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INTERNATIONAL STANDARD

AMENDMENT 1

Maritime navigation and radiocommunication equipment and systems – Digital interfaces – Part 450: Multiple talkers and multiple listeners – Ethernet interconnection

IEC 61162-450:2011-06/AMD1:2016-03(en)

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FOREWORD

This amendment has been prepared by IEC technical committee 80: Maritime navigation and radiocommunication equipment and systems.

The amendment corrects sundry issues which have been identified from the use of the standard and in particular corrects the checksums in many of the sentence examples.

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

FDIS	Report on voting
80/795/FDIS	80/796/RVD

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

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this standard may be issued at a later date.

2 Normative references

Insert, after publication reference IEC 61162-1, the following new reference:

IEC 61996-1, *Maritime navigation and radiocommunication equipment and systems – Shipborne voyage data recorder (VDR) – Part 1: Performance requirements, methods of testing and required test results*

3 Terms and definitions

3.11
message type

Replace, in the definition and in the note, the acronym SMB by SBM, as follows:

classification of IEC 61162-1 sentence formatters into SBM, MSM and CRP types

NOTE 1 SBM, MSM and CRP types are defined in Annex A.

4.2.2 Additional requirements for network infrastructure equipment

Add, at the end of the existing notes, the following new note:

NOTE 3 Although multicast filtering techniques, such as IGMP snooping or CGMP, are not allowed to be activated, it is acceptable to manually configure individual ports of the switches to block unnecessary traffic flow (for example to isolate simple sensors from ECDIS and radar).

Table 4 – Destination multicast addresses and port numbers

Add, at the end of Table 4, the following new note:

NOTE The USR1 to USR8 transmission groups can be used, for example, for proprietary data in binary format.

Table 5 – Destination multicast addresses and port numbers for binary data transfer

Replace the existing Table 5 by the new Table 5, as follows:

Category	Multicast address	Destination port
Simple Binary image transfer [a]	239.192.0.21 to 239.192.0.25	60021 to 60025
Re-transmittable binary image transfer [b]	239.192.0.26 to 239.192.0.30	60026 to 60030
[a] Address 239.192.0.25, port 60025 is the recommended default for ECDIS route transfer (see IEC 61174). [b] Address 239.192.0.26, port 60026 is the recommended default for VDR image transfer (see IEC 61996-1). Address 239.192.0.30, port 60030 is the recommended default for ECDIS re-transmittable data blocks for route transfer (see IEC 61174).		

7.2.3.3 Grouping control – g

Replace, in the fifth paragraph, the existing sentences by the following two sentences:

```
\g:1-2-34*59\!ABVDM,1,1,1,B,100000?0?wJm4:`GMUrf40g604:4,0*04
\g:2-2-34*5A\$ABVSI,r3669961,1,013536.96326433,1386,-98,,*14
\g:1-2-46*5C\!ABVDM,1,1,1,B,15N1u<PP1cJnFj:GV4>:MOw:0<02,0*2D
\g:2-2-46*5F\$ABVSI,r3669962,1,013538.05654921,1427,-101,,*20
```

7.2.3.7 Text string parameter – t (Proprietary data)

Replace, in the last paragraph, the existing sentences by the following sentences:

```
\g:1-2-34,s:TI0001,n:333*6B\$TIROT,123.45*67
\g:2-2-34,n:334,t:pmmma;MD5;0x12345678*74\
```

7.3.1 Application of this protocol

Delete, after the second paragraph, the existing note.

7.3.3.4 Source and destination identifier

Replace the existing title by the following new title:

7.3.3.4 Destination identifier

7.3.6 Sender process for binary image transfer

Add new subclause between title of 7.3.6 and title of 7.3.6.1:

7.3.6.3 General

Each single binary image transfer shall be identified by a unique combination of SrcID and BlockID (see Table 9). Within the same SrcID, the Device and Channel (see Table 10) shall be used to distinguish between different data sources of binary image transfers.

NOTE If a single SrcID has multiple needs to send binary images (e.g. ECDIS sending screen image, chart source information and Route exchange), then each single binary image transfer is identified, for example: ECDIS number 1 send screen image as Device = 1 and Channel = 1, and Chart source information as Device = 1 and Channel = 2.

7.3.6.1 Non re-transmittable sender process

Replace the text of item b) by the following new text:

b) a block identifier is assigned for the image block (if this is the first image, then it is assigned randomly. Otherwise, the instance identifier of the previous image block + 1 is used). The BlockID shall be unique for each binary image transfer from the same SrcID;

Replace the text of item e) by the following new text:

e) assign a sequence number, which is assigned to one initially;

7.3.6.2 Re-transmittable sender process

Replace the text of item b) by the following new text:

b) a block identifier is assigned for the image block (if this is the first image, then it is assigned by randomly. Otherwise, the block identifier of the previous image block + 1 is used). The BlockID shall be unique for each binary image transfer from the same SrcID;

Replace the text of item e) by the following new text:

e) assign a sequence number, which is assigned to one initially;

Replace, in item i), the text of the third bullet by the following new text:

- go to Step (g);