# Economic and Social Council

**Economic Commission for Europe**

Inland Transport Committee

**Working Party on Inland Water Transport**

**Working Party on the Standardization of Technical
and Safety Requirements in Inland Navigation**

**Thirty-ninth session**
Geneva, 15–17 June 2011
Item 7 (c) of the provisional agenda
**Resolution No. 61, "Recommendations on Harmonized
Europe-Wide Technical Requirements for Inland Navigation
Vessels"**

## Minimum technical requirements for computers installed on vessels

### Note by the secretariat

## I. Mandate

1.      At its thirty-eighth session, the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (SC.3/WP.3) was informed that, on its request (ECE/TRANS/SC.3/WP.3/72, para. 38) the Group of volunteer experts on Resolution No. 61 "Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels" (ECE/TRANS/SC.3/172/Rev.1) developed a draft proposal on minimum technical requirements for computers installed on vessels. The text of the proposal was presented in the annex to Informal document No. 6. SC.3/WP.3 invited the delegations to submit their comments on the proposal and asked the secretariat to prepare draft amendments to the annex of Resolution No. 61 based on the proposal of the Group of volunteer experts and the comments of delegates (ECE/TRANS/SC.3/WP.3/76, para. 41).

2.      Reproduced in Part II are the draft amendments to the annex of Resolution No. 61 prepared by the secretariat on the basis of the proposal of the Group of volunteer experts. Comments on that proposal received from the Government of the United Kingdom of Great Britain and Northern Ireland and from the Central Commission for the Navigation of the Rhine (CCNR) are presented in Part III.

## II.   Draft amendment to the annex to Resolution No. 61

3.   <u>Supplement</u> Chapter 7 of the annex to Resolution No. 61 "Wheelhouse" with a new section 7-3A as follows:

### 7-3A      Requirements concerning navigation computers

7-3A.1       The navigation computer shall be designed for use in an atmosphere with an air temperature of 0° – 40 °C,[1] with 75 % relative humidity at a temperature of 35 °C, and with 95 ± 1% relative humidity at a temperature of 20 °C, and also with an extended listing of the vessel of up to 15° and a pitch of up to 5° and a roll of up to 22.5°.

7-3A.2       Displays designed for navigation information shall be colour displays, except in cases where the Basin administration allows the use of monochrome displays.

7-3A.3       Colour displays, including multifunctional displays, shall support at least sixty four colours. Exceptions may be made for the displays of individual devices, such as speed indicators or echo sounders.

7-3A.4       Displays in the wheelhouse shall support a minimum resolution of 1280 x 1024 pixels. Displays of individual devices such as speed indicators, echo sounders, and radio navigation receivers, may use lesser resolution.

7-3A.5       The display shall ensure that information is easily readable for at least the helmsman and a second member of the crew, simultaneously from a standing and a sitting position, whatever the lighting conditions in the wheelhouse.

7-3A.6       Information and control functions shall be logically grouped. The information shall be arranged in accordance with its importance and purpose. Provision shall be made to prioritize the posting of the information, which shall constantly be displayed and arranged in relation with other information. The display shall make use of the size and colour of the image and its placement on the screen to post high-priority information.

7-3A.7       The information provided on navigation shall be displayed together with the parameters, units of measurement, its purposes and sources.

7-3A.8       The information shall be clearly presented on the workspace of the screen (for example, map images and radar information) with one (or more) dialogue field(s) (for example for menus, information or control functions).

7-3A.9       Alphanumeric data, text, signs and graphic information (such as radar information) shall be clearly visible from the steering position.

The colour and brightness of the image shall be appropriate for the lighting in the wheelhouse in daytime, at night and at twilight.

7-3A.10      For the display of alphanumeric data and text, clear, non-italic fonts shall be used.

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[1]   In the Russian Federation – from -10 °C to +40 °C.

## III. Comments received by the secretariat

### A. United Kingdom of Great Britain and Northern Ireland

4. The United Kingdom of Great Britain and Northern Ireland suggests that computer displays should not interfere with the night vision of watch keeping personnel. The display sighting should also not interfere with keeping a proper lookout, where required, or conflict with any wheelhouse visibility requirements for the type of vessel concerned.

### B. Central Commission for the Navigation of the Rhine

5. It is important to know the source of the values appearing in paragraph 7-3A.1. There exist already international standards on environmental conditions for navigation equipment. These standards are internationally accepted. It would, therefore, be beneficial, if the values in the proposal were in line with those from the standards.

6. The subsequent paragraphs 7-3A.2 – 7-3A.10 in fact do not deal with computers, but rather with their displays. It is not clear whether the requirements also apply to radar equipment.

7. In the CCNR's (and basically also in the European Union's) regime of technical requirements for inland navigation vessels, there exist specific requirements for radar, inland Automatic Identification System (Inland AIS) and Inland Electronic Chart Display and Information System (Inland ECDIS) equipment. Therefore, any requirements concerning computer displays should exclude these types of equipment or be in line with the specific requirements.

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