



**Economic and Social  
Council**

Distr.  
GENERAL

TRANS/SC.3/WP.3/2001/13  
26 March 2001

Original: ENGLISH

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**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

(Twenty-second session, 6-8 June 2001,  
agenda item 5 )

**RECOMMENDATIONS ON TECHNICAL REQUIREMENTS FOR ELECTRONIC  
NAVIGATIONAL SHIPBORNE EQUIPMENT AND ITS INSTALLATION  
ON BOARD SHIPS INCLUDING, IN PARTICULAR, RADAR  
INSTALLATIONS AND RATE-OF-TURN INDICATORS**

Transmitted by the Government of Germany

Note: The secretariat reproduces below the proposals of the Government of Germany concerning possible amendments to CEVNI, as set out in TRANS/SC.3/115/Rev.1 and amended by resolutions Nos. 39, 43-46 and 47 (TRANS/SC.3/115/Rev.1/Amends.1-2 and TRANS/SC.3/2000/3 and TRANS/SC.3/2000/4).

**DISCUSSION PAPER CONCERNING REGULATIONS ON THE EQUIPMENT  
AND USE OF RADAR IN INLAND NAVIGATION**

**PART I**

Proposals on the basis of the applicable European Code for Inland Waterways (CEVNI)

1. Chapter 4 of CEVNI regulates the obligation relating to the equipment and use of sound signals and radiotelephony.
2. It would be useful to also regulate the conditions for the use of radar in this chapter. For this reason, the proposal of the Dutch delegation is taken up and the following wording is suggested.

**“CHAPTER 4**

**SOUND SIGNALS ON VESSELS – RADIOTELEPHONY – RADAR**

**Article 4.05**

**Radar**

1. Vessels may not use radar unless
  - (a) They are fitted with radar equipment and a rate-of-turn indicator in proper working order and conforming to the requirements of the competent authorities concerned [and permitted by those authorities].

*(Taking over of article 6.32 para. 1(a) of CEVNI as amended; the wording put into square brackets should be taken over as it corresponds to the technical requirement; footnote 1 concerning article 6.32 paras. 1 and 2 should be deleted.)*

However, ferry-boats not moving independently shall not be required to be fitted with a rate-of-turn indicator

- (b) A device for emitting the three-tone signal (article 1.01 (w)). This does not apply to small craft and ferries;

*(Taking over of article 6.32 para. 1 (b) of CEVNI as amended).*

- (c) A person holding a diploma issued in accordance with the requirements of the competent authorities and certifying the qualification to operate a radar set is on board. Notwithstanding the provisions of article 1.09, paragraph 3, the radar may be used for training purposes at day time in good visibility, even where there is no such person on board.

*(Taking over of article 6.32 para 2 of CEVNI as amended and extended by the proof of the qualification to operate a radar set).*

Small craft shall also be equipped with a radio telephone set in proper working order for the ship-to-ship network.

2. In the case of convoys, the requirements in paragraph 1 above shall apply only to the vessel having on board the boatmaster of the convoy.

*(Taking over of article 6.32 para.8 of CEVNI as amended.)*

## **F. REDUCED VISIBILITY – NAVIGATION BY RADAR**

### **Article 6.30**

#### General rules for navigation in reduced visibility

1. Vessels under way in reduced visibility shall adjust their speed as required by these conditions and the presence and movements of other vessels and local circumstances <sup>1</sup>  
*(Can be dropped, since there is the obligation of providing radio equipment in accordance with article 4.04 (Resolution No. 43)).*

They shall post a look-out at the bow. <sup>2</sup> In the case of convoys, however, a look-out is required on the leading vessel only. The look-out shall be within sight or hearing of, or in communication through a voice link with the boatmaster of the vessel or convoy. Vessels shall give the sound signals prescribed in articles 6.32 and 6.33 below.

*(Can be dropped, since this is regulated in article 3.01 para. 2 (Resolution No. 45)).*

2. Vessels shall stop as soon as, by reason of reduced visibility, the presence and movements of other vessels and local conditions, they can no longer proceed without danger. In addition, when, in a towed convoy, visual communication is no longer possible between the towed vessels and the motorized vessel leading the convoy, the convoy shall stop at the nearest suitable place.

3. In deciding whether to stop or to proceed and in order to determine their speed, vessels using radar may take into account radar observations. They shall, however, take into account the reduced visibility for other vessels.

4. When stopping, vessels shall as far as possible keep clear of the channel.

5. In reduced visibility small craft may only navigate on waterways announced by the competent authorities if they are equipped with a radiotelephone set for the vessel-to-vessel network and listen on the channel indicated by the competent authority. They shall give other vessels any information needed for safe navigation.

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<sup>1</sup> The competent authority may also prohibit towed convoys proceeding downstream in reduced visibility on particular sections with a current.

<sup>2</sup> The competent authorities may, depending on navigating conditions on the waterway concerned, waive the look-out for a ferry-boat not moving independently.

*(Since the new article 4.04 (Resolution 43) regulates the obligation of providing radio telephone equipment for vessels (with the exception of small craft), this paragraph only refers to small craft.)*

6. Vessels proceeding on their course shall when meeting another vessel keep to the right as far as is necessary to allow passing port to port. The provisions of articles 6.04, paragraphs 3, 4 and 5 (Class I) and 6.05 shall not apply in reduced visibility.<sup>1</sup>

### **Article 6.32**

#### Provisions for vessels navigating by radar

1. A vessel is considered to be navigating by radar when, in conditions of reduced visibility, it navigates using the equipment as prescribed in article 4.05 paragraph 1 (a) and (b).

*(The above paragraphs are regulated in the new proposal for article 4.05)*

2. Vessels may only navigate by radar if a person, who apart from the certificate of competency required for the vessel type and the section to be navigated, also holds the certificate qualifying him to operate the radar set and a second person sufficiently conversant with this method of navigation are permanently staying in the wheelhouse.<sup>2</sup> However, if the wheelhouse is equipped with a centralized control post<sup>3</sup> it is sufficient that the second person can, if necessary, be summoned to the wheelhouse immediately.

3. Vessels navigating by radar shall be exempt from the obligation to post a look-out as prescribed in article 6.30, paragraph 1 if the boatmaster is able to hear the sound signals.

#### Class I

4. A vessel proceeding downstream and navigating by radar shall, as soon as it sees on the radar screen vessels whose position or movements might cause a dangerous situation, or when it is approaching a section where there might be vessels not yet visible on the screen;

- (a) Give a three-tone signal as prescribed in article 4.05 paragraph 1(b) and repeat it as often as necessary; this provision does not apply to small craft.

*(For reasons of clarification)*

- (b) Reduce speed and, if necessary, stop or turn.

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<sup>1</sup> The competent authorities may waive this provision or apply it only on certain waterways.

<sup>2</sup> The competent authorities may, depending on navigating conditions on the waterway concerned, waive the look-out for the ferry-boat not moving independently.

<sup>3</sup> As defined in the Recommendations on Technical Requirements for Inland Navigation Vessels (TRANS/SC.3/104), chapter 11. The competent authorities may prescribe that a wheelhouse equipped with a centralized control post is to be attested in the ships certificate.

*(For reasons of clarification)*

5. A vessel proceeding upstream and navigating by radar shall, as soon as it hears the signals referred to in paragraph 4 (a) above or observes on the screen vessels whose position or movements might cause a dangerous situation, or when it is approaching a section where there might be vessels not yet visible on the screen:

- (a) Give one long blast or, in the case of a convoy <sup>1</sup> two long blasts, and communicate by radiotelephone to the vessels proceeding downstream its category, name, position, direction and the side on which it is proposed to pass. However, a small craft shall give its category, name, position, direction and the side on which it is giving way.

*(Small craft proceeding upstream and navigating by radar cannot propose the side on which to pass, they have to give way in accordance with article 6.02 para. 2. Therefore, the second sentence in No. 5 is deleted)*

- (b) Reduce speed and, if necessary, stop or turn.

6. Vessels proceeding downstream and navigating by radar shall reply by radiotelephone to the vessels proceeding upstream and communicate their category, name, position and either confirm the side on which it is proposed to pass or indicate another side.

#### Class II

4. Vessels navigating by radar shall, as soon as they see on the radar screen vessels whose position or movements may cause a dangerous situation, or when they are approaching a section where there may be vessels not yet visible on the screen:

- (a) Sound one long blast; this signal shall be repeated as often as necessary;
- (b) Give oncoming vessels, by radiotelephone, the information necessary for safe navigation;
- (c) Reduce speed and, if necessary, stop or turn.

5. Vessels equipped with a radiotelephone and receiving the information referred to in paragraph 4 shall reply by radiotelephone with the necessary information.

Small craft giving the information prescribed in paragraph 4 above shall, in addition, state their category and the side on which they are giving way.

Ferry-boats when complying with the requirements of paragraph 4 shall sound one long blast followed by four short blasts instead of one long blast and shall, in addition, state their category and the course they are taking in crossing the waterway.

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<sup>1</sup> The competent authority may prescribe only one long blast for a vessel having on board the boatmaster of a convoy.

## Class I and II

7. Overtaking by vessels navigating by radar shall be permitted only after the side on which the vessels are to overtake has been agreed by radiotelephone and provided that the width of the channel is sufficient.

8. In the case of convoys, the requirements in paragraphs 2 and 4 to 7 above shall apply only to the vessel having on board the boatmaster of the convoy.

9. Vessels navigating by radar which see on the radar screen vessels whose position or movements may cause a dangerous situation and which do not reply by radiotelephone shall take steps in good time to avoid a collision.

### Article 6.33

#### Provisions for vessels not navigating by radar

*(The former para. 1 duplicates the regulation concerning articles 4.04 and 6.30)*

1. In conditions of navigation in reduced visibility, a vessel proceeding alone not navigating by radar shall sound one long blast and a vessel carrying the boatmaster of a convoy shall sound two long blasts;<sup>1</sup> these signals shall be repeated at intervals of not more than one minute.

2. Small craft not navigating by radar may give the signal prescribed in paragraph 1 above; this signal may be repeated.

#### Class I

3. A vessel not navigating by radar shall, as soon as it hears the three-tone signal referred to in article 6.32 paragraph 4 (a);

- (a) If it is near to a bank; keep close to that bank and, if necessary, stop there until the other vessel has passed;
- (b) If it is in the channel, and especially if it is crossing from one bank to another clear the channel as fully and as quickly as possible.

#### Class II

3. Ferry-boats not navigating by radar shall, instead of the signal in paragraph 1 above, give as a fog-signal one long blast followed by four short blasts; this signal shall be repeated at intervals of not more than one minute.

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<sup>1</sup> The competent authorities may prescribe only one long blast for a vessel having on board the boatmaster of a convoy.

Class I and II

4. Vehicles not navigating by radar shall, as soon as they hear from another vessel apparently forward of their beam the fog-signal referred to in paragraph 1 of this article, reduce speed to the minimum at which they can hold their course and navigate with extreme caution or, if necessary, stop or turn.

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