread call in memory"	Alarm	Procedure State	Comments
Distress alert (other distress event)	yes	yes	discrete	acknowledged	
Distress acknowledgement (other distress event)	yes	yes	discrete	acknowledged	
Distress relay RT Individual (to EUT same distress event)	yes	yes	discrete	acknowledged	
Distress relay RT Individual (to EUT other distress event)	yes	yes	discrete	acknowledged	
Distress relay RT All ships (other distress event)	yes	yes	discrete	acknowledged	
Distress relay ACK Individual (to EUT same distress event)	yes	yes	discrete	acknowledged	
Distress relay ACK Individual (to EUT other distress event)	yes	yes	discrete	acknowledged	

Item	Result		Comment
	YES	NO	
DSC messages pertinent to the station but not the procedure shall be automatically placed in the received call memory [Draft ETSI EN 300 338-3, n.6.5.4]	X		
flagged as an "unread call in memory". [Draft ETSI EN 300 338-3, n.6.5.4]	X		
There is no any alarm [Draft ETSI EN 300 338-3, n.6.5.5]		X	(2)
Top level displayed information [Draft ETSI EN 300 338-3, n.6.5.3]	Elapsed time		
	Stage of the automated procedure		
	Options		

(2) See n.5.8

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.13. Manually termination of automated procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.5.9]

[Draft ETSI EN 300 338-3 (2009-12), n.6.5.3]

Reset EUT into Standby.

From TE send serially the calls listed in the table.

Starting automated procedure call	There is option Termination	Possibly manually termination procedure	Automatically display any unread messages	Comments
Distress alert	yes	yes	yes	
Distress alert EPIRB				No tested
Distress acknowledgement	yes	yes	yes	
Distress acknowledgement EPIRB				No tested
Distress relay RT Individual				No tested
Distress relay RT Geographic area				No tested
Distress relay RT All ships	yes	yes	yes	
Distress relay EPIRB Individual				No tested
Distress relay EPIRB Geographic area				No tested
Distress relay EPIRB All ships				No tested
Distress relay ACK Individual				No tested
Distress relay ACK RT All ships	yes	yes	yes	
Distress relay ACK EPIRB Individual				No tested
Distress relay ACK EPIRB All ships				No tested
Distress Alert Cancel				No tested



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

After sending of each call to send in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. To be convinced, that calls are received.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Manually terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
The termination option is available	X		
After termination the EUT shell automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.5.9]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.5.9]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.14. Termination of automated procedure by automated timeout test

[Draft ETSI EN 300 338-3 (2009-12), n.6.5.9]

[Draft ETSI EN 300 338-3 (2009-12), n.6.5.3]

Reset EUT into Standby. Send call from table. Set timeout of the automated procedure. From TE send serially the calls listed in the table.

Starting automated procedure call	There is option Termination	Possibly timeout termination procedure	Automatically display any unread messages	Comments
Distress alert	yes	yes	yes	
Distress alert EPIRB				No tested
Distress acknowledgement	yes	yes	yes	
Distress acknowledgement EPIRB				No tested
Distress relay RT Individual				No tested
Distress relay RT Geographic area				No tested
Distress relay RT All ships	yes	yes	yes	
Distress relay EPIRB Individual				No tested
Distress relay EPIRB Geographic area				No tested
Distress relay EPIRB All ships				No tested
Distress relay ACK Individual				No tested
Distress relay ACK RT All ships	yes	yes	yes	
Distress relay ACK EPIRB Individual				No tested
Distress relay ACK EPIRB All ships				No tested
Distress Alert Cancel				No tested



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

After sending of each call to send in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. To be convinced, that calls are received.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Wait automatic timeout terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
At least 10 seconds prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-12, Ann.4, n.3.1.9.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec. ITU-R M.493-12, Ann.4, n.3.1.1.1]	X		
The option to stop of termination is available [Rec. ITU-R M.493-12, Ann.4, n.3.1.9.2]	X		
After termination the EUT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.5.9]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.5.9] [Draft ETSI EN 300 338-3 (2009-12), n.6.9.1]	X		

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.15. Reception of Distress call with different position and nature of distress test

[ITU-R M.493-13, Annex 1, Table 4.1]

Definition

This test checks the ability of the EUT to reception of the distress information correctly for different values of the nature of distress and from different positions on the globe.

Method of measurement and required results

a) Set the EUT and TE into standby. Select from the TE the option to send a distress. Configure the TE to be located in the NW Hemisphere and different nature of distress as listed in the tables.

N	Nature of Distress		Reception by EUT		Comment
			YES	NO	
1	Fire, explosion		X		
2	Flooding		X		
3	Collision		X		
4	Grounding		X		
5	Listing, in danger of capsizing		X		
6	Sinking		X		
7	Disabled and adrift		X		
8	Undesignated distress		X		
9	Abandoning ship		X		
10	Piracy/armed robbery attack		X		
11	Man overboard		X		
12	EPIRB emission		X		With Subsequent communications No information only
13	Unassigned symbol	111		X	Should be rejected
14		113		X	Should be rejected
15		126		X	Should be rejected



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

(1) All nature of distress, w/o expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	12 34 N	X		
		Expansion	No expansion	X		
Longitude	Yes	Main	123 45 W	X		
		Expansion	No expansion	X		
UTC	Yes	09:55		X		

(2) All nature of distress, with expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	89 59 N	X		
		Expansion	1234	X		
Longitude	Yes	Main	179 59 W	X		
		Expansion	9876	X		
UTC	Yes	23:59		X		

All type of subsequent of communications;

Subsequent communication	Reception by EUT		Comment
	YES	NO	
F3E/G3E All modes TP	X		
F3E/G3E duplex TP		X	Should be rejected
No information	X		With Nature of distress EPIRB emission only
J3E TP		X	Should be rejected
H3E TP		X	Should be rejected
F1B/J2B TTY-FEC		X	Should be rejected
F1B/J2B TTY-ARQ		X	Should be rejected
No information		X	Should be rejected



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Set the EUT and TE into standby. Configure the TE to be located in the NE Hemisphere as listed in the tables.

(1) w/o expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	12 34 N	X		
		Expansion	No expansion	X		
Longitude	Yes	Main	123 45 E	X		
		Expansion	No expansion	X		
UTC	Yes	09:55		X		

(2) with expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	89 59 N	X		
		Expansion	1234	X		
Longitude	Yes	Main	179 59 E	X		
		Expansion	9876	X		
UTC	Yes	23:59		X		

c) Set the EUT and TE into standby. Configure the TE to be located in the SW Hemisphere as listed in the tables.

(1) w/o expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	12 34 S	X		
		Expansion	No expansion	X		
Longitude	Yes	Main	123 45 W	X		
		Expansion	No expansion	X		
UTC	Yes	09:55		X		



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Date:	08.01.2010 – 15.01.2010	

(2) with expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	89 59 S	X		
		Expansion	1234	X		
Longitude	Yes	Main	179 59 W	X		
		Expansion	9876	X		
UTC	Yes	23:59		X		

d) Set the EUT and TE into standby. Configure the TE to be located in the SE

(1) All nature of distress, w/o expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	12 34 S	X		
		Expansion	No expansion	X		
Longitude	Yes	Main	123 45 E	X		
		Expansion	No expansion	X		
UTC	Yes	09:55		X		

(2) All nature of distress, with expansion;

Distress coordinates and Time						
Item	Received by EUT	Send by TE		Result		Comment
				YES	NO	
Latitude	Yes	Main	89 59 S	X		
		Expansion	1234	X		
Longitude	Yes	Main	179 59 E	X		
		Expansion	9876	X		
UTC	Yes	23:59		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.16. Verification of correct decoding of distress call acknowledgment

[ITU-R M.493-13, Annex 1, Table 4.2]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to receive DSC calls. The TE generates, encodes and transmits to the EUT the following sequences:

a) Distress call acknowledgment;

The EUT receives, decodes and prints DSC calls. With decoder measurements using a printer or computer, agreement of printer output and display indication should be checked.

Verify that:

N	Item	Reception		Result		Comment
		YES	NO	OK	NO	
1	Distress call acknowledgement (F3E/G3E All modes TP)	X		X		
2	Distress call acknowledgement (EPIRB)	X		X		Sub. Comm. is 126
3	Distress call acknowledgement with expansion sequence (F3E/G3E All modes TP)	X		X		
4	Distress call acknowledgement with expansion sequence (EPIRB)	X		X		Sub. Comm. is 126
5	Distress call acknowledgement (F3E/G3E duplex TP)		X	X		Should be rejected
6	Distress call acknowledgement with expansion sequence (F3E/G3E duplex TP)		X	X		Should be rejected

The equipment meets the requirements (yes / no /n.a)

Yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.17. Verification of correct decoding of distress relay call

[ITU-R M.493-13, Annex 1, Table 4.3]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to receive DSC calls. The TE generates, encodes and transmits to the EUT the following sequences:

- a) Distress relay call, to individual station;
- b) Distress relay call, to a geographic area;
- c) Distress relay call, to all ships;
- d) Distress relay call to all ships where the identifier of the station in distress is unknown;

The EUT receives, decodes and prints DSC calls. With decoder measurements using a printer or computer, agreement of printer output and display indication should be checked.

Verify that:

MMSI of EUT is **273000000**

Group EUT MMSI is **027300000**

Position of EUT is Latitude: **00°00' 0000N** Longitude: **000°00' 0000E**

Type of distress relay call	Possibility of reception of distress relay		Result		Comment
	YES	NO	OK	NO	
Individual	X		X		
Geographic area	X		X		
Group		X	X		Should be rejected
All ships	X		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Item	Results		Comment
		OK	NO	
1	Individual distress relay call (F3E/G3E All modes TP)	X		
2	Individual distress relay call (EPIRB)	X		
3	Geographic area distress relay call (F3E/G3E All modes TP)	X		
4	Geographic area distress relay call (EPIRB)	X		
5	All ships distress relay call (F3E/G3E All modes TP)	X		
6	All ships distress relay call (EPIRB)	X		
7	Individual distress relay call with expansion sequence (F3E/G3E All modes TP)	X		
8	Individual distress relay call with expansion sequence (EPIRB)	X		
9	Geographic area distress relay call with expansion sequence (F3E/G3E All modes TP)	X		
10	Geographic area distress relay call with expansion sequence (EPIRB)	X		
11	All ships distress relay call with expansion sequence (F3E/G3E All modes TP)	X		
12	All ships distress relay call with expansion sequence (EPIRB)	X		
13	Distress relay call where the identifier of the station in distress is unknown	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

5.18. Verification of decoding of distress relay acknowledgment

[ITU-R M.493-13, Annex 1, Table 4.4]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to receive DSC calls. The TE generates, encodes and transmits to the TE a distress relay acknowledgement call to individual station and all ships with the end of sequence character BQ.

The EUT receives, decodes and prints DSC calls. When decoder measurements use a printer or computer, agreement of printer output and display indication should be checked. Verify that:

MMSI of EUT is **273000000**

Group EUT MMSI is **027300000**

Position of EUT is Latitude: **00°00' 0000N** Longitude: **000°00' 0000E**

Type of distress relay call acknowledgement	Possibility of reception of distress relay acknowledgement		Result		Comment
	YES	NO	OK	NO	
Individual	X		X		
Geographic area		X	X		Should not be possible
Group		X	X		Should not be possible
All ships	X		X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

	Item	Results		Comment
		OK	NO	
1	Individual station distress relay acknowledgement (F3E/G3E All modes TP)	X		
2	Individual station distress relay acknowledgement (EPIRB)	X		
3	All ships distress relay acknowledgement (F3E/G3E All modes TP)	X		
4	All ships distress relay acknowledgement (EPIRB)	X		
5	Individual station distress relay acknowledgement with expansion sequence (F3E/G3E All modes TP)	X		
6	Individual station distress relay acknowledgement with expansion sequence (EPIRB)	X		
7	All ships distress relay acknowledgement with expansion sequence (F3E/G3E All modes TP)	X		
8	All ships distress relay acknowledgement with expansion sequence (EPIRB)	X		
9	All ships distress relay acknowledgement with expansion sequence (F3E/G3E All modes TP) MMSI Unknown	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6. Sending non distress automated procedure

[Draft ETSI EN 300 338-3 (2009-12), n.6.6]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.1. Sending non distress procedure sequence with “able to comply” test

- [Draft ETSI EN 300 338-3 (2009-12), n.6.6.2]
- [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3]
- [Draft ETSI EN 300 338-3 (2009-12), n.6.6.5]
- [Draft ETSI EN 300 338-3 (2009-12), n.6.6.6]

Definition

This test checks the typical cycle of sending a DSC message, waiting for the acknowledgment, receiving an “able to comply” acknowledgement, and establishing the communication link.

Method of measurement and required results

Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the TE is turned off in order to have time to inspect the EUT. Configure the TE with a ship station MMSI. From the EUT send a DSC message of priority routine requesting radiotelephone addressed to the TE. On VHF select channel 6. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,g(2)]	X		
the information content of the initial DSC message is displayed or available on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,d]	X		
upon completion of the transmission the EUT states that it is waiting for an acknowledgement, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,g(3)]	X		
the time since sending the initial DSC message is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,b]	X		
the option to resend the initial DSC message is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,f]	X		
the option to activate/place the procedure on hold is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.2(3)]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.2(3)]	X		
the received non distress DSC procedure is started on the TE,	X		
the information content displayed on the TE corresponds to that displayed on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,d]	X		
the elapsed time, stage, and operator options are visible at top level on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Acknowledge the DSC message from the TE with “able to comply”. Verify that:

Item	Result		Com- ment
	YES	NO	
the routine acknowledgement alarm sounds on the EUT (routine ack alarm), [Draft ETSI EN 300 338-3 (2009-12), n.6.6.5]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.5]	X		
the time since being acknowledged is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,c]	X		
the information content of the acknowledgement is displayed or available on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.6.3,e]	X		
the EUT indicates that it has been acknowledged or that communications are ready,	X		
the option to resend the initial DSC message is no longer available on the EUT,	X		
the option to activate/place the procedure on hold is available (<i>optional</i>),	X		
the option to terminate the procedure is available,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
you can speak to the TE from the EUT,	X		
you can speak to the EUT from the TE.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.2. Sending non distress procedure sequence with “comply with frequency change” (able to comply) test

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.2]

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.5]

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.6]

Definition

This test checks the ability of the EUT procedure to handle an acknowledgement requesting a frequency change.

Method of measurement and required results

Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the TE is turned off in order to be able to change the frequency of subsequent communications. Configure the TE with a ship station MMSI. From the EUT send a DSC message with priority routine requesting radio telephone addressed to the TE. On VHF select channel 6. Silence the alarm on the TE. When it is time to send the acknowledgment from the TE select the option to comply with a mode and/or frequency change. Compose the change as follows: On VHF change it to channel 71. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the information content of the initial DSC message is displayed or available on the EUT,	X		
upon completion of the transmission the EUT states that it is waiting for an acknowledgement,	X		
the time since sending the initial DSC message is displayed,	X		
the option to resend the initial DSC message is available,	X		
the option to activate/place the procedure on hold is available, (<i>optional</i>)	X		
the option to terminate the procedure is available,	X		
the received non distress DSC procedure is started on the TE,	X		
the information content displayed on the TE corresponds to that displayed on the EUT,	X		
the elapsed time, stage, and operator options are visible at top level on the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Acknowledge the DSC message from the TE with “able to comply” specified above (change channel to 71). Verify that:

Item	Result		Com-ment
	YES	NO	
the elapsed time, stage, and operator options are visible at top level on the EUT,	X		
the routine acknowledgement alarm sounds on the EUT,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the acknowledgement is displayed or available on the EUT,	X		
the EUT indicates that a change in communications has been suggested (accept if necessary),	X		
the EUT indicates that it has been acknowledged or that communications are <u>ready</u> ,	X		
the option to resend the initial DSC message is no longer available on the EUT,	X		
the option to activate/place the procedure on hold is available (<i>option</i>),	X		
the option to terminate the procedure is available,	X		
you can speak to the TE from the EUT on 71 channel,	X		
you can speak to the EUT from the TE.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.3. Sending non distress procedure sequence with “comply with frequency change” (new channel is not available) test

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.2]

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.5]

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.6]

Definition

This test checks the ability of the EUT procedure to handle an acknowledgement requesting a frequency change.

Method of measurement and required results

Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the TE is turned off in order to be able to change the frequency of subsequent communications. Configure the TE with a ship station MMSI. From the EUT send a DSC message with priority routine requesting radio telephone addressed to the TE. On VHF select channel 6. Silence the alarm on the TE. When it is time to send the acknowledgment from the TE select the option to comply with a mode and/or frequency change. Compose the change as follows: On VHF change it to channel 70. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the information content of the initial DSC message is displayed or available on the EUT,	X		
upon completion of the transmission the EUT states that it is waiting for an acknowledgement,	X		
the time since sending the initial DSC message is displayed,	X		
the option to resend the initial DSC message is available,	X		
the option to activate/place the procedure on hold is available, (<i>optional</i>)	X		
the option to terminate the procedure is available,	X		
the received non distress DSC procedure is started on the TE,	X		
the information content displayed on the TE corresponds to that displayed on the EUT,	X		
the elapsed time, stage, and operator options are visible at top level on the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Acknowledge the DSC message from the TE with “able to comply” specified above (change channel to 70). Verify that:

Item	Result		Com-ment
	YES	NO	
the elapsed time, stage, and operator options are visible at top level on the EUT,	X		
the routine acknowledgement alarm sounds on the EUT,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the acknowledgement is displayed or available on the EUT,	X		
the EUT indicates that a change in communications has been suggested (accept if necessary),	X		
The operator is informed that he has to make a new call	X		
the option to resend the initial DSC message is no longer available on the EUT,	X		
the option to terminate the procedure is available,	X		
EUT no tune to the preposed channel,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.4. Sending non distress procedure sequence with “unable to comply” test

[Draft ETSI EN 300 338-3, n.6.6.6]

[Draft ETSI EN 300 338-3, n.5.2.4, Table 1]

[Rec. ITU-R M.493-13, Annex 1, Table 4.7, Table 4.9]

[Rec. ITU-R M.493-13, Annex 2, n.4.2]

Definition

This test checks the ability of the EUT procedure to handle an ‘unable to comply’ acknowledgement.

Method of measurement and required results

a) Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the TE is turned off in order to allow the ‘unable to comply’ acknowledgement option. Configure the TE with a ship station MMSI. From the EUT send a DSC message with priority routine requesting radio telephone addressed to the TE. On VHF select channel 6. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the information content of the initial DSC message is displayed or available on the EUT,	X		
Upon completion of the transmission the EUT states that it is waiting for an acknowledgement,	X		
the time since sending the initial DSC message is displayed,	X		
the option to resend the initial DSC message is available,	X		
a ‘too soon’ warning is displayed when trying to resend before 5 minutes,	X		
the option to activate/place the procedure on hold is available (<i>option</i>),	X		
the option to terminate the procedure is available,	X		
the received non distress DSC procedure is started on the TE,	X		
the information content displayed on the TE corresponds to that displayed on the EUT,	X		
the elapsed time, stage, and operator options are visible at top level on the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Acknowledge the DSC message from the TE with unable to comply with reason “busy”. Verify that:

Item	Result		Comment
	YES	NO	
EUT does not receive the acknowledgement [Draft ETSI EN 300 338-3(2009-12), n.5.2.4, Table 1]		X	(3)

(3)

EUT receives and displays acknowledgement «Unable to comply». While DSC equipment class D should not accept the reception of acknowledgement «Unable to comply».

[Draft ETSI EN 300 338-3(2009-12), n.5.2.4, Table 1]

[Rec. ITU-R M.493-13, Annex 1, Table 4.7; Table 4.9]

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.5. Sending non distress procedure sequence with no acknowledgement required test

[Draft ETSI EN 300 338-3 (2008-3), n.6.6.2]

[Draft ETSI EN 300 338-3 (2008-3), n.6.6.6]

Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the TE is turned off. From the EUT send a All ships DSC message with priority urgency requesting radio telephone. On VHF select channel 6. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the information content of the initial DSC message is displayed or available on the EUT,	X		
upon completion of the transmission the EUT states that it is 'procedure done?',	X		
the time since sending the initial DSC message is displayed,	X		
the option to resend the initial DSC message is available,	X		
the option to activate/place the procedure on hold is available (<i>option</i>),	X		
the option to terminate the procedure is available,	X		
the received non distress DSC procedure is started on the TE,	X		
the information content displayed on the TE corresponds to that displayed on the EUT,	X		
the elapsed time, stage, and operator options are visible at top level on the EUT,	X		
Transmitter is tuned to the frequency on channel 6	X		
you can speak to the TE from the EUT on channel 6,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.6. Delayed Acknowledgements after terminating sending non distress procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.7]

[Rec.ITU-R M.541-9, Ann.2, n.2.1.13.1]

[Rec.ITU-R M.541-9, Ann.2, n.2.2.6]

Reset EUT into Standby. Set maximum value of termination timeout. From EUT to TE send Individual routine RT call channel 6. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is waiting for a reply,	X		
Termination the procedure manually	X		
the EUT returns to standby.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Acknowledge the EUT from the TE with “able to comply” (within 4.5 min), Verify that:

Item	Result		Com-ment
	YES	NO	
the routine acknowledgement alarm sounds on the EUT,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the EUT indicates that this DSC message is an ack one quit waiting for or equivalent,	X		
the information content of the acknowledgement is displayed or available on the EUT,	X		
the EUT indicates that it has been acknowledged or that communications are ready,	X		
the option to resend an ‘initial DSC message’ is unavailable on the EUT,	X		
the option to activate/place the procedure on hold is available (<i>option</i>),	X		
the option to terminate the procedure is available	X		
the time since acknowledgement, stage, and operator options are visible at top level	X		
you can speak to the TE from the EUT,	X		
you can speak to the EUT from the TE.	X		

NOTE:

EUT initiates itself the terminated sending non distress automated procedure after reception of repeated acknowledgement during an interval of time of 5 minutes even when initial acknowledgement was successfully received, and then procedure was terminated.

[Draft ETSI EN 300 338-3, n.6.6.7]

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.7. Acknowledge Alarms of Sending non distress automated procedure

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.5]
[Draft ETSI EN 300 338-3 (2009-12), Annex C]

Reset EUT into Standby. From EUT to TE send Individual routine RT call channel 6. Verify that:

Item Routine DSC call	Result		Com- ment
	YES	NO	
the EUT indicates that it is waiting for a reply,	X		
the time since sending the initial DSC message is displayed,	X		

Acknowledge the EUT from the TE with “able to comply” (within 4.5 min), Verify that:

Item	Result		Com- ment
	YES	NO	
the Routine acknowledgement alarm sounds on the EUT,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The information content of the acknowledgement is displayed or available on the EUT,	X		
the time since being acknowledged is displayed,	X		
you can speak to the TE from the EUT (ch 6),	X		
you can speak to the EUT from the TE (ch 6).	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Repeat acknowledge the EUT from the TE with “able to comply” (within 4.5 min),
Verify that:

Item	Result		Com- ment
	YES	NO	
Any subsequent acknowledgement may be ignored as only individually addressed non distress DSC messages have acknowledgements.	X		
There is no any alarm	X		
the time since being acknowledged is not changed	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.8. Termination of the automated procedure before acknowledgement

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.8]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

Verify default setting timeout facilities:

Automated timeout				
Item		Result		Com-ment
		YES	NO	
There are facilities of timeout	Yes	X		
Possibility of change value of timeout	Yes	X		
Limits of timeout	1 – 30 min	X		
Default value of timeout	15 min	X		15 min
Facilities to set Active / No active timeout	Yes	X		Yes
Default setting	Active	X		Active

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.9. Manually termination of automated procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.8]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.9.2]

a) Reset EUT into Standby. Set no timeout or maximum value.
From EUT serially send the calls listed in the table.

Starting sending automated procedure call Send from EUT	There is option Termination	Possibly manually termination procedure	Automatically display any unread messages	Comments
All ships Urgency	Yes	Yes	Yes	
All ships Safety	Yes	Yes	Yes	
Individual Safety Test call	Yes	Yes	No tested	
Group call Routine All mode RT	Yes	Yes	No tested	
Individual Routine All mode RT	yes	yes	yes	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

After sending of a each call to send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Manually terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
The termination option is available	X		
After termination the EUT shell automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.6.8]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.6.8]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.10. Termination of automated procedure by automated timeout

[Draft ETSI EN 300 338-3 (2009-12), n.6.6.8]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.9.2.1]

a) Reset EUT into Standby. Set automated termination timeout.

From EUT serially send the calls listed in the table. After sending of a each call to send from TE in addition one or DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received.

Starting sending automated procedure call Send from EUT	There is option Termination	Possibly termination procedure by automated timeout	Automatically display any unread messages	Com-ments
All ships Urgency	Yes	Yes	Yes	
All ships Safety	Yes	Yes	Yes	
Individual Safety Test call				No tested
Group call Routine All mode RT				No tested
Individual Routine All mode RT	Yes	yes	yes	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

After sending of each call to send in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. To be convinced, that calls are received.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Wait automatic timeout terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
At least 10 seconds prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec. ITU-R M.493-13, Ann.4, n.3.1.1.1]	X		
The option to stop of termination is available [Rec. ITU-R M.493-12, Ann.4, n.3.1.9.2]	X		
After termination the EUT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.4.13]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.6.8]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.11. Frequency information input in DSC messages test

[Draft ETSI EN 300 338-1 (2009-12), n.12.1]

Method of measurement and required results

Reset EUT into Standby. Select facilities for composition of All ship RT call. Try to input channel information. Send call. Verify that:

Subject	Value		Result		Comment
	YES	NO	OK	NO	
For VHF operation only 1 data field is required to be transmitted. <u>The first frequency element will contain the information. If both data fields are received in a message then the radio will ignore the second one.</u>	X		X		Should not be possible to input second frequency element.
Unused frequency elements shall be filled with "no information" (126).	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.12. Verification of correct generation, encoding and transmission of DSC call sequences to all ships

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.1]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.3]

[Rec.ITU-R M.493-13, Annex 1, Table 4.5]

Method of measurement and required results

a) The EUT and TE are connected. Try to send from the EUT the following DSC calls:

- a) Urgency call, to all ships;
- b) Safety call, to all ships.
- c) Distress call, to all ships;
- d) Routine call, to all ships.

The TE receives, decodes DSC calls. Verify that:.

All ships call					
Category of all ships call	Possibility of sending of All ships call		Result		Comment
	YES	NO	OK	NO	
Distress		X	X		Should not be possibility [ITU-R M.493-13, Annex 1, Table 4.5]
Urgency	X		X		
Safety	X		X		
Routine		X	X		Should not be possibility [ITU-R M.493-13, Annex 1, Table 4.5]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) It shall be possible to transmit ALL SHIPS calls by means of deliberate actions, such as two levels of menu instructions.

The operator shall be able to select either Urgency or Safety category and the equipment shall propose the default subsequent working channel of 16 (the operator shall have the option to change the working channel). Verify that:

All ships call				
Subject	Value	Result		Comment
		OK	NO	
It shall be possible to transmit ALL SHIPS calls by means of deliberate actions, such as two levels of menu instructions. [Draft ETSI EN 300 338-3 V1.11 (2009-12), n.5.2.3]	Yes	X		
EUT shall propose the default subsequent working channel of 16 [Draft ETSI EN 300 338-3 V1.11 (2009-12), n.5.2.3]	Yes	X		
The operator shall have the option to change the working channel [Draft ETSI EN 300 338-3 V1.11 (2009-12), n.5.2.3]	Yes	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) The EUT software should allow the operator to only compose the types of the DSC messages wich specified in tables 4.1-4.5 Annex 1 Rec. ITU-R M.493-13. Verify that:
[Rec ITU-R M.493-13, Annex 3, n.1]

N	Item	Sending		Result		Comment
		YES	NO	OK	NO	
1	All ships Urgency call (F3E/G3E All modes TP) [Rec ITU-R M.493-13, Ann.1, Table 4.5]	X		X		
2	All ships Urgency call (F3E/G3E duplex TP) Rec ITU-R M.493-13, Ann.1, Table 4.5]		X	X		Should not be possibility
3	All ships Safety call (F3E/G3E All modes TP) Rec ITU-R M.493-13, Ann.1, Table 4.5]	X		X		
4	All ships Safety call (F3E/G3E duplex TP) Rec ITU-R M.493-13, Ann.1, Table 4.5]		X	X		Should not be possibility
5	All ships Urgency call (Medical transports) (F3E/G3E All modes TP) Rec ITU-R M.493-13, Ann.1, Table 4.5]		X	X		Should not be possibility
6	All ships Urgency call (Ships and aircraft (Res.18)) (F3E/G3E All modes TP) Rec ITU-R M.493-13, Ann.1, Table 4.5]		X	X		Should not be possibility

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.13. Verification of correct generation, encoding and transmission of Geographic area calls

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]
[Rec.ITU-R M.493-13, Annex 1, Table 4.6]

Method of measurement and required results

The EUT and TE are connected. Try to send from the EUT the following DSC calls to Geographic area.. Verify that:.

Category of all ships call	Possibility of sending of All ships call		Result		Comment
	YES	NO	OK	NO	
Distress		X	X		Should not be possibility
Urgency		X	X		Should not be possibility
Safety		X	X		Should not be possibility
Routine		X	X		Should not be possibility

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.14. Verification of correct generation, encoding and transmission of Urgency and safety calls, to individual station

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.1]

[Rec. ITU-R M.493-12, Annex 1, Table 4.7]

Method of measurement and required results

a)The EUT and TE are connected. The EUT is set to generate, encode and transmit the DSC Urgency and safety calls, to individual station. Verify that:

Individual call (general requirements)				
Subject	Value	Result		Comment
		OK	NO	
The INDIVIDUAL call facility shall permit the MANUAL entry of a MMSI [Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]	Yes	X		
The INDIVIDUAL call facility shall permit the selection of a station from the DIRECTORY list (MMSI entry).	Yes	X		
The DIRECTORY list shall have a facility for at least 10 entries. [Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]	Yes	X		
Their MMSIs shall be programmable.	Yes	X		
If the called station is a coast station (i.e. MMSI commencing 00) no further information shall be requested from the operator. [Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]	Yes	X		
If the called station is a ship station the equipment shall request input of a channel number. [Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]	Yes	X		
The operator shall have the option to change the working channel [Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]	Yes	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) The EUT software should allow the operator to only compose the types of the DSC messages wich specified in tables 4.1-4.5Annex 1 Rec. ITU-R M.493-13. Verify that:
[Rec ITU-R M.493-13, Annex 3, n.1]

N	Subject	Sending		Results		Com-ment
		YES	NO	OK	NO	
1	Urgency call to individual station Msg2: Frequency (F3E/G3E All modes TP)		X	X		Should not be possible to send
2	Safety call to individual station Msg2: Frequency (F3E/G3E All modes TP)		X	X		Should not be possible to send
3	Urgency call to individual station Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible to send
4	Safety call to individual station Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible to send
5	Urgency call to individual station Msg2: Frequency (F3E/G3E duplex TP)		X	X		Should not be possible to send
6	Safety call to individual station Msg2: Frequency (F3E/G3E duplex TP)		X	X		Should not be possible to send
7	Urgency call to individual station Position request		X	X		Should not be possible to send
8	Safety call to individual station Position request		X	X		Should not be possible to send
9	Urgency call to individual station Test call		X	X		Should not be possible to send
10	Safety call to individual station Test call	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.15. Verification of correct generation, encoding and transmission of Urgency and Safety calls to individual station acknowledgement (*)

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.1]

[Rec. ITU-R M.493-12, Annex 1, Table 4.7]

Method of measurement and required results

The EUT and TE are connected. The TE is set to generate, encode and transmit the DSC Urgency and safety calls to individual station TE. Try to send from TE acknowledgements. Verify that:

N	Subject	Sending		Result		Com-ment
		YES	NO	OK	NO	
1	Urgency call to individual station acknowledgement Msg2: Frequency (F3E/G3E All modes TP)	X		X		
2	Safety call to individual station acknowledgement Msg2: Frequency (F3E/G3E All modes TP)	X		X		
3	Urgency call to individual station acknowledgement Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible
4	Safety call to individual station acknowledgement Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible
5	Urgency call to individual station acknowledgement Msg2: Frequency (F3E/G3E duplex TP)		X	X		Should not be possible
6	Safety call to individual station acknowledgement Msg2: Frequency (F3E/G3E duplex TP)		X	X		Should not be possible
7	Urgency call to individual station acknowledgement Msg2: Position information (F3E/G3E duplex TP)		X	X		Should not be possible
8	Safety call to individual station acknowledgement Msg2: Position information (F3E/G3E duplex TP)		X	X		Should not be possible
9	Urgency call to individual station Position acknowledgement		X	X		Should not be possible
10	Safety call to individual station Position acknowledgement		X	X		Should not be possible
11	Urgency call to individual station Test call acknowledgement		X	X		Should not be possible
12	Safety call to individual station Test call acknowledgement	X		X		

(*)The test concerns to the receiving non distress automated procedure.



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Subject	Sending		Results		Comment
		YES	NO	OK	NO	
13	Safety call to individual station Unable to comply (No reason given)	X		X		
14	Safety call to individual station Unable to comply (Congestion at maritime switching centre) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
15	Safety call to individual station Unable to comply (Busy) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
16	Safety call to individual station Unable to comply (Queue indication) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
17	Safety call to individual station Unable to comply (Station barred) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
18	Safety call to individual station Unable to comply (No operator available) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
19	Safety call to individual station Unable to comply (Operator temporarily unavailable) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
20	Safety call to individual station Unable to comply (Equipment disabled) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
21	Safety call to individual station Unable to comply (Unable to use proposed channel)	X		X		
22	Safety call to individual station Unable to comply (Unable to use proposed mode) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Subject	Sending		Results		Comment
		YES	NO	OK	NO	
23	Urgency call to individual station Unable to comply (No reason given)	X		X		
24	Urgency call to individual station Unable to comply (Congestion at maritime switching centre) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
25	Urgency call to individual station Unable to comply (Busy) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
26	Urgency call to individual station Unable to comply (Queue indication) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
27	Urgency call to individual station Unable to comply (Station barred) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
28	Urgency call to individual station Unable to comply (No operator available) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
29	Urgency call to individual station Unable to comply (Operator temporarily unavailable) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
30	Urgency call to individual station Unable to comply (Equipment disabled) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible
31	Urgency call to individual station Unable to comply (Unable to use proposed channel)	X		X		
32	Urgency call to individual station Unable to comply (Unable to use proposed mode) [Draft ETSI EN 300 338-3(2009-12), n.6.7.7]		X	X		Should not be possible

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

6.16. Verification of correct generation, encoding and transmission Routine call, to a group of stations

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.1]

[Rec. ITU-R M.493-13, Annex 1, Table 4.8]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to receive DSC calls. The TE generates, encodes and transmits to the EUT a Routine call to a group of stations. Verify that:

Group MMSI of EUT is **027300000**

N	Subject	Sending		Results		Comment
		YES	NO	OK	NO	
1	Routine call to group of station F3E/G3E All modes TP Msg2: VHF channel	X		X		
2	Routine call to group of station F3E/G3E duplex TP Msg2: Frequency		X	X		Should not be possible
3	Routine call to group of station F3E/G3E All modes TP Msg2: Position		X	X		Should not be possible
4	Routine call to group of station F3E/G3E duplex TP Msg2: Position		X	X		Should not be possible

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**6.17. Verification of correct generation, encoding and transmission
Routine call to individual station**

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.1]

[Rec. ITU-R M.493-12, Annex 1, Table 4.9]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to generate, encode and transmit the DSC Urgency and safety calls, to individual station. Verify that:

Results

N	Subject	Sending		Results		Com-ment
		YES	NO	OK	NO	
1	Routine call to individual station Msg2: VHF channel (F3E/G3E All modes TP)	X		X		
2	Routine call to individual station Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible
3	Routine call to individual station Msg2: VHF channel (F3E/G3E duplex TP)		X	X		Should not be possible
4	Routine call to individual station Msg2: VHF channel (Data)		X	X		Should not be possible
5	Routine call to individual station Msg2: Position information (Data)		X	X		Should not be possible
1	Routine call to individual station Position request Draft ETSI EN 300 338-3(2009-12), n.5.2.4]	X		X		Should not be possible See Note
2	Routine call to individual station Test call		X	X		Should not be possible
3	Routine call to individual station Polling [Draft ETSI EN 300 338-3(2009-12), n.5.2.4]		X	X		Should not be possible See Note

NOTE:

Individual routine category polling and position calls from previous versions of this Recommendation may be implemented for the sake of reverse compatibility.

[Draft ETSI EN 300 338-3(2009-12), n.5.2.4]

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**6.18. Verification of correct generation, encoding and transmission
Routine acknowledgement calls to individual station^(*)**

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.2]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.1]

[Rec. ITU-R M.493-12, Annex 1, Table 4.9]

The EUT and TE are connected. The TE is set to generate, encode and transmit the DSC Routine calls to individual station TE. Try to send from TE acknowledgements. Verify that:

MMSI of EUT is **273000000**

N	Subject	Sending		Results		Com- ment
		YES	NO	OK	N O	
1	Routine call to individual station acknowledgement; Msg2: Frequency – VHF channel (F3E/G3E All modes TP)	X		X		
2	Routine call to individual station acknowledgement; Msg2: Position information (F3E/G3E All modes TP)		X	X		
3	Routine call to individual station acknowledgement; Msg2: MF/HF channel (F3E/G3E All modes TP)		X	X		
4	Routine call to individual station acknowledgement Msg2: Frequency – VHF channel (F3E/G3E duplex TP)		X	X		
5	Routine call to individual station acknowledgement; Msg2: Position information (F3E/G3E duplex TP)		X	X		
6	Routine call to individual station acknowledgement; Msg2: MF/HF channel (F3E/G3E duplex TP)		X	X		
7	Routine call to individual station acknowledgement; Msg2: REC. 586 channel (F3E/G3E All modes TP)		X	X		
8	Routine call to individual station acknowledgement; Msg2: REC. 586 channel (F3E/G3E duplex TP)		X	X		
9	Routine call to individual station acknowledgement; Msg2: REC. 586 channel (Data)		X	X		
10	Routine call to individual station acknowledgement Msg2: Frequency – VHF channel (Data)		X	X		
11	Routine call to individual station acknowledgement Msg2: Position information (Data)		X	X		
12	Routine call to individual station acknowledgement Msg2: MF/HF channel (Data)		X	X		
13	Routine call to individual station Position acknowledgement	X		X		See Note
14	Routine call to individual station Test call acknowledgement		X	X		
15	Routine call to individual station Polling acknowledgement		X	X		See Note

(*)The test concerns to the receiving non distress automated procedure.



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Subject	Sending		Results		Comment
		YES	NO	OK	NO	
16	Routine call to individual station Unable to comply acknowledgement (No reason given)	X			X	(3)
17	Routine call to individual station Unable to comply acknowledgement (Congestion at maritime switching centre)		X	X		
18	Routine call to individual station Unable to comply acknowledgement (Busy)		X	X		
19	Routine call to individual station Unable to comply acknowledgement (Queue indication)		X	X		
20	Routine call to individual station Unable to comply acknowledgement (Station barred)		X	X		
21	Routine call to individual station Unable to comply acknowledgement (No operator available)		X	X		
22	Routine call to individual station Unable to comply acknowledgement (Operator temporarily unavailable)		X	X		
23	Routine call to individual station Unable to comply acknowledgement (Equipment disabled)		X	X		
24	Routine call to individual station Unable to comply acknowledgement (Unable to use proposed channel)	X			X	(3)
25	Routine call to individual station Unable to comply acknowledgement (Unable to use proposed mode)		X	X		

NOTE:

Individual routine category polling and position calls from previous versions of this Recommendation may be implemented for the sake of reverse compatibility.

[Draft ETSI EN 300 338-3(2009-12), n.5.2.4]

(3) See n.6.4.

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7. Receiving non distress automated procedure

[Draft ETSI EN 300 338-3(2009-12), n.6.7]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.1. The received non distress automated procedure with ‘able to comply’ tests (Manual acknowledgement)

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.2]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.6]

Definition

This test checks the sequence of receiving an individually addressed DSC message, manually acknowledging with ‘able to comply’, and establishing the communication link.

Method of measurement and required results

Set the EUT and TE into standby. The auto acknowledging feature for individually addressed DSC messages of routine priority shall be turned off. Configure the TE with a ship station MMSI. From the TE send a DSC message of routine priority requesting radio telephone addressed to the EUT. For the working frequencies use VHF channel 6. Verify that:

- a) Reset EUT into Standby. Send from TE to EUT **routine individual call RT (working channel 6)**. Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Item "able to comply"	Result		Com- ment
	YES	NO	
EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the time since receiving the DSC call is displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3,b]	X		
the option to send <u>able to comply</u> ' acknowledgement is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(i)]	X		
The acknowledgement shall only be transmitted manually [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
The operator shall not be required to compose any elements of this acknowledgement [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
The "able to comply" option shall only require a single action by the operator to respond (e.g. lifting the handset). [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
EUT should not changed channel (to 6) [Draft ETSI EN 300 338-3 (2009-12), n.6.7.6]	X		
the 'able to comply with mode/frequency change' acknowledgment option is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(ii)]	X		
the 'unable to comply' acknowledgment option is no available (routine), [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(iii)]		X	(4)
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(iv)]	X		
the information content of the received DSC message is displayed or available on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3,e]	X		
the information content displayed on the TE corresponds to that displayed on the EUT	X		
the EUT states that it is waiting for the operator to respond/select an acknowledgment, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3,h]	X		
the time since receiving initial DSC call, stage, and operator options are visible at top level, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Acknowledge the DSC message from the EUT with “able to comply”. Verify that:

Item “able to comply”	Result		Com- ment
	YES	NO	
the EUT indicates that it is transmitting, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3,h]	X		
the information content of the sent acknowledgment is displayed or available on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3,f]	X		
the option to resend only the <i>identical</i> acknowledgement is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(2)]	X		
the EUT indicates that communications are ready, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3,h]	X		
the option to terminate the procedure is available,	X		
the information content displayed on the TE corresponds to that displayed on the EUT, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(2)]	X		
the time since acknowledgment, stage, and operator options are visible at top level, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.3]	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall be tuned to the frequencies of the subsequent communications given in the acknowledgement [Draft ETSI EN 300 338-3 (2009-12), n.6.7.6]	X		
You can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Select option resend. Send the acknowledgement. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
If an acknowledgement is resent by the operator it shall be identical to the first acknowledgment. [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(2)]	X		
It shall not be possible to further edit the content. [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(2)]	X		
the elapsed time, stage, and operator options are visible at top level. (stage is “acknowledged”) [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,f(2)]	X		

(4)

EUT has option for acknowledge “Unable to comply”. While for DSC equipment class D for acknowledgement of calls of category Routine the option «Unable to comply» should be absent.

[Draft ETSI EN 300 338-3(2009-12),n.5.2.4, Table 1]
[Rec. ITU-R M.493-13, Annex 1, Table 4.9]

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.2. Received non distress automated procedure with ‘comply with channel change’ tests (Manual acknowledgement)

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.2]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.6]

Definition

This test checks the ability of the procedure to identify a situation where a frequency change is required in the acknowledgement and thus the ‘able to comply’ option is unavailable.

Method of measurement and required results

Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the EUT is turned off. Set the automated timeout of received non distress procedures on the EUT to some value long enough to complete all the tests prior to examining the timeout. Configure the TE with a ship station MMSI. From the TE send a **DSC messages of priority safety requesting radio telephone addressed to the EUT** but let the destination station decide the working frequencies/channel (**Channel information is 126**). Verify that:

Item ‘comply with channel change’	Result		Com- ment
	YES	NO	
the EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the received DSC message is displayed or available on the EUT	X		
The time since receiving the initial DSC message is displayed,	X		
The information content received by the EUT corresponds to that sent by the TE	X		
the EUT states that it is waiting for the operator to respond/select an acknowledgment, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the ‘able to comply’ acknowledgment option is NOT available , [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the ‘able to comply with channel change’ acknowledgment option is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the ‘unable to comply’ acknowledgment option is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the option to terminate the procedure is available,	X		
The "comply with channel change" option shall require that the operator be able to enter/select channels before sending	X		
The operator shall not be required to compose any other elements of this acknowledgement	X		
the elapsed time, stage, and operator options are visible at top level,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Select the “comply with channel change” option. Verify that:

Item	Result		Com-ment
	YES	NO	
the operator can select/enter a new frequency or channel, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
These two options are the only editing of the acknowledgement the operator can perform. [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		

Send the acknowledgement using offer for next communication (VHF) channel 6.
Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the time since sending the acknowledgment is displayed,	X		
the information content of the sent acknowledgment is displayed or available on the EUT,	X		
the option to resend only the identical/ acknowledgement is available,	X		
the EUT indicates that communications are ready,	X		
the option to terminate the procedure is available,	X		
the information content received by the TE corresponds to that sent by the EUT	X		
the time since acknowledgement, stage, and operator options are visible at top level	X		
You can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Select option resend. Send the acknowledgement. Verify that:

Item	Result		Com- ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
If an acknowledgement is resent by the operator it shall be identical to the first acknowledgment.	X		
It shall not be possible to further edit the content.	X		
the elapsed time, stage, and operator options are visible at top level. (stage is “acknowledged”)	X		

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.3. Received non distress automated procedure with ‘unable to comply’ (‘Unable to use proposed channel’) tests (Manual acknowledgement)

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.2]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.6]

Definition

This tests checks the ability of the procedure to send an ‘unable to comply’ acknowledgement.

Method of measurement and required results

Set the EUT and TE in standby and be sure that the automatic acknowledgement feature of the EUT is turned off. Configure the TE with a ship station MMSI. From the TE send a **DSC message of priority urgency requesting radio telephone** addressed to the EUT but the working frequencies/channel is unavailable. Verify that:

MMSI EUT 273000000, User ID 002730000, Working channel is 70.

Item	Result		Com-ment
	YES	NO	
the EUT sounds the urgency alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the received DSC message is displayed or available on the EUT,	X		
the time since receiving the initial DSC message is displayed,	X		
the information content received by the EUT corresponds to that sent by the TE,	X		
the EUT states that it is waiting for the operator to respond/select an acknowledgment,	X		
the ‘able to comply’ acknowledgment option is NOT available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the ‘able to comply with mode/frequency change’ acknowledgment option is available, with mode/frequency change’, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the ‘unable to comply’ acknowledgment option is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		
the option to terminate the procedure is available,	X		
the elapsed time, stage, and operator options are visible at top level.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Select the “unable to comply” option. Verify that:

Item	Result		Com-ment
	YES	NO	
the only operator option is to select reason for being unable to comply ‘Unable to use preposed channel’, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]	X		

Send the acknowledgement. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
upon completion of the transmission the procedure terminates, [ETSI EN 300 338 (2208-12), n.6.7.8.]	X		
the information content received by the TE corresponds to that sent by the EUT.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.4. Received non distress automated procedure if acknowledgement not requested test

[ETSI EN 300 338-3(2009-12), n.6.7.2]

[ETSI EN 300 338-3(2009-12), n.6.7.3]

[ETSI EN 300 338-3(2009-12), n.6.7.6]

Definition

This tests checks the procedure when no need to send acknowledgement.

Method of measurement and required results

a) Set the EUT and TE in standby. Set value of automated termination. From the TE send a DSC message of priority **urgency to All ships RT channel 6**. Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Item Urgency All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the urgency alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the received DSC message is displayed or available on the EUT,	X		
the time since receiving the initial DSC message is displayed,	X		
the information content received by the EUT corresponds to that sent by the TE,	X		
the EUT indicates that it is acknowledged stage, [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,c]	X		
the ‘able to comply’ acknowledgment option is NOT available,	X		
the ‘able to comply with mode/frequency change’ acknowledgment option is NOT available,	X		
the ‘unable to comply’ acknowledgment option is NOT available,	X		
the option to terminate the procedure is available,	X		
the elapsed time, stage, and operator options are visible at top level. (stage is “acknowledged”) [Draft ETSI EN 300 338-3 (2009-12), n.6.7.2,c]	X		
You can communication from TE to EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Set the EUT and TE in standby. From the TE send a DSC message of priority safety to All ships RT channel 6. Verify that:

Item Safety All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the received DSC message is displayed or available on the EUT,	X		
the time since receiving the initial DSC message is displayed,	X		
the information content received by the EUT corresponds to that sent by the TE,	X		
the EUT indicates that it is acknowledged stage,	X		
the 'able to comply' acknowledgment option is NOT available,	X		
the 'able to comply with mode/frequency change' acknowledgment option is NOT available,	X		
the 'unable to comply' acknowledgment option is NOT available,	X		
the option to terminate the procedure is available,	X		
the elapsed time, stage, and operator options are visible at top level.	X		
You can communication from TE to EUT,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Set the EUT and TE in standby. From the TE send a DSC message of priority routine Group call RT channel 6. Verify that:

Item Routine Group call RT	Result		Com- ment
	YES	NO	
the EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the information content of the received DSC message is displayed or available on the EUT,	X		
the time since receiving the initial DSC message is displayed,	X		
the information content received by the EUT corresponds to that sent by the TE,	X		
the EUT indicates that it is acknowledged stage,	X		
the 'able to comply' acknowledgment option is NOT available,	X		
the 'able to comply with mode/frequency change' acknowledgment option is NOT available,	X		
the 'unable to comply' acknowledgment option is NOT available,	X		
the option to terminate the procedure is available,	X		
the elapsed time, stage, and operator options are visible at top level. (stage is "acknowledged")	X		
You can communication from TE to EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.5. The received non distress automated procedure with ‘able to comply’ (DSC test call) tests (Manual acknowledgement)

[ETSI EN 300 338-3(2009-12), n.6.7.7]

[ETSI EN 300 338-3(2009-12), n.6.7.8]

[Rec. ITU-R M.493-13, Ann.4,n.3.2.1.2.4.1]

Definition

This test checks the sequence of receiving an individually addressed DSC message, manually acknowledging with ‘able to comply’, when was received the DSC Test call.

Method of measurement and required results

Set the EUT and TE into standby. The auto acknowledging feature for individually addressed DSC test messages shall be turned off. Configure the TE with a ship station MMSI. From the TE send a DSC message Test call. Verify that:

a) Send from TE to EUT address test call. Verify that:

Item “Test call”	Result		Com- ment
	YES	NO	
EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
the time since receiving the DSC call is displayed,	X		
the option to send ‘able to comply’ acknowledgement is available, [Rec. ITU-R M.493-13, Ann.4,n.3.2.1.2.4.1]	X		
The acknowledgement shall only be transmitted manually	X		
The operator shall not be required to compose any elements of this acknowledgement	X		
The "able to comply" option shall only require a single action by the operator to respond (e.g. lifting the handset)	X		
the ‘able to comply with mode/frequency change’ acknowledgment option is NOT available	X		
the ‘unable to comply’ acknowledgment option is NOT available	X		
the option to terminate the procedure is available,	X		
the information content of the received DSC message is displayed or available on the EUT	X		
the information content displayed on the TE corresponds to that displayed on the EUT	X		
the EUT states that it is waiting for the operator to respond/select an acknowledgment	X		
the time since receiving initial DSC call, stage, and operator options are visible at top level	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Acknowledge the DSC Test Call message from the EUT. Verify that:

Item "Test call"	Result		Com- ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the information content of the sent acknowledgment is displayed or available on the EUT,	X		
the option to resend only the <i>identical</i> acknowledgement is available,	X		
the option to terminate the procedure is available,	X		
the information content displayed on the TE corresponds to that displayed on the EUT,	X		
the time since acknowledgment, stage, and operator options are visible at top level, (stage is "acknowledged")	X		

c) Select option resend. Send the acknowledgement. Verify that:

Item	Result		Com- ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
If an acknowledgement is resent by the operator it shall be identical to the first acknowledgment.	X		
It shall not be possible to further edit the content.	X		
the elapsed time, stage, and operator options are visible at top level. (stage is "acknowledged")	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.6. Termination of the automated procedure by the automated timeout options

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

Verify default setting timeout facilities:

Auto acknowledgement options					
Subject		Value	Result		Comment
			OK	NO	
Test call	Default setting	ON	X		Should be ON
Individually addressed non-distress call	Default setting	OFF	X		Should be OFF

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.7. The received non distress automated procedure with ‘unable to comply’ with auto acknowledging tests

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]
[Draft ETSI EN 300 338-3 (2009-12), n.6.7.7]
[Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]
[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]
[Rec.ITU-R M.493-13, Ann.4, n.3.2.1.2]

Definition

This tests checks the ability of the procedure to send an auto acknowledging with ‘unable to comply’ acknowledgement.

Method of measurement and required results

Set the EUT and TE in standby and be sure that the automatic acknowledgement non distress messages feature of the EUT is turned on. Configure the TE with a ship station MMSI. From the TE send a **DSC message of priority urgency requesting radio telephone** addressed to the EUT but the working frequencies/channel is unavailable. Verify that:

NOTE: *There is contradictory Draft ETSI EN 300 338-3 (2009-12), n.6.7.8 and Rec. ITU-R M.493-13, Ann.4, n.3.2.1.2 of the automatic actowledgement of the Individually addressed non-distress call.*

a) Send from TE to EUT Urgency Individual call RT (Working channel 70). Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting the acknowledgment,	X		
the procedure terminates after completing the transmission ACK an “unable to comply” [Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]	X		
the information content received by the TE corresponds to that sent by the EUT.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.8. The received non distress automated procedure with ‘able to comply’ (DSC test call) with auto acknowledging tests

[Draft ETSI EN 300 338-3 (2009-12),n.6.7.5]

[Draft ETSI EN 300 338-3 (2009-12),n.6.7.8]

[Rec. ITU-R M.493-13, Ann.4,n.3.2.1.2.4.1]

Definition

This test checks the sequence of receiving an individually addressed DSC message, auto acknowledging with ‘able to comply’, when was received the DSC Test call.

Method of measurement and required results

Set the EUT and TE into standby. The auto acknowledging feature for test DSC messages shall be turned on. Configure the TE with a ship station MMSI. From the a) Reset EUT into Standby. Send from TE DSC test call. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting the acknowledgment,	X		
upon completion of the transmission the EUT NOT sounds the alarm, [ETSI EN 300 338 (2009-12), n.6.7.5]	X		
upon completion of the transmission the procedure self-terminates, [ETSI EN 300 338 (2009-12), n.6.7.8]	X		
the information content received by the TE corresponds to that sent by the EUT	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.9. Termination of the automated procedure options test

[ETSI EN 300 338-3 (2009-12), n.6.7.8]

[ETSI EN 300 338-3 (2009-12), n.6.3]

Verify default standby options:

Automated timeout				
Item	Value	Result		Com-ment
		YES	NO	
There are facilites of timeout	Yes	X		
Possibility of change value of timeout	Yes	X		
Limits of timeout	1 - 30 min	X		
Default value of timeout	15 min	X		15 min
Facilites to set Active / No active timeout	Yes	X		Yes
Default setting	Active	X		Active

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.10. Manually termination automated procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

a) Reset EUT into Standby. Set no timeout or maximum value.
From TE serially send the calls listed in the table.

Starting receiving non distress automated procedure call	There is option Termination	Possibly manually termination procedure	Automatically display any unread messages	Comments
All ships Urgency RT call	yes	yes	yes	
All ships Safety RT call	yes	yes	yes	
Individual Urgency RT call	yes	yes	yes	
Individual Safety RT call				No tested
Individual Safety Test call				No tested
Group call Routine All mode RT				No tested
Individual Routine All mode RT	yes	yes	yes	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

After sending of a each call to send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Manually terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
The termination option is available	X		
After termination the EUT shell automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.11. Termination of automated procedure by automated timeout

[Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.9.2.1]

a) Reset EUT into Standby. Set no timeout or maximum value.
From TE serially send the calls listed in the table.

Starting receiving non distress automated procedure call	There is option Termination	Possibly manually termination procedure	Automatically display any unread messages	Comments
All ships Urgency RT call	yes	yes	yes	
All ships Safety RT call	yes	yes	yes	
Individual Urgency RT call	yes	yes	yes	
Individual Safety RT call				No tested
Individual Safety Test call				No tested
Group call Routine All mode RT				No tested
Individual Routine All mode RT	yes	yes	yes	



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

After sending of each call to send in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. To be convinced, that calls are received.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Wait automatic timeout terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
At least 10 seconds prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec. ITU-R M.493-13, Ann.4, n.3.1.1.1]	X		
The option to stop of termination is available [Rec. ITU-R M.493-12, Ann.4, n.3.1.9.2]	X		
After termination the EUT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.7.8]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.12. Decoding frequency information in DSC messages

[Draft ETSI EN 300 338-1 V1.3.1 (2009-12), n.12.1]

Method of measurement and required results

Reset EUT into Standby. Send from TE DSC calls. Verify that:

Frequency information in DSC messages						
Subject	Frequency element		Value	Result		Comment
	First	Second		OK	NO	
For VHF operation only 1 data field is required to be transmitted. The first frequency element will contain the information. <u>If both data fields are received in a message then the radio will ignore the second one.</u>	0006	No	0006	X		
	No	0006	0006	X		
	0006	0006	0006	X		
	0006	0071	0006	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.13. Verification of decoding of DSC call sequences “All ships call”

[ITU-R M.493-13, Annex 1, Table 4.5]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

Method of measurement and required results

The EUT and TE are connected. The TE encodes and sequentially transmits to the EUT the “All ships calls”. Verify that:

N	Item	Reception		Result		Comment
		YES	NO	OK	NO	
1	Urgency call to all ships (F3E/G3E All modes TP)	X		X		
2	Urgency call to all ships (F3E/G3E duplex TP)	X		X		
3	Urgency call to all ships (Medical transports)		X	X		Should be rejected
4	Urgency call to all ships (Ships and aircraft (Res. 18))		X	X		Should be rejected
5	Safety call to all ships (F3E/G3E All modes TP)	X		X		
6	Safety call to all ships (F3E/G3E duplex TP)	X		X		
7	Safety call to all ships (Medical transports)		X	X		Should be rejected
8	Safety call to all ships (Ships and aircraft (Res. 18))		X	X		Should be rejected

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.14. Verification of decoding of Urgency and Safety Geographic area calls

[Rec.ITU-R M.493-13, Annex 1, Table 4.6]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

Method of measurement and required results

The EUT and TE are connected. The TE is set to generate, encode and transmit the DSC Urgency and safety calls to Geographic area. Verify that:

Position of EUT is Latitude: **00°00' 0000N** Longitude: **000°00' 0000E**

N	Item	Reception		Result		Comment
		YES	NO	OK	NO	
1	Geographic area Urgency call (F3E/G3E All modes TP)		X	X		Should not be possibility
2	Geographic area Urgency call (F3E/G3E duplex TP)		X	X		Should not be possibility
3	Geographic area Safety call (F3E/G3E All modes TP)		X	X		Should not be possibility
4	Geographic area Safety call (F3E/G3E duplex TP)		X	X		Should not be possibility
5	Geographic area Urgency call (Medical transports) (F3E/G3E All modes TP)		X	X		Should not be possibility
6	Geographic area Urgency call (Ships and aircraft (Res.18)) (F3E/G3E All modes TP)		X	X		Should not be possibility
7	Geographic area Urgency call (Medical transports) (F3E/G3E duplex TP)		X	X		Should not be possibility
8	Geographic area Urgency call (Ships and aircraft (Res.18)) (F3E/G3E duplex TP)		X	X		Should not be possibility

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.15. Verification of decoding of DSC Urgency and safety calls, to individual station

[Rec.ITU-R M.493-12, Annex 1, Table 4.7]

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

Method of measurement and required results

The EUT and TE are connected. The TE is set to generate, encode and transmit the DSC calls:

- a) Urgency call to individual station:
 - 1) with address matching EUT identity (MMSI of EUT);
 - 2) with address inconsistent with EUT identity;
- b) Safety call to individual station:
 - 1) with address matching EUT identity (MMSI of EUT);
 - 2) with address inconsistent with EUT identity;
- c) Selective call to individual station with message 2:
 - 1) frequency information;
 - 2) channel information;
 - 3) ship's position information.

Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Subject	Reception		Results		Com-ment
		YES	NO	OK	NO	
1	Urgency call to individual station Msg2: Frequency (F3E/G3E All modes TP)		X	X		Should not be possibility
2	Safety call to individual station Msg2: Frequency (F3E/G3E All modes TP)		X	X		Should not be possibility
3	Urgency call to individual station Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possibility
4	Safety call to individual station Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possibility
5	Urgency call to individual station Msg2: Frequency (F3E/G3E duplex TP)		X	X		Should not be possibility
6	Safety call to individual station Msg2: Frequency (F3E/G3E duplex TP)		X	X		Should not be possibility
7	Urgency call to individual station Msg2: Position information (F3E/G3E duplex TP)		X	X		Should not be possibility
8	Safety call to individual station Msg2: Position information (F3E/G3E duplex TP)		X	X		Should not be possibility
9	Urgency call to individual station Msg2: VHF channel information (F3E/G3E All modes TP)	X		X		
10	Safety call to individual station Msg2: VHF channel information (F3E/G3E All modes TP)	X		X		
11	Urgency call to individual station Msg2: VHF channel information (F3E/G3E duplex TP)		X	X		Should not be possibility
12	Safety call to individual station Msg2: VHF channel information (F3E/G3E duplex TP)		X	X		Should not be possibility



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Subject	Reception		Results		Com-ment
		YES	NO	OK	NO	
13	Urgency call to individual station Position request		X	X		Should not be possible
14	Safety call to individual station Position request		X	X		Should not be possible
15	Urgency call to individual station Test call		X	X		Should not be possible
16	Safety call to individual station Test call	X		X		
17	Urgency call to individual station Msg2: VHF channel (F3E/G3E All modes TP) Address is not EUT		X	X		Should not be possible
18	Safety call to individual station Msg2: VHF channel (F3E/G3E All modes TP) Address is not EUT		X	X		Should not be possible

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.16. Verification of decoding of acknowledgment sequences Urgency and Safety acknowledgements calls, to individual station^(*)

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

[Rec.ITU-R M.493-13, Annex 1, Table 4.7]

Method of measurement and required results

The EUT and TE are connected. The TE encodes and sequentially transmits to the EUT the following DSC calls:

- a) Urgency call to individual station;
- b) Safety call to individual station;
- e) Individual station ship's position updating call;
- f) Test call.
- g) Selective call to individual station with message 2:
 - 1) frequency information;
 - 2) channel information;
 - 3) ship's position information.

RQ is the end of communication character.

The EUT transmits call acknowledgements with the end of sequence character BQ.

N	Subject	Reception		Results		Comment
		YES	NO	OK	NO	
1	Urgency call to individual station acknowledgement Msg2: VHF channel (F3E/G3E All modes TP)		X	X		Should not be possible
2	Safety call to individual station acknowledgement Msg2: VHF channel (F3E/G3E All modes TP)		X	X		Should not be possible
3	Urgency call to individual station Position acknowledgement		X	X		Should not be possible
4	Safety call to individual station Position acknowledgement		X	X		Should not be possible
5	Urgency call to individual station Test call acknowledgement		X	X		Should not be possible
6	Safety call to individual station Test call acknowledgement	X		X		

(*)The test concerns to the sending non distress automated procedure.



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N	Subject	Reception		Results		Comment
		YES	NO	OK	NO	
7	Safety call to individual station Unable to comply (No reason given)	X			X	Should not be possible
8	Safety call to individual station Unable to comply (Congestion at maritime switching centre)	X			X	Should not be possible
9	Safety call to individual station Unable to comply (Busy)	X			X	Should not be possible
10	Safety call to individual station Unable to comply (Queue indication)	X			X	Should not be possible
11	Safety call to individual station Unable to comply (Station barred)	X			X	Should not be possible
12	Safety call to individual station Unable to comply (No operator available)	X			X	Should not be possible
13	Safety call to individual station Unable to comply (Operator temporarily unavailable)	X			X	Should not be possible
14	Safety call to individual station Unable to comply (Equipment disabled)	X			X	Should not be possible
15	Safety call to individual station Unable to comply (Unable to use proposed channel)	X			X	Should not be possible
16	Safety call to individual station Unable to comply (Unable to use proposed mode)	X			X	Should not be possible



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

N		Reception		Results		Comment
		YES	NO	OK	NO	
17	Urgency call to individual station Unable to comply (No reason given)	X			X	Should not be possible
18	Urgency call to individual station Unable to comply (Congestion at maritime switching centre)	X			X	Should not be possible
19	Urgency call to individual station Unable to comply (Busy)	X			X	Should not be possible
20	Urgency call to individual station Unable to comply (Queue indication)	X			X	Should not be possible
21	Urgency call to individual station Unable to comply (Station barred)	X			X	Should not be possible
22	Urgency call to individual station Unable to comply (No operator available)	X			X	Should not be possible
23	Urgency call to individual station Unable to comply (Operator temporarily unavailable)	X			X	Should not be possible
24	Urgency call to individual station Unable to comply (Equipment disabled)	X			X	Should not be possible
25	Urgency call to individual station Unable to comply (Unable to use proposed channel)	X			X	Should not be possible
26	Urgency call to individual station Unable to comply (Unable to use proposed mode)	X			X	Should not be possible

(3) See n.6.4.

The equipment meets the requirements (yes / no /n.a)	no
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.17. Verification of decoding of Routine call to a group of stations

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

[ITU-R M.493-13, Annex 1, Table 4.8]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to receive DSC calls. The TE generates, encodes and transmits to the EUT a Routine call to a group of stations.

Generation by the TE and transmission to the EUT of Routine call to a group of stations is verified. The EUT receives, decodes and prints DSC calls. When decoder measurements use a printer or computer, agreement of printer output and display indication should be checked. Verify that:

The Group MMSI of EUT is **027300000**

N	Subject	Reception		Results		Comment
		YES	NO	OK	NO	
1	Routine call to group of station F3E/G3E All modes TP Msg2: Frequency – VHF channel	X		X		
2	Routine call to group of station F3E/G3E duplex TP Msg2: Frequency – VHF channel		X	X		Should not be possible
3	Routine call to group of station F3E/G3E All modes TP Msg2: Position		X	X		Should not be possible
4	Routine call to group of station F3E/G3E duplex TP Msg2: Position		X	X		Should not be possible

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.18. Verification of decoding of Routine call to individual station

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

[Rec.ITU-R M.493-13, Annex 1, Table 4.9]

Method of measurement and required results

The EUT and TE are connected. The EUT is set to receive DSC calls. The TE generates, encodes and transmits to the EUT a Routine call to individual station.

Generation by the TE and transmission to the EUT of Routine call to individual station is verified. The EUT receives, decodes and prints DSC calls. When decoder measurements use a printer or computer, agreement of printer output and display indication should be checked. Verify that:

N	Subject	Reception		Results		Com-ment
		YES	NO	OK	NO	
1	Routine call to individual station Msg2: Frequency – VHF channel (F3E/G3E All modes TP)	X		X		
2	Routine call to individual station Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible
3	Routine call to individual station Msg2: MF/HF channel (F3E/G3E All modes TP)		X	X		Should not be possible
4	Routine call to individual station Msg2: Frequency – VHF channel (F3E/G3E duplex TP)		X	X		Should not be possible
5	Routine call to individual station Msg2: Position information (F3E/G3E duplex TP)		X	X		Should not be possible
6	Routine call to individual station Msg2: MF/HF channel (F3E/G3E duplex TP)		X	X		Should not be possible
7	Routine call to individual station Msg2: REC. 586 channel (F3E/G3E All modes TP)		X	X		Should not be possible
8	Routine call to individual station Msg2: REC. 586 channel (F3E/G3E duplex TP)		X	X		Should not be possible
9	Routine call to individual station Msg2: REC. 586 channel (Data)		X	X		Should not be possible



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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N	Subject	Reception		Results		Com-ment
		YES	NO	OK	NO	
10	Routine call to individual station Msg2: Frequency – VHF channel (Data)		X	X		Should not be possible
11	Routine call to individual station Msg2: Position information (Data)		X	X		Should not be possible
12	Routine call to individual station Msg2: MF/HF channel (Data)		X	X		Should not be possible
13	Routine call to individual station Position request [Draft ETSI EN 300 338-3, n.5.2.4]	X		X		See ETSI EN 300 338-3, n.5.2.4
14	Routine call to individual station Test call		X	X		Should not be possible
15	Routine call to individual station Polling [Draft ETSI EN 300 338-3, n.5.2.4]		X	X		See ETSI EN 300 338-3, n.5.2.4

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

7.19. Verification of decoding of Routine acknowledgement calls to individual station^(*)

[Draft ETSI EN 300 338-3 (2009-12), n.5.2.4]

[Rec.ITU-R M.493-13, Annex 1, Table 4.9]

Method of measurement and required results

The EUT and TE are connected. The EUT encodes and sequentially transmits to the TE the following DSC Routine call to individual station.

The TE receives and decodes the calls. The TE transmits acknowledgement calls with the end of sequence character BQ. The EUT receives, decodes and prints DSC calls. When decoder measurements use a printer or computer, agreement of printer output and display indication should be checked. Verify that:

N	Subject	Reception		Results		Com-ment
		YES	NO	OK	NO	
1	Routine call to individual station acknowledgement Msg2: Frequency – VHF channel (F3E/G3E All modes TP)	X		X		
2	Routine call to individual station acknowledgement Msg2: Position information (F3E/G3E All modes TP)		X	X		Should not be possible
3	Routine call to individual station acknowledgement Msg2: Frequency – VHF channel (F3E/G3E duplex TP)		X	X		Should not be possible
4	Routine call to individual station acknowledgement Msg2: Position information (F3E/G3E duplex TP)		X	X		Should not be possible
5	Routine call to individual station acknowledgement Msg2: Frequency – VHF channel (Data)		X	X		Should not be possible
6	Routine call to individual station acknowledgement Msg2: Position information (Data)		X	X		Should not be possible
7	Routine call to individual station acknowledgement Polling acknowledgement		X	X		Should not be possible
8	Routine call to individual station acknowledgement Unable to comply	X			X	(4)

(4) See n.7.1.

The equipment meets the requirements (yes / no /n.a)	no
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(*)The test concerns to the sending non distress automated procedure.



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

8. Communications automated procedure

[Draft ETSI EN 300 338-3 (2009-12), n.6.8]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

8.1. Communications automated procedure setup tests

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.1]

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.5]

Definition

This tests checks that the communications automated procedure is correctly initiated.

Method of measurement and required results

a) This test checks that the communications automated procedure is correctly initiated when the radio transmitter has been keyed from the standby condition.

Set both the EUT and TE in standby. From the EUT select the option to make a phone call (by non DSC means) on channel 16. The radio transmitter key from standby condition. Verify that:

Item	Result		Com-ment
	YES	NO	
The fact one is engaged in a communications procedure is displayed; [Draft ETSI EN 300 338-3 (2009-12), n.6.8.1,i] [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,a]	X		
The frequencies and channels of the communication are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,b]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,c]	X		
you can speak to the EUT from the TE, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.5]	X		
you can speak to the TE from the EUT.	X		
Self MMSI information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,a]	X		
Current position information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,b]	X		
UTC of position information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,c]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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b) This test checks that the communications automated procedure is correctly initiated when the receiver is activated by the reception of the appropriate signal.

Set both the EUT and TE in standby channel 16. From the TE select the option to make a phone call on channel 16. Verify that:

Item	Result		Com-ment
	YES	NO	
The fact one is engaged in a communications procedure is displayed; [Draft ETSI EN 300 338-3 (2009-12), n.6.8.1,ii] [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,a]	X		
The frequencies and channels of the communication are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,b]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,c]	X		
you can speak to the EUT from the TE, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.5]	X		
you can speak to the TE from the EUT.	X		
Self MMSI information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,a]	X		
Current position information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,b]	X		
UTC of position information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,c]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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c) This test checks that the communications automated procedure is correctly initiated when a new receiver channel has been selected.

Set both the EUT and TE in standby channel 16. From the TE select the new working channel 6. Verify that:

Item	Result		Com-ment
	YES	NO	
The fact one is engaged in a communications procedure is displayed; [Draft ETSI EN 300 338-3 (2009-12), n.6.8.1,iii] [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,a]	X		
The frequencies and channels of the communication are displayed, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,b]	X		
the option to terminate the procedure is available, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,c]	X		
you can speak to the EUT from the TE, [Draft ETSI EN 300 338-3 (2009-12), n.6.8.5]	X		
you can speak to the TE from the EUT.	X		
Self MMSI information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,a]	X		
Current position information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,b]	X		
UTC of position information shall be accessible to the operator via a maximum of two menu layers. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.3,c]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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8.2. Handling incoming DSC calls while the equipment is engaged (acceptance)

- [Draft ETSI EN 300 338-3 (2009-12), n.6.8.4]
[Draft ETSI EN 300 338-3 (2009-12), n.6.8.3]
[Draft ETSI EN 300 338-3 (2009-12), n.6.9.2.1.1]

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC Individual Call RT Channel 16 pertinent to the station. Verify that:

Item Urgency Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec ITU-R M.493-13, Ann.4, n.3.1.1.1]	X		
The new call information of the received DSC message is displayed, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		
the option to accept the call is available, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		
the option log the call is available, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2008-12), n.6.9.2.1]	X		



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Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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c) Accept DSC call to handling. Verify that:

Item	Result		Com-ment
	YES	NO	
EUT will abandon current automated procedure [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1.1,a]	X		
EUT will engage new automated procedure, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1.1]	X		
EUT may send acknowledgement [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1.1]	X		
the option to terminate the procedure is available,	X		

d) Send the acknowledgement. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the time since sending the acknowledgment is displayed,	X		
the information content of the sent acknowledgment is displayed or available on the EUT,	X		
the option to resend only the identical/ acknowledgement is available,	X		
the EUT indicates that communications are ready,	X		
the option to terminate the procedure is available,	X		
the information content received by the TE corresponds to that sent by the EUT,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
You can speak to the EUT from the TE (channel 16),	X		
You can speak to the TE from the EUT,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

8.3. Handling incoming DSC calls while the equipment is engaged (non acceptance)

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.4]

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.9.2.1.2]

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communications automated procedure	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC Individual Call RT Channel 16 pertinent to the station. Verify that:

Item Urgency Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is displayed,	X		
the option to accept the call is available,	X		
the option log the call is available,	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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c) Non accepte the new call. Verify that:

Item	Result		Com- ment
	YES	NO	
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory" [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1.2]	X		
EUT shall not send any DSC response or acknowledgement requested by this new call. [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1.2]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

8.4. Termination of the automated procedure options test

[ETSI EN 300 338-3 (2009-12), n.6.8.6]

[ETSI EN 300 338-3 (2009-12), n.6.3]

Verify default standby options:

Automated timeout				
Item	Value	Result		Com-ment
		YES	NO	
There are facilities of timeout	Yes	X		
Possibility of change value of timeout	Yes	X		10 sec – 10 min
Limits of timeout	10 – 600 sec	X		
Default value of timeout	30 sec	X		30 sec
Facilities to set no active timeout	No	X		No
Default setting	Active	X		Active

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

8.5. Manually termination automated procedure test

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

a) Reset EUT into Standby. Set no timeout or maximum value.

From the EUT select the option to make a phone call (by non DSC means) on channel 16. The radio transmitter key from standby condition (the communications automated procedure is correctly initiated when the radio transmitter has been keyed from the standby condition). Verify that:

Send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received. Non acceptance the new call.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Manually terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
The termination option is available	X		
After termination the EUT shell automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Set no timeout or maximum value.

Set both the EUT and TE in standby channel 16. From the TE select the option to make a phone call on channel 16 (communications automated procedure is correctly initiated when the receiver is activated by the reception of the appropriate signal). Verify that:

Send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received. Non acceptance the new call.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Manually terminate the procedure. Verify that:

Item	Result		Com- ment
	YES	NO	
The termination option is available	X		
After termination the EUT shell automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

8.6. Termination of automated procedure by automated timeout

[Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]

[Draft ETSI EN 300 338-3 (2009-12), n.6.3]

[Draft ETSI EN 300 338-3 (2009-12), n.6.9.2.1]

a) Reset EUT into Standby. Set automated termination timeout.

From the EUT select the option to make a phone call (by non DSC means) on channel 16. The radio transmitter key from standby condition (the communications automated procedure is correctly initiated when the radio transmitter has been keyed from the standby condition). Verify that:

Send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received. Non acceptance the new call.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Wait automatic timeout terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
At least 10 seconds prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec. ITU-R M.493-13, Ann.4, n.3.1.1.1]	X		
The option to stop of termination is available [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.2]	X		
After termination the EUT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset EUT into Standby. Set automated termination timeout.

Set both the EUT and TE in standby channel 16. From the TE select the option to make a phone call on channel 16 (communications automated procedure is correctly initiated when the receiver is activated by the reception of the appropriate signal). Verify that:

Send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received. Non acceptance the new call.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Wait automatic timeout terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
At least 10 seconds prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.1]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec. ITU-R M.493-13, Ann.4, n.3.1.1.1]	X		
The option to stop of termination is available [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.2]	X		
After termination the EUT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		



Company:	Thrane & Thrane A/S	
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c) Reset EUT into Standby.

Set both the EUT and TE in standby channel 16. From the TE select the new working channel 6 (the communications automated procedure is correctly initiated when a new receiver channel has been selected). Verify that:

Send from TE in addition one or more DSC a sequence pertinent to station, but not for the currently active automated procedure. Verify that calls are received. Non acceptance the new call.

N	DSC sentence
1	Distress relay RT Individual
2	All ships RT call Safety
3	All ships RT call Urgency
4	Distress alert
5	Individual RT call Urgency
6	Distress relay RT All ships
7	Distress relay RT Individual
8	Distress acknowledgement
9	Routine individual RT call

Wait automatic timeout terminate the procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
No prior to automated termination a visual and discrete aural warning displayed [Rec. ITU-R M.493-13, Ann.4, n.3.1.9.1]	X		
After termination the EUT automatically start displaying any new unread DSC messages from memory. [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		
The displaying message has highest priority [Draft ETSI EN 300 338-3 (2009-12), n.6.8.6]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9. Decoding and error correction

[Draft ETSI EN 300 338-1(2009-12), n.8]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.1. Specified phasing (character synchronization)

[Draft ETSI EN 300 338-1(2009-12), n.8.1,a]

[Rec.ITU-R M.493-13, Ann. 1, n.3.3]

Definition

This tests checks the ability of the EUT to phasing synchronization. Phasing is considered to be achieved when two DXs and one RX, or two RXs and one DX, or three RXs in the appropriate DX or RX position, respectively, are successfully received. These three phasing characters can be detected in either consecutive or non-consecutive positions.

Method of measurement and required results

The TE generates and transmits to the EUT one legal call sequence for the equipment class (e.g. “Distress acknowledgement”). During the transmission, the phasing sequence (character Nos^(*) 1-12,14,16) is mutilated, excluding character Nos

- a) 3,4,10 (2RX-1DX);
- b) 3,4,7,10 (2RX-2DX);
- c) 3,4,7,8,10 (3RX-2DX);
- d) 3,4,5 (1RX-2DX);
- e) 4,6,8 (3RX);
- f) 1,2,4,5,7,8,10,11 (4RX-4DX);
- g) 1,4,7,8,10,11 (3RX-3DX);
- h) 8,10 (2RX);
- i) 1,3,5,7 (4DX);
- κ) 2 (1RX);
- l) 1,14,16 (2RX-1DX).

EUT receives the sequences.

Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

	Not distortion characters of phasing sequence	Reception		Result		Com- ment
		YES	NO	OK	NO	
1	EUT phasing shall be achieved in case a. (2RX-1DX)	X				
2	EUT phasing shall be achieved in case b. (2RX-2DX)	X				
3	EUT phasing shall be achieved in case c. (3RX-2DX)	X				
4	EUT phasing shall be achieved in case d. (1RX-2DX)	X				
5	EUT phasing shall be achieved in case e. (3RX)	X				
6	EUT phasing shall be achieved in case f. (4RX-4DX)	X				
7	EUT phasing shall be achieved in case g. (3RX-3DX)	X				
8	EUT phasing shall NOT be achieved in case h. (2RX)		X			
9	EUT phasing shall NOT be achieved in case t. (4DX)		X			
10	EUT phasing shall NOT be achieved in case k. (1RX)		X			
11	EUT phasing shall be achieved in case l. (2RX-1DX)	X				

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.2. Decoding format specifier with mutilations

[ITU-R M.493-13, Annex 1,n.4.2]

[Draft ETSI EN 300 338-1(2009-12), n.8.1,h,j]

Definition

This tests checks the decoding techniques for format specifier.

Method of measurement and required results

The EUT and TE are connected. The TE generates and transmits to the EUT the legal call sequences for this equipment class. During the transmission, the following format specifier characters are mutilated

- a) first in DX position;
- b) second in DX position;
- c) first and second in DX positions;
- d) first in RX position ;
- e) second in RX position;
- f) first and second in RX position;
- g) first in DX position и first in RX position;
- h) first in DX position and second in RX position;
- i) second in DX position and first in RX position;
- κ) second in DX position and second in RX position;
- l) first in DX position and first and second in RX position;
- m) second in DX position and first and second in RX position;
- n) first and second in DX position and first in RX position;
- o) first and second in DX position and second in RX position;
- p) first and second in DX and RX positions;

EUT receives the sequences.

Verify that:



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

	Distortions of characters of a format specifier	Distress alert		Distress Ack		Individual		Comment
		Reception		Reception		Reception		
		OK	NO	OK	NO	OK	NO	
1	The first on position DX.	X		X		X		
2	The second on position DX	X		X		X		
3	The first and the second on position DX.	X		X		X		
4	The first on position RX.	X		X		X		
5	The second on position RX.	X		X		X		
6	The first and the second on position RX.	X		X		X		
7	The first on position DX and the first on position RX.		X		X	X		
8	The first on position DX and the second on position RX.	X		X		X		
9	The second on position DX and the first on position RX.	X		X		X		
10	The second on position DX and the second on position RX.		X		X	X		
11	The first on position DX and the first and the second on position RX.		X		X	X		
12	The second on position DX and the first and the second on position RX.		X		X	X		
13	The first and the second on position DX and the first on position RX.		X		X	X		
14	The first and the second on position DX and the second on position RX.		X		X	X		
15	The first and the second on positions DX and RX.		X		X		X	

Item	Result		Comment
	YES	NO	
In cases <i>a, b, c, d, e, f, h, i</i> the EUT shall receive all sequence types.	X		
For cases <i>g, κ, l, m, n, o</i> EUT shall receive all sequence types (sequences of “distress call” and “all ships” types omitted).	X		
For the case <i>p</i> the EUT need not receive all sequence types.	X		
For cases <i>g, κ, l, m, n, o</i> sequences “distress call” and “all ships” need not be received.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.3. Decoding call with no allowed format specifier

[ITU-R M.493-13, Annex 1, Table 3]

[Draft ETSI EN 300 338-1(2009-12), n.8.1,g]

Method of measurement and required results

Reset EUT into Standby. Send from TE calls with format specifier as listed in the Table. Verify that:

	Format specifier	Reception		Result		Comment
		YES	NO	OK	NO	
1	116 – All ships	X		X		
2	100 – is not specified		X	X		
3	103 – VTS area		X	X		
4	110 – Obsolete Rec.M.586		X	X		
5	121 - Reserved		X	X		

Item	Result		Com-ment
	YES	NO	
the decoder shall reject the message if the error-free format symbol does not have a value allowed by ITU-R recommendation M.493 unless the equipment is specifically designed to handle other values;	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.4. Decoder's ability to detect mutilate-type errors in ten-bit code

[ITU-R M.493-13, Annex 1,n.1.1]

[Draft ETSI EN 300 338-1(2009-12), n.8.1,a,e]

Method of measurement and required results

The EUT and TE are connected. The TE generates call sequences «Distress acknowledgement». During the transmission, the TE simultaneously generates single bit errors in ten-bit codes of one character in the sequence in DX and RX positions.

- a) alternatively in 7 identical information bits in DX and RX positions;
- b) alternatively in 7 different information bits in DX and RX positions;
- c) alternatively in 3 identical check bits in DX and RX positions;
- d) alternatively in 3 different check bits in DX and RX positions;
- e) alternatively in 7 information bits in DX и 3 check bits in RX position;
- f) alternatively in 3 check bits in DX position и 7 information bits in RX position.

Verify that:

N	Single bit errors in ten-bit codes of one character in the sequence in DX and RX positions	Detect		Result		Comment
		YES	NO	OK	NO	
1	Alternatively in 7 identical information bits in DX and RX positions: EUT should detect mutilations	X		X		“ ” is error character
2	Alternatively in 7 different information bits in DX and RX positions: EUT should detect mutilations	X		X		
3	Alternatively in 3 identical check bits in DX and RX positions: EUT should detect mutilations	X		X		
4	Alternatively in 3 different check bits in DX and RX positions: EUT should detect mutilations	X		X		
5	Alternatively in 7 information bits in DX position and 3 check bits in RX position: EUT should detect mutilations	X		X		
6	Alternatively in 3 check bits in DX position and 7 information bits in RX position: EUT should detect mutilations	X		X		

The equipment meets the requirements (yes / no /n.a)

yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.5. Decoder's ability to correct mutilate-type errors in the ten-bit code

[ITU-R M.493-13, Annex 1, n.1.1]

[Draft ETSI EN 300 338-1(2009-12), n.8.1]

Method of measurement and required results

The EUT and TE are connected. The TE generates call «Distress acknowledgement». During the transmission, the TE generates single bit errors in ten-bit codes in one DX or RX position, leaving the other (DX or RX) intact.

- a) alternatively in 7 information bits in DX position;
- b) alternatively in 7 information bits in RX position;
- c) alternatively in 3 check bits in DX position;
- d) alternatively in 3 check bits in RX positions;

	Position of single bit errors in ten-bit codes in one DX or RX	Correct		Result		Comment
		YES	NO	OK	NO	
1	Alternatively in 7 information bits in DX position: EUT should correct the inserted mutilations.	X	X			
2	Alternatively in 7 information bits in RX position: EUT should correct the inserted mutilations	X	X			
3	Alternatively in 3 check bits in DX position: EUT should correct the inserted mutilations	X	X			
4	Alternatively in 3 check bits in RX position: EUT should correct the inserted mutilations	X	X			

The equipment meets the requirements (yes / no /n.a)

yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.6. Decoder's ability to detect wrong characters in the legal ten-bit code set

[ITU-R M.493-13, Annex 1, n.1.1]

[Draft ETSI EN 300 338-1(2009-12), n.8.1]

Method of measurement and required results

The EUT and TE are connected. The TE generates call «Distress acknowledgement». During the transmission, the TE mutilates one character in the legal ten-bit code set ^(*) (wrong character in one DX or RX position)

a) wrong character in DX and correct character in RX position;

b) wrong character in RX and correct character in DX position.

Thus different legal 00-127 set characters occur in DX and RX positions, with one error-free.

Verify that:

N	Wrong character in one DX or RX position	Detect		Result		Comment
		YES	NO	OK	NO	
1	Wrong character in DX and correct character in RX position: the EUT should detect errors	X		X		
2	Wrong character in RX and correct character in DX position: the EUT should detect errors	X		X		

The equipment meets the requirements (yes / no /n.a)

yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.7. Decoder's ability to detect errors using an error-check character

[ITU-R M.493-13, Annex 1, n.10]

[Draft ETSI EN 300 338-1(2009-12), n.8.1,k]

Method of measurement and required results

The EUT and TE are connected. The TE generates call sequences «Distress acknowledgement». During the transmission the TE generates

a) identical mutilations within the legal ten-bit code set of one information character in the sequence in DX and RX positions.

б) identical mutilations within the legal ten-bit code set of error-check character in DX and RX positions

Thus identical legal 00-127 set wrong characters occur in DX and RX positions.

Verify that:

	Errors position	Detect		Result		Comment
		YES	NO	OK	NO	
1	Identical mutilations within the legal ten-bit code set of one information character in the sequence in DX and RX position: TheEUT should detect errors	X		X		
2	Identical mutilations within the legal ten-bit code set of ECC character in DX and RX positions: TheEUT should detect errors.	X		X		
3	Mutilations ten-bit code set of ECC character in DX and RX positions: TheEUT should detect errors	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.8. Decoder's ability to correct serial mutilate-type errors in ten-bit code

[ITU-R M.493-13, Annex 1, n.1.1]

[Draft ETSI EN 300 338-1(2009-12), n.8.1,k]

Method of measurement and required results

The EUT and TE are connected. The TE generates call sequences «all ships» category «safety». During the transmission the TE generates

a) mutilations of all characters in DX positions, excluding phasing sequence, and format specifier characters;

b) mutilations of all characters in RX positions, excluding phasing sequence, and format specifier characters;

c) mutilations of different characters in DX and RX positions, excluding phasing sequence, and format specifier characters.

Verify that:

N	Errors position	Correct		Result		Comment
		YES	NO	OK	NO	
1	The EUT should correct the inserted mutilations of all characters in DX positions, excluding phasing sequence, and format specifier.	X		X		
2	The EUT should correct the inserted mutilations in RX positions, excluding phasing sequence, and format specifier.	X		X		
3	The EUT should correct the inserted mutilations of all characters in DX and RX positions, excluding phasing sequence, and format specifier.	X		X		

The equipment meets the requirements (yes / no /n.a)

yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.9. Mutilated distress call reception

[Draft ETSI EN 300 338-1 (2009-12), n.8.1, n,o]

Method of measurement and required results

The EUT and TE are connected. The TE generates a single-sequence «distress call» attempt. During the transmission, the TE simultaneously mutilates in DX and RX positions

- a) identification of ship in distress ;
- b) nature of distress;
- c) distress coordinates;
- d) the time when the coordinates were valid;
- d) the type of communication which is preferred by station in distress character;
- e) error-check character;
- f) expansion data specifier;
- g) latitude field (expansion sequence);
- h) longitude field (expansion sequence);
- i) EOS in expansion sequence;
- j) error-check character (expansion sequence);

The EUT receives the mutilated sequence.

Verify that:

N	Errors position	Reception		Result		Comment
		YES	NO	OK	NO	
1	The EUT should receive the transmitted distress call with mutilations of identification (MMSI) of ship in distress	X		X		
2	The EUT should receive the transmitted distress call with mutilations of Nature of Distress.	X		X		
3	The EUT should receive the transmitted distress call with mutilations of Distress Position.	X		X		
4	The EUT should receive the transmitted distress call with mutilations of Time position valid in distress.	X		X		
5	The EUT should receive the transmitted distress call with mutilations of the type of communication which is preferred by station in distress.	X		X		
6	The EUT should receive the transmitted distress call with mutilations of error-check character.	X		X		



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Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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N	Expansion sequence	Reception		Result		Comment
		YES	NO	OK	NO	
1	The EUT should receive the transmitted at least standard part of distress call with mutilations of format specifier in expansion sequence.	X		X		
2	The EUT should receive the transmitted at least standard part of distress call with mutilations of latitude of position in expansion sequence.	X		X		
3	The EUT should receive the transmitted at least standard part of distress call with mutilations of longitude of position in expansion sequence.	X		X		
4	The EUT should receive the transmitted at least standard part of distress call with mutilations of EOS in expansion sequence.	X		X		
5	The EUT should receive the transmitted at least standard part of distress call with mutilations of ECC in expansion sequence	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.10. Decoding distress call attempt with one mutilated sequence

[Draft ETSI EN 300 338-1, n.8.2.2]

Method of measurement and required results

The EUT and TE are connected. The TE generates a «distress call» attempt consisting of five consecutive re-transmissions. During the transmission, the TE simultaneously mutilate self identification of ship in distress in DX and RX positions

- in the first character, first sequence;
- in the second character, second sequence;
- in the third character, third sequence;
- in the fourth character, four sequence;
- in the fifth character, fifth sequence.

The EUT receives the distress call attempt containing the mutilated sequence.

N	Errors position	Reception		Result		Comment
		YES	NO	OK	NO	
1	The TE simultaneously mutilates identification of ship in distress in DX and RX positions in the first character (in MMSI) of first sequence. The EUT should receive the transmitted distress call indicating no message errors.	X		X		
2	The TE simultaneously mutilates identification of ship in distress in DX and RX positions in the second character (in MMSI) of second sequence. The EUT should receive the transmitted distress call indicating no message errors.	X		X		
3	The TE simultaneously mutilates identification of ship in distress in DX and RX positions in the third character (in MMSI) of third sequence. The EUT should receive the transmitted distress call indicating no message errors.	X		X		
4	The TE simultaneously mutilates identification of ship in distress in DX and RX positions in the fourth character (in MMSI) of fourth sequence. The EUT should receive the transmitted distress call indicating no message errors.	X		X		
5	The TE simultaneously mutilates identification of ship in distress in DX and RX positions in the fifth character (in MMSI) of fifth sequence. The EUT should receive the transmitted distress call indicating no message errors.	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.11. Iterative decoding process with adequate provision

[ITU-R M.493-13, Annex 1, n 11.1, 1.6.2]

[Draft ETSI EN 300 338-1(2009-12), n.8.1; n.8.2.2]

[Draft ETSI EN 300 338-1(2009-12), n.8.1,1]

Method of measurement and required results

The EUT and TE are connected. The TE generates a «distress call» attempt consisting of five consecutive re-transmissions. During the transmission, the TE simultaneously mutilates «distress coordinates» message in DX and RX positions.

- in the first character, first sequence;
- in the second character, second sequence;
- in the third character, third sequence;
- in the fourth character, fourth sequence;
- in the fifth character, fifth sequence.

EUT will receive the distress call attempt with mutilated sequences.

Verify that:

N	Errors position	Reception		Result		Comment
		YES	NO	OK	NO	
1	Iterative decoding process with adequate provision. The TE simultaneously mutilates “distress coordinates” message in DX and RX positions. EUT shall decode the transmitted distress call indicating no message errors.	X		X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.12. Decoding end of sequence with mutilations

[ITU-R M.493-13, Annex 1,n.4.2]

[Draft ETSI EN 300 338-1 (2009-12), n.8.1,m,n,o]

Method of measurement and required results

The EUT and TE are connected. The TE generates a «distress call» attempt consisting of five consecutive re-transmissions. During the transmission, the TE simultaneously mutilate EOS characters:

MMSI Ship in Distress: 273000001 – All EOS w/o errors

MMSI Ship in Distress: 273000002 – 1 EOS with error

MMSI Ship in Distress: 273000003 – 1,3 EOS with error

MMSI Ship in Distress: 273000004 – 2,3,4 EOS with error

MMSI Ship in Distress: 273000005 – 1,3,4 EOS with error

MMSI Ship in Distress: 273000006 – 1,2,4 EOS with error

MMSI Ship in Distress: 273000007 – 1,2,3 EOS with error

MMSI Ship in Distress: 273000008 – 1,2,3,4 EOS with error (all EOS characters with errors)

If one of four end of sequence symbols is not received error free at the end of standard DSC message shall be rejescted.

Verify that:

N	EOS characters	Reception		Result		Comment
		YES	NO	OK	NO	
1	DSC call shell be received. EOS symbols error free	X		X		
2	DSC call shell be received. EOS symbol 1with error	X		X		
3	DSC call shell be received. EOS symbols 1,3 with error	X		X		
4	DSC call shell be received. EOS symbols 2,3,4 with error	X		X		
5	DSC call shell be received. EOS symbols 1,3,4 with error	X		X		
6	DSC call shell be received. EOS symbols 1,2,4 with error					
7	DSC call shell be received. EOS symbols 1,2,3 with error	X		X		
8	DSC call shell be rejected. EOS symbols 1,2,3,4 with error		X	X		Should be rejected

The equipment meets the requirements (yes / no /n.a)

yes



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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9.13. Errors in received distress DSC messages

[Draft ETSI EN 300 338-1(2009-12), n.8.2.1]

Definition

This test checks how the EUT responds to received distress DSC messages that have errors.

Method of measurement and required results

a) Set both the EUT and TE in standby. On the TE compose a DROBOSE with the following distress information: the position and time of position is that of the TE, the means of subsequent communication is radio telephone, enter any valid nature of distress, and any valid ship MMSI for the vessel in distress. Address the DROBOSE to all ships (VHF). Bring up the option to edit the composed words of the DSC message. Edit the message such that the DX and RX positions of the first word of the MMSI of the vessel in distress are in error (make the 3-bit zero count disagree with the 7-bit symbol value). Transmit the edited DSC message and verify that:

Item Distress relay to All ships (1 st character of MMSI ship in distress with error)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates, [Draft ETSI EN 300 338-1, n.8.2.1] [Draft ETSI EN 300 338-3, C.2] [Rec. ITU-R M.493-13, Ann.4, n.3.1.7.2]	X		
an automated procedure is initiated by the reception of a DSC message that contains critical errors, [Draft ETSI EN 300 338-1, n.8.2.1]	X		
The operator is made aware of the fact the received DSC message has (critical) errors, [Draft ETSI EN 300 338-1, n.8.2.1]	X		
The MMSI of the vessel in distress is displayed with error indicators in the first two digits, [Draft ETSI EN 300 338-1, n.8.2.1]	X		
The option of termination of procedure is available [Draft ETSI EN 300 338-1, n.8.2.1]	X		
You can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT.	X		

b) Resend the identical DROBOSE with the edited error from the TE. Verify that:

Item Distress relay to All ships (1 st character of MMSI ship in distress with error)	Result		Com- ment
	YES	NO	
The self-terminating alarm sounds, [Draft ETSI EN 300 338-1, n.8.2.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) On the TE correct the error and resend the DROBOSE. Verify that:

Item Distress relay to All ships (MMSI ship in distress free of errors)	Result		Com- ment
	YES	NO	
the two-tone alarm sounds, [Draft ETSI EN 300 338-1, n.8.2.1]	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the MMSI of the vessel in distress is displayed and all 9 digits are correct,	X		

d) Change the MMSI of the TE, recompose the DROBOSE, make the same error, and transmit. Verify that:

Item Distress relay to All ships from other sender MMSI (1st character of MMSI ship in distress with error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds, [Draft ETSI EN 300 338-1, n.8.2.1]	X		
the distress information is displayed error free. [Draft ETSI EN 300 338-1, n.8.2.1]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.14. Handling incoming Distress DSC messages with errors test

[Draft ETSI EN 300 338-1(2009-12), n.8.2.2]

Method of measurement and required results

a) Reset EUT into Standby. Send Distress call with error Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication. The format specifier (112) is free of error. Verify that:

Item Distress call Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication with error (format specifier free errors only)	Result		Com- ment
	YES	NO	
the two-tone alarm sounds and self-terminates, [Draft ETSI EN 300 338-3(2009-12), C.2 [Rec. ITU-R M.493-13, Ann.4, n.3.1.7.2]	X		
an distress automated procedure is initiated by the reception of a DSC message that contains critical errors, [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,a]	X		
the operator is made aware of the fact the received DSC message has (critical) errors,	X		
the Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication are displayed with error indicators,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset EUT into Standby. Send from TE Distress relay to all ships with character errors Category, Self ID, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication (errors free format specifier 116 and telecommand 112 only). Verify that:

Item Distress relay call to all ships (format specifier and telecommand free errors only)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates, [Rec. ITU-R M.493-12, Ann.4, n.3.1.7.2]	X		
An distress automated procedure is initiated by the reception of a DSC message that contains critical errors,	X		
the DSC message is identified as a distress relay, [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,b]	X		
The operator is made aware of the fact the received DSC message has (critical) errors, оператору указывается на факт приема DSC сообщения с (критическими) ошибками,	X		
The category, Self ID, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication are displayed with error indicators,	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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c) Reset EUT into Standby. Send from TE Distress acknowledgement with error characters Category, Self ID, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication (errors free format specifier 116 and telecommand 110 only). Verify that:

Item Distress acknowledgement (format specifier and telecommand free errors only)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates, [Rec. ITU-R M.493-12, Ann.4, n.3.1.7.2]	X		
An distress automated procedure is initiated by the reception of a DSC message that contains critical errors,	X		
the DSC message is identified as a distress acknowledgement, [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,d]	X		
The operator is made aware of the fact the received DSC message has (critical) errors	X		
The category, Self ID, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication are displayed with error indicators	X		
you can speak to the EUT from the TE,	X		
you can speak to the TE from the EUT.	X		

d) Reset EUT into Standby. Send from TE Distress relay to individual station EUT with error characters Category, Self ID, Telecommand, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication (errors free format specifier 120 and address only).

Item Distress relay call to individual station (format specifier and address free errors only)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates, [Rec. ITU-R M.493-12, Ann.4, n.3.1.7.2]	X		
An distress automated procedure is initiated by the reception of a DSC message that contains critical errors	X		
the DSC message is identified as a distress relay to individual station, [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		
The operator is made aware of the fact the received DSC message has (critical) errors	X		
The category, Self ID, telecommand, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication are displayed with error indicators	X		
you can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT.	X		



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Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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e) Reset EUT into Standby. Send from TE Distress relay to all ships with error characters Category, Self ID, Telecommand, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication (errors free format specifier 116 only).

Item Distress relay call to all ships (format specifier free errors only)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates, [Rec. ITU-R M.493-12, Ann.4, n.3.1.7.2]	X		
An distress automated procedure is initiated by the reception of a DSC message that contains critical errors	X		
The DSC message is identified as a distress relay, [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,d]	X		
The operator is made aware of the fact the received DSC message has (critical) errors	X		
The category, Self ID, Self ID ship in distress, Nature of distress, Distress coordinates, Time, Subsequent communication are displayed with error indicators	X		
You can speak to the EUT from the TE,	X		
You can speak to the TE from the EUT.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**9.15. Handling incoming Distress DSC messages with symbol
“subsequent communication” error test**

[Draft ETSI EN 300 338-1(2009-12), n.8.2.2]

Method of measurement and required results

Reset the EUT and TE into standby. Compose the Distress alert. Edit the message such that the DX and RX positions of type of communication value are in error (make the 3-bit zero count disagree with the 7-bit symbol value). Transmit the edited DSC message and verify that:

Item Distress call (Subsequent communication character error)	Result		Com-ment
	YES	NO	
The self-terminate two-tone alarm sounds, [Draft ETSI EN 300 338-1(2009-12), n.8.2.2]	X		
The reason for and means to silence the alarm is displayed,	X		
The distress automated procedure indicates that communication “radio telephone” is making the assumption due to the error. [Draft ETSI EN 300 338-1, n.8.2.2]	X		MODE: __ (TELEPH)

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**9.16. Handling incoming Distress DSC acknowledgment with errors
(MMSI ship in distress is known)**

[Draft ETSI EN 300 338-3(2009-12), n.6.5.8]

[Draft ETSI EN 300 338-1(2009-12), n.8.2.2]

Definition

This test checks that for a distress automated procedure to be considered acknowledged by a received distress DSC acknowledgment if the MMSI (or unknown) of the vessel in distress shall be received error free.

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Distress call. Verify that:

Item Distress call (free errors)	Result		Com- ment
	YES	NO	
the two-tone alarm sounds,	X		
an distress automated procedure is initiated by the reception of a DSC message	X		

b) Send from TE Distress acknowledgement with error character in Self ID ship in distress. Verify that:

Item Distress acknowledgement (MMSI ship in distress with errors)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should not change status to “acknowledged”	X		



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c) Send from TE ВЫЗОВОВ Distress acknowledgement with error character in Self ID, Nature of distress, Distress coordinate, Time, Subsequent communication, but the characters of Self ID ship in distress are free of errors.

Item Distress acknowledgement (MMSI ship in distress free of errors)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should change status to “acknowledged” [Draft ETSI EN 300 338-1, n.8.2.2, a]	X		

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.17. Handling incoming Distress DSC acknowledgment with errors (MMSI ship in distress is unknown)

[Draft ETSI EN 300 338-3(2009-12), n.6.5.8]

[Draft ETSI EN 300 338-1(2009-12), n.8.2.2]

Definition

This test checks that for a distress automated procedure to be considered acknowledged by a received distress DSC acknowledgment if the MMSI of the vessel in distress is unknown, all the parameters of the distress information shall also be received error free.

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Distress relay to All ships (MMSI ship in distress unknown). Verify that:

Item Distress relay call to All ships (MMSI ship in distress is unknown)	Result		Com- ment
	YES	NO	
the two-tone alarm sounds,	X		
an distress automated procedure is initiated by the reception of a DSC message	X		

b) Send from TE Distress relay All ships acknowledgement (EOS=BQ) with error characters in Distress information (MMSI ship in distress unknown).

Item Distress relay acknowledgement (Error in the MMSI ship in distress)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should not change status to “acknowledged” [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		

Item Distress relay acknowledgement (Error in the Nature of distress)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should not change status to “acknowledged” [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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Item Distress relay acknowledgement (Error in the Distress coordinates)	Result		Comment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should not change status to “acknowledged” [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		

Item Distress relay acknowledgement (Error in the Time)	Result		Comment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should not change status to “acknowledged” [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		

Item Distress relay acknowledgement (Error in the Subsequent communication)	Result		Comment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
The automated distress procedure should not change status to “acknowledged” [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		

c) Send from TE Distress relay All ships acknowledgement without errors in distress information characters (MMSI ship in distress unknown), but the Self ID (MMSI) character with error.

Item Distress relay acknowledgement (Distress information without of errors)	Result		Comment
	YES	NO	
The two-tone alarm sounds and self-terminates	X		
The automated distress procedure should change status to “acknowledged” [Draft ETSI EN 300 338-1(2009-12), n.8.2.2,c]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**9.18. Test of comparison error correction Distress DSC messages
(the entire set of received information characters is identical to the
previously received set)**

[Draft ETSI EN 300 338-1, n.8.2.2,a]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Distress call with error in first character of MMSI ship in distress. Verify that:

Item Distress call (Error in the MMSI ship in distress, 1 st character)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
an distress automated procedure is initiated by the reception of a DSC message that contains critical errors,	X		
The operator is made aware of the fact the received Distress DSC message has (critical) errors,	X		

b) Wait for 5 min. Send from TE the same Distress call with Nature of distree character error. Verify that:

Item Distress call (Error in the MMSI ship in distress)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds,	X		
The critical error is corrected	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**9.19. Test of comparison error correction Distress DSC messages
(the set of received distress information characters is identical to
the distress information)**

[Draft ETSI EN 300 338-1(2009-12), n.8.2.2,b]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Distress call with distress information character error (MMSI ship in distress).

Item Distress call (Error in the MMSI ship in distress, 1 st character)	Result		Com- ment
	YES	NO	
The two-tone alarm sounds and self-terminates,	X		
an distress automated procedure is initiated by the reception of a DSC message that contains critical errors,	X		
The operator is made aware of the fact the received Distress DSC message has (critical) errors,	X		

b) Send from TE Distress relay call no all ships for distress event (a) without distress information character error. Verify that:

Item Distress relay call	Result		Com- ment
	YES	NO	
The two-tone alarm sounds,	X		
The critical error is corrected	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

**9.20. Errors in received non distress DSC messages
(Self ID, Category or Telecommand errors)**

[Draft ETSI EN 300 338-1(2009-12), n.8.2.3]

Definition

This test checks how the EUT responds to received non distress DSC messages that have critical errors.

Method of measurement and required results

a) Set both the EUT and TE in standby. On the TE compose an individual DSC message of priority ‘urgency’ addressed to the EUT requesting voice subsequent communication. Before transmitting the message place a 3-bit error in the DX and RX positions of the first word of the self-ID MMSI. Transmit the edited DSC message and verify that:

Item Individual urgency call (Self ID error)	Result		Com- ment
	YES	NO	
the appropriate alarm sounds and self-terminates,	X		
the operator is made aware of the fact the received DSC message has (critical) errors and cannot acknowledge,	X		
the MMSI of the sender is displayed with error indicators in the first two digits,	X		
none of the acknowledgement options are available.	X		

Resend the identical message with the edited error from the TE. Verify that:

Item Individual urgency call (Self ID error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

On the TE correct the error in the RX word and resend the call. Verify that:

Item Individual urgency call (No error)	Result		Com-ment
	YES	NO	
the appropriate alarm sounds,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the MMSI of the sender is displayed and all 9 digits are correct,	X		
all three acknowledgement options are available.	X		

On the TE, reset the RX word to an error value, and transmit. Verify that:

Item Individual urgency call (Self ID error)	Result		Com-ment
	YES	NO	
the self-terminating alarm sounds,	X		
the self-ID is displayed error free,	X		
all three acknowledgement options are available, все три опции передачи подтверждения доступны оператору,	X		
the operator can acknowledge the TE with 'able to comply'.	X		

b) Set both the EUT and TE in standby. On the TE compose an individual DSC message of priority 'urgency' addressed to the EUT requesting voice subsequent communication. Before transmitting the message place a 3-bit error in the DX and RX positions of the category. Transmit the edited DSC message and verify that:

Item Individual urgency call (Category error)	Result		Com-ment
	YES	NO	
the appropriate alarm sounds and self-terminates,	X		Routine self-terminate alarm
the operator is made aware of the fact the received DSC message has (critical) errors and cannot acknowledge,	X		
The category is displayed with error,	X		
none of the acknowledgement options are available.	X		



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Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Resend the identical message with the edited error from the TE. Verify that:

Item Individual urgency call (Category error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds.	X		

On the TE correct the error in the RX word and resend the call. Verify that:

Item Individual urgency call (No error)	Result		Com- ment
	YES	NO	
the appropriate alarm sounds,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the category is displayed and correct,	X		
all three acknowledgement options are available.	X		

On the TE, reset the RX word to an error value, and transmit. Verify that:

Item Individual urgency call (Category error)	Result		Com- ment
	YES	NO	
The self-terminating alarm sounds,	X		
The Category is displayed error free,	X		
all three acknowledgement options are available,	X		
The operator can acknowledge the TE with 'able to comply'.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Set both the EUT and TE in standby. On the TE compose an individual DSC message of priority ‘urgency’ addressed to the EUT requesting voice subsequent communication. Before transmitting the message place a 3-bit error in the DX and RX positions of the first telecommand. Transmit the edited DSC message and verify that:

Item Individual urgency call (Telecommand error)	Result		Com- ment
	YES	NO	
the appropriate alarm sounds and self-terminates,	X		
the operator is made aware of the fact the received DSC message has (critical) errors and cannot acknowledge,	X		
The telecommand is displayed with error,	X		
none of the acknowledgement options are available.	X		

Resend the identical message with the edited error from the TE. Verify that:

Item Individual urgency call (Telecommand error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds.	X		

On the TE correct the error in the RX word and resend the call. Verify that:

Item Individual urgency call (No error)	Result		Com- ment
	YES	NO	
the appropriate alarm sounds,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the telecommand is displayed and correct,	X		
all three acknowledgement options are available.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

On the TE, reset the RX word to an error value, and transmit. Verify that:

Item Individual urgency call (Telecommand error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds,	X		
the telecommand is displayed error free,	X		
all three acknowledgement options are available, все три опции передачи подтверждения доступны оператору,	X		
the operator can acknowledge the TE with 'able to comply'.	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.21. Errors in received non distress DSC messages (Frequency information errors)

[Draft ETSI EN 300 338-1 (2009-12), n.8.2.3]

Method of measurement and required results

a) Reset both the EUT and TE in standby. On the TE compose an individual DSC message of priority 'urgency' addressed to the EUT requesting voice subsequent communication (RT channel 6). Before transmitting the message place a 3-bit error in the DX and RX positions of the first word of the frequency message. Transmit the edited DSC message and verify that:

Item Individual urgency call (Channel error)	Result		Com- ment
	YES	NO	
the appropriate alarm sounds and self-terminates,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the operator is made aware of the fact there is an error in the subsequent communication frequency,	X		
the 'able to comply' acknowledgement option is NOT available,	X		
the operator can acknowledge the TE suggesting a new frequency of subsequent communication,	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Reset both the EUT and TE in standby. Set 16 channel. On the EUT compose an DSC call of priority 'urgency' addressed to the All ships requesting voice subsequent communication (RT channel 6). Before transmitting the message place a 3-bit error in the DX and RX positions of the first word of the frequency message. Transmit the edited DSC message and verify that:

Item All ships urgency call (Channel error)	Result		Com- ment
	YES	NO	
the appropriate alarm sounds and self-terminates,	X		
the reason for and means to silence the alarm is displayed,	X		
the alarm can only be silenced manually,	X		
the operator is made aware of the fact the there is an error in the subsequent communication frequency,	X		
EUT no change the channel to 6	X		
Current state is displayed "waiting for acknowledgement"	X		

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

9.22. Errors in received non distress DSC acknowledgement (Frequency information errors)

[Draft ETSI EN 300 338-1, n.8.2.3]

Method of measurement and required results

a) Reset EUT into Standby. Send from EUT to TE Routine individual call RT channel 6. Verify that initiate sending non distress automated procedure and state “waiting for acknowledgement”.

b) Send from TE to EUT acknowledgement with sender Self ID (MMSI) character error. Verify that:

Item Individual routine ACK (Sender Self ID error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds,	X		
the Sender Self ID is displayed with error,	X		
The state is “waiting for acknowledgement”.,	X		
the operator can resend the initiate call.	X		

c) Send from TE to EUT acknowledgement with Telecommand 1 character error. Verify that:

Item Individual routine ACK (Telecommand1 error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds,	X		
the Telecommand1 is displayed with error,	X		
The state is “waiting for acknowledgement”.,	X		
the operator can resend the initiate call.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
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d) Send from TE to EUT acknowledgement with Channel character error. Verify that:

Item Individual routine ACK (channel error)	Result		Com- ment
	YES	NO	
the self-terminating alarm sounds,	X		
the Channel is displayed with error,	X		
The state is “waiting for acknowledgement”.,	X		
the operator can resend the initiate call.	X		

e) Send from TE to EUT acknowledgement without error. Verify that:

Item Individual routine ACK (No error)	Result		Com- ment
	YES	NO	
the routine ack alarm sounds,	X		
the information is displayed without error,	X		
The state is “acknowledged”., [See ETSI EN 300 338-3, n.6.6.3,g]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

10. Own position and Interfaces

[Draft ETSI EN 300 338-1(2009-12), n.4.10]

[Draft ETSI EN 300 338-1(2009-12), n.9]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

10.1. Facilities of input own ship position information test

[Draft ETSI EN 300 338-1 (2009-12), n.4.10]

[Rec. ITU-R M.493-13, Annex 1, n.12.7]

[IMO Resolution MSC.(68)68]

Definition

This test checks facilities for input own ship position information. The EUT shall have facilities for manually entering the ship's position. DSC equipment should accept valid IEC 61162 position information including the time at which the position was determined, from an external source utilizing the data interface for automatic update of own ship's DSC position. The DSC equipment may also be provided with an internal electronic position fixing device (EPFD).

Method of measurement and required results

a) Set both the EUT and TE in standby. Verify by observation and document inspection that:

Facilities of Position updating						
Subject		Value		Result		Com-ment
		YES	NO	OK	NO	
The EUT shall have the facilities for manually updating of position information	Position	X		X		
	UTC of position fixed	X		X		
The EUT shall have the facilities for automatically externally updating of position information (IEC 61162 interface)	Position	X		X		
	UTC of position fixed	X		X		
The EUT may have the facilities for automatically internally updating of position information (Internal EPFD)	Position		X	X		Optional
	UTC of position fixed		X	X		Optional



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) Own ship's DSC position information and the source of that information (external, internal, or manually entered) should be displayed on the DSC equipment. Verify that:

Indication of ship's position information						
Subject		Value		Result		Comment
		YES	NO	OK	NO	
Own ship's DSC position information and the source of that information (external, internal, or manually entered) should be displayed on the DSC equipment [Rec. ITU-R M.493-13, Ann. 1, n.12.7]	External	X		X		
	Internal	n.a	n.a	n.a	n.a	There is no internal EPFD
	Manually entered	X		X		NOTE:

NOTE:

It is impossible to enter the information: position can included, but the time of position cannot be included.

[Rec. ITU-R M.493-13, Annex 1, n.8.2.3.1, n.8.2.4.3]

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

10.2. Position update alarm test

[Draft ETSI EN 300 338-1 (2009-12), n.4.10]

Method of measurement and required results

a) If position data is being updated automatically, an alarm shall sound if no updating is received after a period of 10 min that can only be silenced manually or by the reception of new position data, a displayed reminder or error message that the automatic position updating is "offline" shall remain until the position is updated.

Verify that:

Position update alarm (Lost EPFD position)	Result		Com-ment
	YES	NO	
If position data is being updated automatically, an alarm shall sound if no updating is received after a period of 10 min [Draft ETSI EN 300 338-1 (2009-12), n.4.10.2]	X		
The sound alarm can only be silenced manually [Draft ETSI EN 300 338-1 (2009-12), n.4.10.2]	X		NOTE
The sound alarm can only be silenced by the reception of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.2]	X		
If the ship's position is older than 4 h shall be displayed reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.2]	X		
The displayed reminder or error message that the automatic position updating is "offline" shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.2]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

b) If the ship's position is older than 4 h, an alarm shall sound that can only be silenced manually or by the reception or entry of new position data, a displayed reminder shall remain until the position is updated.

Verify that:

Position update alarm (ship's position is older than 4 h) Manually input position	Result		Com- ment
	YES	NO	
If the ship's position is older than 4 h, an alarm shall sound [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
The sound alarm can only be silenced manually [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		NOTE
The sound alarm can only be silenced by the reception of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
The sound alarm can only be silenced by the entry of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
If the ship's position is older than 4 h shall be displayed reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
The reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) If the ship's position is older than 4 h, an alarm shall sound that can only be silenced manually or by the reception or entry of new position data, a displayed reminder shall remain until the position is updated.

Verify that:

Position update alarm (ship's position is older than 4 h) External EPFD input position	Result		Com- ment
	YES	NO	
If the ship's position is older than 4 h, an alarm shall sound [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
The sound alarm can only be silenced manually [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		NOTE
The sound alarm can only be silenced by the reception of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
The sound alarm can only be silenced by the entry of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
If the ship's position is older than 4 h shall be displayed reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		
The reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.3]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

d) If the ships' position is older than 23,5 h, the position values shall be erased, an alarm shall sound that can only be silenced manually or by the reception or entry of new position data, a displayed reminder shall remain until the position is updated.

Verify that:

Position update alarm and Automatically erased of ship's position information when ship's position is older than 23.5 h Manually input position	Result		Com- ment
	YES	NO	
If the ship's position is older than 23.5 h, an alarm shall sound [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
The sound alarm can only be silenced manually [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		NOTE
The sound alarm can only be silenced by the reception of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
The sound alarm can only be silenced by the entry of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
If the ship's position is older than 4 h shall be displayed reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
The reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
Any position information not updated for more 23.5 h <u>automatically erased</u> [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

e) If the ships' position is older than 23,5 h, the position values shall be erased, an alarm shall sound that can only be silenced manually or by the reception or entry of new position data, a displayed reminder shall remain until the position is updated.

Verify that:

Position update alarm and Automatically erased of ship's position information when ship's position is older than 23.5 h External EPFD input position	Result		Com- ment
	YES	NO	
If the ship's position is older than 23.5 h, an alarm shall sound [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
The sound alarm can only be silenced manually [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		NOTE
The sound alarm can only be silenced by the reception of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
The sound alarm can only be silenced by the entry of new position data [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
If the ship's position is older than 4 h shall be displayed reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
The reminder shall remain until the position is updated; [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		
Any position information not updated for more 23.5 h <u>automatically erased</u> [Draft ETSI EN 300 338-1 (2009-12), n.4.10.4]	X		

NOTE:

The alarm is not automatic cancelled after 2 min.

[Draft ETSI EN 300 338-3(2009-12), Annex C, C.1]

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

10.3. Facilities for automatic entry of position information test

[Draft ETSI EN 300 338-1(2009-12), n.9.3]

[IEC 61162-1, Ed.3]

Method of measurement and required results

Means shall be provided for automatic entry and encoding of the geographical position, geographical area and time information (UTC). Such facilities shall conform with IEC 61162-1. As a minimum the equipment shall recognize the following sentences : GLL, GGA, RMC and GNS. Verify that:

Entry of information						
Subject		Value		Result		Comment
		YES	NO	OK	NO	
Facilities for automatic entry and encoding of the geographical position, geographical area and time information (UTC) shall be provided.		X		X		
As a minimum the equipment shall recognize the following sentences	GLL	X	X			
	GGA	X	X			
	RMC	X	X			
	GNS	X	X			
	ZDA	X	X			(Optional) [Draft ETSI EN 300 338-3, n.6.3,a]
Such facilities shall conform with IEC 61162-1. Type of interface	IEC 61162-1	X	X			
	IEC 61162-2		X	X		Optional

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

10.4. Protocol test of the entry position information interface of the EUT

[IEC 61162-1, Ed.3, n.7.4]

[IEC 61162-1, Ed.3, Ann.B, B.4.9.2]

Method of measurement and required results

Artificially generated data strings with various content and formatting shall be sent to the EUT.

a) TE sends RMC sentence. Verify that:

Testing decoding of sentence RMC	Result		Com- ment
	YES	NO	
EUT should correct evaluation of the data. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,a]	X		
EUT should correct evaluation of all status indications and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,b]	X		
EUT should adequate reaction in case of incorrectness corresponding with the status information and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,c]	X		
EUT should correct evaluation of the checksum. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,d]	X		
EUT shall detect checksum error [IEC 61162-1, Ed.3, n.7.4,a]	X		
EUT shall detect invalid characters in data transmission; [IEC 61162-1, Ed.3, n.7.4,b]	X		
EUT shall detect incorrect length of address field, and data fields as specified within sentence definitions; [IEC 61162-1, Ed.3, n.7.4,c]	X		



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b) TE sends GNS sentence. Verify that:

Testing decoding of sentence GNS	Result		Com- ment
	YES	NO	
EUT should correct evaluation of the data. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,a]	X		
EUT should correct evaluation of all status indications and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,b]	X		
EUT should adequate reaction in case of incorrectness corresponding with the status information and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,c]	X		
EUT should correct evaluation of the checksum. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,d]	X		
EUT shall detect checksum error [IEC 61162-1, Ed.3, n.7.4,a]	X		
EUT shall detect invalid characters in data transmission; [IEC 61162-1, Ed.3, n.7.4,b]	X		
EUT shall detect incorrect length of address field, and data fields as specified within sentence definitions; [IEC 61162-1, Ed.3, n.7.4,c]	X		

c) TE sends GLL sentence. Verify that:

Testing decoding of sentence GLL	Result		Com- ment
	YES	NO	
EUT should correct evaluation of the data. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,a]	X		
EUT should correct evaluation of all status indications and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,b]	X		
EUT should adequate reaction in case of incorrectness corresponding with the status information and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,c]	X		
EUT should correct evaluation of the checksum. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,d]	X		
EUT shall detect checksum error [IEC 61162-1, Ed.3, n.7.4,a]	X		
EUT shall detect invalid characters in data transmission; [IEC 61162-1, Ed.3, n.7.4,b]	X		
EUT shall detect incorrect length of address field, and data fields as specified within sentence definitions; [IEC 61162-1, Ed.3, n.7.4,c]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

d) TE sends GGA sentence. Verify that:

Testing decoding of sentence GGA	Result		Com- ment
	YES	NO	
EUT should correct evaluation of the data. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,a]	X		
EUT should correct evaluation of all status indications and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,b]	X		
EUT should adequate reaction in case of incorrectness corresponding with the status information and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,c]	X		
EUT should correct evaluation of the checksum. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,d]	X		
EUT shall detect checksum error [IEC 61162-1, Ed.3, n.7.4,a]	X		
EUT shall detect invalid characters in data transmission; [IEC 61162-1, Ed.3, n.7.4,b]	X		
EUT shall detect incorrect length of address field, and data fields as specified within sentence definitions; [IEC 61162-1, Ed.3, n.7.4,c]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

e) TE sends GGA sentence. Verify that:

Testing decoding of sentence ZDA	Result		Com- ment
	YES	NO	
EUT should correct evaluation of the data. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,a]	X		
EUT should correct evaluation of all status indications and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,b]	X		
EUT should adequate reaction in case of incorrectness corresponding with the status information and the selected operation mode. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,c]	X		
EUT should correct evaluation of the checksum. [IEC 61162-1, Ed.3, Ann.B, B.4.9.2,d]	X		
EUT shall detect checksum error [IEC 61162-1, Ed.3, n.7.4,a]	X		
EUT shall detect invalid characters in data transmission; [IEC 61162-1, Ed.3, n.7.4,b]	X		
EUT shall detect incorrect length of address field, and data fields as specified within sentence definitions; [IEC 61162-1, Ed.3, n.7.4,c]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

10.5. Test under maximum interface workload

[IEC 61162-1, ed.3, B.4.6]

Method of measurement and required results

After activating all ports of the EUT with the maximum number of sentences to be transmitted and/or received, the performance of the EUT shall not be degraded in any way. At least one receiver input not used to perform the primary function of the EUT shall be connected to a data source transmitting continuously a set of approved sentences with a channel limit of 80 % to 90 %. Only one of these sentences shall be usable for the EUT. The test shall be carried out for 30 minutes. The EUT may give an alarm for a minor function not supported by the selected sentence, but the main function of the EUT shall be operational without any degradation. Verify that:

Test under maximum interface workload	Result		Com-ment
	YES	NO	
The EUT shall be operational without any degradation. [IEC 61162-1, ed.3, B.4.6]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11. Handling incoming calls while the equipment is engaged

[Draft ETSI EN 300 338-1(2009-12), n.6.9]



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.1. The option to handle a single background non-terminated automated procedure test

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.]

Method of measurement and required results

The equipment may be designed with the option to handle a single background non-terminated automated procedure. Verify that:

The option to handle a single background non-terminated automated procedure					
Subject	Value		Result		Comment
	YES	NO	OK	NO	
Facilities for handle a single background non-terminated automated procedure.	X		X		NOTE:

NOTE:

The option for handle a single background non-terminated automated procedure for DSC equipment class D is facultative (optional).

In EUT the limited functions with option a background procedure are designed. Operation with one active automated procedure and single background non-terminated automated procedure is possible. And, one of procedures should be **communication automated procedure(!)**.

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.]

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.2. Handling incoming DSC calls while the equipment is engaged (Higher priority calls - acceptance)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1.1,a]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Safety DSC All ships Call RT Channel 6.
Verify that:

Item Safety All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
EUT is engaged the automated procedure	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC Individual Call RT Channel 16 that pertinent to the station but not the current active automated procedure. Verify that:

Item Urgency Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1,a]	X		
the reason for and means to silence the alarm is displayed on the EUT, [Rec ITU-R M.493-12, Ann.4, n.3.1.1.1]	X		
The new call information of the received DSC message is displayed,	X		
the option to accept the call is available,	X		
the option log the call is available,	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) EUT accepts this new higher priority call by select options «accept the call». Verify that:

Item	Result		Com-ment
	YES	NO	
EUT will abandon current automated procedure	X		
EUT will engage new automated procedure,	X		
EUT may send acknowledgement	X		
the option to terminate the procedure is available,	X		

d) Send from EUT the acknowledgement. Verify that:

Item	Result		Com-ment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the time since sending the acknowledgment is displayed,	X		
the information content of the sent acknowledgment is displayed or available on the EUT,	X		
the option to resend only the identical/ acknowledgement is available,	X		
the EUT indicates that communications are ready,	X		
the option to terminate the procedure is available,	X		
the information content received by the TE corresponds to that sent by the EUT,	X		
the time since acknowledgement, stage, and operator options are visible at top level,	X		
You can speak to the EUT from the TE (channel 16),	X		
You can speak to the TE from the EUT (channel 16),	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.3. Handling incoming DSC calls while the equipment is engaged (Higher priority calls – non acceptance)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1.2]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Safety DSC All ships Call RT Channel 6.
Verify that:

Item Safety All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the routine alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
EUT is engaged the automated procedure			
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC Individual Call RT Channel 16 that pertinent to the station but not the current active automated procedure. Verify that:

Item Urgency Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is displayed,	X		
the option to accept the call is available,	X		
the option log the call is available,	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Non acceptance the new call by select option «log the call». Verify that:

Item	Result		Com- ment
	YES	NO	
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
EUT shall not send any DSC response or acknowledgement requested by this new call.	X		

The equipment meets the requirements (yes / no /n.a)	Yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.4. Handling incoming DSC calls while the equipment is engaged (Lowest priority calls)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.2]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Urgency DSC All ships Call RT Channel 6.
Verify that:

Item Urgency All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the urgency alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
EUT is engaged the automated procedure	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE new lower or equal priority call Safety DSC Individual Call RT Channel 16 that pertinent to the station but not the current active automated procedure. Verify that:

Item Safety Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.2]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is NOT displayed,	X		
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.2]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.5. Termination of the automated procedure (there are not unread messages)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.3]

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.4,a]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE Urgency DSC All ships Call RT Channel 6. Verify that:

Item Urgency All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the urgency alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
EUT is engaged the automated procedure	X		
You can communication from TE to EUT (channel 6),	X		

b) Manually terminate the automated procedure. Verify that:

Item	Result		Com- ment
	YES	NO	
EUT shall enter standby mode [Draft ETSI EN 300 338-3(2009-12), n.6.9.2.4,a]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.6. Termination of the automated procedure (there are unread messages)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.3]

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.4,b]

Method of measurement and required results

a) Reset EUT into Standby. Send from TE to EUT Urgency DSC All ships Call RT Channel 6. Verify that:

Item Urgency All ships RT	Result		Com- ment
	YES	NO	
the EUT sounds the urgency alarm,	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
EUT is engaged the automated procedure	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE new lower or equal priority call Safety DSC Individual Call RT Channel 16 that pertinent to the station but not the current active automated procedure. Verify that:

Item Safety Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.2]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is NOT displayed,	X		
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.2]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) Manually termination the automated procedure. Verify that:

Item	Result		Com- ment
	YES	NO	
EUT will engage new automated procedure,	X		
EUT automatically display any unread calls in memory, starting with the call with the highest priority, [Draft ETSI EN 300 338-3(2009-12), n.6.9.2.4,b]	X		
EUT may send acknowledgement	X		
the option to terminate the procedure is available,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.7. Handling incoming DSC calls while the equipment is engaged when the equipment is designed with the option to handle a background procedure (Higher priority calls - acceptance)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1.1,b]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.5]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.6]

Method of measurement and required results

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC Individual Call RT Channel 16 that pertinent to the station but not the current active automated procedure. Verify that:

Item Urgency Individual call RT	Result		Com- ment
	YES	NO	
The EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2008-12), n.6.9.2.1]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is displayed,	X		
the option to accept the call is available,	X		
the option log the call is available,	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.1]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

c) EUT accepts this new higher priority call by select options «accept the call». Verify that:

Item	Result		Comment
	YES	NO	
EUT will place current communication automated procedure on hold	X		
EUT will engage new automated procedure,	X		
EUT may send acknowledgement	X		
the option to terminate the procedure is available,	X		
the option to put the receiving non-distress automated procedure on hold is now available, [Draft ETSI EN 300 338 (2008-12), n.6.9.2.5] [Draft ETSI EN 300 338 (2008-12), n.6.9.2.6]	X		

d) Send the acknowledgement. Verify that:

Item	Result		Comment
	YES	NO	
the EUT indicates that it is transmitting,	X		
the time since sending the acknowledgment is displayed,	X		
the information content of the sent acknowledgment is displayed or available on the EUT	X		
the option to resend only the identical/ acknowledgement is available,	X		
the EUT indicates that communications are ready,	X		
the option to terminate the procedure is available,	X		
the information content received by the TE corresponds to that sent by the EUT	X		
the time since acknowledgement, stage, and operator options are visible at top level	X		
You can speak to the EUT from the TE (Channel 16),	X		
You can speak to the TE from the EUT (Channel 16),	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.8. Handling incoming DSC calls while the equipment is engaged when the equipment is designed with the option to handle a background procedure (Higher priority calls – non acceptance)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1.2]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.5]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.6]

NOTE:

The communication automated procedure has lowest priority.

The equipment meets the requirements (yes / no /n.a)	n.a
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.9. Handling highest priority incoming DSC calls while the equipment is engaged (there is hold procedure in the background)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1.1,b]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.5]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.6]

Method of measurement and required results

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Safety DSC All ships Call RT Channel 16. Select option "Acceptance" of new automated procedure. Verify that current communication automated procedure is put on hold.

c) Put the current activated procedure on hold.

d) Send from TE new DSC higher priority call Urgency DSC Individual Call RT Channel 8 that pertinent to the station but not the current active automated procedure. Verify that:

Item	Result		Com- ment
	YES	NO	
The user has option for putting the currently active communication procedure in the background and initiate the new automated procedure in foreground, hence ending the procedure currently parked in background;	X		
The user has option for cancel the acceptance and log the call as "unread call" in the call log.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

f) Select option ‘Acceptance’ of new DSC call. Verify that:

Item	Result		Com-ment
	YES	NO	
The new automated procedure is initiated	X		
The currently active communication procedure is put in the background	X		
The procedure currently parked in background is ended.	X		
You can speak to the EUT from the TE channel 8,	X		

g) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com-ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

h) Send from TE Safety DSC All ships Call RT Channel 16. Select option “Acceptance” of new automated procedure. Verify that current communication automated procedure is put on hold.

i) Send from TE new DSC higher priority call Urgency DSC Individual Call RT Channel 8 that pertinent to the station but not the current active automated procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
The user has option for ending the currently active procedure and initiate the new automated procedure in foreground	X		
The user has option for cancel the acceptance and log the call as "unread call" in the call log.	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

j) Select option 'Acceptance' of new DSC call. Verify that:

Item	Result		Comment
	YES	NO	
The new automated procedure is initiated	X		
The communication procedure is put in the background	X		
The procedure currently active is ended.	X		
You can speak to the EUT from the TE channel 8,	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.10. Handling lower priority incoming DSC calls while the equipment is engaged (there is hold procedure in the background)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.1.1,b]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.5]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.6]

Method of measurement and required results

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC All ships Call RT Channel 16. Select option "Acceptance" of new automated procedure. Verify that current communication automated procedure is put on hold.

c) Put the current activated procedure on hold.

d) Send from TE new DSC lower priority call Safety DSC Individual Call RT Channel 6 that pertinent to the station but not the current active automated procedure. Verify that:

Item Safety Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2008-12), n.6.9.2.2]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is NOT displayed,	X		
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2008-12), n.6.9.2.2]	X		



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

e) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

f) Send from TE Urgency DSC All ships Call RT Channel 16. Select option "Acceptance" of new automated procedure. Verify that current communication automated procedure is put on hold.

g) Send from TE new DSC lower priority call Safety DSC Individual Call RT Channel 6 that pertinent to the station but not the current active automated procedure. Verify that:

Item Safety Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2008-12), n.6.9.2.2]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is NOT displayed,	X		
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2008-12), n.6.9.2.2]	X		

The equipment meets the requirements (yes / no /n.a)	yes
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Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

11.11. Termination of the automated procedure (there is hold procedure in the background)

[Draft ETSI EN 300 338-3(2009-12), n.6.9.2.4]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.5]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.6]

Method of measurement and required results

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC All ships Call RT Channel 16. Select option "Acceptance" of new automated procedure. Verify that current communication automated procedure is put on hold.

c) Put the current activated procedure on hold.

d) Send from TE new DSC lower priority call Routine DSC Individual Call RT Channel 6 that pertinent to the station but not the current active automated procedure. Verify that:

Item Routine Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2008-12), n.6.9.2.2]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is NOT displayed,	X		
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2008-12), n.6.9.2.2]	X		



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e) Terminate the communication procedure. Verify that:

Item	Result		Com-ment
	YES	NO	
EUT will engage new automated procedure (from on hold),	X		
EUT automatically display the update stage of the automated procedure on hold	X		
The operator shall have the option to activate the displayed autonmated procedure	X		
The operator shall have the option to leave the displayed autonmated procedure in the list of non-terminated procedures on hold	X		

f) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com-ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

g) Send from TE Urgency DSC All ships Call RT Channel 16. Select option "Acceptance" of new automated procedure. Verify that current communication automated procedure is put on hold.

h) Send from TE new DSC lower priority call Routine DSC Individual Call RT Channel 6 that pertinent to the station but not the current active automated procedure. Verify that:

Item Routine Individual call RT	Result		Com-ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2009-12), n.6.9.2.2]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is NOT displayed,	X		
the new call is automatically placed in the received call memory and is flagged as an "unread call in memory"	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call [Draft ETSI EN 300 338 (2009-12), n.6.9.2.2]	X		



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e) Terminate the current automated procedure. Verify that:

Item	Result		Comment
	YES	NO	
EUT will engage communication automated procedure,	X		
The operator shall have the option to activate the displayed automated procedure	X		
The operator shall have the option to leave the displayed automated procedure in the list of non-terminated procedures on hold	X		

The equipment meets the requirements (yes / no /n.a)	yes
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11.12. Controlling non-terminated automated procedures (there is hold procedure in the background)

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.5]

[Draft ETSI EN 300 338 (2009-12), n.6.9.2.6]

Method of measurement and required results

a) Reset EUT into Standby. From the EUT select the option to make a phone call (by non DSC means) on channel 6. Verify that:

Item Communication RT	Result		Com- ment
	YES	NO	
EUT is engaged the communication automated procedure [Draft ETSI EN 300 338-3, n.6.8.1,i]	X		
You can communication from TE to EUT (channel 6),	X		

b) Send from TE Urgency DSC All ships Call RT Channel 16. Select option “Acceptance” of new automated procedure. Verify that current communication automated procedure is put on hold.

Item Urgency Individual call RT	Result		Com- ment
	YES	NO	
the EUT sounds the discrete audible alarm, [Draft ETSI EN 300 338 (2008-12), n.6.9.2.1]	X		
the reason for and means to silence the alarm is displayed on the EUT,	X		
The new call information of the received DSC message is displayed,	X		
the option to accept the call is available,	X		
the option log the call is available,	X		
If the DSC message requires subsequent communications, the general receiver and transmitter shall NOT be tuned to the frequencies of the subsequent communications of the new call	X		



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c) Accept new call. For the current active receiving non-distress procedure verify that:

Item	Result		Com-ment
	YES	NO	
Option to put the current active automated procedure on hold, by selecting e.g. "pause" or "hold" is available [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.5]	X		
For background procedure the only operator options which are available are those that do not require use of the transmitter or general receiver such as to terminate or activate the automated procedure; [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,a]	X		
For background procedure any subsequent tunings of the transmitter and general receiver that would occur if the procedure were active upon reception of a DSC message appropriate to the procedure shall not occur until the procedure is activated by the operator; [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,b]	X		
the display of the background automated procedure on hold may be requested by a simple button press or selection, and may be represented by a labelled icon; [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,c]	X		
For background procedure handling of the alarms and full display of information at the request of the operator, remain. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,d]	X		
The operator shall be able to activate the displayed background automated procedure on hold by a single action (a button press or selection) unless the currently active procedure is transmitting, thus recreating all information required for continuing the selected automated procedure. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]	X		
If the only automated procedure present on the equipment is a background procedure on hold, and incoming or "unread calls" calls will initiate automated procedures handling test, polling, or position requests and these procedures are setup to auto acknowledge, the equipment shall successively perform the auto acknowledgement and terminate these procedures. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]		X	NOTE
If the operator accepts a call that is not pertinent to the active procedure, and if the new call will initiate a new automated procedure, and if there is already a procedure in the background, the user shall be asked what to do one of the following: a) put the currently active procedure in the background and initiate the new automated procedure in foreground, hence ending the procedure currently parked in background; b) cancel the acceptance and log the call as "unread call" in the call log. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]	X		



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d) Put on hold the receiving non-distress procedure procedure. For the current active communication procedure verify that:

Item	Result		Com-ment
	YES	NO	
Option to put the current active automated procedure on hold, by selecting e.g. "pause" or "hold" is available [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.5]	X		
For background procedure the only operator options which are available are those that do not require use of the transmitter or general receiver such as to terminate or activate the automated procedure; [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,a]	X		
For background procedure any subsequent tunings of the transmitter and general receiver that would occur if the procedure were active upon reception of a DSC message appropriate to the procedure shall not occur until the procedure is activated by the operator; [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,b]	X		
the display of the background automated procedure on hold may be requested by a simple button press or selection, and may be represented by a labelled icon; [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,c]	X		
For background procedure handling of the alarms and full display of information at the request of the operator, remain. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6,d]	X		
The operator shall be able to activate the displayed background automated procedure on hold by a single action (a button press or selection) unless the currently active procedure is transmitting, thus recreating all information required for continuing the selected automated procedure. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]	X		
If the only automated procedure present on the equipment is a background procedure on hold, and incoming or "unread calls" calls will initiate automated procedures handling test, polling, or position requests and these procedures are setup to auto acknowledge, the equipment shall successively perform the auto acknowledgement and terminate these procedures. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]		X	NOTE
If the operator accepts a call that is not pertinent to the active procedure, and if the new call will initiate a new automated procedure, and if there is already a procedure in the background, the user shall be asked what to do one of the following: a) put the currently active procedure in the background and initiate the new automated procedure in foreground, hence ending the procedure currently parked in background; b) cancel the acceptance and log the call as "unread call" in the call log. [Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]	X		

NOTE:

The auto acknowledge for test call and position request call is send by EUT for stand-by mode only.

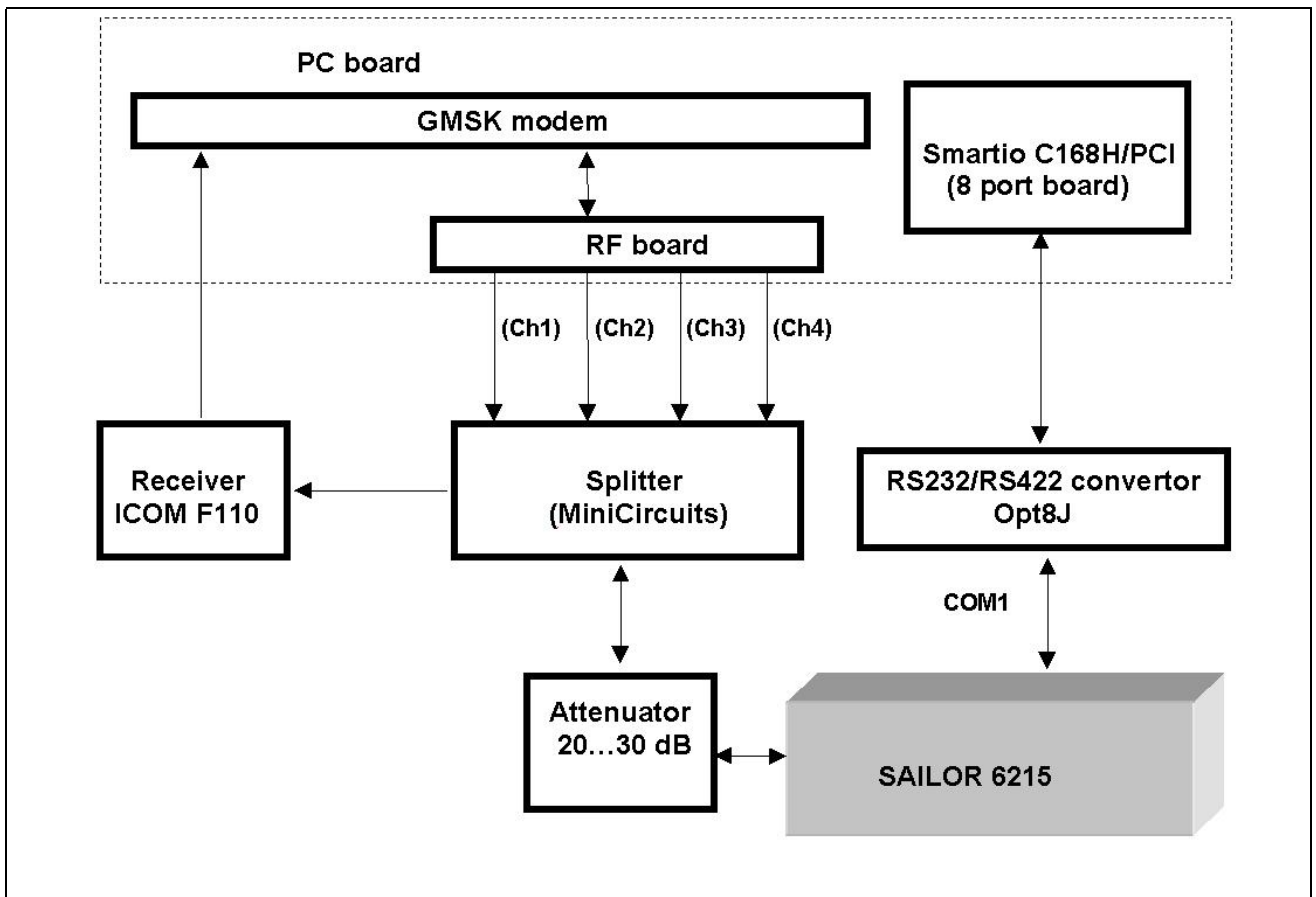
[Draft ETSI EN 300 338-3(2009-12),n.6.9.2.6]

The equipment meets the requirements (yes / no /n.a)	yes
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ANNEX 1 Connection of the test equipment





Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

ANNEX 2 Recognition of certificates of testing laboratory

ROSSTANDARD



ФЕДЕРАЛЬНОЕ АГЕНТСТВО ПО ТЕХНИЧЕСКОМУ РЕГУЛИРОВАНИЮ И МЕТРОЛОГИИ

АТТЕСТАТ АККРЕДИТАЦИИ ИСПЫТАТЕЛЬНОЙ ЛАБОРАТОРИИ (ЦЕНТРА)

№ РОСС RU. 0001. 21 МП 14

№ 001965

НАСТОЯЩИЙ АТТЕСТАТ ВЫДАН ОБЩЕСТВУ С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ «РЭС»

наименование юридического лица с указанием организационно-правовой формы

Россия, 199106, г. Санкт-Петербург, Васильевский Остров, Большой проспект, д.83, офис 525

адрес юридического лица

И УСЛОВИЕНЫМ, ЧТО ИСПЫТАТЕЛЬНАЯ ЛАБОРАТОРИЯ ПО ПРОВЕРКЕ АЛГОРИТМОВ ФУНКЦИОНИРОВАНИЯ И МАТЕМАТИЧЕСКОГО ОБЕСПЕЧЕНИЯ СЛОВОЙ И БЕРЕГОВОЙ НАВИГАЦИОННОЙ И РАДИОСВЯЗНОЙ АППАРАТУРЫ

Россия, 199106, г. Санкт-Петербург, Васильевский Остров, Большой проспект, д.83, офис 525

адрес ИЛ (ИЛ)

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ ГОСТ Р ИСО/МЭК 17025 - 2006 (МЕЖДУНАРОДНОГО СТАНДАРТА ИСО/МЭК 17025: 2005)

АККРЕДИТОВАН(А) НА _____ ТЕХНИЧЕСКУЮ КОМПЕТЕНТНОСТЬ И НЕЗАВИСИМОСТЬ

(техническую компетентность или техническую компетентность и независимость)

ДЛЯ ПРОВЕДЕНИЯ РАБОТ ПО ИСПЫТАНИЯМ В СООТВЕТСТВИИ С ОБЛАСТЬЮ АККРЕДИТАЦИИ, ОБЛАСТЬ АККРЕДИТАЦИИ ОПРЕДЕЛЕНА ПРИЛОЖЕНИЕМ К НАСТОЯЩЕМУ АТТЕСТАТУ И ЯВЛЯЕТСЯ ЕГО НЕОТЪЕМЛЕМОЙ ЧАСТЬЮ.



Руководитель (заместитель Руководителя)

Зарегистрирован в Едином реестре

« 27 » февраля 2008 г.

Г.И. Элькин

инициалы, фамилия



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

Russian Maritime Register of Shipping

РОССИЙСКИЙ МОРСКОЙ РЕГИСТР СУДОХОДСТВА
RUSSIAN MARITIME REGISTER OF SHIPPING

7.1.4.3



**СВИДЕТЕЛЬСТВО
О ПРИЗНАНИИ ИСПЫТАТЕЛЬНОЙ ЛАБОРАТОРИИ
RECOGNITION CERTIFICATE
OF TESTING LABORATORY**

Настоящим удостоверяется, что
This is to certify that

*Испытательная лаборатория: общество с ограниченной ответственностью "РЭС"
Российская Федерация, 199106, г. Санкт-Петербург, В.О., Большой проспект, д. 83, офис 525.
Тел. / Факс.: (812) 325 - 67 - 32; Электронная почта: res@mail.lanck.net
Testing Laboratory: "RES" Company Limited
Office 525, 83 Bol'shoi pr., V.O., Saint-Petersburg, 199106, Russian Federation.
Tel. / Fax.: (812) 325 - 67 - 32; E-mail: res@mail.lanck.net*

имеет техническую компетенцию в соответствии с требованиями Российского морского регистра судоходства в отношении проведения испытаний в области признания, указанной в Приложении.
is technically competent under the requirements of Russian Maritime Register of Shipping to carry out testing in the field in which it is recognized as detailed in the Annex.

Судовое радио и навигационное оборудование, требуемое частью IV "Радиооборудование" и частью V "Навигационное оборудование" Правил Регистра по оборудованию морских судов.

Ship's radio and navigational equipment, required by RS Rules for the equipment of sea-going ships (part IV "Radio equipment", part V "Navigational equipment").

Акт освидетельствования № 07.01106.011 от 27.04.2007
Survey Report No. of

Настоящее Свидетельство действительно до 28.05.2012
The present Certificate is valid until

при условии подтверждения через каждые 30 месяца(ев).
subject to confirmation each month(s).

Настоящее Свидетельство о признании теряет силу в случаях, установленных в Правилах технического наблюдения за постройкой судов и изготовлением материалов и изделий для судов.
This Recognition Certificate becomes invalid in cases stipulated in Rules for the Technical Supervision during Construction of Ships and Manufacture of Shipboard Materials and Products.

Дата выдачи 28.05.2007 № 07.01413.011
Date of issue

Российский морской регистр судоходства
Russian Maritime Register of Shipping

М.П. подпись signature

В.И.Евенко / V.Evenko
(фамилия, инициалы)
name



Company:	Thrane & Thrane A/S	
Equipment Under Test:	SAILOR 6215 VHF DSC Radio	
Date:	08.01.2010 – 15.01.2010	

MINTRANS RF (MARSAT)

