Test of the DSC channel management in accordance with Annex A of IEC 62287-2:2017.

Product: **ATB1**

Serial Number: (Development unit – no serial number)

Software Issue №: 00.01.30

Date of Test: 30/10/18 – 6/11/2018

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Approved: David Sheekey

7th November 2018

Introduction

This report shows the result of testing the ATB1 AIS class B transponder to the DSC channel management requirements of Annex A of IEC62287-2:2017. Only the tests described in section A.4 were performed.

Ocean Signal hereby declares the shared receiver used for DSC reception has been fully tested to the receiver requirements specified in section 11.2 of the standard.

Testing was carried out on the premises of Ocean Signal Ltd.

Summary

Clause	Title	Pass/Fail
A.4.1	General	Pass
A.4.4	Regional area designation	Pass
A.4.5	Scheduling	Pass
A.4.6	DSC flag in Message 18	Pass
A.4.7	DSC monitoring time plan	Pass
A.4.8	Replacement or erasure of dated or remote regional operating settings	Pass
A.4.9	Test of addressed telecommand	Pass
A.4.10	Invalid regional operating areas	Pass

Tests

Test Signals – A.3

Details of test signals used can be found in Annex 1, section A1.1

A.4.1-4.3 DSC Functionality Tests

Method of measurement

Set the EUT into assigned mode using channels AIS 1 and AIS 2 with a reporting interval of 10 s. Send a sequence of valid calls consisting of:

- DSC test signal number 2,
- DSC test signal number 3,

Required results

Check that the EUT AIS operation is not affected by the interleaved calls.

Results

Details of the test results can be found in Annex 1 section A1.2

Conclusion: **Pass**

A.4.4 Regional area designation

Method of measurement

Perform the following tests using DSC test signal number 2. Send DSC test signal number 2 to the EUT but with symbol numbers appropriate to the geographical regions and channels specified in the test. Note the transition boundary is 5 NM in this test.

A.4.5 Scheduling

Method of measurement

Send DSC test signal number 2 to the EUT, with EOS = 127 and another signal with EOS = 117 (RQ).

Required results

Check that the EUT's AIS reporting is not affected during the DSC monitoring times. Check that the EUT accepts the channel management, but a response is not transmitted in either case of EOS = 127 and 117.

Results

Details of the test results can be found in Annex 1 section A1.3

Conclusion: **Pass**

A.4.6 DSC flag in Message 18

Method of measurement

Perform the following:

a) enable DSC monitoring;

b) disable DSC monitoring.

Required results

Check that

a) the DSC flag is set to one, and

b) the DSC flag is set to zero.

Results

Details of the test results can be found in Annex 1 section A1.4

Conclusion: **Pass**

A.4.7 DSC monitoring time plan

Method of measurement

Perform the following:

a) transmit DSC test signal 2 during monitoring time;

b) transmit DSC test signal 2 outside monitoring time.

Required results

Check that

a) the DSC call is received, and

b) the DSC call is not received.

Results

Details of the test results can be found in Annex 1 section A1.5

Conclusion: **Pass**

A.4.8 Replacement or erasure of dated or remote regional operating settings

Method of measurement

Set up standard test environment. Send a valid regional operating setting to the EUT by Message 22 with the regional operating area including the own position of the EUT.

Consecutively send a further seven (7) valid regional operating settings to EUT, using both Message 22 and DSC test signal number 2, with regional operating areas not overlapping to the first and to each other. Perform the following in the order shown.

a) Send a ninth Message 22 to the EUT with valid regional operating areas not overlapping with the previous eight regional operating areas.

b) Step 1: set own position of EUT into any of the regional operating areas defined by the second to the ninth telecommands sent to the EUT previously.

Step 2: send a tenth telecommand to the EUT, with a regional operating area which partly overlaps the regional operating area to which the EUT was set by step 1 but which does not include the own position of the EUT.

c) Step 1: move own position of EUT to a distance of more than 500 NM from all regions defined by previous commands.

Step 2: consecutively set own position of EUT to within all regions defined by the previous telecommands.

Required results

After the initialisation, the EUT shall operate according to the regional operating settings defined by the first Message 22 sent.

a) Check that the most distant area is removed.

b) Step 1: check that the EUT changes its operating settings to those of that region which includes own position of the EUT.

Step 2: check that the EUT reverts to the default operating settings.

NOTE Since the regional operating settings to which the EUT was set in step 1 are erased due to step 2, and since there is no other regional operating setting due to their non-overlapping definition, the EUT returns to default.

c) Step 1: check that the EUT operates with the default settings.

Step 2: check that the EUT operates with the default settings.

Results

Details of the test results can be found in Annex 1 section A1.6

Conclusion: **Pass**

A.4.9 Test of addressed telecommand

Method of measurement

Set up a standard test environment and operate EUT in autonomous mode. Perform the following tests in the following order.

a) Send a DSC test signal number 2 with valid regional operating settings that are different from the default operating settings, to the EUT with a regional operating area, which contains the current position of own station.

b) Send an addressed DSC channel management command to the EUT with different regional operating settings than the previous command.

c) Move the EUT out of the regional operating area defined by the previous addressed telecommand into an area without regional operating settings.

Required results

Check that

a) the EUT uses the regional operating settings commanded to it in A.4.9.1a),

b) the EUT uses the regional operating settings commanded to it in A.4.9.1b), and

c) the EUT reverts to default.

Results

Details of the test results can be found in Annex 1 section A1.7

Conclusion: **Pass**

A.4.10 Invalid regional operating areas

Method of measurement

Set up standard test environment and operate EUT in autonomous mode. Perform the following tests in the following order after completion of all other tests related to change of regional operating settings:

a) send three different valid regional operating settings with adjacent regional operating areas, their corners within eight miles of each other, to the EUT by DSC test signal number 2. The current own position of the EUT shall be within the regional operating area of the third regional operating setting;

b) move current own position of the EUT consecutively to the regional operating areas of the first two valid regional operating settings.

Required results

Check that

a) the EUT uses the operating settings that were in use prior to receiving the third regional operating setting, and

b) the EUT consecutively uses the regional operating settings of the first two received regional operating areas.

Results

Details of the test results can be found in Annex 1 section A1.8

Conclusion: **Pass**

List of Test Equipment

Equipment	Serial №	Calibration date
Attingimus AIS Test Unit Mk II	AM05BS	N/A
R&S CMS54	838384/012	See note
ICS DSC Modem V4	100119	N/A

Note: CMS54 used for generation of DSC VHF signals only. Channel frequency and modulation levels were checked prior to use.

Annex 1: Test Data

A1.1 DSC test signals

The ICS DSC test station was configured to send test messages 2,3 and 4. Messages 2,3 and 4 were configured as follows receptivity:-

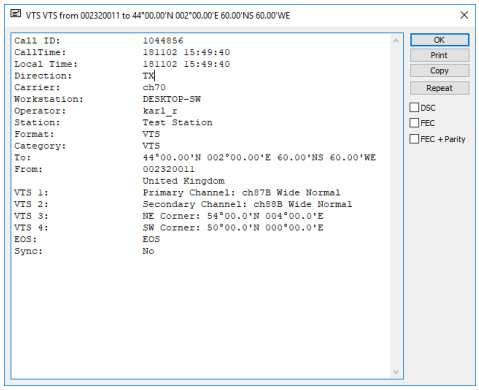


Table 1 ICS DSC Test Message 2

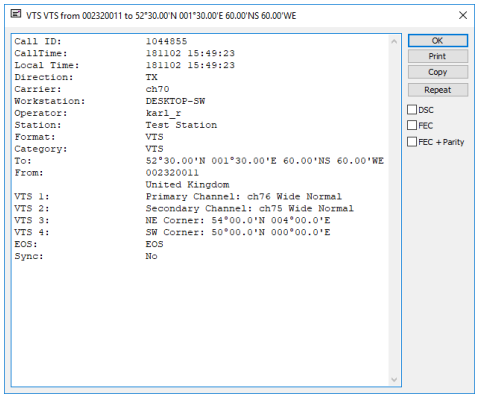


Table 2 ICS DSC Test Message 3

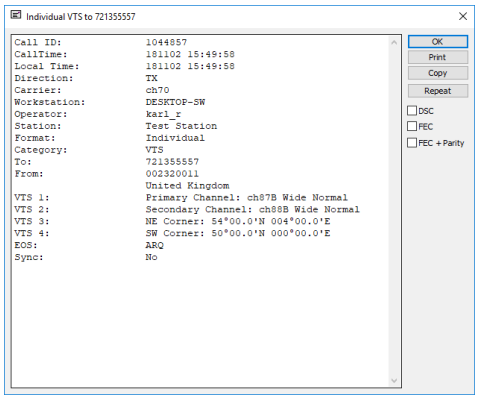


Table 3 ICS DSC Test Message 4

A1.2 General A.4.1 to A.4.3

The EUT was configured to receive DSC messages every other minute using primary and secondary channels alternatively as defined under A.2. The EUT location was 52 degrees North 2 degrees East. The Sensor 1 port data was collected to show AIS reception and the debug port used to indicate the unit receiving DSC messages. Message type 1 were transmitted along with Message Type 16 addressed to the EUT to place it in assignment mode at a reporting rate of 10 seconds.

The EUT was configured to switch receivers to a DSC schedule as defined in the table below.

UTC Minute	DSC Receive Channel	UTC Minute	DSC Receive Channel
1	B	31	A
3	A	33	B
5	B	35	A
7	A	37	B
9	B	39	A
11	A	41	B
13	B	43	A
15	A	45	B
17	B	47	A
19	A	49	B
21	B	51	A
23	A	53	B
25	B	55	A
27	A	57	B
29	B	59	A

Table 4 Test DSC monitoring times

The debug below shows the EUT receiving AIS and DSC messages and transmitting AIS messages. DSC reception is only in odd minutes (the one second past even minute DSC reception is an internal delay logging the message). In addition transmission is shown at the correct reporting interval.

```
3340: setReceiverMode:3364 DSC OFF
3353: cmlSendingMessage:3962 Preparing TX Slot:426 ID:0 Time:16 rfChannel:2088 chann:B
3363: cmlSendingMessage:3962 Preparing TX Slot:827 ID:0 Time:16 rfChannel:2087 chann:A
3374: cmlSendingMessage:3962 Preparing TX Slot:1186 ID:0 Time:16 rfChannel:2088 chann:B
3383: cmlSendingMessage:3962 Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2087 chann:A
3395: cmlSendingMessage:3962 Preparing TX Slot:1951 ID:0 Time:16 rfChannel:2088 chann:B
3410: cmlSendingMessage:3962 Preparing TX Slot:36 ID:0 Time:16 rfChannel:2087 chann:A
3416: setReceiverMode:3364 DSC Channel A
3427: cmlSendingMessage:3962 Preparing TX Slot:426 ID:0 Time:16 rfChannel:2088 chann:B
3437: cmlSendingMessage:3962 Preparing TX Slot:827 ID:0 Time:16 rfChannel:2087 chann:A
3446: cmlSendingMessage:3962 Preparing TX Slot:1186 ID:0 Time:16 rfChannel:2088 chann:B
3456: cmlSendingMessage:3962 Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2087 chann:A
```

3471: cmlSendingMessage:3962 Preparing TX Slot:1951 ID:0 Time:16 rfChannel:2088 chann:B
3484: cmlSendingMessage:3962 Preparing TX Slot:36 ID:0 Time:16 rfChannel:2087 chann:A
3488: setReceiverMode:3364 DSC OFF
3501: cmlSendingMessage:3962 Preparing TX Slot:426 ID:0 Time:16 rfChannel:2088 chann:B
3511: cmlSendingMessage:3962 Preparing TX Slot:827 ID:0 Time:16 rfChannel:2087 chann:A
3520: cmlSendingMessage:3962 Preparing TX Slot:1186 ID:0 Time:16 rfChannel:2088 chann:B
3531: cmlSendingMessage:3962 Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2087 chann:A
3543: cmlSendingMessage:3962 Preparing TX Slot:1951 ID:0 Time:16 rfChannel:2088 chann:B
3556: cmlSendingMessage:3962 Preparing TX Slot:36 ID:0 Time:16 rfChannel:2087 chann:A
3561: setReceiverMode:3364 DSC Channel B
3573: cmlSendingMessage:3962 Preparing TX Slot:426 ID:0 Time:16 rfChannel:2088 chann:B
3583: cmlSendingMessage:3962 Preparing TX Slot:827 ID:0 Time:16 rfChannel:2087 chann:A
3591: cmlSendingMessage:3962 Preparing TX Slot:1186 ID:0 Time:16 rfChannel:2088 chann:B
3597: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK
3598: decodeDsc:517 DSC Broadcast - outside calling area
3600: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK
3601: decodeDsc:517 DSC Broadcast - outside calling area
3606: cmlSendingMessage:3962 Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2087 chann:A
3612: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK
3613: deleteChannelAssignment:159 Channel Assignment deleted
3614: insertChannelAssignment:742 Chan 0 assignment deleted - overwritten
3615: insertChannelAssignment:805 Chan assgnmnt: 0 adjacent corners
3616: insertChannelAssignment:878 Channel management saved to assignments
3617: addChannelAssignmentToDB:1003 Channel assignment added to DB
3618: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK
3619: decodeDsc:517 DSC Broadcast - outside calling area
3625: cmlSendingMessage:3962 Preparing TX Slot:1951 ID:0 Time:16 rfChannel:2088 chann:B
3638: cmlSendingMessage:3962 Preparing TX Slot:36 ID:0 Time:16 rfChannel:2087 chann:A
3641: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK
3642: decodeDsc:517 DSC Broadcast - outside calling area
3646: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK
3647: decodeDsc:517 DSC Broadcast - outside calling area
3648: setReceiverMode:3364 DSC OFF
3659: cmlSendingMessage:3962 Preparing TX Slot:426 ID:0 Time:16 rfChannel:2088 chann:B
3672: cmlSendingMessage:3962 Preparing TX Slot:827 ID:0 Time:16 rfChannel:2087 chann:A
3677: cmlSendingMessage:3962 Preparing TX Slot:840 ID:0 Time:16 rfChannel:2087 chann:A
3682: cmlSendingMessage:3962 Preparing TX Slot:895 ID:0 Time:16 rfChannel:2087 chann:A
3691: cmlSendingMessage:3962 Preparing TX Slot:1186 ID:0 Time:16 rfChannel:2088 chann:B
3702: cmlSendingMessage:3962 Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2087 chann:A
3714: cmlSendingMessage:3962 Preparing TX Slot:1951 ID:0 Time:16 rfChannel:2088 chann:B
3727: cmlSendingMessage:3962 Preparing TX Slot:36 ID:0 Time:16 rfChannel:2087 chann:A
3734: setReceiverMode:3364 DSC Channel A
3745: cmlSendingMessage:3962 Preparing TX Slot:426 ID:0 Time:16 rfChannel:2088 chann:B
3750: decodeDscAddressedChannelManagement:301 DSC Addr msg to 721355557
3751: deleteChannelAssignment:159 Channel Assignment deleted
3752: insertChannelAssignment:742 Chan 0 assignment deleted - overwritten
3753: insertChannelAssignment:878 Channel management saved to assignments
3754: addChannelAssignmentToDB:1003 Channel assignment added to DB

3755: decodeDscAddressedChannelManagement:301 DSC Addr msg to 721355557

3756: deleteChannelAssignment:159 Channel Assignment deleted

3757: insertChannelAssignment:742 Chan 0 assignment deleted - overwritten

3758: insertChannelAssignment:878 Channel management saved to assignments

3759: addChannelAssignmentToDB:1003 Channel assignment added to DB

3765: cmlSendingMessage:3962 Preparing TX Slot:827 ID:0 Time:16 rfChannel:2087 chann:A

3770: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK

3771: decodeDsc:517 DSC Broadcast - outside calling area

3773: decodeDscBroadcastChannelManagement:414 DSC Broadcast msg OK

3774: decodeDsc:517 DSC Broadcast - outside calling area

3778: cmlSendingMessage:3962 Preparing TX Slot:1186 ID:0 Time:16 rfChannel:2088 chann:B

3788: writeToOPBuffer:745 USB OP buffer full overrun drops=706

3789: writeToOPBuffer:745 USB OP buffer full overrun drops=708

3790: cmlSendingMessage:3962 Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2087 chann:A

LineNoRx	Channel	Slot	SlotIdx	Frame	SlotTime	MsgType	Mmsi	AivdX
16258723	2	123	123	0	15:48:02	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00<00,0*52
16258724	1	140	140	0	15:48:02	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P0082<,0*5B
16258725	2	370	370	0	15:48:08	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P000SH,0*45
16258726	2	426	426	0	15:48:10	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwTQt86b,0*7E
16258727	3	827	827	0	15:48:21	18	721355557	!AIVDM,1,1,,C,B:gt39@1_82BO07L4h1hSwb1t8<s,0*32
16258728	1	827	827	0	15:48:21	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwb1t8<s,0*30
16258729	2	871	871	0	15:48:22	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00<00,0*52
16258730	1	892	892	0	15:48:22	16	5102097	!AIVDO,1,1,,A,@04oJ4Bcw0jD3h00,0*62
16258731	1	1179	1179	0	15:48:30	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P005s0,0*1B
16258732	2	1186	1186	0	15:48:30	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwfQtD01,0*65
16258733	1	1551	1551	0	15:48:40	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P005s0,0*1B
16258734	1	1540	1540	0	15:48:40	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwkQtD01,0*6B
16258735	2	1959	1959	0	15:48:51	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00D00,0*2A
16258736	2	1951	1951	0	15:48:51	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwq1tD01,0*12
16258737	1	36	2286	1	15:48:59	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwuQtD01,0*75
16258738	2	123	2373	1	15:49:02	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P0081s,0*14
16258739	1	140	2390	1	15:49:02	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P005s4,0*1F
16258740	2	384	2634	1	15:49:09	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00D00,0*2A
16258741	2	426	2676	1	15:49:10	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwTQtD01,0*57
16258742	1	827	3077	1	15:49:21	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwb1tD01,0*02
16258743	2	871	3121	1	15:49:22	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P008=W,0*3C
16258744	1	909	3159	1	15:49:23	16	5102097	!AIVDO,1,1,,A,@04oJ4Bcw0jD3h00,0*62
16258745	1	1179	3429	1	15:49:30	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P000SV,0*58
16258746	2	1186	3436	1	15:49:30	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwfQtHBR,0*78
16258747	1	1551	3801	1	15:49:40	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P000TT,0*5D
16258748	3	1540	3790	1	15:49:40	18	721355557	!AIVDM,1,1,,C,B:gt39@1_82BO07L4h1hSpk3phI9HP,4*6C
16258749	1	1540	3790	1	15:49:40	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwkQtHH4,0*1A
16258750	2	1959	4209	1	15:49:51	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00@NW,0*37
16258751	2	1951	4201	1	15:49:51	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwq1tHNO,0*1E
16258752	1	36	4536	2	15:49:59	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwuQtH0T,0*1C
16258753	2	123	4623	2	15:50:02	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P005s8,0*10
16258754	1	140	4640	2	15:50:02	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P000Qt,0*78
16258755	2	384	4884	2	15:50:09	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00@60,0*28
16258756	2	426	4926	2	15:50:10	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwTQtH6b,0*0E
16258757	1	688	5188	2	15:50:17	16	5102097	!AIVDO,1,1,,A,@04oJ4Bcw0jD3h00,0*62
16258758	1	827	5327	2	15:50:21	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwb1tH<s,0*40
16258759	2	871	5371	2	15:50:22	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P005s8,0*10
16258760	2	1186	5686	2	15:50:30	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwfQtL01,0*6D
16258761	1	1207	5707	2	15:50:31	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P00HBo,0*08
16258762	3	1540	6040	2	15:50:40	10	721355557	!AIVDM,1,1,,C,::gt39@1_82BO07L4h1hSwkQtL01,0*19
16258763	1	1540	6040	2	15:50:40	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwkQtL01,0*63
16258764	1	1641	6141	2	15:50:42	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P00@Ia,0*05
16258765	2	1959	6459	2	15:50:51	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00<00,0*52
16258766	2	1951	6451	2	15:50:51	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwq1tL01,0*1A
16258767	3	36	6786	3	15:50:59	18	721355557	!AIVDM,1,1,,C,B:gt39@1_82BO07L4h1hSwuQtL01,0*7F
16258768	1	36	6786	3	15:50:59	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwuQtL01,0*7D
16258769	1	62	6812	3	15:51:00	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P00D00,0*29
16258770	2	123	6873	3	15:51:02	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P000RR,0*5E
16258771	2	384	7134	3	15:51:09	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P00<00,0*52
16258772	2	426	7176	3	15:51:10	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwTQtL01,0*5F
16258773	1	630	7380	3	15:51:15	16	5102097	!AIVDO,1,1,,A,@04oJ4Bcw0jD3h00,0*62
16258774	1	827	7577	3	15:51:21	18	721355557	!AIVDM,1,1,,A,B:gt39@1_82BO07L4h1hSwb1tL01,0*0A
16258775	2	871	7621	3	15:51:22	4	5102097	!AIVDO,1,1,,B,404oJ4Av9SHtt06G>PMI06P000T6,0*3C
16258776	2	1186	7936	3	15:51:30	18	721355557	!AIVDM,1,1,,B,B:gt39@1_82BO07L4h1hSwfQtHBR,0*78
16258777	1	1207	7957	3	15:51:31	4	5102097	!AIVDO,1,1,,A,404oJ4Av9SHtt06G>PMI06P00D00,0*29

Finally the log from the Attingimus shows successful reception of AIS messages sent by EUT on MMSI 721355557 whilst receiving DSC on channels A and B.

Channel	Slot	SlotIdx	Frame	SlotTime	MsgType	Mmsi	AivdX
1	397	397	0	10:59	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp05Cd,0*61
2	537	537	0	10:59	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwV1l@8I,0*2D
1	677	677	0	10:59	18	992351248	!AIVDM,1,1,,A,B>jHD400001UlpWF@_p03w`QnES:,0*6D
2	752	752	0	10:59	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0@_h,0*63
1	1059	1059	0	10:59	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwe1l8@S,0*07

1	1123	1123	0	10:59	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp08AS,0*59
2	1497	1497	0	10:59	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0D00,0*34
2	1572	1572	0	10:59	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwl1l@HT,0*7A
1	1912	1912	0	10:59	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp05Cd,0*61
1	2161	2161	0	10:59	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQlHQi,0*2A
2	9	2259	1	11:00	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0809,0*41
1	397	2647	1	11:00	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp00Rv,0*67
2	537	2787	1	11:00	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwV1l<01,0*21
2	752	3002	1	11:00	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0<00,0*4C
1	813	3063	1	11:00	24	992351248	!AIVDM,1,1,,A,H>jHD4000000000000000000000,2*30
1	831	3081	1	11:00	24	992351248	!AIVDM,1,1,,A,H>jHD444ooo4N9000000001@?DIt,0*19
1	1059	3309	1	11:00	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwe1l5H1,0*60
1	1123	3373	1	11:00	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp05H0,0*3E
2	1497	3747	1	11:00	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0@GI,0*3E
2	1572	3822	1	11:00	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwl1l<01,0*1B
1	1912	4162	1	11:00	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp00RR,0*43
1	2161	4411	1	11:00	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQlD01,0*1F
2	9	4509	2	11:01	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp05H0,0*3D
1	385	4885	2	11:01	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0D00,0*37
2	537	5037	2	11:01	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwV1l88I,0*55
2	752	5252	2	11:01	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp08_h,0*1B
1	1059	5559	2	11:01	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwe1l0Ri,0*27
1	1123	5623	2	11:01	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp00Se,0*75
2	1497	5997	2	11:01	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0<00,0*4C
2	1572	6072	2	11:01	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwlQl8HT,0*62
1	1872	6372	2	11:01	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0L00,0*3F
1	2161	6661	2	11:01	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQl@Qi,0*22
2	9	6759	3	11:02	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp00Sr,0*61
1	385	7135	3	11:02	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0@61,0*34
2	537	7287	3	11:02	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwV1l5H8,0*59
2	645	7395	3	11:02	18	992351248	!AIVDM,1,1,,B,B>jHD400001UlpWF@_p03w`1nEUr,0*40
2	752	7502	3	11:02	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp05H8,0*35
3	1034	7784	3	11:02	18	721355557	!AIVDM,1,1,,C,B:gt39@0U`001P7Brl1hSwdQlL02,0*60
1	1034	7784	3	11:02	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwdQlL02,0*03
1	1158	7908	3	11:02	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0@B6,0*47
2	1497	8247	3	11:02	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp08GI,0*46
2	1572	8322	3	11:02	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwl1l5H_,0*60
1	1872	8622	3	11:02	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0HM@,0*36
1	2161	8911	3	11:02	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQl<02,0*64
2	57	9057	4	11:03	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0@0q,0*71
1	385	9385	4	11:03	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0<00,0*4F
2	537	9537	4	11:03	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwV1l0Qt,0*09
2	752	9752	4	11:03	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp00SL,0*5F
1	1034	10034	4	11:03	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwdQlH@:,0*7F
1	1158	10158	4	11:03	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0<00,0*4F
2	1497	10497	4	11:03	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp05H<,0*31
2	1572	10572	4	11:03	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwl1l0S>,0*7B
1	1872	10872	4	11:03	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0D00,0*37
1	2161	11161	4	11:03	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQl8Qi,0*5A
2	57	11307	5	11:04	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0<00,0*4C
1	385	11635	5	11:04	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0861,0*4C
2	459	11709	5	11:04	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwU1l@7_,0*53
2	770	12020	5	11:04	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0D00,0*34
1	1034	12284	5	11:04	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwdQlD02,0*0B
1	1158	12408	5	11:04	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp08B6,0*3F
2	1497	12747	5	11:04	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp00TA,0*55
1	1505	12755	5	11:04	24	721355557	!AIVDM,1,1,,A,H:gt39@d58h0000000000000000,2*0E
2	1576	12826	5	11:04	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwl1l@H`,0*4E
1	1582	12832	5	11:04	24	721355557	!AIVDM,1,1,,A,H:gt39DUooo4N90_1B<0000@5554,0*75
1	1872	13122	5	11:04	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0@M@,0*3E
3	2161	13411	5	11:04	18	721355557	!AIVDM,1,1,,C,B:gt39@0Uc00007Brl1hSwsQl5HA,0*67
1	2161	13411	5	11:04	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQl5HA,0*66
2	57	13557	6	11:05	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp080q,0*09
1	385	13885	6	11:05	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp05HD,0*4A
2	459	13959	6	11:05	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwU1l<02,0*21
2	770	14270	6	11:05	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0@<2,0*3E
1	885	14385	6	11:05	18	992351248	!AIVDM,1,1,,A,B>jHD400001UlpWF@_p03wcQnDIb,0*2D
1	1034	14534	6	11:05	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwdQl@@:,0*77
1	1158	14658	6	11:05	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp05HD,0*4A
2	1568	15068	6	11:05	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp0@HP,0*28
2	1576	15076	6	11:05	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwl1l<02,0*18

1		15372	6	11:05	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp0<00,0*4F
3	2161	15661	6	11:05	18	721355541	!AIVDM,1,1,,C,B:gt35@0U`00007Brl1hSwsQd0SI,0*76
1	2161	15661	6	11:05	18	721355557	!AIVDM,1,1,,A,B:gt39@0U`00007Brl1hSwsQl0SI,0*70
2	57	15807	7	11:06	1	111111111	!AIVDO,1,1,,B,11auciwP?w<tSF0l4Q@>4?wp05HH,0*45
1	385	16135	7	11:06	1	111111111	!AIVDO,1,1,,A,11auciwP?w<tSF0l4Q@>4?wp00S7,0*27
2	459	16209	7	11:06	18	721355557	!AIVDM,1,1,,B,B:gt39@0U`00007Brl1hSwU1l87_,0*2B

It is clear that AIS operation has not been affected by these messages and all DSC messages were received when the EUT was configured to receive a DSC message. AIS reception on the alternate channel during this time.

A1.3

The tests performed in A.4.3 have proved the operation of the unit is unaffected by the result. The unit does not have a DSC transmitter and is unable to transmit a response.

A1.4

The EUT was set up with GPS with a course over ground (COG) of 30 Knots. DSC was enabled by setting the factory “DSC Enabled” flag on. This was done using an internal factory $POSG command (after sending the factory password):-

```
$POSG,VAL,DSC Enabled,,1*50
```

The output from an AIS receiver was collected for a period of time and the message 18’s transmitted by the EUT were extracted as follows:-

```
2018/36/05 12:36:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwfQ`@Pb,0*45
2018/36/05 12:36:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwi1`;4P,0*04
2018/36/05 12:36:37 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwk1`;4P,0*05
2018/36/05 12:36:42 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwn1`;4P,0*03
2018/36/05 12:36:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQ`16H,0*6E
2018/36/05 12:36:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1`@u`,0*14
2018/36/05 12:36:57 !AIVDM,1,1,,A,B:gt39@182BO07L4h1hSwuQ`H04,0*68
2018/37/05 12:37:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwR1`168,0*5F
2018/37/05 12:37:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwTQ`@8p,0*0D
2018/37/05 12:37:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwVQ`P>>,0*54
2018/37/05 12:37:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwaQ`16f,0*51
2018/37/05 12:37:22 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwd1`16D,0*15
2018/37/05 12:37:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwfQ`;4`,0*58
2018/37/05 12:37:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwi1`15`,0*3F
2018/37/05 12:37:37 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwk1`17@,0*1C
2018/37/05 12:37:42 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwn1`16V,0*0D
2018/37/05 12:37:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQ`Pp6,0*37
2018/37/05 12:37:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1`;4`,0*2E
2018/37/05 12:37:57 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwuQ`A3P,0*06
2018/38/05 12:38:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwR1`p04,0*14
2018/38/05 12:38:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwTQ`;4h,0*62
2018/38/05 12:38:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwVQ`H04,0*48
2018/38/05 12:38:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwaQ``04,0*54
2018/38/05 12:38:22 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwd1`hJL,0*38
2018/38/05 12:38:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwfQ`15N,0*7D
2018/38/05 12:38:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwhQlL02,0*78
```

2018/38/05 12:38:38 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwkQl<02,0*08
2018/38/05 12:38:43 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwn1l<02,0*6E
2018/38/05 12:38:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQl<02,0*13
2018/38/05 12:38:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1l0SF,0*68
2018/38/05 12:38:57 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwuQl5RH,0*07
2018/39/05 12:39:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwR1lH1L,0*59
2018/39/05 12:39:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwTQl0S4,0*5E
2018/39/05 12:39:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwVQl877,0*30
2018/39/05 12:39:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwaQl@:M,0*0B
2018/39/05 12:39:22 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwd1lD02,0*1C
2018/39/05 12:39:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwf1l@?r,0*56
2018/39/05 12:39:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwhQlHBo,0*53
2018/39/05 12:39:38 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwkQl8FC,0*0B
2018/39/05 12:39:43 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwn1l8l<,0*1D
2018/39/05 12:39:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQl8L3,0*6A
2018/39/05 12:39:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1lL02,0*03
2018/39/05 12:39:57 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwuQl0Rn,0*24
2018/40/05 12:40:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwR1lD02,0*2A
2018/40/05 12:40:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwTQlL02,0*47
2018/40/05 12:40:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwVQl5RP,0*3F
2018/40/05 12:40:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwaQl<02,0*02
2018/40/05 12:40:22 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwd1l@=>,0*19
2018/40/05 12:40:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwf1l<02,0*65
2018/40/05 12:40:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwhQlD02,0*70
2018/40/05 12:40:38 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwkQl5RP,0*01
2018/40/05 12:40:43 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwn1l5RP,0*67
2018/40/05 12:40:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQl5RP,0*1A
2018/40/05 12:40:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1lHO0,0*7A
2018/40/05 12:40:57 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwu1lHQL,0*1D
2018/41/05 12:41:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwR1l@1L,0*51
2018/41/05 12:41:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwT1lH4F,0*53
2018/41/05 12:41:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwVQl0SJ,0*21
2018/41/05 12:41:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwaQl8:M,0*73
2018/41/05 12:41:22 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwd1l<02,0*64
2018/41/05 12:41:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwf1l8?r,0*2E
2018/41/05 12:41:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwhQl@Bo,0*5B
2018/41/05 12:41:38 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwkQl0Rl,0*38
2018/41/05 12:41:43 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwn1l0Rh,0*5A
2018/41/05 12:41:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQl0Rw,0*38
2018/41/05 12:41:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1lD02,0*0B
2018/41/05 12:41:57 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwu1lD02,0*0E
2018/42/05 12:42:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwR1l<02,0*52
2018/42/05 12:42:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwTQlD02,0*4F
2018/42/05 12:42:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwW1l<02,0*57
2018/42/05 12:42:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwaQl5R`,0*3B
2018/42/05 12:42:22 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwd1l8=>,0*61

2018/42/05 12:42:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwf1l5R`,0*5C

2018/42/05 12:42:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwhQl<02,0*08

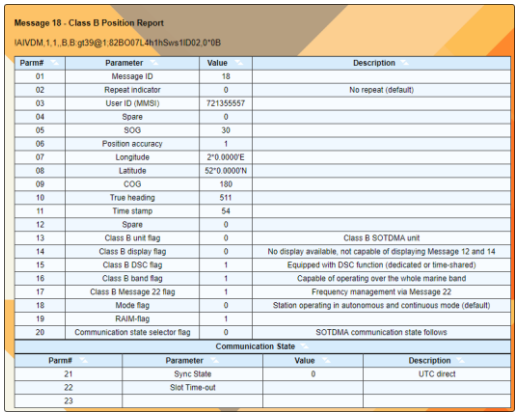
2018/42/05 12:42:37 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwkQl@Eu,0*46

2018/42/05 12:42:42 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwmQlD02,0*75

2018/42/05 12:42:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwpQl@Kp,0*56

2018/42/05 12:42:52 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1l@O0,0*72

Decoding these messages shows the DSC flag is set to true:-



Message 18 - Class B Position Report

!AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSws1lD02,0*0B

Parm#	Parameter	Value	Description
01	Message ID	18	
02	Repeat indicator	0	No repeat (default)
03	User ID (MMSI)	721355557	
04	Spare	0	
05	SOG	30	
06	Position accuracy	1	
07	Longitude	2°0.0000'E	
08	Latitude	52°0.0000'N	
09	COG	180	
10	True heading	511	
11	Time stamp	54	
12	Spare	0	
13	Class B unit flag	0	Class B SOTDMA unit
14	Class B display flag	0	No display available, not capable of displaying Message 12 and 14
15	Class B DSC flag	1	Equipped with DSC function (dedicated or time-shared)
16	Class B band flag	1	Capable of operating over the whole marine band
17	Class B Message 22 flag	1	Frequency management via Message 22
18	Mode flag	0	Station operating in autonomous and continuous mode (default)
19	RAIM-flag	1	
20	Communication state selector flag	0	SOTDMA communication state follows

Communication State

Parm#	Parameter	Value	Description
21	Sync State	0	UTC direct
22	Slot Time-out		
23			

The DSC was then disabled at 13:36 by sending the following Factory command:-

```
$POSG,VAL,DSC Enabled,,0*50
```

and the message 18's recorded on a AIS receiver. The messages received were as follows:-

2018/35/05 13:35:32 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwhQn1Q1,0*65

2018/35/05 13:35:37 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwk1n1KA,0*6F

2018/35/05 13:35:42 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwmQn1Hi,0*21

2018/35/05 13:35:47 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwp1n1IQ,0*66

2018/35/05 13:35:51 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwrQn1QA,0*0F

2018/35/05 13:35:56 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwu1n1Ri,0*40

2018/36/05 13:36:02 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwQPn1LA,0*30

2018/36/05 13:36:07 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwT0n001,0*5B

2018/36/05 13:36:12 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwVPn001,0*3A

2018/36/05 13:36:17 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwa0lH:6,0*19

2018/36/05 13:36:21 !AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwcPlD02,0*7A

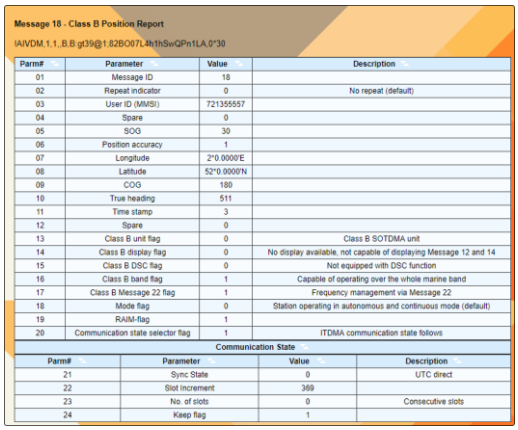
2018/36/05 13:36:26 !AIVDM,1,1,,A,H:gt39@d58h0000000000000000,2*0E

2018/36/05 13:36:27 !AIVDM,1,1,,A,B:gt39@1;82BO07L4h1hSwf0lH@4,0*66

2018/36/05 13:36:28 !AIVDM,1,1,,A,H:gt39DUooo4000;1B<0000@5554,0*02

2018/36/05 13:36:31 !AIVDM,1,1,,B,404oJ4Av9SHtt06G>PMI06P00D00,0*28

Messages prior to "2018/36/05 13:36:02" had the DSC flag enabled, but message "2018/36/05 13:36:02" decoded as follows:-



Message 18 - Class B Position Report

!AIVDM,1,1,,B,B:gt39@1;82BO07L4h1hSwQPn1LA,0*30

Parm#	Parameter	Value	Description
01	Message ID	18	
02	Repeat indicator	0	No repeat (default)
03	User ID (MMSI)	721355557	
04	Spare	0	
05	SOG	30	
06	Position accuracy	1	
07	Longitude	2°0.0000'E	
08	Latitude	52°0.0000'N	
09	COG	180	
10	True heading	511	
11	Time stamp	3	
12	Spare	0	
13	Class B unit flag	0	Class B SOTDMA unit
14	Class B display flag	0	No display available, not capable of displaying Message 12 and 14
15	Class B DSC flag	0	Not equipped with DSC function
16	Class B band flag	1	Capable of operating over the whole marine band
17	Class B Message 22 flag	1	Frequency management via Message 22
18	Mode flag	0	Station operating in autonomous and continuous mode (default)
19	RAIM-flag	1	
20	Communication state selector flag	1	ITDMA communication state follows

Communication State

Parm#	Parameter	Value	Description
21	Sync State	0	UTC direct
22	Slot increment	369	
23	No. of slots	0	Consecutive slots
24	Keep flag	1	

Messages following “2018/36/05 13:36:02” all showed the flag disabled.

A1.5

The EUT had the factory “DSC Enabled” flag was set true and the EUT DSC monitoring times were configured as shown in Table 4. The debug output was monitored to show the EUT DSC status and message reception and the DSC Test Message 2 as shown in Table 1 was transmitted at “09:40:30 06/11/2018” and “09:41:30 06/11/2018”.

The debug log output showed successful reception of the second message and the turning on and off of the DSC receiver to the schedule specified and successful reception of the DSC Test Message 2 on AIS Channel B:-

3918/11/06 09:40:01 setReceiverMode: DSC OFF

3918/11/06 09:41:02 setReceiverMode: DSC Channel B

3918/11/06 09:41:31 decodeDscBroadcastChannelManagement: DSC Broadcast msg OK

3918/11/06 09:41:31 decodeDsc: DSC Broadcast - outside calling area

3918/11/06 09:41:32 decodeDscBroadcastChannelManagement: DSC Broadcast msg OK

3918/11/06 09:41:32 decodeDsc: DSC Broadcast - outside calling area

3918/11/06 09:42:02 setReceiverMode: DSC OFF

A1.6

The following messages were sent to configure 8 regions with differing Channel A and B frequencies as defined in Table 5 Test regional operating settings used):-

Msg22/DSC	Region N/S	Region E/W	Channel A	Channel B
AIS Msg 22	50°N - 52°N	0°E - 1°E	2088	2087
AIS Msg 22	50°N - 52°N	1°E - 2°E	2088	2087
AIS Msg 22	50°N - 52°N	2°E - 3°E	2088	2087
AIS Msg 22	50°N - 52°N	3°E - 4°E	2088	2087
DSC VTS	50°N - 52°N	4°E - 5°E	1075	1076
DSC VTS	50°N - 52°N	5°E - 6°E	1075	1076
DSC VTS	50°N - 52°N	6°E - 7°E	1075	1076
DSC VTS	50°N - 52°N	7°E - 8°E	1075	1076

Table 5 Test regional operating settings used

The choice of channels was taken to ensure the Attingimus received all messages when the EUT was in a manged region. The EUT was positioned at 51°N 1°W to ensure initially it was outside all regions.

The EUT was fed from a GPS simulator, with speed over ground (SOG) set to 30 knots to result in a reporting rate of 5 seconds.

A message 22 as described in Table 6 Ninth regional assignment message 22 to EUT) was sent and the debug log collected.

Msg22/DSC	Region N/S	Region E/W		Channel A	Channel B
AIS Msg 22	49°N - 50°N	0°30'W 0°30'E	–	2088	2087

Table 6 Ninth regional assignment message 22 to EUT

The EUT was moved to 51°N 0°30'E (region 0) – This should reverse the transmit channels A and B as defined in row 1 of Table 5 Test regional operating settings used). The units VDO log was collected along with an AIS receiver to demonstrate the reversal of the A and B channels.

A message 22 was then sent defining a region overlapping region 0, but not encompassing the EUT as defined in Table 7 10th Message 22 regional assignment)

Msg22/DSC	Region N/S	Region E/W		Channel A	Channel B
AIS Msg 22	50°N - 52°N	0°30'W 0°15'E	–	2088	2087

Table 7 10th Message 22 regional assignment

The EUT was moved to 52°S 2°E and the debug log collected to show the deletion of all the stored regional settings.

The region was then moved to the following locations listed in XXXX and checked that the Channel A and Channel B transmit channels did not change. The AIS receiver message 18's were recorded and the EUT VDO log from the serial port compared to ensure that Channel A and Channel B messages were received on Channel A and Channel B respectively.

Time position set	N/S	E/W
06/11/2018 14:20:00	51°N	0°15'
06/11/2018 14:20:30	51°N	1°15'
06/11/2018 14:21:00	51°N	2°15'
06/11/2018 14:21:30	51°N	3°15'
06/11/2018 14:22:00	51°N	4°15'

06/11/2018 14:22:30	51°N	5°15’
06/11/2018 14:23:00	51°N	6°15’
06/11/2018 14:23:30	51°N	7°15’
06/11/2018 14:24:00	49°30’	0°

After sending the message, the debug first shows the message reception, followed by the adjacent corner count check, then after determining that there are no free assignment regions looks for the most distant, which would be the last inserted (regions are internally numbered 0-7), number 7. It then chooses region 7, deletes it then records a region count of 7. It then proceeds to insert the new channel assignment region correctly.

```
2018/11/06 12:48:00 setReceiverMode: DSC OFF
2018/11/06 12:48:59 vdlTask: Rx MMSI:5102097 Slot:2249 AbsSlot:6749 Channel:A Type:22 TOA:111 DCOffset:-454
2018/11/06 12:48:59 insertChannelAssignment: Chan assgnmnt: 0 adjacent corners
2018/11/06 12:49:25 insertChannelAssignment: No free chan assgnmnts - finding most distant
2018/11/06 12:49:56 insertChannelAssignment: Distant Chan Mgmt 7 deleted
2018/11/06 12:49:59 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 12:49:59 deleteChannelAssignment: Channel Assgnmnt deleted count:7
2018/11/06 12:53:49 insertChannelAssignment: Channel magmt saved - index 7
2018/11/06 12:53:54 addChannelAssignmentToDB: Channel assignment added to DB
2018/11/06 12:53:54 vdlTask: Rx MMSI:5102097 Slot:379 AbsSlot:4879 Channel:B Type:4 TOA:111 DCOffset:234
2018/11/06 12:53:54 vdlTask: Rx MMSI:5102097 Slot:1149 AbsSlot:5649 Channel:B Type:4 TOA:112 DCOffset:251
2018/11/06 12:53:54 vdlTask: Rx MMSI:5102097 Slot:319 AbsSlot:4819 Channel:A Type:4 TOA:112 DCOffset:-414
2018/11/06 12:53:54 vdlTask: Rx MMSI:5102097 Slot:1862 AbsSlot:6362 Channel:A Type:4 TOA:112 DCOffset:-398
```

The debug output from the EUT showed after changing the position to 51°N 0°30’E at “2018/11/06 13:10:11“ the channel changing as defined in the regional setting (note the messages timing out are transmitted on original channel):-

```
2018/11/06 13:09:50 processChannelAssignment: Current zone:8 InTransition:N TranZone:8
2018/11/06 13:09:56 cmlSendingMessage: Preparing TX Slot:2136 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:10:00 cmlSendingMessage: Preparing TX Slot:53 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:10:06 cmlSendingMessage: Preparing TX Slot:259 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:10:09 vdlTask: Rx MMSI:5102097 Slot:359 AbsSlot:43109 Channel:A Type:4 TOA:112 DCOffset:-407
2018/11/06 13:10:09 vdlTask: Rx MMSI:5102097 Slot:369 AbsSlot:43119 Channel:B Type:4 TOA:112 DCOffset:273
2018/11/06 13:10:11 processChannelAssignment: Current zone:0 InTransition:N TranZone:0
2018/11/06 13:10:11 processChannelAssignment: Chann mgmt Chan A:2088
2018/11/06 13:10:11 processChannelAssignment: Chann mgmt Chan B:2087
2018/11/06 13:10:11 processChannelAssignment: NETWORK REENTRY
2018/11/06 13:10:11 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2087
2018/11/06 13:10:11 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2088
2018/11/06 13:10:11 setChannel: Channel A set to 2088
2018/11/06 13:10:11 setChannel: Channel B set to 2087
2018/11/06 13:10:11 cmlSendingMessage: Preparing TX Slot:447 ID:0 Time:16 rfChannel:2088 chann:B
```

2018/11/06 13:10:16 cmlSendingMessage: Preparing TX Slot:606 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:10:16 cmlSendingMessage: Preparing TX Slot:625 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:10:20 cmlSendingMessage: Preparing TX Slot:772 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:10:21 cmlSendingMessage: Preparing TX Slot:801 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:10:25 cmlSendingMessage: Preparing TX Slot:979 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:10:26 cmlSendingMessage: Preparing TX Slot:1007 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:10:28 vdlTask: Rx MMSI:5102097 Slot:1064 AbsSlot:43814 Channel:A Type:4 TOA:111 DCOffset:-388
2018/11/06 13:10:31 cmlSendingMessage: Preparing TX Slot:1171 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:10:31 cmlSendingMessage: Preparing TX Slot:1192 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:10:35 cmlSendingMessage: Preparing TX Slot:1339 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:10:36 cmlSendingMessage: Preparing TX Slot:1373 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:10:40 cmlSendingMessage: Preparing TX Slot:1537 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:10:41 cmlSendingMessage: Preparing TX Slot:1576 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:10:45 cmlSendingMessage: Preparing TX Slot:1709 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:10:46 cmlSendingMessage: Preparing TX Slot:1751 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:10:50 cmlSendingMessage: Preparing TX Slot:1903 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:10:51 cmlSendingMessage: Preparing TX Slot:1920 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:10:55 cmlSendingMessage: Preparing TX Slot:2095 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:10:56 cmlSendingMessage: Preparing TX Slot:2136 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:11:00 cmlSendingMessage: Preparing TX Slot:31 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:11:01 cmlSendingMessage: Preparing TX Slot:53 ID:0 Time:16 rfChannel:2088 chann:B

A section of the VDO log from the EUT shows transmissions:-

[2018-11-06 13:37:35.456] !AIVDO,1,1,1338,A,B:gt39@1;80TWh7Brl1hSwiQlHDr,0*59
[2018-11-06 13:37:40.407] !AIVDO,1,1,1524,B,B:gt39@1;80TWh7Brl1hSwl1lD01,0*0F
[2018-11-06 13:37:46.095] !AIVDO,1,1,1736,A,B:gt39@1;80TWh7Brl1hSwnQl@K8,0*19
[2018-11-06 13:37:50.678] !AIVDO,1,1,1908,B,B:gt39@1;80TWh7Brl1hSwq1l<01,0*68
[2018-11-06 13:37:55.472] !AIVDO,1,1,2089,A,B:gt39@1;80TWh7Brl1hSwsQl0S:,0*6E
[2018-11-06 13:38:00.319] !AIVDO,1,1,0021,B,B:gt39@1;80TWh7Brl1hSwP1l@0E,0*42
[2018-11-06 13:38:05.861] !AIVDO,1,1,0229,A,B:gt39@1;80TWh7Brl1hSwRQl5bH,0*03
[2018-11-06 13:38:11.271] !AIVDO,1,1,0431,B,B:gt39@1;80TWh7Brl1hSwUQl86g,0*7E
[2018-11-06 13:38:15.621] !AIVDO,1,1,0593,A,B:gt39@1;80TWh7Brl1hSwWQl<01,0*22
[2018-11-06 13:38:20.666] !AIVDO,1,1,0783,B,B:gt39@1;80TWh7Brl1hSwb1l0SG,0*6E
[2018-11-06 13:38:26.106] !AIVDO,1,1,0984,A,B:gt39@1;80TWh7Brl1hSwdQlD01,0*63
[2018-11-06 13:38:31.096] !AIVDO,1,1,1164,B,B:gt39@1;80TWh7Brl1hSwg1lD01,0*04
[2018-11-06 13:38:35.526] !AIVDO,1,1,1338,A,B:gt39@1;80TWh7Brl1hSwiQlD01,0*62
[2018-11-06 13:38:37.531] !AIVDO,1,1,1413,D,K:gt39Oh1;3g4?;@,0*47
[2018-11-06 13:38:40.467] !AIVDO,1,1,1524,B,B:gt39@1;80TWh7Brl1hSwl1l@Gl,0*21
[2018-11-06 13:38:46.099] !AIVDO,1,1,1736,A,B:gt39@1;80TWh7Brl1hSwnQl<01,0*17
[2018-11-06 13:38:50.709] !AIVDO,1,1,1908,B,B:gt39@1;80TWh7Brl1hSwq1l8Ml,0*4C
[2018-11-06 13:38:55.531] !AIVDO,1,1,2089,A,B:gt39@1;80TWh7Brl1hSwsQlD01,0*72
[2018-11-06 13:39:00.317] !AIVDO,1,1,0021,B,B:gt39@1;80TWh7Brl1hSwP1l<01,0*4A
[2018-11-06 13:39:06.094] !AIVDO,1,1,0229,A,B:gt39@1;80TWh7Brl1hSwRQl0SJ,0*35
[2018-11-06 13:39:11.248] !AIVDO,1,1,0431,B,B:gt39@1;80TWh7Brl1hSwUQl5bL,0*0C
[2018-11-06 13:39:15.705] !AIVDO,1,1,0593,A,B:gt39@1;80TWh7Brl1hSwWQl89A,0*5F

The AIS receiver showed the following:-

```
2018/37/06 13:37:35 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwiQlHDr,0*51
2018/37/06 13:37:40 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwl1lD01,0*0C
2018/37/06 13:37:46 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwnQl@K8,0*1B
2018/37/06 13:37:49 !AIVDM,1,1,,A,404oJ4Av9SHtt06G>PMI06P000SW,0*5B
2018/37/06 13:37:50 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwq1l<01,0*69
2018/37/06 13:37:55 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwsQl0S:,0*6C
2018/38/06 13:38:00 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwP1l@0E,0*40
2018/38/06 13:38:06 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwRQl5bH,0*0B
2018/38/06 13:38:08 !AIVDM,1,1,,B,404oJ4Av9SHtt06G>PMI06P00L00,0*20
2018/38/06 13:38:10 !AIVDM,1,1,,A,404oJ4Av9SHtt06G>PMI06P005bH,0*70
2018/38/06 13:38:11 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwUQl86g,0*79
2018/38/06 13:38:15 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwWQl<01,0*2C
2018/38/06 13:38:20 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwb1l0SG,0*63
2018/38/06 13:38:26 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwdQlD01,0*67
2018/38/06 13:38:28 !AIVDM,1,1,,B,404oJ4Av9SHtt06G>PMI06P00<00,0*50
2018/38/06 13:38:31 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwg1lD01,0*07
2018/38/06 13:38:35 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwiQlD01,0*6A
2018/38/06 13:38:40 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwl1l@Gl,0*22
2018/38/06 13:38:46 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwnQl<01,0*15
2018/38/06 13:38:50 !AIVDM,1,1,,A,404oJ4Av9SHtt06G>PMI06P00D00,0*2B
2018/38/06 13:38:50 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwq1l8Ml,0*4D
2018/38/06 13:38:55 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwsQlD01,0*70
2018/39/06 13:39:00 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwP1l<01,0*48
2018/39/06 13:39:06 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwRQl0SJ,0*3D
2018/39/06 13:39:08 !AIVDM,1,1,,B,404oJ4Av9SHtt06G>PMI06P00H4p,0*60
2018/39/06 13:39:10 !AIVDM,1,1,,A,404oJ4Av9SHtt06G>PMI06P000Qr,0*7C
2018/39/06 13:39:11 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwUQl5bL,0*0B
2018/39/06 13:39:15 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwWQl89A,0*51
```

It is clear that the received messages sent on channel A were received on channel B and messages sent on channel B were received on channel A.

The debug output from the EUT shows the deletion of the current regional assignment and the saving of the new assignment. The unit then defaults to region 8 (the default EUT region) and reverts the channel A and channel B frequencies to their default:-

```
2018/11/06 13:54:53 cmlSendingMessage: Preparing TX Slot:2005 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:54:58 cmlSendingMessage: Preparing TX Slot:2200 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:54:59 vdlTask: Rx MMSI:5102097 Slot:0 AbsSlot:144000 Channel:B Type:22 TOA:112 DCOffset:195
2018/11/06 13:54:59 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 13:54:59 deleteChannelAssignment: Channel Assgnmnt deleted count:1
2018/11/06 13:54:59 insertChannelAssignment: Chan 0 assignment deleted - overwritten
2018/11/06 13:54:59 insertChannelAssignment: Chan assgnmnt: 1 adjacent corners
2018/11/06 13:55:03 insertChannelAssignment: Channel magmt saved - index 0
2018/11/06 13:55:03 addChannelAssignmentToDB: Channel assignment added to DB
```

```
2018/11/06 13:55:07 vdlTask: Rx MMSI:5102097 Slot:280 AbsSlot:142030 Channel:B Type:4 TOA:112 DCOffset:300
2018/11/06 13:55:07 cmlSendingMessage: Preparing TX Slot:138 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:55:09 vdlTask: Rx MMSI:5102097 Slot:362 AbsSlot:142112 Channel:A Type:4 TOA:111 DCOffset:-419
2018/11/06 13:55:09 processChannelAssignment: Current zone:8 InTransition:N TranZone:8
2018/11/06 13:55:09 processChannelAssignment: Chann mgmt Chan A:2087
2018/11/06 13:55:09 processChannelAssignment: Chann mgmt Chan B:2088
2018/11/06 13:55:09 processChannelAssignment: NETWORK REENTRY
2018/11/06 13:55:09 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2088
2018/11/06 13:55:09 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2087
2018/11/06 13:55:09 setChannel: Channel A set to 2087
2018/11/06 13:55:10 setChannel: Channel B set to 2088
2018/11/06 13:55:12 cmlSendingMessage: Preparing TX Slot:337 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:55:17 cmlSendingMessage: Preparing TX Slot:518 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:55:18 cmlSendingMessage: Preparing TX Slot:566 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:55:23 cmlSendingMessage: Preparing TX Slot:757 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:55:27 cmlSendingMessage: Preparing TX Slot:893 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:55:29 cmlSendingMessage: Preparing TX Slot:947 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:55:29 vdlTask: Rx MMSI:5102097 Slot:959 AbsSlot:144959 Channel:B Type:4 TOA:112 DCOffset:293
2018/11/06 13:55:32 cmlSendingMessage: Preparing TX Slot:1076 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 13:55:33 cmlSendingMessage: Preparing TX Slot:1124 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 13:55:37 cmlSendingMessage: Preparing TX Slot:1273 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 13:55:39 cmlSendingMessage: Preparing TX Slot:1322 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 13:55:43 cmlSendingMessage: Preparing TX Slot:1474 ID:0 Time:16 rfChannel:2088 chann:A
```

Following moving 500Nm from the assignment regions the debug log showed the deletion of all assigned regional assignments:-

```
2018/11/06 14:12:39 cmlSendingMessage: Preparing TX Slot:1499 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 14:12:44 cmlSendingMessage: Preparing TX Slot:1692 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 14:12:48 vdlTask: Rx MMSI:5102097 Slot:1826 AbsSlot:181826 Channel:A Type:4 TOA:112 DCOffset:-404
2018/11/06 14:12:49 cmlSendingMessage: Preparing TX Slot:1857 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 14:12:54 cmlSendingMessage: Preparing TX Slot:2068 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:1
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
```

2018/11/06 14:12:55 deleteChannelAssignment: Channel Assignment deleted
2018/11/06 14:12:55 deleteChannelAssignment: Channel Assgnmnt deleted count:0
2018/11/06 14:12:55 processChannelAssignment: Current zone:8 InTransition:N TranZone:8
2018/11/06 14:12:58 cmlSendingMessage: Preparing TX Slot:2236 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 14:13:04 cmlSendingMessage: Preparing TX Slot:197 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 14:13:04 processChannelAssignment: Current zone:8 InTransition:N TranZone:8
2018/11/06 14:13:07 vdlTask: Rx MMSI:5102097 Slot:306 AbsSlot:182556 Channel:A Type:4 TOA:111 DCOffset:-424
2018/11/06 14:13:08 cmlSendingMessage: Preparing TX Slot:370 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 14:13:14 cmlSendingMessage: Preparing TX Slot:555 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 14:13:14 processChannelAssignment: Current zone:8 InTransition:N TranZone:8
2018/11/06 14:13:20 cmlSendingMessage: Preparing TX Slot:766 ID:0 Time:16 rfChannel:2088 chann:B

The AIS receiver showed the following message 18's received from the EUT:-

2018/18/06 14:18:00 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwuQl<01,0*41
2018/18/06 14:18:05 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwR1lH33,0*70
2018/18/06 14:18:10 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwTQlD01,0*18
2018/18/06 14:18:14 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwW1l0SJ,0*14
2018/18/06 14:18:19 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwaQlH;b,0*79
2018/18/06 14:18:24 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwd1l5i:,0*68
2018/18/06 14:18:30 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwg1l@Ai,0*66
2018/18/06 14:18:35 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwiQl5i9,0*06
2018/18/06 14:18:40 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwl1l<01,0*38
2018/18/06 14:18:45 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwnQl<01,0*59
2018/18/06 14:18:50 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwq1l@MQ,0*44
2018/18/06 14:18:55 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSws1l<01,0*24
2018/19/06 14:19:00 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwuQl802,0*46
2018/19/06 14:19:05 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwR1lD01,0*7D
2018/19/06 14:19:10 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwTQl@5p,0*58
2018/19/06 14:19:15 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwW1l<01,0*00
2018/19/06 14:19:19 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwaQlD01,0*2D
2018/19/06 14:19:24 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwd1l0SC,0*2E
2018/19/06 14:19:30 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwg1l<01,0*33
2018/19/06 14:19:35 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwiQl0Rn,0*6F
2018/19/06 14:19:40 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwl1l8Gb,0*18
2018/19/06 14:19:45 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwnQl8Jb,0*74
2018/19/06 14:19:50 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwq1l<01,0*25
2018/19/06 14:19:55 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSws1l8PB,0*33
2018/20/06 14:20:00 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwuQl5i<,0*1C
2018/20/06 14:20:05 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwR1l@33,0*78
2018/20/06 14:20:10 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwTQl<01,0*60
2018/20/06 14:20:15 !AIVDM,1,1,,A,B:gt39@1;80TWhHe5<1hSwW1l88s,0*4E
2018/20/06 14:20:19 !AIVDM,1,1,,B,B:gt39@1;80TWhHe5<1hSwaQl@;b,0*71
2018/20/06 14:20:25 !AIVDM,1,1,,A,B:gt39@1;80BCp7Brl1hSwd1l@>`,0*45
2018/20/06 14:20:30 !AIVDM,1,1,,B,B:gt39@1;80BCp7Brl1hSwfQl8Ai,0*2A
2018/20/06 14:20:34 !AIVDM,1,1,,A,B:gt39@1;80BCp7Brl1hSwi1l<01,0*6B

2018/20/06 14:20:40 !AIVDM,1,1,,B,B:gt39@1;80BCp7Brl1hSwl1l5iA,0*4D
2018/20/06 14:20:43 !AIVDM,1,1,,B,H:gt39@d58h0000000000000000,2*0D
2018/20/06 14:20:44 !AIVDM,1,1,,B,H:gt39DUooo4000;1B<0000@5554,0*01
2018/20/06 14:20:45 !AIVDM,1,1,,A,B:gt39@1;80BCp7Brl1hSwn1l5iA,0*4C
2018/20/06 14:20:50 !AIVDM,1,1,,B,B:gt39@1;81KSH7Brl1hSwpQl8MQ,0*28
2018/20/06 14:20:55 !AIVDM,1,1,,A,B:gt39@1;81KSH7Brl1hSws1l5i@,0*70
2018/21/06 14:21:00 !AIVDM,1,1,,B,B:gt39@1;81KSH7Brl1hSwuQl0S0,0*5A
2018/21/06 14:21:05 !AIVDM,1,1,,A,B:gt39@1;82Tjp7Brl1hSwR1l<01,0*6D
2018/21/06 14:21:10 !AIVDM,1,1,,B,B:gt39@1;82Tjp7Brl1hSwTQl85p,0*48
2018/21/06 14:21:15 !AIVDM,1,1,,A,B:gt39@1;82Tjp7Brl1hSwW1l5iE,0*4C
2018/21/06 14:21:20 !AIVDM,1,1,,B,B:gt39@1;83f2H7Brl1hSwaQl<01,0*6E
2018/21/06 14:21:25 !AIVDM,1,1,,A,B:gt39@1;83f2H7Brl1hSwd1l<01,0*08
2018/21/06 14:21:30 !AIVDM,1,1,,B,B:gt39@1;83f2H7Brl1hSwfQl5iE,0*4D
2018/21/06 14:21:34 !AIVDM,1,1,,A,B:gt39@1;83f2H7Brl1hSwi1l8DK,0*0F
2018/21/06 14:21:40 !AIVDM,1,1,,B,B:gt39@1;83f2H7Brl1hSwl1l0Ru,0*29
2018/21/06 14:21:45 !AIVDM,1,1,,A,B:gt39@1;83f2H7Brl1hSwnQl0Rk,0*56
2018/21/06 14:21:50 !AIVDM,1,1,,B,B:gt39@1;83f2H7Brl1hSwq1l5iE,0*3A
2018/21/06 14:21:55 !AIVDM,1,1,,A,B:gt39@1;83f2H7Brl1hSwrQl0S6,0*16
2018/21/06 14:21:59 !AIVDM,1,1,,B,B:gt39@1;83f2H7Brl1hSwu1lL01,0*6A
2018/22/06 14:22:05 !AIVDM,1,1,,A,B:gt39@1;84oAp7Brl1hSwR1l833,0*7E
2018/22/06 14:22:10 !AIVDM,1,1,,B,B:gt39@1;84oAp7Brl1hSwTQl5iI,0*36
2018/22/06 14:22:15 !AIVDM,1,1,,A,B:gt39@1;84oAp7Brl1hSwW1l0Rs,0*52
2018/22/06 14:22:20 !AIVDM,1,1,,B,B:gt39@1;84oAp7Brl1hSwaQl8;b,0*77
2018/22/06 14:22:25 !AIVDM,1,1,,A,B:gt39@1;84oAp7Brl1hSwd1l8>`,0*16
2018/22/06 14:22:30 !AIVDM,1,1,,B,B:gt39@1;84oAp7Brl1hSwfQl0S;,0*49
2018/22/06 14:22:34 !AIVDM,1,1,,A,B:gt39@1;860QH7Brl1hSwi1l5iI,0*1D
2018/22/06 14:22:40 !AIVDM,1,1,,B,B:gt39@1;860QH7Brl1hSwkQlHGM,0*2B
2018/22/06 14:22:44 !AIVDM,1,1,,A,B:gt39@1;860QH7Brl1hSwn1l@JC,0*46
2018/22/06 14:22:50 !AIVDM,1,1,,B,B:gt39@1;860QH7Brl1hSwpQl0S0,0*21
2018/22/06 14:22:55 !AIVDM,1,1,,A,B:gt39@1;860QH7Brl1hSws1l@P>,0*3C
2018/22/06 14:22:59 !AIVDM,1,1,,B,B:gt39@1;860QH7Brl1hSwuQlHS2,0*5E
2018/23/06 14:23:05 !AIVDM,1,1,,A,B:gt39@1;879hp7Brl1hSwR1l5iM,0*2B
2018/23/06 14:23:10 !AIVDM,1,1,,B,B:gt39@1;879hp7Brl1hSwTQl0S?,0*03
2018/23/06 14:23:14 !AIVDM,1,1,,A,B:gt39@1;879hp7Brl1hSwW1lH8d,0*2B
2018/23/06 14:23:19 !AIVDM,1,1,,B,B:gt39@1;879hp7Brl1hSwa1l5iM,0*1B
2018/23/06 14:23:25 !AIVDM,1,1,,A,B:gt39@1;879hp7Brl1hSwd1l5iM,0*1D
2018/23/06 14:23:30 !AIVDM,1,1,,B,B:gt39@1;879hp7Brl1hSwfQl<01,0*50
2018/23/06 14:23:34 !AIVDM,1,1,,A,B:gt39@1;88C0H7Brl1hSwi1l0S2,0*45
2018/23/06 14:23:40 !AIVDM,1,1,,B,B:gt39@1;88C0H7Brl1hSwkQlD01,0*30
2018/23/06 14:23:44 !AIVDM,1,1,,A,B:gt39@1;88C0H7Brl1hSwn1l<01,0*2E
2018/23/06 14:23:50 !AIVDM,1,1,,B,B:gt39@1;88C0H7Brl1hSwpQlL01,0*23
2018/23/06 14:23:55 !AIVDM,1,1,,A,B:gt39@1;88C0H7Brl1hSws1l<01,0*33
2018/23/06 14:23:59 !AIVDM,1,1,,B,B:gt39@1;88C0H7Brl1hSwuQlD01,0*2E
2018/24/06 14:24:05 !AIVDM,1,1,,A,B:gt39@1;8000075;r1hSwR1l0Rt,0*1A
2018/24/06 14:24:10 !AIVDM,1,1,,B,B:gt39@1;8000075;r1hSwTQlH5u,0*61
2018/24/06 14:24:14 !AIVDM,1,1,,A,B:gt39@1;8000075;r1hSwW1lD01,0*4C

2018/24/06 14:24:19 !AIVDM,1,1,,B,B:gt39@1;8000075;r1hSwaQl0S6,0*09

2018/24/06 14:24:25 !AIVDM,1,1,,A,B:gt39@1;8000075;r1hSwd1l0S5,0*6C

2018/24/06 14:24:30 !AIVDM,1,1,,B,B:gt39@1;8000075;r1hSwfQl8Aj,0*48

2018/24/06 14:24:34 !AIVDM,1,1,,A,B:gt39@1;8000075;r1hSwi1l<01,0*0A

2018/24/06 14:24:40 !AIVDM,1,1,,B,B:gt39@1;8000075;r1hSwkQl@GM,0*1C

2018/24/06 14:24:44 !AIVDM,1,1,,A,B:gt39@1;8000075;r1hSwn1l8JC,0*01

2018/24/06 14:24:50 !AIVDM,1,1,,B,B:gt39@1;8000075;r1hSwpQlHMG,0*0F

The VDO log recorded on the EUT serial port showed the following logged VDO message 18's. It is clear there were no channel changes, nor reporting interval changes over the transition period..

[2018-11-06 14:16:21.551] !AIVDO,1,1,0555,A,B:gt39@1;80TWhHe5<1hSwW1l88c,0*59

[2018-11-06 14:16:21.585] !AIVDO,1,1,0766,B,B:gt39@1;80TWhHe5<1hSwb1l5i0,0*62

[2018-11-06 14:16:24.621] !AIVDO,1,1,0927,A,B:gt39@1;80TWhHe5<1hSwd1l<01,0*3D

[2018-11-06 14:16:29.995] !AIVDO,1,1,1125,B,B:gt39@1;80TWhHe5<1hSwfQl0SF,0*4F

[2018-11-06 14:16:35.225] !AIVDO,1,1,1327,A,B:gt39@1;80TWhHe5<1hSwiQl<01,0*5B

[2018-11-06 14:16:40.224] !AIVDO,1,1,1514,B,B:gt39@1;80TWhHe5<1hSwl1lD01,0*43

[2018-11-06 14:16:45.088] !AIVDO,1,1,1692,A,B:gt39@1;80TWhHe5<1hSwn1l0SH,0*21

[2018-11-06 14:16:49.490] !AIVDO,1,1,1859,B,B:gt39@1;80TWhHe5<1hSwpQl5i0,0*12

[2018-11-06 14:16:55.091] !AIVDO,1,1,2066,A,B:gt39@1;80TWhHe5<1hSws1lD01,0*5C

[2018-11-06 14:17:00.037] !AIVDO,1,1,0002,B,B:gt39@1;80TWhHe5<1hSwuQl@02,0*3E

[2018-11-06 14:17:05.093] !AIVDO,1,1,0197,A,B:gt39@1;80TWhHe5<1hSwR1l0S8,0*6E

[2018-11-06 14:17:10.090] !AIVDO,1,1,0376,B,B:gt39@1;80TWhHe5<1hSwTQlH5p,0*50

[2018-11-06 14:17:15.092] !AIVDO,1,1,0555,A,B:gt39@1;80TWhHe5<1hSwW1l5i5,0*53

[2018-11-06 14:17:20.217] !AIVDO,1,1,0766,B,B:gt39@1;80TWhHe5<1hSwb1l0Rn,0*02

[2018-11-06 14:17:24.485] !AIVDO,1,1,0927,A,B:gt39@1;80TWhHe5<1hSwd1l8>O,0*49

[2018-11-06 14:17:30.080] !AIVDO,1,1,1137,B,B:gt39@1;80TWhHe5<1hSwg1lD01,0*4D

[2018-11-06 14:17:35.281] !AIVDO,1,1,1327,A,B:gt39@1;80TWhHe5<1hSwiQl8Dg,0*7D

[2018-11-06 14:17:40.152] !AIVDO,1,1,1514,B,B:gt39@1;80TWhHe5<1hSwl1l@Gb,0*63

[2018-11-06 14:17:45.363] !AIVDO,1,1,1706,A,B:gt39@1;80TWhHe5<1hSwnQl@Jb,0*0E

[2018-11-06 14:17:49.439] !AIVDO,1,1,1859,B,B:gt39@1;80TWhHe5<1hSwpQl0S`,0*7D

[2018-11-06 14:17:55.094] !AIVDO,1,1,2066,A,B:gt39@1;80TWhHe5<1hSws1l@PB,0*4B

[2018-11-06 14:18:00.090] !AIVDO,1,1,0002,B,B:gt39@1;80TWhHe5<1hSwuQl<01,0*41

[2018-11-06 14:18:05.106] !AIVDO,1,1,0195,A,B:gt39@1;80TWhHe5<1hSwR1lH33,0*7F

[2018-11-06 14:18:09.769] !AIVDO,1,1,0376,B,B:gt39@1;80TWhHe5<1hSwTQlD01,0*18

[2018-11-06 14:18:14.639] !AIVDO,1,1,0555,A,B:gt39@1;80TWhHe5<1hSwW1l0SJ,0*13

[2018-11-06 14:18:19.635] !AIVDO,1,1,0746,B,B:gt39@1;80TWhHe5<1hSwaQlH;b,0*7E

[2018-11-06 14:18:24.540] !AIVDO,1,1,0927,A,B:gt39@1;80TWhHe5<1hSwd1l5i:,0*66

[2018-11-06 14:18:30.067] !AIVDO,1,1,1137,B,B:gt39@1;80TWhHe5<1hSwg1l@Ai,0*60

[2018-11-06 14:18:35.218] !AIVDO,1,1,1327,A,B:gt39@1;80TWhHe5<1hSwiQl5i9,0*03

[2018-11-06 14:18:40.211] !AIVDO,1,1,1514,B,B:gt39@1;80TWhHe5<1hSwl1l<01,0*3B

[2018-11-06 14:18:45.238] !AIVDO,1,1,1706,A,B:gt39@1;80TWhHe5<1hSwnQl<01,0*5B

[2018-11-06 14:18:50.217] !AIVDO,1,1,1889,B,B:gt39@1;80TWhHe5<1hSwq1l@MQ,0*4E

[2018-11-06 14:18:54.837] !AIVDO,1,1,2066,A,B:gt39@1;80TWhHe5<1hSws1l<01,0*24

[2018-11-06 14:18:59.799] !AIVDO,1,1,0002,B,B:gt39@1;80TWhHe5<1hSwuQl802,0*46

[2018-11-06 14:19:04.942] !AIVDO,1,1,0195,A,B:gt39@1;80TWhHe5<1hSwR1lD01,0*72

[2018-11-06 14:19:09.828] !AIVDO,1,1,0376,B,B:gt39@1;80TWhHe5<1hSwTQl@5p,0*58
[2018-11-06 14:19:14.995] !AIVDO,1,1,0571,A,B:gt39@1;80TWhHe5<1hSwW1l<01,0*01
[2018-11-06 14:19:19.884] !AIVDO,1,1,0746,B,B:gt39@1;80TWhHe5<1hSwaQlD01,0*2A
[2018-11-06 14:19:24.508] !AIVDO,1,1,0927,A,B:gt39@1;80TWhHe5<1hSwd1l0SC,0*20
[2018-11-06 14:19:30.067] !AIVDO,1,1,1137,B,B:gt39@1;80TWhHe5<1hSwg1l<01,0*35
[2018-11-06 14:19:35.211] !AIVDO,1,1,1327,A,B:gt39@1;80TWhHe5<1hSwiQl0Rn,0*6A
[2018-11-06 14:19:40.202] !AIVDO,1,1,1514,B,B:gt39@1;80TWhHe5<1hSwl1l8Gb,0*1B
[2018-11-06 14:19:45.369] !AIVDO,1,1,1706,A,B:gt39@1;80TWhHe5<1hSwnQl8Jb,0*76
[2018-11-06 14:19:50.153] !AIVDO,1,1,1889,B,B:gt39@1;80TWhHe5<1hSwq1l<01,0*2F
[2018-11-06 14:19:55.096] !AIVDO,1,1,2066,A,B:gt39@1;80TWhHe5<1hSws1l8PB,0*33
[2018-11-06 14:20:00.101] !AIVDO,1,1,0002,B,B:gt39@1;80TWhHe5<1hSwuQl5i<,0*1C
[2018-11-06 14:20:05.096] !AIVDO,1,1,0195,A,B:gt39@1;80TWhHe5<1hSwR1l@33,0*77
[2018-11-06 14:20:10.090] !AIVDO,1,1,0376,B,B:gt39@1;80TWhHe5<1hSwTQl<01,0*60
[2018-11-06 14:20:15.096] !AIVDO,1,1,0571,A,B:gt39@1;80TWhHe5<1hSwW1l88s,0*4F
[2018-11-06 14:20:20.093] !AIVDO,1,1,0746,B,B:gt39@1;80TWhHe5<1hSwaQl@;b,0*76
[2018-11-06 14:20:25.081] !AIVDO,1,1,0936,A,B:gt39@1;80BCp7Brl1hSwd1l@>`,0*4B
[2018-11-06 14:20:30.062] !AIVDO,1,1,1137,B,B:gt39@1;80BCp7Brl1hSwfQl8Ai,0*2C
[2018-11-06 14:20:35.035] !AIVDO,1,1,1307,A,B:gt39@1;80BCp7Brl1hSwi1l<01,0*6C
[2018-11-06 14:20:40.150] !AIVDO,1,1,1514,B,B:gt39@1;80BCp7Brl1hSwl1l5iA,0*4E
[2018-11-06 14:20:45.426] !AIVDO,1,1,1706,A,B:gt39@1;80BCp7Brl1hSwn1l5iA,0*4E
[2018-11-06 14:20:50.159] !AIVDO,1,1,1889,B,B:gt39@1;81KSH7Brl1hSwpQl8MQ,0*22
[2018-11-06 14:20:55.168] !AIVDO,1,1,2066,A,B:gt39@1;81KSH7Brl1hSws1l5i@,0*70
[2018-11-06 14:21:00.169] !AIVDO,1,1,0002,B,B:gt39@1;81KSH7Brl1hSwuQl0S0,0*5A
[2018-11-06 14:21:05.173] !AIVDO,1,1,0195,A,B:gt39@1;82Tjp7Brl1hSwR1l<01,0*62
[2018-11-06 14:21:10.174] !AIVDO,1,1,0376,B,B:gt39@1;82Tjp7Brl1hSwTQl85p,0*48
[2018-11-06 14:21:15.364] !AIVDO,1,1,0571,A,B:gt39@1;82Tjp7Brl1hSwW1l5iE,0*4D
[2018-11-06 14:21:20.050] !AIVDO,1,1,0746,B,B:gt39@1;83f2H7Brl1hSwaQl<01,0*69
[2018-11-06 14:21:24.699] !AIVDO,1,1,0936,A,B:gt39@1;83f2H7Brl1hSwd1l<01,0*06
[2018-11-06 14:21:30.063] !AIVDO,1,1,1137,B,B:gt39@1;83f2H7Brl1hSwfQl5iE,0*4B
[2018-11-06 14:21:34.658] !AIVDO,1,1,1307,A,B:gt39@1;83f2H7Brl1hSwi1l8DK,0*08
[2018-11-06 14:21:40.216] !AIVDO,1,1,1514,B,B:gt39@1;83f2H7Brl1hSwl1l0Ru,0*2A
[2018-11-06 14:21:45.236] !AIVDO,1,1,1706,A,B:gt39@1;83f2H7Brl1hSwnQl0Rk,0*54
[2018-11-06 14:21:50.293] !AIVDO,1,1,1889,B,B:gt39@1;83f2H7Brl1hSwq1l5iE,0*30
[2018-11-06 14:21:55.025] !AIVDO,1,1,2066,A,B:gt39@1;83f2H7Brl1hSwrQl0S6,0*16
[2018-11-06 14:21:59.542] !AIVDO,1,1,2242,B,B:gt39@1;83f2H7Brl1hSwu1lL01,0*6E
[2018-11-06 14:22:05.118] !AIVDO,1,1,0195,A,B:gt39@1;84oAp7Brl1hSwR1l833,0*71
[2018-11-06 14:22:09.771] !AIVDO,1,1,0376,B,B:gt39@1;84oAp7Brl1hSwTQl5iI,0*36
[2018-11-06 14:22:14.968] !AIVDO,1,1,0571,A,B:gt39@1;84oAp7Brl1hSwW1l0Rs,0*53
[2018-11-06 14:22:19.822] !AIVDO,1,1,0746,B,B:gt39@1;84oAp7Brl1hSwaQl8;b,0*70
[2018-11-06 14:22:24.846] !AIVDO,1,1,0936,A,B:gt39@1;84oAp7Brl1hSwd1l8>`,0*18
[2018-11-06 14:22:30.144] !AIVDO,1,1,1137,B,B:gt39@1;84oAp7Brl1hSwfQl0S;,0*4F
[2018-11-06 14:22:34.898] !AIVDO,1,1,1307,A,B:gt39@1;860QH7Brl1hSwi1l5iI,0*1A
[2018-11-06 14:22:39.928] !AIVDO,1,1,1501,B,B:gt39@1;860QH7Brl1hSwkQlHGM,0*2C
[2018-11-06 14:22:44.951] !AIVDO,1,1,1683,A,B:gt39@1;860QH7Brl1hSwn1l@JC,0*48
[2018-11-06 14:22:50.172] !AIVDO,1,1,1889,B,B:gt39@1;860QH7Brl1hSwpQl0S0,0*2B
[2018-11-06 14:22:55.003] !AIVDO,1,1,2062,A,B:gt39@1;860QH7Brl1hSws1l@P>,0*38

[2018-11-06 14:23:00.192] !AIVDO,1,1,2242,B,B:gt39@1;860QH7Brl1hSwuQlHS2,0*5A
[2018-11-06 14:23:05.084] !AIVDO,1,1,0195,A,B:gt39@1;879hp7Brl1hSwR1l5iM,0*24
[2018-11-06 14:23:10.117] !AIVDO,1,1,0376,B,B:gt39@1;879hp7Brl1hSwTQl0S?,0*03
[2018-11-06 14:23:15.088] !AIVDO,1,1,0556,A,B:gt39@1;879hp7Brl1hSwW1lH8d,0*2F
[2018-11-06 14:23:20.085] !AIVDO,1,1,0746,B,B:gt39@1;879hp7Brl1hSwa1l5iM,0*1C
[2018-11-06 14:23:25.035] !AIVDO,1,1,0936,A,B:gt39@1;879hp7Brl1hSwd1l5iM,0*13
[2018-11-06 14:23:30.213] !AIVDO,1,1,1138,B,B:gt39@1;879hp7Brl1hSwfQl<01,0*59
[2018-11-06 14:23:35.177] !AIVDO,1,1,1307,A,B:gt39@1;88C0H7Brl1hSwi1l0S2,0*42
[2018-11-06 14:23:40.187] !AIVDO,1,1,1501,B,B:gt39@1;88C0H7Brl1hSwkQlD01,0*37
[2018-11-06 14:23:45.174] !AIVDO,1,1,1683,A,B:gt39@1;88C0H7Brl1hSwn1l<01,0*20
[2018-11-06 14:23:50.168] !AIVDO,1,1,1879,B,B:gt39@1;88C0H7Brl1hSwpQlL01,0*26
[2018-11-06 14:23:55.174] !AIVDO,1,1,2062,A,B:gt39@1;88C0H7Brl1hSws1l<01,0*37
[2018-11-06 14:24:00.185] !AIVDO,1,1,2242,B,B:gt39@1;88C0H7Brl1hSwuQlD01,0*2A
[2018-11-06 14:24:05.175] !AIVDO,1,1,0195,A,B:gt39@1;8000075;r1hSwR1l0Rt,0*15
[2018-11-06 14:24:10.170] !AIVDO,1,1,0381,B,B:gt39@1;8000075;r1hSwTQlH5u,0*69
[2018-11-06 14:24:15.173] !AIVDO,1,1,0556,A,B:gt39@1;8000075;r1hSwW1lD01,0*48
[2018-11-06 14:24:20.175] !AIVDO,1,1,0746,B,B:gt39@1;8000075;r1hSwaQl0S6,0*0E
[2018-11-06 14:24:25.171] !AIVDO,1,1,0936,A,B:gt39@1;8000075;r1hSwd1l0S5,0*62
[2018-11-06 14:24:30.153] !AIVDO,1,1,1138,B,B:gt39@1;8000075;r1hSwfQl8Aj,0*41
[2018-11-06 14:24:34.527] !AIVDO,1,1,1299,A,B:gt39@1;8000075;r1hSwi1l<01,0*0B
[2018-11-06 14:24:39.766] !AIVDO,1,1,1501,B,B:gt39@1;8000075;r1hSwkQl@GM,0*1B
[2018-11-06 14:24:44.633] !AIVDO,1,1,1683,A,B:gt39@1;8000075;r1hSwn1l8JC,0*0F

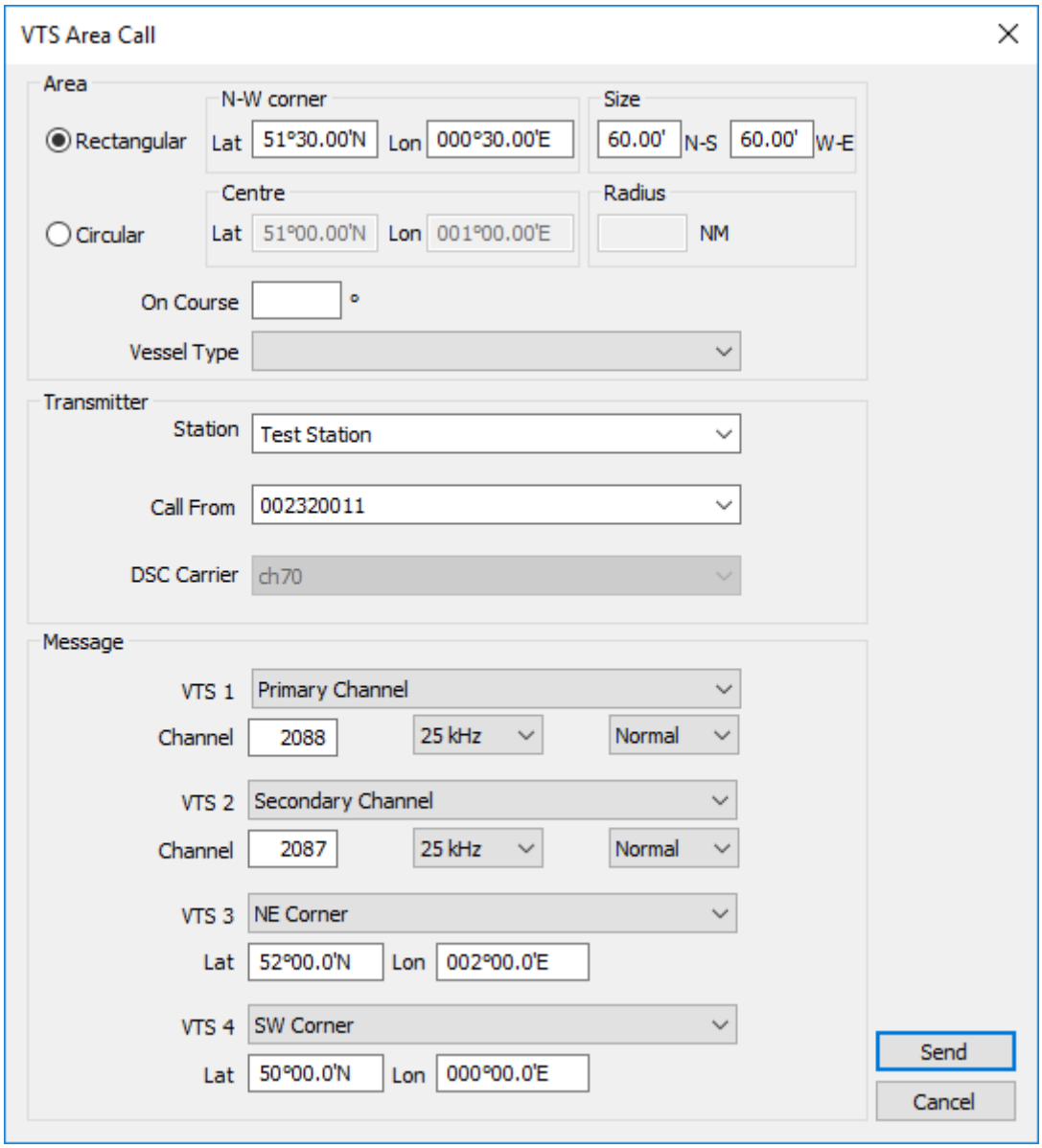
A1.7

The EUT was fed from a GPS simulator positioned at 51°N 1°E and with a course over ground of 30 Knots. The EUT was operating in autonomous mode.

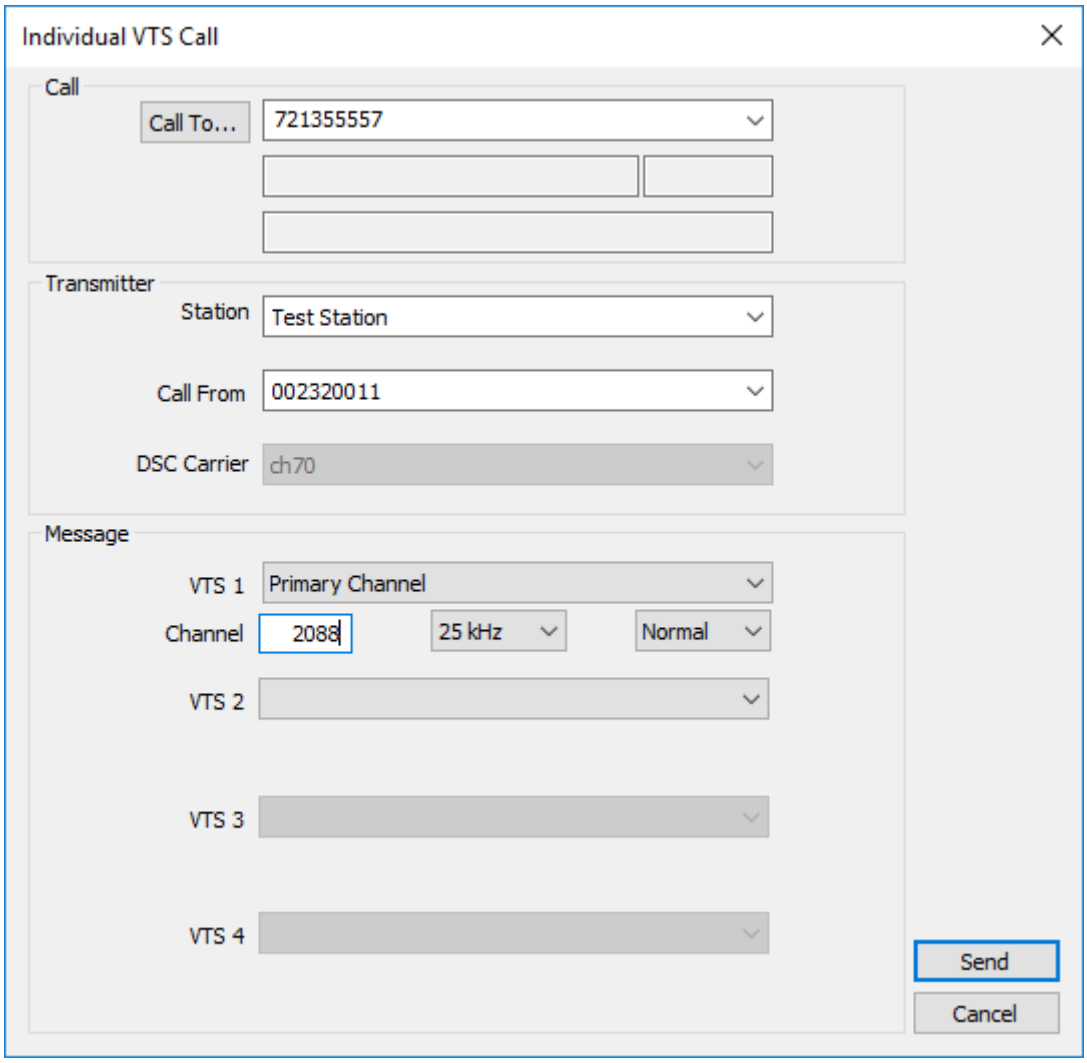
A DSC VTS broadcast message was sent with the EUT within the addressed region and the VTS settings as follows using the ICS DSC Workstation at 15:41:30 on 06/11/2018:-

Msg22/DSC	Region N/S	Region E/W	Channel A	Channel B
DSC VTS	50°N - 52°N	0°E – 2°E	2088	2087

The DSC message on the ICS workstation was as follows:-



The following DSC message was sent to the EUT to force the EUT into single channel operation at “15:59:36 06/11/2018”:-



The EUT was moved to address 49°50N 0°E at “16:20:00 06/11/2018” which is 155 Nautical miles from the nearest edge of the regional assignment.

The EUT debug log showed the reception of the DSC message and the changing of channels on detection of it being within the regional assignment:-

2018/11/06 15:41:14 cmlSendingMessage: Preparing TX Slot:591 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 15:41:19 cmlSendingMessage: Preparing TX Slot:790 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 15:41:24 cmlSendingMessage: Preparing TX Slot:947 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 15:41:29 cmlSendingMessage: Preparing TX Slot:1160 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 15:41:31 decodeDscBroadcastChannelManagement: DSC Broadcast msg OK
2018/11/06 15:41:31 insertChannelAssignment: Chan assgnmnt: 0 adjacent corners
2018/11/06 15:41:31 insertChannelAssignment: Channel magmt saved - index 0
2018/11/06 15:41:31 addChannelAssignmentToDB: Channel assignment added to DB
2018/11/06 15:41:32 processChannelAssignment: Current zone:0 InTransition:N TranZone:0
2018/11/06 15:41:32 processChannelAssignment: Chann mgmt Chan A:2088
2018/11/06 15:41:32 processChannelAssignment: Chann mgmt Chan B:2087
2018/11/06 15:41:32 processChannelAssignment: NETWORK REENTRY

2018/11/06 15:41:32 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2087
2018/11/06 15:41:32 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2088
2018/11/06 15:41:32 setChannel: Channel A set to 2088
2018/11/06 15:41:32 setChannel: Channel B set to 2087
2018/11/06 15:41:34 cmlSendingMessage: Preparing TX Slot:1331 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 15:41:38 cmlSendingMessage: Preparing TX Slot:1496 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 15:41:39 cmlSendingMessage: Preparing TX Slot:1516 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 15:41:43 cmlSendingMessage: Preparing TX Slot:1678 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:41:44 cmlSendingMessage: Preparing TX Slot:1721 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 15:41:48 cmlSendingMessage: Preparing TX Slot:1866 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 15:41:49 cmlSendingMessage: Preparing TX Slot:1884 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 15:41:53 cmlSendingMessage: Preparing TX Slot:2053 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:41:54 cmlSendingMessage: Preparing TX Slot:2092 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 15:41:58 cmlSendingMessage: Preparing TX Slot:2238 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 15:41:58 cmlSendingMessage: Preparing TX Slot:7 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 15:42:03 cmlSendingMessage: Preparing TX Slot:159 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:42:03 setReceiverMode: DSC OFF
2018/11/06 15:42:05 cmlSendingMessage: Preparing TX Slot:212 ID:0 Time:16 rfChannel:2088 chann:B

Following the change, and timeout of messages, the AIS receiver showed the following message 18's received:-

2018/45/06 15:45:25 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwd1l8>d,0*1C
2018/45/06 15:45:29 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwfQl@A@,0*5E
2018/45/06 15:45:34 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwi1l@DE,0*32
2018/45/06 15:45:39 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwkQl5rl,0*39
2018/45/06 15:45:44 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwn1l8J>,0*38
2018/45/06 15:45:49 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwpQl0Rj,0*01
2018/45/06 15:45:54 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSws1l8P5,0*34
2018/45/06 15:45:59 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwuQl8Rv,0*10
2018/46/06 15:46:04 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwQQl<01,0*16
2018/46/06 15:46:09 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwTQl0Rw,0*38
2018/46/06 15:46:14 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwW1l<01,0*70
2018/46/06 15:46:19 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwaQl@;V,0*35
2018/46/06 15:46:25 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwd1l5rq,0*48
2018/46/06 15:46:29 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwfQl<01,0*22
2018/46/06 15:46:34 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwi1l<01,0*4E
2018/46/06 15:46:39 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwkQl0S7,0*46
2018/46/06 15:46:44 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwn1l5rp,0*43
2018/46/06 15:46:49 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwp1lD01,0*2C
2018/46/06 15:46:54 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSws1l5rs,0*5D
2018/46/06 15:46:59 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwuQl5rq,0*3A
2018/47/06 15:47:04 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwQQl82O,0*6E
2018/47/06 15:47:09 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwT1lH5K,0*7B
2018/47/06 15:47:14 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwW1l88U,0*18
2018/47/06 15:47:19 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwaQl<01,0*25

2018/47/06 15:47:25 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwd1l0Rg,0*7B

2018/47/06 15:47:29 !AIVDM,1,1,,A,B:gt39@1;819?P7Brl1hSwfQl8A@,0*26

And the EUT serial VDO log recorded the following messages:-

[2018-11-06 15:45:25.103] !AIVDO,1,1,0940,A,B:gt39@1;819?P7Brl1hSwd1l8>d,0*10

[2018-11-06 15:45:29.309] !AIVDO,1,1,1104,B,B:gt39@1;819?P7Brl1hSwfQl@A@,0*5B

[2018-11-06 15:45:34.509] !AIVDO,1,1,1301,A,B:gt39@1;819?P7Brl1hSwi1l@DE,0*30

[2018-11-06 15:45:40.097] !AIVDO,1,1,1496,B,B:gt39@1;819?P7Brl1hSwkQl5rl,0*32

[2018-11-06 15:45:44.468] !AIVDO,1,1,1678,A,B:gt39@1;819?P7Brl1hSwn1l8J>,0*31

[2018-11-06 15:45:50.080] !AIVDO,1,1,1866,B,B:gt39@1;819?P7Brl1hSwpQl0Rj,0*09

[2018-11-06 15:45:54.418] !AIVDO,1,1,2053,A,B:gt39@1;819?P7Brl1hSws1l8P5,0*31

[2018-11-06 15:45:59.351] !AIVDO,1,1,2238,B,B:gt39@1;819?P7Brl1hSwuQl8Rv,0*1A

[2018-11-06 15:46:03.944] !AIVDO,1,1,0159,A,B:gt39@1;819?P7Brl1hSwQQl<01,0*1A

[2018-11-06 15:46:09.263] !AIVDO,1,1,0358,B,B:gt39@1;819?P7Brl1hSwTQl0Rw,0*37

[2018-11-06 15:46:14.357] !AIVDO,1,1,0549,A,B:gt39@1;819?P7Brl1hSwW1l<01,0*79

[2018-11-06 15:46:19.567] !AIVDO,1,1,0742,B,B:gt39@1;819?P7Brl1hSwaQl@;V,0*35

[2018-11-06 15:46:24.739] !AIVDO,1,1,0940,A,B:gt39@1;819?P7Brl1hSwd1l5rq,0*44

[2018-11-06 15:46:29.160] !AIVDO,1,1,1104,B,B:gt39@1;819?P7Brl1hSwfQl<01,0*27

[2018-11-06 15:46:34.427] !AIVDO,1,1,1301,A,B:gt39@1;819?P7Brl1hSwi1l<01,0*4C

[2018-11-06 15:46:39.562] !AIVDO,1,1,1496,B,B:gt39@1;819?P7Brl1hSwkQl0S7,0*4D

[2018-11-06 15:46:44.554] !AIVDO,1,1,1678,A,B:gt39@1;819?P7Brl1hSwn1l5rp,0*4A

[2018-11-06 15:46:48.787] !AIVDO,1,1,1842,B,B:gt39@1;819?P7Brl1hSwp1lD01,0*22

[2018-11-06 15:46:54.420] !AIVDO,1,1,2053,A,B:gt39@1;819?P7Brl1hSws1l5rs,0*58

[2018-11-06 15:46:59.440] !AIVDO,1,1,2238,B,B:gt39@1;819?P7Brl1hSwuQl5rq,0*30

[2018-11-06 15:47:03.909] !AIVDO,1,1,0159,A,B:gt39@1;819?P7Brl1hSwQQl82O,0*62

[2018-11-06 15:47:09.089] !AIVDO,1,1,0347,B,B:gt39@1;819?P7Brl1hSwT1lH5K,0*7A

[2018-11-06 15:47:13.891] !AIVDO,1,1,0530,C,K:gt39Oh2F3g4?;@,0*3F

[2018-11-06 15:47:14.394] !AIVDO,1,1,0549,A,B:gt39@1;819?P7Brl1hSwW1l88U,0*11

[2018-11-06 15:47:19.696] !AIVDO,1,1,0742,B,B:gt39@1;819?P7Brl1hSwaQl<01,0*25

[2018-11-06 15:47:24.738] !AIVDO,1,1,0940,A,B:gt39@1;819?P7Brl1hSwd1l0Rg,0*77

[2018-11-06 15:47:29.172] !AIVDO,1,1,1104,B,B:gt39@1;819?P7Brl1hSwfQl8A@,0*23

As the channels were reversed it is clear that EUT messages recorded as sent on channel A were received by the AIS receiver on channel B and EUT messages recorded as sent on channel B were received by the AIS receiver on channel A.

The EUT debug log shows reception of the addressed DSC message, changing the regional assignment data and the device timing out messages on channel B:-

2018/11/06 15:57:29 cmlSendingMessage: Preparing TX Slot:1120 ID:0 Time:16 rfChannel:2087 chann:B

2018/11/06 15:57:34 cmlSendingMessage: Preparing TX Slot:1290 ID:0 Time:16 rfChannel:2088 chann:A

2018/11/06 15:57:36 decodeDscAddressedChannelManagement: DSC Addr msg to 721355557

2018/11/06 15:57:36 deleteChannelAssignment: Channel Assgnmnt 0 deleted

2018/11/06 15:57:36 deleteChannelAssignment: Channel Assgnmnt count:0

2018/11/06 15:57:36 insertChannelAssignment: Chan 0 assignment deleted - overwritten

2018/11/06 15:57:36 insertChannelAssignment: Channel magmt saved - index 0
2018/11/06 15:57:36 addChannelAssignmentToDB: Channel assignment added to DB
2018/11/06 15:57:38 processChannelAssignment: Current zone:0 InTransition:N TranZone:0
2018/11/06 15:57:38 processChannelAssignment: NETWORK REENTRY
2018/11/06 15:57:38 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2088
2018/11/06 15:57:38 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2087
2018/11/06 15:57:39 cmlSendingMessage: Preparing TX Slot:1490 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 15:57:42 cmlSendingMessage: Preparing TX Slot:1621 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:57:44 cmlSendingMessage: Preparing TX Slot:1661 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:57:48 cmlSendingMessage: Preparing TX Slot:1818 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:57:49 cmlSendingMessage: Preparing TX Slot:1855 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 15:57:53 cmlSendingMessage: Preparing TX Slot:2000 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:57:53 cmlSendingMessage: Preparing TX Slot:2035 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:57:58 cmlSendingMessage: Preparing TX Slot:2186 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:57:58 cmlSendingMessage: Preparing TX Slot:2221 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 15:58:02 cmlSendingMessage: Preparing TX Slot:113 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:58:04 cmlSendingMessage: Preparing TX Slot:162 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:58:07 cmlSendingMessage: Preparing TX Slot:303 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 15:58:09 setReceiverMode: DSC OFF
2018/11/06 15:58:09 cmlSendingMessage: Preparing TX Slot:371 ID:0 Time:16 rfChannel:2087 chann:B

The AIS receiver log below shows the unit was only receiving messages on channel B, which was channel 2087, the EUT channel A as expected:-

2018/02/06 16:02:33 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwhQl@CW,0*46
2018/02/06 16:02:37 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwjQl609,0*2F
2018/02/06 16:02:43 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwmQlL01,0*5A
2018/02/06 16:02:48 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwp1l609,0*55
2018/02/06 16:02:53 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwr1l<01,0*55
2018/02/06 16:02:58 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwtQl608,0*30
2018/03/06 16:03:03 !AIVDM,1,1,,B,B:gt39@1;819?P7Brl1hSwQ1l<01,0*76

The log shows the EUT re-entering the network with both AIS channels A and B defaulting to 2087 and 2088 respectively:-

2018/11/06 16:20:34 cmlSendingMessage: Preparing TX Slot:1309 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 16:20:36 processChannelAssignment: Current zone:8 InTransition:N TranZone:8
2018/11/06 16:20:36 processChannelAssignment: Chann mgmt Chan A:2087
2018/11/06 16:20:36 processChannelAssignment: Chann mgmt Chan B:2088
2018/11/06 16:20:36 processChannelAssignment: NETWORK REENTRY
2018/11/06 16:20:36 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2088
2018/11/06 16:20:36 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2087
2018/11/06 16:20:36 setChannel: Channel A set to 2087
2018/11/06 16:20:36 setChannel: Channel B set to 2088
2018/11/06 16:20:38 cmlSendingMessage: Preparing TX Slot:1488 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 16:20:44 cmlSendingMessage: Preparing TX Slot:1670 ID:0 Time:16 rfChannel:2088 chann:A

2018/11/06 16:20:44 cmlSendingMessage: Preparing TX Slot:1712 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:20:48 vdlTask: Rx MMSI:5102097 Slot:1809 AbsSlot:143559 Channel:A Type:4 TOA:111 DCOffset:-368
2018/11/06 16:20:49 cmlSendingMessage: Preparing TX Slot:1867 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 16:20:49 cmlSendingMessage: Preparing TX Slot:1880 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:20:54 cmlSendingMessage: Preparing TX Slot:2054 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 16:20:54 cmlSendingMessage: Preparing TX Slot:2070 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:20:59 cmlSendingMessage: Preparing TX Slot:2232 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 16:21:00 cmlSendingMessage: Preparing TX Slot:29 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:21:03 cmlSendingMessage: Preparing TX Slot:185 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 16:21:05 cmlSendingMessage: Preparing TX Slot:206 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:21:06 setReceiverMode: DSC Channel B

The AIS receiver shows the EUT performing network entry on both AIS channels and returning to normal operation:-

2018/21/06 16:21:04 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwQQl000,0*19
2018/21/06 16:21:05 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwRQn1Ii,0*39
2018/21/06 16:21:09 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwT1l000,0*7C
2018/21/06 16:21:10 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwTQn1L1,0*61
2018/21/06 16:21:14 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwW1l000,0*7F
2018/21/06 16:21:15 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwW1n1TA,0*69
2018/21/06 16:21:19 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwaQl000,0*29
2018/21/06 16:21:20 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwaQn1M1,0*55
2018/21/06 16:21:24 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwcQl000,0*2B
2018/21/06 16:21:25 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwdQn1Ei,0*03
2018/21/06 16:21:29 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwfQl000,0*2E
2018/21/06 16:21:30 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwfQn1Ni,0*09
2018/21/06 16:21:34 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwi1l000,0*41
2018/21/06 16:21:40 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwkQn001,0*23
2018/21/06 16:21:45 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwnQl<01,0*2B
2018/21/06 16:21:50 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwpQl<01,0*36
2018/21/06 16:21:55 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSws1lHPF,0*35
2018/22/06 16:22:00 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwP1l@0M,0*76
2018/22/06 16:22:05 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwR1lH3>,0*0F
2018/22/06 16:22:10 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwU1lH6:,0*0A
2018/22/06 16:22:15 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwW1l<01,0*72
2018/22/06 16:22:20 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwaQlH;r,0*1B
2018/22/06 16:22:25 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwdQlD01,0*59
2018/22/06 16:22:30 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwfQlHAf,0*72
2018/22/06 16:22:40 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwkQlD01,0*55
2018/22/06 16:22:45 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwnQl8Jh,0*0C
2018/22/06 16:22:50 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwp1l8MH,0*56
2018/22/06 16:22:55 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSws1lD01,0*2E
2018/23/06 16:23:00 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwuQl<01,0*33
2018/23/06 16:23:10 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwU1lD01,0*0B

2018/23/06 16:23:15 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwW1l88m,0*22

2018/23/06 16:23:20 !AIVDM,1,1,,A,B:gt39@1;8000078?>1hSwaQlD01,0*5F

2018/23/06 16:23:25 !AIVDM,1,1,,B,B:gt39@1;8000078?>1hSwdQl@?6,0*55

A1.8

The EUT was running in autonomous mode using a GPS simulator at position 49°N 0°30'E with course over ground of 30 knots (resulting in a reporting rate of 5 seconds).

Three DSC VTS geographically addressed messages were scheduled for transmission when the EUT would be monitoring as specified in Table 8 Overlapping geographical regions).

Time sent	Region N/S	Region E/W	Channel A	Channel B
16:45:30	50°N - 52°N	0°E - 1°E	2088	2087
16:47:30	50°N - 52°N	1°E - 2°E	2088	2087
16:49:30	48°N - 50°N	0°E - 1°E	2088	2087

Table 8 Overlapping geographical regions

The EUT VDO log, debug log and AIS receiver were monitored throughout this period.

The EUT was first moved to location 51°N 0°30'E at "17:13:00 06/11/2018" and the EUT log, EUT serial log and an AIS receiver used to record device operation.

The EUT was then moved to location 51°N 1°30'E at "17:14:00 06/11/2018" and the EUT log, EUT serial log and an AIS receiver used to record device operation.

The EUT debug log recorded the following showing the reception of the three messages and the saving of the first two and skipping of the third due to adjacent corner count, the Tx log was unaltered during this period:-

2018/11/06 16:44:55 cmlSendingMessage: Preparing TX Slot:2109 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:00 cmlSendingMessage: Preparing TX Slot:34 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 16:45:03 setReceiverMode: DSC Channel B

2018/11/06 16:45:05 cmlSendingMessage: Preparing TX Slot:224 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:10 cmlSendingMessage: Preparing TX Slot:394 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 16:45:15 cmlSendingMessage: Preparing TX Slot:612 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:20 cmlSendingMessage: Preparing TX Slot:775 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 16:45:25 cmlSendingMessage: Preparing TX Slot:966 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:25 cmlSendingMessage: Preparing TX Slot:987 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:27 cmlSendingMessage: Preparing TX Slot:1047 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:30 cmlSendingMessage: Preparing TX Slot:1146 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 16:45:31 decodeDscBroadcastChannelManagement: DSC Broadcast msg OK

2018/11/06 16:45:31 insertChannelAssignment: Chan assgnmnt: 0 adjacent corners

2018/11/06 16:45:31 insertChannelAssignment: Channel magmt saved - index 0

2018/11/06 16:45:31 addChannelAssignmentToDB: Channel assignment added to DB

2018/11/06 16:45:35 cmlSendingMessage: Preparing TX Slot:1348 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 16:45:40 cmlSendingMessage: Preparing TX Slot:1520 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 16:45:45 cmlSendingMessage: Preparing TX Slot:1730 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:45:50 cmlSendingMessage: Preparing TX Slot:1925 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:45:55 cmlSendingMessage: Preparing TX Slot:2109 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:46:00 cmlSendingMessage: Preparing TX Slot:34 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:46:03 setReceiverMode: DSC OFF
2018/11/06 16:46:05 cmlSendingMessage: Preparing TX Slot:237 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:46:10 cmlSendingMessage: Preparing TX Slot:408 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:46:15 cmlSendingMessage: Preparing TX Slot:612 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:46:20 cmlSendingMessage: Preparing TX Slot:793 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:46:25 cmlSendingMessage: Preparing TX Slot:966 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:46:30 cmlSendingMessage: Preparing TX Slot:1146 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:46:35 cmlSendingMessage: Preparing TX Slot:1348 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:46:40 cmlSendingMessage: Preparing TX Slot:1520 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:46:45 cmlSendingMessage: Preparing TX Slot:1730 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:46:50 cmlSendingMessage: Preparing TX Slot:1915 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:46:55 cmlSendingMessage: Preparing TX Slot:2109 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:47:00 cmlSendingMessage: Preparing TX Slot:23 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:47:03 cmlSendingMessage: Preparing TX Slot:151 ID:0 Time:17 rfChannel:1075 chann:C
2018/11/06 16:47:04 setReceiverMode: DSC Channel A
2018/11/06 16:47:05 cmlSendingMessage: Preparing TX Slot:237 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:47:10 cmlSendingMessage: Preparing TX Slot:408 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:47:15 cmlSendingMessage: Preparing TX Slot:592 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:47:20 cmlSendingMessage: Preparing TX Slot:793 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:47:25 cmlSendingMessage: Preparing TX Slot:966 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:47:30 cmlSendingMessage: Preparing TX Slot:1146 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:47:31 decodeDscBroadcastChannelManagement: DSC Broadcast msg OK
2018/11/06 16:47:31 insertChannelAssignment: Chan assgnmnt: 2 adjacent corners
2018/11/06 16:47:31 insertChannelAssignment: Channel magmt saved - index 1
2018/11/06 16:47:31 addChannelAssignmentToDB: Channel assignment added to DB
2018/11/06 16:47:35 cmlSendingMessage: Preparing TX Slot:1348 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:47:40 cmlSendingMessage: Preparing TX Slot:1520 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:47:45 cmlSendingMessage: Preparing TX Slot:1738 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:47:50 cmlSendingMessage: Preparing TX Slot:1915 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:47:55 cmlSendingMessage: Preparing TX Slot:2109 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:48:00 cmlSendingMessage: Preparing TX Slot:23 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:48:04 setReceiverMode: DSC OFF
2018/11/06 16:48:05 cmlSendingMessage: Preparing TX Slot:237 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:48:10 cmlSendingMessage: Preparing TX Slot:408 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:48:15 cmlSendingMessage: Preparing TX Slot:592 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:48:20 cmlSendingMessage: Preparing TX Slot:793 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:48:25 cmlSendingMessage: Preparing TX Slot:985 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:48:30 cmlSendingMessage: Preparing TX Slot:1146 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:48:35 cmlSendingMessage: Preparing TX Slot:1348 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:48:40 cmlSendingMessage: Preparing TX Slot:1524 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:48:45 cmlSendingMessage: Preparing TX Slot:1738 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:48:50 cmlSendingMessage: Preparing TX Slot:1915 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 16:48:55 cmlSendingMessage: Preparing TX Slot:2113 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:49:00 cmlSendingMessage: Preparing TX Slot:23 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:49:04 setReceiverMode: DSC Channel B
2018/11/06 16:49:05 cmlSendingMessage: Preparing TX Slot:237 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:49:10 cmlSendingMessage: Preparing TX Slot:408 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:49:15 cmlSendingMessage: Preparing TX Slot:592 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:49:20 cmlSendingMessage: Preparing TX Slot:793 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:49:25 cmlSendingMessage: Preparing TX Slot:985 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:49:30 cmlSendingMessage: Preparing TX Slot:1144 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:49:31 decodeDscBroadcastChannelManagement: DSC Broadcast msg OK
2018/11/06 16:49:31 insertChannelAssignment: Chan assgnmnt: 3 adjacent corners
2018/11/06 16:49:31 insertChannelAssignment: Channel assignment dropped - Adjacent regions
2018/11/06 16:49:35 cmlSendingMessage: Preparing TX Slot:1349 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:49:40 cmlSendingMessage: Preparing TX Slot:1524 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:49:45 cmlSendingMessage: Preparing TX Slot:1738 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:49:50 cmlSendingMessage: Preparing TX Slot:1915 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:49:55 cmlSendingMessage: Preparing TX Slot:2113 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:50:00 cmlSendingMessage: Preparing TX Slot:23 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:50:05 setReceiverMode: DSC OFF
2018/11/06 16:50:05 cmlSendingMessage: Preparing TX Slot:237 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 16:50:06 cmlSendingMessage: Preparing TX Slot:252 ID:0 Time:17 rfChannel:1076 chann:D
2018/11/06 16:50:10 cmlSendingMessage: Preparing TX Slot:421 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 16:50:15 cmlSendingMessage: Preparing TX Slot:592 ID:0 Time:16 rfChannel:2087 chann:A

The AIS receiver log over this period shows message 18 reception from the EUT unaltered alternating A/B at a reporting rate of 10 seconds:-

2018/44/06 16:44:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l62i,0*74
2018/44/06 16:44:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl<01,0*45
2018/45/06 16:45:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1l62m,0*51
2018/45/06 16:45:05 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl0SG,0*7D
2018/45/06 16:45:10 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwTQl0SH,0*77
2018/45/06 16:45:16 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQl62m,0*35
2018/45/06 16:45:20 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1l0SL,0*25
2018/45/06 16:45:25 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl8?6,0*5E
2018/45/06 16:45:26 !AIVDM,1,1,,A,H:gt39@d58h0000000000000000,2*0E
2018/45/06 16:45:27 !AIVDM,1,1,,A,H:gt39DUooo4000;1B<0000@5554,0*02
2018/45/06 16:45:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwg1l<01,0*32
2018/45/06 16:45:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQl<01,0*5F
2018/45/06 16:45:40 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l8Gh,0*13
2018/45/06 16:45:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl62l,0*0D
2018/45/06 16:45:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l0S0,0*4A
2018/45/06 16:45:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl8Pu,0*65
2018/46/06 16:46:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1l0Rw,0*2D
2018/46/06 16:46:06 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQlD01,0*1C

2018/46/06 16:46:10 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwU1l<01,0*00
2018/46/06 16:46:16 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQl0Rn,0*50
2018/46/06 16:46:21 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1l@<I,0*3F
2018/46/06 16:46:25 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl62p,0*1B
2018/46/06 16:46:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwg1l8Ar,0*04
2018/46/06 16:46:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQl8E4,0*2B
2018/46/06 16:46:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl0SB,0*44
2018/46/06 16:46:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1lD01,0*5C
2018/46/06 16:46:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl62q,0*0D
2018/47/06 16:47:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1lL01,0*75
2018/47/06 16:47:06 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl@3e,0*4F
2018/47/06 16:47:10 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwU1l86H,0*7B
2018/47/06 16:47:15 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQlL01,0*11
2018/47/06 16:47:21 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1l<01,0*37
2018/47/06 16:47:25 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl0SM,0*41
2018/47/06 16:47:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwg1l62u,0*7E
2018/47/06 16:47:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQl62u,0*13
2018/47/06 16:47:40 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l0S>,0*59
2018/47/06 16:47:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQlHK:,0*5C
2018/47/06 16:47:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l@Ms,0*67
2018/47/06 16:47:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl0S>,0*25
2018/48/06 16:48:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1lH0G,0*07
2018/48/06 16:48:06 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl<01,0*64
2018/48/06 16:48:10 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwU1l631,0*09
2018/48/06 16:48:15 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQlH9@,0*6D
2018/48/06 16:48:21 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1l8<I,0*47
2018/48/06 16:48:26 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl@?I,0*59
2018/48/06 16:48:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwg1l0S8,0*54
2018/48/06 16:48:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQl0S;,0*3A
2018/48/06 16:48:40 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l@Gl,0*6F
2018/48/06 16:48:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQlD01,0*20
2018/48/06 16:48:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l<01,0*24
2018/48/06 16:48:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQlHQ1,0*50
2018/49/06 16:49:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1lD01,0*7D
2018/49/06 16:49:06 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl83e,0*37
2018/49/06 16:49:10 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwU1l0SG,0*19
2018/49/06 16:49:15 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQlD01,0*19
2018/49/06 16:49:21 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1l635,0*3A
2018/49/06 16:49:26 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl<01,0*52
2018/49/06 16:49:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwfQl@Ap,0*1F
2018/49/06 16:49:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQlL01,0*2F
2018/49/06 16:49:40 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l<01,0*39

2018/49/06 16:49:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl@K:,0*54
2018/49/06 16:49:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l8Ms,0*1F
2018/49/06 16:49:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQlD01,0*3D
2018/50/06 16:50:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1l@0G,0*0F
2018/50/06 16:50:06 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl638,0*64
2018/50/06 16:50:11 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwU1l@6U,0*1E
2018/50/06 16:50:15 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQl@9@,0*65
2018/50/06 16:50:21 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1l0Ro,0*07
2018/50/06 16:50:26 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl8?I,0*21
2018/50/06 16:50:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwfQl<01,0*53
2018/50/06 16:50:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQlHE5,0*5A
2018/50/06 16:50:40 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l8GI,0*17
2018/50/06 16:50:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl<01,0*58
2018/50/06 16:50:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l638,0*24
2018/50/06 16:50:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl@Q1,0*58
2018/51/06 16:51:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1l<01,0*05
2018/51/06 16:51:06 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl0Rf,0*5D
2018/51/06 16:51:11 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwU1l<01,0*00
2018/51/06 16:51:15 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwWQl<01,0*61
2018/51/06 16:51:20 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1lL01,0*47
2018/51/06 16:51:26 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwdQl63<,0*56
2018/51/06 16:51:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwfQl8Ap,0*67
2018/51/06 16:51:31 !AIVDM,1,1,,B,H:gt39@d58h0000000000000000,2*0D
2018/51/06 16:51:32 !AIVDM,1,1,,B,H:gt39DUooo4000;1B<0000@5554,0*01
2018/51/06 16:51:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQlD01,0*27
2018/51/06 16:51:40 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l63=,0*3C
2018/51/06 16:51:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl8K:,0*2C
2018/51/06 16:51:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l0Rh,0*13
2018/51/06 16:51:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl<01,0*45
2018/52/06 16:52:00 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1l80G,0*77

The EUT debug log showed the unit moving into the regional assignments, the line:-

processChannelAssignment: Current zone:0 InTransition:N TranZone:0

indicates the unit has moved into zone 0, the first zone at 17:13:02, followed by:-

processChannelAssignment: Current zone:1 InTransition:N TranZone:1

at 17:14:22 where we moved into the second assignment region.

The unit times out messages following entry in to zone 0, and it can be seen that the A and B frequencies are transposed following this transition by the lines….

2018/11/06 17:15:48 cmlSendingMessage: Preparing TX Slot:1850 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:15:53 cmlSendingMessage: Preparing TX Slot:2012 ID:0 Time:16 rfChannel:2087 chann:B

2018/11/06 17:12:00 cmlSendingMessage: Preparing TX Slot:42 ID:0 Time:16 rfChannel:2088 chann:B

2018/11/06 17:12:01 setReceiverMode: DSC OFF
2018/11/06 17:12:05 writeToOPBuffer: USB OP buffer full overrun drops=92981
2018/11/06 17:12:05 cmlSendingMessage: Preparing TX Slot:216 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:12:08 vdlTask: Rx MMSI:5102097 Slot:318 AbsSlot:259068 Channel:A Type:4 TOA:112 DCOffset:-400
2018/11/06 17:12:08 vdlTask: Rx MMSI:5102097 Slot:321 AbsSlot:259071 Channel:B Type:4 TOA:112 DCOffset:289
2018/11/06 17:12:09 cmlSendingMessage: Preparing TX Slot:388 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:12:14 cmlSendingMessage: Preparing TX Slot:577 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:12:20 cmlSendingMessage: Preparing TX Slot:785 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:12:24 cmlSendingMessage: Preparing TX Slot:950 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:12:29 cmlSendingMessage: Preparing TX Slot:1139 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:12:30 vdlTask: Rx MMSI:5102097 Slot:1168 AbsSlot:259918 Channel:B Type:4 TOA:112 DCOffset:256
2018/11/06 17:12:35 cmlSendingMessage: Preparing TX Slot:1338 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:12:40 cmlSendingMessage: Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:12:45 cmlSendingMessage: Preparing TX Slot:1738 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:12:47 vdlTask: Rx MMSI:5102097 Slot:1791 AbsSlot:260541 Channel:A Type:4 TOA:112 DCOffset:-385
2018/11/06 17:12:50 cmlSendingMessage: Preparing TX Slot:1912 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:12:55 cmlSendingMessage: Preparing TX Slot:2100 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:13:00 cmlSendingMessage: Preparing TX Slot:42 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:13:02 processChannelAssignment: Current zone:0 InTransition:N TranZone:0
2018/11/06 17:13:02 processChannelAssignment: Chann mgmt Chan A:2088
2018/11/06 17:13:02 processChannelAssignment: Chann mgmt Chan B:2087
2018/11/06 17:13:02 processChannelAssignment: NETWORK REENTRY
2018/11/06 17:13:02 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2087
2018/11/06 17:13:02 timeoutAllPositionReportMessagesOnVhfChannel: Timeout messages on channel 2088
2018/11/06 17:13:02 setChannel: Channel A set to 2088
2018/11/06 17:13:02 setChannel: Channel B set to 2087
2018/11/06 17:13:02 setReceiverMode: DSC Channel B
2018/11/06 17:13:05 cmlSendingMessage: Preparing TX Slot:216 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:13:08 vdlTask: Rx MMSI:5102097 Slot:321 AbsSlot:261321 Channel:A Type:4 TOA:111 DCOffset:-386
2018/11/06 17:13:08 cmlSendingMessage: Preparing TX Slot:345 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:13:09 cmlSendingMessage: Preparing TX Slot:388 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:13:13 cmlSendingMessage: Preparing TX Slot:525 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:13:15 cmlSendingMessage: Preparing TX Slot:607 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:13:19 cmlSendingMessage: Preparing TX Slot:730 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:13:20 cmlSendingMessage: Preparing TX Slot:785 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:13:23 cmlSendingMessage: Preparing TX Slot:908 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:13:24 cmlSendingMessage: Preparing TX Slot:950 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:13:28 cmlSendingMessage: Preparing TX Slot:1082 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:13:29 cmlSendingMessage: Preparing TX Slot:1139 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:13:30 vdlTask: Rx MMSI:5102097 Slot:1168 AbsSlot:262168 Channel:A Type:4 TOA:111 DCOffset:-415
2018/11/06 17:13:33 cmlSendingMessage: Preparing TX Slot:1283 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:13:35 cmlSendingMessage: Preparing TX Slot:1338 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:13:38 cmlSendingMessage: Preparing TX Slot:1476 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:13:40 cmlSendingMessage: Preparing TX Slot:1540 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:13:43 cmlSendingMessage: Preparing TX Slot:1653 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:13:45 cmlSendingMessage: Preparing TX Slot:1738 ID:0 Time:16 rfChannel:2087 chann:A

2018/11/06 17:13:48 cmlSendingMessage: Preparing TX Slot:1850 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:13:50 cmlSendingMessage: Preparing TX Slot:1912 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:13:53 cmlSendingMessage: Preparing TX Slot:2012 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:13:55 cmlSendingMessage: Preparing TX Slot:2100 ID:0 Time:16 rfChannel:2087 chann:A
2018/11/06 17:13:58 cmlSendingMessage: Preparing TX Slot:2214 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:14:00 cmlSendingMessage: Preparing TX Slot:42 ID:0 Time:16 rfChannel:2088 chann:B
2018/11/06 17:14:02 setReceiverMode: DSC OFF
2018/11/06 17:14:03 cmlSendingMessage: Preparing TX Slot:143 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:08 vdlTask: Rx MMSI:5102097 Slot:318 AbsSlot:263568 Channel:B Type:4 TOA:111 DCOffset:275
2018/11/06 17:14:08 cmlSendingMessage: Preparing TX Slot:345 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:14:09 vdlTask: Rx MMSI:5102097 Slot:355 AbsSlot:263605 Channel:A Type:4 TOA:112 DCOffset:-397
2018/11/06 17:14:12 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:14:13 cmlSendingMessage: Preparing TX Slot:525 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:16 houseKeepingTask: Type 24 channel B
2018/11/06 17:14:17 houseKeepingTask: Type 24 channel B
2018/11/06 17:14:18 cmlSendingMessage: Preparing TX Slot:725 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:19 cmlSendingMessage: Preparing TX Slot:730 ID:1 Time:16 rfChannel:2088 chann:A
2018/11/06 17:14:20 cmlSendingMessage: Preparing TX Slot:782 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:22 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:14:23 cmlSendingMessage: Preparing TX Slot:908 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:28 cmlSendingMessage: Preparing TX Slot:1082 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:14:30 vdlTask: Rx MMSI:5102097 Slot:1168 AbsSlot:264418 Channel:A Type:4 TOA:112 DCOffset:-423
2018/11/06 17:14:32 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:14:33 cmlSendingMessage: Preparing TX Slot:1283 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:38 cmlSendingMessage: Preparing TX Slot:1476 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:14:42 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:14:43 cmlSendingMessage: Preparing TX Slot:1653 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:47 vdlTask: Rx MMSI:5102097 Slot:1791 AbsSlot:265041 Channel:B Type:4 TOA:111 DCOffset:260
2018/11/06 17:14:48 cmlSendingMessage: Preparing TX Slot:1850 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:14:52 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:14:53 cmlSendingMessage: Preparing TX Slot:2012 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:14:58 cmlSendingMessage: Preparing TX Slot:2214 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:15:02 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:15:02 setReceiverMode: DSC Channel A
2018/11/06 17:15:03 cmlSendingMessage: Preparing TX Slot:143 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:15:08 vdlTask: Rx MMSI:5102097 Slot:318 AbsSlot:265818 Channel:B Type:4 TOA:111 DCOffset:261
2018/11/06 17:15:08 cmlSendingMessage: Preparing TX Slot:345 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:15:12 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:15:13 cmlSendingMessage: Preparing TX Slot:525 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:15:19 cmlSendingMessage: Preparing TX Slot:730 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:15:23 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:15:23 cmlSendingMessage: Preparing TX Slot:908 ID:0 Time:16 rfChannel:2087 chann:B
2018/11/06 17:15:25 cmlSendingMessage: Preparing TX Slot:960 ID:0 Time:17 rfChannel:1076 chann:D
2018/11/06 17:15:28 cmlSendingMessage: Preparing TX Slot:1082 ID:0 Time:16 rfChannel:2088 chann:A
2018/11/06 17:15:33 processChannelAssignment: Current zone:1 InTransition:N TranZone:1
2018/11/06 17:15:33 cmlSendingMessage: Preparing TX Slot:1283 ID:0 Time:16 rfChannel:2087 chann:B

2018/11/06 17:15:38 cmlSendingMessage: Preparing TX Slot:1476 ID:0 Time:16 rfChannel:2088 chann:A

2018/11/06 17:15:43 processChannelAssignment: Current zone:1 InTransition:N TranZone:1

2018/11/06 17:15:43 cmlSendingMessage: Preparing TX Slot:1653 ID:0 Time:16 rfChannel:2087 chann:B

2018/11/06 17:15:47 vdlTask: Rx MMSI:5102097 Slot:1791 AbsSlot:267291 Channel:B Type:4 TOA:112 DCOffset:285

2018/11/06 17:15:48 cmlSendingMessage: Preparing TX Slot:1850 ID:0 Time:16 rfChannel:2088 chann:A

2018/11/06 17:15:53 processChannelAssignment: Current zone:1 InTransition:N TranZone:1

2018/11/06 17:15:53 cmlSendingMessage: Preparing TX Slot:2012 ID:0 Time:16 rfChannel:2087 chann:B

2018/11/06 17:15:58 cmlSendingMessage: Preparing TX Slot:2214 ID:0 Time:16 rfChannel:2088 chann:A

The EUT VDO log showed:-

2018/11/06 17:12:00 !AIVDO,1,1,0042,B,B:gt39@1;80TWh70Vt1hSwP1lD01,0*79

2018/11/06 17:12:09 !AIVDO,1,1,0388,B,B:gt39@1;80TWh70Vt1hSwTQl864,0*67

2018/11/06 17:12:14 !AIVDO,1,1,0577,A,B:gt39@1;80TWh70Vt1hSwW1l0S`,0*38

2018/11/06 17:12:20 !AIVDO,1,1,0785,B,B:gt39@1;80TWh70Vt1hSwb1lD01,0*47

2018/11/06 17:12:24 !AIVDO,1,1,0950,A,B:gt39@1;80TWh70Vt1hSwd1lH>n,0*19

2018/11/06 17:12:29 !AIVDO,1,1,1139,B,B:gt39@1;80TWh70Vt1hSwfQl<01,0*5B

2018/11/06 17:12:35 !AIVDO,1,1,1338,A,B:gt39@1;80TWh70Vt1hSwiQl8Dr,0*67

2018/11/06 17:12:40 !AIVDO,1,1,1540,B,B:gt39@1;80TWh70Vt1hSwl1l<01,0*3B

2018/11/06 17:12:45 !AIVDO,1,1,1738,A,B:gt39@1;80TWh70Vt1hSwnQl68h,0*0C

2018/11/06 17:12:50 !AIVDO,1,1,1912,B,B:gt39@1;80TWh70Vt1hSwq1l68k,0*75

2018/11/06 17:12:55 !AIVDO,1,1,2100,A,B:gt39@1;80TWh70Vt1hSwsQl@Pl,0*05

2018/11/06 17:13:00 !AIVDO,1,1,0042,B,B:gt39@1;80TWh70Vt1hSwP1l@0b,0*2E

2018/11/06 17:13:05 !AIVDO,1,1,0216,A,B:gt39@1;80TWh7Brl1hSwRQl000,0*20

2018/11/06 17:13:08 !AIVDO,1,1,0345,A,B:gt39@1;80TWh7Brl1hSwT1n1PA,0*53

2018/11/06 17:13:09 !AIVDO,1,1,0388,B,B:gt39@1;80TWh7Brl1hSwTQl000,0*23

2018/11/06 17:13:13 !AIVDO,1,1,0525,B,B:gt39@1;80TWh7Brl1hSwVQn1Oi,0*05

2018/11/06 17:13:15 !AIVDO,1,1,0607,A,B:gt39@1;80TWh7Brl1hSwWQl000,0*21

2018/11/06 17:13:19 !AIVDO,1,1,0730,A,B:gt39@1;80TWh7Brl1hSwa1n1H1,0*08

2018/11/06 17:13:20 !AIVDO,1,1,0785,B,B:gt39@1;80TWh7Brl1hSwb1l000,0*7C

2018/11/06 17:13:23 !AIVDO,1,1,0908,B,B:gt39@1;80TWh7Brl1hSwcQn1Mi,0*31

2018/11/06 17:13:24 !AIVDO,1,1,0950,A,B:gt39@1;80TWh7Brl1hSwd1l000,0*7F

2018/11/06 17:13:28 !AIVDO,1,1,1082,A,B:gt39@1;80TWh7Brl1hSwf1n1RQ,0*7A

2018/11/06 17:13:29 !AIVDO,1,1,1139,B,B:gt39@1;80TWh7Brl1hSwfQl000,0*18

2018/11/06 17:13:33 !AIVDO,1,1,1283,B,B:gt39@1;80TWh7Brl1hSwhQn1LQ,0*0A

2018/11/06 17:13:35 !AIVDO,1,1,1338,A,B:gt39@1;80TWh7Brl1hSwiQl000,0*17

2018/11/06 17:13:38 !AIVDO,1,1,1476,A,B:gt39@1;80TWh7Brl1hSwk1n1MQ,0*67

2018/11/06 17:13:40 !AIVDO,1,1,1540,B,B:gt39@1;80TWh7Brl1hSwl1l000,0*78

2018/11/06 17:13:43 !AIVDO,1,1,1653,B,B:gt39@1;80TWh7Brl1hSwmQn1Ii,0*3B

2018/11/06 17:13:45 !AIVDO,1,1,1738,A,B:gt39@1;80TWh7Brl1hSwnQl000,0*14

2018/11/06 17:13:48 !AIVDO,1,1,1850,A,B:gt39@1;80TWh7Brl1hSwp1n1K1,0*12

2018/11/06 17:13:50 !AIVDO,1,1,1912,B,B:gt39@1;80TWh7Brl1hSwq1l000,0*6E

2018/11/06 17:13:53 !AIVDO,1,1,2012,B,B:gt39@1;80TWh7Brl1hSwrQn1OA,0*0A

2018/11/06 17:13:55 !AIVDO,1,1,2100,A,B:gt39@1;80TWh7Brl1hSwsQl000,0*07

2018/11/06 17:13:58 !AIVDO,1,1,2214,A,B:gt39@1;80TWh7Brl1hSwu1n001,0*64

2018/11/06 17:14:00 !AIVDO,1,1,0042,B,B:gt39@1;80TWh7Brl1hSwP1l000,0*42

2018/11/06 17:14:03 !AIVDO,1,1,0143,B,B:gt39@1;80TWh7Brl1hSwQQn001,0*20

2018/11/06 17:14:08 !AIVDO,1,1,0345,A,B:gt39@1;81eo@7Brl1hSwT1lD01,0*14
2018/11/06 17:14:13 !AIVDO,1,1,0525,B,B:gt39@1;81eo@7Brl1hSwVQlL01,0*7D
2018/11/06 17:14:18 !AIVDO,1,1,0725,B,H:gt39@d58h0000000000000000,2*0F
2018/11/06 17:14:18 !AIVDO,1,1,0730,A,B:gt39@1;81eo@7Brl1hSwa1l<01,0*5F
2018/11/06 17:14:20 !AIVDO,1,1,0782,B,H:gt39DUooo4000;1B<0000@5554,0*0E
2018/11/06 17:14:23 !AIVDO,1,1,0908,B,B:gt39@1;81eo@7Brl1hSwcQlD01,0*43
2018/11/06 17:14:28 !AIVDO,1,1,1082,A,B:gt39@1;81eo@7Brl1hSwf1lD01,0*2F
2018/11/06 17:14:33 !AIVDO,1,1,1283,B,B:gt39@1;81eo@7Brl1hSwhQl<01,0*39
2018/11/06 17:14:38 !AIVDO,1,1,1476,A,B:gt39@1;81eo@7Brl1hSwk1lL01,0*25
2018/11/06 17:14:43 !AIVDO,1,1,1653,B,B:gt39@1;81eo@7Brl1hSwmQl@Im,0*6C
2018/11/06 17:14:48 !AIVDO,1,1,1850,A,B:gt39@1;81eo@7Brl1hSwp1lL01,0*36
2018/11/06 17:14:53 !AIVDO,1,1,2012,B,B:gt39@1;81eo@7Brl1hSwrQlL01,0*5A
2018/11/06 17:14:58 !AIVDO,1,1,2214,A,B:gt39@1;81eo@7Brl1hSwu1lHRV,0*3B
2018/11/06 17:15:03 !AIVDO,1,1,0143,B,B:gt39@1;81eo@7Brl1hSwQQlD01,0*76
2018/11/06 17:15:08 !AIVDO,1,1,0345,A,B:gt39@1;81eo@7Brl1hSwT1l@5I,0*6D
2018/11/06 17:15:13 !AIVDO,1,1,0525,B,B:gt39@1;81eo@7Brl1hSwVQlH8=,0*7D
2018/11/06 17:15:19 !AIVDO,1,1,0730,A,B:gt39@1;81eo@7Brl1hSwa1l8;J,0*2B
2018/11/06 17:15:23 !AIVDO,1,1,0908,B,B:gt39@1;81eo@7Brl1hSwcQl@><,0*44
2018/11/06 17:15:25 !AIVDO,1,1,0960,D,K:gt39Oh3Q3g4?;@,0*27
2018/11/06 17:15:28 !AIVDO,1,1,1082,A,B:gt39@1;81eo@7Brl1hSwf1l@@r,0*18
2018/11/06 17:15:33 !AIVDO,1,1,1283,B,B:gt39@1;81eo@7Brl1hSwhQl8D3,0*4B
2018/11/06 17:15:38 !AIVDO,1,1,1476,A,B:gt39@1;81eo@7Brl1hSwk1lHG4,0*53
2018/11/06 17:15:43 !AIVDO,1,1,1653,B,B:gt39@1;81eo@7Brl1hSwmQl<01,0*35
2018/11/06 17:15:48 !AIVDO,1,1,1850,A,B:gt39@1;81eo@7Brl1hSwp1lHLr,0*0D

The AIS receiver showed the following:-

2018/11/06 17:11:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQl<01,0*5F
2018/11/06 17:11:41 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l@H4,0*38
2018/11/06 17:11:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl8K:,0*2C
2018/11/06 17:11:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l8Mp,0*1C
2018/11/06 17:11:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQlD01,0*3D
2018/12/06 17:12:01 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1lD01,0*7D
2018/12/06 17:12:05 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwRQl<01,0*64
2018/12/06 17:12:10 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwTQl864,0*66
2018/12/06 17:12:15 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwW1l0S`,0*3F
2018/12/06 17:12:20 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwb1lD01,0*4F
2018/12/06 17:12:25 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwd1lH>n,0*17
2018/12/06 17:12:30 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwfQl<01,0*53
2018/12/06 17:12:35 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwiQl8Dr,0*6C
2018/12/06 17:12:41 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwl1l<01,0*39
2018/12/06 17:12:46 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwnQl68h,0*03
2018/12/06 17:12:51 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwq1l68k,0*7C
2018/12/06 17:12:56 !AIVDM,1,1,,A,B:gt39@1;80TWh70Vt1hSwsQl@Pl,0*04
2018/13/06 17:13:01 !AIVDM,1,1,,B,B:gt39@1;80TWh70Vt1hSwP1l@0b,0*2A
2018/13/06 17:13:05 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwRQl000,0*27
2018/13/06 17:13:09 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwT1n1PA,0*50

2018/13/06 17:13:10 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwTQl000,0*22
2018/13/06 17:13:14 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwVQn1Oi,0*06
2018/13/06 17:13:16 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwWQl000,0*22
2018/13/06 17:13:19 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwa1n1H1,0*0D
2018/13/06 17:13:20 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwb1l000,0*74
2018/13/06 17:13:24 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwcQn1Mi,0*31
2018/13/06 17:13:25 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwd1l000,0*71
2018/13/06 17:13:28 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwf1n1RQ,0*70
2018/13/06 17:13:30 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwfQl000,0*10
2018/13/06 17:13:34 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwhQn1LQ,0*03
2018/13/06 17:13:35 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwiQl000,0*1C
2018/13/06 17:13:39 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwk1n1MQ,0*62
2018/13/06 17:13:41 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwl1l000,0*7A
2018/13/06 17:13:44 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwmQn1li,0*3B
2018/13/06 17:13:46 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwnQl000,0*1B
2018/13/06 17:13:49 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwp1n1K1,0*1F
2018/13/06 17:13:51 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwq1l000,0*67
2018/13/06 17:13:53 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwrQn1OA,0*0A
2018/13/06 17:13:56 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwsQl000,0*06
2018/13/06 17:13:59 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwu1n001,0*60
2018/14/06 17:14:01 !AIVDM,1,1,,B,B:gt39@1;80TWh7Brl1hSwP1l000,0*46
2018/14/06 17:14:03 !AIVDM,1,1,,A,B:gt39@1;80TWh7Brl1hSwQQn001,0*27
2018/14/06 17:14:09 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwT1lD01,0*17
2018/14/06 17:14:14 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwVQlL01,0*7E
2018/14/06 17:14:19 !AIVDM,1,1,,A,H:gt39@d58h0000000000000000,2*0E
2018/14/06 17:14:19 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwa1l<01,0*5A
2018/14/06 17:14:20 !AIVDM,1,1,,A,H:gt39DUooo4000;1B<0000@5554,0*02
2018/14/06 17:14:24 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwcQlD01,0*43
2018/14/06 17:14:28 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwf1lD01,0*25
2018/14/06 17:14:34 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwhQl<01,0*30
2018/14/06 17:14:39 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwk1lL01,0*20
2018/14/06 17:14:44 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwmQl@Im,0*6C
2018/14/06 17:14:49 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwp1lL01,0*3B
2018/14/06 17:14:53 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwrQlL01,0*5A
2018/14/06 17:14:59 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwu1lHRV,0*3F
2018/15/06 17:15:03 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwQQlD01,0*71
2018/15/06 17:15:09 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwT1l@5l,0*6E
2018/15/06 17:15:14 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwVQlH8=,0*7E
2018/15/06 17:15:19 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwa1l8;J,0*2E
2018/15/06 17:15:24 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwcQl@><,0*44
2018/15/06 17:15:28 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwf1l@@r,0*12
2018/15/06 17:15:34 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwhQl8D3,0*42
2018/15/06 17:15:39 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwk1lHG4,0*56
2018/15/06 17:15:44 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwmQl<01,0*35
2018/15/06 17:15:49 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwp1lHLr,0*00
2018/15/06 17:15:53 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwrQlHOL,0*5C

2018/15/06 17:15:59 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwu1lD01,0*36

2018/16/06 17:16:03 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwQQl@2?,0*79

2018/16/06 17:16:09 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwT1l<01,0*6F

2018/16/06 17:16:14 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwVQlD01,0*76

2018/16/06 17:16:19 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwa1l691,0*59

2018/16/06 17:16:24 !AIVDM,1,1,,A,B:gt39@1;81eo@7Brl1hSwcQl<01,0*3B

2018/16/06 17:16:28 !AIVDM,1,1,,B,B:gt39@1;81eo@7Brl1hSwf1l<01,0*5D

From these it can be seen that messages transmitted on Channel A were received on Channel B and messages transmitted on Channel B were received on Channel A after transition into the first zone at “17:30:00 07/11/2018” and remains the same after transition into the second zone as defined in Table 8 Overlapping geographical regions).