#### **ECONOMIC COMMISSION FOR EUROPE** Informal document SC.3 No. 2 (2009)Rev.1

INLAND TRANSPORT COMMITTEE 12 October 2009

WORKING PARTY ON INLAND WATER TRANSPORT

Fifty-third session ENGLISH

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Item 5 (a) of the provisional agenda RUSSIAN

#### **EUROPEAN CODE FOR INLAND WATERWAYS (CEVNI)**

Draft revised text of annexes to European Code for Inland Waterways

#### Note by secretariat

- 1. This document contains a draft of the revised text of annexes to the European Code for Inland Waterways (CEVNI), prepared by the small informal working group on CEVNI in accordance with the decisions adopted by the thirty-fifth session of the Working Party on the Standardization of Technical and Safety Requirements in Inland Navigation (ECE/TRANS/SC.3/WP.3/70, paras.6-19). The document takes into account the final comments from Governments and River Commissions received after publication on 31 July 2009 of the first draft of the revised text in Informal document SC.3 1(2009).
- 2. The text also includes the amendments adopted during the fifty-first and fifty-second sessions of the Working Party on Inland Water Transport. The official adoption of these amendments has been postponed until the next substantial revision of CEVNI (ECE/TRANS/SC.3/178, paras. 21-24 and ECE/TRANS/SC.3/181, paras. 22-23). The current supplement to CEVNI with "Specific Requirements in the National Regulations of Belarus, Kazakhstan, the Republic of Moldova, the Russian Federation and Ukraine that Differ at Present from the Provisions of CEVNI" will be reproduced in the new edition of the code after Annex 10.
- 3. For technical reasons, changes are not highlighted. The list of all amendments will be published in document ECE/TRANS/SC.3/2009/4.

Annex 1
DISTINGUISHING LETTER OR GROUP OF LETTERS
INDICATING COUNTRY OF VESSEL'S HOME PORT
OR PLACE OF REGISTRATION

AUSTRIA	A	MALTA	MLT
BELARUS	BY	NETHERLANDS	N
BELGIUM	В	NORWAY	NO
BOSNIA AND HERZEGOVINA	він	POLAND	PL
BULGARIA	BG	PORTUGAL	Р
CROATIA	HR	REPUBLIC OF MOLDOVA	MD
CZECH REPUBLIC	CZ	ROMANIA	R
FINLAND	FI	RUSSIAN FEDERATION	RUS
FRANCE	F	SERBIA	SRB
GERMANY	D	SLOVAKIA	SK
HUNGARY	HU	SLOVENIA	*
ITALY	I	SWEDEN	SE
LITHUANIA	LT	SWITZERLAND	СН
LUXEMBOURG	L	UKRAINE	UA

 $<sup>\</sup>begin{tabular}{ll} \begin{tabular}{ll} \beg$ 

## DRAUGHT SCALES ON INLAND WATERWAY VESSELS

1. Draught scales shall be graduated in units not larger than 1 decimetre, from the light water-line to the maximum draught level, in the form of clearly visible bands painted alternately in two different colours.

The graduation shall be indicated by figures painted beside the scale not more than 5 decimetres apart and at the top of the scale; and the position of the intervals shall be fixed and punched, incised or welded marks.

2. If the vessel bears tonnage scales meeting the requirements of paragraph 1 above, such tonnage scales may serve instead of draught scales.

#### **VISUAL SIGNALS (MARKING) ON VESSELS**

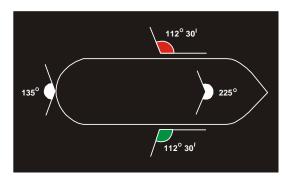
#### 1. GENERAL

- 1.1 The sketches which follow relate to the signals (marking) provided for in the articles of chapter 3 of CEVNI, but not to those provided for in, or authorized by, the footnotes.
- 1.2 The sketches are for guidance only; reference should be made to the text of the regulations which alone is authoritative.

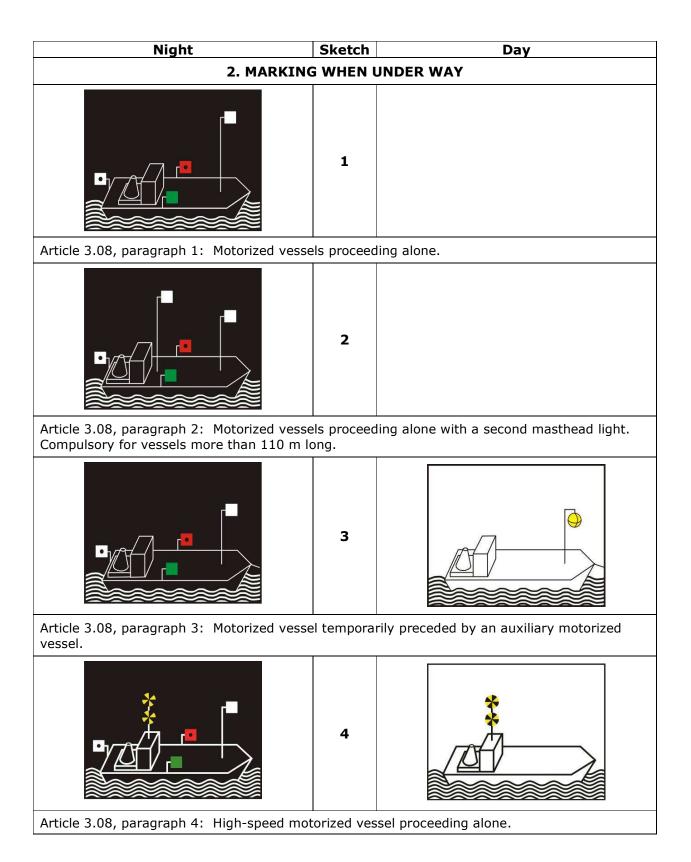
In the case of additional markings which may be prescribed, the sketches illustrate:

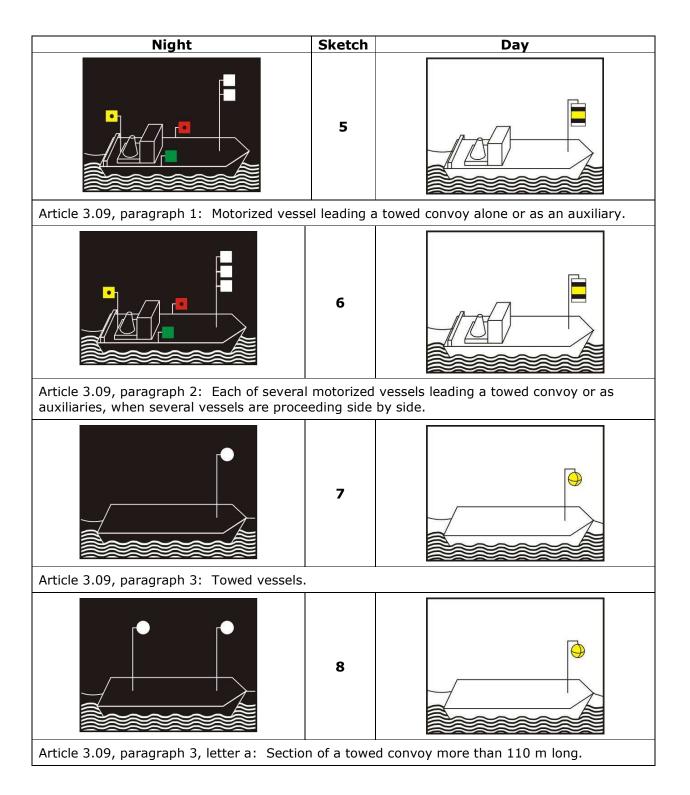
- either the additional markings alone; or
- where necessary for clarity, both the basic marking (or one of the possible basic markings) and the additional marking.

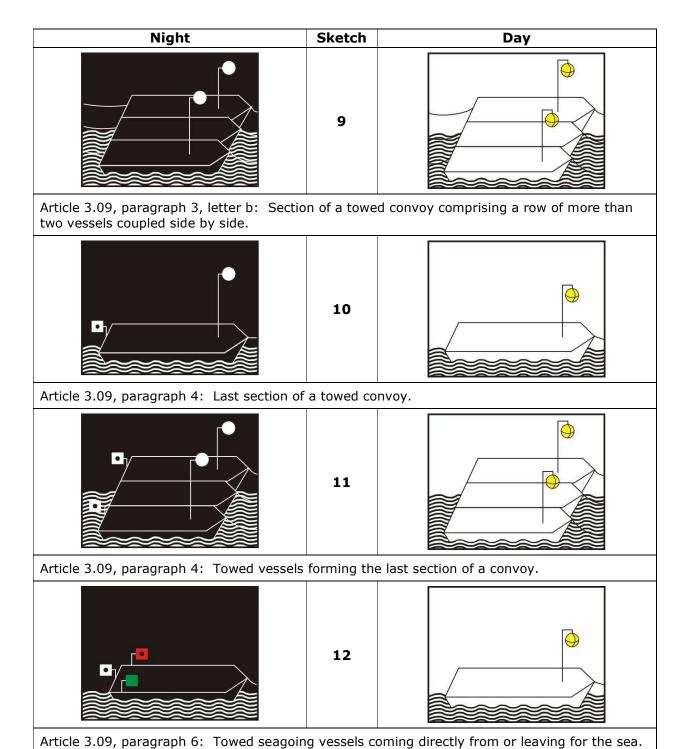
Only the additional marking is described below the sketch.



1.3	Explanation	on of symbols:
a		Fixed light visible from all directions (a light projecting an uninterrupted beam throughout a horizontal arc of 360o).
b		Fixed light visible over a limited horizontal arc. A light which is invisible to the observer is marked by a dot in the centre.
С		Scintillating light.
d		Optional light.
е		Board or flag (article 3.03).
f		Pennant (article 3.03).
g		Ball (article 3.04).
h		Cylinder (article 3.04).
i	^	Cone (article 3.04).
j		Bicone (article 3.04).
k	$\bigoplus$	Radar reflector.







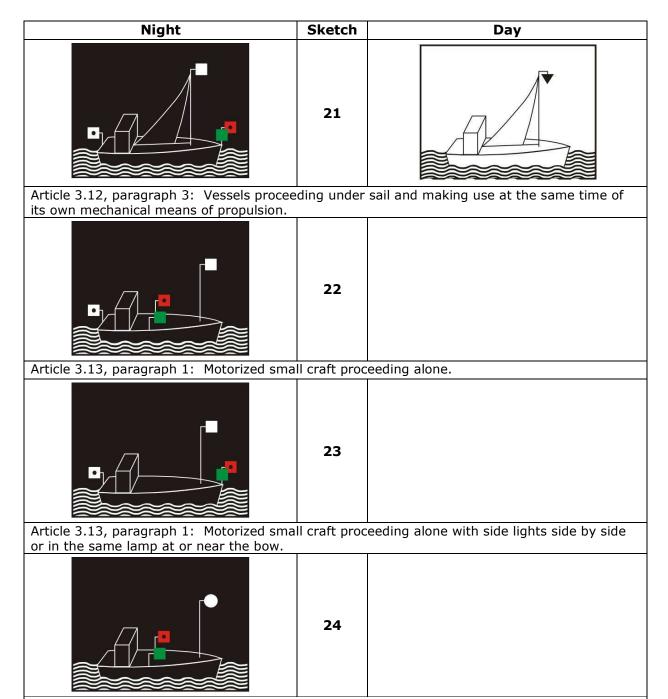
8

Night	Sketch	Day
	13	
Article 3.10, paragraph 1: Pushed convoy	rs.	
	14	
Article 3.10, paragraph 1, letter c.ii: Push from astern over the full width.	ned convoys	s, when more than two vessels are visible
	15	
Article 3.10, paragraph 2: Pushed convoy vessels.	s preceded	by one or more auxiliary motorized
	16	

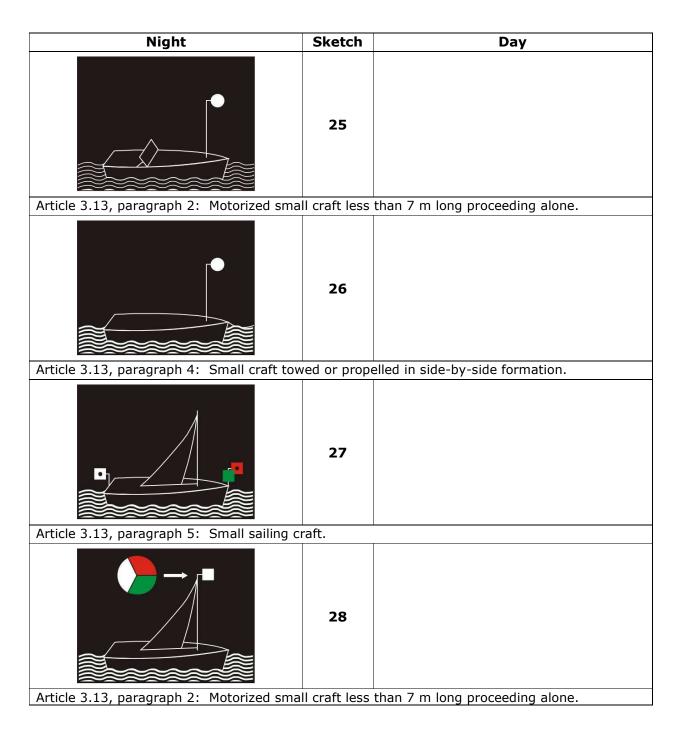
Article 3.10, paragraph 4: Pushed convoys with two pushers.

Night	Sketch	Day
	17	
Article 3.11, paragraph 1: Side-by-side for	rmations:	two motorized vessels.
	18	
Article 3.11, paragraph 1: Side-by-side for vessel.	ermations:	one motorized and one non-motorized
	19	
Article 3.11, paragraph 2: Side-by-side for motorized vessels.	rmations p	receded by one or more auxiliary
	20	

Article 3.12: Sailing vessels.



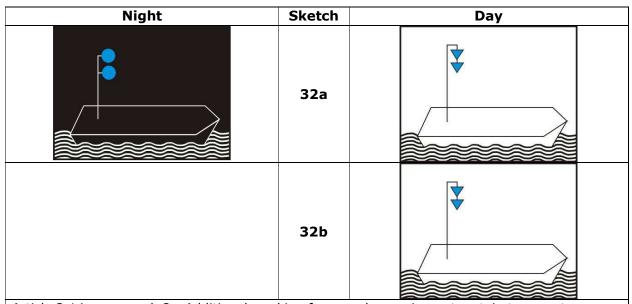
Article 3.13, paragraph 1: Motorized small craft proceeding alone: the masthead light replaced by a bright white light visible from all directions.



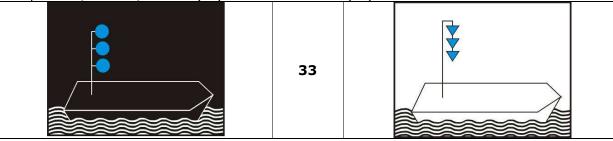
NII what	Clastal	<b>5</b>
Night	Sketch	Day
	29	
Article 3.13, paragraph 5: Small sailing of from all directions, and on the approach of light.	raft less tha f other vess	an 7 m long carrying a white light visible sels displaying a second ordinary white
	30	
Article 3.13, paragraph 6: Small craft pro	ceeding ald	one, neither motorized nor under sail.
	31a	

Article 3.14, paragraph 1: Additional marking for vessels carrying out certain transport operations involving dangerous substances: flammable substances that are referred to in accordance with the requirements of sub-section 7.1.5.0 or sub-section 7.2.5.0 of ADN and Chapter 3.2, Table A, column (12) or Table C column (19) of AND.

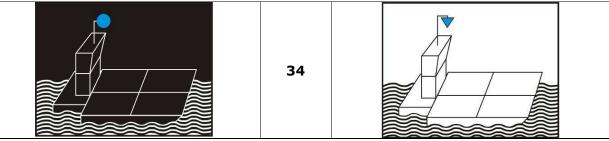
31b



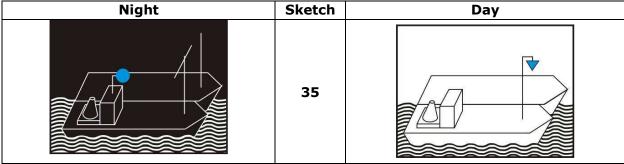
Article 3.14, paragraph 2: Additional marking for vessels carrying out certain transport operations involving dangerous substances: substances constituting health hazards in accordance with the requirements of sub-section 7.1.5.0 or sub-section 7.2.5.0 of ADN and Chapter 3.2, Table A, column (12) or Table C column (19) of ADN.



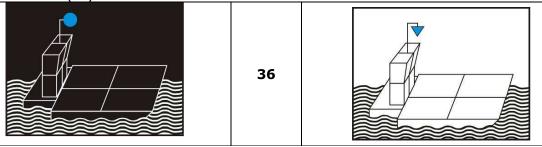
Article 3.14, paragraph 3: Additional marking of vessels carrying out certain transport operations involving dangerous substances: explosives in accordance with the requirements of sub-section 7.1.5.0 or sub-section 7.2.5.0 of ADN and Chapter 3.2, Table A, column (12) of ADN.



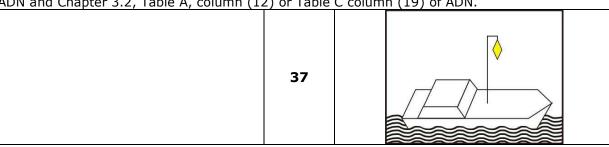
Article 3.14, paragraph 4: Additional marking of pushed convoys carrying out certain transport operations involving dangerous substances in accordance with the requirements of sub-section 7.1.5.0 or sub-section 7.2.5.0 of ADN and Chapter 3.2, Table A, column (12) or table C column (19) of ADN.



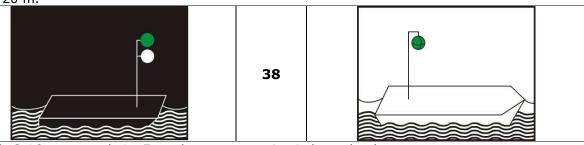
Article 3.14, paragraph 4: Additional marking of side-by-side formations carrying out certain transport operations involving dangerous substances in accordance with the requirements of sub-section 7.1.5.0 or sub-section 7.2.5.0 of ADN and Chapter 3.2, Table A, column (12) or Table C column (19) of ADN.



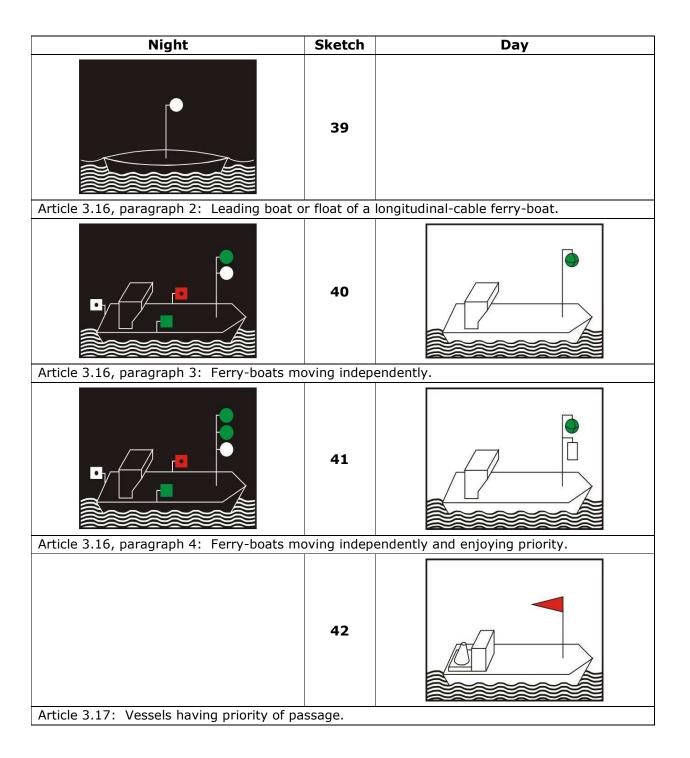
Article 3.14, paragraph 5: Additional marking of pushed convoys propelled by two pushers placed side by side and carrying out certain transport operations involving dangerous substances in accordance with the requirements of sub-section 7.1.5.0 or sub-section 7.2.5.0 of ADN and Chapter 3.2, Table A, column (12) or Table C column (19) of ADN.

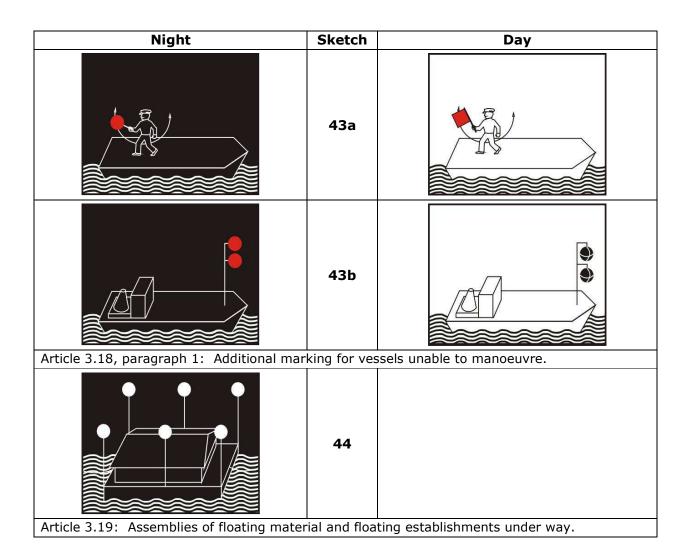


Article 3.15: Vessels authorized to carry more than 12 passengers with a hull length of less than 20 m.



Article 3.16, paragraph 1: Ferry-boats not moving independently.

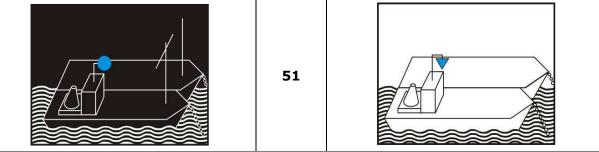




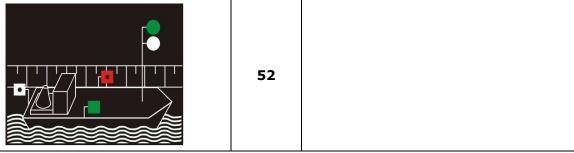
3. MARKING WHEN STATIONARY			
Night	Sketch	Day	
	45		
Article 3.20, paragraphs 1 and 4: Vessels	directly or	indirectly made fast to the bank.	
	46		
Article 3.20, paragraph 2: Vessels station	nary offshor	e.	
	47		
Article 3.20, paragraph 3: Pushed convoy	s stationary	y offshore.	
	48		
Article 3.20, paragraph 4: Stationary small	all craft.		

Ni ala	Clarket	<b>D</b>		
Night	Sketch	Day		
	49			
Article 3.21: Additional marking for static involving dangerous substances.	nary vesse	ls carrying out certain transport operations		
	50			
Article 3.21: Additional marking for stationary pushed convoys carrying out certain transport				

Article 3.21: Additional marking for stationary pushed convoys carrying out certain transport operations involving dangerous substances.

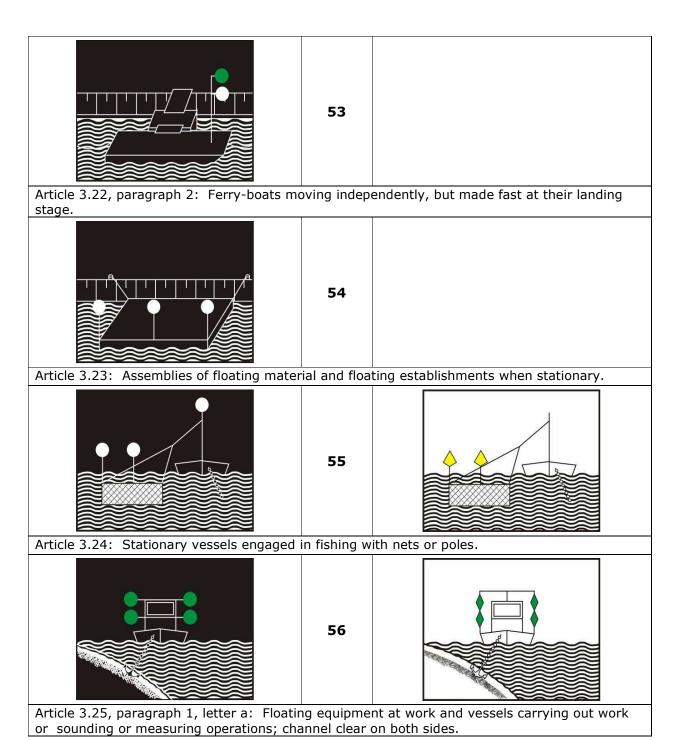


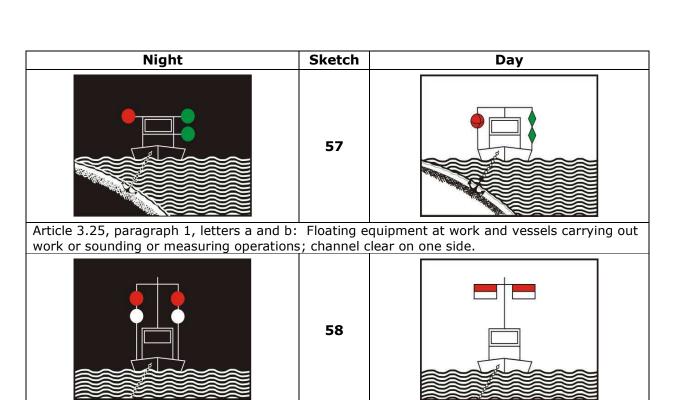
Article 3.21: Additional marking for stationary side-by-side formations carrying out certain transport operations involving dangerous substances.



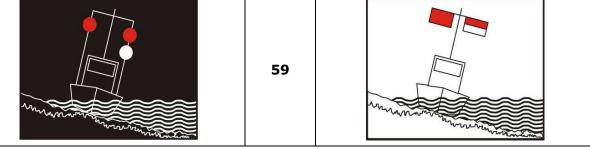
Article 3.22, paragraph 1: Ferry-boats not moving independently when made fast at their landing stage.

landing stage.		
Night	Sketch	Day

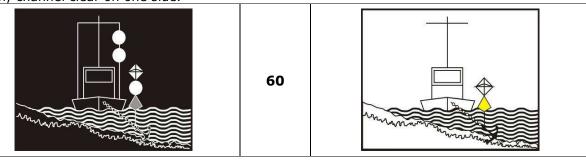




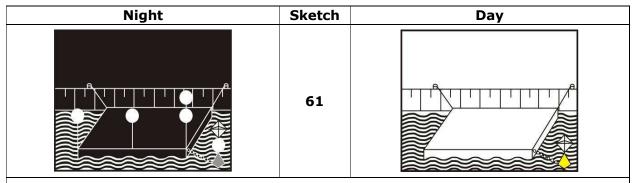
Article 3.25, paragraph 1, letter c: Floating equipment at work and vessels carrying out work or sounding or measuring operations and grounded or sunken vessels; protection against wash; channel clear on both sides.



Article 3.25, paragraph 1, letters c and d: Floating equipment at work and vessels carrying out work or sounding or measuring operations and grounded or sunken vessels; protection against wash; channel clear on one side.

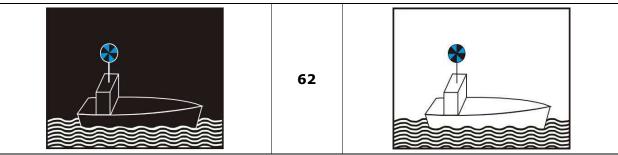


Article 3.26: Vessels whose anchors may be a danger to navigation.



Article 3.26: Assemblies of floating material or floating establishments whose anchors may be a danger to navigation.

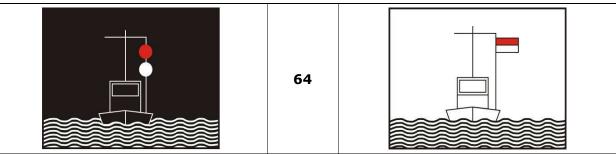
### 4. SPECIAL MARKING



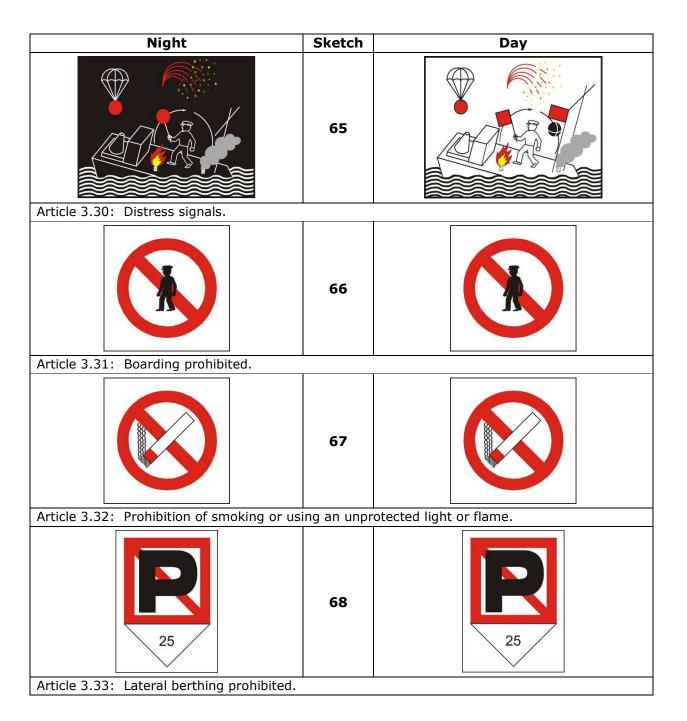
Article 3.27: Additional marking for vessels of the supervisory authorities and fire-fighting and rescue services.

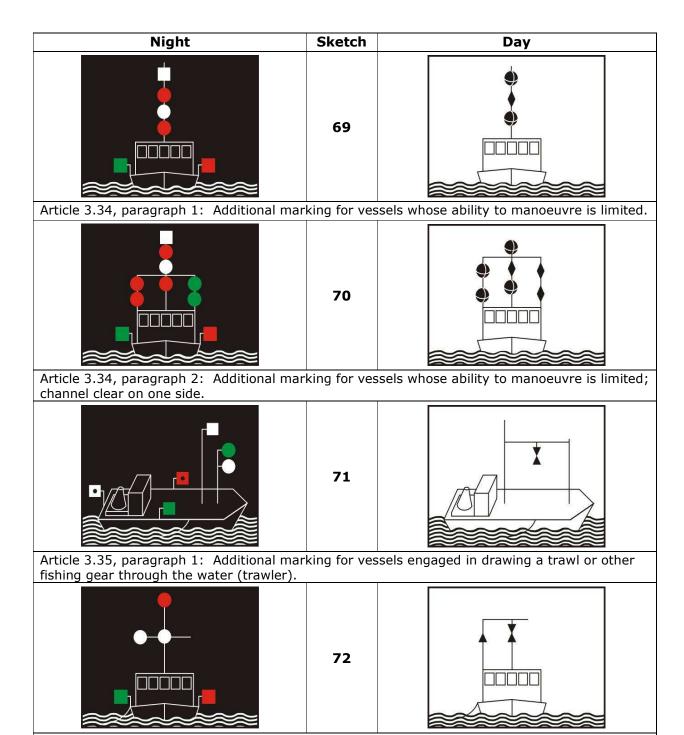


Article 3.28: Additional marking for vessels under way carrying out work in the waterway.

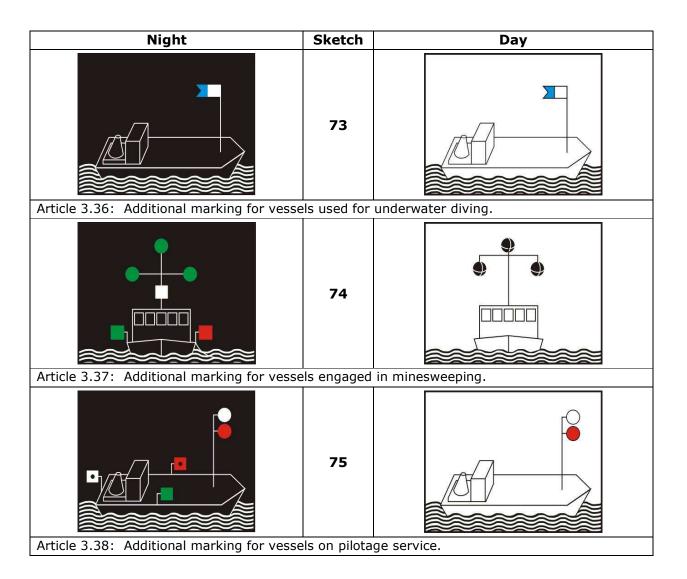


Article 3.29: Additional marking for protection against wash.





Article 3.35, paragraph 2: Fishing vessels other than trawlers if the fishing tackle extends more than 150 m horizontally from the vessel.



# Annex 4 LIGHTS AND THE COLOUR OF SIGNAL LIGHTS ON VESSELS

(Left void)<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Requirements to lights and the colour of signal lights on vessels shall be included in "Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels" (Resolution No. 61).

## INTENSITY AND RANGE OF SIGNAL LIGHTS ON VESSELS

(Left void)<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Requirements to intensity and range of signal lights on vessels shall be included in Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels" (Resolution No. 61).

#### SOUND SIGNALS

#### I. SOUND INTENSITY OF SIGNALS

Mechanically-operated sound signalling devices used by inland waterway vessels shall be capable of producing sound signals with the following characteristics:

#### 1. Frequency

- (a) For motorized vessels other than the small craft referred to in paragraph (b), the fundamental frequency shall be 200 Hz, with a tolerance of  $\pm$  20 %;
- (b) For non-motorized vessels and small craft the fundamental frequency shall be above 350 Hz;
- (c) For the three-tone signals used by vessels navigating by radar under conditions of reduced visibility, the fundamental frequencies of the tones shall be between 165 and 297 Hz, with an interval of at least two full tones between the highest-pitched and the lowest-pitched sound.

#### 2. Sound pressure level

The sound pressure levels given below shall be measured at, or referred to, a point 1 metre in front of the centre of the opening of the horn, the measurement being made, as far as possible, away from any sound reflecting surfaces.

- (a) For motorized vessels other than the small craft referred to in paragraph (b), the weighted sound pressure level shall be between 120 and 140 dB (A);
- (b) For non-motorized vessels and small craft which are not equipped or used to tow vessels other than small craft, the weighted sound pressure level shall be between 100 and 125 dB (A);
- (c) For the three-tone signals used by vessels navigating by radar under conditions of reduced visibility, the weighted sound pressure level of each tone shall be between 120 and 140 dB (A).

#### II. MONITORING OF SOUND PRESSURE LEVEL

The sound pressure level shall be checked by the competent authorities by means of the sonometer standardized by the International Electrotechnical Commission (reference IEC.179) or by means of the ordinary sonometer standardized by IEC (reference IEC.123).

#### **III. SOUND SIGNALS TO BE USED BY VESSELS**

Sound signals other than the ringing of a bell and the three-tone signal shall consist in the emission of one blast or of several successive blasts having the following characteristics:

- short blast: a blast lasting about one second;
- long blast: a blast lasting about four seconds.

The interval between two successive blasts shall be about one second except for the signal "series of very short blasts" which shall comprise a series of not less than six blasts, each lasting about a quarter of a second, separated by a silence of the same duration.

A.	General signals			
		1 long blast	"Caution"	
	-	1 short blast	"I am altering my course to starboard"	
		2 short blasts	"I am altering my course to port"	
		3 short blasts	"I am going astern"	
		4 short blasts	"I am unable to manoeuvre"	
		Repeated, 1 short and 1 long blasts	"Do not approach" *	
		Series of very short blasts	"Imminent danger of collision"	
		Repeated long blasts	"Distress signal"	Article 4.04
	♣	rals of a bell	Distress signal	Afficie 4.04

<sup>\*</sup> This signal has a different meaning on the internal waterways of the Russian Federation.

B.	Meeting signals			
	First case			
	-	1 short blast by vessel proceeding upstream	"I wish to pass on the port side"	Article 6.04, paragraph 5
	_	1 short blast by vessel proceeding downstream	"Agreed; pass on the port side"	Article 6.04, paragraph 6
		2 short blasts by vessel proceeding downstream	"No; pass on the starboard side"	Article 6.05, paragraph 3
		2 short blasts by vessel proceeding upstream	"Agreed; I will pass on the starboard side"	Article 6.05, paragraph 4
	Second case			
		2 short blasts by vessel proceeding upstream	"I wish to pass on the starboard side"	Article 6.04, paragraph 5
		2 short blasts by vessel proceeding downstream	"Agreed; pass on the starboard side"	Article 6.04, paragraph 6
	-	1 short blast by vessel proceeding downstream	"No; pass on the port side"	Article 6.05, paragraph 3
	_	1 short blast by vessel proceeding upstream	"Agreed; I will pass on the port side"	Article 6.05, paragraph 4

Overtaking signals			
First case			
	2 long blasts followed by 2 short blasts, by overtaking vessel	"I wish to overtake on your port side"	Article 6.10, paragraph 2
-	1 short blast by vessel to be overtaken	"Agreed; overtake on my starboard side"	Article 6.10, paragraph 3
	2 short blasts by vessel to be overtaken	"No; overtake on my starboard side"	Article 6.10, paragraph 4
-	1 short blast by overtaking vessel	"Agreed; I will pass on your starboard side"	Article 6.10, paragraph 4
Second case			
	2 long blasts followed by 1 short blast by overtaking vessel	"I wish to pass on your starboard side"	Article 6.10, paragraph 2
	2 short blasts by vessel to be overtaken	"Agreed; overtake on my starboard side"	Article 6.10, paragraph 3
-	1 short blast by vessel to be overtaken	"No; overtaken on my port side"	Article 6.10, paragraph 4
	2 short blasts by overtaking vessel	"Agreed; I will overtake on your port side"	Article 6.10, paragraph 4
Overtaking impossible			
	5 short blasts by vessel to be overtaken	"I cannot be overtaken"	Article 6.10, paragraph 5

D.	Turning signals			
	<b>—</b> -	1 long blast followed by 1 short blast	"I am going to turn to starboard"	Article 6.13, paragraph 2
		1 long blast followed by 2 short blasts	"I am going to turn to port"	Article 6.13, paragraph 2
E.	Harbours and tributary waterways: entering and lea	wing, followed by crossing the wat	terway	
E.1	Signals on entering and leaving harbours and tribute	ry waterways		
		3 long blasts followed by 1 short blast	"I am going to starboard"	Article 6.16, paragraph 2
		3 long blasts followed by 2 short blasts	"I am going to port"	Article 6.16, paragraph 2
E.2	Signals on crossing after entering the waterway			
		3 long blasts	"I am going to cross"	Article 6.16, paragraph 2
	followed if necessary by:			
	<del></del>	1 long blast followed by 1 short blast	"I am going to starboard"	Article 6.16, paragraph 2
		1 long blast followed by 2 short blasts	"I am going to port"	Article 6.16, paragraph 2

#### F. Signals in reduced visibility

(a) Vessels navigating by radar

	1 7	
П		

(i) Vessels, other than small craft, proceeding downstream

Three-tone signal repeated as often as necessary

Article 6.32, paragraph 4 (a)

(ii) Single vessel proceeding upstream

1 long blast

Article 6.32, paragraph 4 (c)

- (b) Vessels not navigating by radar
- (i
  - (i) Any vessel proceeding alone

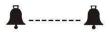
1 long blast repeated at least once a minute

Article 6.33, paragraph 1 (b)

Article 6.31,

paragraph 1 (a)

(c) Stationary vessels







1 peal of a bell, repeated at least once a minute

2 peals of a bell, repeated at least once a minute

3 peals of a bell,

repeated at least

once a minute

"I am lying on right side of channel"

"I am lying on left

side of channel"

on right Article 6.31, nnel" paragraph 1 (b)

"I am stationary, position uncertain"

Article 6.31, paragraph 1 (c)

## Annex 7 WATERWAY SIGNS AND MARKING 3

Waterway signs and marking in the Russian Federation and Ukraine correspond to national rules.

#### WATERWAY SIGNS AND MARKING 1

(1) The main signs given in section I below may be supplemented or clarified by auxiliary signs given in section II.

(2) Boards n	nay be surrounded by a thin white line.		
Section I.	MAIN SIGNS	A.1a boards	
A.	PROHIBITORY SIGNS	Tita ooards	
A.1	No entry (general sign) (see articles 6.08, 6.16, 6.22, 6.22 bis, 6.25, 6.26, 6.27 and 6.28 bis)		
		A.1b, A.1c and A.1d or red lights	or or
	Two boards, two lights or two flags, one above the other, indicate a prolonged prohibition	A.1e and A.1f or red flags	or
A.2	No overtaking (see article 6.11)		1
A.3	No overtaking of convoys by convoys (see article 6.11)		1 1

Waterway signs and marking in the Russian Federation and Ukraine correspond to national rules.

A.4 No passing or overtaking (see article 6.08)



A.4.1 No passing or overtaking of convoys by convoys (See article 6.08)



A.5 No berthing (i.e. no anchoring or making fast to the bank) (see article 7.02)

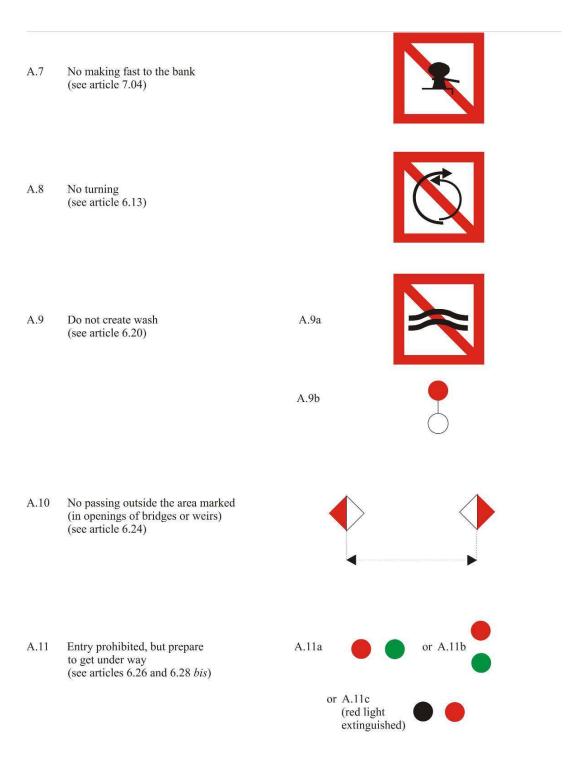


A.5.1 No berthing within the breadth indicated in metres (measured from the sign) (see article 7.02)



A.6 No anchoring or trailing of anchors, cables or chains (see articles 6.18 and 7.03)





A.12 Motorized craft prohibited All sports or pleasure craft prohibited1 A.13 A.14 Water skiing prohibited Sailing vessels prohibited A.15 A.16 All craft other than motorized vessels or sailing craft prohibited

The competent authorities may also use this board to prohibit small craft.

A.17 Use of sailboards prohibited



A.18 End of zone authorized for high speed navigation of small sport and pleasure craft



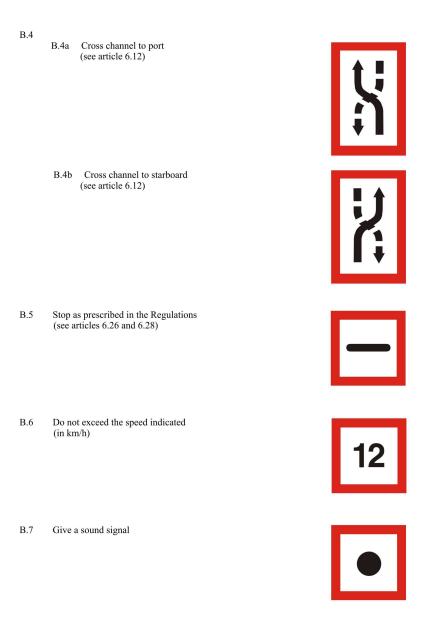
A.19 No launching or beaching of vessels

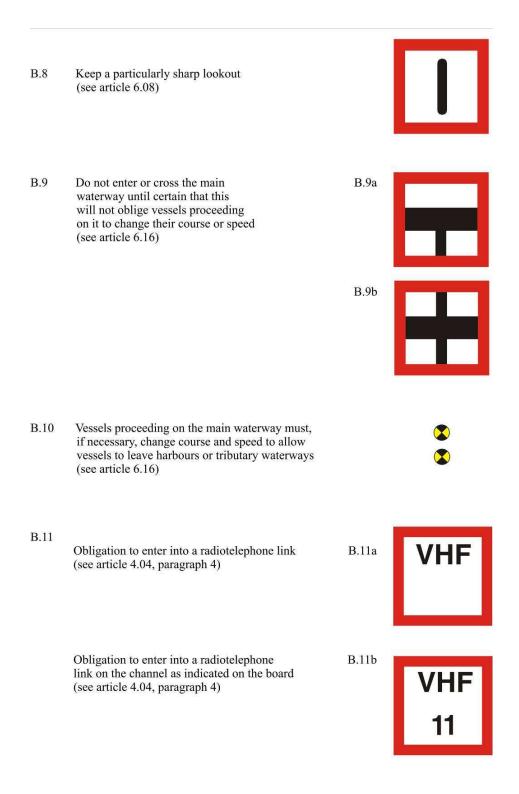


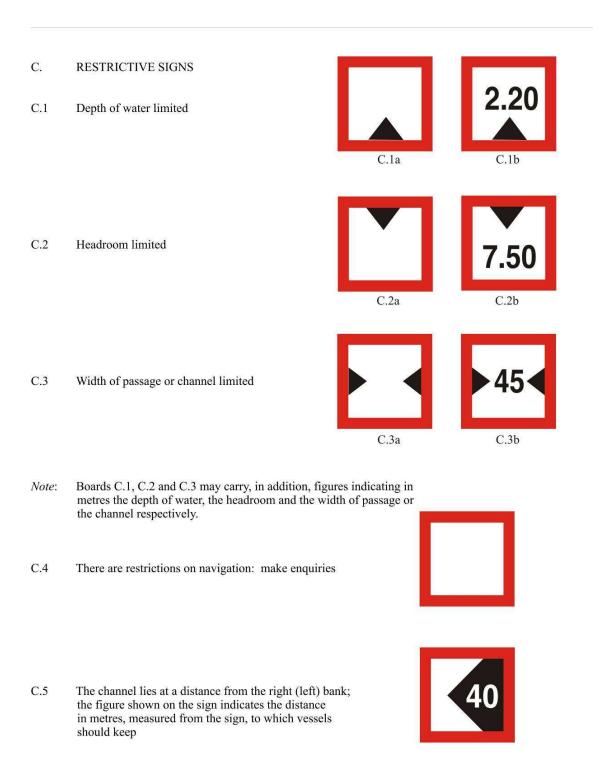
A.20 Water bikes prohibited

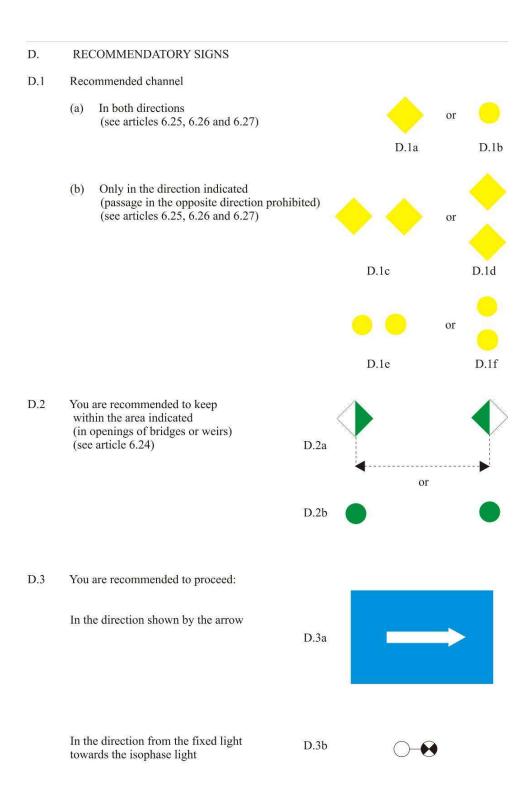


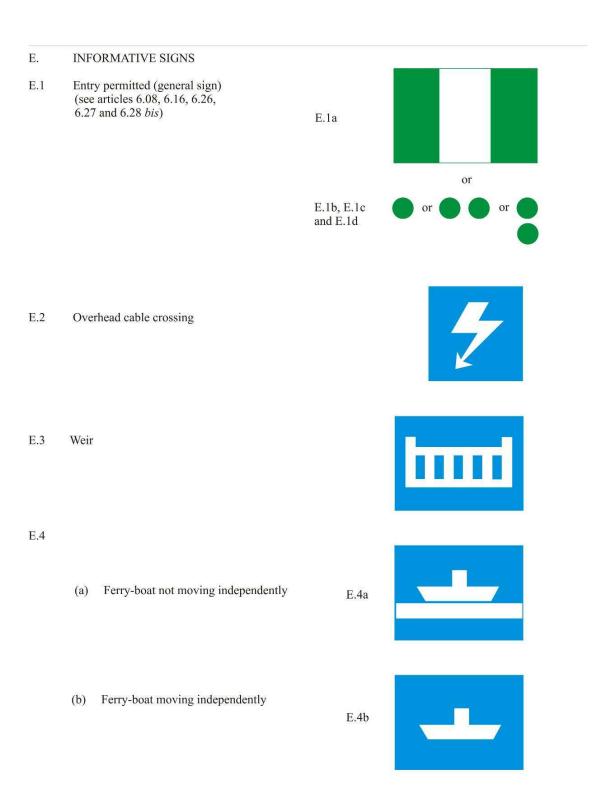
В. MANDATORY SIGNS B.1 Proceed in the direction shown by the arrow (see article 6.12) B.2 B.2a Move to the side of the channel on your port side (see article 6.12) B.2b Move to the side of the channel on your starboard side (see article 6.12) B.3 B.3a Keep to the side of the channel on your port side (see article 6.12) B.3b Keep to the side of the channel on your starboard side (see article 6.12)











E.5 Berthing (i.e. anchoring or making fast to the bank) permitted (see articles 7.02 and 7.05)



E.5.1 Berthing permitted on the stretch of water of the breadth measured from, and shown on the board in metres (see article 7.05)



E.5.2 Berthing permitted on the stretch of water bounded by the two distances measured from, and shown on the board in metres (see article 7.05)



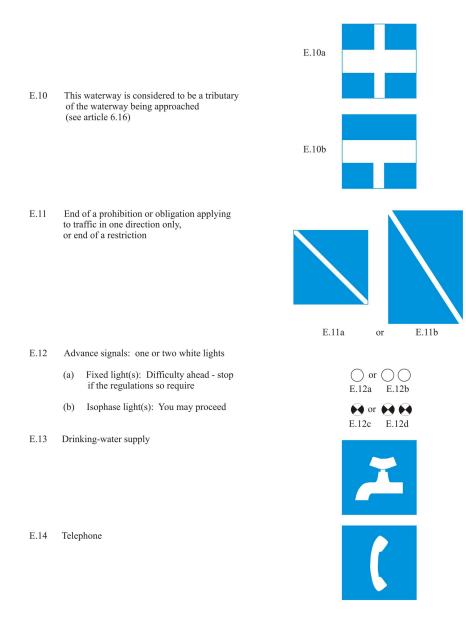
E.5.3 Maximum number of vessels permitted to berth abreast (see article 7.05)



E.5.4 Berthing area reserved for pushing-navigation vessels that are not required to carry the marking prescribed in article 3.14 (see article 7.06) E.5.5 Berthing area reserved for pushing-navigation vessels that are required to carry one blue light or one blue cone under article 3.14, paragraph 1 (see article 7.06) E.5.6 Berthing area reserved for pushing-navigation vessels that are required to carry two blue lights or two blue cones under article 3.14, paragraph 2 (see article 7.06) E.5.7 Berthing area reserved for pushing-navigation vessels that are required to carry three blue lights or three blue cones under article 3.14, paragraph 3 (see article 7.06) E.5.8 Berthing area reserved for vessels other than pushing-navigation vessels that are not required to carry the marking prescribed in article 3.14 (see article 7.06) E.5.9 Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry one blue light or one blue cone under article 3.14, paragraph 1 (see article 7.06)

E.5.10	Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry two blue lights or two blue cones under artricle 3.14, paragraph 2 (see article 7.06)	A
E.5.11	Berthing area reserved for vessels other than pushing-navigation vessels that are required to carry three blue lights or three blue cones under article 3.14, paragraph 3 (see article 7.06)	¥
E.5.12	Berthing area reserved for all vessesl that are not required to carry the marking prescribed in article 3.14 (see article 7.06)	
E.5.13	Berthing area reserved for all vessels that are required to carry one blue light or one blue cone under article 3.14, paragraph 1 (see article 7.06)	<b>♦</b>
E.5.14	Berthing area reserved for all vessels that are required to carry two blue lights or two blue cones under article 3.14, paragraph 2 (see article 7.06)	
E.5.15	Berthing area reserved for all vessels that are required to carry three blue lights or three blue cones under article 3.14, paragraph 3 (see article 7.06)	

E.6 Anchoring (see article 7.03) or trailing of anchors, cables or chains permitted (see article 6.18) E.7 Making fast to the bank permitted (see article 7.04) E.7.1 Berthing area reserved for loading and unloading vehicles. (Maximum duration of berthing permitted may be added on an information plate below the board) E.8 Turning area (see articles 6.13, 7.02) E.9a E.9 The waterways being approached are considered to be tributaries of this waterway (see article 6.16) E.9b





 $<sup>^{\</sup>rm I}$  The competent authorities may also use this board to permit small craft.

E.21 Zone authorized for high speed navigation of small sport and pleasure craft



E.22 Launching or beaching of vessels permitted



E. 23 Possibility of obtaining nautical information by radio-telephone on the channel indicated



E.24 Water bikes permitted



#### Section II. AUXILIARY SIGNS

The main signs (see section I) may be supplementeed by the following auxiliary signs:

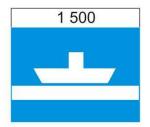
1. Panels showing the distance at which the regulation applies or the special feature indicated by the main sign is to be found

Note: The panels are placed above the main sign.

Examples:



In 1,000 m, stop



In 1,500 m, ferry-boat not moving independently

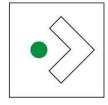
#### 2. Additional luminous signal

Luminous white arrow combined with certain lights, with the following meanings:



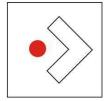






#### (a) With green light

Example: Permission to enter the basin to which the arrow is pointing

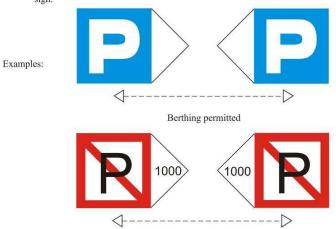


#### (b) With red light

Example: No entry to the basin to which the arrow is pointing

#### 3. Pointers showing the direction of the section to which the main sign applies

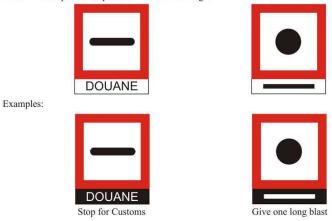
 $\it Note$ : The pointers need not necessarily be white and may be placed beside or below the main sign.



Berthing prohibited (over a distance of 1,000 m)

#### 4. Panels giving explanations or additional information

Note: These panels are placed below the main sign.



#### Annex 8

## BUOYAGE AND MARKING OF WATERWAYS, LAKES AND BROAD WATERWAYS

#### I. GENERAL

#### 1. Marking

The waterway, the fairway, as well as the danger points and obstacles are not always marked.

Buyos, when used, shall be anchored at approximately 5 m distance from the limits that they indicate.

Groynes and shallows can be marked using fixed marks or buyos. These marks or buyos shall, usually, be placed on the borders of groynes and shallows or in front of them.

It is necessary to keep a sufficient distance from the marks and the buyos to avoid the risk of getting on the ground or hitting an obstacle.

#### 2. Definitions

Right-hand side/left-hand side: the designations "right-hand side" and "left-

hand side" of the waterway or channel are to be understood as for an observer facing

downstream;

on canals, lakes and broad waterways, the terms "right" and "left" shall be defined by the

authorities.

Light: a distinctive light used as a marking.

Fixed light: an uninterrupted light of constant intensity and

colour.

Rhythmic light: a light of constant intensity and colour

operating in a characteristic and regularly repeated succession of spells of illumination

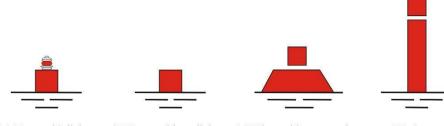
and extinction.

#### 3. Rhythm of lights Examples Single-occulting light Group-occulting light | Period ► Isophase light Period -Single-flashing light Group-flashing light Composite group-flashing light Period Continuous scintillating light or continuous quick scintillating light Group scintillating light or group quick scintillating light Period

<sup>\*</sup> In this instance, a long flash permits clear differentiation of the rhythm.

#### II. BUOYAGE OF CHANNEL LIMITS IN THE WATERWAY

#### 1. Right-hand side of the channel



**1.A** Buoy with light **1.B** Buoy without light **1.C** Float with a topmark

Sold to the state of the sold the sold

1.D Spar

(fig. 1)

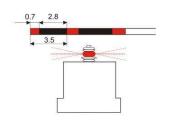
Colour: red

Form: cylindrical buoy or buoy with a topmark, or spar

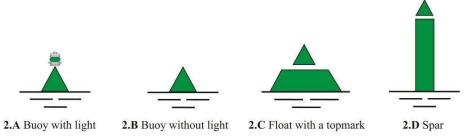
Topmark (if any): red cylinder

Light (when fitted): rhythmic red light

Generally with radar reflector.



#### 2. Left-hand side of the channel



(fig. 2)

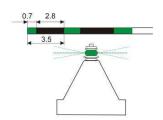
Colour: green

Form: conical buoy or buoy with a topmark, or spar

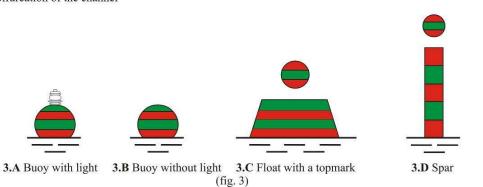
Topmark (if any): green cone, point upwards

Light (when fitted): rhythmic green light

Generally with radar reflector.



#### 3. Bifurcation of the channel

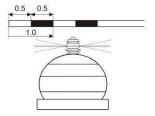


Colour: horizontal red and green bands

Form: spherical buoy or buoy with a topmark, or spar

Topmark (if any): sphere with horizontal red and green bands

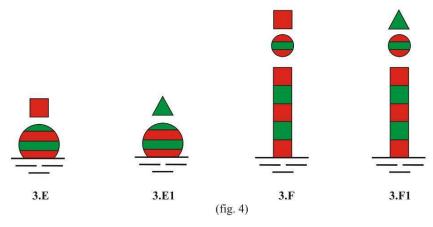
Light (when fitted): continuous scintillating white light, or isophase white light (may be the group-flashing white light with a group of three flashes)



Generally with radar reflector.

Where necessary, a red cylindrical topmark or green conical topmark placed above the bifurcation mark indicates on which side it is preferable to pass (main channel).

The mark shall then bear a rhythmic red light or a rhythmic green light, as appropriate.



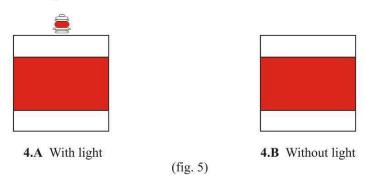
4. A letter "P" painted in white on the buoys described in paragraphs 1 and 2 indicates that the channel is adjacent to a berthing area. If the buoys showing the letter "P" carry a light, its rhythm shall be different from that of the lights of other buoys placed along the channel limit.

#### III. MARKS ON LAND INDICATING THE POSITION OF THE CHANNEL

#### A. Marks on land indicating the position of the channel in relation to the banks

These marks indicate the position of the channel in relation to the bank and, together with the buoyage of the waterway, mark the channel at points where it approaches a bank; they also serve as landmarks.

#### 1. Channel near the right bank

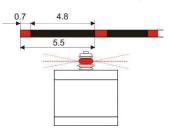


Colour: red/white

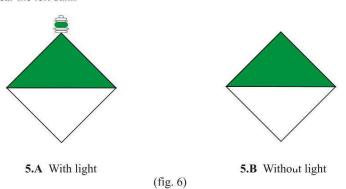
Form: post with topmark

Topmark: square boards (sides horizontal and vertical), red, with two horizontal white stripes;

Light (when fitted): rhythmic red light.



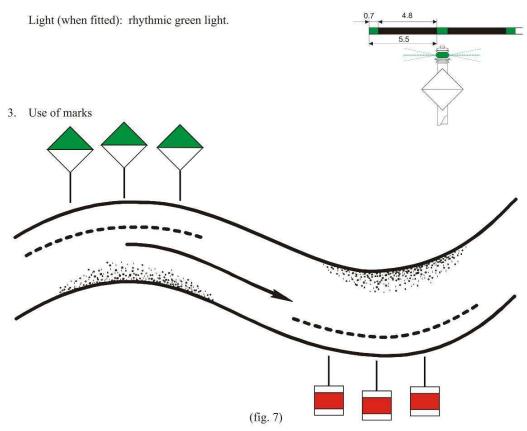
#### 2. Channel near the left bank



Colour: green/white

Form: post with topmark

Topmarks: square board (diagonals horizontal and vertical), upper half painted green and lower half white



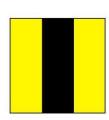
#### B. Marking of cross-overs

These marks indicate at what point the channel passes from one bank to another and also give the axis of this cross-over.

#### 1. Right bank



4.C With light



**4.D** Without light

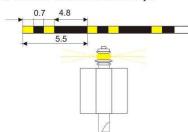
Colour: yellow/black

Form: post with topmark

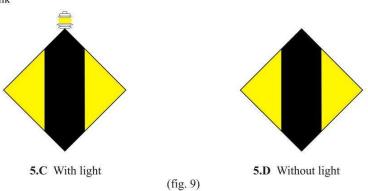
Topmark: square yellow board (sides horizontal and vertical), with a central vertical black stripe

(fig. 8)

Light (when fitted): yellow light, flashing or occulting, with an even-number characteristic other than the group-flashing rhythm with a group of two flashes.



#### 2. Left bank

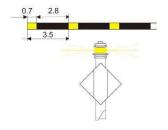


Colour: yellow/black

Form: post with topmark

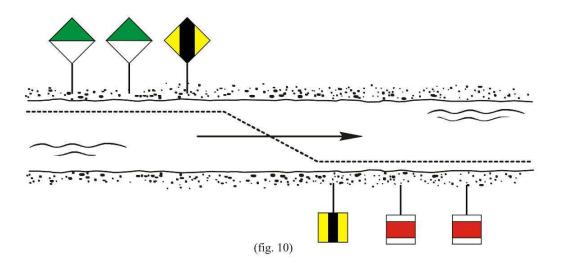
Topmark: square yellow board (diagonals horizontal and vertical), with a central vertical black stripe

Light (when fitted): yellow light, flashing or occulting, with an odd-number characteristic other than the group-flashing rhythm with a group of three flashes.



#### 3. Use of marks

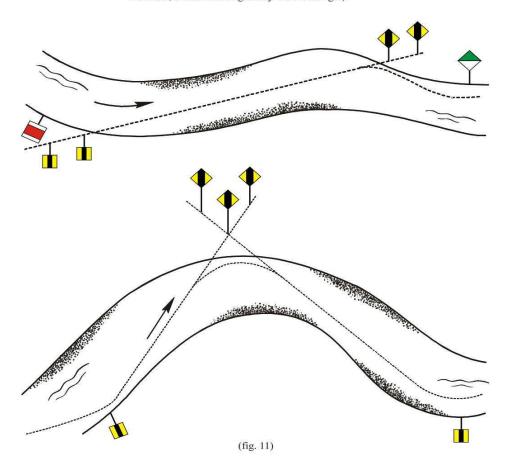
#### 3.1 Mere indication of cross-over



#### 3.2 Indication of the axis of a long cross-over

Two identical signs placed one behind the other on the same bank, the first sign positioned lower than the second one, forming an alignment marking the axis of a long cross-over.

Lights (if any): yellow (the forward light and rearward light generally having the same rhythm; however, the rearward light may be a fixed light).



#### IV. BUOYAGE AND MARKING OF DANGER POINTS AND OBSTACLES

#### A. Fixed marks

 Right-hand side Colour: red

Form: post with topmark

Topmark: red cone, point downwards Light (when fitted): rhythmic red light.

2. Left-hand side Colour: green

Form: post with topmark

Topmark: green cone, point upwards Light (when fitted): rhythmic green light.

3. Bifurcation

Colour: red/green

Form: post with topmark

Topmark: red cone, point downwards, above a green cone,

point upwards

Light (when fitted): continuous scintillating white light

or isophase white light

(may be the group-flashing white light

with a group of three flashes)

6.A (fig. 14)

(fig. 12)

**5.F** (fig. 13)

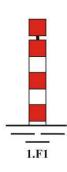
The above cones may be replaced by triangular panels with a white background and a red or green border.

#### 4. Secondary arms of the waterway, mouths of waterways and entrances to harbours

On the approach to secondary arms of the waterway, to mouths of waterways and to harbour entrances, the bank walls on both sides of the waterway may be marked as far as the head of the dividing mole by the fixed marks described in 1 and 2 above, figures 12 and 13. Vessels entering the harbour are regarded as upstream traffic.

#### B. Buoys

#### 1. Right-hand side



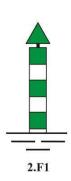
(fig. 15)

Colour: horizontal red and white bands

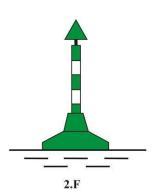
Form: spar-buoy or spar
Topmark: red cylinder

Light (when fitted): rhythmic red light Generally with radar reflector.

#### 2. Left-hand side



(fig. 16)



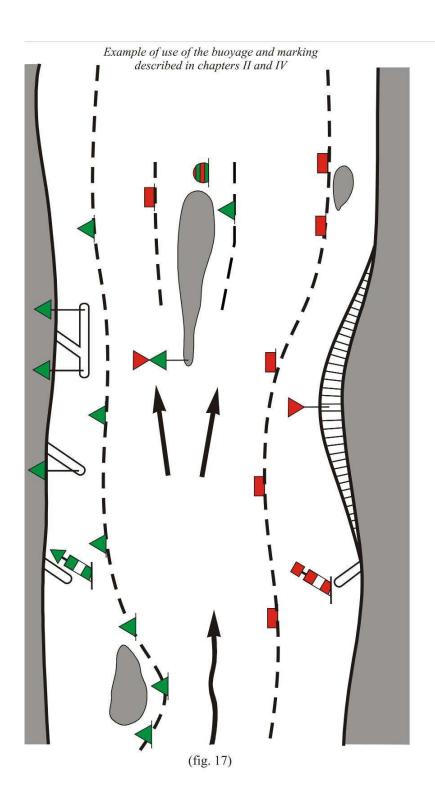
Colour: horizontal green and white bands

Form: spar-buoy or spar

Topmark: green cone, point upwards

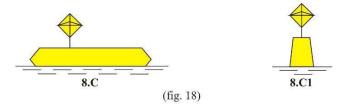
Light (when fitted): rhythmic green light

Generally with radar reflector.

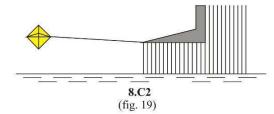


#### V. ADDITIONAL MARKING FOR NAVIGATION BY RADAR

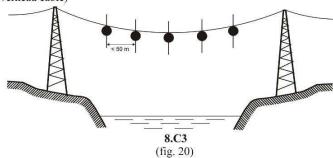
- A. Marking of bridge piers (if necessary)
- 1. Yellow floats with radar reflector (placed upstream and downstream from piers)



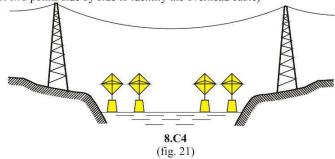
2. Pole with radar reflector placed upstream and downstream from bridge piers



- B. Marking of overhead cables (if necessary)
- Radar reflectors secured to the overhead cable (giving a radar image of a series of points to identify the overhead cable)



2. Radar reflectors placed on yellow floats arranged in pairs near each bank (each pair giving a radar image of two points side by side to identify the overhead cable)



### VI. ADDITIONAL BUOYAGE AND MARKING OF LAKES AND BROAD WATERWAYS

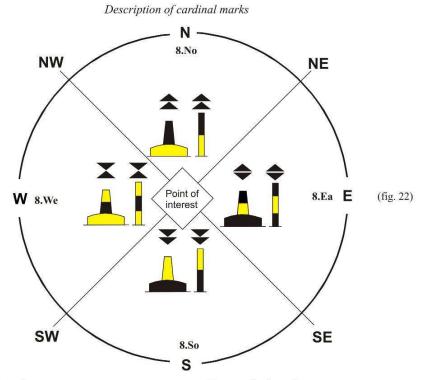
- A. Marking of danger points, obstacles and special features
- 1. Cardinal marks

Definition of cardinal quadrants and marks

The four quadrants (North, East, South and West) are bounded by the true bearings NW NE, NE-SE, SE-SW, SW-NW taken from the point of interest.

A cardinal mark is named after the quadrant in which it is placed.

The name of a cardinal mark indicates that the mark should be passed on the side of the quadrant named.



#### North cardinal mark

Colour : black above yellow Form : pillar or spar, with topmark

Topmark : two black cones, one above the other,

points upward

Light (when fitted): Colour: white

Rhythm: continuous quick scintillating

or continuous scintillating

#### South cardinal mark

Colour : yellow above black Form : pillar or spar, with topmark

Topmark : two black cones, one above the other,

points downward

Light (when fitted):
Colour: white

Rhythm: group quick scintillating or

group scintillating, with a group of six flashes followed by a long flash of not less than two seconds duration

#### East cardinal mark

Colour : black with a single broad horizontal yellow band

Form : pillar or spar, with topmark
Topmark : two black cones, one above

the other, base to base

Light (when fitted): Colour: white

Rhythm: group quick scintillating or

group scintillating, with a group of three flashes

#### West cardinal mark

Colour : yellow with a single broad

horizontal black band

Form : pillar or spar, with topmark
Topmark : two black cones, one above the

other, point to point

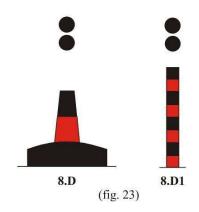
Light (when fitted):
Colour: white

Rhythm: group quick scintillating

or group scintillating, with a group of nine flashes

#### 2. Isolated danger marks

An isolated danger mark is a mark erected on, or moored above an isolated danger which has safe water all around it.



Colour : black with one or more broad

horizontal

Form : any (generally pillar or spar) with

topmark

Topmark : two black spheres, one above the

other

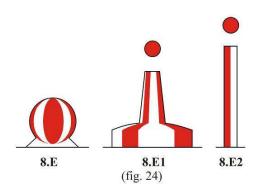
Light (when fitted): Colour: white

Rhythm: group flashing (group of two

flashes)

#### B. Marking of the axis of a channel, the middle of a channel or a landfall

Safe-water marks



Colour : red and white vertical stripes Form : spherical buoy or pillar or spar

with topmark

Topmark

(if any) : single red sphere

Light (when fitted):
Colour: white

Rhythm: isophase, single-occulting,

one long flash every 10 seconds

or Morse code "A"

#### C. Weather signs and signals on lakes

"Caution" warning

A yellow light producing about 40 flashes per minute constitutes a "caution" warning.

The "caution" warning indicates the probable onset of a dangerous phenomenon without specifying the time thereof.

"Danger" warning

A yellow light producing about 90 flashes per minute constitutes a "danger" warning.

The danger warning indicates the imminent arrival of a dangerous phenomenon.

#### **VII. MARKING OF PROHIBITED OR RESTRICTED AREAS**

1. Special marks

Colour: yellow

Form: any, but different from navigational marks

Topmark (if any): single yellow "X" shape

Light (when fitted):

Colour: yellow

Rhythm: any, other than those described in chapter VI.

2. The nature of the prohibition or restriction shall, insofar as possible, be made clear in writing (for instance, in charts) and by local information.

Local information may be carried on yellow buoys. It may also be given by means of topmarks placed on such buoys in lieu of a topmark as prescribed above. For example, buoys at the edge of a zone where navigation is totally prohibited may carry a staff with a rigid, triangular red pennon.

Information may be given on boards placed on the bank and representing any of the prohibitory or informative signs prescribed in annex 7, sections I.A and I.E. Such boards may, if necessary, be supplemented by an arrow indicating the direction of the area to which the sign applies (see annex 7, section II.3).

3. If a shore zone in which one or more types of vessel or activity are prohibited or restricted is crossed by a channel in which one such type of vessel or activity is not prohibited or restricted (except as regards an entrance to a harbour to which section II applies), the sides of that channel may, again, be marked by yellow buoys. The upper parts of the two buoys at the entrance may, if necessary, be painted red

on the right-hand side and green on the left-hand side for a boatmaster leaving the channel.

On the bank, boards as prescribed in annex 7, E.15 to E.20, may indicate the type of craft or activity permitted (e.g. the "water skiing" permission sign to indicate a water-skiing channel across an area where all navigation, or only water skiing, is prohibited); the markings may be supplemented by the arrow prescribed in annex 7, section II.3.

Where a zone open for more than one activity is crossed by a channel in which only one activity is permitted, the sides of that channel may be marked as in the above case. A board on the bank may indicate the activity permitted.

#### VIII. BUOYS FOR MISCELLANEOUS PURPOSES

If buoys are required for purposes other than those referred to above, they shall be predominantly white. They may carry pictograms.

#### IX. ENTRANCES TO HARBOURS

1. Marking of the entrance

By day:

To port of a vessel entering: red device, generally cylindrical; or a post

with a cylindrical red topmark; or a red

rectangle painted in the jetty;

To starboard of a vessel entering: green device, generally conical; or a post

with a conical green topmark; or a green triangle, point upward, painted on the jetty.

At night:

The day markings described above may be illuminated.

If lights are used:

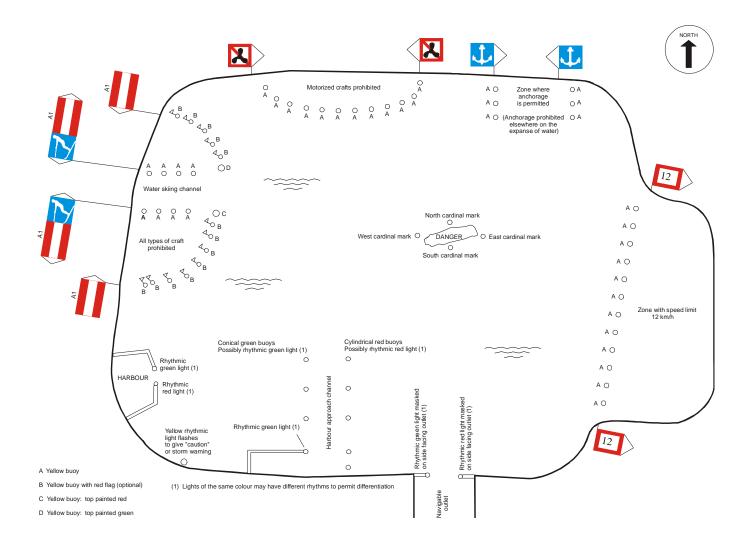
To port of a vessel entering: a red light, generally rhythmic;

To starboard of a vessel entering: a green light, generally rhythmic.

In certain cases, only one of these lights may be used.

2. This marking may be also used for entrances to tributary waterways, entrances to secondary arms of waterways and entrances to docks.

The following sketch illustrates the provisions of chapters VI, VII and IX.



### Annex 9 MODEL USED-OIL LOG

#### **USED-OIL LOG**

	Order No:
Type of vessel	Name of vessel
Official number or tonnage measurement number:	
Place of issue:	
Date of issue:	
This log contains pages	
Seal and signature of the author	ity issuing the log

#### Making out of used-oil logs

The first used-oil log, carrying order number 1 on page 1, is issued only by the authority which made out the vessel's certificate. This authority shall also enter the required particulars on page 1.

All the following logs, numbered by order, shall be made out by a competent local authority, but shall only be issued on presentation of the previous log. The previous log shall be indelibly stamped "Not valid" and returned to the boatmaster. It shall be kept on board for six months following the last entry.

#### Page 2 and following

# Oily and greasy wastes accepted, occurring during the operation of the vessel: Waste oil: \_\_\_\_\_\_1

waste oii.		1
Bilge water from:		
Aft engine room		1
Fore engine room		1
Other premises		1
Other oily and greasy wastes:		
Used rags		kg
Waste grease		kg
Used filters		units
Receptacles		units
Other comments:		
Place:	Date:	

Seal and signature of the reception facility

#### Annex 10

## GENERAL TECHNICAL SPECIFICATIONS APPLICABLE TO RADAR EQUIPMENT

(Left void)<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Requirements applicable to radar equipment shall be included in Recommendations on Harmonized Europe-Wide Technical Requirements for Inland Navigation Vessels" (Resolution No. 61).