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I Acts adopted under the EC Treaty/Euratom Treaty whose publication is obligatory

REGULATIONS

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Acts whose titles are printed in light type are those relating to day-to-day management of agricultural matters, and are generally valid for a limited period.

The titles of all other acts are printed in bold type and preceded by an asterisk.

I

(Acts adopted under the EC Treaty/Euratom Treaty whose publication is obligatory)

REGULATIONS

COMMISSION REGULATION (EC) No 414/2007

of 13 March 2007

concerning the technical guidelines for the planning, implementation and operational use of river information services (RIS) referred to in Article 5 of Directive 2005/44/EC of the European Parliament and of the Council on harmonised river information services (RIS) on inland waterways in the Community

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

maritime vessel traffic management and information services.

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2005/44/EC of the European Parliament and of the Council of 7 September 2005 on harmonised river information services (RIS) on inland waterways in the Community ⁽¹⁾, and in particular Article 5 thereof,

Whereas:

(5) In order to ensure a mutual understanding regarding the planning, implementation and operational use of RIS, the terms and definitions given in these RIS guidelines shall be used in further standardisation work and in application design.

(6) The RIS architecture given in these guidelines shall be applied when developing services, systems and applications.

(1) In accordance with Article 1 of Directive 2005/44/EC, river information services (RIS) shall be developed and implemented in a harmonised, interoperable and open way.

(7) In planning RIS, a systematic procedure as described in these RIS Guidelines shall be followed.

(2) In accordance with Article 5 of Directive 2005/44/EC, technical guidelines for the planning, implementation and operational use of river information services (RIS), hereafter referred to as RIS guidelines, shall be defined.

(8) The guidelines, which are the subject of this Regulation, correspond to the current technical state of the art. Experiences gained from the application of Directive 2005/44/EC as well as future technical progress may make it necessary to amend the guidelines in accordance with Article 5(2) of Directive 2005/44/EC.

(3) The RIS guidelines shall be based on the technical principles set out in Annex II to the Directive.

(9) The draft RIS guidelines have been examined by the Committee referred to in Article 11 of Directive 2005/44/EC.

(4) In accordance with Article 1(2) of Directive 2005/44/EC, the RIS guidelines shall take due account of the work carried out by relevant international organisations such as PIANC, CCNR and UNECE. Continuity shall be ensured with other modal traffic management services, in particular

(10) The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 11 of Directive 2005/44/EC.

⁽¹⁾ OJ L 255, 30.9.2005, p. 152.

HAS ADOPTED THIS REGULATION:

Article 2

Article 1

This Regulation defines guidelines for the planning, implementation and operational use of river information services (RIS). The guidelines are set out in the Annex to this Regulation.

This Regulation shall enter into force on the day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 13 March 2007.

For the Commission

Jacques BARROT

Vice-President

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ABBREVIATIONS

ADNR	Accord européen relative au transport international des marchandises dangereuses par voie de navigation intérieur du Rhin
AIS	Automatic identification system (transponder)
ARGO	Advanced river navigation
AVV	Adviesdienst Verkeer en Vervoer (The Netherlands)
BICS	Binnenvaart informatie en communicatie systeem (electronic reporting system)
CAS	Calamity abatement support
CCNR	Central Commission for the Navigation on the Rhine
CCTV	Closed circuit television
CEVNI	Code européen de voies de la navigation intérieure (European code for inland waterways), edited by UN/ECE
COMPRIS	Consortium operational management platform river information services (R&D project of the EU, 2003 — 2005)
D4D	Data warehouse for the River Danube
DGPS	Differential global positioning system
ECDIS	Electronic chart and display information system
ECE	Economic Commission for Europe of the United Nations
EDI	Electronic data interchange
EDIFACT	Electronic data interchange for administration, commerce and transport (UN/ECE Standard)

ENC	Electronic navigational chart
ETA	Estimated time of arrival
ETD	Estimated time of departure
ETSI	European Telecommunications Standards Institute
FI	Fairway information
FIS	Fairway information service
GLONASS	Global orbiting navigation satellite system
GNSS	Global navigation satellite system
GSM	Global system for mobile communication
HF	High frequency
HS Code	Harmonised commodity description and coding system of WCO
IALA	International Organisation of Marine Aids to Navigation and Lighthouse Authorities
IEC	International Electrotechnical Commission
IHO	International Hydrographic Organisation
IMDG Code	International maritime dangerous goods code
IMO	International Maritime Organisation
INDRIS	Inland navigation demonstrator of river information services (R&D project of EU, 1998–2000)
ISO	International Standardisation Organisation
IT	Information technology
ITU	International Telecommunication Union
LAN	Local area network
LBM	Lock and bridge management
OFS	Official ship number
PIANC	International Navigation Association
PTM	Port and terminal management
RIS	River information services
RTA	Required time of arrival
SAR	Search and rescue
SIGNI	Signs and signals on inland waterways, edited by UN/ECE
SMS	Short message service
SOLAS	International Convention on Safety of Life at Sea
SOTDMA AIS	Self organising time division multiple access AIS
STI	Strategic traffic information (image)
TCP/IP	Transmission control protocol/Internet protocol
TI	Traffic information
TTI	Tactical traffic information (image)
UMTS	Universal mobile telecommunication system
UTC	Universal time coordinated
VDL	VHF data link
VHF	Very high frequency
VTC	Vessel traffic centre
VTMIS	Vessel traffic management and information services (maritime navigation)
VTS	Vessel traffic services
WAP	Wireless application protocol
WCO	World Customs Organisation
WI-FI	Wireless fidelity
ZKR/CCNR	Zentralkommission für die Rheinschifffahrt

FIGURES

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1. INTRODUCTION

- (1) The RIS guidelines describe the principles and general requirements for planning, implementing and operational use of river information services and related systems.
- (2) They are equally applicable to the traffic of cargo vessels, passenger vessels and pleasure craft.
- (3) They should be used in conjunction with international regulations, recommendations and guidelines, such as:
 - (a) Guidelines and Criteria for Vessel Traffic Services in Inland Waters (Inland VTS Guidelines), (world-wide), IALA recommendation V-120, June 2001, 2001;
 - (b) Regional Arrangement Concerning the Radiotelephone Service on Inland Waterways (Basel), 2000;
 - (c) technical specifications for Inland ECDIS as defined under the RIS Directive ⁽¹⁾;
 - (d) technical specifications for vessel tracking and tracing systems, such as Inland AIS, as defined under the RIS Directive;
 - (e) technical specifications for electronic ship reporting in inland navigation as defined under the RIS Directive;
 - (f) technical specifications for notices to skippers in inland navigation as defined under the RIS Directive;
 - (g) Harmonised Commodity Description and Coding System of the WCO (worldwide);
 - (h) UN Code for Trade and Transport Locations UN/LOCODE (worldwide);
 - (i) EDIFACT Standard of the UN (worldwide);
 - (j) Standardised UN/ECE Vocabulary for Radio Connections in Inland Navigation (Europe), 1997.
- (4) A number of concepts and standardisation proposals for river information services have been developed in the research and development project INDRIS of the European Union ⁽²⁾. These are:
 - (a) Guidelines and recommendations for RIS, 1999 (used as starting point for the RIS Guidelines by PIANC);
 - (b) Functional definition of the RIS concept, 1998;
 - (c) Standardisation of data communication (AIS, GNSS, Internet), 1999;
 - (d) Standards for tactical data exchange, communication and messages (Inland AIS), 1998;
 - (e) Standardisation of data, 1998:
 - standards of codes (country, location, terminal, type of vessel, cargo),
 - RIS scenarios (functions),
 - data-interchange standards (EDIFACT, S-57 update mechanism);
 - (f) reporting databases, 1999.
- (5) The concept for Inland ECDIS has been developed in the German ARGO ⁽³⁾ project in cooperation with INDRIS.

⁽¹⁾ Directive 2005/44/EC of the European Parliament and of the Council of 7 September 2005 on harmonised river information services (RIS) on inland waterway in the Community (OJ L 255, 30.9.2005, p. 152).

⁽²⁾ Results available on CD from the Transport Research Centre (AVV), Rijkswaterstaat, PO Box 1031, 3000 BA Rotterdam, The Netherlands.

⁽³⁾ The final report of 15 March 2003 on the ARGO test operation with depths information can be downloaded from the web page www.elwis.de under the rubric 'RIS-Telematikprojekte (ARGO)'.

- (6) The concept for a RIS architecture has been developed by the WATERMAN ⁽⁴⁾ thematic network, an action under the Fifth Framework Programme for Research and Technological Development of the EU in the fields of VTMISS (maritime navigation) and RIS. Using these achievements, the RIS architecture has been elaborated comprehensively and in detail in the research and development project COMPRIS ⁽⁵⁾ of the European Union in 2003.
- (7) When reference is made in this document to Inland ECDIS (and electronic navigational charts), Inland AIS (or vessel tracking and tracing systems in general), electronic ship reporting and notices to skippers, the technical specifications as defined under the RIS Directive are meant.

2. DEFINITIONS

The following terms are used in connection with river information services in these RIS Guidelines (see also some specific definitions in Chapters 4 and 5).

2.1. River information services (RIS)

River information services means harmonised information services to support traffic and transport management in inland navigation, including, wherever technically feasible interfaces to other transport modes. RIS aim at contributing to a safe and efficient transport process and at utilising the inland waterways to their fullest extent. RIS are already in operation in manifold ways.

Explanatory notes:

- (1) RIS include interfaces with other transport modes, sea, roads and railways.
- (2) Rivers in the context of RIS include all inland waterways and ports as defined in Article 2(1) of the RIS Directive.
- (3) RIS is also the generic term for all individual information services to support inland navigation in a harmonised way.
- (4) RIS collect, process, assess and disseminate fairway, traffic and transport information.
- (5) RIS are not dealing with internal commercial activities between one or more of the involved companies, but RIS are open for interfacing with commercial activities.

2.2. RIS system

For the purpose of RIS, modern river information systems consist of one or more harmonised IT systems. An IT system (information technology system) is the totality of human resources, hardware, software, communication means and regulations in order to fulfil the task of processing information.

⁽⁴⁾ Information available from the Transport Research Centre (AVV), Rijkswaterstaat, PO Box 1031, 3000 BA Rotterdam, The Netherlands.

⁽⁵⁾ Results available from the Transport Research Centre (AVV), Rijkswaterstaat, PO Box 1031, 3000 BA Rotterdam, The Netherlands and www.euro-compris.org.

2.3. RIS area

The RIS area is the formally described area, where RIS are active. A RIS area may comprise the waterways in a geographical river basin, including the territories of one or more countries (e.g. in a situation where a waterway forms the borderline between two countries) (Figure 2.3).

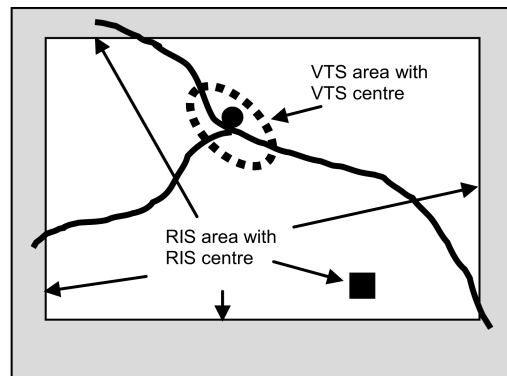


Figure 2.3.

Relation between RIS area and VTS area

2.4. RIS centre

A RIS centre is the place, where the services are managed by operators. A RIS may exist without a RIS centre (e.g. an Internet service, a buoys service). When ship/shore interaction in both ways (e.g. by VHF service) is intended, one or more RIS centres are needed. If a VTS centre or a lock exists in a RIS area, they may also be used as RIS centres. It is recommended to concentrate all services in a RIS area into one single RIS centre.

2.5. Inland VTS

Inland vessel traffic services are a service, implemented by a competent authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment. The service should have the capability to interact with the traffic and to respond to traffic situations developing in the VTS area.

VTS should comprise at least an information service and may include others, such as navigational assistance service, or a traffic organisation service, or both, defined as below:

- an information service is a service to ensure that essential information becomes available in time for on-board navigational decision-making,
- a navigational assistance service is a service to assist on-board navigational decision-making and to monitor its effects. Navigational assistance is especially of importance in reduced visibility, or difficult meteorological circumstances or in case of defects or deficiencies affecting the radar, steering or propulsion. Navigational assistance is given in due form of position information at the request of the traffic participant or in special circumstances when deemed necessary by the VTS operator, using technologies such as GNSS/Galileo,
- a traffic organisation service is a service to prevent the development of dangerous vessel traffic situations by managing traffic movements and to provide for the safe and efficient movement of vessel traffic within the VTS area (Chapters 4.5 and 5.3.1).

Where present, VTS are part of river information services (Figure 2.3). Within RIS, Inland VTS belongs to the group of traffic management services with the emphasis on information service and traffic organisation (Chapter 4.5 and 5.3.1).

2.6. VTS area

A VTS area is the delineated, formally declared service area of a VTS. A VTS area may be subdivided in sub-areas or sectors.

2.7. VTS centre

A VTS centre is the centre from where the VTS is operated. Each sub-area of the VTS may have its own sub-centre.

2.8. Competent authority

The competent authority as referred to in Article 8 of the RIS Directive is the authority made responsible for safety, in whole or in part, by the government, including environmental friendliness and efficiency of vessel traffic. The competent authority usually has the tasks of planning, arranging funding and of commissioning of RIS.

2.9. RIS authority

The RIS authority is the authority with the responsibility for the management, operation and coordination of RIS, the interaction with participating vessels, and safe and effective provision of the service.

2.10. RIS users

The users of the services can be described in a number of different groups: skippers, RIS operators, lock/bridge operators, waterway authorities, terminal operators, operators in calamity centres, fleet managers, cargo shippers, consignors, consignees, freight brokers, and supply forwarders.

2.11. Levels of RIS information

River information services work on the basis of different information levels. Fairway information contains the data of the waterway only. Traffic information has the information on vessels in the RIS area. Traffic information can be divided into tactical traffic information and strategic traffic information. Traffic information is provided by traffic images.

There are three levels of information:

- (1) Fairway information (FI) contains geographical, hydrological, and administrative information regarding the waterway (fairway) in the RIS area that is required by the RIS users to plan, execute and monitor a voyage. Fairway information is one-way information: shore to ship or shore to office (users' office).
- (2) Tactical traffic information (TTI) is the information affecting the skipper's or the VTS operator's immediate decisions with respect to navigation in the actual traffic situation and the close geographic surroundings. A tactical traffic image contains position information and specific vessel information of all targets detected by a radar and presented on an electronic navigational chart, and — if available — enhanced by external traffic information, such as the information delivered by an Inland AIS. TTI may be provided on board a vessel or on shore, e.g. in a VTS centre.
- (3) Strategic traffic information (STI) is the information affecting the medium and long term decisions of RIS users. A strategic traffic image contributes to the planning decision capabilities regarding a safe and efficient voyage. A strategic traffic image is produced in a RIS centre and delivered to the users on demand. A strategic traffic image contains all relevant vessels in the RIS area with their characteristics, cargoes and positions, stored in a database and presented in a table or on an electronic map. Strategic traffic information may be provided by a RIS/VTS centre or by an office.

2.12. Vessel tracking and tracing

Vessel tracking means the function of maintaining status information of the vessel, such as the current position and characteristics, and — if needed — combined with information on cargo and consignments.

Vessel tracing means the retrieving of information concerning the whereabouts of the vessel and — if needed — information on cargo, consignments and equipment.

Part of this service can be fulfilled for example by Inland AIS. Other parts can be fulfilled by an electronic ship reporting system.

3. PARTICIPATING VESSELS

- (1) Vessels navigating in a RIS area shall make use of mandatory services and are recommended to make use as far as possible of the information provided by RIS and relevant services.
- (2) Decisions concerning the actual navigation and the manoeuvring of the vessel remain within the responsibility of the skipper. Any information provided by the RIS cannot replace any decision made by the skipper.
- (3) Depending on the level of information available and on the requirements of the competent authority, the vessels (except pleasure craft) are recommended to be equipped step by step with (see Chapter 4.8):
 - (a) a radio equipped for the simultaneous reception of inland navigation radio on two VHF channels (ship/ship and ship/shore);
 - (b) a radar for the presentation of the traffic in the close surroundings of the vessel;
 - (c) a PC with mobile communication facilities (GSM) for the reception of e-mail and Internet, and for electronic reporting;
 - (d) an Inland ECDIS device with electronic navigational charts (ENCs);
 - in information mode,
 - in navigation mode (with radar overlay);
 - (e) a vessel tracking and tracing system, such as Inland AIS, with position receiver (GNSS/Galileo) and radio transceiver using Inland ECDIS for visualisation.

4. RIS ARCHITECTURE

4.1. General

The idea of the thematic network WATERMAN (Chapter 1(6)) behind the development of the framework architecture for RIS was to translate policy *objectives* into specifications for application design. The RIS architecture should be defined in such a way that RIS applications will be produced to be efficient, expandable and able to interact with other RIS applications or applications for other modes of transport. RIS architecture development should lead to an integrated environment of RIS applications in a way that the performance, usefulness and efficiency of the applications will be enhanced.

River information services may be developed and redesigned according to Figure 4.1.

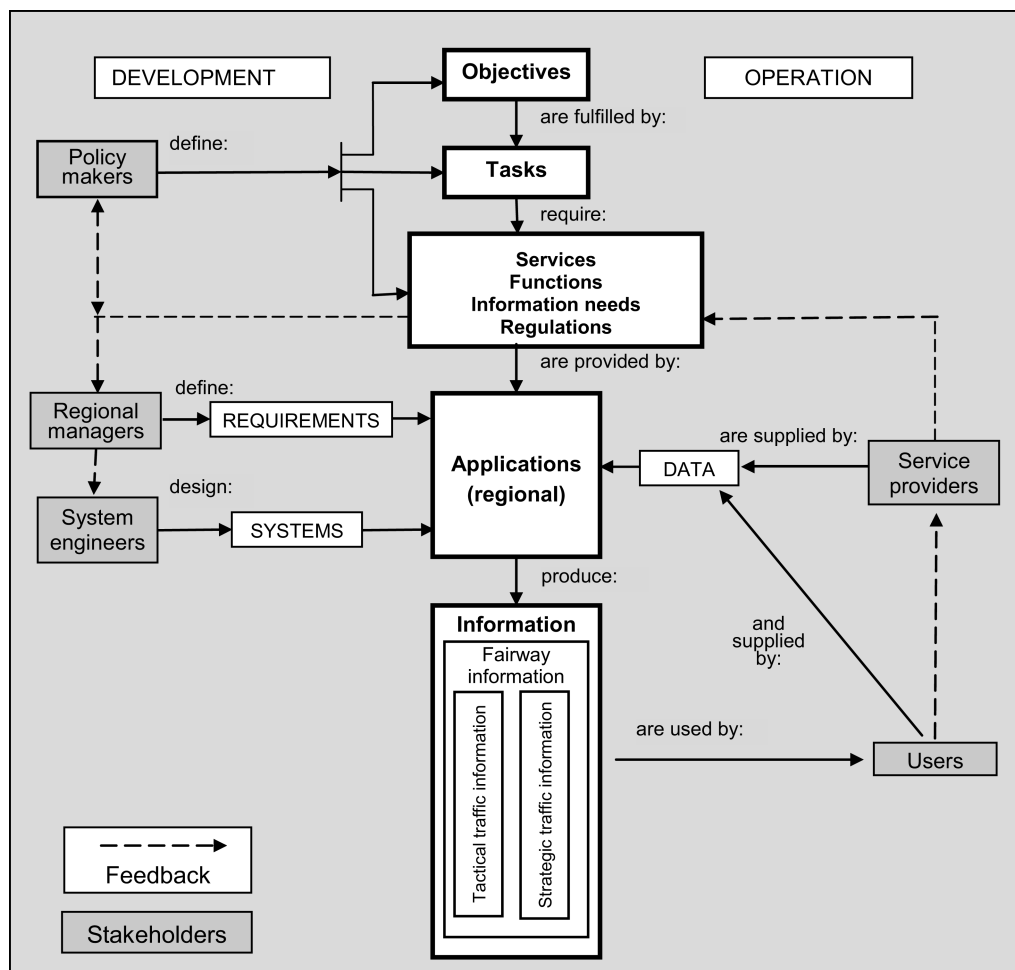


Figure 4.1.

RIS development and redesign

4.2. RIS stakeholders

RIS will be realised and kept operational by a set of cooperating stakeholders. The most important of them are:

4.2.1. Policy makers

Policy makers want the RIS to solve (or diminish) traffic and transport problems. One party of policy makers are the authorities responsible for safety on the waterways. Other policy makers, e.g. organisations of ship owners, want to provide transport/logistical information services to cargo shippers and terminal operators. The different groups of policy makers have their own policy objectives, tasks and ideas about the required services to achieve its objectives. Once the services have been selected, the functions and information needs with their restrictions and interactions for providing these services should be determined.

4.2.2. Regional managers

Regional managers control the RIS applications, e.g. waterway managers of the competent authority, traffic control managers, managers of search and rescue services, ship owners, and cargo shippers. They define requirements for applications with more detailed and accurate descriptions of the services and the functions, regarding local aspects or aspects of man/machine interface.

4.2.3. System engineers

System engineers prepare system specifications and integrate hardware and software components into system components. RIS and VTS suppliers, system integrators, and telecommunication operators will combine the system components into complete systems which enable RIS services.

4.2.4. Service providers

Service providers make and keep RIS operational and therefore they develop, maintain and operate the RIS applications. They control the autonomous applications and, where necessary, they provide the main input into the applications either by themselves or by RIS users.

4.2.5. RIS users

RIS users can be described as a number of different groups: skippers, RIS operators, lock/bridge operators, waterway authorities, terminal operators, operators in calamity centres, fleet managers, cargo shippers, consignors, consignees, freight brokers, supply forwarders.

4.3. RIS objectives

An objective is the description of intention. The objective may also be called the goal or aim. RIS have three main objectives:

- (1) transport should be safe:
 - minimise injuries,
 - minimise fatalities,
 - minimise voyage incidents;
- (2) transport should be efficient:
 - maximise throughput or effective capacity of waterways,
 - maximise the carrying capacity of vessels (length, width, draught and height),
 - reduce travel time,
 - reduce workload of RIS users,
 - reduce transport costs,
 - reduce fuel consumption,
 - provide efficient and economical link between transport modes,
 - provide efficient harbours and terminals;
- (3) transport should be environmentally friendly:
 - reduce environmental hazard,
 - reduce polluting emissions and spills due to accidents, illegal actions or normal operations.

These objectives should be met under the constraints that all RIS are supplied in a manner that is reliable, cost efficient and legally sound.

4.4. RIS tasks

River information services support a number of management tasks in inland shipping. These tasks are related to the objectives (Chapter 4.3) and performed in three different 'arenas':

- *transport logistics* where parties that cause the transport cooperate with parties that organise the transport (e.g. consignors, consignees, shippers, supply forwarders, freight brokers, fleet owners),
- *transport* where parties that organise the transport cooperate with parties that execute the transport (e.g. fleet owners, terminal operators, customers),

- *traffic* where parties that execute the transport (e. g. ship masters and navigators) cooperate with parties that manage the resulting vessel traffic (e.g. traffic manager, competent authorities).

The tasks are performed by different *actors* playing their *role* and being involved in *transport objects* and *transport processes*. One actor can be a stakeholder in one or more arenas at the same time. The activities of the actors are combined at *transfer points* and *transfer processes*. Figure 4.4.a gives an overview of all the relevant roles (and thus the stakeholders fulfilling these roles) responsible for traffic, transport and transport logistics in inland shipping. The tasks in Figure 4.4.a are also called *communal tasks* in the sense that individual tasks of the involved roles have to be tuned to each other by mutually informing each other, by negotiation or — in some cases — by passing on directions. This overview is the basis for defining RIS (Source: COMPRIS: RIS architecture, reference model).

Figure 4.4.a.

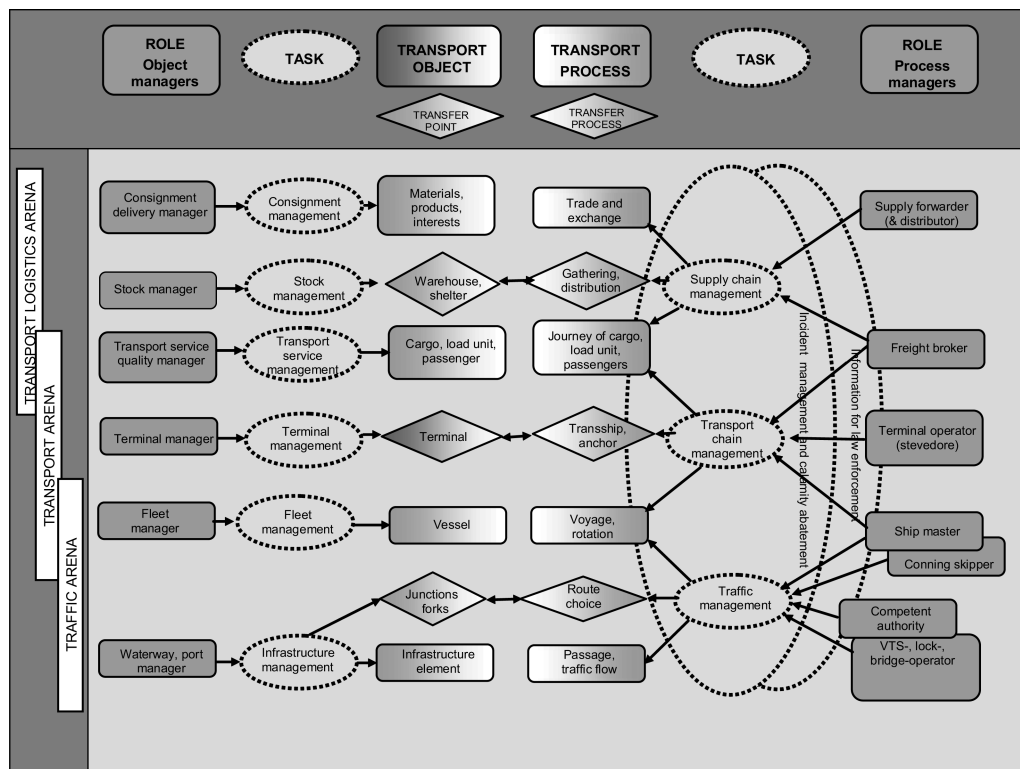


Figure 4.4.a.

Arenas, roles and management tasks in inland shipping

The management tasks allow deriving the following RIS in relation to the objectives, where one RIS service can fulfil one or more management tasks (Table 4.4.b):

Table 4.4.b.

Derivation of RIS

Objectives Chapter 4.3)	Management tasks (Figure 4.4 a)		RIS (Table 4.5)
Efficiency	Transport object related	Consignment management	ITL cargo management (5.d)
		Stock management	
		Transport service management	ITL outside the scope of RIS
		Terminal management	ITL terminal management (5.c)
		Fleet management	ITL cargo and fleet management (5.d)
Safety, environmental friendliness, efficiency		Infrastructure management	Fairway information service (1)
			Statistics (7)
			Waterway charges and harbour dues (8)
Efficiency	Transport process related	Supply chain management Transport chain management	ITL cargo and fleet management (5.d)
			ITL transport management (5.b)
			ITL inter-modal port and terminal management (5.c)
			ITL voyage planning (5.a)
Safety, efficiency	Traffic process related	Traffic management	Traffic information (2)
			Traffic management (3)
Safety, environmental friendliness, efficiency	All objects and processes	Incident management and calamity abatement	Calamity abatement support (4)
		Law enforcement	Information for law enforcement (6)

ITL = Information for transport logistics () = numbering in Table 4.5

The tasks in all RIS arenas are performed by the actors in cycles as shown in Figures 4.4.c and d. Moreover, the tasks may take place on an operational, tactical or strategic level (good examples are the tactical and strategic traffic information levels, defined in Chapter 2.11). This concept allows to draw for each individual task an *information processing loop* including the actions of the different actors. Every step in the information processing loop can be supported by river information services, which help the actor in his observations, evaluations, decisions, and actions. The information processing loop can be used to define the river information services (Chapter 4.5) and RIS functions (Chapter 4.6). An example for an information processing loop is given in Appendix A (COMPRIS: RIS architecture, information architecture).

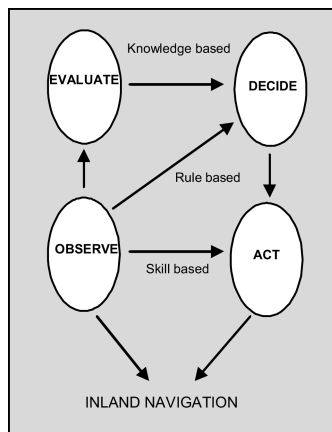


Figure 4.4.c

Elements of an information processing loop

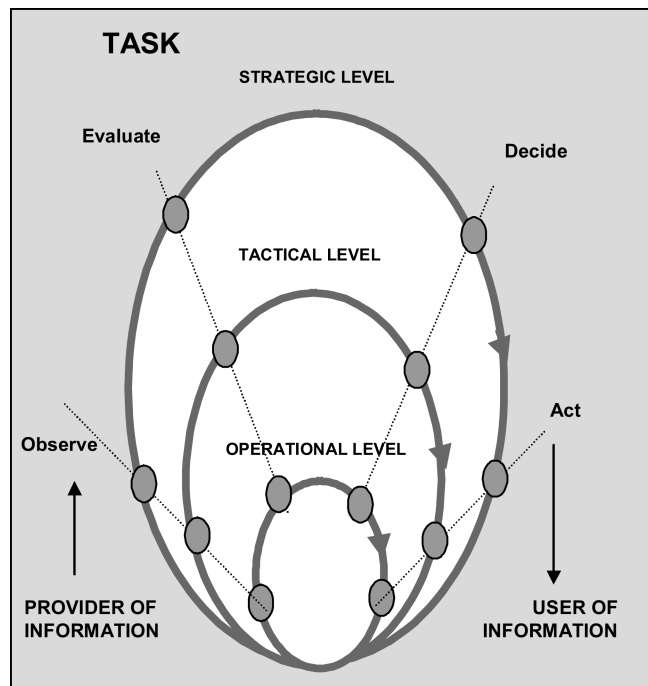


Figure 4.4.d

Information processing loop

4.5. River information services

A service provides and uses information. It supports the user in achieving an improvement in performance. Services are developed by development projects and initiatives (driven by stakeholders or by technology push). Services are the means for the user to achieve the objectives. The execution of a task can be enhanced by using one or more services.

River information services as identified in Chapter 4.4 are rearranged and subdivided according to Table 4.5.

Table 4.5

River information services

Mainly traffic related

1. **Fairway information service (FIS)**
 - a) Visual aids to navigation
 - b) Radiotelephone service on inland waterways
 - c) Internet service
 - d) Electronic navigational chart service
2. **Traffic information (TI)**
 - a) Tactical traffic information (TTI)
 - b) Strategic traffic information (STI)
3. **Traffic management (TM)**
 - a) Local traffic management (vessel traffic services - VTS)
 - b) Navigational support (NS)
 - c) Lock and bridge management (LBM)

4. Calamity abatement support (CAS)

Mainly transport related

5. Information for transport logistics/management (ITL)

- a) Voyage planning (VP)
- b) Transport management (TPM)
- c) Intermodal port and terminal management (PTM)
- d) Cargo and fleet management (CFM)

6. Information for law enforcement (ILE)

7. Statistics (ST)

8. Waterway charges and harbour dues (CHD)

Abbreviations in Table 4.5 are used only to provide the connection to Table 4.6.

4.6. RIS functions and information needs

A RIS function is understood as a contribution to a service. The functional decomposition of river information services allows the allocation of information supply to user demand. Table 4.6 shows the connections between services (Chapter 4.5), functions (Chapter 4.6), users (Chapter 4.2.5) and information levels (Chapter 2.11). It also shows that in many cases the same function serves many participants in the transport process. Table 4.6 gives an example as a guide to anybody else and may remind the reader in making his/her own list.

Table 4.6.

Functional decomposition of river information services

No	RIS service RIS sub-service RIS function	Information level	User							
			Ship master	VTS operator	Lock/bridge operator	Waterways authority	Terminal operator	Calamity centre	Fleet manager	Cargo shipper
FIS	Fairway information service									
	Provision of information on:									
FIS.1	Geography of the navigation area and their updates	FIS	X	X	X	X		X	X	X
FIS.2	Navigation aids and traffic signs	FIS	X	X	X	X		X		
FIS.3	Water depths contours in the navigation channel	FIS	X		X	X	X	X		X
FIS.4	Long time obstructions in the fairway	FIS	X	X	X	X		X	X	X
FIS.5	Actual meteorological information	FIS	X	X		X		X		
FIS.6	Temporary obstructions in the fairway	FIS	X	X		X		X		X
FIS.7	Present and future water levels at gauges	FIS	X	X		X		X	X	X
FIS.8	State of the rivers, canals, locks and bridges in the RIS area	FIS	X	X	X	X		X		X

No	RIS service RIS sub-service RIS function	Information level	User							
			Ship master	VTS operator	Lock/bridge operator	Waterways authority	Terminal operator	Calamity centre	Fleet manager	Cargo shipper
FIS.9	Restrictions caused by flood and ice	FIS	X	X	X	X		X	X	X
FIS.10	Malfunctions of aids to navigation	FIS	X	X		X				
FIS .11	Short term changes of lock and bridge operating times	FIS	X	X	X	X				X
FIS .12	Short term changes of aids to navigation	FIS	X	X		X				
FIS.13	Regular lock and bridge operating times	FIS	X	X	X	X		X	X	X
FIS.14	Physical limitations on waterways, bridges and locks	FIS	X	X	X	X		X	X	X
FIS.15	Navigational rules and regulations	FIS	X	X	X	X		X	X	
FIS.16	Rates of waterway infrastructure charges	FIS	X			X			X	X
FIS.17	Regulations and recommendations for pleasure navigation	FIS	(X)			X		X		
TI	Traffic information									
<i>TTI</i>	<i>Tactical traffic information (short term related)</i>									
TTI.1	Presentation of own vessel's position	TTI	X		X					
TTI.2	Presentation of other vessels' positions	TTI	X	X						
<i>STI</i>	<i>Strategic traffic information (medium and long term related)</i>									
STI. 1	Presentation of fairway information (=FIS)	FIS	X			X		X	X	
STI. 2	Presentation of vessel's positions in large surroundings	STI	X		X	X		X		
STI.3	Medium and long term assessment of traffic situation	STI	X			X				
STI.4	Presentation of vessel's characteristics	STI	X		X	X	X	X		X
STI.5	Presentation of cargo's characteristics	STI	X		X	X	X	X		X
STI.6	Presentation of intended destination	STI	X	X	X	X	X	X	X	X
STI.7	Presentation of information on incidents/accidents in the coverage area	STI	X	X		X		X		
STI.8	Organisation and regulation of traffic flow	STI	X	X		X				
TM	Traffic management									
<i>VTS</i>	<i>Vessel traffic services (local)</i>									
VTS.1	Presentation of vessel's positions in large scale	TTI		X						
VTS.2	Monitoring of passing and manoeuvring arrangements	TTI		X						
VTS.3	Short term assessment of traffic situation	TTI		X						
VTS.4	Organisation and regulation of traffic flow in RIS coverage area	TTI		X						
<i>NS</i>	<i>Navigational support</i>									
NS.1	Information to pilots (navigational support)	TTI	X	X						

No	RIS service RIS sub-service RIS function	Information level	User							
			Ship master	VTS operator	Lock/bridge operator	Waterways authority	Terminal operator	Calamity centre	Fleet manager	Cargo shipper
NS.2	Information to tug boats (nautical support)	STI	X							
NS.3	Information to bunker boats, waste oil removal boats, vessel equipment firms (vessel support service)	STI	X						X	
LBM	Lock and bridge management									
LBM.1	Lock/bridge operation									
LBM.1.1	Presentation of actual status of lock/bridge process	TTI	X		X					
LBM.1.2	Presentation of short term planning of lock/bridge (ETAs/ RTAs of vessels, waiting places, lock/bridge positions)	TTI	X	X	X					
LBM.2	Lock/bridge planning									
LBM.2.1	Provision of ETAs of approaching vessels	STI			X					
LBM.2.2	Provision of information on medium and long term schedule of lock/bridge process	STI			X	X				
LBM.2.3	Provision of medium and long term RTAs of vessels	STI	X		X					
CAS	Calamity abatement support									
CAS.1	Information on incidents focused on traffic situation	TTI	X			X		X		
CAS.2	Assessment of the traffic situation in the situation of an incident	TTI				X		X		
CAS.3	Coordination of the assistance of patrol vessels	TTI		X		X		X		
CAS.4	Assessment of the possible effects of the accident on environment, people and traffic	TTI				X		X		
CAS.5	Presentation of information to patrol vessels, police boats, fire squad boats	TTI				X		X		
CAS.6	Initiation and coordination of search and rescue activities	TTI	X			X		X		
CAS.7	Taking measures on traffic, environmental and people protection	TTI				X		X		
ITL	Information for transport logistics/management									
VP	Voyage planning									
VP.1	Provision of information on port of destination, RTA at final destination, type of cargo	STI	X						X	X
VP.2	Provision of information on and presentation of the fairway network at different scales	STI	X						X	X
VP.3	Presentation of lock and bridge opening times and general waiting times	STI	X						X	X
VP.4	Presentation of long term weather information	STI	X						X	X
VP.5	Presentation of mid and long term prediction of water levels	STI	x						X	X
VP.6	Presentation of information on route characteristics with RTAs, ETAs, ETDs at waypoints	STI	X						X	X
VP.7	Presentation of information affecting travel information	STI	X							

No	RIS service RIS sub-service RIS function	Information level	User							
			Ship master	VTS operator	Lock/bridge operator	Waterways authority	Terminal operator	Calamity centre	Fleet manager	Cargo shipper
TPM	Transport management									
TPM.1	Provision and presentation of ETAs of vessels	STI	X	Ship supplier organisation Bunker organisation Repair organisation						X
TPM.2	Provision and presentation of voyage plans of vessels	STI	X							X
TPM.3	Provision of information on free loading space	STI	X							X
TPM.4	Monitoring of the performance of contracted transports and terminals		Freight brokers Transport service quality managers							
TPM.5	Monitoring unusual threats (like strikes, fall in water level) for the reliability of transport									
TPM.6	Match the transport and terminal performance with service levels agreed on									
TPM.7	Define adjustments to methods for voyage planning									
PTM	Inter-modal port and terminal management									
PTM.1	Presentation of actual terminal or port status									
PTM.1.1	Presentation of vessels waiting, being loaded/unloaded	TTI					X			X
PTM.1.2	Presentation of actual status of terminal process	TTI					X			X
PTM.1.3	RTAs of vessels, waiting places, positions		X				X			X
PTM.2	Port or terminal planning									
PTM.2.1	ETAs of approaching vessels	STI					X			
PTM.2.2	Medium and long term schedule terminal process						X			
PTM.2.3	Medium and long terms RTAs of vessels	STI	X				X			
CFM	Cargo and fleet management									
CFM.1	Information on fleet of vessels and their transport characteristics	STI							X	X
CFM.2	Information on the cargo to be transported	STI							X	X
ILE	Information for law enforcement									
ILE.1	Cross-border management (immigration service, customs)					X				
ILE.2	Compliance with requirements for traffic safety					X				
ILE.3	Compliance with environmental requirements					X				
ST	Statistics					X				
ST.1	Transit of vessels and cargo at certain points (locks) of the waterway					X				
CHD	Waterway charges and harbour dues		X		X	X				X

4.7. RIS applications

RIS applications are regional or dedicated uses of systems under specific requirements: local, functional, process-oriented. RIS application means the provision of river information services through dedicated systems. A single application can use one or more systems to provide a service.

4.8. RIS systems

A wide range of technical systems has been developed for RIS, most of them used for more than one service, function or application (Table 4.8):

Table 4.8.

Relation between services and systems

System	Service													
	Fairway information	Traffic information		Traffic management			Calamity abatement support	Information for transport logistics				Information for law enforcement	Statistics	Waterway charges and harbour dues
		Tactical	Strategic	Vessel traffic services	Navigational support	Lock and bridge management		Voyage planning	Transport management	Inter-modal port and terminal management	Fleet and cargo management			
Visual aids to navigation	x													
Radar reflecting aids to navigation	x			x										
Light signals	x			x		x								
Mobile phone (voice and data)	x				x	x	x	x	x	x	x	x		x
GNSS/Galileo for vessel positioning		x	x				x	x	x	x				
VHF radio	x	x	x	x	x	x	x	x		x		x		
Internet	x				x		x	x	x	x	x			x
Vessel based radar	x	x					x							
Shore based radar		x		x		x	x							
Shore based CCTV cameras		x		x		x								
Electronic navigational chart	x	x		x		x	x	x						
Vessel tracking and tracing system		x	x	x		x	x	x	x	x	x	x		x
Ship reporting system			X				x	x	x	x	x	x	x	x

5. RECOMMENDATIONS FOR INDIVIDUAL SERVICES

Because technology changes fast, the emphasis is laid more on services and less on technology dependent systems in this Chapter.

5.1. Fairway information service (FIS)

5.1.1. General

- (1) Traditional means to supply FIS are e.g. visual aids to navigation, notices to skippers on paper, broadcast and fixed telephone on locks. The mobile phone using GSM has added new possibilities of voice and data communication, but GSM is not available in all places and at all times. Tailor-made FIS for the waterways can be supplied by:

- (a) radiotelephone service on inland waterways;
- (b) Internet service;
- (c) electronic navigational chart service (e.g. Inland ECDIS with ENC).

These three FIS categories are dealt with in this Chapter. They are mainly based on the current situation, but for example notices to skipper may be supplied also via ENC service in the future.

- (2) Types of fairway information are listed in Table 4.6.
- (3) Fairway information contains static and dynamic as well as urgent information regarding the fairway. Static and dynamic information should be communicated on a scheduled basis. The urgent information needs to be updated very frequently and/or should be communicated on a real time basis (e.g. by voice VHF or electronic data interchange, Internet, WAP).
- (4) Safety related fairway information should be provided by or on behalf of the competent authority.
- (5) Fairway information for an international river area should be given by one single dissemination point provided with data from the concerned competent authorities.
- (6) Provided safety related data should be certified by the competent authority.
- (7) Values should only be given with an indication of the accuracy that can be attached to it.
- (8) Fairway information services should be provided through the approved communication tools (e.g. notices to skippers via the Internet or by VHF) and be given tailor-made as much as practicable.
- (9) In order to enable navigation in poor visibility by means of radar, the fairway should be equipped with radar reflecting top marks on buoys and beacons and with radar marks in front of bridge piles. The equipment of the fairway for radar navigation is the infrastructure task of radar reflecting aids to navigation. This task is related to, but not part of RIS. Therefore, it is not dealt with in these RIS guidelines.

5.1.2. Radiotelephone service on inland waterways

- (1) The radiotelephone service on inland waterways enables the establishment of radio communication for specific purposes by using agreed channels and an agreed operational procedure (service categories). The radiotelephone service comprises five service categories:
 - (a) ship-to-ship;
 - (b) nautical information;
 - (c) ship-to-port authorities;
 - (d) on-board communications;
 - (e) public correspondence (service on a non-mandatory basis).

Of these five categories, only the first three are important for RIS. The radiotelephone service enables direct and fast communication between skippers, waterway authorities and port authorities. It is best suited for urgently needed information on a real time basis.

- (2) The radiotelephone service is based on the following rules and regulations:
 - (a) Radio Regulations of the International Telecommunication Union ITU (worldwide);
 - (b) Regional Arrangement Concerning the Radiotelephone Service on Inland Waterways (Basel, 6 April 2000);
 - (c) Standardised UN/ECE Vocabulary for Radio Connections in Inland Navigation (UN Economic Commission for Europe No 35, 1997);
 - (d) national inland waterway rules for navigation.
- (3) In the service categories ship-to-ship, nautical information and ship-to-port authorities, the transmission of messages should deal exclusively with the safety of human life, and with the movement and the safety of vessels.
- (4) Fairway information by voice in the nautical information (shore/ship) service category is recommended to be implemented:
 - (a) for urgent information needing to be updated frequently and having to be communicated on a real time basis;
 - (b) for dynamic information having to be communicated on a daily basis.
- (5) The urgent and dynamic information to be communicated by voice radio could concern for example:
 - (a) temporary obstructions in the fairway, malfunctions of aids to navigation;
 - (b) short-term changes of lock and bridge operation times;
 - (c) restrictions in navigation caused by flood and ice;
 - (d) present and future water levels at gauges.
- (6) The RIS area should be fully covered by the range of the VHF base stations for nautical information.
- (7) In the nautical information service category, information may be transmitted 'to all users' as:
 - (a) scheduled reports on the state of the waterways incl. water level reports at the gauges at fixed times of the day;
 - (b) urgent reports at special events (e.g. traffic regulations after accidents).
- (8) It should be possible for the operator in the RIS centre to answer specific questions of skippers on demand and to receive reports from skippers.

5.1.3. Internet service

- (1) An Internet service is recommended to be established for the following types of fairway information:
 - (a) dynamic nautical information on the state of the waterways that needs to be communicated not faster than on a daily basis;
 - (b) dynamic hydrographical information, as actual water levels, water level predictions, navigation channel depths (if available), ice and flood predictions and reports;
 - (c) static information (e.g. physical limitations of the waterway, regular operating times of locks and bridges, navigational rules and regulations).

The abovementioned information shall be provided via notices to skippers or via Inland ECDIS for waterways of class Va and above.

- (2) A standard vocabulary should be used for the notices to skippers in order to enable easy or automatic translation into other languages.
- (3) For a dense and/or extended waterway network, the dynamic information may be organised in interactive databases (content management system) in order to enable easy access to the data.
- (4) In addition to the Internet presentation, the notices to skippers may be mailed by:
 - (a) E-mail subscription to computers on board of vessels and in offices;
 - (b) SMS subscription to mobile phones;
 - (c) WAP pages to mobile phones.
- (5) In order to facilitate route planning by the skipper, all fairway information needed for a route from port of departure to port of destination may be presented on one page on demand by the user.
- (6) Notices to skippers via the Internet or via data exchange between authorities should be communicated in an agreed format in order to enable automatic translation in other languages.
- (7) The requirements of the technical specifications for notices to skippers as defined under the RIS Directive shall be fulfilled.

5.1.4. *Electronic navigational chart service (Inland ECDIS)*

- (1) Electronic navigational charts (ENC) as a means of presenting fairway information shall fulfil the requirements of the Inland ECDIS technical specifications as defined under the RIS Directive.
- (2) The chart information to be used in Inland ECDIS should be the latest edition of information.
- (3) If the ENC is intended to be used in the navigation mode of Inland ECDIS, at least the safety relevant geo-objects should be included into the ENC. The competent authority should verify the safety relevant information in the ENC.
- (4) It is recommended to include all geo-objects of the object catalogue of the Inland ECDIS technical specifications into the ENC.
- (5) It is recommended to include the water depths to the ENC (depths contours). The water depths may be related to a predefined water level or to the actual water level.

5.2. **Traffic information service**

5.2.1. *General*

Information concerning the traffic situation may be provided in two ways (Chapter 2.11):

- (a) as *tactical* traffic information (TTI), using radar and — if available — a vessel tracking and tracing system such as Inland AIS with underlain electronic navigational charts;
- (b) as *strategic* traffic information (STI) using an electronic ship reporting system (e.g. database with ship and cargo data, reports by VHF or other mobile communication facilities — voice and data).

5.2.2. *Tactical traffic information (TTI)*

- (1) Vessels should be equipped with radar in order to monitor all other ships in the close navigational surroundings of the skipper in poor visibility.
- (2) A tactical traffic image on board (Chapter 2.11 (2)) should be enhanced at least by displaying the radar information and — if available — Inland AIS vessel information on an electronic navigational chart (ENC).
- (3) The integrated display should be in accordance with the requirements for the navigation mode of the technical specifications for Inland ECDIS as defined under the RIS Directive.

- (4) In the navigation mode of Inland ECDIS, the vessel's position should be derived from a continuous positioning system of which the accuracy is consistent with the requirements of safe navigation.
- (5) The use of a vessel tracking and tracing system (such as Inland AIS) as an additional position sensor for detection of surrounding vessels should fulfil the requirements of the technical specifications for such systems as defined under the RIS Directive. The vessel information should be identified on the tactical traffic image, and other additional information on the vessels should be available.
- (6) Tactical traffic information on shore is used also in local traffic management (e.g. VTS centres) (Chapter 5.3.1).

5.2.3. Strategic traffic information (STI)

- (1) Strategic traffic information (Chapter 2.11(3)) should be established, when a permanent survey of the shipping situation in the RIS area is needed for medium term and long term decisions (e.g. for the emergency management at flood and ice).
- (2) Strategic traffic information can be helpful to the following services:
 - (a) lock and bridge management (calculation of estimated time of arrival — ETA — and required time of arrival — RTA);
 - (b) voyage planning;
 - (c) calamity abatement support (vessel and cargo data);
 - (d) terminal management (calculation of ETA and RTA).
- (3) For strategic information a ship reporting system (e.g. in connection with a RIS centre) should be established by the competent authority. The system has the task of collecting, verifying and disseminating the reported data.
- (4) The STI should be delivered to RIS users (Chapter 2.10) on demand (Chapter 5.5 (7)) taking into account privacy regulations.
- (5) Vessel and cargo data should be collected in a database. The database can be filled up by:
 - (a) voice reporting via mobile phone;
 - (b) voice reporting via VHF (Chapter 5.1.2 (6));
 - (c) electronic reporting via on-board computer (e.g. BICS application) and mobile communication facilities (e.g. mobile phone data) or shore based computers and fixed communication lines for initial reports (vessel identity and cargo);
 - (d) vessel tracking and tracing (e.g. by Inland AIS) for progress reports (vessel's position and ETA).
- (6) Reports from inland vessels should fulfil the requirements of the technical specifications for Electronic Ship Reporting as defined under the RIS Directive.
- (7) A possible composition of data sets for different services like lock and bridge management, calamity abatement support or terminal management is given as an example in Table 5.2.3.

Table 5.2.3.

Data set for ship reporting (example)

Static data of vessels in composition	
Type	MV
Name	Arcona
Official vessel No (for sea vessels IMO-No)	4,620,004

Length	110 m
Width	11,40 m
Variable data	
Number of crew on board	3
Position (by waterway and km)	Emmerich, km 857,0
Sailing direction	upstream bound
Number of vessels in composition	2
Length of composition	187 m
Width of composition	11,40
Draught	3,20 m
Next reporting point (lock/bridge, terminal)	Meiderich lock
ETA at reporting point with accuracy	17:30 ± 0:30
For each partial cargo	
Category of cargo	Chemical product
Harmonised system code of cargo	310 210
Loading point (UN location code)	Rotterdam
Destination point (UN location code)	Dortmund
Amount of cargo (tons)	2 800
Only if dangerous cargo	
Name of cargo	Na-Nitrit
Code of cargo	ADN, ADNR
Class	5.1
Package code	III
UN-No (if available)	1 500
Quantity of blue cones/lights	1

- (8) A strategic traffic image on shore may be restricted to special types of vessels (e.g. extraordinarily big vessels, vessels with dangerous cargo, special transports, and special tug combinations).
- (9) Data interchange should be established between neighbouring authorities. In case of neighbouring authorities in Member States which fall under the scope of the RIS Directive, the data interchange should be done electronically. In other cases and depending on the number of vessels involved, it should be done by telephone, fax, e-mail or electronic data interchange.

5.3. Traffic management

5.3.1. Local traffic management (vessel traffic services — VTS)

- (1) Reference is made to the Inland VTS Guidelines of IALA (Chapter 1.3.a).
- (2) A VTS centre for local traffic management by means of a tactical traffic image on shore (Chapter 2.11) should be established for the safety of navigation in difficult local situations and the protection of the surrounding human population and infrastructure from potential dangers of shipping. It emphasises on traffic organisation. The difficult local situations may be:
- (a) narrow fairway and/or shoals,
 - (b) narrow bends,

- (c) narrow and/or many bridges,
 - (d) fast water currents and/or cross currents,
 - (e) fairway with traffic regulations, e.g. one-way-traffic,
 - (f) conjunction of waterways,
 - (g) high traffic density.
- (3) The tactical traffic image (TTI) is produced by collecting shore-based radar and vessel tracking and tracing information, and displaying the vessel information on an Inland ECDIS based on the technical specifications for Inland ECDIS and inland vessel tracking and tracing systems as defined under the RIS Directive. For a long river stretch and heavy traffic, the TTI may be enhanced by target tracking.

5.3.2. *Navigational support*

Navigational support is the generic term for some services to assist inland navigation.

In the traffic arena (Chapter 4.4), navigational support is provided by pilots to prevent the development of dangerous vessel traffic situations on board or in special circumstances on shore. Nautical support is provided by tug boats or boatmen to assist in safe navigation and mooring.

In the transport arena, vessel support services are services given to the skipper by e.g., bunker boats, waste oil removal boats, vessel equipment firms, and repair organisations.

5.3.3. *Lock and bridge management*

- (1) RIS should optimise the traffic flow by:
- (a) support of the lock/bridge master in short-term decisions for planning of the lock and bridge cycle by presentation of an electronic lock diary, by a database, and by registration of waiting times;
 - (b) support of the lock/bridge master in medium term decisions by data exchange with the neighbouring locks;
 - (c) support of the skipper by transmission of waiting times;
 - (d) optimising of lock circles by calculation of ETAs/RTAs for a chain of locks, transmission of RTAs to skippers.
- (2) A vessel tracking and tracing system with a database and appropriate means of communication (e.g. VHF, GSM — voice and data) (Chapter 5.2.3) can support lock and bridge planning.

5.4. **Calamity abatement support**

- (1) Calamity abatement support registers the vessel and transport data at the beginning of a voyage in a RIS centre and updates the data during the voyage. In case of an accident, the RIS centre delivers the data without delay to the emergency services.
- (2) Depending on the risk assessment (Table 6.4 point B.2.a), a calamity abatement service may register only certain types of vessels and compositions (Chapter 5.2.3(8)) or all vessels.
- (3) It should be the responsibility of the skipper to report the required data (Table 5.2.3).
- (4) A ship reporting system with a database and appropriate means of communication should be established (Chapter 5.2.3).
- (5) Position and sailing direction of the vessel should be reported:
- (a) when entering or leaving the area of a RIS centre;

- (b) at specified reporting points within the area of the RIS centre;
- (c) when the data has been changed during the voyage;
- (d) before and after stops of longer than a specific period.

5.5. Information for transport logistics

- (1) Logistic applications of RIS comprise:
 - (a) voyage planning;
 - (b) transport management;
 - (c) intermodal port and terminal management;
 - (d) cargo and fleet management.
- (2) Voyage planning is the task of the skipper and the vessel owner. Voyage planning comprises the planning of the loading and the draught of the vessel, as well as the planning of the ETA and of possible loading or unloading during the voyage. RIS should support voyage planning by:
 - (a) fairway information service (Chapter 5.1);
 - (b) strategic traffic information (Chapter 5.2.3);
 - (c) lock and bridge management (Chapter 5.3.3).
- (3) Transport management means the management of the transport chain beyond the scope of navigation driven by freight brokers and transport service quality managers. It is aimed at:
 - (a) controlling the overall performance of the contracted fleet managers/skippers and terminal operators;
 - (b) controlling the progress in the contracted transports;
 - (c) monitoring unexpected threats for the reliability of these transports;
 - (d) finalising the transport (delivery and invoice).
- (4) The competent authorities should design their information systems in a way that the data flow between public and private partners is possible. The standards and technical specifications according to Chapter 1, points 3.e to j shall be used.
- (5) Communication and information exchange between private and public partners in RIS for logistic applications should be carried out according to the procedures and technical specifications that are being agreed for RIS.
- (6) The competent authorities should provide ample room for logistics applications within the bounds of their possibilities, such as:
 - (a) the exchange of information between users and customers relating to vessels and terminals;
 - (b) fleet planning support;
 - (c) ETA/RTA negotiations between vessels and terminals;
 - (d) vessel tracking and tracing;
 - (e) electronic market places.

The competent authorities should indicate the data structure in use to application builders.

- (7) Confidentiality of data exchange in a RIS needs to be ensured in accordance with Article 9 of the RIS Directive. In cases where logistic information is provided by systems operated by a competent authority, this authority should take the necessary steps to ensure the protection of confidentiality of commercial information. When confidential data are provided to third parties, privacy regulations have to be taken into account.

5.6. Information for law enforcement

Law enforcement ensures that people within a given jurisdiction adhere to the laws of that jurisdiction. RIS supports law enforcement in inland navigation in the fields of:

- (a) cross-border management (e.g. the movement of people controlled by the immigration service, customs);
- (b) compliance with the requirements for traffic safety;
- (c) compliance with the environmental requirements.

6. PLANNING OF RIS

6.1. General

In accordance with Article 4 of the RIS Directive, Member States shall take the necessary measures to implement RIS on inland waterways falling within the scope of Article 2.1 of that Directive. Member States may apply the Directive also to those inland waterways and ports which are not referred to in Article 2.1.

The concerned competent authority usually should provide the necessary expertise and arrange funding to provide the desired levels of technology and expertise to meet the objectives.

6.2. Responsibilities

- (1) The competent authority has the responsibility — as far as RIS are traffic related — to plan RIS, to commission RIS and to arrange funding of RIS. In case of existing RIS, the competent authority should change the scope of the RIS if circumstances dictate so.
- (2) Where two or more governments or competent authorities have a common interest in establishing RIS in a particular area, they may decide to develop common RIS.
- (3) Attention should be paid to the possibilities of monitoring and maintaining the desired level of reliability and availability of RIS.
- (4) During the planning of RIS, the concerned competent authority should:
 - (a) have a legal basis for the actions of the RIS and assure that the RIS are in conformity with national and international laws;
 - (b) determine the objectives of the RIS;
 - (c) appoint a RIS authority;
 - (d) describe the area of coverage of the RIS;
 - (e) determine the services and functions which will be rendered;
 - (f) define the requirements for the applications;
 - (g) provide the equipment necessary to carry out the tasks given to the RIS;
 - (h) provide and train sufficient and competent personnel;
 - (i) harmonise the demands of traffic and transport management by cooperation with the organisations of cargo shippers, fleet owners and port owners.

6.3. Liability

The liability element of compliance with RIS guidance is an important consideration which can only be decided on a case-by-case basis in accordance with national law. Consequently, a RIS authority should take into account the legal implications in the event of a shipping accident, where RIS operators may have failed to carry out their duty competently.

6.4. Planning process

Table 6.4 illustrates the steps to follow when planning for the development and implementation of RIS.

Table 6.4

The planning process for RIS

A. PRELIMINARY INVESTIGATION

1. Description and analysis of the existing and future situation in the area

- a) Hydrographical, hydrological and meteorological conditions
- b) Waterway conditions
e.g. dimensions of waterways (locks, bridges, fairways), visibility along fairways, specific constraints (bends, narrows, shoals, narrow and low bridges), navigation patterns, bottlenecks, operating times of locks
- c) Current and future traffic and transport situation
number of passengers, tons of cargo, kind of cargo, composition of fleet
- d) Number, type and impact of accidents including analysis of consequences
- e) Legal situation
authorities, incident/calamity regulations
- f) Regional management and organisational situation
e.g. lock operators, harbour and terminal companies
- g) Existing RIS systems
- h) Other problems in the area,
e.g. delays

2. Objectives see Chapter 4.3

3. Tasks see Chapter 4.4

4. Services and functions to be provided see Chapter 4.5 and 4.6

5. Regulations required

6. Requirements for the applications

7. Proposal for decision on further procedure

B. APPLICATION DESIGN

1. Design of one or more future RIS applications

short description, representation of performance and cost estimation of the potential IT systems

- a) Design on a functional basis
external and internal functions dependant on the local situation
- b) Translation of the functional design into a technical design (systems)
- c) Definition of equipment needed on vessels and on shore

2. Evaluation of future RIS applications

- a) Risk assessment, e.g. types of risks and weighing of risks by pair wise comparison

- b) Efficiency of transport by cost/benefit analysis
reduction of waiting times for vessels, higher reliability, shorter voyage duration, costs of incidents, accidents and delays
- c) Environment impact study
if appropriate, for urban areas and the river

3. Organisational structure of the future RIS applications

- a) Liability in the legislation and regional legal basis
- b) Competent authority for planning and construction
- c) RIS authority for operation
authority that is carrying out the task
- d) Personnel facilities
eventually fully automated, training aspects

6.5. Training

The successful delivery of RIS depends upon competent and experienced personnel to fulfil the responsibilities of a RIS authority. The recruitment, selection and training of suitable personnel are a pre-requisite to the provision of professionally qualified personnel capable of contributing to safe and efficient vessel operations. Such personnel will help to ensure that full regard is given to the diverse tasks inherent in RIS activities.

7. STEPWISE DEVELOPMENT OF RIS

- (1) An overview of the possible step by step development of the different parts of RIS is given in Table 7.
- (2) Because of the widely varying parameters, it is not possible to give general recommendations on RIS solutions for certain circumstances.

Table 7

Possible stepwise development of the different parts of RIS

(in italics: system tested, but not implemented yet)

Type of service		Step	System configuration	Chapter
1. Fairway information services	1.1 Voice communication shore/ship	1	Local nautical information by VHF at locks and bridges	5.1.2
		2	Central nautical information by VHF system with RIS centre	5.1.2
	1.2 Internet	1	Internet homepage with notices to skippers and water levels, static pages without content management system	5.1.3(1)
		2	As No 1, but additionally dynamic pages with content management system	5.1.3(3)
		3	E-mail subscription of notices to skippers and water levels	5.1.3(4)
		4	On demand, presentation of all fairway information from port of departure to port of destination for route planning on one web page	5.1.3(5)
	1.3 Electronic navigational chart	1	Electronic raster chart (scan from paper chart)	
		2	Inland ECDIS in information mode	5.1.4(1)

Type of service		Step	System configuration	Chapter
2. Traffic information	2.1 Tactical traffic information (TTI) on board by radar, Inland ECDIS, and vessel tracking and tracing	1	TTI by radar	5.2.2(1)
		2	TTI by radar and Inland ECDIS in navigation mode, only safety relevant objects in the ENC	5.2.2(2) to (4) 5.1.4(3)
		3	As No 2, all objects in ENC	5.1.4(4)
		4	Inland ECDIS as No 3, additionally with water depths	5.1.4(5)
		5	Inland ECDIS as No 1, additionally with vessel tracking and tracing	5.2.2(5)
	2.2 Strategic traffic information by ship reporting system	1	Database at RIS centre, reports via voice GSM, input in RIS centre manually	5.2.3(5a)
		2	Database at RIS centre, reports via voice VHF, input in RIS centre manually	5.2.3(5b)
		3	Database at RIS centre, initial reports via electronic ship reporting (data GSM), input in RIS centre automatically, position reports via voice VHF	5.2.3(5c)
		4	As No 3, add. reports on positions and ETAs via vessel tracking and tracing systems, input in RIS centre automatically	5.2.3(5d)
		5	Database at RIS centre, add. electronic data interchange between RIS centres	5.2.3(9)
3. Traffic management	3.1 Vessel traffic services (VTS)	1	Shore based radar stations, VTS centre, Inland ECDIS with radar overlay	5.3.1(1)
		2	As No 1, Inland ECDIS with radar overlay and target tracking	5.3.1(3)
		3	Inland ECDIS with vessel tracking and tracing information	5.3.1(3)
	3.2 Lock and bridge management	1	Database for lock diary, registration of waiting times, local	5.3.3(1a)
		2	As No 1, add. data exchange with other locks	5.3.3(1b)
		3	As No 2, add. transmission of waiting times to skippers (support of voyage planning)	5.3.3(1c)
		4	Optimising of lock circles by calculation of ETAs/RTAs for a chain of locks, emission of RTAs to skippers, input of positions of vessels by vessel tracking and tracing system	5.3.3(1d)
4. Calamity abatement support	4.1 Ship reporting system for certain types of vessels and compositions	1 — 5	System configurations as No 2.2	5.4
	4.2 Ship reporting system for all vessels	1 — 5	System configurations as No 2.2	5.4

Type of service		Step	System configuration	Chapter
5. Voyage planning	5.1 Fairway information	1	System configurations as Nos 1.1 to 1.3	5.5(2)
	5.2 <i>Lock/bridge management, transmission of RTAs and waiting times</i>	2	<i>System configurations as No 3.2.4</i>	

8. RIS STANDARDISATION PROCEDURES

(1) Standardisation of RIS is needed because:

- (a) inland navigation does not stop at borders of countries;
- (b) new IT developments in other modes of transport should be adopted in inland navigation in order to enable an integration of transport (multimodal transport on road, rail and waterway);
- (c) the different RIS systems reach their full benefit only when they are harmonised;
- (d) suppliers of equipment will not start producing hardware and software for RIS, if the standards and technical specifications are not drawn up.

(2) RIS shall be developed and operated, following agreed standards and technical specifications, such as:

- (a) these RIS guidelines as a framework;
- (b) IALA inland VTS guidelines;
- (c) inland ECDIS technical specifications;
- (d) Eelectronic ship reporting technical specifications;
- (e) notices to skippers technical specifications;
- (f) vessel tracking and tracing technical specifications (such as Inland AIS technical specifications);
- (g) inland radar requirements (future ETSI standard);
- (h) regional arrangement concerning the radio telephone service on inland waterways.

(3) Technical specifications should be developed in compatibility with the maritime world in order to enable mixed traffic in the estuaries of rivers/sea-river trade.

(4) International organisations being already involved in maritime standardisation should be asked to take into account standardisation developments in the inland waterway sector, such as:

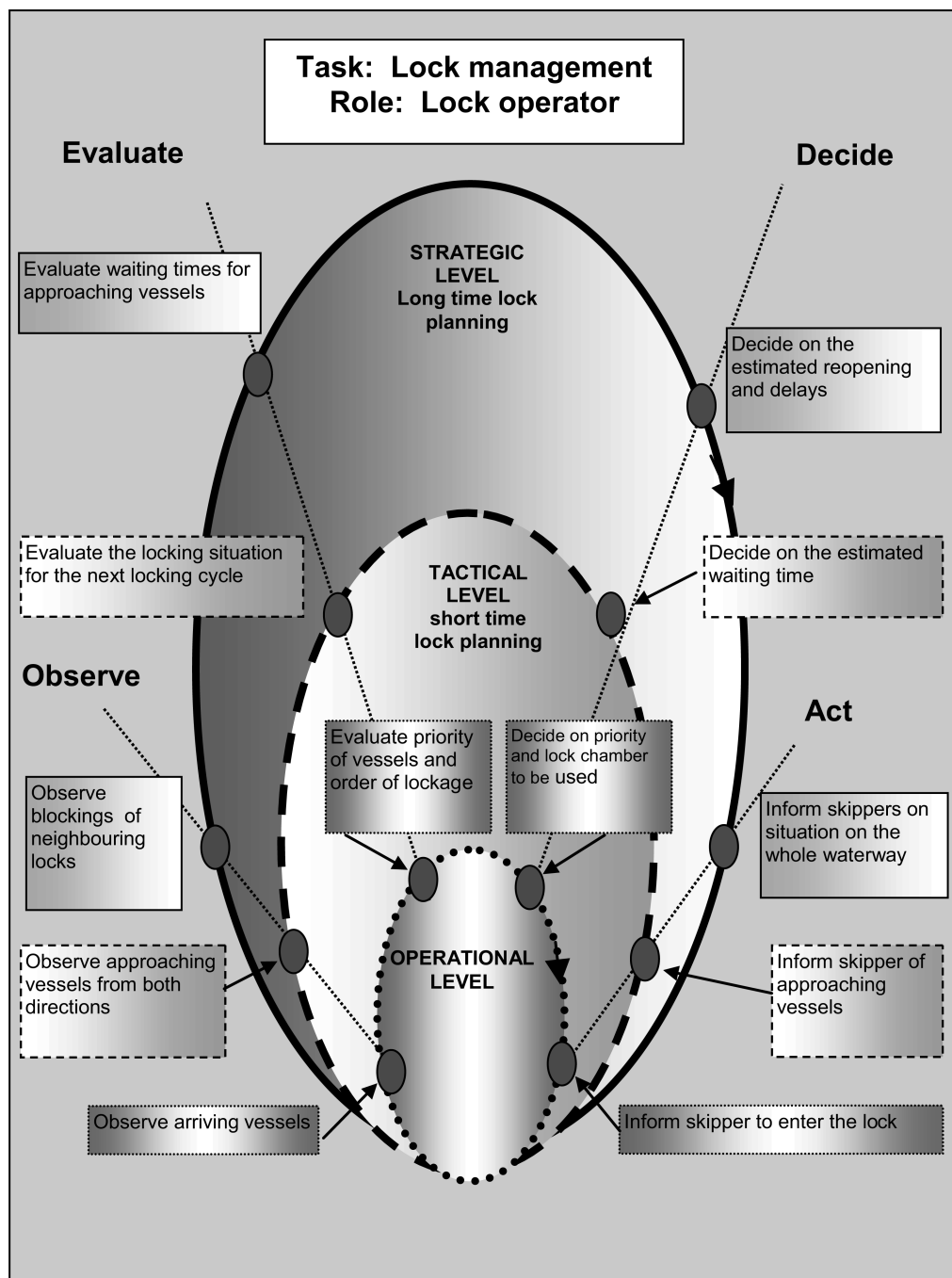
- (a) IHO, IEC as regards Inland ECDIS;
- (b) IALA as regards Inland VTS;
- (c) PIANC as regards river information services;
- (d) ITU, ETSI, IEC, IALA as regards Inland AIS;
- (e) ITU as regards inland VHF;
- (f) UN/ECE as regards special standards to be used in electronic ship reporting (e.g. EDIFACT, UN/LOCODE).

(5) Those organisations should be invited to participate and cooperate in the development and maintenance of the technical specifications and standards (as it already happens).

-
- (6) The international bodies like UN/ECE; the Central Commission for the Navigation on the Rhine, the Danube Commission and similar bodies in other parts of the world, are asked to either adopt or recommend the technical specifications as defined under the RIS Directive.
 - (7) The national governments are asked to certify the equipment produced according to the technical specifications as defined under the RIS Directive.
 - (8) National governments are requested to cooperate in a bilateral or multilateral way to achieve the greatest amount of harmonisation.
-

Appendix

Example of an information processing loop to Chapter 4.4



COMMISSION REGULATION (EC) No 415/2007**of 13 March 2007****concerning the technical specifications for vessel tracking and tracing systems referred to in Article 5 of Directive 2005/44/EC of the European Parliament and of the Council on harmonised river information services (RIS) on inland waterways in the Community**

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2005/44/EC of the European Parliament and of the Council of 7 September 2005 on harmonised river information services (RIS) on inland waterways in the Community ⁽¹⁾, and in particular Article 5 thereof,

Whereas:

- (1) In accordance with Article 1(2) of Directive 2005/44/EC, RIS shall be developed and implemented in a harmonised, interoperable and open way.
- (2) In accordance with Article 5 of Directive 2005/44/EC, technical specifications for vessel tracking and tracing systems shall be defined.
- (3) The technical specifications for vessel tracking and tracing systems shall be based on technical principles set out in Annex II to the Directive.
- (4) In accordance with Article 1(2) of the Directive, the technical specifications shall take due account of the work carried out by international organisations. Continuity shall be ensured with other modal traffic management services, in particular maritime vessel traffic management and information services.
- (5) They shall take further due account of the work carried out by the expert group on vessel tracking and tracing which is composed of representatives of the competent authorities for the implementation of vessel tracking and tracing

systems, and official members from other governmental bodies and observers from the industry.

- (6) The technical specifications, which are the subject of this Regulation, correspond to the current state of the art. Experiences gained from the application of Directive 2005/44/EC as well as future technical progress may make it necessary to amend the technical specifications in accordance with Article 5(2) of Directive 2005/44/EC. Amendments to the technical specifications shall take due account of the work carried out by the expert group on vessel tracking and tracing.
- (7) The draft technical specifications have been examined by the Committee referred to in Article 11 of Directive 2005/44/EC.
- (8) The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 11 of Directive 2005/44/EC,

HAS ADOPTED THIS REGULATION:

Article 1

This Regulation defines the technical specifications for vessel tracking and tracing systems in inland waterway transport. The technical specifications are set out in the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 13 March 2007.

For the Commission

Jacques BARROT

Vice-President

⁽¹⁾ OJ L 255, 30.9.2005, p. 152.

ANNEX

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REFERENCES

The content of this document is based on:

Document title	Organisation	Publication date
Directive 2005/44/EC of the European Parliament and of the Council of 7 September 2005 on harmonised river information services (RIS) on inland waterways in the community	EU	7.9.2005
Technical guidelines for the planning of river information services	EU	2006
Guidelines and criteria for vessel traffic services on inland waterways, Resolution No 58	UN/ECE	21.10.2004
Technical specifications for Notices to Skippers	EU	
Technical specifications for electronic chart display and information system for inland navigation, Inland ECDIS	EU	
Technical specifications for electronic ship reporting in inland navigation	EU	
IMO MSC.74(69) Annex 3, 'Recommendation on Performance Standards for a Ship-borne Automatic Identification System (AIS)'	IMO	1998
IMO Resolution A.915(22), 'Revised Maritime Policy and Requirements for a future Global Navigation Satellite System (GNSS)'	IMO	January 2002
COMPRIS final report and underlying final work package documents	COMPRIS	2006
Recommendation ITU-R M.1371-1, 'Technical characteristics for a universal ship-borne automatic identification system using time division multiple access in the VHF maritime mobile band'	ITU	2001
International Standard IEC 61993-2, 'Maritime navigation and radio communication equipment and systems — Automatic Identification System, Part 2: Class A ship-borne equipment of the universal automatic identification system (AIS)'	IEC	2002
International Standard IEC 61162-Serie, 'Maritime navigation and radio communication equipment and systems — Digital interfaces' 'Part 1: Single talker and multiple listeners', 2nd edition 'Part 2: Single talker and multiple listeners, high speed transmission'	IEC	2000 1998
UN/ECE Location code	UN/ECE	
UN/ECE Ship type code	UN/ECE	

ABBREVIATIONS

AI	Application identifier
AIS	Automatic identification system
AI-IP	Automatic identification via Internet protocol
ADN/ADNR	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways/on the Rhine
ASCII	American standard code for information interchange
ATIS	Automatic transmitter identification system
A-to-N	Aids to navigation
CCNR	Central Commission for Navigation on the Rhine
COG	Course over ground
COMPRIS	Consortium operational management platform river information services
CSTDMA	Carrier sense time division multiple access
DAC	Designated area code
DC	Danube Commission
DGNSS	Differential GNSS
DSC	Digital selective calling
ECDIS	Electronic chart display and information system
EMMA	European multiservice meteorological awareness system
ENI	Unique European vessel identification number
ERI	Electronic reporting international
ETA	Estimated time of arrival
FI	Functional identifier
GLONASS	(Russian) Global navigation satellite system
GIW	Gleichwertiger Wasserstand (reference water level in Germany)
GNSS	Global navigation satellite system
GPRS	General packet radio service
GPS	Global positioning system
GSM	Global system for mobile communication
GUI	Graphical user interface
HDG	Heading
HSC	High-speed craft
IAI	International application identifier
IANA	Internet Assigned Numbers Authority
IALA	International Association of Lighthouse Authorities
ID	Identifier
IEC	International Electrotechnical Committee
IEEE	Institute of Electrical and Electronics Engineers

IETF	Internet engineering task force
IMO	International Maritime Organisation
IP	Internet Protocol
ITU	International Telecommunication Union
MKD	Minimum keyboard and display
MID	Maritime identification digits
MHz	Megahertz (megacycles per second)
MMSI	Maritime mobile service identifier
OLR	Overeengekomen lage Rivierstand (reference water level in the Netherlands)
RAI	Regional application identifier
RAIM	Receiver autonomous integrity monitoring
RIS	River information services
RNW	Regulierungs-Niederwasser (granted water level during 94 % the year)
ROT	Rate of turn
RTA	Requested time of arrival
SAR	Search and rescue
SOG	Speed over ground
SOLAS	Safety of life at sea
SOTDMA	Self-organising time division multiple access
SQRT	Square root
STI	Strategic traffic image
TDMA	Time division multiple access
TTI	Tactical traffic image
UDP	User datagram protocol
UMTS	Universal mobile telecommunications system
UN	United Nations
UN/LOCODE	United Nations Location Code
UTC	Universal time coordinated
VDL	VHF data link
VHF	Very high frequency
VTs	Vessel Traffic Services
WGS-84	World Geodetic System from 1984
WiFi	Wireless fidelity (IEEE 802.11 wireless networking standard)
WIG	Wing in ground

1. The use of vessel tracking and tracing in inland navigation

1.1. **Introduction**

In maritime navigation, IMO has introduced the automatic identification system (AIS). All seagoing vessels on international voyage falling under SOLAS convention Chapter 5 have to be equipped with AIS since the end of 2004. The guidelines for the planning, implementation and operational use of River Information Services define Inland-AIS as an important technology. Because of mixed traffic areas it is important that the standards, technical specifications and procedures for inland shipping are compatible with already defined standards, technical specifications and procedures for seagoing navigation.

To serve the specific requirements of inland navigation, AIS has been further developed to the so called Inland AIS technical specification while preserving full compatibility with IMO's maritime AIS and already existing standards in inland navigation.

In this document chapter 1 describes the functional specifications related to vessel tracking and tracing in inland navigation. In chapter 2 the inland AIS technical specification is described, including the standard inland tracking and tracing messages. An overview of definitions of services and players is given in Appendix A: Definitions.

The purpose of the introduction chapter is to define all necessary functional requirements related to vessel tracking and tracing in inland navigation.

An overview of fields of interest and users is provided and particularly the information needs for each field of interest are described. The functional specifications are based on rules and regulations for navigation, based on discussions with experts and based on existing experiences.

Three groups of information are distinguished:

- Dynamic information, information changing very often in seconds or minutes.
- Semi-dynamic information, information changing just a few times a voyage.
- Static information, information changing less than a few times a year.

For each group of information different ways of information exchange can be identified:

- Vessel Tracking and tracing systems shall exchange particularly the dynamic information.
- Electronic reporting devices, like email, are meant to exchange the semi-dynamic information.
- Data bases are meant to provide static information which can be retrieved via Internet or other data carries.

In the paragraphs below that information is described in detail which can be exchanged by vessel tracking and tracing systems between ships and between ships and shore. The information needs are described relating to tracking and tracing. However, for most of the tasks additional information like geographical information, detailed cargo information, address information is required. This kind of information will be provided by other systems.

1.2. **Scope**

The table below gives an overview of the fields of interest dealt with in this document. Each field of interest is split up into tasks and for each task the users are defined.

Table 1.1

Overview of fields of interest, task and users

Field of interest	Task	User
Navigation	Medium term: Looking minutes up to hours ahead, outside on-board radar range	Conning skipper
	Short term: Looking minutes ahead, in on board radar range	Conning skipper
	Very short term Looking from seconds up to 1 minute ahead	Conning skipper
Vessel traffic management	VTs	VTs operator, conning skipper
	Lock operation	Lock operator, conning skipper
	Lock planning	Lock operator, conning skipper, shipmaster, fleet manager
	Bridge operation	Bridge operator, conning skipper
	Bridge planning	Bridge operator, conning skipper, shipmaster, fleet manager
Calamity abatement service		Operator in calamity centre, VTs operator, lock operator, bridge operator, conning skipper, shipmaster, Competent Authority
Transport management	Voyage planning	Shipmaster, freight broker, fleet manager, terminal operator, conning skipper, VTs operator, lock operator, bridge operator, RIS operator
	Transport logistics	Fleet manager, shipmaster, consignor, consignee, supply forwarder
	Port and terminal management	Terminal operator, shipmaster, supply forwarder, port authority, competent authority
	Cargo and fleet management	Fleet manager, consignor, consignee, supply forwarder, freight broker, shipmaster
Enforcement	Cross border	Customs, competent authority, shipmaster
	Traffic safety	Competent authority, shipmaster (police authorities)
Waterway and port infrastructure charges		Competent authority, shipmaster, fleet manager, Waterway-authority
Fairway information services	Meteo information	Conning skipper
	Signal status	Competent authority, shipmaster, fleet manager
	Water level	Competent authority, shipmaster, fleet manager, Conning skipper

In the following paragraphs for each field of interest and tasks the users and the information needs are described in detail.

Note: the order of the information needs within each task does not imply different importance of the information. The accuracy of the information needs is summarised in a table in the last paragraph.

1.3. **Navigation**

Vessel tracking and tracing can be used to support the active navigation on board.

The process navigation can be split up in three phases:

- navigation, medium-term ahead,
- navigation, short-term ahead,
- navigation, very short-term ahead.

For each phase the user requirements are different.

1.3.1. *Navigation, medium term ahead*

Navigation a medium term ahead is the navigation phase in which the skipper observes and analyses the traffic situation looking some minutes up to an hour ahead and considers the possibilities of where to meet, pass or overhaul other vessels.

The traffic image needed is the typical 'looking around the corner' feature and is mainly outside the scope of the on board radar range.

Exchanged traffic information consist of:

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- destination/intended route,
- vessel and convoy type,
- dimensions (length and beam),
- number of blue cones,
- loaded/unloaded,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The update rate is depending on the task and differs from the situation in which the ship is involved. (The maximum update rate is two seconds.)

1.3.2. *Navigation, short-term ahead*

Navigation a short-term ahead is the decision phase in the navigation process. In this phase traffic information has relevance for the process of navigation, including collision avoidance measures if necessary. This function deals with the observation of other vessels in the close surroundings of the vessel. Exchanged traffic information consists of:

- identification,
- name,

- position (actual),
- speed over ground (accuracy 1 km/h),
- course over ground/direction,
- heading,
- intention (blue sign),
- destination/intended route,
- vessel/convoy type,
- dimensions (length and beam),
- number of blue cones,
- loaded/unloaded,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The actual traffic information on position, identification, name, direction, speed over ground, course, heading and intention (blue sign) will be exchanged continuously at least every 10 seconds. For some routes the Authorities will set a predefined update rate (maximum two seconds).

1.3.3. *Navigation, very short term ahead*

Navigation a very short term ahead is the operational navigation process. It consists of execution of the decisions that were made beforehand, on the spot and monitoring its effects. The traffic information needed from other vessels especially in this situation is related to its own vessel conditions, such as relative position, relative speed, etc. In this phase following highly accurate information is needed:

- relative position,
- relative heading,
- relative speed,
- relative drift,
- relative rate of turn.

Based on the abovementioned requirements it became clear that from today's point of view very short term navigation can not make use of tracking and tracing information.

1.4. **Vessel traffic management**

Vessel traffic management comprises at least of the below defined elements:

- vessel traffic services,
- lock planning and operation,
- bridge planning and operation.

1.4.1. *Vessel traffic services*

Within vessel traffic services different services can be distinguished:

- an information service,

- a navigational assistance service,
- a traffic organisation service.

In the next paragraphs the user needs related to traffic information are described.

1.4.1.1. Information service

An information service is provided by broadcasting information at fixed times and intervals or when deemed necessary by the VTS or at the request of a vessel, and may include for example reports on the position, identity and intentions of other traffic; waterway conditions; weather; hazards; or any other factors that may influence the vessel's transit.

For the information services an overview of traffic in a network or on fairway stretch is needed. The traffic information will comprise vessel information like:

- identification,
- name,
- position (actual),
- course over ground/direction,
- limitations on navigable space,
- destination/intended route,
- vessel and convoy type,
- dimensions (length and beam),
- number of blue cones,
- loaded/unloaded,
- number of persons on board (in case of an incident),
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The competent authority will set the predefined update rate.

1.4.1.2. Navigational assistance service

A navigational assistance service informs the master on difficult navigational or meteorological circumstances or assists him in case of defects or deficiencies. This service is normally rendered at the request of a vessel or by the VTS when deemed necessary.

To provide individual information to a skipper, the VTS operator needs an actual detailed traffic image.

The contribution of vessel tracking and tracing is:

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- intention (blue sign),

- destination/intended route,
- vessel and convoy type,
- dimensions (length and beam),
- draught,
- air draught (in case of obstacles),
- number of blue cones,
- loaded/unloaded,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

Any other information needed is environmental, geographic information and Notices to Skippers.

The actual traffic information on identification, position, direction, speed, course and intention (blue sign) has to be exchanged continuously (every three seconds, almost real time or another predefined update rate set by the competent authority).

All other information had to be available on request of the VTS operator or in special occasions (on event).

1.4.1.3. Traffic organisation service

A traffic organisation service concerns the operational management of traffic and the forward planning of vessel movements to prevent congestion and dangerous situations, and is particularly relevant in times of high traffic density or when the movement of special transports may affect the flow of other traffic. The service may also include establishing and operating a system of traffic clearances or VTS sailing plans or both in relation to priority of movements, allocation of space, mandatory reporting of movements in the VTS area, routes to be followed, speed limits to be observed or other appropriate measures which are considered necessary by the VTS authority. The requirements on the traffic image for the traffic organisation service are the same as described in paragraph 1.4.1.2 Navigational assistance service.

1.4.2. Lock planning and operation

In the next paragraphs the lock planning processes — long- and medium-term — and lock operation process are described.

1.4.2.1. Lock planning, long-term

Lock planning a long-term ahead is dealing with the planning of a lock some hours up to a day ahead.

In this case the traffic information is used to improve the information on waiting and passing times at locks, which are originally based on statistical information.

Traffic information needed for long term lock planning is:

- identification,
- name,
- position (actual),
- course over ground/direction,
- ETA at lock,
- RTA at lock,

- vessel and convoy type,
- dimensions (length and beam),
- draught,
- air draught,
- number of blue cones,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

ETA should be available on demand or should be exchanged when a by the competent authority predefined deviation of the originally ETA is exceeded. RTA is the response on an ETA report.

1.4.2.2. Lock planning medium-term

Lock planning a medium-term ahead is dealing with the planning of a lock up to two or four lock cycles ahead.

In this case the traffic information is used to map the arriving vessels to the available lock cycles and based on the planning to inform the skippers about the RTA (requested time of arrival).

Traffic information needed for medium term lock planning is

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- ETA at lock,
- RTA at lock,
- vessel and convoy type,
- dimensions (length and beam),
- number of assisting tug boats,
- draught,
- air draught,
- number of blue cones,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

ETA should be available on request or should be exchanged when a by the Competent Authority predefined deviation of the originally ETA is exceeded. All other information shall be available once at the first contact or on request. RTA is the response on an ETA report.

1.4.2.3. Lock operation

In this phase the actual locking process take place.

To facilitate the lock operational process the following traffic information is required:

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- vessel and convoy type,
- number of assisting tug boats,
- dimensions (length and beam),
- draught,
- air draught,
- number of blue cones,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The actual traffic information on identification, position, direction, speed and course has to be exchanged continuously or by the competent authority set predefined update rate.

1.4.3. Bridge planning and operation

In the next paragraphs the bridge planning processes — medium- and short-term — and bridge operation process are described.

1.4.3.1. Bridge planning medium term

The bridge planning process on a medium-term is dealing with the optimisation of the traffic flow in such a way that the bridges are opened in time for passing of vessels (green wave). The time looking ahead varies between 15 minutes to two hours. The timeframe will depend on the local situation.

Traffic information needed for medium term bridge planning is:

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- ETA at bridge,
- RTA at bridge,
- vessel and convoy type,
- dimensions (length and beam),

- air draught,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

ETA and position shall be available on request or shall be exchanged as a by the competent authority predefined deviation of the originally ETA is exceeded. All other information shall be available once at the first contact or on request. RTA is the response on an ETA report.

1.4.3.2. Bridge planning short term

In case of bridge planning process on a short-term decisions are made on the strategy for opening of the bridge.

Traffic information needed for short term bridge planning is:

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- ETA at bridge,
- RTA at bridge,
- vessel and convoy type,
- dimensions (length and beam),
- air draught,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

Actual traffic information on the position, speed and direction, shall be available on request or by the competent authority set predefined update rate, e.g. every five minutes. ETA and position shall be available on request or shall be exchanged as a by the Competent Authority predefined deviation of the originally ETA is exceeded. All other information shall be available once at the first contact or on request. RTA is the response on an ETA report.

1.4.3.3. Bridge operation

In this phase the actual opening and passing of the vessel through the bridge take place. To facilitate this process the following traffic information is required:

- identification,
- name,
- position (actual),
- speed over ground,
- course over ground/direction,
- vessel and convoy type,

- dimensions (length and beam),
- air draught.

The actual traffic information on identification, position, direction, speed and course has to be exchanged continuously or by the competent authority set predefined update rate.

1.5. **Calamity abatement**

Calamity abatement in this context focuses on repressive measures: dealing with real accidents and providing assistance during emergencies. To facilitate this process the following traffic information is required:

- identification,
- name,
- position (actual),
- course over ground/direction,
- destination,
- vessel and convoy type,
- number of blue cones,
- loaded/unloaded,
- number of persons on board.

In the case of an accident the traffic information can be provided automatically or the calamity fighter will ask for the information.

1.6. **Transport management**

This service is divided into four activities:

- voyage planning,
- transport logistics,
- port and terminal management,
- cargo and fleet management,

1.6.1. *Voyage planning*

Voyage planning in this context focuses on the planning on-trip. During the voyage the skipper will check his original planned voyage.

For this process the following traffic information is needed:

- position (actual, own vessel),
- speed over ground (own vessel),
- destination/intended route,
- ETA at lock/bridge/next sector/terminal,
- RTA at lock/bridge/next sector/terminal,

- dimensions (length and beam) (own vessel),
- draught (own vessel),
- air draught (own vessel),
- loaded/unloaded.

The traffic information is needed on request or on in case of a special event like a relevant change in ETA or RTA.

1.6.2. *Transport logistics*

Transport logistics consist of the organisation, planning, execution and control of the transport.

For these processes the following traffic information is needed:

- identification,
- name,
- position (actual),
- course over ground/direction,
- ETA at destination.

All traffic information is needed on request of the shipowner or logistic players.

1.6.3. *Intermodal port and terminal management*

Intermodal port and terminal management considers the planning of resources in ports and at terminals.

The traffic information needed for this these processes is described below:

- identification,
- name,
- position (actual),
- course over ground/direction,
- ETA at port/terminal,
- RTA at port/terminal,
- vessel and convoy type,
- dimensions (length and beam),
- number of blue cones,
- loaded/unloaded,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The terminal and port manager will request for traffic information or will agree that in predefined situations the traffic information will be send automatically.

1.6.4. *Cargo and fleet management*

Cargo and fleet management considers the planning and optimising the use of vessels, arranging cargo and transportation.

The traffic information needed for these processes is described below:

- identification,
- name,
- position (actual),
- course over ground/direction (upstream/downstream),
- destination,
- ETA at lock/bridge/destination/terminal,
- RTA at lock/bridge/destination/terminal,
- dimensions (length and beam),
- loaded/unloaded,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The shipper or shipowner will ask for the traffic information or the traffic information will be sent in predefined situations.

1.7. **Enforcement**

The scope of the enforcement task described below is limited to the services on dangerous goods, immigration control and customs.

The contribution of vessel tracking and tracing for these processes is:

- identification,
- name,
- position,
- course over ground/direction,
- destination/intended route,
- ETA at lock/bridge/border/terminal/destination,
- vessel and convoy type,
- number of blue cones,
- number of persons on board,
- navigational status of the vessel (anchoring, mooring, sailing, restricted by special conditions, ...).

The traffic information will be exchanged to appropriate authorities. The traffic information exchange will take place on request or at fixed predefined points or at special described circumstances defined by the responsible authority.

1.8. **Waterway and port infrastructure charges**

At different locations in Europe one has to pay for the use of the waterway and ports.

The traffic information needed for these processes is described below:

- identification,
- name,
- position,
- destination/intended route,
- vessel and convoy type,
- dimensions (length and beam),
- draught.

The traffic information will be exchanged on request or at fixed points, defined by the responsible waterway or port authority.

1.9. **Fairway information services**

Related to fairway information services three services are described:

- weather warnings in case of extreme weather conditions,
- signal status,
- water levels.

In the next paragraphs, the provided information is described.

1.9.1. *Weather warnings (EMMA)*

The European ongoing project 'EMMA' (European multiservice meteorological awareness system) is dealing with standardisation of weather warnings. Standardised symbols for meteorological warnings have been developed within the EMMA project and can be used for the display of messages on the Inland ECDIS screen.

EMMA is not going to provide continuous weather information, but only warnings in case of special meteorological situations. The warnings are provided for regions.

Only km/h (wind), °C (temperature), cm/h (snow), l/m²h (rain) and m (distance to be seen by fog) may be used for weather warnings.

The following information is needed:

- start of validity period date,
- end of validity date (indefinite: 99999999),
- start time of validity,
- end time of validity,
- fairway section begin and end coordinates (2x),
- type of weather warning (see Appendix B),
- minimum value,

- maximum value,
- classification of warning,
- direction of wind (see Appendix B).

This information is only exchanged in special events, in case of extreme weather conditions.

1.9.2. *Signal status*

Vessel tracking and tracing systems can be used for the transmission of status of traffic signals in inland navigation. The information to be exchanged consists of:

- the position of the signal,
- an identification of the kind of signal (single light, two lights, 'Wahrschau', etc.),
- the direction of impact,
- the current status of the signal.

Examples of signals are given in Appendix C.

The distribution of the information has to be restricted to a specific area.

1.9.3. *Water level*

Vessel tracking and tracing systems can be used for the transmission of (actual) water level information:

The information to be exchanged consists of:

- gauge station,
- water level value.

The information will regularly be sent or sent on request.

1.10. **Conclusion**

The functional specifications described the user needs and the data needs for each field of interest. Tracking and tracing systems will exchange particularly the dynamic information.

In table 1.2 an overview is given of the accuracy requirements of the dynamic information related to the tasks described in this chapter.

Table 1.2

Overview of accuracy requirements dynamic data

Required accuracy	Position	Speed over ground	Course over ground	Heading
Navigation medium-term ahead	15 — 100 m	1- 5 km/h	—	—
Navigation short-term ahead	10 m ⁽¹⁾	1 km/h	5°	5°
VTS information service	100 m — 1 km	—	—	—
VTS navigational assistance service	10 m ⁽¹⁾	1 km/h	5°	5°
VTS traffic organisation service	10 m ⁽¹⁾	1 km/h	5°	5°
Lock planning long-term	100 m — 1 km	1 km/h	—	—
Lock planning medium-term	100 m	0,5 km/h	—	—

Required accuracy	Position	Speed over ground	Course over ground	Heading
Lock operation	1 m	0,5 km/h	3°	—
Bridge planning medium-term	100 m — 1 km	1 km/h	—	—
Bridge planning short term	100 m	0,5 km/h	—	—
Bridge operation	1 m	0,5 km/h	3°	—
Voyage planning	15 — 100 m	—	—	—
Transport logistics	100 m — 1 km	—	—	—
Port and terminal management	100 m — 1 km	—	—	—
Cargo and fleet management	100 m — 1 km	—	—	—
Calamity abatement	100 m	—	—	—
Enforcement	100 m — 1 km	—	—	—
Waterway and port infrastructure charges	100 m — 1 km	—	—	—

(¹) In addition, the requirements of the IMO Resolution A.915 (22) regarding the integrity, the availability and the continuity for position accuracy on inland waterways shall be fulfilled.

2. INLAND AIS TECHNICAL SPECIFICATION

2.1. Introduction

In maritime navigation, IMO has introduced the automatic identification system (AIS). All seagoing ships on international voyage falling under SOLAS convention Chapter 5 have to be equipped with AIS since the end of 2004.

The European Parliament and the Council have adopted Directive 2002/59/EC (¹) establishing a community vessel traffic monitoring and information system for seagoing vessels carrying dangerous or polluting goods using AIS for Ship Reporting and Monitoring.

AIS technology is considered as a suitable way that can also be used for automatic identification and vessel tracking and tracing in inland navigation. Especially the real time performance of AIS and the availability of worldwide standards and guidelines are beneficial for safety related applications.

To serve the specific requirements of inland navigation, AIS has to be further developed to the so-called Inland AIS technical specification while preserving full compatibility with IMO's maritime AIS and already existing standards and technical specifications in inland navigation.

Because Inland AIS is compatible to the IMO SOLAS AIS it enables a direct data exchange between seagoing and inland vessels navigating in mixed traffic areas.

Using AIS for automatic identification and vessel tracking and tracing in inland navigation provides the following features:

AIS is:

- an introduced maritime navigation system according to IMO mandatory carriage requirement for all SOLAS vessels,
- operating in direct ship-to-ship mode as well as in a ship-to-shore, shore-to-ship mode,
- a safety system with high requirements regarding availability, continuity and reliability,

(¹) Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system repealing Council Directive 93/75/EEC (OJ L 208, 5.8.2002, p. 10).

- a real time system due to the direct ship to ship data exchange,
- an autonomously operating system in a self-organised manner without master station. There is no need for a central controlling intelligence,
- based on international standards and procedures according to IMO SOLAS Chapter V regulation,
- a type approved system to enhance safety of navigation following a certification procedure,
- interoperability.

The purpose of this document is to define all necessary functional requirements, amendments and extensions to the existing maritime AIS in order to create an Inland AIS for use in inland navigation.

2.2. Scope

The AIS is a ship-borne radio data system, exchanging static, dynamic and voyage related vessel data between equipped vessels and between equipped vessels and shore stations. Ship-borne AIS stations broadcast the vessel's identity, position and other data in regular intervals. By receiving these transmissions, ship-borne or shore-based AIS stations within the radio range can automatically locate, identify and track AIS equipped vessels on an appropriate display like radar or Inland ECDIS. AIS systems are intended to enhance safety of navigation in ship-to-ship use, surveillance (VTS), vessel tracking and tracing, and calamity abatement support.

Several types of AIS stations can be distinguished:

- (a) Class A mobile stations to be used by all sea going vessels falling under the IMO SOLAS chapter V carriage requirements;
- (b) Class B SO/CS mobile stations with limited functionality to be used by e.g. pleasure crafts;
- (c) Class A derivatives, having full class A functionality on VDL level, may deviate in supplementary functions and can be used by all vessels not falling under IMO carriage requirements (e.g. tugs, pilot vessels, inland vessels (to be called Inland AIS in this document),
- (d) base stations, including shore based simplex and duplex repeater stations.

The following modes of operation can be distinguished:

- (e) ship-to-ship operation: all AIS equipped vessels are able to receive static and dynamic information from all other AIS equipped vessels within the radio range;
- (f) Ship-to-shore operation: data from AIS equipped vessels can also be received by AIS base stations connected to the RIS centre where a traffic image (TTI and/or STI) can be generated;
- (g) Shore-to-ship operation: safety related data from shore to vessel could be transmitted.

A characteristic of AIS is the autonomous mode, using SOTDMA without any need for an organising master station. The radio protocol is designed in a way that vessel stations operate autonomously in a self-organised manner by exchanging link access parameters. Time is divided into one minute frames with 2 250 time slots per radio channel which are synchronised by GNSS UTC time. Each participant organises its access to the radio channel by choosing free time slots considering the future use of time slots by other stations. There is no need for a central intelligence controlling the slot assignment.

An Inland AIS station consists in general of the following components:

- (h) VHF transceiver (one transmitter/two receivers);
- (i) GNSS receiver;
- (j) data processor.

Universal ship-borne AIS, as defined by IMO, ITU and IEC, and recommended for the use in inland navigation uses self-organised time division multiple access (SOTDMA) in the VHF maritime mobile band. AIS operates on the internationally designated VHF frequencies AIS 1 (161,975 MHz) and AIS 2 (162,025 MHz), and can be switched to other frequencies in the VHF maritime mobile band.

To serve the specific requirements of inland navigation, AIS has to be further developed to the so called Inland AIS while preserving compatibility with IMO's maritime AIS.

Vessel tracking and tracing systems in inland navigation shall be compatible with maritime AIS, as defined by IMO. Therefore, AIS messages shall contain:

- (k) Static information, such as official ship number, call sign of vessel, name of vessel, type of vessel;
- (l) Dynamic information, such as vessels position with accuracy indication and integrity status;
- (m) Voyage related information, such as length and beam of vessel combination, hazardous cargo on board;
- (n) Inland navigation specific information, e.g. number of blue cones/lights according to ADN/ADNR or estimated time of arrival (ETA) at lock/bridge/terminal/border.

For moving vessels an update rate for the dynamic information on tactical level can be switched between SOLAS mode and inland mode. In inland waterway mode it can be assigned between two seconds and 10 minutes. For vessels at anchor it is recommended to have an update rate of several minutes, or if information is amended.

AIS is an additional source for navigational information. AIS does not replace, but supports navigational services such as radar target tracking and VTS. AIS has its strength as a means of surveillance and tracking of vessels equipped with it. Due to their different characteristics, AIS and radar complement each other.

2.3. Functional requirements

2.3.1. General requirements for Inland AIS

Inland AIS is based on the maritime AIS according to IMO SOLAS regulation.

Inland AIS shall cover the main functionality of IMO SOLAS AIS while considering the specific requirements for inland navigation.

Inland AIS shall be compatible to the IMO SOLAS AIS and shall enable a direct data exchange between seagoing and inland vessels navigating in a mixed traffic area.

The following requirements are complementary or additional requirements for Inland AIS, which differs from the IMO SOLAS AIS.

2.3.2. Information content

Generally only tracking and tracing and safety related information shall be transmitted via Inland AIS. Taking into consideration this requirement, Inland AIS messages shall contain following information:

Items marked with '*' have to be handled differently as for seagoing ships.

2.3.2.1. Static ship information

The static ship information for inland vessels shall have the same parameters and the same structure as in IMO AIS as far as it is applicable. Not used parameter fields shall be set to 'not available'.

Inland specific static ship information shall be added.

Static ship information is broadcast autonomously from ship or on request.

User identifier (MMSI)	(Standard IMO AIS)
Name of ship	(Standard IMO AIS)
Call sign	(Standard IMO AIS)
IMO number *	(Standard IMO AIS/not available for Inland ships)
Type of ship and cargo *	(Standard IMO AIS/amended for Inland AIS)
Overall length (decimetre accuracy)*	(Standard IMO AIS/amended for Inland AIS)
Overall beam (decimetre accuracy) *	(Standard IMO AIS/amended for Inland AIS)
Unique European vessel identification number ENI)	(Inland AIS extension)
Type of vessel and convoy (ERI)	(Inland AIS extension)
Loaded/unloaded vessel	(Inland AIS extension)

2.3.2.2. Dynamic ship information

The dynamic ship information for inland vessels shall have the same parameters and the same structure as in IMO AIS as far as it is applicable. Not used parameter fields shall be set to 'not available'.

Inland specific dynamic ship information shall be added.

Dynamic ship information is broadcasted autonomously from ship or on request.

Position (WGS 84)	(Standard IMO AIS)
Speed SOG (quality information) *	(Standard IMO AIS)
Course COG (quality information) *	(Standard IMO AIS)
Heading HDG (quality information) *	(Standard IMO AIS)
Rate of turn ROT	(Standard IMO AIS)
Position accuracy (GNSS/DGNSS)	(Standard IMO AIS)
Time of el. position fixing device	(Standard IMO AIS)
Navigational status	(Standard IMO AIS)
Blue sign set	(Inland AIS extension/regional bits in Standard IMO AIS)
Quality of speed information	(Inland AIS extension/derived from ship sensor or GNSS)
Quality of course information	(Inland AIS extension/derived from ship sensor or GNSS)
Quality of heading information	(Inland AIS extension/derived from certified sensor (e.g. gyro) or uncertified sensor)

2.3.2.3. Voyage related ship information

The voyage related ship information for inland vessels shall have the same parameters and the same structure than in IMO AIS as far as it is applicable. Unused parameter fields shall be set to 'not available'.

Inland specific voyage related ship information shall be added.

Voyage related ship information is broadcasted autonomously from ship or on request.

Destination (ERI location codes)	(Standard IMO AIS)
Category of dangerous cargo	(Standard IMO AIS)
Maximum present static draught *	(Standard IMO AIS)
ETA	(Standard IMO AIS)
Maximum present static draught *	(Standard IMO AIS/amended for Inland AIS)
Hazardous cargo classification	(Inland AIS extension)

2.3.2.4. Traffic management information

Traffic management information is for specific use in inland navigation. This information is transmitted when required or on request to/from inland vessels only.

ETA at lock/bridge/terminal

ETA at lock/bridge/terminal information is transmitted as addressed message from ship to shore.

Lock/bridge/terminal ID (UN/LOCODE)	(Inland AIS extension)
ETA at lock/bridge/terminal	(Inland AIS extension)
Number of assisting tugboats	(Inland AIS extension)
Air draught	(Inland AIS extension)

RTA at lock/bridge/terminal

RTA at lock/bridge/terminal information is transmitted as addressed message from shore to ship.

Lock/bridge/terminal ID (UN/LOCODE)	(Inland AIS extension)
RTA at lock/bridge/terminal	(Inland AIS extension)

Number of persons on board

The number of persons on board is transmitted preferably as an addressed message from ship to shore on request or on event.

Total number of persons on board	(Standard IMO AIS)
Number of crew member on board	(Inland AIS extension)
Number of passengers on board	(Inland AIS extension)
Number of shipboard personnel on board	(Inland AIS extension)

Signal status

Signal status information is transmitted as broadcast message from shore to ship

Signal position (WGS84)	(Inland AIS extension)
Signal form	(Inland AIS extension)
Light status	(Inland AIS extension)

EMMA warnings

EMMA warning information is transmitted as broadcast message from shore to ship

Local weather warnings	(Inland AIS extension)
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Water levels

Water Level Information is transmitted as broadcast message from shore to ship

Local water level information	(Inland AIS extension)
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Safety related messages

Safety related messages are transmitted when required as broadcast or as addressed messages.

2.3.3. Reporting interval of information transmission

The different information types of Inland AIS shall be transmitted with different reporting rates.

For moving vessels in inland waterway areas the reporting rate for the dynamic information can be switched between SOLAS mode and inland waterway mode. In inland mode it can be assigned between two seconds and 10 minutes. In mixed traffic areas like seaports it shall be possible to decrease the reporting rate for dynamic information by the competent authority to ensure a balance in reporting behaviour between inland vessels and SOLAS vessels. The reporting behaviour shall be switchable by TDMA commands from a base station (automatic switching by TDMA telecommand via message 23) and by commands from ship-borne systems, e.g. MKD, ECDIS or on board computer, via interface, e.g. IEC 61162 (automatic switching by ship-borne system command). For static and voyage related information it is recommended to have a reporting rate of several minutes, on request, or if information is amended.

Following reporting rates are applicable:

Static ship information:	Every six minutes or when data has been amended or on request
Dynamic ship information:	Depends on navigational status and ship operating mode, either inland waterway mode or SOLAS mode (default), see Table 2.1
Voyage related ship information:	Every six minutes, when data has been amended or on request
Traffic management information:	As required (to be defined by competent authority)
Safety related messages:	As required

Table 2.1

Update rate of dynamic ship information

Ship dynamic conditions	Nominal reporting interval
Ship status 'at anchor' and not moving faster than three knots	Three minutes ⁽¹⁾
Ship status 'at anchor' and moving faster than three knots	10 seconds ⁽¹⁾
Ship operating in SOLAS mode, moving 0 to 14 knots	10 seconds ⁽¹⁾

Ship dynamic conditions	Nominal reporting interval
Ship operating in SOLAS mode, moving 0 to 14 knots and changing course	3 1/3 seconds ⁽¹⁾
Ship operating in SOLAS mode, moving 14 to 23 knots	Six seconds ⁽¹⁾
Ship operating in SOLAS mode, moving 14 to 23 knots and changing course	Two seconds
Ship operating in SOLAS mode, moving faster than 23 knots	Two seconds
Ship operating in SOLAS mode, moving faster than 23 knots and changing course	Two seconds
Ship operating in inland waterway mode ⁽²⁾	Assigned between two seconds and 10 minutes

⁽¹⁾ When a mobile station determines that it is the semaphore (refer to ITU-R M.1371-1, Annex 2, § 3.1.1.4), the reporting rate shall increase to once per two seconds (refer to ITU-R M.1371-1, Annex 2, § 3.1.3.3.2).

⁽²⁾ Shall be switched by competent authority using message 23, when ship enters inland waterway area.

2.3.4. *Technology platform*

The technical solution of Inland AIS is based on the same technical standards as IMO SOLAS AIS (Rec. ITU-R M.1371-1, IEC 61993-2).

The use of Class A mobile station derivatives or Class B 'SO' mobile station derivatives using SOTDMA techniques are recommended as platform for Inland AIS. The use of the Class B 'CS' using CSTDMA techniques is not possible, because it does not guarantee the same performance as the Class A or Class B 'SO' equipment. Neither can the successful transmission to radio link be granted nor does it provide the capability to send the Inland AIS specific messages defined in this technical specification.

As long as no Class B 'SO' devices are available, Inland AIS Mobile equipment is a derivative of the maritime AIS Class A mobile equipment according to IMO SOLAS regulation.

2.3.5. *Compatibility to IMO Class A transponders*

Inland AIS transponders must be compliant to IMO Class A transponders and must therefore be capable of receiving and processing all IMO AIS messages (according to ITU-R M.1317-1 and IALA technical clarifications on ITU-R M.1371-1) and in addition the messages defined in Chapter 2.4 of these standards.

The DSC transmitting (tx) capability and the provision of an MKD are not required for Inland AIS transponders. The manufacturers may remove the respective hard- and software from the Class A transponders.

2.3.6. *Unique identifier*

In order to guarantee the compatibility to maritime vessels, the Maritime Mobile Service Identifier (MMSI) number must be used as a unique station identifier (radio equipment identifier) for the Inland AIS transponders.

2.3.7. *Application identifier for Inland AIS application specific messages*

To serve the information requirement for inland navigation application specific messages are used.

The application specific messages consist of the Standard AIS framework (message ID, repeat indicator, source ID, destination ID), the Application Identifier (AI = DAC + FI) and the data content (variable length up to a given maximum).

The 16-bit application identifier (AI = DAC + FI) consists of

10-bit designated area code (DAC): international (DAC = 1) or regional (DAC > 1)

6-bit function identifier (FI) — allows for 64 unique application specific messages.

For Inland AIS application specific messages the DAC '200' is used.

2.3.8. Application requirements

It is necessary to input and display Inland AIS messages (binary coded). This shall be handled by an application (preferably with a GUI capable of interfacing the AIS transponder) at the Presentation Interface (PI), or in the transponder itself. Possible data conversions (e.g. knots into km/h) or information concerning all ERI codes (location, ship type) shall be handled there.

Furthermore the transponder or the relevant application shall be capable of storing also the inland specific static data in the internal memory, in order to keep the information when the unit is without power supply.

In order to program the inland specific data into the transponder the input sentences listed in Appendix D: Proposed digital interface sentences for Inland AIS are proposed.

The Inland AIS equipment shall provide as a minimum an external RTCM SC 104 interface for the input of DGNSS correction and integrity information.

2.4. Protocol amendments for Inland AIS

2.4.1. Message 1, 2, 3: position reports (ITU-R 1371-1, § 3.3.8.2.1)

Table 2.2

Position report

Parameter	Number of bits	Description
Message ID	6	Identifier for this message 1, 2 or 3
Repeat indicator	2	Used by the repeater to indicate how many times a message has been repeated Default = 0; 3 = do not repeat any more
User ID (MMSI)	30	MMSI number
Navigational Status	4	0 = under way using engine; 1 = at anchor; 2 = not under command; 3 = restricted manoeuvrability; 4 = constrained by her draught; 5 = moored; 6 = aground; 7 = engaged in fishing; 8 = under way sailing; 9 = reserved for future amendment of Navigational Status for HSC; 10 = reserved for future amendment of Navigational Status for WIG; 11 — 14 = reserved for future use; 15 = not defined = default
Rate of turn ROTAIS	8	±127 (–128 (80 hex) indicates not available, which shall be the default) Coded by ROTAIS = 4,733 SQRT(ROTINDICATED) degrees/min ROT _{INDICATED} is the Rate of Turn (720° per minute), as indicated by an external sensor +127 = turning right at 720° per minute or higher; –127 = turning left at 720° per minute or higher
Speed over ground	10	Speed over ground in 1/10 knot steps (0-102,2 knots) 1 023 = not available; 1 022 = 102,2 knots or higher (1)
Position accuracy	1	1 = high (< 10 m; Differential Mode of e.g. DGNSS receiver) 0 = low (> 10 m; Autonomous Mode of e.g. GNSS receiver or of other Electronic Position Fixing Device) ; default = 0
Longitude	28	Longitude in 1/10 000 min (±180°, East = positive, West = negative. 181° (6791AC0 hex) = not available = default)

Parameter	Number of bits	Description
Latitude	27	Latitude in 1/10 000 min ($\pm 90^\circ$, North = positive, South = negative, 91° (3412140 hex) = not available = default)
Course over ground	12	Course over ground in $1/10^\circ$ (0-3599). 3 600 (E10 hex) = not available = default; 3 601 — 4 095 shall not be used
True heading	9	Degrees (0-359) (511 indicates not available = default).
Time stamp	6	UTC second when the report was generated (0-59, or 60 if time stamp is not available, which shall also be the default value, or 62 if Electronic Position Fixing System operates in estimated (dead reckoning) mode, or 61 if positioning system is in manual input mode or 63 if the positioning system is inoperative)
Blue sign	2	Indication if blue sign is set 0 = not available = default, 1 = no 2 = yes, 3 = not used ⁽²⁾
Regional bits	2	Reserved for definition by a competent regional authority. Shall be set to zero, if not used for any regional application. Regional applications shall not use zero.
Spare	1	Not used. Shall be set to zero. Reserved for future use
RAIM flag	1	RAIM (receiver autonomous integrity monitoring) flag of electronic position fixing device; 0 = RAIM not in use = default; 1 = RAIM in use)
Communication State	19	See ITU-R M. 1371-1 table 15B
	168	Occupies one slot

⁽¹⁾ Knots shall be calculated in km/h by external onboard equipment.

⁽²⁾ Shall only be evaluated if the report is coming from an Inland AIS vessel and if the information is derived by automatic means (direct connection to switch).

2.4.2. Message 5: Ship static and voyage related data (ITU-R 1371-1, § 3.3.8.2.3)

Table 2.3

Ship static and dynamic data report

Parameter	Number of bits	Description
Message ID	6	Identifier for this message 5
Repeat indicator	2	Used by the repeater to indicate how many times a message has been repeated Default = 0; 3 = do not repeat any more
User ID (MMSI)	30	MMSI number
AIS version indicator	2	0 = Station compliant with AIS Edition 0; 1 — 3 = Station compliant with future AIS Editions 1, 2, and 3
IMO number	30	1 — 999999999; 0 = not available = default ⁽¹⁾
Call sign	42	7 × 6 bit ASCII characters, '@@@@@@' = not available = default ⁽²⁾
Name	120	Maximum 20 characters 6 bit ASCII, '@@@@@@@@@@@@@@@@@@' = not available = default
Type of ship and cargo	8	0 = not available or no ship = default; 1 — 99 = as defined in § 3.3.8.2.3.2; 100 — 199 = preserved, for regional use; 200 — 255 = preserved, for future use ⁽³⁾

Parameter	Number of bits	Description
Dimensions of ship/convoy	30	Reference point for reported position; Also indicates the dimension of ship in metres (see Fig. 18 and § 3.3.8.2.3.3) ⁽⁴⁾ , ⁽⁵⁾ , ⁽⁶⁾
Type of electronic position fixing device	4	0 = Undefined (default), 1 = GPS, 2 = GLONASS, 3 = Combined GPS/GLONASS, 4 = Loran-C, 5 = Chayka, 6 = Integrated Navigation System, 7 = surveyed, 8 — 15 = not used
ETA	20	Estimated Time of Arrival; MMDDHHMM UTC Bits 19 — 16: month; 1 — 12; 0 = not available = default; Bits 15 — 11: day; 1 — 31; 0 = not available = default; Bits 10 — 6: hour; 0 — 23; 24 = not available = default; Bits 5 — 0: minute; 0 — 59; 60 = not available = default
Maximum present static draught	8	in 1/10 m, 255 = draught 25,5 m or greater, 0 = not available = default ⁽⁵⁾
Destination	120	Maximum 20 characters using 6-bit ASCII; @@@@ = not available. ⁽⁷⁾
DTE	1	Data terminal ready (0 = available, 1 = not available = default)
Spare	1	Spare. Not used. Shall be set to zero. Reserved for future use
	424	Occupies two slots

⁽¹⁾ Shall be set to 0 for inland vessels.

⁽²⁾ ATIS code shall be used for inland vessels.

⁽³⁾ Best applicable ship type shall be used for inland navigation.

⁽⁴⁾ The dimensions shall be set to the maximum rectangle size of the convoy.

⁽⁵⁾ The decimetre accuracy of the inland information shall be rounded upwards.

⁽⁶⁾ The reference point information has to be taken out of the SSD NMEA-record by distinguishing the field 'source identifier'. Position reference point information with source identifier AI, has to be stored as internal one. Other source identifiers will lead to reference point information for the external reference point.

⁽⁷⁾ The UN location codes and ERI terminal codes shall be used.

2.4.3. Message 23, group assignment command (ITU-R M. 1371-2 [PDR])

Table 2.4

Group assignment command

Parameter	Number of bits	Description
Message ID	6	Identifier for message 23; always 23
Repeat Indicator	2	Used by the repeater to indicate how many times a message has been repeated. 0 — 3; default = 0; 3 = do not repeat any more.
Source ID	30	MMSI of assigning station.
Spare	2	Spare. Shall be set to zero. Reserved for future use.
Longitude 1	18	Longitude of area to which the group assignment applies; upper right corner (north-east); in 1/10 min (± 180°, East = positive, West = negative).
Latitude 1	17	Latitude of area to which the group assignment applies; upper right corner (north-east); in 1/10 min (± 90°, North = positive, South = negative).
Longitude 2	18	Longitude of area to which the group assignment applies; lower left corner (south-west); in 1/10 min (± 180°, East = positive, West = negative).

Parameter	Number of bits	Description
Latitude 2	17	Latitude of area to which the group assignment applies; lower left corner (south-west); in 1/10 min ($\pm 90^\circ$, North = positive, South = negative).
Station type	4	0 = all types of mobiles (default) ; 1 = reserved for future use; 2 = all types of Class B mobile stations; 3 = SAR airborne mobile station; 4 = A to N station; 5= Class B'CS' ship-borne mobile station (IEC62287 only); 6= inland waterways 7 to 9= regional use and 10 to 15 = for future use
Type of ship and cargo type	8	0= all types (default) 1...99 see Table 18 of ITU-R M.1371-1 100...199 reserved for regional use 200...255 reserved for future use
Spare	22	Reserved for future use. Not used. Shall be set to zero.
Tx/Rx mode	2	This parameter commands the respective stations to one of the following modes: 0 = TxA/TxB, RxA/RxB (default); 1 = TxA, RxA/RxB, 2 = TxB, RxA/RxB, 3 = reserved for future use
Reporting interval	4	This parameter commands the respective stations to the reporting interval given in Table 2.5 below
Quiet time	4	0 = default = no quiet time commanded; 1 — 15 = quiet time of 1 to 15 min.
Spare	6	Spare. Not used. Shall be set to zero. Reserved for future use
Total	160	Occupies one time period

Table 2.5

Reporting interval settings for use with message 23

Reporting interval field setting	Reporting interval for message18
0	As given by the autonomous mode
1	10 minutes
2	Six minutes
3	Three minutes
4	One minute
5	30 seconds
6	15 seconds
7	10 seconds
8	Five seconds
9	Two seconds
10	Next shorter reporting interval
11	Next longer reporting interval
12 to 15	Reserved for future use

Note: When the dual channel operation is suspended by Tx/Rx mode command 1 or 2, the resulting reporting interval is twice the interval given in above table.

2.4.4. Application of specific messages (ITU-R 1371-1, § 3.3.8.2.4/§ 3.3.8.2.6)

For the necessary data exchange in inland navigation Inland AIS application specific messages are defined.

The regional application identifiers (RAI) of the Inland AIS application specific messages consist of the DAC '200' a function identifier (FI) as defined in this section.

2.4.4.1. Allocation of function identifiers (FI) within the Inland AIS branch

The FIs within the Inland AIS branch shall be allocated and used as described in ITU-R M.1371-1 table 37B. Every FI within the Inland branch shall be allocated to one of the following groups of application fields:

- general usage (Gen),
- vessel traffic Services (VTS),
- aids-to-navigation (A-to-N),
- search and rescue (SAR).

Table 2.6:

FI within the Inland AIS branch

FI	FIG	Name of regional function message	Sent by	Broadcast	Addressed	Description
10	Gen	Inland ship static and voyage related data	Ship	X		See inland specific message FI10: Inland ship static data and voyage related data
21	VTS	ETA at lock/bridge/terminal	Ship		X	See inland specific message FI21: ETA at lock/bridge/terminal
22	VTS	RTA at lock/bridge/terminal	Shore		X	See inland specific message FI 22: RTA at lock/bridge/terminal
23	VTS	EMMA warning	Shore	X		See inland specific message FI23: EMMA warning
24	VTS	Water level	Shore	X		See inland specific message 24: water level
40	A-to-N	Signal status	Shore	X		See inland specific message 40: signal status
55	SAR	Inland number of persons on board	Ship	X	X (preferably)	See inland specific message FI 55: number of persons on board

Some FI within the inland branch shall be reserved for future use.

2.4.4.2. Definition of inland specific messages

Inland specific message FI 10: inland ship static and voyage related data

This message shall be used by inland vessels only, to broadcast ship static and voyage related data in addition to message 5. The message shall be sent with binary message 8 as soon as possible (from the AIS point of view) after message 5.

Table 2.7

Inland vessel data report

Parameter		Number of bits	Description
Message ID		6	Identifier for message 8; always 8
Repeat indicator		2	Used by the repeater to indicate how many times a message has been repeated. Default = 0; 3 = do not repeat any more
Source ID		30	MMSI number
Spare		2	Not used, shall be set to zero. Reserved for future use
Binary data	Application identifier	16	As described in Table 2.6
	Unique European vessel identification number	48	8*6 Bit ASCII characters
	Length of ship	13	1 — 8 000 (rest not to be used) length of ship in 1/10m 0 = default
	Beam of ship	10	1 — 1 000 (rest not to be used) beam of ship in 1/10m; 0 = default
	Vessel and convoy type	14	Numeric ERI Classification (CODES): vessel and convoy Type as described in Appendix E: ERI ship types
	Hazardous cargo	3	Number of blue cones/lights 0 — 3; 4 = B-Flag, 5 = default = unknown
	Draught	11	1 — 2 000 (rest not used) draught in 1/100m, 0 = default = unknown
	Loaded/unloaded	2	1 = loaded, 2 = unloaded, 0 = not available/default, 3 shall not be used
	Quality of speed information	1	1 = high, 0 = low/GNSS = default (*)
	Quality of course information	1	1 = high, 0 = low/GNSS = default (*)
	Quality of heading information	1	1 = high, 0 = low = default (*)
	Spare	8	Not used, shall be set to zero. Reserved for future use
		168	Occupies one slot

(*) Shall be set to 0 if no type approved sensor (e.g. gyro) is connected to the transponder.

The details regarding the ERI ship type coding can be found in Appendix E.

Inland specific message FI 21: ETA at lock/bridge/terminal

This message shall be used by inland vessels only, to send an ETA report to a lock, bridge or terminal in order to apply for a time slot in resource planning. The message shall be sent with binary message 6.

An acknowledgement by inland branch function message 22 shall be received within 15 minutes. Otherwise the Inland branch function message 21 shall be repeated once.

Table 2.8:

ETA report

Parameter		Bit	Description
Message ID		6	Identifier for message 6; always 6
Repeat indicator		2	Used by the repeater to indicate how many times a message has been repeated. Default = 0; 3 = do not repeat any more
Source ID		30	MMSI number of source station
Sequence number		2	0 — 3
Destination ID		30	MMSI number of destination station ⁽¹⁾
Retransmit flag		1	Retransmit flag shall be set upon retransmission: 0 = no retransmission = default; 1 = retransmitted
Spare		1	Not used. Shall be set to zero. Reserved for future use
Binary data	Application identifier	16	as described in Table 2.6
	UN country code	12	2*6 Bit characters
	UN location code	18	3*6 Bit characters
	Fairway section number	30	5*6 Bit characters
	Terminal code	30	5*6 Bit characters
	Fairway hectometre	30	5*6 Bit characters
	ETA at lock/bridge/terminal	20	Estimated time of arrival; MMDDHHMM UTC Bits 19 — 16: month; 1 — 12; 0 = not available = default; Bits 15 — 11: day; 1 — 31; 0 = not available = default; Bits 10 — 6: hour; 0 — 23; 24 = not available = default; Bits 5 — 0: minute; 0 — 59; 60 = not available = default
	Number of assisting tugboats	3	0 — 6, 7 = unknown = default
	Air draught	12	0 — 4 000 (rest not used), in 1/100m, 0 = default = not used
Spare		5	Not used, shall be set to zero. Reserved for future use.
		248	Occupies two slots

⁽¹⁾ A virtual MMSI number shall be used for each country, each national AIS network shall route messages addressed to other countries using this virtual MMSI number.

Inland specific message FI 22: RTA at lock/bridge/terminal

This message shall be sent by base stations only, to assign a RTA at a lock, bridge or terminal to a certain vessel. The message shall be sent with binary message 6 as reply on inland branch function message 21.

Table 2.9

RTA report

Parameter		Bit	Description
Message ID		6	Identifier for message 6; always 6
Repeat indicator		2	Used by the repeater to indicate how many times a message has been repeated. Default = 0; 3 = do not repeat any more
Source ID		30	MMSI number of source station
Sequence number		2	0 — 3
Destination ID		30	MMSI number of destination station
Retransmit flag		1	Retransmit flag shall be set upon retransmission: 0 = no retransmission = default; 1 = retransmitted
Spare		1	Not used, shall be set to zero. Reserved for future use
Binary data	Application identifier	16	As described in Table 2.6
	UN country code	12	2*6 Bit characters
	UN location code	18	3*6 Bit characters
	Fairway section number	30	5*6 Bit characters
	Terminal code	30	5*6 Bit characters
	Fairway hectometre	30	5*6 Bit characters
	RTA at lock/bridge/terminal	20	Recommended time of arrival; MMDDHHMM UTC Bits 19 — 16: month; 1 — 12; 0 = not available = default; Bits 15 — 11: day; 1 — 31; 0 = not available = default; Bits 10 — 6: hour; 0 — 23; 24 = not available = default; Bits 5 — 0: minute; 0 — 59; 60 = not available = default
	Lock/bridge/terminal status	2	0 = operational 1 = limited operation (e.g. obstructed by technical conditions, only one lock chamber available, etc.) 2 = out of order 3 = not available
	Spare	2	Not used, shall be set to zero. Reserved for future use
		232	Occupies two slots

Inland specific message FI 55: number of persons on board

This message shall be sent by inland vessels only, to inform about the number of persons (passengers, crew, shipboard personnel) on board. The message shall be sent with binary message 6 preferably on event or on request using IAI binary functional message 2.

Alternatively the Standard IMO binary message 'number of persons on board' (IAI number 16) could be used.

Table 2.10

Persons on board report

Parameter		Bit	Description
Message ID		6	Identifier for message 6; always 6
Repeat indicator		2	Used by the repeater to indicate how many times a message has been repeated. Default = 0; 3 = do not repeat any more
Source ID		30	MMSI number of source station
Sequence number		2	0 — 3
Destination ID		30	MMSI number of destination station
Retransmit flag		1	Retransmit flag shall be set upon retransmission: 0 = no retransmission = default; 1 = retransmitted.
Spare		1	Not used, shall be set to zero. Reserved for future use
Binary data	Application identifier	16	As described in Table 2.6
	Number of crew members on board	8	0 — 254 crew members, 255 = unknown = default
	Number of passengers on board	13	0 — 8 190 passengers, 8 191 = unknown = default
	Number of shipboard personnel on board	8	0 — 254 shipboard personnel, 255 = unknown = default
	Spare	51	Not used, shall be set to zero. Reserved for future use.
		168	Occupies one slot

Inland specific message FI23: EMMA warning

The EMMA warning shall be used to warn shippers using graphical symbols on the ECDIS screen of heavy weather conditions. The following message is capable of transmitting the EMMA data using the AIS channel. It will not replace the Notices to Skippers warnings. This message shall be sent by base stations only, to give weather warnings to all vessels in a certain area. The message shall be sent with binary message 8 on demand.

Table 2.11

EMMA warning report

Parameter	Bit	Description
Message ID	6	Identifier for message 8; always 8
Repeat indicator	2	Used by the repeater to indicate how many times a message has been repeated. Default = 0; 3 = do not repeat any more
Source ID	30	MMSI number

	Parameter	Bit	Description
	Spare	2	Not used, shall be set to zero. Reserved for future use.
Binary data	Application identifier	16	As described in Table 2.6
	Start date	17	Start of validity period (YYYYMMDD), Bits 18-10: year since 2000 1-255; 0 = default) Bits 9-6: month (1-12; 0 = default) Bits 5-1: day (1-31; 0 = default)
	End date	17	End of validity period (YYYYMMDD), Bits 18-10: year since 2000 1-255; 0 = default) Bits 9-6: month (1-12; 0 = default) Bits 5-1: day (1-31; 0 = default)
	Start time	11	Start time of validity period (HHMM) UTC Bits 11-7: hour (0-23; 24 = default) Bits 6-1: minute (0-59; 60 = default)
	End time	11	End time of validity period (HHMM) UTC Bits 11-7: hour (0-23; 24 = default) Bits 6-1: minute (0-59; 60 = default)
	Start longitude	28	Begin of the fairway section
	Start latitude	27	Begin of the fairway section
	End longitude	28	End of the fairway section
	End latitude	27	End of the fairway section
	Type	4	type of weather warning: 0 = default/unknown, others see Appendix B: EMMA CODES Table B.1
	Min value	9	Bit 0: 0 = positive, 1 = negative value = default Bits 1 — 8 = value (0 — 253; 254 = 254 or greater, 255 = unknown = default)
	Max value	9	Bit 0: 0 = positive, 1 = negative value = default Bits 1 — 8 = value (0 — 253; 254 = 254 or greater, 255 = unknown = default)
	Classification	2	Classification of warning (0 = unknown/default, 1 = slight, 2 = medium, 3 = strong/heavy) according to Appendix B: EMMA CODES Table B.2
	Wind direction	4	Direction of wind: 0 = default/unknown, others see Appendix B: EMMA CODES Table B.3
	Spare	6	Not used, shall be set to zero. Reserved for future use.
		256	Occupies two slots

Table 2.12

Weather type code

Code	Description (EN)	AIS
WI	Wind	1
RA	Rain	2
SN	Snow and ice	3
TH	Thunderstorm	4
FO	Fog	5
LT	Low temperature	6
HT	High temperature	7
FL	Flood	8
FI	Fire in the forests	9

Table 2.13

Weather category type code

Code	Description (EN)	AIS
1	Slight	1
2	Medium	2
3	Strong, heavy	3

Table 2.14

Wind direction code

Code	Description (EN)	AIS
N	North	1
NE	North-east	2
E	East	3
SE	South-east	4
S	South	5
SW	South-west	6
W	West	7
NW	North-west	8

Inland specific message 24: water levels

This message shall be used to inform skippers about actual water levels in their area. It is additional short term information to the water levels distributed via Notices to Skippers. The update rate shall be defined by the competent authority. It is possible to transmit the water levels of more than four gauges using multiple messages.

This message shall be sent by base stations only, to give water level information to all vessels in a certain area. The message shall be sent with binary message 8 at regular intervals.

Table 2.15

Water level report

Parameter		Bit	Description
Message ID		6	Identifier for message 8; always 8
Repeat indicator		2	Used by the repeater to indicate how many times a message has been repeated. Default = 0; 3 = do not repeat any more
Source ID		30	MMSI number
Spare		2	Not used, shall be set to zero. Reserved for future use
Binary data	Application identifier	16	As described in Table 2.6
	UN country code	12	UN country code using 2*6-Bit ASCII characters according to ERI specification
	Gauge ID	11	National unique ID of gauge ⁽¹⁾ 1-2047, 0 = default = unknown
	Water level	14	Bit 0: 0 = negative value, 1 = positive value Bits 1-11: 1-8191, in 1/100m, 0 = unknown = default ⁽²⁾
	Gauge ID	11	National unique ID of gauge ⁽¹⁾ 1-2047, 0 = default = unknown
	Water level	14	Bit 0: 0 = negative value, 1 = positive value Bits 1-11: 1-8191, in 1/100m, 0 = unknown = default ⁽²⁾
	Gauge ID	11	National unique ID of gauge ⁽¹⁾ 1-2047, 0 = default = unknown
	Water level	14	Bit 0: 0 = negative value, 1 = positive value Bits 1-11: 1-8191, in 1/100m, 0 = unknown = default ⁽²⁾
	Gauge ID	11	National unique ID of gauge ⁽¹⁾ 1-2047, 0 = default = unknown
	Water level	14	Bit 0: 0 = negative value, 1 = positive value Bits 1-11: 1-8191, in 1/100m, 0 = unknown = default ⁽²⁾
		168	Occupies one slot

⁽¹⁾ Shall be defined by ERI for each country.

⁽²⁾ Difference value referring to reference water level (GlW in Germany, RNW on the Danube).

Inland specific message 40: signal status

This message shall be sent by base stations only, to inform about the status of different light signals to all vessels in a certain area. The information shall be displayed on an external Inland ECDIS display as dynamic symbols. The message shall be sent with binary message 8 at regular intervals.

Table 2.16

Signal status report

Parameter	Bit	Description
Message ID	6	Identifier for message 8; always 8
Repeat indicator	2	Used by the repeater to indicate how many times a message has been repeated Default = 0; 3 = do not repeat any more
Source ID	30	MMSI number

Parameter		Bit	Description
Spare		2	Not used, shall be set to zero. Reserved for future use
Binary data	Application identifier	16	As described in Table 2.6
	Signal position longitude	28	Longitude in 1/10 000 min (± 180 degrees, East = positive, West = negative 181 degrees (6791AC0 hex) = not available = default)
	Signal position latitude	27	Latitude in 1/10 000 min (± 90 degrees, North = positive, South = negative, 91 degrees (3412140 hex) = not available = default)
	Signal form	4	0,15 = unknown = default, 1-14 signal form according to Appendix C: Example of Signal Status
	Orientation of signal	9	Degrees (0-359) (511 indicates not available = default)
	Direction of impact	3	1 = upstream, 2 = downstream, 3 = to the left bank, 4 = to the right bank, 0 = unknown = default, rest not used
	Light status	30	Status (1 to 7) of up to 9 lights (light 1 to light 9 from left to right, 100000000 means colour 1 at light 1) per signal according to Appendix C: example of signal status. 000000000 = default, 777777777 maximum, rest not used
	Spare	11	Not used, shall be set to zero. Reserved for future use
		168	Occupies one slot

An example of signal status is given in APPENDIX C: Example of Signal Status

Appendix A

DEFINITIONS

A.1 Services*River information services (RIS)*

An European concept for harmonised information services to support traffic management and transport management in inland navigation, including the interfaces to other transport modes.

Vessel traffic management

Vessel traffic management is providing information orally as well as electronically as well as giving directions in interaction with and response to vessels in a traffic flow to optimise the smooth (efficient) and safe transport.

Vessel traffic management shall comprise at least one of the below defined elements:

- vessel traffic services,
- information services,
- navigational assistance services,
- traffic organisation service,
- lock planning (long and medium term),
- lock operation,
- bridge planning (medium and short term),
- bridge operation,
- navigational information.

Vessel traffic services (VTS)

Vessel traffic service is a service implemented by a competent authority, designed to improve the safety and efficiency of vessel traffic and to protect the environment.

The service shall have the capability to interact with the traffic and to respond to traffic situations developing in the area.

VTS services — VTS shall comprise at least an information service and may also include others, such as a navigational assistance service, or a traffic organisation service, or both, defined as below:

- an information service is a service to ensure that essential information becomes available in time for on-board navigational decision-making,
- a navigational assistance service is a service to assist on-board navigational decision-making and to monitor its effects. Navigational assistance is especially of importance in reduced visibility or difficult meteorological circumstances or in case of defects or deficiencies affecting the radar, steering or propulsion. Navigational assistance is given in due form of position information at the request of the traffic participant or in special circumstances when deemed necessary by the VTS operator,
- a traffic organisation service is a service to prevent the development of dangerous vessel traffic situations by managing of traffic movements and to provide for the safe and efficient movement of vessel traffic within the VTS area.

(Source: IALA VTS guidelines)

VTS area is the delineated, formally declared service area of the VTS. A VTS area may be subdivided in sub-areas or sectors. (Source: IALA VTS guidelines)

Navigational information is information provided to the skipper on board to support in on-board decision-making. (Source: IALA VTS guidelines)

Tactical traffic information (TTI) is the information affecting the skipper's or the VTS operator's immediate decisions with respect to in the actual traffic situation and the close geographic surroundings. A tactical traffic image contains position information and specific vessel information of all targets detected by a radar presented on an Electronic Navigational Chart and — if available — enhanced by external Traffic Information, such as the information delivered by an AIS. TTI may be provided on board of a vessel or on shore, e.g. in a VTS Centre. (Source: RIS guidelines)

Strategic traffic information (STI) is the information affecting the medium and long-term decisions of RIS users. A strategic traffic image contributes to the planning decision capabilities regarding a safe and efficient voyage. A strategic traffic image is produced in a RIS centre and delivered to the users on demand. A strategic traffic image contains all relevant vessels in the RIS area with their characteristics, cargoes and positions, reported by VHF voice reporting or electronic ship reporting, stored in a database and presented in a table or on an electronic map. Strategic Traffic Information may be provided by a RIS/VTS centre or by an office. (Source: RIS guidelines)

(Vessel) tracking and tracing

- **(Vessel) tracking** means the function of maintaining status information of the vessel, such as the current position and characteristics, and — if needed — combined with information on cargo and consignments.
- **(Vessel) tracing** means the retrieving of information concerning the whereabouts of the vessel and — if needed — information on cargo, consignments and equipment. (Source: RIS guidelines)

Vessel traffic monitoring is providing important information relating to the movements of relevant ships in a RIS area. This includes information about ships identity, position, (type of cargo) and port of destination. (New)

Logistics

The planning, execution and control of the movement and placement of people and/or goods and the supporting activities related to such movement and placement within a system organised to achieve specific objectives. (Source: COMPRIS WP8 Standardisation)

A.2 Players

Shipmaster

The person responsible for the overall safety of the vessel, cargo, passengers and crew and thereby for the voyage plan of the vessel and the condition of the vessel, the cargo, respectively passengers and the quality and quantity of the crew.

Conning skipper

The person who navigates the vessel according to voyage plan instructions of the shipmaster. (Source: COMPRIS WP2, Architecture)

VTS operator

A person, appropriately qualified by the competent authority, performing one or more tasks contributing to the services of the VTS (Source: IALA VTS guidelines for inland waters).

The person who monitors and controls the fluent and safe progress of traffic within the area around the VTS centre. (Source: COMPRIS WP2, Architecture)

Competent authority

The competent authority is the authority made responsible for safety, in whole or in part, by the government, including environmental friendliness and efficiency of vessel traffic. The competent authority usually has the tasks of planning, arranging funding and of commissioning of RIS. (Source: RIS guidelines)

RIS authority

The RIS authority is the authority with the responsibility for the management, operation and coordination of the RIS, the interaction with participating vessels and safe and effective provision of the service. (Source: RIS guidelines)

RIS operator

A person performing one or more tasks contributing to the services of RIS. (new)

Lock operator

The person who monitors and controls the fluent and safe progress of traffic around and through a lock and who is responsible for the locking process in itself. (Source: COMPRIS WP2, Architecture)

Bridge operator

The person who monitors and controls the fluent and safe progress of traffic around a moveable bridge and who is responsible for the operation of a movable bridge. (Source: COMPRIS WP2, Architecture)

Terminal operator (synonym: stevedore)

A party responsible for the execution of loading, stowing and discharging (unloading) of vessels. (Source: COMPRIS WP8 Standardisation)

Fleet manager

A person planning and observing the actual (navigational) status of a number of vessels moving or working under one command or ownership. (New)

Operator in calamity centres of emergency services

The person who monitors, controls and organises the safe and smooth fighting of accidents, incidents and calamities. (New)

Consignor (synonym: cargo shipper or sender)

The merchant (person) by whom, in whose name or on whose behalf a contract of carriage of goods has been concluded with a carrier or any party by whom, in whose name or on whose behalf the goods are actually delivered to the carrier in relation to the contract of carriage. (Source: COMPRIS WP8 Standardisation)

Consignee

The party such as mentioned in the transport document by whom goods, cargo or containers are to be received. (Source: Transport and logistics glossary (P&O Nedlloyd) and COMPRIS WP8 Standardisation)

Freight broker (Synonym: freight forwarder)

The person responsible on behalf of the transport supplier for the physical transport of the goods to be executed. The freight broker offers transport capacity to shippers on behalf of the transport supplier and is this way mediator between supply forwarder and shipmaster. (Source: COMPRIS WP2, Architecture)

Supply forwarder

The person who is responsible on behalf of the shipper for the organisation of the physical transport of the goods that shall be exchanged. The supply forwarder offers cargo to transporters on behalf of the shipper. (Source: COMPRIS WP2, Architecture)

Customs

The department of the Civil Service that deals with the levying of duties and taxes on imported goods from foreign countries and the control over the export and import of goods, e.g. allowed quota prohibited goods. (Source: Transport and logistics glossary (P&O Nedlloyd),

Appendix B

EMMA CODES

Table B.1

Weather type code

Code	Description (EN)	
WI	Wind	
RA	Rain	
SN	Snow and ice	
TH	Thunderstorm	
FO	Fog	
LT	Low temperature	
HT	High temperature	
FL	Flood	
FI	Fire in the forests	

Table B.2

Weather category code

Code	Description (EN)	
1	Slight	
2	Medium	
3	strong, heavy	

Table B.3

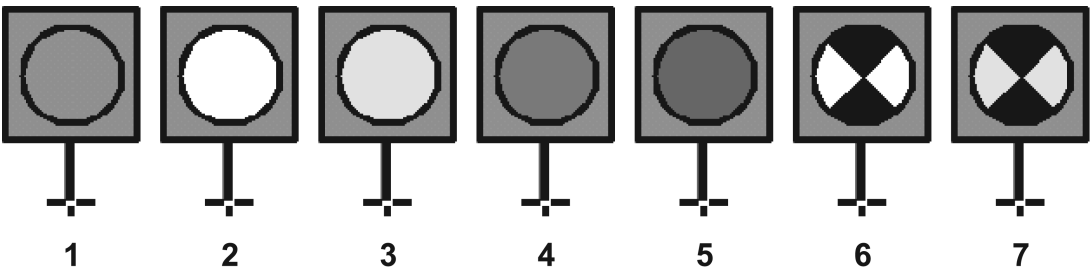
Wind direction code

Code	Description (EN)	
N	North	
NE	North-east	
E	East	
SE	South-east	
S	South	
SW	South-west	
W	West	
NW	North-west	

Appendix C

Example of signal status

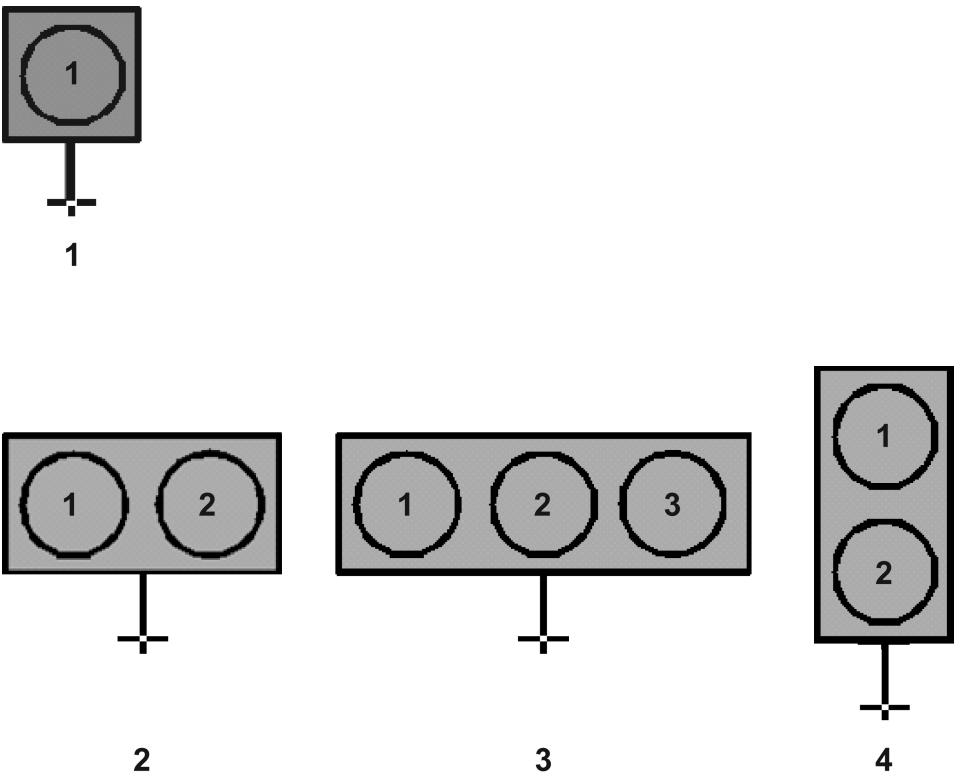
C.1 Light status

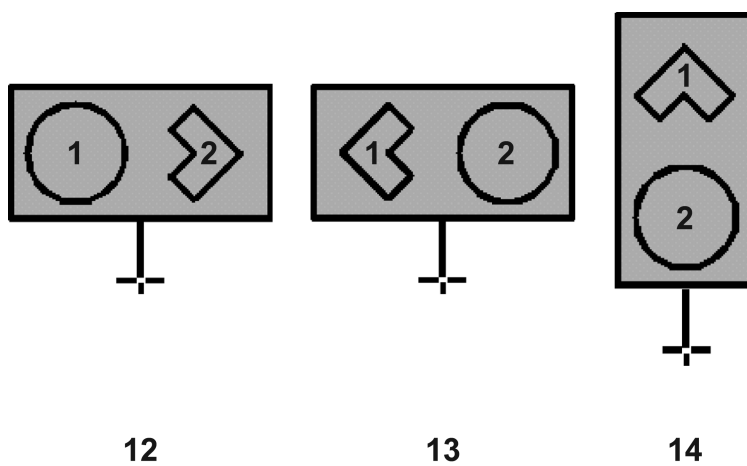
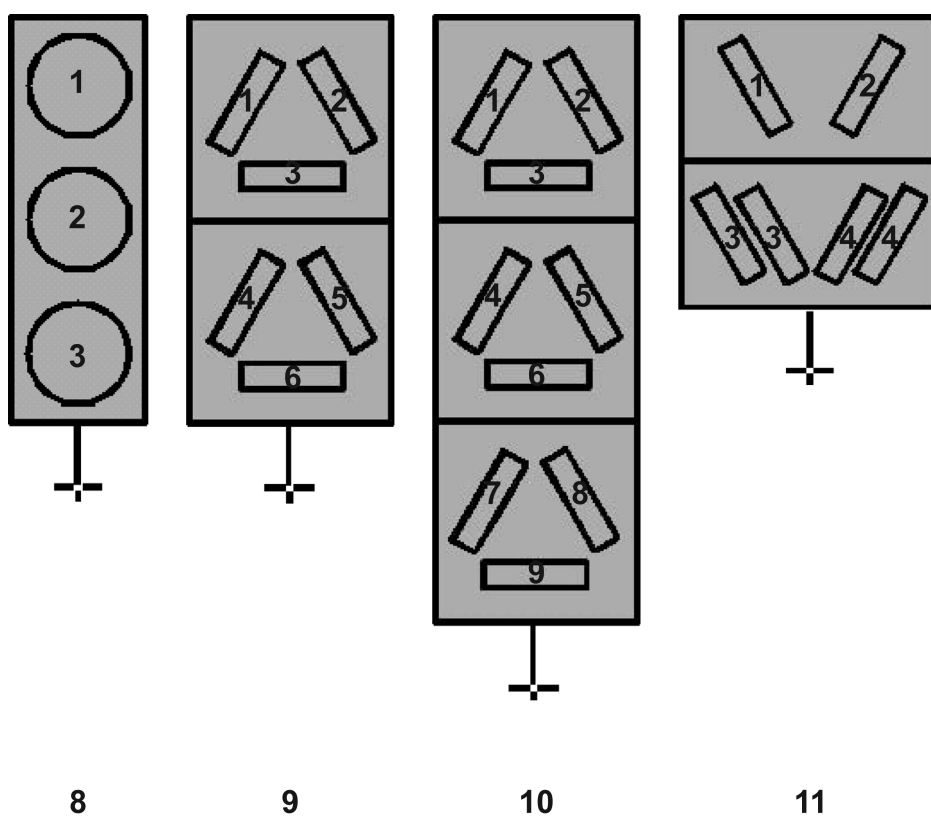
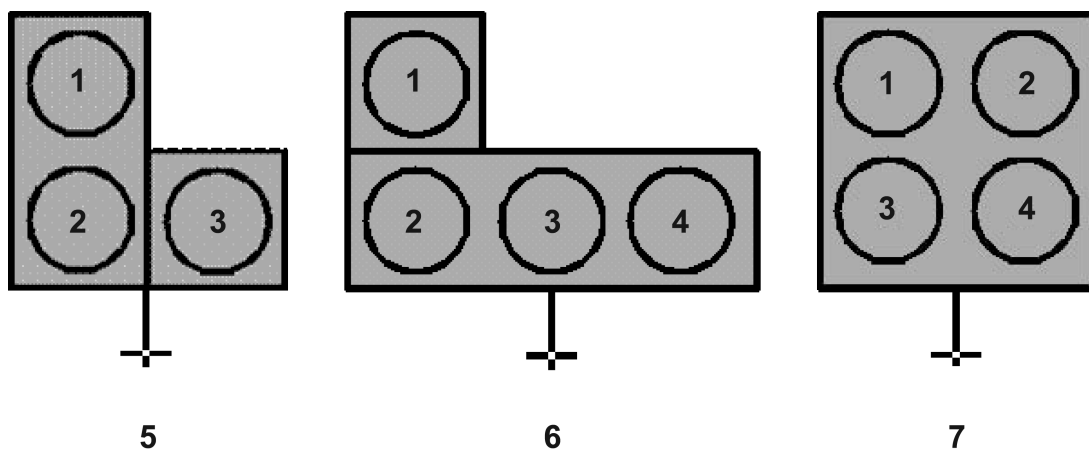


The examples show a grey background in a square of a fixed size of about 3 mm x 3 mm at all display scales with a 'post' like it is used for the present static signal in the presentation library. The white point in the centre of the post indicates the position and the post itself allows the user to read the direction of impact. (At a lock, for example, there are often signals for vessels leaving the lock chamber and vessels entering the lock chamber on the inner and the outer side of the door construction) However, the manufacturer of the display software can design the shape of the symbol and the background colour.

The status of a signal can be 'No light', 'white', 'yellow', 'green', 'red', 'white flashing' and 'yellow flashing' according to CEVNI.

C.2 Signal forms





For each of these signals there are a lot of possible combinations of lights. It is required to use:

a number to indicate the kind of signal, and

a number for each light on a signal to indicate its status:

- 1 = no light,
 - 2 = white,
 - 3 = yellow,
 - 4 = green,
 - 5 = red,
 - 6 = white flashing, and
 - 7 = yellow flashing.
-

Appendix D

PROPOSED DIGITAL INTERFACE SENTENCES FOR INLAND AIS

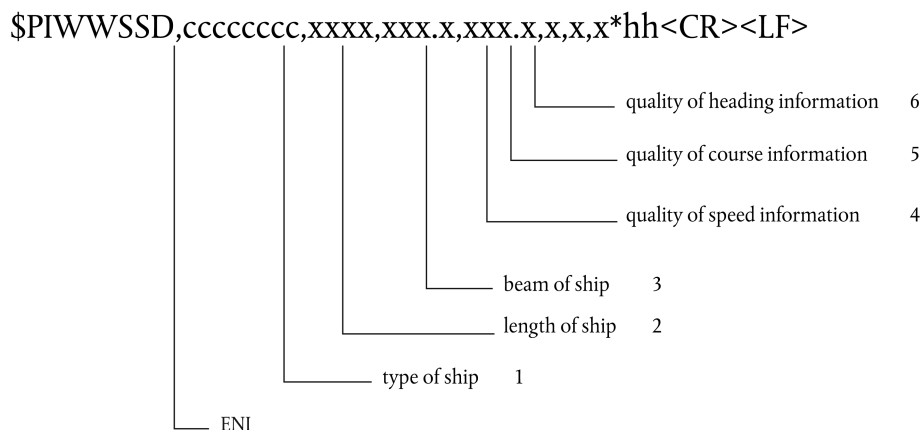
D.1 Input sentences

The serial digital interface of the AIS is supported by existing IEC 61162-1 sentences and new IEC 61162-1 like sentences. The detailed descriptions for the digital interface sentences are found in either IEC 61162-1 edition 2, or in 'Publicly Available Specification' IEC PAS 61162-100.

This appendix contains draft information used during the development of Inland AIS in order to input the inland specific data (see) into the Inland AIS shipboard unit. New IEC 61162-1 sentences have to be specified. Prior to an adoption of approved sentences for Inland AIS by IEC 61162-1, proprietary sentence shall be used.

D.2 Inland waterway static ship data

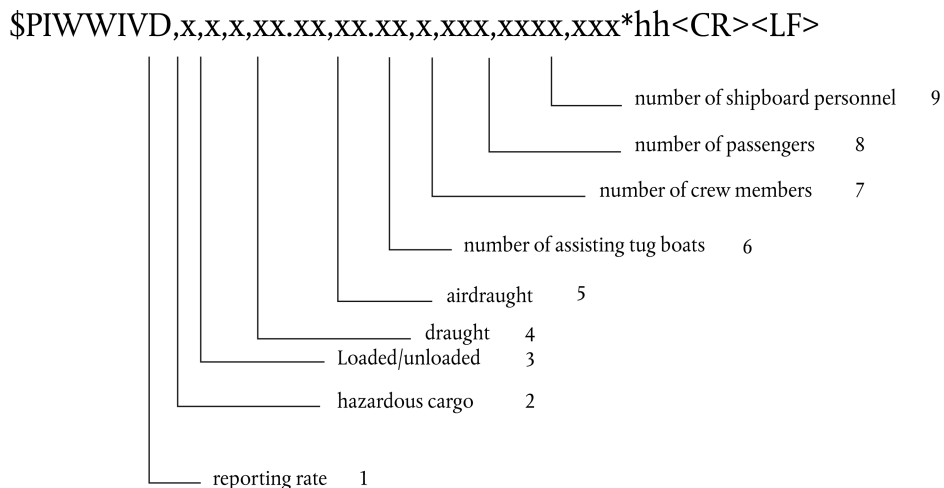
This sentence is used to enter inland navigation static ship data into an Inland AIS unit. For setting the inland static ship data the sentence \$PIWWSSD with the following content is proposed:



- Note 1 ERI ship type according to ERI classification (see Appendix E)
- Note 2 length of ship 0 to 800,0 metres
- Note 3 beam of ship 0 to 100,0 metres
- Note 4 quality of speed information 1=high or 0=low
- Note 5 quality of course information 1=high or 0=low
- Note 6 quality of heading information 1=high or 0=low

D.3 Inland waterway voyage data

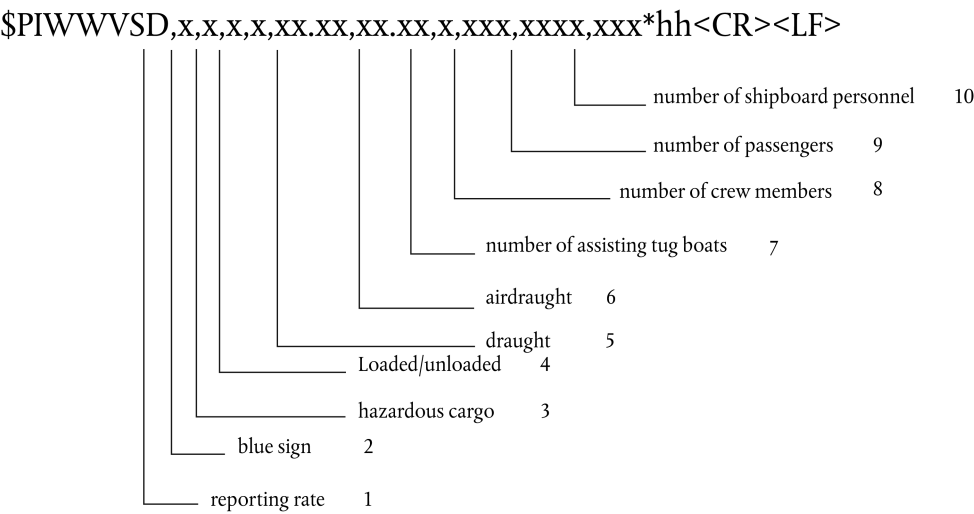
This sentence is used to enter inland navigation voyage ship data into a Inland AIS unit. For setting the inland voyage related data the sentence \$PIWWIVD with the following content is proposed:



- Note 1 See Table 2.5 Reporting rate settings, default setting: 0
- Note 2 number of blue cones: 0-3, 4=B-Flag, 5=default=unknown
- Note 3 0=not available=default, 1=loaded, 2=unloaded, rest not used
- Note 4 static draught of ship 0 to 20,00 metres, 0=unknown=default, rest not used
- Note 5 air draught of ship 0 to 40,00 metres, 0=unknown=default, rest not used
- Note 6 number of assisting tugboat 0-6, 7=default=unknown, rest not used
- Note 7 number of crew members on board 0 to 254, 255=unknown=default, rest not used
- Note 8 number of passengers on board 0 to 8 190, 8 191=unknown=default, rest not used
- Note 9 number of shipboard personnel on board 0 to 254, 255=unknown=default, rest not used

Remark: The former proposed input sentence \$PIWWVSD, used in Inland AIS units developed prior this standard, contains the parameter field 'blue sign' which may raise conflicts with the parameter field 'regional application flags' in the \$—VSD sentence according IEC 61162-1:VSD-AIS Voyage static data.

It shall no longer be implemented in new AIS transponders. However, for compatibility reasons, it shall be supported by external applications.



- Note 1 0=not available=default=factory settings, 1=SOLAS settings, 2=Inland Waterway settings (2 sec), rest not used
- Note 2 0=not available=default, 1=not set, 2=set, rest not used
- Note 3 number of blue cones: 0-3, 4=B-Flag, 5=default=unknown
- Note 4 0=not available=default, 1=loaded, 2=unloaded, rest not used
- Note 5 static draught of ship 0 to 20,00 metres, 0=unknown=default, rest not used
- Note 6 air draught of ship 0 to 40,00 metres, 0=unknown=default, rest not used
- Note 7 number of assisting tugboat 0-6, 7=default=unknown, rest not used
- Note 8 number of crew members on board 0 to 254, 255=unknown=default, rest not used
- Note 9 number of passengers on board 0 to 8 190, 8 191=unknown=default, rest not used
- Note 10 number of shipboard personnel on board 0 to 254, 255=unknown=default, rest not used

Appendix E

ERI SHIP TYPES

This table shall be used to convert the UN ship types, which are used in Inland message 10 to the IMO types which are used in IMO message 5.

ERI code			AIS code	
Full code	U	Ship name (EN)	First digit	Second digit
8000	No	Vessel, type unknown	9	9
8010	V	Motor freighter	7	9
8020	V	Motor tanker	8	9
8021	V	Motor tanker, liquid cargo, type N	8	0
8022	V	Motor tanker, liquid cargo, type C	8	0
8023	V	Motor tanker, dry cargo as if liquid (e.g. cement)	8	9
8030	V	Container vessel	7	9
8040	V	Gas tanker	8	0
8050	C	Motor freighter, tug	7	9
8060	C	Motor tanker, tug	8	9
8070	C	Motor freighter with one or more ships alongside	7	9
8080	C	Motor freighter with tanker	8	9
8090	C	Motor freighter pushing one or more freighters	7	9
8100	C	Motor freighter pushing at least one tank-ship	8	9
8110	No	Tug, freighter	7	9
8120	No	Tug, tanker	8	9
8130	C	Tug freighter, coupled	3	1
8140	C	Tug, freighter/tanker, coupled	3	1
8150	V	Freightbarge	9	9
8160	V	Tankbarge	9	9
8161	V	Tankbarge, liquid cargo, type N	9	0
8162	V	Tankbarge, liquid cargo, type C	9	0
8163	V	Tankbarge, dry cargo as if liquid (e.g. cement)	9	9
8170	V	Freightbarge with containers	8	9
8180	V	Tankbarge, gas	9	0
8210	C	Pushtow, one cargo barge	7	9
8220	C	Pushtow, two cargo barges	7	9
8230	C	Pushtow, three cargo barges	7	9
8240	C	Pushtow, four cargo barges	7	9
8250	C	Pushtow, five cargo barges	7	9
8260	C	Pushtow, six cargo barges	7	9
8270	C	Pushtow, seven cargo barges	7	9

ERI code			AIS code	
Full code	U	Ship name (EN)	First digit	Second digit
8280	C	Pushtow, eight cargo barges	7	9
8290	C	Pushtow, nine on more barges	7	9
8310	C	Pushtow, one tank/gas barge	8	0
8320	C	Pushtow, two barges at least one tanker or gas barge	8	0
8330	C	Pushtow, three barges at least one tanker or gas barge	8	0
8340	C	Pushtow, four barges at least one tanker or gas barge	8	0
8350	C	Pushtow, five barges at least one tanker or gas barge	8	0
8360	C	Pushtow, six barges at least one tanker or gas barge	8	0
8370	C	Pushtow, seven barges at least one tanker or gas barge	8	0
8380	C	Pushtow, eight barges at least one tanker or gas barge	8	0
8390	C	Pushtow, nine or more barges at least one tanker or gas barge	8	0
8400	V	Tug, single	5	2
8410	No	Tug, one or more tows	3	1
8420	C	Tug, assisting a vessel or linked combination	3	1
8430	V	Pushboat, single	9	9
8440	V	Passenger ship, ferry, cruise ship, red cross ship	6	9
8441	V	Ferry	6	9
8442	V	Red cross ship	5	8
8443	V	Cruise ship	6	9
8444	V	Passenger ship without accomodation	6	9
8450	V	Service vessel, police patrol, port service	9	9
8460	V	Vessel, work maintainance craft, floating derrick, cable-ship, buoy-ship, dredge	3	3
8470	C	Object, towed, not otherwise specified	9	9
8480	V	Fishing boat	3	0
8490	V	Bunkership	9	9
8500	V	Barge, tanker, chemical	8	0
8510	C	Object, not otherwise specified	9	9
1500	V	General cargo Vessel maritime	7	9
1510	V	Unit carrier maritime	7	9
1520	V	bulk carrier maritime	7	9
1530	V	tanker	8	0
1540	V	liquified gas tanker	8	0
1850	V	pleasure craft, longer than 20 metres	3	7
1900	V	fast ship	4	9
1910	V	hydrofoil	4	9

Appendix F

Overview of information required by the user and the data fields, which are available in the defined Inland AIS messages

Required information by users	Data field in Inland AIS message 'Yes' or 'No'
Identification	Yes
Name	Yes
Position	Yes
Speed over ground	Yes
Course over ground	Yes
Intention blue sign	Yes
Direction	Could be derived from course over ground
Destination	Yes
Intended route	Could partly be derived from destination
ETA	Yes
RTA	Yes
Vessel and convoy type	Yes
Number of assisting tug boats	Yes, could be identified separately
Dimensions (length and beam)	Yes
Draught	Yes
Air draught	Yes
Number of blue cones	Yes
Loaded/unloaded	Yes
Number of persons on board	Yes
Navigational status	Yes
Limitations on navigational space	Free text. Is not available
Relative position	Could be calculated based on position information of vessels
Relative speed	Could be calculated based on speed information of vessels
Relative heading	Could be calculated based on heading information of vessels
Relative drift	Is not available
Rate of turn	Is not available

COMMISSION REGULATION (EC) No 416/2007**of 22 March 2007****concerning the technical specifications for Notices to Skippers as referred to in Article 5 of Directive 2005/44/EC of the European Parliament and of the Council on harmonised river information services (RIS) on inland waterways in the Community**

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Directive 2005/44/EC of the European Parliament and of the Council of 7 September 2005 on harmonised river information services (RIS) on inland waterways in the Community ⁽¹⁾, and in particular Article 5 thereof,

Whereas:

- (1) In accordance with Article 1 of Directive 2005/44/EC, River Information Services (RIS) shall be developed and implemented in a harmonised, interoperable and open way.
- (2) In accordance with Article 5 of Directive 2005/44/EC, technical specifications for Notices to Skippers shall be defined.
- (3) The technical specifications for Notices to Skippers shall be based on the technical principles set out in Annex II to the Directive.
- (4) In accordance with Article 1(2) of Directive 2005/44/EC, the technical specifications shall take due account of the work carried out by relevant international organisations.
- (5) They shall also take due account of the work carried out by the expert group on Notices to Skippers which is composed of representatives of the competent authorities for the implementation of Notices to Skippers and official

members from other governmental bodies as well as observers from the industry.

- (6) The technical specifications, which are the subject of this Regulation, correspond to the current technical state of the art. Experiences gained from the application of Directive 2005/44/EC as well as future technical progress may make it necessary to amend the technical specifications in accordance with Article 5(2) of Directive 2005/44/EC. Amendments to the technical specifications shall take due account of the work carried out by the expert group on Notices to Skippers.
- (7) The draft technical specifications have been examined by the Committee referred to in Article 11 of Directive 2005/44/EC.
- (8) The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 11 of Directive 2005/44/EC.

HAS ADOPTED THIS REGULATION:

Article 1

This Regulation defines the technical specifications for Notices to Skippers. The technical specifications are set out in the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the day following its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 22 March 2007.

For the Commission

Jacques BARROT

Vice-President

⁽¹⁾ OJ L 255, 30.9.2005, p. 152.

ANNEX

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ABBREVIATIONS

ENC	Electronic Navigational Chart
FIS	Fairway Information System
Inland ECDIS	Inland Electronic Chart Display and Information System
GLW	Gleichwertiger Wasserstand
RNW	Regulierungs-Niederwasser
WGS 84	World Geodetic System 1984
XML	Extended Markup Language

1. INTRODUCTION

In the following, the primary functions and performance requirements are described.

Fairway Information Services (FIS) contain geographical, hydrological and administrative data that are used by skippers and fleet managers to plan, execute and monitor a trip. FIS provide dynamic information (e.g. water levels, water level predictions etc.) as well as static information (e.g. regular operating times of locks and bridges) regarding the use and status of the inland waterway infrastructure, and thereby support tactical and strategic navigation decisions.

Traditional means to supply FIS are e.g. visual aids to navigation, notices to skippers on paper, broadcast and fixed telephone on locks. The mobile phone using GSM has added new possibilities of voice and data communication, but GSM is not available in all places and at all times. Tailor-made FIS for the waterways can be supplied by radiotelephone service on inland waterways, Internet service or electronic navigational chart service (e.g. Inland ECDIS with ENC).

The following technical specifications for Notices to Skippers provide rules for the data transmission of fairway information via Internet service.

The standardisation of Notices to Skippers will:

- provide automatic translation of the most important content of notices in all the languages of the participating countries,
- provide a standardised structure of data-sets in all the participating countries to facilitate the integration of notices in voyage-planning systems,
- provide a standard for water level information,
- be compatible with the data-structure of Inland ECDIS to facilitate integration of Notices to Skippers into Inland ECDIS,
- facilitate data-exchange between different countries,
- use standard vocabulary in combination with code lists.

It will not be possible to standardise all the information, which is contained in Notices to Skippers. Part of the information will be provided as 'free text' without automatic translation. The standardised part should cover all the information which is:

- important for the safety of Inland Navigation (for example: sunken small craft on the right side of the fairway at the Danube, river-km 2 010),
- needed for voyage planning (for example: closure of locks, reduction of vertical clearance, ...).

Additional information (for example: cause of the closure of a lock) can be given as free text.

2. DATA STANDARD

Notices to Skippers shall be provided according to Chapter 6, XML message definition.

In order to enable a broad applicability, the XML message definition contains a wide range of elements. The message is structured into entities (tags), such as sections, groups, subgroups and data elements. The use of free text in the data elements should be restricted to a minimum. Wherever it is possible, data elements are encoded (standardised). The XML message definition defines the structure of the XML message and the codes. The standardised code values, their explanation and translation into 23 languages are provided in reference tables.

A XML-template, the XML-scheme, for Notices to Skippers which is based on the XML definition and the standardised code values contains a complete definition for all the XML elements including possible formats and code values.

In order to obtain a machine-readable XML message one has to fill out the empty fields in the XML-scheme (free text) and to select the code values from the value lists provided in the XML-scheme.

The reference tables and the XML scheme of Notices to Skippers are published by the European Commission at http://ec.europa.eu/transport/iw/index_en.htm

3. WATER LEVEL INFORMATION

Water level information is very important for voyage planning as well as safety. At the moment there is no common standard of referencing water level information (Germany for example is using the GIW, gleichwertiger Wasserstand, the Danube Commission is recommending the RNW, Regulierungs Niederwasser, which is defined slightly different. The vertical clearance is mostly referred to a high water level, but sometimes to low water level. The values of gauges are referring to different sea-levels or to special reference points). Therefore it is not possible to integrate water level information in systems for automatic calculation of clearances.

The reference tables for Notices to Skippers are containing a list of gauges relevant for inland navigation with their reference values. The water level information in the message can be referred to the zero point of a gauge, as it has been done in the past, and the on-board software can calculate the absolute height by use of the reference data of the technical specifications.

4. WAY OF DISTRIBUTION

Member States shall ensure that Notices to Skippers are provided according to these technical specifications in XML-format downloadable in the Internet. In order to enable a specific download, Internet services should provide a possibility to select:

- a specific waterway section (fairway section number of the ID according to Table 1), or
- a specific part of a waterway, defined by the river-km (fairway hectometre of the ID according to Table 1) of the starting and the end point,
- a time of validity (starting date and end date according to Table 1),
- and a date of publication of the notice (date of publication according to Table 1).

Notices according to this standard can additionally be provided for example by:

- WAP (Wireless Application Protocol) services,
- E-mail services.

Data exchange between the authorities is recommended. All the authorities using this standard can integrate Notices to Skippers of other authorities and countries in their own services. The participating parties (authorities) can agree the procedure of transmitting the XML messages by push or pull services directly.

5. PROCEDURE FOR CHANGES IN THE REFERENCE TABLES AND THE XML SCHEME OF NOTICES TO SKIPPERS

Proposals for amendments to the reference tables or the XML scheme have to be sent together with an explanation, why the amendment is needed to the chairperson of the Notices to Skippers expert group.

The chairperson shall distribute the proposal to the members of the expert group as well as to the European Commission.

As regards the expert group, the amendment procedure as defined in the Terms of Reference for the Notices to Skippers expert group shall apply.

The European Commission will proceed with the amendment in accordance with the procedures established in the RIS Directive. In this context, one shall take due account of the work of the expert group.

If a proposal for amendment is adopted, the updated reference tables and XML scheme are published by the European Commission at http://ec.europa.eu/transport/iw/index_en.htm

6. STRUCTURE OF THE MESSAGES AND CODING IN XML-FORMAT

This chapter describes the structure and formatting of standardised electronic Notice to Skippers messages.

6.1. Structure of the Notices to Skippers

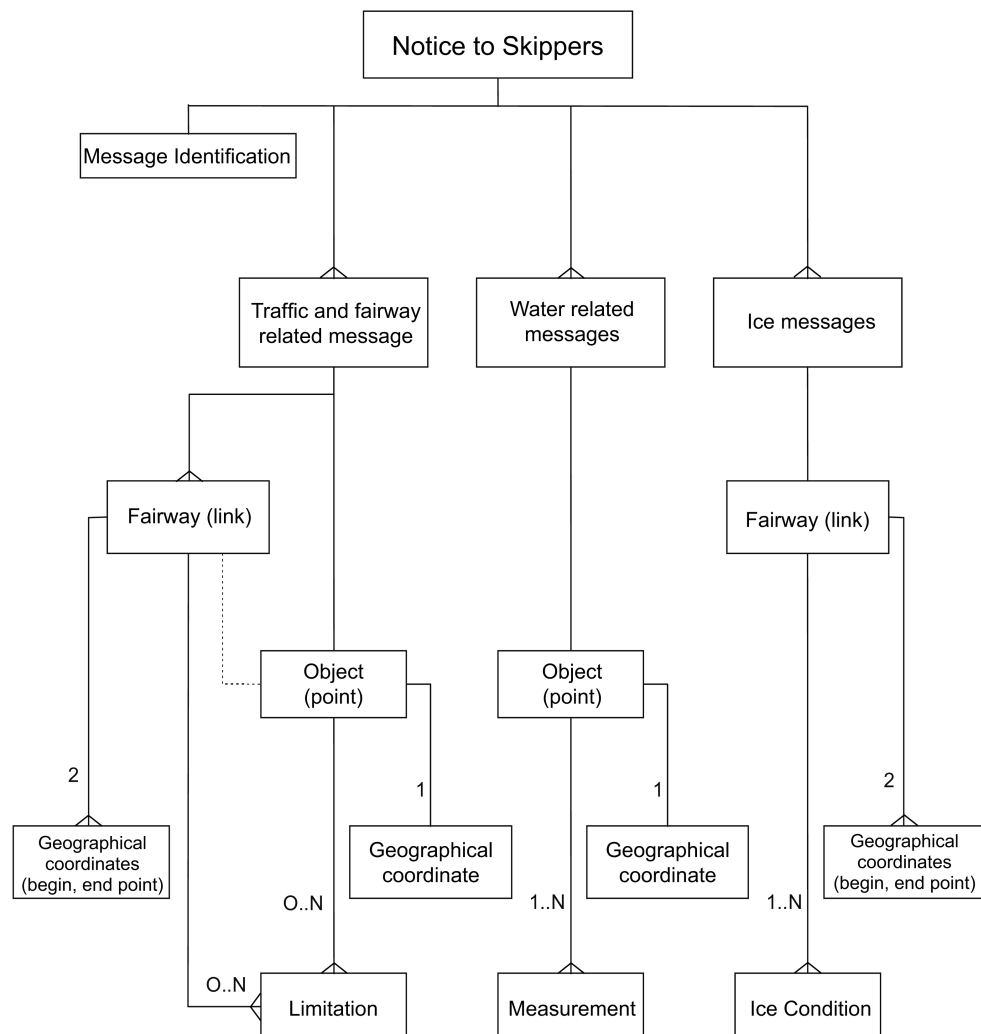
6.1.1. General

Notice to Skippers' messages have the following information sections:

- identification of the message,
- fairway and traffic related message,
 - water level related messages as:
 - water level messages,
 - least sounded depth — messages,
 - vertical clearance — messages,
 - barrage status — messages,
 - discharge messages,
 - regime messages,
 - predicted water level — messages,
 - least sounded predicted depth — messages,
 - predicted discharge — messages.
- ice messages.

Figure 1

Notice to Skippers message structure



A standardised message in XML-format contains therefore four different sections:

- (1) Message identification
- (2) Fairway and traffic related messages
- (3) Water level related messages
- (4) Ice messages

Normally in one message only two sections will be filled: The identification section and at least **one** of the sections: fairway and traffic related messages, water level related or ice message (mix of sections, different type of message information is not allowed).

The fairway and traffic related section contains limitations for a fairway (link) or an object. Notice to Skippers relate to a fairway **or** a geographical object (point). If the message is about an Object the fairway section shall be filled with the related fairway information without the limitation section.

If a notice contains different limitations for different target groups or different communication information for different limitations, several fairway and traffic related sections with the same number can be used.

The Water level related message section contains measurements for an Object usually a tide gauge.

The Ice message section contains information about the ice conditions and for a fairway (link).

6.1.2. XML definition overview

This section gives an overview of the definition of the message coded in XML. A XML-scheme for Notices to Skippers containing a complete definition for all the XML elements including the possible formats is published at http://ec.europa.eu/transport/iw/index_en.htm

Table 1

XML message specification

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
	<?xml version="1.0" encoding="iso-8859-1"?>			
	<RIS_Message>	Notice to Skippers		
1s	<identification>	Identification section	M	1
1.1	<from>String</from>	Sender of the message	M	
1.2	<originator>Riza</originator>	Originator (initiator) of the information in this message	M	
1.3	<country_code>CH</country_code>	Country where message is valid	M	
1.4	<language_code>HU</language_code>	Original language used in the textual info. (contents)	M	
1.5	<district>WaddenZee</district>	District/Region within the specified country, where the message is applicable	C	
1.6	<date_issue> 20011231</date_issue>	Date of editing	C	
1.7	<time_issue> 1145</time_issue>	Time of editing	C	
1e	</identification>			
2s	<ftm>	Fairway and traffic related section	C	1
2.1	<year> 2001</year>	Year of first issuing of the notice	M	
2.2	<number> 9999</number>	Number of the notice (per year)	M	
2.3	<serial_number> 99</serial_number>	Serial no of notice (replacements and withdrawals) original notice: 00	M	
2.4s	<target_group>	Target group information	C	
2.4.1	<target_group_code>ALL</target_group_code>	Target group (vessel type) for this message	M	Default: all
2.4.2	<direction_code>ALL</direction_code>	Upstream or downstream traffic, or both	M	Default:all
2.4e	</target_group>			

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
2.5	<subject_code>OBSTRU</subject_code>	Subject code	M	
2.6s	<validity_period>	Overall period of validity	M	
2.6.1	<date_start> 20011231</date_start>	Start date of validity period	M	
2.6.2	<date_end> 99999999</date_end>	End date of validity period (indefinite: 99999999)	M	
2.6e	</validity_period>			
2.7	<contents>String</contents>	Contents/notice text in original language	C	
2.8	<source>String</source>	Notice source (authority)	C	
2.9	<reason_code>REPAIR</reason_code>	Reason/justification of notice	C	
2.10s	<communication>	Communication channel information	C	
2.10.1	<reporting_code>INF</reporting_code>	Reporting regime (information or duty to report)	M	5
2.10.2	<communication_code>TEL</communication_code>	Communication code (telephone, VHF etc.)	M	5
2.10.3	<number>String</number>	Telephone, VHF number, e-mail: address, URL or teletext	C	5
2.10e	</communication>			
2.11s	<fairway_section>	Fairway section, also available for objects (no. 2.12)	M	2
2.11.1s	<geo_object>	Geo information of fairway	M	
2.11.1.1	<id>String</id>	Unique id of the fairway section (1x or 2x)	M	
2.11.1.2	<name> String </name>	(Local) Name of the fairway section (f.e.: Rhine between bridge A and bridge B)	M	
2.11.1.3	<type_code>FWY</type_code>	Type of geographical object	M	Default: FWY
2.11.1.4s	<coordinate>	Fairway section begin and end coordinates (2x)	C	
2.11.1.4.1	<lat> 42 34.1234 N</lat>		M	5
2.11.1.4.2	<long> 123 45.1234 E</long>		M	5

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
2.11.1.4e	</coordinate>			
2.11.1e	</geo_object>			
2.11.2s	<limitation>	Fairway section limitations	C	
2.11.2.1s	<limitation_period>	Limitation periods/intervals	C	
2.11.2.1.1	<date_start> 20011231</date_start>	Start date of limitation period (overall)	M	5
2.11.2.1.2	<date_end> 20011231</date_end>	End date of limitation period	C	
2.11.2.1.3	<time_start> 1420</time_start>	Start time of limitation period	C	
2.11.2.1.4	<time_end> 0500</time_end>	End time of limitation period	C	
2.11.2.1.5	<interval_code>SAT</interval_code>	Interval for limitation if applicable	C	
2.11.2.1.e	</limitation_period>			
2.11.2.2	<limitation_code>OBSTRU</limitation_code>	Kind of limitation	M	5
2.11.2.3	<position_code>AL</position_code>	Position, which side	M	5, default: all
2.11.2.4	<value> 3.14159</value>	Value of limitation (i.e. max draught)	C	
2.11.2.5	<reference_code>NAP</reference_code>	Value reference	C	
2.11.2.6	<indication_code>MAX</indication_code>		C	
2.11.2e	</limitation>			
2.11.e	</fairway_section>			
2.12s	<object>	Object section ()	C	3
2.12.1s	<geo_object>	Geo Information of object	M	5
2.12.1.1.	<id>String</id>	Unique id of the geographical object	M	5
2.12.1.2	<name>String</name>	(Local) Name of the geographical object	M	5
2.12.1.3	<type_code>FWY</type_code>	Type of geographical object	M	5
2.12.1.4s	<coordinate>	Object coordinates (1x)	C	
2.12.1.4.1	<lat> 42 34.1234 N</lat>		M	5

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
2.12.1.4.2	<long> 123 45.1234 E</long>		M	5
2.12.1.4e	</coordinate>			
2.12.1e	² </geo_object>			
2.12.2s	<limitation>	Object limitation section	C	
2.12.2.1s	<limitation_period>	Limitation periods/intervals	C	
2.12.2.1.1	<date_start> 20011231</date_start>	(see <fairway section>)	M	5
2.12.2.1.2	<date_end> 20011231</date_end>		C	
2.12.2.1.3	<time_start> 1420</time_start>		C	
2.12.2.1.4	<time_end> 0500</time_end>		C	
2.12.2.1.5	<interval_code>SAT</interval_code>		C	
2.12.2.1e	</limitation_period>			
2.12.2.2	<limitation_code>OBSTRU</limitation_code>		M	5
2.12.2.3	<position_code>AL</position_code>		M	5, default: all
2.12.2.4	<value> 3.14159</value>		C	
2.12.2.5	<reference_code>NAP</reference_code>		C	
2.12.2.6	<indication_code>MAX</indication_code>		C	
2.12.2e	</limitation>			
2.12e	</object>			
2e	</ftm>			
3s	<wrm>	Water level related section	C	1
3.1s	<validity_period>	Overall period of validity of water level message	C	
3.1.1	<date_start> 20011231</date_start>	Start date of validity period	M	5
3.1.2	<date_end> 20011231</date_end>	End date of validity period	M	5
3.1e	</validity_period>			
3.2s	<geo_object>	Geo Information of measurement location, tide gauge	M	5

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
3.2.1	<id>String</id> (Waterway section)	Unique id of the geographical object	M	5
3.2.2	<name>String</name> (Pegelname)	(Local) Name of the geographical object	M	5
3.2.3	<type_code>FWY</type_code>	Type of geographical object	M	5, default: FWY
3.2.4s	<coordinate>	Object coordinates (1x or 2x)	C	
3.2.4.1	<lat> 42 34.1234 N</lat>		M	5
3.2.4.2	<long> 123 45.1234 E</long>		M	5
3.2.4e	</coordinate>			
3.2.e	</geo_object>			
3.3	<reference_code>NAP</reference_code>	Value reference (measurement reference)	C	6
3.4s	<measure>	Measurements (normal or predicted values)	M	5
3.4.1	<predicted> 1</predicted>	Predicted measurement (1) or real measurement (0)	M	5
3.4.2	<measure_code>DIS</measure_code>	Kind of water level related information	M	5
3.4.3	<value> 314159</value>	Value	C	6
3.4.4	<difference> 314159</difference>	Difference with previous measurement	C	
3.4.5	<barrage_code>OPD</barrage_code>	Barrage status	C	
3.4.6	<regime_code>HIG</regime_code>	Regime applicable	C	
3.4.7	<measuredate> 20011231</measuredate>	Date of measurement	M	5
3.4.8	<measuretime> 1420</measuretime>	Time of measurement	M	5
3.4e	</measure>			
3e	</wrm>			
4s	<icem>	Ice related section	C	1

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
4.1s	<validity_period>	Overall period of validity of ice information	C	
4.1.1	<date_start> 20011231</date_start>	Start of validity period	M	5
4.1.2	<date_end> 20011231</date_end>	End of validity period	M	5
4.1e	</validity_period>			
4.2s	<fairway_section>	Fairway	M	5
4.2.1	<geo_object>	Geo Information of fairway location	M	5
4.2.1.1	<id>String</id>	Unique id of the fairway section (1x or 2x)	M	5
4.2.1.2	<name>String</name>	(Local) Name of the fairway section	M	5
4.2.1.3	<type_code>FWY</type_code>	Type of geographical object	M	5, default: FWY
4.2.1.4	<coordinate>	Fairway section begin and end coordinates (2x)	C	
4.2.1.4.1	<lat> 42 34.1234 N</lat>		M	5
4.2.1.4.2	<long> 123 45.1234 E</long>		M	5
4.2.1.4e	</coordinate>			
4.2.1e	</geo_object>			
4.2.2s	<limitation>	Fairway section limitations		not applicable
4.2.2e	</limitation>	Fairway section limitations		not applicable
4.2e	</fairway_section>			
4.3s	<ice_condition>	Ice conditions	M	5
4.3.1	<measuredate> 20011231</measuredate>	Date of measurement	M	5
4.3.2	<measuretime> 1420</measuretime>	Time of measurement	M	5
4.3.3	<ice_condition_code>A</ice_condition_code>	Condition code	C	4
4.3.4	<ice_accessibility_code>A</ice_accessibility_code>	Accessibility code	C	4

No	Tag (Group headers and closers are boldly printed)	Description	Mandatory Conditional	Rule applicable
4.3.5	<ice_classification_code>A</ice_classification_code>	Classification code	C	4
4.3.6	<ice_situation_code>A</ice_situation_code>	Situation code	C	4
4.3e	</ice_condition>			
4 e	</icem>			
	</RIS_Message>			

Rules applicable to table 1:

1. In one message at least two sections have to be filled in:
 - the identification section (1),
 - one of the sections:
 - fairway and traffic related messages (2),
 - water level related message (3),
 - ice message (4).
2. Group 2.11 (fairway section) is also available for object related messages (No 2.12).
3. Group 2.12 (objects) is not available for fairway related messages (No 2.11).
4. In group 4.3, at least one of the conditional elements 4.3.3 to 4.3.6 have to be filled in.
5. If a conditional group contains mandatory subgroups or elements these are only mandatory if the group on the higher level is applied.
6. Only mandatory for water levels and vertical clearance.

6.1.3. *Explanation of tags*

The meaning of the different tags used in the XML definition is described on the page 'Tags' of the reference tables for Notices to Skippers at http://ec.europa.eu/transport/iw/index_en.htm

6.1.4. *Explanation of codes*

The meaning of the different codes used in the XML definition is described in the reference tables for Notices to Skippers at http://ec.europa.eu/transport/iw/index_en.htm. The formats and possible values of all XML elements are described in the XML Scheme for Notices to Skippers at http://ec.europa.eu/transport/iw/index_en.htm

- Notices to Skippers can be divided into two categories, namely URGENT and NOT URGENT. Urgent notices always contain a limitation for shipping traffic. There must therefore be one or more records in the **limitations** section. If there is no limitation section the message is not urgent.
- Latitude and longitude coordinates are referred to WGS 84 and presented in degrees and minutes with at least three, but preferable four decimals (dd mm.mmmm N, ddd mm.mmmm E)
- Decimals in numeric fields are indicated with a. (period). No thousand separators are used.
- Only cm, m³/s, h, km/h and kW are allowed to be used as units.
- For waterways there is no objects section. For objects (bridges etc.) the waterway section shall be included.
- The location code according to the technical specification for electronic ship reporting has to be used as unique ID.

6.1.4.1. *Subject codes assigned to the Notices to Skippers*

In the following, the meaning of and situations defined by the different subject codes are explained.

Blockage

In case, no form of navigation is possible:

- through all the lock chambers of a lock,
- through all the passages of a bridge,
- passing a specified point on the fairway,
- on a specified section of the fairway.

Partial obstruction

In case, limited navigation is possible:

- through one or more lock chambers of a lock, leaving at least one open,
- through one or more passages of a bridge, leaving at least one open,
- passing a specified point on the fairway, leaving a part of the fairway open.

Delay

In case, an obstruction occurs, limited in time, at a bridge, lock or on a section, between a specified start and end date.

For example: Delay of at most two hours on November 13 between 08:00 and 17:00.

Encoded:

<i>date_start:</i>	20021113
<i>date_end:</i>	20021113
<i>time_start:</i>	0800
<i>time_end:</i>	1700
<i>limitation_code:</i>	Delay
<i>position_code:</i>	All
<i>value:</i>	2

No service

In case a movable bridge is not operated during a specified period. This period should lie within the normal operating hours.

No service of a lock is an 'Obstruction' or 'Delay'.

No service of a movable bridge means that passing under the bridge still is possible. Otherwise it is an 'Obstruction'.

Change Service

In case a modification in the normal operating hours occurs at a lock or bridge.

Normally this means a limitation of the operating hours, due to work, rather than an increase.

A limitation in the operating hours of a lock usually implies an obstruction.

For example if a lock normally is operated between 06:00 and 20:00, and the operating hours are now limited to between 10:00 and 14:00, then this will result in an obstruction between 06:00 and 10:00 and another obstruction between 14:00 and 20:00.

A limitation in the operating hours of a bridge usually implies 'No Service'.

Vessel length

In case somewhere a smaller maximum length for passing vessels is allowed/possible.

Usually this occurs at a lock (half lock chamber).

Clearance width

In case somewhere a smaller maximum width for passing vessels is available.

This occurs during work on a lock/bridge.

This subject is also used if the available width of the fairway is less, even if this has no influence on the maximum available width of the waterway.

Vessel air draught

In case somewhere a smaller maximum height for passing vessels is allowed.

Clearance height

This occurs also if the vertical clearance is locally decreased by for example painting equipment.

Vessel draught

In case somewhere a smaller maximum draught for passing vessels is allowed.

Available depth

In case the least sounded depth is modified. This has no impact on the maximum draught.

No mooring

In case somewhere on the fairway mooring is not allowed.

Change of marks

In case a change occurs in the fairway marks used for navigational purposes, such as buoys, beacons, sector lights, notice marks, etc.

Work

Other activities on or near the fairway which do not fall within the mentioned subjects.

Dredging

Dredging activities for which none of the other mentioned subjects are valid.

Exercises

Exercises for which none of the other mentioned subjects are valid.

Event

Events (rowing competitions, fireworks etc.) where none of the other mentioned subjects are valid.

Announcement

All other notices where none of the other (structured) subjects are valid.

Notice withdrawn

The message has to be published as a serial number of the original message.

If for one single message more subjects are possible, then the limitation with the greatest impact on shipping traffic is selected.

6.1.4.2. Explanation of ice codes

The meaning of the ice codes used in the XML definition is described in the reference tables of Notices to Skippers at http://ec.europa.eu/transport/iw/index_en.htm

The thickness indicated in column 2 of the ice_condition_code gives information on average thickness only. The description has to be used to select the code for a specific situation.

6.1.4.3. Encoding of limitation periods

The limitation period has to be encoded by:

- date_start,
- date_end,
- time_start,
- time_end,
- interval_code.

As the limitation period is very important for voyage planning, limitation periods have to be encoded in accordance with the following examples:

Limitation period	date_start	date_end	time_start	time_end	Interval_code
2005-01-01, 07:00 to 2005-01-31, 20:00	20050101	20050131	0700	2000	Continuous (C)
2005-01-01 to 2005-01-31, each day from 07:00 to 20:00	20050101	20050131	0700	2000	Daily (M)
2005-01-01 to 2005-01-31, every working day (Monday to Friday) from 07:00 to 20:00	20050101	20050131	0700	2000	Monday to Friday (M)
2005-01-01 to 2005-01-21, each week from Monday 07:00 to Friday 20:00	20050103	20050107	0700	2000	Continuous (C)
	20050110	20050114	0700	2000	Continuous (C)
	20050117	20050121	0700	2000	Continuous (C)
2005-01-01 to 2005-01-31, each day from 07:00 to 20:00 with the exception of 2005-01-06	20050101	20050131	0700	2000	Daily (M)
	20050106	20050106			With the exception of (M)

Appendix

SPECIFICATIONS OF EXAMPLES FOR THE IMPLEMENTATION OF THE NOTICES TO SKIPPERS

Standard Example for the presentation of a Notice to Skippers

In the following example the text mask is given in plain text, the content of the message with grey underlay. Sections, which are not obligatory, are in square brackets.

Notice to Skippers

A new Notice to Skippers of **via-donau** is available for [the **Donau waterway** in] **Austria** in the original language **German**, which has been compiled by **BMVIT, Schifffahrtspolizei** [on **10 June 2003** at **11:10**]:

The fairway and traffic related message no 89/00 in the year 2003, [published by the **Strom- und Hafenaufsicht Hainburg**] concerning **dredging** [caused by **siltation**] is valid between **7 October 2003** and **25 October 2003** [for all vessels in all directions].

[Additional information is provided via **Internet, www.via-donau.org.**] or

[There exists **an additional duty to report** via **VHF channel 16.**]

[On **workdays** from **7 October 2003** until **25 October 2003** between **06:00** o'clock and **19:00** o'clock] following limitation is valid for the **waterway Donau, Furt Orth, km 1 902,000 to 1 902,600: available depth** [**210** cm referred to **low water level Danube Commission**] along the **left side** of the fairway.

[[On **workdays** from **7 October 2003** until **25 October 2003** between **06:00** o'clock and **19:00** o'clock] following limitation is valid for the **lock Greifenstein, km 1 950,000: available length** [**200** cm referred to equivalent low water level] along the **left side** of the fairway.]

Additional text in national language: **[xxxx]**

Water level related message

This message is valid for the **gauge Kienstock** [between **10 June 2003** and **11 June 2003**].

All values are referred to **the zero point of gauge**.

The measured value for **the water level** on **10 June 2003** at **10:00** o'clock was **197** cm.

[The difference to the last measured value is + **15** cm]. [At the moment the **barrage is closed**] and [navigation faces **normal** regime.]

[According to the forecast **the water level** on **11 June 2003** at **12:00** o'clock will be **205** cm].

Ice related message

This message is valid for **the waterway Danube** [between **3 December 2003** and **5 December 2003**].

On **3 December 2003** at **0:00** o'clock navigation faced [**light floating ice**] [Navigation is **normal**.] [The section is **navigable**]

REFERENCE TABLES

Explanation of tags

XML Tag	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
RIS_message	RIS message	RIS (РИС) съобщение	Zpráva RIS	RIS-meddelelse	RIS-Nachricht	Μήνυμα RIS (Σύστ. Πληρ. Εσ. Ναυσ.)	Mensaje RIS	RIS teade
Identification	(Identification section)	Идентификационен раздел	Identifikační úsek	Identifikationsrubrik	(Identifikationsabschnitt)	(Τμήμα αναγνώρισης)	(Identificación sección)	(Identifitseerimise jaotis)
From	Sender of the message	Попател	Odesílatel	Afsender	Absender	Αποστολέας του μηνύματος	Remitente	Teate saatja
Originator	Originator of the information	Автор на информацията	Autor zprávy	Informationskilde	Urheber der Nachricht	Προέλευση των πληροφοριών	Origen de la información	Teavitaja
Country_code	Country where message is valid	Държава, в която е валидно съобщението	Dotčená země	Berørt land	Betroffenes Land	Χώρα ισχύος του μηνύματος	País en que el mensaje es válido	Riik, kus teade kehtib
Language_code	Original language	Оригинален език	Originální jazyk	Originalsprog	Originalsprache	Πρωτότυπη γλώσσα	Lengua original	Algkeel
District	District/region within country	Регион от държавата	Dotčená oblast v zemi	Berørt region/område	Betroffenes Gebiet im Land	Περιοχή/περιφέρεια χώρας	Región del país	Riigi piirkond
date_issue	Date of issue	Дата на издаване	Datum vydání	Offentliggørelsesdato	Herausgabedatum	Ημερομηνία έκδοσης	Fecha de emisión	Väljaandmise kuupäev
time_issue	Time of issue	Час на издаване	Čas vydání	Offentliggørelsestidspunkt	Herausgabezeit	Ώρα έκδοσης	Hora de emisión	Väljaandmise kellaaeg
ftm	Fairway and traffic related message	Извeстие за корабоплавателя	Zpráva týkající se vodních cest a provozu	Farvands- og trafikrelaterede meddelelser	Wasserstraßen- und verkehrsbezogene Nachricht	Μήνυμα σχετικό με διαύλο και κυκλοφορία	Mensaje sobre vía navegable y tráfico	Teated faaravaatri ja liikluse kohta
Year	Year	Година	Rok	År	Jahr	Έτος	Año	Aasta
Number	Number (of the notice)	Номер	Číslo (vydání)	(Meddelelsens) nr.	Nummer (der Nachricht)	Αριθμός (μηνύματος)	Número (del aviso)	(Teatise) number
Serial_number	Serialnumber	Сериен номер	Číslo verze	Serienummer	Versionsnummer	Αύξων αριθμός	Número de serie	Seerianumber
Target_group	(Target group section)	Раздел за група получатели	Úsek cílové skupiny	Målgruppe — strækning	(Zielgruppenabschnitt)	(Τμήμα στοχευόμενης ομάδας)	(Tipo de usuario destinatario)	(Sihtrühma jao-tis)
Target_group_code	Target group code	Κод на групата получатели	Cílová skupina	Kode for målgruppe	Zielgruppe	Κωδικός στοχευόμενης ομάδας	Código usuario destinatario	Sihtrühma kood
Direction_code	Traffic Direction code	Κод на направление	Směr	Kode for sejlretning	Richtung	Κωδικός κατεύθυνσης κυκλοφορίας	Código dirección tráfico	Sõidusuuna kood
Subject_code	Subject	Κод на темата	Týká se	Emne	Betrifft	Θέμα	Asunto	Teema
Validity_period	Period of validity	Срок на валидност	Doba platnosti	Gyldighedsperiode	Zeitlicher Geltungsbereich	Περίοδος ισχύος	Período de validez	Kehtivusaeg
Date_start	From (yyyyymmdd)	От дата (ггггммдд)	Od	Startdato (ååååmmdd)	Ab (jjjjmmtt)	Από (εεεεμμηη)	De (aaaaammdd)	Alates (aaaakkpp)
Date_end	Until (yyyyymmdd)	До дата (ггггммдд)	Do	Slutdato (ååååmmdd)	Bis (jjjjmmtt)	Έως (εεεεμμηη)	A (aaaaammdd)	Kuni (aaaakkpp)
Contents	Contents	Съдържание	Text	Indhold	Text	Περιεχόμενα	Contenido	Sisu
Source	Notice source (authority)	Източник на съобщението (администрация)	Vydavatel zprávy	Infokilde (myndighed)	Herausgeber der Nachricht	Προέλευση μηνύματος (Αρχή)	Fuente del aviso (autoridad)	Teatise allikas (ametiasutus)
Reason_code	Reason of notice	Причина за съобщението	Důvod zprávy	Årsag til meddelelse	Grund der Nachricht	Αιτία μηνύματος	Motivo del aviso	Teatise põhjus
Communication	(Communication section)	Раздел за канала на свързката	Komunikace	Kommunikationsdel	Information zu Kommunikationswegen	(Τμήμα επικοινωνίας)	(Sección comunicación)	Teabevahetuse jaotis

XML Tag	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
RIS_message	RIS-sanoma	Message RIS	RIS-üzenet	messaggio RIS	RIS pranešimas	RIS ziņojums	RIS-bericht	komunikat RIS
Identification	(Tunnisteosio)	(Identification)	(azonosítási szakasz)	(identificazione del tratto)	(Identifikavimas)	(Identifikācija)	identificatie-sectie	(sekcja identyfikacyjna)
From	Sanoman lähettäjä	Expéditeur du message	az üzenet feladója	mittente del messaggio	Pranešimo siuntėjas	Nosūtītājs	afzender van het bericht	nadawca
Originator	Tiedon lähde	Auteur des informations	az információ forrása	origine dell'informazione	Informacijos pateikėjas	Informācijas autors	oorsprong van de informatie	autor informacji
Country_code	Maa jota sanoma koskee	Pays dans lequel le message est valable	az ország, amelyben az üzenet érvényes	Stato interessato	Šalis, kurioje galioja pranešimas	Ziņojuma valsts	land waar bericht geldt	kraj, którego dotyczy komunikat
Language_code	Alkuperäkieli	Langue d'origine	eredeti nyelv	lingua originale	Originalo kalba	Ziņojuma valoda	originele taal	język oryginalny
District	Kyseinen alue maassa	Région	az országon belüli terület/régió	area/regione interessata	Rajonas/regionas šalyje	Rajons/reģions valstī	district/regio in een land	region kraju
date_issue	Antamispäivä	Date de publication	kiadás dátuma	data di emissione	Išdavimo data	Sastādīšanas datums	datum van uitgifte	data nadania
time_issue	Antamisaika	Heure de publication	kiadás ideje	orario di emissione	Išdavimo laikas	Sastādīšanas laiks	tijd van uitgifte	godzina nadania
ftm	Väylää tai liikennettä koskeva sanoma	Avis à la batellerie	hajósoknak szóló hirdetés	messaggio relativo a canale navigabile e traffico	Su farvateriu ir laivų eismo susijęs pranešimas	Ziņojums par kuģu ceļu un satiksmi	scheepvaartbericht	komunikat dotyczący toru wodnego i ruchu
Year	Vuosi	Année	év	anno	Metai	Gads	jaar	rok
Number	(Ilmoituksen) numero	Numéro (de l'avis)	(a hirdetés) száma	numero (dell'avviso)	Numeris (pranešimo)	(Ziņojuma) numurs	uniek volgnummer scheepvaartbericht	numer (komunikatu)
Serial_number	Sarjanumero	Numéro de série	sorozatszám	numero progressivo	Serijos numeris	Sērijas numurs	serienummer scheepvaartbericht	numer kolejny (wersji)
Target_group	(Kohderyhmäosio)	Type d'usagers concernés	(célcsoport-szakasz)	gruppo destinatario	(Tikslinė grupė)	(Mērķgrupa)	doelgroep	(informacje o grupie odbiorców)
Target_group_code	Kohderyhmäkoodi	Code usagers concernés	célcsoportkód	codice gruppo destinatario	Tikslinės grupės kodas	Mērķgrupas kods	doelgroep	Kod grupy odbiorców
Direction_code	Liikenteen suunnan koodi	Sens de parcours	forgalmi iránykód	codice direzione traffico	Eismo krypties kodas	Satiksmes virziena kods	richting	kod kierunku ruchu
Subject_code	Aihe	Sujets de l'avis	tárgy	codice oggetto	Pranešimo objektas	Ziņojuma temats	onderwerp	temat
Validity_period	Voimassaolo	Période de validité	érvényességi időszak	periodo di validità	Galiojimo laikas	Derīguma termiņš	geldigheidsperiode	okres ważności
Date_start	Alkaa (vvvvkkpp)	Date de début (aaaammjj)	tól (év, hó, nap)	da (aaaammgg)	Nuo (mmmm mm dd)	No (ggggmmdd)	startdatum (jjjjmmdd)	od (rrrrmmdd)
Date_end	Päättyy (vvvvkkpp)	Date de fin (aaaammjj)	ig (év, hó, nap)	fino a (aaaammgg)	Iki (mmmm mm dd)	Līdz (ggggmmdd)	einddatum (jjjjmmdd)	do (rrrrmmdd)
Contents	Sisältö	Contenu	tartalom	testo	Turinys	Saturs	bericht inhoud/tekst	treść
Source	Ilmoituksen lähde (viranomais)	Source	a hirdetés kibocsátója (hatóság)	fonte dell'avviso (autorità)	Pranešimo šaltinis (institucija)	Informācijas avots (iestāde)	bron van de informatie	źródło komunikatu (organ)
Reason_code	Ilmoituksen syy	Événement	a hirdetés indoka	motivazione	Pranešimo paskirtis	Ziņojuma iemesls	reden	przyczyna komunikatu
Communication	(Viestintäosio)	Canal d'information	kommunikációs csatorna infoszakasz	comunicazione	(Ryšio kanalas)	(Paziņojums)	communicatie-sectie	(informacje o kanale łączności)

XML Tag	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
RIS_message	Mensagem RIS	Mesaj RIS	správa RIS	sporočilo RIS	RIS-meddelande	RIS poruka	Сообщение РИС	RIS poruka
Identification	(Secção identificação)	(element de identificare)	identifikačná sekcia	(segment za identifikacijo)	(identifierings-avsnitt)	Identifikacijski dio	Идентификация	(Identifikacioni deo)
From	Remetente	Expeditorul mesajului	odosielateľ správy	pošiljatelj sporočila	avsändare	Pošiljatelj	Отправитель	Pošiljalac poruke
Originator	Autor	Autorul informațiilor	pôvodca správy	izvor informacije	uppgiftslämnare	Izvor informacija	отправитель информации	Poreklo-izvor informacije
Country_code	País em que a mensagem é válida	Țara în care mesajul este valabil	krajina platnosti správy	država, kjer je sporočilo veljavno	berört land	Država gdje poruka vrijedi	Код страны сообщения	Država u kojoj poruka važi
Language_code	Língua original	Limba de origine	originálny jazyk	izvirni jezik	originalspråk	Originalni jezik	Язык сообщения	Izvorni jezik
District	Divisão administrativa (do país)	Regiune	región	okrožje/regija znotraj države	distrikt/region	Područje unutar države	Область в стране	Oblast-region u državi
date_issue	Data de emissão	Data emiterii	dátum vydania	datum izdaje	datum för utfärdande	Datum izdavanja	Дата составления	Datum izdavanja
time_issue	Hora de emissão	Ora emiterii	čas vydania	čas izdaje	tidpunkt för utfärdande	Vrijeme izdavanja	Время составления	Vreme izdavanja
ftm	Mensagem via navegável e tráfego	Aviz către navigatori	správa vodcom plavidiel	sporočilo v zvezi s plovno potjo in prometom	farleds- och trafikrelaterat meddelande	Priopćenju brodarstvu	Сообщения касательно фарватера и движения по нему судов	Obaveštenje kapetanima
Year	Ano	Anul	rok	leto	år	Godina	год	Godina
Number	Número (do aviso)	Numărul (avizului)	číslo správy	številka (obvestila)	(meddelandets) nummer	Broj (poruke)	номер	Broj (obaveštenja)
Serial_number	Número de série	Numărul de serie	číslo verzie (série)	zaporedna številka	serienummer	Serijski broj	серийный номер	Serijski broj
Target_group	(Secção grupo-alvo)	Grupul de utilizatori avuți în vedere	cieľová skupina	(segment za ciljno skupino)	(målgrupp)	(Odjeljak ciljne grupe)	группа получателей	(Deo ciljne grupe)
Target_group_code	Código grupo-alvo	Codul grupului de utilizatori avuți în vedere	kód cieľovej skupiny	koda ciljne skupine	kod för målgrupp	Oznaka ciljne skupine	код группы получателей	Šifra ciljne grupe
Direction_code	Sentido do tráfego	Codul sensului de circulație	kód smeru premávky	koda usmerjanja prometa	kod för trafikriktning	Oznaka smjera prometa	код направления движения	Šifra pravca plovidbe
Subject_code	Matéria	Subiectul avizului	predmet	predmet	ämne	Predmet	тема сообщения	Subjekat
Validity_period	Período de validade	Perioada de valabilitate	doba platnosti	čas veljavnosti	giltighetsperiod	Rok valjanosti	срок действия	Rok važnosti
Date_start	De (aaaammdd)	Data de început	od (rrrrmmdd)	od (yyyymmdd)	från (ååååmmdd)	Od (ggggmmdd)	дата начала	Od (ggggmmdd)
Date_end	A (aaaammdd)	Data de sfârșit	do (rrrrmmdd)	do (yyyymmdd)	till (ååååmmdd)	Do (ggggmmdd)	дата окончания	Do (ggggmmdd)
Contents	Conteúdo	Conținut	text/obsah	vsebina	innehåll	Sadržaj	содержание	Sadržaj
Source	Fonte do aviso (autoridade)	Sursa avizului (autoritatea)	zdroj správy	izvor obvestila (organ)	källa (myndighet)	Izvor priopćenja	Источник информации	Izvor obaveštenja (organ)
Reason_code	Motivo do aviso	Codul evenimentului	dôvod správy	razlog za obvestilo	orsak till meddelandet	Razlog priopćenja	код назначения сообщения	Razlog obaveštenja
Communication	(Secção comunicação)	Mijloc de comunicație	informácie o komunikačnom kanáli	(segment za sporočila)	(kommunikationsavsnitt)	Informacije o komunikacijskom kanalu	канал связи в секторе	Informacije o komunikacionom kanalu

XML Tag	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
Reporting_code	Reporting regime	Режим за известяване	Režim hlášení	Rapporteringskanal	Meldungsart	Καθεστώς αναφοράς	Régimen de notificación	Aruandluse kord
Communication_code	Means of communication	Код на средство за свръзка	Komunikační cesta	Kommunikationsmiddel	Kommunikationsweg	Μέσο επικοινωνίας	Medio de comunicación	Sidevahendid
Number (Communication section)	Number or address	Номер или адрес	Číslo nebo adresa	Nr. eller adresse	Nummer oder Adresse	Αριθμός ή διεύθυνση	Número o dirección	Number või aadress
Fairway_section	Waterway or fairway section	Плавателен воден път или участък от плавателен път	Úsek plavební dráhy	Vandvejs- eller farvandsstrækning	Wasserstraße oder (-bereich)	Τμήμα πλωτής οδού ή διαύλου	Vía navegable o tramo	Veetee või faarvaatri jaotis
Geo_object	(geo information of waterway or object)	Γεογραφσка информация за водния път или обекта	Objekt na vodní cestě	(Geografiske oplysninger om vandvej eller objekt)	(geografische Definition der Wasserstraße)	(Γεωγραφικές πληροφορίες πλωτής οδού ή αντικειμένου)	(Información geográfica vía navegable u objeto)	Geo-teave veetee või objekti kohta
Id (Geo_Object section)	Identification	Идентификация (на географския обект)	Identifikace	Identifikation	Identifikation	Στοιχεία αναγνώρισης	Identificación	Identifitseerimine
Name (Geo_Object section)	Name of Geo object	Наименование на географския обект	Název geografického objektu	Navn på geografisk objekt	Bezeichnung des Geoobjekts	Ονομασία γεωγραφικού αντικειμένου	Denominación de objeto geográfico	Geo-objekti nimi
Type_code (Geo_Object section)	Type of geo object	Тип на обекта	Typ objektu	Type vandvej	(Objekttyp)	Τύπος πλωτής οδού	(Tipo de vía navegable)	(Veetee tüüp)
Coordinate	Fairway begin and end coordinates	Раздел за координати	Souřadnice počátečních a koncových bodů	Koordinater for farvandets start og slutning	Koordinaten der Anfangs- und Endpunkte	Γεωγραφικές συντεταγμένες αρχής και τέλους διαύλου	Coordenadas de los puntos de delimitación de la vía navegable	Faarvaatri algus- ja lõppkoordinaadid
Lat (Coordinate)	Latitude (decimal)	Γεογραφσка ширина (стойност)	Zeměpisná šířka (desetinné číslo)	Breddegrad (decimal)	Breitengrad (Dezimalzahl)	Γεωγραφικό πλάτος (δεκαδικά)	Latitud (decimal)	Laiuskraad (kümnendmurd)
Long (Coordinate)	Longitude (decimal)	Γεογραφска дължина (стойност)	Zeměpisná délka (desetinné číslo)	Længdegrad (decimal)	Längengrad (Dezimalzahl)	Γεωγραφικό μήκος (δεκαδικά)	Longitud (decimal)	Pikkuskraad (kümnendmurd)
Limitation	Limitation section	Раздел за ограничения	Druh omezení	Begrænsninger på strækning	Art der Beschränkung	Τμήμα περιορισμών	Sección limitación	Piirangu jaotis
Limitation_period	(Limitation) periods/intervals	Раздел за срок/интервал на действие на ограничението	Časy (omezení)	(Begrænsning) perioder/tid-sintervaller	Zeiten (der Beschränkung)	(Περιορισμοί) περίοδοι/διαστήματα	(Limitación) períodos/intervalos	(Piirangu) perioodid/intervalid
Date_start (Limitation_period)	From (yyymmdd)	От дата (ггггммдд)	Od (.....)	Fra (ååååmmdd)	Ab (jjjjmmtt)	Από (εεεεμμμη)	De (aaaammdd)	Alates (aaaakkpp)
Date_end (Limitation_period)	Until (yyymmdd)	До дата (ггггммдд)	Do (.....)	Til (ååååmmdd)	Bis (jjjjmmtt)	Έως (εεεεμμμη)	A (aaaammdd)	Kuni (aaaakkpp)
Time_start (Limitation_period)	From (hhmm)	От час (ччмм)	Od (.....)	Fra kl. (ttmm)	Ab (hhmm)	Από (ωωλλ)	De (hhmm)	Alates (ttmm)
Time_end (Limitation_period)	Until (hhmm)	До час (ччмм)	Do (.....)	Til kl. (ttmm)	Bis (hhmm)	Έως (ωωλλ)	A (hhmm)	Kuni (ttmm)
Interval_code (Limitation_period)	Interval	Интервал	Interval	Interval	Intervall	Συχνότητα	Intervalo	Intervall
Limitation_code	Kind of limitation	Вид ограничение	Omezení	Begrænsnings art	Beschränkung	Είδος περιορισμών	Tipo de limitación	Piirangu liik
Position_code	Position (of limitation)	Място (на ограничение)	Poloha (omezení)	Begrænsnings position	Lage (der Beschränkung)	Στίγμα των περιορισμών	Posición (de limitación)	(Piirangu) positsioon
Value	Numerical value (of limitation)	Числова стойност (на ограничението)	Číselný údaj (omezení)	Begrænsnings numeriske værdi	Ziffernangabe (der Beschränkung)	Αριθμητική τιμή (περιορισμών)	Valor numérico (de limitación)	(Piirangu) arvvaartus

XML Tag	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
Reporting_code	Raportointi-järjestelmä	Obligation de s'annoncer	a jelentést küldő rendszer	regime di segnalazione	Pranešimo perdavimo būdas	Paziņojuma veids	meldingsregime	sposób meldowania
Communication_code	Viestintävälineet	Moyen de communication	kommunikációs eszköz	mezzo di comunicazione	Ryšio priemonės	Saziņas līdzekļi	communicatiemiddel	środki łączności
Number (Communication section)	Numero tai osoite	Numéro ou adresse	szám vagy cím	numero o indirizzo	Numeris arba adresas	Numurs vai adrese	communicatie nr, kanaal of adres	numer lub adres
Fairway_section	Vesiväylä tai väylänosa	Voie ou partie de voie	vízi út vagy hajóútszakasz	tratto idrovia o canale navigabile	Vandens kelio arba farvaterio dalis	Ūdensceļa vai kuģu ceļa posms	vaarweg sectie	odcinek kanału żeglownego lub toru wodnego
Geo_object	(Vesiväylän tai kohteen maantieteelliset tiedot)	(Géo-Objet de référence pour la voie)	(a vízi út vagy objektum geoinformációja)	definizione geografica dell'idrovia o dell'oggetto	(Geografinė informacija apie vandens kelią arba objektą)	(Ģeogrāfiskā informācija par ūdensceļu vai objektu)	geografische info over vaarweg	dane geograficzne kanału żeglownego lub obiektu
Id (Geo_Object section)	Tunnistetiedot	Identifiant	azonosítás	identificativo oggetto geografico	Identifikavimo kodas	Identifikācija	uniek ID van het geografische object	oznaczenie
Name (Geo_Object section)	Maantieteellisen kohteen nimi	Toponyme	a földrajzi objektum neve	denominazione dell'oggetto geografico	Geografinio objekto pavadinimas	Ģeogrāfiskā objekta nosaukums	naam van het geografische object	nazwa obiektu geograficznego
Type_code (Geo_Object section)	(Vesiväylän tyyppi)	Type	(objektum típusa)	tipo di idrovia	(Vandens kelio tipas)	(Ūdensceļa veids)	type geografisch object	(rodzaj kanału żeglownego)
Coordinate	Väylän alku- ja loppukoordinaatit	Coordonnées de début et fin de la voie	a hajóút kezdetének és végének koordinátái	coordinate dei punti di delimitazione del tratto navigabile	Farvaterio pradžios ir pabaigos koordinatės	Kuģu ceļa sākuma un beigu koordinātas	vaarweg begin en eind coördinaten	współrzędne początku i końca toru wodnego
Lat (Coordinate)	Leveysaste (desimaaliluku)	Latitude (décimale)	szélesség (decimális)	latitudine (decimale)	Platuma (dešimtųjų tikslumu)	Platums (decimāldaļskaitlis)	breedtecoördinaat (decimaal)	szerokość (do dziesiętnej)
Long (Coordinate)	Pituusaste (desimaaliluku)	Longitude (décimale)	hosszúság (decimális)	longitudine (decimale)	Ilguma (dešimtųjų tikslumu)	Garums (decimāldaļskaitlis)	lengtecoördinaat (decimaal)	długość (do dziesiętnej)
Limitation	Rajoitusosio	Restriction	korlátozott szakasz	limitazione	Apribojimo būdas	Ierobežojums	beperkingen-secție	informacje o ograniczeniach
Limitation_period	(Rajoitus-)-jakso/aikaväli	Durée de la restriction	korlátozási időszak/időtartam/időköz	durata della limitazione	(Apribojimo) laikotarpis/intervalas	(Ierobežojuma) darbības laiks/intervāli	beperkingeperiode	czas obowiązywania ograniczeń
Date_start (Limitation_period)	Alkaa (vvvvkkpp)	Date de début (aaaammjj)	tól (év, hó, nap)	da (aaaammgg)	Nuo (mmmm mm dd)	No (ggggmmdd)	startdatum (jjjjmmdd)	od (rrrrmmdd)
Date_end (Limitation_period)	Päätyy (vvvvkkpp)	Date de fin (aaaammjj)	ig (év, hó, nap)	fino a (aaaammgg)	Iki (mmmm mm dd)	Līdz (ggggmmdd)	einddatum (jjjjmmdd)	do (rrrrmmdd)
Time_start (Limitation_period)	Alkaa (hhmm)	Heure de début (hhmm)	tól (óra, perc)	dalle (hhmm)	Nuo (vvmm)	No (hhmm)	starttijd (uumm)	od (hhmm)
Time_end (Limitation_period)	Päätyy (hhmm)	Heure de fin (hhmm)	ig (óra, perc)	alle (hhmm)	Iki (vvmm)	Līdz (hhmm)	eindtijd (uumm)	do (hhmm)
Interval_code (Limitation_period)	Aikaväli	Périodicité	időköz	periodicità	Intervalas	Intervāls	interval	okres
Limitation_code	Rajoituksen laatu	Code de la restriction	korlátozás jellege	tipo di limitazione	Apribojimo rūšis	Ierobežojuma veids	soort beperking	rodzaj ograniczenia
Position_code	(Rajoituksen) sijainti	Position sur la voie	korlátozás helye	localizzazione (della limitazione)	(Apribojimo) pozicija	(Ierobežojuma) pozīcija	positie van beperking	położenie ograniczenia
Value	(Rajoituksen) numeroarvo	Valeur	korlátozás számértéke	attributo numerico (della limitazione)	(Apribojimo) skaitinė vertė	(Ierobežojuma) skaitliskā vērtība	waarde	wartość numeryczna (ograniczenia)

XML Tag	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
Reporting_code	Regime de transmissão	Modul de raportare	Režim hlásení	način poročanja	rapporteringsordning	Režim javljanja	код отчета	Režim izveštavanja
Communication_code	Meio de comunicação	Codul mijlocului de comunicație	komunikačné prostriedky	komunikacijska sredstva	kommunikationsmedel	Sredstvo komunikacije	код обозначения раздела	Sredstvo komunikacije
Number (Communication section)	Número ou endereço	Numărul adresei	číslo alebo adresa	številka ali naslov	nummer eller adress	Broj ili adresa	номер раздела	Broj ili adresa
Fairway_section	Via navegável ou troço	Secțiunea de cale navigabilă sau șenal	vodná cesta (alebo úsek plavebnej dráhy)	segment za vodno ali plovno pot	vattenvägs- eller farledssträcka	Odjeljak za vodni ili plovni put	часть фарватера или навигационного пути	Plovni put ili sektor plovnog puta
Geo_object	(Dados geográficos via navegável ou objecto)	(Informația geografică despre calea navigabilă sau obiect)	geografické informácie o vodnej ceste alebo o objekte	(geo-informacije o vodni poti ali objektu)	(geografisk information om vattenväg eller objekt)	Geografske informacije o vodnom putu ili objektu	информация по данной части фарватера или навигационного пути	Geo informacije plovnog puta ili objekta
Id (Geo_Object section)	Identificação	Identificator	Identifikácia	identifikacija	identifiering	Identifikacija	Обозначение	Identifikacija
Name (Geo_Object section)	Designação do objecto geo-referenciado	Numele obiectului geografic	názov geografického objektu	ime geo-objekta	namn på geografiskt objekt	Ime geo objekta	Название объекта	Naziv geo objekta
Type_code (Geo_Object section)	(Tipo de via navegável)	(Tipul obiectului)	Typ objektu	(vrsta vodne poti)	(typ av vattenväg)	(vrsta objekta)	Тип объекта	(vrsta objekta)
Coordinate	Coordenadas extremos via navegável	Coordonatele începutului și sfârșitului secțiunii	súradnice začiatku a konca plavebnej dráhy	koordinate začetka in konca plovne poti	koordinater för farledens början och slut	Koordinate početka i kraja plovnog puta	Координаты начала и окончания части фарватера или навигационного пути	Početna i krajnja koordinata plovnog puta
Lat (Coordinate)	Latitude (decimal)	Latitudine (fracțiuni zecimale)	zemepisná šírka (desatinné číslo)	zemljepisna širina (decimalmalka)	latitud (decimal)	Geografska širina (decimalnno)	Широта	Geografska širina (decimalnno)
Long (Coordinate)	Longitude (decimal)	Longitudine (fracțiuni zecimale)	Zemepisná dĺžka (desatinné číslo)	zemljepisna dolžina (decimalmalka)	longitud (decimal)	Geografska dužina (decimalno)	Долгота	Geografska dužina (decimalno)
Limitation	Secção restrições	Limitarea secțiunii	obmedzujúci úsek	segment za omejitve	begränsningsavsnitt	Odjeljak za ograničenja	Раздел ограничений	Sektor ograničenja
Limitation_period	(Restrição) período/intervalo	Durata limitării	čas (obdobie) obmedzenia	(omejitev) obdobja/intervali	(begränsning) perioder/intervaller	Trajanje (ogranicjenja)	срок/интервал действия ограничений	(Ograničenje) period/interval
Date_start (Limitation_period)	De (hhmm)	Data de început (aaaallzz)	od (rrrrmmdd)	od (yyyymmdd)	från (ååååmmdd)	Od (ggggmmdd)	начало действия ограничения (ггггммдд)	Od (ggggmmdd)
Date_end (Limitation_period)	A (hhmm)	Data de sfârșit (aaaallzz)	do (rrrrmmdd)	do (yyyymmdd)	till (ååååmmdd)	Do (ggggmmdd)	Дата окончания действия ограничения (ггггммдд)	Do (ggggmmdd)
Time_start (Limitation_period)	De (hhmm)	Ora de început (hhmm)	od (hhmm)	od (hhmm)	från (hhmm)	Od (ggggmmdd)	Время (ччмм) начала	Od (hhmm)
Time_end (Limitation_period)	A (hhmm)	Ora de sfârșit (hhmm)	do (hhmm)	do (hhmm)	till (hhmm)	Do (ggggmmdd)	Время (ччмм) окончания	Do (hhmm)
Interval_code (Limitation_period)	Intervalo	Interval	interval	interval	intervall	Interval	Период	Interval
Limitation_code	Tipo de restrição	Felul limitării	druh obmedzenia	vrsta omejitve	typ av begränsning	Vrsta ograničenja	Тип ограничений	Vrsta ograničenja
Position_code	Localização (da restrição)	Poziția	poloha obmedzenia	položaj (omejitve)	(begränsnings) position	Pozicija (ogranicjenja)	Позиция	Pozicija (ogranicjenja)
Value	Valor numérico (da restrição)	Valoare numerică	číselná hodnota (obmedzenia)	numerična vrednost (omejitve)	(begränsnings) numeriska värde	Brojčana vrijednost (ogranicjenja)	Объем ограничений	Numerička vrednost (ogranicjenja)

XML Tag	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
Reference_code	Value reference	Мерна единица	Vztažný systém	Reference-værdi	Bezugssystem	Τιμή αναφοράς	Referencia	Väärtuse viide
Indication_code	Indication of limitation	Означение за ограничение		Angivelse af begrænsning	Angabe des Beschränkungswertes	Ένδειξη περιορισμών	Indicación de limitación	Märge piirangu kohta
Object	Object	Обект	Objekt	Objekt	Objekt	Αντικείμενο	Objeto	Objekt
Geo_object section for an Object	(geo information of object)	Раздел географска информация за обекта	Geografická definice objektu	(Geografiske oplysninger om objekt)	(geografische Definition des Objekts)	(Γεωγραφικές πληροφορίες αντικειμένου)	(Información geográfica objeto)	(Objekti geoteave)
Type_code (Geo_object section)	(type of object)	Тип на обекта	Typ objektu	(Objekttype)	(Objekttyp)	(Τύπος αντικειμένου)	Tipo objeto	(Objekti liik)
Coordinate (Geo_object section)	Object coordinates	Координати на географския обект	Souřadnice objektu	Objektets koordinater	Koordinaten des Objekts	Γεωγραφικές συντεταγμένες αντικειμένου	Coordenadas objeto	Objekti koordinaadid
Wrm	Water related message	Съобщение във връзка с водата	Hlášení o vodním stavu	Vandstandsrelateret meddelelse	Wasserstandsmeldung	Μήνυμα όσον αφορά τα ύδατα	Mensaje relativo al agua	Teade veeolude kohta
Measure	Measurements (normal or predicted)	Раздел за размери и стойности (типични или прогнозни)	Druh hodnot (hodnoty měření nebo prognózy)	Målingens art (målt eller prognose)	Art der Werte (Messwerte oder Prognosen)	Μετρήσεις όσον αφορά το προβλεπόμενες	Medidas (reales o previstas)	Mõõtmised (tavapärased või prognoositavad)
predicted	Prediction	Прогноза	Předpověď	Prognose	Vorhersage	Πρόβλεψη	Previsión	Eeldus
Measure_code	Kind of water related information	Код за мерни единици, свързани с водата	Druh hlášení vodního stavu	Art vandstandsoplysning	Art der Wasserstandsmeldung	Πληροφορίες όσον αφορά το είδος των υδάτων	Tipo de información relativa al agua	Veeolusid käsitleva teate liik
Difference	Difference	Разлика	Rozdíl	Ændring i forhold til forrige	Änderung	Διαφορά	Diferencia	Erinevus
Barrage_code	Barrage	Бараж	Poloha jezu	Dæmning	Wehrstellung	Υδατοφράκτης	Presa	Pais
Regime_code	Water regime	Воден режим	Odtokový režim	Vandregime	Abflussregime	Ροή υδάτων	Régimen	Veerežiim
Measuredate	Measuredate (yyyymmdd)	Дата на измерване (ггггммдд)	Datum měření (.....)	Dato for målingen (ååååmmdd)	Messdatum (jjjjmmtt)	Ημερομηνία μέτρησης (εεεεμμμη)	Fecha de medición (aaaammdd)	Mõõtmise kuupäev (aaaakppp)
Measuretime	Measuretime (hhmm)	Час на измерване (ччмм)	Čas měření (.....)	Tidspunkt for målingen (ttmm)	Messzeit (hhmm)	Ώρα μέτρησης (ωωλλ)	Hora de medición (hhmm)	Mõõtmise kellaaeg (ttmm)
Icem	Ice message	Съобщение във връзка с леда (ледоход)	Hlášení týkající se ledu	Ismelding	Eismeldung	Μήνυμα σχηματισμού πάγου	Mensaje hielo	Teade jää kohta
Ice_condition	Ice condition	Код за състоянието на леда	Ledové podmínky	Isforhold	Eisbeschaffenheit	Συνθήκες πάγου	Estado hielo	Jää seisund
Ice_condition_code	Ice condition	Код за състоянието на леда	Ledové podmínky	Isforhold	Eisbeschaffenheit	Συνθήκες πάγου	Estado hielo	Jää seisund
Ice_accessibility_code	Accessibility	Код за достъпност при наличие на лед (ледоход)	Splavnost	Farbarhed	Befahrbarkeit	Προσβασιμότητα	Accesibilidad	Juurdepääsetavus
Ice_classification_code	Ice classification	Класификация (описание) на леда	Klasifikace ledu	Isklasse	Eisklasse	Ταξινόμηση πάγου	Clasificación hielo	Jää klassifitseerimine
Ice_situation_code	Ice situation	Λεδοва обстановка	Situace týkající se ledu	Issituation	Eissituation	Κατάσταση πάγου	Situación hielo	Jää olukord

XML Tag	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
Reference_code	Arvon referenssi	Référentiel de la valeur	egység	parametro di riferimento	Atskaitos sistema	Atsauces vērtība	waarde referentie	układ odniesienia
Indication_code	(Rajoituksien) osoitus	Indication de la restriction	korlátozás jelzése	indicazione del valore di limitazione	Apribojimo rodmenys	Ierobežojuma norāde		oznaczenie ograniczenia
Object	Kohde	Objet	objektum	oggetto	Objektas	Objekts	object (sluis, brug, enz)	obiekt
Geo_object section for an Object	(Kohteen maantieteelliset tiedot)	Géo-Objet de référence pour l'objet	az objektum földrajzi adatai	(oggetto — informazione geografica)	(Objekto geografinė informacija)	(Ģeogrāfiskā informācija par objektu)	geografische informatie van het object	(dane geograficzne obiektu)
Type_code (Geo_object section)	(Kohteen tyyppi)	Type	(objektum típusa)	(tipo di oggetto)	(Objekto tipas)	(Objekta tips)	type object	(rodzaj obiektu)
Coordinate (Geo_object section)	Kohteen koordinaatit	Coordonnées	objektum koordinátái	coordinate dell'oggetto	Objekto koordinatės	Objekta koordinātas	object coördinaten	współrzędne obiektu
Wrm	Vedenkorkeuteen liittyvä sanoma	Message sur les hauteurs d'eau	vízállásjelentés	messaggio riguardante le acque	Informacija apie vandens lygį	Informācija par ūdens līmeni	watergerelateerde berichten	komunikat dotyczący stanu wody
Measure	Mittaukset (normaalit tai ennusteet)	Localisation de la mesure	értékek meghatározása (mért v. előrejelzett)	livello idrometrico (normale o previsto)	Vandens lygio vertės (įprastos arba numatomos)	Mērījumu veids (normālais vai prognozētais)	meetwaarden (gemeten of voorspeld)	rodzaj wartości (pomiar czy prognoza)
predicted	Ennuste	Prévision	előrejelzés	previsione	Prognozė	Prognoze	voorspelling	prognoza
Measure_code	Veteen liittyvän sanoman laji	Code de la mesure	a vízállás-információ fajtája	tipo di informazione idrometrica	Pranešimo apie vandens lygį rūšis	Veids informācijai par ūdens līmeni	soort meetwaarde	rodzaj komunikatu o stanie wody
Difference	Ero	Différence	eltérés	differenza	Skirtumas	Starpība	verschil t.o.v. vorige meting	różnica
Barrage_code	Avattava pato	État du barrage	duzzasztómű	sbarramento	Užtvara	Aizsprosts	stuw status	stan zapory
Regime_code	Vedenkorkeussuhteet	Type de régime	vízjárás	regime idrico	Vandens režimas	Ūdens režīms	soort regime	stan wody
Measuredate	Mittauspäivä (vvvvkkpp)	Date de mesure (aaaammjj)	mérés dátuma (év, hó, nap)	data del rilievo (aaaammgg)	Matavimo data (mmmm mm dd)	Mērījuma datums (ggggmmdd)	meetdatum (jjjjmmdd)	data pomiaru (rrrrmmdd)
Measuretime	Mittausaika (hhmm)	Heure de mesure (hhmm)	mérés időpontja (óra, perc)	orario del rilievo	Matavimo laikas (vv mm)	Mērījuma laiks (hhmm)	meetijd (uumm)	godzina pomiaru (hhmm)
Icem	Jäätilannetta koskeva sanoma	Message concernant la glace	jégjelentés	messaggio relativo alla presenza di ghiaccio	Pranešimas apie ledą	Ziņojums par ledu	ijsbericht	komunikat o lodzie
Ice_condition	Jäätilanne	Conditions de glace	jégállapot	condizione del ghiaccio	Ledų sąlygos	Ledus apstākļi	ijsconditie	lód
Ice_condition_code	Jäätilanne	Conditions de glace	jégállapot	condizione del ghiaccio	Ledų sąlygos	Ledus apstākļi	ijsconditie	stan lodu
Ice_accessibility_code	Ajettavuus	Accessibilité	hajózhatóság	accessibilità	Tinkamumas laivybai	Pieejamība	toegankelijkheid	dostępność
Ice_classification_code	Jään luokittelu	Classification de la glace	jégosztályozás	tipo di ghiaccio	Ledo tipas	Ledus klasifikācija	classificatie	klasyfikacja lodu
Ice_situation_code	Jäätilanne	Limitations dues à la glace	jéghelyzet	stato del ghiaccio	Ledo būklė	Ledus stāvoklis	ijssituatie	sytuacja lodowa

XML Tag	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
Reference_code	Referência	Valoare de referință	Jednotka	vrednost reference	referensvärde	Jedinica		Jedinica
Indication_code	Indicação da restrição		indikácia obmedzenia	označitev omejitve	uppgift om begränsning			
Object	Objecto	Obiect	objekt	objekt	objekt	Objekt	Объект	Objekat
Geo_object section for an Object	(Dados geográficos do objecto)	(Poziționarea obiectului)	geografické informácie o objekte	(geo-informacije o objektu)	(geografisk information om objekt)	(geografske informacije o objektu)	Информация о объекте	(Geo informacije objekta)
Type_code (Geo_object section)	(Tipo de objecto)	(Tipul obiectului)	typ objektu	(vrsta objekta)	(typ av objekt)	(vrsta objekta)	Тип объекта	(vrsta objekta)
Coordinate (Geo_object section)	Coordenadas do objecto	Coordonatele obiectului	súradnice objektu	koordinate objekta	objektets koordinater	Koordinate objekta	Координаты объекта	Koordinate objekta
Wrm	Mensagem relativa à água	Date despre apă	správa o vodnom stave	sporočilo v zvezi z vodo	meddelande om vattennivån	Poruka o stanju vode	Информация о уровне воды	Poruka u vezi vode
Measure	Valores (reais ou previstos)	Secțiunea de măsurare	merania (normálne alebo predpovedané)	meritve (običajne ali predvidene)	mätning (mätvärde eller beräkning)	Mjerenja (izmjerena ili prognozirana)	Значение уровня воды (нормальное и ожидаемое)	Merenja(stvarna ili prognoza)
predicted	Previsão	Prognozat	predpoveď	predvidevanje	beräkning	Prognoza	Прогноз	Prognoza
Measure_code	Tipo de informação relativa à água	Codul măsurătorilor	druh správy o vodnom stave	informacije v zvezi z vrsto vode	typ av meddelande om vattennivån	Vrsta informacije o vodi	Тип сообщения о уровне воды	Vrsta informacije u vezi vode
Difference	Diferença	Diferența	rozdiel	razlika	skillnad	Razlika	Разница	Razlika
Barrage_code	Barragem	Baraj	hať	zapora	fördämning	Pregrada	Плотина	Brana
Regime_code	Regime	Nivelul apei	vodný režim	vodni režim	vattenordning	Režim vodeng toka	Водный режим	Vodni režim
Measuredate	Data medição (aaaammdd)	Data măsurătorii	dátum merania (rrrrmmdd)	datum merjenja (yyyymmdd)	datum för mätning (ååååmmdd)	Datum mjerenja (ggggmmdd)	Дата измерения (ггггммдд)	Datum merjenja (ggggmmdd)
Measuretime	Hora medição (hhmm)	Ora măsurătorii	čas merania (hhmm)	čas merjenja (hhmm)	tidpunkt för mätning (hhmm)	Vrijeme mjerenja (ssmm)	Время измерения (ччмм)	Vreme merjenja (hhmm)
Icem	Mensagem gelo	Date privind gheața	správy o ľadochode	sporočilo o ledu	meddelande om isförhållanden	Poruka o ledu	Ледовые сообщения	Poruka u vezi leda
Ice_condition	Estado do gelo	Condițiile gheții	ľadové podmienky	stanje ledu	isförhållanden	Stanje leda	Ледовые условия	Uslovi leda
Ice_condition_code	Estado do gelo	Condițiile gheții	ľadové podmienky	stanje ledu	Isförhållanden	Stanje leda	Ледовые условия	Uslovi leda
Ice_accessibility_code	Acessibilidade	Accesibilitate	dostupnosť	dostopnost	farbarhet	Plovnost	Возможности плавания	Dostupnost
Ice_classification_code	Classificação do gelo	Clasificarea gheții	klasifikácia ľadochodu	klasifikacija ledu	isklassificering	Klasifikacija leda	Тип льда	Klasifikacija leda
Ice_situation_code	Restrições devidas à presença de gelo	Starea gheții	situácia ľadochodu	položaj ledu	isläge	Stanje leda	Состояние льда	Stanje leda

Barrage_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
CLD	Barrage Closed	Баражът е затворен	jez je uzavřen	Dæmning er lukket	Wehr ist geschlossen	Κλειστός υδατοφράκτης	Presa cerrada	Pais suletud
OPG	Barrage Opening	Баражът се отваря	jez se otvírá	Dæmning åbner	Wehr wird geöffnet	Υδατοφράκτης σε φάση ανοίγματος	Apertura de presa	Paisu avamine
CLG	Barrage Closing	Баражът се затваря	jez se zavírá	Dæmning lukker	Wehr wird geschlossen	Υδατοφράκτης σε φάση κλεισίματος	Cierre de presa	Paisu sulgemine
OPD	Barrage Opened, no navigation through barrage	Баражът е отворен, движението през него е забранено	jez je otevřen, zákaz plavby přes jez	Dæmning er åben, men gennemsejling er forbudt	Wehr ist geöffnet, keine Schifffahrt durch das Wehr	Ανοικτός υδατοφράκτης, απαγόρευση ναυσιπλοΐας μέσω υδατοφράκτη	Presa abierta, paso prohibido	Pais avatud, laevatamist paisu kaudu ei toimu
OPN	Barrage laid, opened for navigation through barrage	Свободна навигация през баража	jez je otevřen pro plavbu	Dæmning er åben for sejlads	Wehr ist geöffnet, Schifffahrt durch das Wehr	Ανοικτός υδατοφράκτης, επιτρέπεται η ναυσιπλοΐα	Presa abierta, paso autorizado	Pais avatud laevatmiseks

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
CLD	Avattava pato suljettu	Barrage relevé	duzzasztómű zárva	sbarramento chiuso	Uždaryta užtvara	Aizsprosts slēgts	stuw is gesloten	zapora zamknięta
OPG	Avattava pato avautuu	Barrage se couchant	duzzasztóművet nyitják	sbarramento in fase di apertura	Užtvara atidaroma	Aizsprosts atveras	stuw wordt geopend	otwieranie zapory
CLG	Avattava pato sulkeutuu	Barrage se relevant	duzzasztóművet zárják	sbarramento in fase di chiusura	Užtvara uždaro	Aizsprosts aizveras	stuw wordt gesloten	zamykanie zapory
OPD	Avattava pato avattu, ei vesiliikennettä padon kautta	Barrage couché, franchisement interdit	duzzasztómű nyitva, de áthajózás a duzzasztóművön nem megengedett	sbarramento aperto, nessun transito consentito	Užtvara atidaryta, laivyba draudžiama	Aizsprosts atvērts, kuģošana caur aizsprostu aizliegta	stuw is geopend, maar geen doorvaart via stuw	zapora otwarta, zamknięta dla żeglugi
OPN	Avattava pato avattu liikenteelle	Barrage ouvert à la navigation	duzzasztómű az áthajózás számára megnyitva	sbarramento aperto, transito consentito	Užtvara atidaryta laivybai	Aizsprosts atvērts kuģošai caur aizsprostu	stuw is geopend voor scheepvaart via stuw	zapora otwarta dla żeglugi

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
CLD	Barragem fechada	Baraj închis	hať je zatvorená	zapora zaprta	fördämningen stängd	Brana zatvorena	Плотина закрыта	Brana zatvorena
OPG	Barragem a abrir	Baraj în deschidere	hať sa otvára	odpiranje zapore	fördämningen öppnas	Brana se otvara	Плотина открывается	Brana se otvara
CLG	Barragem a fechar	Baraj în închidere	hať sa zatvára	zapiranje zapore	fördämningen stängs	Brana se zatvara	Плотина закрывается	Brana se zatvara
OPD	Barragem aberta, passagem proibida	Baraj deschis, nu se navighează	hať je otvorená, preplávanie cez hať zakázané	zapora odprta, plovba skozi zaporo ni dovoljena	fördämningen öppen, men trafik förbjuden	Brana otvorena	Плотина открыта, но движение судов запрещено	Brana otvorena
OPN	Barragem aberta, passagem autorizada	Baraj deschis pentru navigație	hať je otvorená pre plavbu	zapora postavljena, odprta za plovbo skozi zaporo	fördämningen öppen för trafik	Ustava otvorena za plovidbu	Плотина открыта для движения судов	Ustava spuštena, plovdba slobodna

Communication_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
TEL	Telephone	Телефон	telefon	Telefon	Telefon	Τηλέφωνο	Teléfono	Telefon
VHF	VHF	ΥΚВ връзка	VKV	VHF	UKW	VHF	VHF	VHF
EM	E-mail	Електронна поща (e-mail)	e-mail	E-mail	E-Mail	Ηλεκτρονικό ταχυδρομείο	Correo electrónico	E-post
INT	Internet	Интернет	internet	Internet	Internet	Διαδίκτυο	Internet	Internet
TXT	Teletext	Телетекст	teletext	Teletekst	Teletext	Τελετεξτ	Teletexto	Teletekst
FAX	Telefax	Факс	telefax	Telefax	Telefax	Τηλεομοιοτυπία	Fax	Telefaks
LIG	light signalling	Светлинна сигнализация	světelný signál	Lyssignal	Lichtsignal	Φωτεινή σηματοδότηση	Señal luminosa	Valgus-signaalid
FLA	flag signalling	Флагова сигнализация	vlajková signalizace	Flagsignal	Flaggensignal	Σήματα με σημαίες	Bandera	Lipu-signaalid
SOU	sound signalling	Звукова сигнализация	zvukový signál	Lydsignal	Tonsignal	Ηχητικά σήματα	Señal acústica	Heli-signaalid

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
TEL	Puhelin	Téléphone	telefon	telefono	Telefonas	Tālrunis	telefoon	telefon
VHF	VHF	VHF	rádiótelefon	VHF	VHF	UĪV	marifoonkanaal	VHF
EM	Sähköposti	Courriel	e-mail	e-mail	El. paštas	E-pasts	e-mail	e-mail
INT	Internet	Site internet	internet	Internet	Internetas	Internets	internet	Internet
TXT	Tekstitelevisio	Télétexte	teletext	teletesto	Teletekstas	Teleteksts	teletekst	teletekst
FAX	Faksi	Télécopie	telefax	telefax	Telefaksas	Telefakss	fax	telefaks
LIG	Valo-opasteet	Signalisation lumineuse	fényjelzés	segnalazione con fanali	Šviesos signalai	Gaismas signāli	lichtsignaal	sygnalizacja świetlna
FLA	Lippuopasteet	Pavillon	lobogójelzés	segnalazione con bandiere	Signalai vėliavėlėmis	Signāli ar karodziņiem	vlagsignaal	sygnalizacja flagowa
SOU	Ääniopasteet	Signalisation sonore	hangjelzés	segnalazione acustica	Garsiniai signalai	Skaņas signāli	geluidssein	sygnalizacja dźwiękowa

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
TEL	Telefone	Telefon	telefón	telefon	telefon	Telefon	Телефон	Telefon
VHF	VHF	VHF	VHF	VHF	VHF	VHF	Радиосвязь на УКВ	VHF
EM	Correio electrónico	E-mail	e-mail	e-pošta	e-post	E-mail	Электронное сообщение	E-mail
INT	Internet	Internet	internet	internet	Internet	Internet	Интернет	Internet
TXT	Teletexto	Teletext	teletex	teletekst	teletext	Teletekst	Телекс	Teletekst
FAX	Telefax	Telefax	telefax	telefaks	fax	Telefaks	Факс	Telefaks
LIG	Sinal luminoso	Semnal luminos	svetelná signalizácia	svetlobno signaliziranje	ljussignalering	svjetlosna signalizacija	Световые сигналы	Svetlosno signaliziranje
FLA	Sinal de bandeira	Semnal cu stegulețe	vlajková signalizácia	signaliziranje z zastavicami	flaggsignalering	signalizacija zastavama	Сигналы флагами	Signaliziranje zastavom
SOU	Sinal sonoro	Semnal sonor	zvuková signalizácia	zvočno signaliziranje	ljudsignalering	zvučna signalizacija	Звуковые сигналы	Zvučno signaliziranje

Country_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
AT	Austria	Австрия	Rakousko	Østrig	Österreich	Αυστρία	Austria	Austria
BE	Belgium	Белгия	Belgie	Belgien	Belgien	Βέλγιο	Bélgica	Belgia
BG	Bulgaria	България	Bulharsko	Bulgarien	Bulgarien	Βουλγαρία	Bulgaria	Bulgaaria
CH	Switzerland	Швейцария	Švýcarsko	Schweiz	Schweiz	Ελβετία	Suiza	Šveits
CS	Serbia	Сърбия	Srbsko	Serbien	Serbien	Σερβία	Serbia	Serbia
CY	Cyprus	Κίπρ	Kypr	Cypren	Zypern	Κύπρος	Chipre	Küpros
CZ	Czech Republic	Чешка република	Česká republika	Tjekkiet	Tschechien	Τσεχική Δημοκρατία	República Checa	Tšehhi Vabariik
DE	Germany	Германия	Německo	Tyskland	Deutschland	Γερμανία	Alemania	Saksamaa
DK	Denmark	Дания	Dánsko	Danmark	Dänemark	Δανία	Dinamarca	Taani
EE	Estonia	Εстония	Estonsko	Estland	Estland	Εσθονία	Estonia	Eesti
ES	Spain	Испания	Španělsko	Spanien	Spanien	Ισπανία	España	Hispaania
FI	Finland	Финландия	Finsko	Finland	Finnland	Φινλανδία	Finlandia	Soome
FR	France	Франция	Francie	Frankrig	Frankreich	Γαλλία	Francia	Prantsusmaa
GB	United Kingdom	Великобритания	Velká Británie	Det Forenede Kongerige	Großbritannien	Ηνωμένο Βασίλειο	Reino Unido	Ühend-kuningriik
GR	Greece	Гърция	Řecko	Grækenland	Griechenland	Ελλάδα	Grecia	Kreeka
HR	Croatia	Хърватска	Chorvatsko	Kroatien	Kroatien	Κροατία	Croacia	Horvaatia
HU	Hungary	Унгария	Maďarsko	Ungarn	Ungarn	Ουγγαρία	Hungria	Ungari
IE	Ireland	Ирландия	Irsko	Irland	Irland	Ιρλανδία	Irlanda	Iirimaa
IT	Italy	Италия	Itálie	Italien	Italien	Ιταλία	Italia	Itaalia
LT	Lithuania	Литва	Litva	Litauen	Litauen	Λιθουανία	Lituania	Leedu
LU	Luxembourg	Люксембург	Lucembursko	Luxembourg	Luxemburg	Λουξεμβούργο	Luxemburgo	Luksemburg
LV	Latvia	Латвия	Lotyšsko	Letland	Lettland	Λεττονία	Letonia	Läti
MD	Moldova	Молдова	Moldavie	Moldova	Moldawien	Μολδαβία	Moldavia	Moldaavia
MT	Malta	Малта	Malta	Malta	Malta	Μάλτα	Malta	Malta
NL	Netherlands	Нидерландия	Nizozemsko	Nederlandene	Niederlande	Κάτω Χώρες	Países Bajos	Madalmaad
PL	Poland	Польша	Polsko	Polen	Polen	Πολωνία	Polonia	Poola
PT	Portugal	Португалия	Portugalsko	Portugal	Portugal	Πορτογαλία	Portugal	Portugal
RO	Romania	Румъния	Rumunsko	Rumænien	Rumänien	Ρουμανία	Rumanía	Rumeenia
RU	Russia	Россия	Rusko	Rusland	Russland	Ρωσία	Rusia	Venemaa
SE	Sweden	Швеция	Švédsko	Sverige	Schweden	Σουηδία	Suecia	Rootsi
SI	Slovenia	Словения	Slovinsko	Slovenien	Slowenien	Σλοβενία	Eslovenia	Sloveenia
SK	Slovakia	Словакия	Slovensko	Slovakiet	Slowakei	Σλοβακία	Eslovaquia	Slovakkia
UA	Ukraine	Украина	Ukrajina	Ukraine	Ukraine	Ουκρανία	Ucrania	Ukraina

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
AT	Itävalta	Autriche	Ausztia	Austria	Austrija	Austrija	Oostenrijk	Austria
BE	Belgia	Belgique	Belgium	Belgio	Belgija	Belgija	België	Belgia
BG	Bulgaria	Bulgarie	Bulgária	Bulgaria	Bulgarija	Bulgārija	Bulgarije	Bulgaria
CH	Sveitsi	Suisse	Svájç	Svizzera	Šveicarija	Šveice	Zwitserland	Szwajcaria
CS	Serbia	Serbie	Szerbia	Serbia	Serbija	Serbija	Servië	Serbia
CY	Kypros	Chypre	Ciprus	Cipro	Kipras	Kipra	Cyprus	Cypr
CZ	Tšekki	République tchèque	Cseh Köztársaság	Repubblica ceca	Čekijos Respublika	Čehija	Tsjechië	Republika Czeska
DE	Saksa	Allemagne	Németország	Germania	Vokietija	Vācija	Duitsland	Niemcy
DK	Tanska	Danemark	Dánia	Danimarca	Danija	Dānija	Denemarken	Dania
EE	Viro	Estonie	Észtország	Estonia	Estija	Igaunija	Estland	Estonia
ES	Espanja	Espagne	Spanyolország	Spagna	Ispanija	Spānija	Spanje	Hiszpania
FI	Suomi	Finlande	Finnország	Finlandia	Suomija	Somija	Finland	Finlandia
FR	Ranska	France	Franciaország	Francia	Prancūzija	Francija	Frankrijk	Francja
GB	Yhdistynyt kuningaskunta	Royaume-Uni	Egyesült Királyság	Regno Unito	Jungtinė Karalystė	Apvienotā Karaliste	Groot-Brittannië	Wielka Brytania
GR	Kreikka	Grèce	Görögország	Grecia	Graikija	Griekija	Griekenland	Grecja
HR	Kroatia	Croatie	Horvátország	Croazia	Kroatija	Horvātija	Kroatië	Chorwacja
HU	Unkari	Hongrie	Magyarország	Ungheria	Vengrija	Ungārija	Hongarije	Węgry
IE	Irlanti	Irlande	Írország	Irlanda	Airija	Īrija	Ierland	Irlandia
IT	Italia	Italie	Olaszország	Italia	Italija	Itālija	Italië	Włochy
LT	Liettua	Lituanie	Litvánia	Lituania	Lietuva	Lietuva	Litouwen	Litwa
LU	Luxemburg	Luxembourg	Luxemburg	Lussemburgo	Liuksemburgas	Luksemburga	Luxemburg	Luksemburg
LV	Latvia	Lettonie	Lettország	Lettonia	Latvija	Latvija	Letland	Łotwa
MD	Moldova	Moldavie	Moldávia	Moldova	Moldova	Moldova	Moldavië	Mołdowa
MT	Malta	Malte	Málta	Malta	Malta	Malta	Malta	Malta
NL	Alankomaat	Pays-Bas	Hollandia	Paesi Bassi	Nyderlandai	Nīderlande	Nederland	Holandia
PL	Puola	Pologne	Lengyelország	Polonia	Lenkija	Polija	Polen	Polska
PT	Portugali	Portugal	Portugália	Portogallo	Portugalija	Portugāle	Portugal	Portugalia
RO	Romania	Roumanie	Románia	Romania	Rumunija	Rumānija	Roemenië	Rumunia
RU	Venäjä	Russie	Oroszország	Russia	Rusija	Krievija	Rusland	Rosja
SE	Ruotsi	Suède	Svédország	Svezia	Švedija	Zviedrija	Zweden	Szwecja
SI	Slovenia	Slovénie	Szlovénia	Slovenia	Slovēnija	Slovēnija	Slovenië	Słowenia
SK	Slovakia	Slovaquie	Szlovákia	Slovacchia	Slovakija	Slovākija	Slowakije	Słowacja
UA	Ukraina	Ukraine	Ukraina	Ucraina	Ukraina	Ukraina	Oekraïne	Ukraina

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
AT	Áustria	Austria	Rakúsko	Avstrija	Österrike	Austrija	Австрия	Austrija
BE	Bélgica	Belgia	Belgicko	Belgija	Belgien	Belgija	Бельгия	Belgija
BG	Bulgária	Bulgaria	Bulharsko	Bolgarija	Bulgarien	Bugarska	Болгария	Bugarska
CH	Suíça	Elveția	Švajčiarsko	Švica	Schweiz	Švicarska	Швейцария	Švajcarska
CS	Sérvia	Serbia	Srbsko	Srbija	Serbien	Srbija	Сербия	Srbija
CY	Chipre	Cipru	Cyprus	Ciper	Cypren	Zipar	Кипр	Kipar
CZ	República Checa	Republica Cehă	Česko	Česka	Tjeckien	Republika Česka	Чешская республика	Česka Republika
DE	Alemanha	Germania	Nemecko	Nemčija	Tyskland	Njemačka	Германия	Nemačka
DK	Dinamarca	Danemarca	Dánsko	Danska	Danmark	Danska	Дания	Danska
EE	Estónia	Estonia	Estónsko	Estonija	Estland	Estonia	Эстония	Estonija
ES	Espanha	Spania	Španielsko	Španija	Spanien	Španjolska	Испания	Španija
FI	Finlândia	Finlanda	Fínsko	Finska	Finland	Finska	Финляндия	Finska
FR	França	Franța	Francúzsko	Francija	Frankrike	Francuska	Франция	Francuska
GB	Reino Unido	Marea Britanie	Veľká Británia	Združeno kraljestvo	Förenade kungariket	Velika Britanija	Великобритания	Velika Britanija
GR	Grécia	Grecia	Grécko	Grčija	Grekland	Grčka	Греция	Grčka
HR	Croácia	Croația	Chorvátsko	Hrvaška	Kroatien	Hrvatska	Хорватия	Hrvatska
HU	Hungria	Ungaria	Maďarsko	Maďarska	Ungern	Maďarska	Венгрия	Maďarska
IE	Irlanda	Irlanda	Írsko	Irska	Irland	Irska	Ирландия	Irska
IT	Itália	Italia	Taliansko	Italija	Italien	Italija	Италия	Italija
LT	Lituânia	Lituania	Litva	Litva	Litauen	Litva	Литва	Litvanija
LU	Luxemburgo	Luxemburg	Luxembursko	Luksemburg	Luxemburg	Luksemburg	Люксембург	Luksemburg
LV	Letónia	Letonia	Lotyšsko	Latvija	Lettland	Latvia	Латвия	Letonija
MD	Moldávia	Moldova	Moldavsko	Moldavija	Moldavien	Moldavija	Молдавия	Moldavija
MT	Malta	Malta	Malta	Malta	Malta	Malta	Мальта	Malta
NL	Países Baixos	Țările de Jos	Holandsko	Nizozemska	Nederländerna	Nizozemska	Нидерланды	Holandija
PL	Polónia	Polonia	Poľsko	Poljska	Polen	Poljska	Польша	Poljska
PT	Portugal	Portugalia	Portugalsko	Portugalska	Portugal	Portugal	Португалия	Portugal
RO	Roménia	România	Rumunsko	Romunija	Rumänien	Rumunjska	Румыния	Rumunija
RU	Rússia	Rusia	Rusko	Rusija	Ryssland	Rusija	Россия	Rusija
SE	Suécia	Suedia	Švédsko	Švedska	Sverige	Švedska	Швеция	Švedska
SI	Eslovénia	Slovenia	Slovinsko	Slovenija	Slovenien	Slovenija	Словения	Slovenija
SK	Eslováquia	Slovacia	Slovensko	Slovaška	Slovakien	Slovačka	Словакия	Slovačka
UA	Ucrânia	Ucraina	Ukrajina	Ukrajina	Ukraina	Ukraina	Украина	Ukrajina

Direction_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
ALL	All directions	Всички посоки	všechny směry	Alle retninger	alle Richtungen	Όλες οι κατευθύνσεις	Todas las direcciones	Kõik suunad
UPS	Upstream	Срещу течението	protiproudní plavba	Opstrøms	Bergfahrt	Ανάντη	Aguas arriba	Ülesvoolu
DWN	Downstream	По течението	poproudní plavba	Nedstrøms	Talfahrt	Κατάντη	Aguas abajo	Allavoolu

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
ALL	Kaikki suunnat	toutes les directions	minden irány	tutte le direzioni	Visomis kryptimis	Visi virzieni	alle richtingen	wszystkie kierunki
UPS	Vastavirtaan	montant	hegymenet	in ascesa	Prieš srovę	Pret straumi	opvaart	pod prąd
DWN	Myötävirtaan	avalant	völgymenet	in discesa	Pasroviui	Pa straumi	afvaart	z prądem

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
ALL	Todas as direcções	Toate direcțiile	všetky smery	vse smeri	alla riktningar	Svi smjerovi	Любое направление движения	Svi pravci
UPS	Montante	În amonte	proti prúdu	proti toku	uppströms	Uzvodno	Движение вверх по течению	Uzvodno
DWN	Jusante	În aval	po prúde	v smeri toka	nedströms	Nizvodno	Движение вниз по течению	Nizvodno

Indication_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
MAX	maximum	максимум	maximální	Maksimum	höchstens	μέγιστο	Máximo	maksimum
MIN	minimum	минимум	minimálně	Minimum	mindestens	ελάχιστο	Mínimo	miinimum
RED	reduced by	намалено с	redukován o	Reduceret med	verringert um	μειωμένο κατά	Reducido en	vähendatud

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
MAX	maksimi	maximum	legfeljebb (maximum)	massimo	didžiausia	maksimāli	maximaal	maksimum
MIN	minimi	minimum	legalább (minimum)	minimo	mažiausia	minimāli	minimaal	minimum
RED	vähennetty seuraavalla	réduit de	által csök- kentve	diminuito di	sumažinama	samazināts par	verminderd met	ograniczenie o (wartość)

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
MAX	Máximo	maxim	maximum	največje	maximum	najviše	максимально	kao maksimum
MIN	Mínimo	minim	minimum	najmanjše	minimum	najmanje	как минимум	kao minimum
RED	Reduzido de	reduc cu	znížený o	zmanjšano za	reducerat med	smanjeno za	уменьшено на	umanjen za

Interval_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
CON	Continuous	Непрекъснато	nepřetržitě	Kontinuerligt	durchgehend	Συνεχής	Continuo	Pidev
DAY	Daily	Ежедневно	denně	Dagligt	täglich	Ημερήσια	Diario	Iga päev
WRK	Monday to Friday	От понеделник до петък	pondělí až pátek	Mandag til fredag	Montag bis Freitag	Δευτέρα έως Παρασκευή	Lunes a viernes	Esmaspäe-vast reedeni
WKN	Saturday and Sunday	Събота и неделя	sobota a neděle	Lørdag og søndag	Samstag und Sonntag	Σάββατο έως Κυριακή	Sábado y domingo	Laupäev ja pühapäev
SUN	Sunday	Неделя	neděle	Søndag	Sonntag	Κυριακή	Domingo	Pühapäev
MON	Monday	Понеделник	pondělí	Mandag	Montag	Δευτέρα	Lunes	Esmaspäev
TUE	Tuesday	Вторник	úterý	Tirsdag	Dienstag	Τρίτη	Martes	Teisipäev
WED	Wednesday	Сряда	středa	Onsdag	Mittwoch	Τετάρτη	Miércoles	Kolmapäev
THU	Thursday	Четвъртък	čtvrtek	Torsdag	Donnerstag	Πέμπτη	Jueves	Neljäpäev
FRI	Friday	Петък	pátek	Fredag	Freitag	Παρασκευή	Viernes	Reede
SAT	Saturday	Събота	sobota	Lørdag	Samstag	Σάββατο	Sábado	Laupäev
DTI	day-time	През деня	za dne	Om dagen	bei Tag	Κατά τη διάρκεια της ημέρας	Período diurno	päeval
NTI	night(-time)	През нощта	za noci	Om natten	bei Nacht	Κατά της διάρκεια της νύχτας	Período nocturno	öösel
RVI	in case of restricted visibility	При ограничена видимост	za snížené viditelnosti	Ved nedsat sigt	bei beschränkten Sichtverhältnissen	Σε περίπτωση περιορισμένης ορατότητας	Con visibilidad reducida	piiratud nähtavuse korral
EXC	with the exception of	С изключение на	s výjimkou	Med undtagelse af	mit Ausnahme von	Εξαιρουμένου του	salvo	välja arvatud

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
CON	Jatkuva	permanent	folyamatos	permanente	Nuolatos	Nepārtraukti	onafgebroken	ciągłe
DAY	Päivittäinen	journalier	naponta	giornaliero	Kasdien	Ik dienas	dagelijks	codziennie
WRK	Maanantaista perjantaihin	lundi au vendredi	hétfőtől péntekig	da lunedì a venerdì	Nuo pirmadienio iki penktadienio	No pirmdienas līdz piektdienai	maandag tot vrijdag	od poniedziałku do piątku
WKN	Lauantai ja sunnuntai	samedi et dimanche	szombat és vasárnap	sabato e domenica	Šeštadienis ir sekmadienis	Sestdiena un svētdiena	zaterdag en zondag	sobota i niedziela
SUN	Sunnuntai	dimanche	vasárnap	domenica	Sekmadienis	Svētdiena	zondag	niedziela
MON	Maanantai	lundi	hétfőtől péntekig	lunedì	Pirmadienis	Pirmdiena	maandag	poniedziałek
TUE	Tiistai	mardi	kedd	martedì	Antradienis	Otrdiena	dinsdag	wtorek
WED	Keskiviikko	mercredi	szerda	mercoledì	Trečiadienis	Trešdiena	woensdag	środa
THU	Torstai	jeudi	csütörtök	giovedì	Ketvirtadienis	Ceturtdiena	donderdag	czwartek
FRI	Perjantai	vendredi	péntek	venerdì	Penktadienis	Piektdiena	vrijdag	piątek
SAT	Lauantai	samedi	szombat	sabato e domenica	Šeštadienis	Sestdiena	zaterdag	sobota
DTI	Päivisin	en journée	nappal	diurno	Dienos metas	Dienā	overdag	w porze dziennej
NTI	Öisin	de nuit	éjszaka	notturmo	Nakties metas	Naktī	's nachts	w porze nocnej
RVI	Näkyvyyden ollessa rajallinen	par mauvaise visibilité	korlátozott látási viszonyok esetén	in caso di visibilità ridotta	Riboto mato-mumo atveju	Ierobežotas redzamības apstākļos	bij beperkt zicht	w przypadku ograniczonej widoczności
EXC	lukuun ottamatta	à l'exception de	kivéve	ad eccezione di	Išskyrus	Izņemot	met uitzondering van	z wyjątkiem

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
CON	Contínuo	Permanent	nepretržite	neprekinjeno	fortlöpande	Neprekidan	непрерывный режим	Neprekidan
DAY	Diário	Zilnic	denne	dnevno	dagligen	Dnevno	ежедневно	Dnevno
WRK	Segunda a sexta	De luni până vineri	pondelok až piatok	od ponedeljka do petka	måndag till fredag	ponedjeljak do petak	с понедельника до пятницы	od ponedeljka do petka
WKN	Sábado e domingo	Sâmbătă și duminică	sobota a nedelja	sobota in nedelja	lördag till söndag	subota i nedjelja	суббота и воскресенье	subota i nedelja
SUN	Domingo	Duminică	nedelja	nedelja	söndag	Nedjeljom	воскресенье	Nedjeljom
MON	Segunda	Luni	pondelok	ponedeljek	måndag	Ponedjeljkom	понедельник	Ponedjeljkom
TUE	Terça	Marți	utorok	torek	tisdag	Utorkom	вторник	Utorkom
WED	Quarta	Miercuri	streda	sreda	onsdag	Srijedom	среда	Sredom
THU	Quinta	Joi	štvrtok	četrtek	torsdag	Četvrtkom	четверг	Četvrtkom
FRI	Sexta	Vineri	piatok	petek	fredag	Petkom	пятница	Petkom
SAT	Sábado	Sâmbătă	sobota	sobota	lördag	Subotom	суббота	Subotom
DTI	Período diurno	În timpul zilei	cez deň	podnevi	dagtid	preko dana	Дневное время	Danju
NTI	Período nocturno	În timpul nopții	v noci	ponoči	nattetid	preko noči	Ночное время	Noču
RVI	Com visibilidade reduzida	În caz de vizibilitate redusă	pri zníženej viditeľnosti	v primeru omejene vidljivosti	vid begränsad sikt	U slučaju smanjene vidljivosti	в случае ограниченной видимости	Pri ograničenoj vidljivosti
EXC	Excepuando	Cu excepția	okrem	razen	med undantag av	sa izuzetkom	исключая	sa izuzetkom

Language_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
BG	Bulgarian	Български	bulharsky	Bulgarsk	Bulgarisch	βουλγαρική	Búlgaro	bulgaaria
CS	Czech	Чешски	česky	Tjekkisk	Tschechisch	τσεχική	Checo	tšehhi
DA	Danish	Датски	dánsky	Dansk	Dänisch	δανική	Danés	taani
DE	German	Немски	německy	Tysk	Deutsch	γερμανική	Alemán	saksa
EL	Greek	Γръцки	řecky	Græsk	Griechisch	ελληνική	Griego	kreeka
EN	English	Английски	anglicky	Engelsk	Englisch	αγγλική	Inglés	inglise
ES	Spanish	Испански	španělsky	Spansk	Spanisch	ισπανική	Español	hispaania
ET	Estonian	Естонски	estonsky	Estisk	Estnisch	εσθονική	Estonio	eesti
FI	Finnish	Фински	finsky	Finsk	Finnisch	φινλανδική	Finés	soome
FR	French	Френски	francouzsky	Fransk	Französisch	γαλλική	Francés	prantsuse
HR	Croatian	Хърватски	chorvatsky	Kroatisk	Kroatisch	κροατική	Croata	horvaatia
HU	Hungarian	Унгарски	maďarsky	Ungarsk	Ungarisch	ουγγρική	Húngaro	ungari
IT	Italian	Италиански	italsky	Italiensk	Italienisch	ιταλική	Italiano	itaalia
LT	Lithuanian	Литовски	litevsky	Litauisk	Litauisch	λιθουανική	Lituano	leedu
LV	Latvian	Латвийски	lotyšsky	Lettisk	Lettisch	λεττονική	Letón	läti
MT	Maltese	Μαλтийски	maltsky	Maltesisk	Maltesisch	μαλτέζικη	Maltés	malta
NL	Dutch	Нидерландски	nizozemsky	Nederlandsk	Niederländisch	ολλανδική	Neerlandés	hollandi
PL	Polish	Πολски	polsky	Polsk	Polnisch	πολωνική	Polaco	poola
PT	Portuguese	Πορτογαλски	portugalsky	Portugisisk	Portugiesisch	πορτογαλική	Portugués	portugali
RO	Romanian	Румънски	rumunsky	Rumænsk	Rumänisch	ρουμανική	Rumano	rumeenia
RU	Russian	Руски	rusky	Russisk	Russisch	ρωσική	Ruso	vene
SK	Slovak	Словашки	slovensky	Slovakisk	Slowakisch	σλοβακική	Eslovaco	slovaki
SL	Slovenian	Словенски	slovinsky	Slovensk	Slowenisch	σλοβενική	Eslovaco	sloveenia
SR	Serbian	Сръбски	srbsky	Serbisk	Serbisch	σερβική	Serbio	serbia
SV	Swedish	Шведски	švédsky	Svensk	Schwedisch	σουηδική	Sueco	rootsi

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
BG	Bulgaria	bulgare	bolgár	bulgaro	Bulgarų	Bulgāru	Bulgaars	bułgarski
CS	Tšekki	tchèque	cseh	ceco	Čekų	Čehu	Tsjechisch	czeski
DA	Tanska	danois	dán	danese	Danų	Dāņu	Deens	duński
DE	Saksa	allemand	német	tedesco	Vokiečių	Vācu	Duits	niemiecki
EL	Kreikka	grec	görög	greco	Graikų	Grieķu	Grieks	grecki
EN	Englanti	anglais	angol	inglese	Anglų	Angļu	Engels	angielski
ES	Espanja	espagnol	spanyol	spagnolo	Ispanų	Spāņu	Spaans	hiszpański
ET	Viro	estonien	észti	estone	Estų	Igauņu	Estlands	estoński
FI	Suomi	finnois	finn	finlandese	Suomių	Somu	Fins	fiński
FR	Ranska	français	francia	francese	Prancūzų	Franču	Frans	francuski
HR	Kroatia	croate	horvát	croato	Kroatų	Horvātu	Kroatisch	chorwacki
HU	Unkari	hongrois	magyar	ungherese	Vengrų	Ungāru	Hongaars	węgierski
IT	Italia	italien	olasz	italiano	Italų	Itāliešu	Italiaans	włoski
LT	Liettua	lituanien	litván	lituano	Lietuvių	Lietuviešu	Litouws	litewski
LV	Latvia	letton	lett	lettone	Latvių	Latviešu	Lets	łotewski
MT	Malta	maltais	máltai	maltese	Maltiečių	Maltiešu	Maltees	maltański
NL	Hollanti	néerlandais	holland	neerlandese	Olandų	Holandiešu	Nederlands	holenderski
PL	Puola	polonais	lengyel	polacco	Lenkų	Poļu	Pools	polski
PT	Portugali	portugais	portugál	portoghese	Portugalų	Portugāļu	Portugees	portugalski
RO	Romania	roumain	román	rumeno	Rumunų	Rumāņu	Roemeens	rumuński
RU	Venäjä	russe	orosz	russo	Rusų	Krievu	Russisch	rosyjski
SK	Slovakki	slovaque	szlovák	slovacco	Slovakų	Slovāku	Slowaaks	słowacki
SL	Sloveeni	slovène	szlovén	sloveno	Slovėnų	Slovēņu	Sloveens	słoweński
SR	Serbia	serbe	szerb	serbo	Serbų	Serbu	Servisich	serbski
SV	Ruotsi	suédois	svéd	svedese	Švedų	Zviedru	Zweeds	szwedzki

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
BG	búlgaro	Bulgară	bulharsky	bolgarščina	bulgariska	Bugarski	Болгарский	Bugarski
CS	checo	Cehă	česky	češčina	tjeckiska	Češki	Чешский	Češki
DA	dinamarquês	Daneză	dánsky	danščina	danska	Danski	Датский	Danski
DE	alemão	Germană	nemecky	nemščina	tyska	Njemački	Немецкий	Nemački
EL	grego	Greacă	grécky	grščina	grekiska	Grcki	Греческий	Grczki
EN	inglês	Engleză	anglicky	angleščina	engelska	Engleski	Английский	Engleski
ES	espanhol	Spaniolă	španielsky	španščina	spanska	Spanjolski	Испанский	Spanski
ET	estónio	Estonă	estónsky	estonščina	estniska	Estonski	Эстонский	Estonski
FI	finlandês	Finlandeză	fínsky	finščina	finska	Finski	Финский	Finski
FR	francês	Franceză	francúzsky	francoščina	franska	Francuski	Французский	Francuski
HR	croata	Croată	chorvátsky	hrvaščina	kroatiska	Hrvatski	Хорватский	Hrvatski
HU	húngaro	Maghiară	maďarsky	madžarščina	ungerska	Mađarski	Венгерский	Mađarski
IT	italiano	Italiană	taliánsky	italijanščina	italienska	Talijanski	Итальянский	Italijanski
LT	lituano	Lituaniană	litovsky	litovščina	litauiska	Litvanski	Литовский	Litvanski
LV	letão	Letonă	lotyšsky	latvijščina	lettiska	Litavski	Латвийский	Letonski
MT	maltês	Malteză	maltsky	malteščina	maltesiska	Malteski	Мальтийский	Malteski
NL	neerlandês	Neerlandeză	holandsky	nizozemščina	nederländska	Nizozemski	Голландский	Holandski
PL	polaco	Polonă	poľsky	poljščina	polska	Poljski	Польский	Poljski
PT	português	Portugheză	portugalsky	portugalščina	portugisiska	Portugalski	Португальский	Portugalski
RO	romeno	Română	rumunsky	romunščina	rumänska	Rumunjski	Румынский	Rumunski
RU	russo	Rusă	rusky	ruščina	ryska	Ruski	Русский	Ruski
SK	eslovaco	Slovacă	slovensky	slovaščina	slovakiska	Slovački	Словацкий	Slovački
SL	esloveno	Slovenă	slovinsky	slovenščina	slovenska	Slovenski	Словенский	Slovenacki
SR	sérvio	Sârbă	srbsky	srbščina	serbiska	Srpski	Сербский	Srpski
SV	sueco	Suedează	švédsky	švedščina	svenska	Svedski	Шведский	Svedski

Limitation_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
OBSTRU	Blockage	Препятствие	uzávěra	Blokering	Sperre	Φράγμα	Obstrucción	Blokeering
PAROBS	Partial obstruction	Частично препятствие	částečná uzávěra	Delvis blokering	teilweise Sperre	Μερική παρεμπόδιση	Obstrucción parcial	Osaline takistus
DELAY	Delay	Закъснение	zpoždění	Forsinkelse	Verzögerung	Καθυστέρηση	Retraso	Hilinemine
VESLEN	Vessel Length	Дължина на плавателния съд	délka plavidla	Fartøjets længde	Schiffslänge	Μήκος σκάφους	Eslora	Laeva pikkus
VESHEI	Vessel air draught	Височина на плавателния съд	výška plavidla nad ponorem	Fartøjets højde over vandlinjen	Schiffshöhe	Μέγιστο ύψος άνωθεν της ισάλου γραμμής	Altura de la obra muerta	Laeva kõrgus veepinnast
VESBRE	Vessel breadth	Ширина на плавателния съд	šířka plavidla	Fartøjets bredde	Schiffsbreite	Μέγιστο πλάτος σκάφους	Manga	Laeva laius
VESDRA	Vessel draught	Газене на плавателния съд	ponor plavidla	Fartøjets dybgang	Schiffstiefgang	Βύθισμα σκάφους	Calado	Laeva süvis
AVALEN	Available length	Разполагаема дължина	povolená délka	Disponibel længde	verfügbare Länge	Διαθέσιμο μήκος	Eslora disponible	Kasutatav pikkus
CLEHEI	Clearance height	Свободна височина	podjezdni výška	Frigang i højden	Durchfahrts-höhe	Ελεύθερο ύψος διέλευσης	Gálibo vertical	Kuja kõrgus
CLEWID	Clearance width	Свободна ширина	povolená šířka	Frigang, bredde	verfügbare Breite	Ελεύθερο πλάτος διέλευσης	Gálibo horizontal	Kuja laius
AVADEP	Available depth	Възможно газене	využitelná hloubka	Vanddybde	verfügbare Tiefe	Διαθέσιμο πλάτος	Profundidad disponible	Kasutatav sügavus
NOMOOR	No mooring	Забранено швартоването	zákaz vyvazování	Fortøjning forbudt	Anlegeverbot	Απαγόρευση αγκυροβολίας	Prohibición de amarre	Sildumine keelatud
SERVIC	Limited service	Ограничено обслужване	omezení provozu	Begrænset betjening	Betrieb eingeschränkt	Περιορισμένη υπηρεσία	Servicio limitado	Piiratud teenindus
NOSERV	No service	Няма обслужване	zastavení provozu	Ingen betjening	Betriebssperre	Καμία υπηρεσία	Interrupción del servicio	Ei teenindata
SPEED	Speed limit	Скорост	omezení rychlosti	Hastighedsbegrænsning	Höchstgeschwindigkeit	Όριο ταχύτητας	Límite de velocidad	Kiiruspiirang
WAVWAS	Do not create wash	Забранено създаване на вълни	nevytvářet vlnobití	Undgå at lave efterdønninger	Wellenschlag vermeiden	Απαγόρευση πρόκλησης κυματισμών	No crear oleaje	Voolu tekita-mine keelatud
PASSIN	No passing	Забранено преминаването	zákaz potkávání	Passage er ikke tilladt	Begegnungsverbot	Απαγόρευση διέλευσης	Prohibido el paso	Läbimine keelatud
ANCHOR	No anchoring	Забранено хвърляне на котва	zákaz kotvení	Opankring ikke tilladt	Ankerverbot	Απαγόρευση αγκυροβολίας	Prohibido fondear	Ankrusse jäämine keelatud
OVRTAK	No overtaking	Забранено изпреварването	zákaz předjíždění	Overhaling ikke tilladt	Überholverbot	Απαγόρευση προσπέρασης	Prohibido adelantar	Möödasõit keelatud
MINPWR	Minimum power	Минимална мощност	nejnižší výkon pohonu	Minimum kraft	Mindestantriebsleistung	Ελάχιστη ισχύς	Potencia mínima	Minimaalne võimsus
ALTER	alternate traffic direction	Редуващи се посоки на движение	střídavý směr plavby	Skiftende færdselsretning	Einbahnverkehr	Εναλλασσόμενη κατεύθυνση κυκλοφορίας	Tráfico en sentido alterno	Asendus-liiklus-suund
CAUTIO	special caution	Особено внимание	zvýšená opatrnost	Særlig agtpågivenhed	besondere Vorsicht	Ιδιαίτερη προσοχή	Precaución especial	Äärmine ettevaatus
NOLIM	no limitation	Без ограничение	bez omezení	Ingen begrænsning	keine Einschränkung	Κανένας περιορισμός	Sin limitaciones	Piirang puudub

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
OBSTRU	Este	Restriction	zárlat	ostruzione totale	Blokavimas	Bloķēts	stremming	zamknięcie
PAROBS	Osittainen este	Restriction partielle	részleges tilalom	ostruzione parziale	Dalinis blokavimas	Daļēji bloķēts	gedeeltelijke stremming	częściowe zamknięcie
DELAY	Viivästys	Délai	késedelem	ritardo	Delsa	Aizkavēšanās	oponthoud	opóźnienie
VESLEN	Aluksen pituus	Longueur du bateau	hajóhossz	lunghezza natante	Laivo ilgis	Kuģa garums	scheepslengte	długość statku
VESHEI	Aluksen suurin korkeus vedenpinnasta	Tirant d'air du bateau	hajó magassága	altezza natante dal pelo dell'acqua	Laivo aukštis virš vandens	Kuģa virsūdens augstums	scheepshoogte	wysokość statku
VESBRE	Aluksen leveys	Largeur du bateau	hajó szélessége	larghezza del natante	Laivo plotis	Kuģa platums	scheepsbreedte	szerokość statku
VESDRA	Aluksen syväys	Tirant d'eau du bateau	hajó merülése	pescaggio natante	Laivo grimzlė	Kuģa iegrimē	scheepsdiepgang	zanurzenie statku
AVALEN	Käytettävissä oleva pituus	Longueur disponible	rendelkezésre álló hosszúság	lunghezza disponibile	Leistinas ilgis	Pielaujamais garums	doorvaartlengte	długość użytkowa
CLEHEI	Alikulkukorkeus	Hauteur libre disponible	szabad úrszelvénymagasság	tirante d'aria	Leistinas aukštis	Pielaujamais augstums	doorvaart-hoogte	wysokość w świetle
CLEWID	Käytettävissä oleva leveys	Largeur disponible	rendelkezésre álló szélesség	larghezza della via navigabile	Leistinas plotis	Pielaujamais platums	doorvaartbreedte	szerokość w świetle
AVADEP	Käytettävissä oleva syväys	Mouillage disponible	rendelkezésre álló vízmélység	pescaggio massimo	Esamas gylis	Ūdens dziļums	beschikbare waterdiepte	głębokość użytkowa
NOMOOR	Kiinnittymien kielletty	Interdiction d'amarrage	vesztegélési tilalom	divieto di ormeggio	Draudžiama švartuotis	Pietauvošanās aizliegta	afmeerverbod	zakaz cumowania
SERVIC	Rajoitettu palvelu	Exploitation limitée	korlátozott üzem	servizio/esercizio limitato	Ribotas aptarnavimas	Ierobežots pakalpojums	beperkte service	usługa ograniczona
NOSERV	Ei palvelua	Manœuvre interrompue	üzemszünet	nessun servizio/esercizio	Neaptarnaujama	Pakalpojums nav pieejams	geen bediening	usługa niedostępna
SPEED	Nopeusrajoitus	Limite de vitesse	sebességkorlátozás	limite di velocità	Ribojamas greitis	Ātruma ierobežojums	snelheidsbeperking	ograniczenie szybkości
WAVWAS	Voimakkaan aallokon tuottaminen kielletty	Remous interdits	hullámkeltést elkerülni	divieto di moto ondoso	Nekelti bangų	Neradīt viļņus	hinderlijke waterbeweging vermijden	zakaz tworzenia fal
PASSIN	Ei läpikulkua	Interdiction de croiser	találkozás tilos	divieto di transito	Plaukti draudžiama	Aizliegts šķērsot	ontmoeten verboden	zakaz wymijania
ANCHOR	Ei ankkuroitumista	Mouillage interdit	horgonyozni tilos	divieto di ancoraggio	Draudžiama nuleisti inkarą	Noenkuroties aizliegts	ankeren verboden	zakaz kotwiczenia
OVRTAK	Ei ohittamista	Interdiction de dépasser/trémater	előzni tilos	divieto di sorpasso	Lenkti draudžiama	Apdzīt aizliegts	voorbijlopen verboden	zakaz wyprzedzania
MINPWR	Vähimmäisteho	Puissance minimale	minimális teljesítmény	potenza minima	Mažiausia galia	Minimālā jauda	minimaal vermogen	minimalna moc napędu
ALTER	Vaihteleva liikenteen suunta	Navigation alternée	váltakozó forgalmi irány	traffico in senso alternato	Keičiama laivų eismo kryptis	Divvirzienu satiksme	beurteilings verkeer	ruch naprzemienny
CAUTIO	Erikoisvaroitukset	Attention spéciale	kiemelt óvatosság	particolare cautela	Ypatingas perspėjimas	Īpaša piesardzība	bijzondere voorzichtigheid	szczególna ostrożność
NOLIM	Ei rajoitusta	Pas de limitation	nincs korlátozás	nessuna limitazione	Apribojimų pabaiga	Bez ierobežojumiem	geen beperking	koniec ograniczeń

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
OBSTRU	Obstrução	Restricție	blokáda	zapora	blockering	Prepreka	Закрѣто	Prepreka
PAROBS	Obstrução parcial	Restricție parțială	častočné prekážky	delna zapora	delvis obstruktion	Djelomična prepreka	Частично закрыто	Delimična prepreka
DELAY	Demora	Întârziere	meškanie	zamuda	försening	Kašnjenje	Задержка	Kašnjenje
VESLEN	Comprimento (embarcação)	Lungimea navei	dĺžka plavidla	dolžina plovila	fartygslängd	Duljina broda	Длина судна	Dužina plovila
VESHEI	Altura acima da linha de água (embarcação)	Înălțimea deasupra liniei de plutire	výška plavidla nad hladinou	prosta višina plovila	fartygets höjd över vattenytan	Visina najviše fiksne točke broda iznad vode	Высота судна	Visina plovila
VESBRE	Boca (embarcação)	Lățimea navei	šírka plavidla	širina plovila	fartygsbredd	Širina broda	Ширина судна	Širina plovila
VESDRA	Calado (embarcação)	Pescajul navei	ponor plavidla	ugrez plovila	fartygets djupgående	Gaz broda	Осадка	Gaz plovila
AVALEN	Comprimento disponível	Lungimea admisă	povolená dĺžka	razpoložljiva dolžina	tillgänglig längd	Raspoloživa duljina	Ограничение длины	Raspoloživa dužina
CLEHEI	Altura livre	Gabaritul de înălțime	podjazdná výška	prosta višina prehoda	frihöjd	Visina plovnog otvora	Ограничение высоты	Slobodna visina
CLEWID	Largura livre	Gabaritul de lățime	prejazdná šířka	prosta širina prehoda	farledsbredd	Širina plovnog otvora	Ограничение ширины	Slobodna širina
AVADEP	Profundidade disponível	Adâncimea disponibilă	dostupná hĺbka	razpoložljiva globina	tillgängligt djup	Raspoloživa dubina	Существующая глубина	Raspoloživa dubina
NOMOOR	Proibição de amarrar	Interdicție de acostare	zákaz vyvážování	prepovedan privez	förtöjning förbjuden	Zabranjen vez	Швартовка запрещена	Zabranjeno vezivanje
SERVIC	Serviço limitado	Manevră restricționată	obmedzená prevádzka	omejena storitev	begränsad service	Ograničena usluga	Ограниченное обслуживание	Ograničena usluga
NOSERV	Interrupção do serviço	Manevră interzisă	zastavená prevádzka	ni storitve	ingen service	Nema usluge	Не обслуживаемое	Bez usluge
SPEED	Limite de velocidade	Limită de viteză	najvyššia povolená rýchlosť	omejitev hitrosti	hastighetsbegränsning	Brzina	Ограничение скорости	Brzina
WAVWAS	Não causar ondulação	Formarea valurilor interzisă	zákaz vlnobitia a sania	prepovedano povzrocanje valov	undvik svall	Zabranjeno pravljenje valova	Берегись волны	Zabranjeno pravljenje talasa
PASSIN	Proibição de passar	Traversarea interzisă	zákaz preplávania	prepovedan prehod	passering förbjuden	Zabranjen prolaz	Нет прохода	Zabranjen prolaz
ANCHOR	Proibição de ancorar	Ancorarea interzisă	zákaz kotvení	prepovedano sidranje	ankring förbjuden	Zabranjeno sidrenje	Якорная стоянка запрещена	Zabranjeno sidrenje
OVRTAK	Proibição de cruzar ou ultrapassar	Depășirea interzisă	zákaz předcházání	prepovedano prehitevanje	omkörning förbjuden	Zabranjeno pretjecanje	Обгон запрещен	Zabranjeno prestizanje
MINPWR	Potência mínima	Putere minimă	minimálny výkon	najmanjša moč	minsta motoreffekt	Minimalna snaga	минимальная мощность	Minimalna snaga
ALTER	Sentido alterado	Trafic cu sensuri alternative	striedajúci smer premávky	izmenično usmerjanje prometa	alternerande farledsriktning	naizmjeničan smjer prometa	Встречное движение	Alternativni pravac saobraćaja
CAUTIO	Atenção especial	Vigilență mărită	zvýšená opatrnosť	posebna pozornost	varning	poseban oprez	особое замечание	poseban oprez
NOLIM	Sem restrições	Fără restricții	bez obmedzenia	brez omejitev	ingen begränsning	bez ograničenja	без ограничения	bez ograničenja

Measure_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
DIS	Discharge	Отток	průtok	Udledning	Abfluss	Εκφόρτωση	Descarga	Lossimine
REG	Regime	Режим	režim	Vandregime	Regime	Κατάσταση ροής υδάτων	Régimen	Kord
BAR	Barrage status	Състояние на баража	stav vzdutí	Status for dæmning	Staustand	Κατάσταση φράγματος	Estado presa	Paisu asend
VER	Vertical clearance	Свободна височина	podjezdná výška	Lodret frigang	Durchfahrts- höhe	Ελεύθερο ύψος	Gálibo libre	Läbisõidu-kõr- gus
LSD	Least sounded depth	Минимална дълбочина	minimální hloubka	Mindste loddede dybde	minimale Tiefe	Μικρότερο μετρηθέν βάθος	Profundidad mínima medida	Looditud väik- seim sügavus
WAL	Water level	Водно ниво	vodní stav	Vandstand	Wasserstand	Στάθμη υδάτων	Nivel de agua	Veetase

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
DIS	Virtaus	Débit	lefolvás	portata	Vandens išleidimas	Ūdens novadišana	afvoer	spust
REG	Vedenkorkeus-suhteet	Régime	vízjárás	regime	Režimas	Darba režīms	regime	režim
BAR	Avattavan padon tilanne	Statut des barrages	duzzasztási állapot	stato sbarramento	Užtvaros padėtis	Aizsprosta stāvoklis	stuwstand	stan zapory
VER	Alikulkukorkeus	Hauteur libre maximale	szabad úrszelvénymagasság	tirante d'aria	Laivo kelio aukštis	Pieļaujama augstums	doorvaart-hoogte	prześwit pionowy
LSD	Matalin luodattu syvyys	Profondeur minimale	legkisebb vízmélység	profondità minima rilevata	Mažiausias gylis	Minimālais dziļums	minst gepeilde diepte	głębokość minimalna
WAL	Vedenkorkeus	Niveaux des eaux	vízállás	livello idrometrico	Vandens lygis	Ūdens līmenis	waterstand	stan wody

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
DIS	Descarga	Debit	prietok	pretok	utsläpp	Ispust	Спуск воды	Proticaj
REG	Regime	Regim	režim	režim	ordning	Režim	Рабочий режим	Režim
BAR	Status da bar- ragem	Starea barajului	stav hate	položaj zapor	fördämnings- status	Status brane	Состояние пло- тины	Status brane
VER	Altura livre	Înălțime liberă de trecere	podjazdná výška	prosta višina prehoda	frihöjd	Visina slobod- nog prolaza	Высота судоходного пролёта	Prolazna visina
LSD	Profundidade mínima medida	Adâncime minimă	minimálna hlbka	najmanjša izmerjena glo- bina	minsta lodade djup	Minimalna dubina	Минимальная глубина	Najmanja izme- rena dubina
WAL	Nível da água	Nivelul apei	vodný stav	vodostaj	vattennivå	Vodostaj	Уровень воды	Nivo vode

Position_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
AL	All	Навсякъде (всички напра- вления)	všechno	Alt	ganz	ολόκληρη η πλωτή οδός	Todo	Kõik
LE	Left	Ляво	vlevo	Venstre	links	αριστερά	Izquierda	Vasakpoolne
MI	Middle	В средата	střed	Midten	Mitte	στο μέσο	Centro	Keskmine
RI	Right	Дясно	vpravo	Højre	rechts	δεξιά	Derecha	Parempoolne
LB	Left bank	Ляв бряг	levý břeh	Venstre bred	linkes Ufer	αριστερή όχθη	Margen izquierda	Vasak kallas
RB	Right bank	Десен бряг	pravý břeh	Højre bred	rechtes Ufer	δεξιά όχθη	Margen dere- cha	Parem kallas
N	North	Северно	sever	Nord	Nord	βόρεια	Norte	põhi
NE	North_east	Североизточно	severovýchod	Nordøst	Nordost	βορειοανατο- λικά	Noreste	kirre
E	East	Източно	východ	Øst	Ost	ανατολικά	Este	ida
SE	South_east	Югоизточно	jihovýchod	Sydøst	Südost	νοτιοανατολικά	Sureste	kagu
S	South	Южно	jih	Syd	Süd	νότια	Sur	lõuna
SW	South_west	Югозападно	jihozápad	Sydvest	Südwest	νοτιοδυτικά	Suroeste	edel
W	West	Западно	západ	Vest	West	δυτικά	Oeste	lääs
NW	North_west	Северозападно	severozápad	Nordvest	Nordwest	βορειοδυτικά	Noroeste	loe
BI	big	Голям	velký	Stor	groß	μεγάλο	Grande	suur
SM	small	Малък	malý	Lille	klein	μικρό	Pequeño	väike
OL	old	Стар	starý	Gammel	alt	παλαιό	Antiguo	vana
EW	new	Нов	nový	Ny	neu	νέο	Nuevo	uus
MP	movable part	Подвижна част	pohyblivá část	Bevægelig del	beweglicher Teil	κινητό τμήμα	Parte móvil	avatav osa
FP	fixed part	Неподвижна част	pevná část	Fast del	fester Teil	σταθερό τμήμα	Parte fija	fikseeritud osa
VA	variable	Променлив	proměnlivé	Variabel	veränderlich	μεταβλητό	Variable	muutuv

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
AL	Kaikki	tout le chenal	mind/teljesen	intero canale navigabile	Visos kryptys	Laba redzamība	geheel	wszędzie
LE	Vasen	gauche	bal	sinistra	Kairė	Pa kreisi	links	po lewej
MI	Keskimmäinen	milieu	közép	centro	Vidurys	Vidū	midden	pośrodku
RI	Oikea	droite	jobb	destra	Dešinė	Pa labi	rechts	po prawej
LB	Vasen ranta	rive gauche	bal part	sponda sinistra	Kairysis krantas	Kreisais krasts	linkeroever	lewy brzeg
RB	Oikea ranta	rive droite	jobb part	sponda destra	Dešinysis krantas	Labais krasts	rechteroever	prawy brzeg
N	Pohjoinen	nord	észak	nord	Šiaurė	Uz ziemeļiem	noord	północ
NE	Koillinen	nord-est	északkelet	nord-est	Šiaurės rytai	Uz ziemeļaustrumiem	noordoost	północny wschód
E	Itä	est	kelet	est	Rytai	Uz austrumiem	oost	wschód
SE	Kaakko	sud-est	délkelet	sud-est	Pietryčiai	Uz dienvidaustrumiem	zuidoost	południowy wschód
S	Etelä	sud	dél	sud	Pietūs	Uz dienvidiem	zuid	południe
SW	Lounas	sud-ouest	délnyugat	sud-ouest	Pietvakariai	Uz dienvidrietumiem	zuidwest	południowy zachód
W	Länsi	ouest	nyugat	ovest	Vakarai	Uz rietumiem	west	zachód
NW	Luode	nord-ouest	északnyugat	nord-ouest	Šiaurės vakarai	Uz ziemeļrietumiem	noordwest	północny zachód
BI	iso	grand	nagy	grande	Didelis	Liels	groot	duży
SM	pieni	petit	kicsi	piccolo	Mažas	Mazs	klein	mały
OL	vanha	vieux	régi	vecchio	Senas	Vecs	oud	stary
EW	uusi	nouveau	új	nuovo	Naujas	Jauns	nieuw	nowy
MP	liikkuva osa	partie amovible	mozgatható rész	parte mobile	Slankioji dalis	Kustīgā daļa	beweegbaar deel	część ruchoma
FP	kiinteä osa	partie fixe	rögzített rész	parte fissa	Stacionarioji dalis	Nekustīgā daļa	vast deel	część stała
VA	vaihtele	variable	változó	variabile	Kintamas	Mainīgs	variabel	zmienny

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
AL	Todas	Toată calea navigabilă/întregul obiect	všetky	vse	hela	Svi smjerovi	Полная видимость	Sve
LE	Esquerda	Stânga	vľavo	levo	vänster	Lijevo	Слева	Levo
MI	Centro	Mijloc	v strede	sredina	mitten	Sredina	В середине	Sredina
RI	Direita	Dreapta	vpravo	desno	höger	Desno	Справа	Desno
LB	Margem esquerda	Malul stâng	ľavý breh	levi breg	vänstra banken	Lijeva obala	слева от банки	Leva obala
RB	Margem direita	Malul drept	pravý breh	desni breg	högra banken	Desna obala	справа от банки	Desna obala
N	Norte	Nord	severne	severno	nord	Sjever	К северу	Sever
NE	Nordeste	Nord-est	severovýchodne	severovzhodno	nordost	Sjeveroistočno	К северо-востоку	Severoistočno
E	Leste	Est	východne	vzhodno	öst	Istočno	К востоку	Istočno
SE	Sudeste	Sud-est	juhovýchodne	jugovzhodno	sydost	Jugoistočno	К юго-востоку	Jugoistočno
S	Sul	Sud	južne	južno	syd	Južno	К югу	Južno
SW	Sudoeste	Sud-vest	juhozápadne	jugozahodno	sydväst	Jugozapadno	К юго-западу	Jugozapadno
W	Oeste	Vest	západne	zahodno	väst	Zapadno	К западу	Zapadno
NW	Noroeste	Nord-vest	severozápadne	severozahodno	nordväst	Sjeverozapadno	К северо-западу	Severozapadno
BI	Grande	Mare	veľký	velik	stor	Velik	большой	Veliki
SM	Pequeno	Mic	malý	majhen	liten	Mali	малый	Mali
OL	Antigo	Vechi	starý	star	gammal	Star	старый	Stari
EW	Novo	Nou	nový	nov	ny	Nov	новый	Novi
MP	Parte móvel	Parte amovibilă	pohyblivá časť	premični del	rörlig del	Pokretan dio	подвижная часть	Pokretni deo
FP	Parte fixa	Parte fixă	pevná časť	fiksni del	fast del	Nepokretan dio	неподвижная часть	Statični deo
VA	Variável	Variabil	premenlivá	spremenljiv	variabel	varijabla	променливый	varijabla

Reason_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
EVENT	Event	Случай	uspořádání akce	Begivenhed	Veranstaltung	Συμβάν	Suceso	Sündmus
WORK	Work	Работи (действия)	práce	Arbejder	Arbeiten	Εργασίες	Obras	Töötamine
DREDGE	Dredging	Драгажни работи	bagrování	Opmudring	Baggerarbeiten	Βυθοκόρηση	Dragado	Süvendamine
EXERC	Exercises	Упражнения	cvičení	Øvelser	Übungen	Ασκήσεις	Ejercicios	Õppused
HIGWAT	High water	Високи води	velká voda (povodeň)	Højvande	Hochwasser	Υψηλή στάθμη υδάτων	Nivel de agua elevado	Kõrgvesi
HIWAI	water level of cautious navigation	Водно ниво, изискващо внимателна навигация	vodní stav vyžadující zvýšenou nautickou pozornost	Forsigtig sejlads pga. vandstanden	Marke I	Στάθμη υδάτων προσεκτικής ναυσιπλοΐας	Nivel de agua para navegación prudente	Ettevaatliku laevatamise veetase
HIWAI	prohibitory water level	Възпрепятстване на водно ниво	vodní stav, při kterém se zastavuje plavba	Forbud mod sejlads pga. vandstanden	Marke II	Απαγορευτική στάθμη υδάτων	Nivel de agua de prohibición	Laevatamiseks keelatud veetase
LOWWAT	Low water	Ниски води	nízký vodní stav	Lavvande	Niedrigwasser	Χαμηλή στάθμη υδάτων	Nivel de agua bajo	Madal vesi
SHALLO	Siltation	Плитчина	zanesení pís-kem	Aflejringer	Versandung	Σχηματισμός ιλύος	Sedimentación	Mudastumine
CALAMI	Calamity	Бедствие	havárie	Nødsituation	Unglück	Καταστροφή	Accidente	Õnnetus
LAUNCH	Launching	Спускание на вода	spouštění na vodu	Søsætning	Ausstoßen	Καθέλκυση	Lanzamiento	Veeskamine
DECLEV	Lowering water level	Понижаване на водното ниво	pokles vodní hladiny	Vandstanden sænkes	Senken des Wasserspiegels	Μειούμενη στάθμη υδάτων	Nivel de agua en descenso	Veetaseme vähenemine
FLOMEA	Flow measurement	Измерване на оттока	měření průtoku	Flow-måling	Strommessungen	Μέτρηση ροής	Medición de caudal	Voolu mõõtmine
BLDWRK	Building work	Строительни работи	stavební práce	Anlægsarbejder	Bauarbeiten	Κατασκευαστικές εργασίες	Obras de construcción	Ehitustöö
REPAIR	Repair	Ремонтни работи	opravy	Reparation	Reparaturarbeiten	Επισκευές	Reparación	Remont
INSPEC	Inspection	Инспекция	inspekce	Inspektion	Inspektion	Επιθεώρηση	Inspección	Inspekteerimine
FIRWRK	Fireworks	Взривни работи	ohňostroj	Fyrværkeri	Feuerwerk	Πυροτεχνήματα	Fuegos artificiales	Ilutulestik
LIMITA	Limitations	Ограничения	omezení	Begrænsninger	Einschränkungen	Περιορισμοί	Limitaciones	Piirangud
CHGFWY	changes in the fairway	Изменение на фарватера	změny plavební dráhy	Ændring af farvandet	Änderungen der Fahrrinne	Μεταβολές στον διαύλο	Cambios en vía navegable	Muudatused faarvaatris
CONSTR	constriction of waterway	Изграждане на воден път	zúžení vodní cesty	Indsnævring af vandvejen	Einengung des Fahrwassers	Κατασκευή πλωτής οδού	Estrechamiento de vía navegable	Faarvaatri kontriktsioon
DIVING	under water works	Подводни работи	práce pod vodou	Dykkere i arbejde	Arbeiten unter Wasser	Υποβρύχιες εργασίες	Obras submarinas	Veelused tööd
SPECTR	special transport	Специализиран транспорт	zvláštní přeprava	Særlig transport	Sondertransport	Ειδικές μεταφορές	Transporte especial	Erivedu
EXT	extensive sluicing	Активно изпускане на вода	extrémní dotování	Omfattende slusedrift	extreme Dotierung	Εκτεταμένη εκκένωση υδατοφράκτη	Barrido extensivo	Laialdane lüüsi-kasutus
MIN	minimum sluicing	Минимално изпускане на вода	minimální dotování	Minimum slusedrift	minimale Dotierung	Ελάχιστη εκκένωση υδατοφράκτη	Barrido mínimo	Minimaalne lüüsi-kasutus
SOUND	sounding works	Дълбочинно-измервателни работи	měření hloubky vody	Oplodning	Peilarbeiten	Εργασίες ηχοβολισμού	Obras de sondeo	Loodimistööd
OTHER	Others	Другο	jiné	Andet	andere	Λοιπά	Otros	Muud
INFSE	Info Service (not safety relevant and not needed for voyage planning)	Не засяга навигационната безопасност; не е необходимо за планирането на рейса	Informační servis (nikoli pro bezpečnost a nikoli pro plánování plavby)	Informations-tjeneste (ikke sikkerhedsrelevant, ej heller nødvendig til rejseplanlægning)	Informations-service (weder sicherheitsrelevant noch notwendig für die Reiseplanung)	Πληροφορίες (δεν έχει σχέση με την ασφάλεια και δεν χρειάζεται για τον προγραμματισμό του ταξιδιού)	Servicio de información (no se refiere a la seguridad y no se requiere para la planificación de itinerarios)	Teabeteenus (ei ole seotud ohutusega ega ole vajalik reisi korraldamisel)

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
EVENT	Tapahtumat	Événement	rendezvény	avvenimento	Įvykis	Pasākums	evenement	impreza
WORK	Työt	Travaux	munkálatok	lavori	Darbai	Darbs	werkzaamheden	prace
DREDGE	Ruoppaustyöt	Dragage	koträsi munkálatok	dragaggio	Dugno gilini-mas	Bagarēšanas darbi	baggerwerkzaamheden	pogłębienie
EXERC	Harjoitukset	Exercices	gyakorlatok	esercitazioni	Pratybos	Vingrinājumi	oefeningen	ćwiczenia
HIGWAT	Korkea vesi	Crue	magas vízállás	piena	Aukštas vanduo	Augsts ūdens līmenis	hoogwater	wysoki stan wody
HIWAI	varovaista liik-kumista edel-lyttävä veden-korkeus	Niveau d'eau nécessitant une navigation prudente	kíméletes hajózási víz-szint	livello idro-metrico di prudenza per la navigazione	Laivybai pavojingas vandens lygis	Ūdens līmenis bīstams kuģošanai	waterstand met beperkte scheepvaart (Marke I)	stan wody wymagający ostrożnej żegluga
HIWAI	kiellon aiheut-tava veden-korkeus	Niveau d'eau d'interdiction	tilalmi víz-szint	livello idro-metrico proibitivo	Laivyba draudžiantis vandens lygis	Ūdens līme-nis, kurā kuģošana aiz-liegta	waterstand met vaarver-bod (Marke II)	stan wody uniemożliwia-jący żegluga
LOWWAT	Matala vesi	Étiage	alacsony vízállás	livello di magra	Žemas van-duo	Zems ūdens līmenis	laagwater	niski stan wody
SHALLO	Liettyminen	Atterrisse-ment	gázlóképző-dés	accumulo di sabbia	Sąnašos	Aizsērēšana	verondieping	mielizna
CALAMI	Onnettomuus	Accident	havaria/bale-set	calamità	Avarija	Negadījums	calamiteit	wypadek
LAUNCH	Vesillelasku	Mise à l'eau	vízre bocsátás	varo	Laivo nuleidi-mas į vandenį	Kuģa nolai-šana ūdenī	tewaterlating	wodowanie
DECLEV	Vedenkorkeu-den laskemini-nen	Abaissement du niveau de l'eau	vízszint csök-kenése	calo del livello idrometrico	Vandens lygio nuslūgimas	Ūdens līmeņa pazemināšana	waterstands-verlaging	spadek poziomu wody
FLOMEA	Virtauksen mittaaminen	Opération de mesure de débit	áramlás mérése	portata idro-metrica	Tėkmės para-metrų matavi-mas	Straumes ātruma noteikšana	stroomsnel-heidsmeting	pomiar prądu
BLDWRK	Rakennustyöt	Travaux de construction	építési munkálatok	lavori di costruzione	Statybos	Būvdarbi	bouwwerkzaamheden	roboty budowlane
REPAIR	Korjaustyöt	Travaux de réparation	javítási munkálatok	intervento di riparazione	Remontas	Remonts	herstelwerkzaamheden	prace remon-towe
INSPEC	Tarkastus	Inspection	szemle	ispezione	Inspekcija; apžiūra	Inspekcija	inspectiewerkzaamheden	inspekcja
FIRWRK	Ilotulitus	Feux d'artifice	tűzijáték	fuochi d'artifi-cio	Fejerverkai	Liesmu darbi	vuurwerk	ogie sztuczne
LIMITA	Rajoitukset	Restriction de la navigation	korlátozás	limitazioni alla naviga-zione	Apribojimai	Ierobežojumi	beperkingen	ograniczenia
CHGFWY	muutokset väylällä	Modification de la passe navigable	hajóútváltozás	modifiche del canale naviga-bile	Pasikeitimai farvateryje	Izmaiņas kuģu ceļā	veranderingen in de vaarweg	zmiany toru wodnego
CONSTR	vesiväylän kaventuminen	Rétrécisse-ment de la passe naviga-ble	hajóútszűkü-let	restrizione del canale naviga-bile	Vandens kelio susiaurėjimas	Ūdens ceļa sašaurinājums	beperking van de vaarweg	zwężenie toru wodnego
DIVING	vedenalaiset työt	Plongeurs au travail	víz alatti munka	lavori in immersione	Povandeniniai darbai	Zemūdens darbi	onderwater werkzaamheden	prace pod wodą
SPECTR	erikoiskuljetus	Transport spécial	különleges szállítás	trasporto speciale	Specialus transportas	Īpašs trans-ports	bijzonder transport	transport spec-jalny
EXT	laajamittainen sulutus	Service étendu	nagymértékű vízeresztés	regolazione intensiva della portata idro-metrica	Gausus vandens nuleidimas	Liela pārplūde	uitgebreid schutbedrijf	intensywne słu-zowanie
MIN	vähimmäissu-lutus	Service mini-mal	minimális vízeresztés	regolazione minima della portata idro-metrica	Minimalius vandens nuleidimas	Minimāla pār-plūde	minimaal schutbedrijf	minimalne słu-zowanie
SOUND	luotaustyöt	Travaux de sondage	mélységmérés munka	lavori di scan-daglio	Zondavimo darbai	Zondēšana	peilwerkzaamheden	pomiary głębo-kości
OTHER	Muu	Autres	egyéb	diversi	Kita	Citi	overige	inne
INFSER	Tietopalvelu (ei ole olen-nainen turval-lisuuden kan-nalta eikä tarpeen mat-kan suunnit-telussa)	Information (n'a pas d'im-pact sur la sécurité et n'est pas nécessaire au calcul d'itiné-raire)	tájékoztató (nem bizton-sági közle-mény és útiterv készí-téséhez nem szükséges)	servizio infor-mazioni (senza rile-vanza ai fini della sicurezza e della pianifi-cazione dell'itinerario)	Informacija (nesusijusi su saugumu ir nebūtina planuojant reisą)	Informācijas dienests (nav saistīts ar dro-šumu un nav vajadzīgs reisa plānošanai)	Informatieser-vice (niet vei-lighedsgerela-teerd en niet nodig voor reisplanning)	serwis informa-cyjny (infor-macje niezwią-zane z bezpieczeń-stwem i niewy-magane do planowania rejsu)

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
EVENT	Evento	Eveniment	udalost'	prireditiv	evenemang	Događaj	Мероприятие	Događaj
WORK	Trabalhos	Lucrări	práce	delo	arbeten	Radovi	Работы	Radovi
DREDGE	Dragagens	Lucrări de dragaj	bagrovanie	poglabljanje dna	muddring	Iskopavanje	Земле-черпательные работы	Bagerovanje
EXERC	Exercícios	Exerciții	cvičenia	vaje	övningar	Vježbe	упражнения	Vežbe
HIGWAT	Nível de cheia	Ape mari	vysoký vodný stav	visok vodostaj	högvatten	Visoke vode	Высокая вода	Visok vodostaj
HIWAI	Nível da água que obriga a navegação prudente	Nivelul apei de avertizare pentru navigație	vodný stav pre opatrnú plavbu	vodostaj, ki zahteva previdno plovbo	försiktig navigering p.g.a. vattennivån	Vodostaj oprezne plovidbe	уровень опасный для навигации	Vodostaj koji zahteva opreznu navigaciju
HIWAI	Nível da água que impossibilita a navegação	Nivelul apei de interdicție	vodný stav pri ktorom je zakázaná plavba	vodostaj, ki ne dovoljuje plovbe	förbud p.g.a. vattennivån	Vodostaj zabrane plovidbe	уровень запрещающий навигацию	Vodostaj koji ne dozvoljava navigaciju
LOWWAT	Nível de estiagem	Ape mici	nízky vodný stav	nizek vodostaj	lågwater	Niske vode	Малая вода	Nizak vodostaj
SHALLO	Assoreamento	Întinsură	naplaveniny	usedlina	slamavsättning	Plićina	Обмеление	Plitka voda
CALAMI	Acidente	Calamitate	havária	nesreča	olycka	Havarija	Авария	Havarija
LAUNCH	Lançamento à água	Lansare la apă	spúšťanie na vodu	splavitev	sjösjättning	Porinuće	Спуск судна на воду	Porinuće
DECLEV	Descida do nível da água	Nivelul apei în scădere	klesajúca vodná hladina	nižanje vodostaja	sjunkande vattennivå	Spuštanje vodnog lica	Понижение уровня воды	Spuštanje vodostaja
FLOMEA	Caudal	Operațiune de măsurare a debitului	meranie prietoku	merjenje pretoka	flödes-mätning	Mjerenje protoka	измерение скорости течения	Merenje protoka
BLDWRK	Obras	Lucrări de construcții	stavebné práce	gradbena dela	byggnadsarbete	Izgradnja	Строительство	Radovi
REPAIR	Reparações	Lucrari de reparații	opravy	popravilo	reparationsarbete	Popravci	Ремонтные работы	Popravka
INSPEC	Inspecção	Inspecție	inšpekcia, prehliadka, kontrola	inšpekcijski pregled	inspektion	Inspekcija	Инспекция	Inspekcija
FIRWRK	Fogo de artifício	Focuri de artificii	ohňostroj	ognjemet	fyrverkerier	Vatromet	Взрывные работы	Vatromet
LIMITA	Restrições	Restricții	obmedzenia	omejitve	begränsningar	Ograničenja	Ограничения	Ograničenja
CHGFWY	Alterações no canal navegável	Schimbări șenal navigabil	zmeny v plavebnéj dráhe	spremembe na plovni poti	ändringar av farleden	Promjene u plovnom putu	изменение фарватера	Promene u plovnom putu
CONSTR	Estreitamento da via navegável	Îngustare cale navigabilă	zúženie vodnej cesty	zožanje vodne poti	smalare vattenväg	Suženje vodnog puta	строительство фарватера	Suženje rečnog toka
DIVING	Trabalhos subaquáticos	Lucrări subacvatice	práce pod vodou	podvodna dela	undervattensarbete	Podvodni radovi	поводные работы	Podvodni radovi
SPECTR	Transporte especial	Transport special	špeciálna preprava	posebni prevoz	special-transport	Specijalan transport	специальная перевозка	Specijalni transport
EXT	Regime de descarga máximo	Trafic de ecluză intens	rozsiahle vymieňanie	ekstenzivno odtekanje	omfattande drift	izrazito istjecanje	значительный сдвиг	Visoka kontaminacija
MIN	Regime de descarga mínimo	Trafic de ecluză redus	minimálne vymieňanie	minimalno odtekanje	minimidrift	minimalno istjecanje	минимальный сдвиг	Niska kontaminacija
SOUND	Sondagens	Lucrări de sondaj	sondovacie práce	merjenje globine	lodningsarbete	mjerenja dubine	промерные работы	merjenja dubina
OTHER	Outros	Altele	iné	drugo	annat	Ostalo	другое	Ostalo
INFERS	Serviço de informações (sem relevância para a segurança e para a planificação de viagem)	Mesaj informativ (nu se referă la siguranța traficului și nu este necesar pentru planificarea voiajelor)	informačná služba (netýka sa bezpečnosti ani plánovania plavby)	informacijska služba (ki ni povezana z varnostjo in ni potrebna za načrtovanje potovanja)	informations-tjänst (inte säkerhetsrelaterad och inte nödvändig för färdplanering)	Informacijska usluga (ne odnosi se na sigurnost i nije potrebna za planiranje putovanja)	Информационная служба (не значительна для безопасности и нет необходимости в ней для планирования рейса)	usluga informisanja

Reference_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
NAP	Nap	Нов амстердамски пегел	nový amsterodamský vodočet	Normal vandstand i Amsterdam	Normaler Amsterdamer Pegel	Κανονική στάθμη υδάτων Άμστερνταμ	Nivel normal de Amsterdam	Nap
KP	kp	Πегел на канала	kanálový vodočet	kp	Kanalpegel	Στάθμη υδάτων καναλιού	Nivel local	kp
FZP	fzp	Фризийски пегел	friežský vodočet	fzp	Friesischer Pegel	Στάθμη υδάτων fzp	Nivel de los canales frisonos	fzp
ADR	adria	Αδριατική система	přes Adrii	adria	über Adria	Αδριατική	Mar Adriático	adria
TAW	Taw	Общо вторично приравняване на водното ниво	druhá všeobecná úroveň vodní hladiny	Taw	2. allgemeine Wasserpassung	Δεύτερη γενική στάθμη υδάτων	2ª nivelación general	Taw
PUL	Pulkovo 1942	Пулково 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942
NGM	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm
ETRS	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89
POT	Potsdamer Datum	Координатна система Потсдам	Postupimské datum	Potsdamer Datum	Potsdamer Datum	Potsdamer Datum	Potsdamer Datum	Potsdamer Datum
LDC	Low water level Danube Commission	Ниско водно ниво по Дунавската комисия	nížký plavební stav podle Dunajské komise	Lav vandstand defineret af Donau-kommissionen	RNW gemäß Donaukommission	Χαμηλής στάθμη υδάτων, επιτροπή Δούναβη	Comisión del Danubio, nivel bajo de agua	Madala veeta- seme Doonau komisjon
HDC	High water level Danube Commission	Високо водно ниво по Дунавската комисия	nejvyšší plavební vodní stav podle Dunajské komise	Høj vandstand defineret af Donau-kommissionen	HSW gemäß Donaukommission	Υψηλή στάθμη υδάτων, επιτροπή Δούναβη	Comisión del Danubio, nivel alto de agua	Kõrge veetaseme Doonau komisjon
ZPG	zero point of gauge	Нула на пегела	nulový bod vodočtu	Profilens nulpunkt	Pegelnullpunkt	Μηδενικό σημείο μετρητή	Punto de referencia de nivel	Mõõtmiskoha nullpunkt
GLW	equivalent low water level	Изчислено ниско водно ниво	ekvivalentní nízký vodní stav	Tilsvarende lav vandstand	Gleichwertiger Wasserstand (GLW)	Ισοσύναμη χαμηλής στάθμη υδάτων	Estiaje	Madala veeta- seme ekvivalent
HSW	highest navigable water level	Най-високо навигационно водно ниво	nejvyšší plavební vodní stav	Højeste farbare vandstand	Höchster Schifffahrtswasserstand (HSW)	Υψηλότερη πλεύσιμη στάθμη υδάτων	Nivel máximo navegable	kõrgeim navigeeritav veetase
LNW	Low Navigable Water	Ниско навигационно ниво	nížký plavební vodní stav (národní)	Lav farbar vandstand	RNW (national)	Χαμηλή πλεύσιμη στάθμη υδάτων	Nivel mínimo navegable	madal navigeeritav vesi
HNW	High Navigable Water	Високо навигационно ниво	nejvyšší plavební vodní stav (národní)	Høj farbar vandstand	HSW (national)	Υψηλή πλεύσιμη στάθμη υδάτων	Nivel alto navegable	kõrge navigeeritav vesi
IGN	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69
WGS	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84
RN	normal level	Нормално ниво		Normalniveau	Normaler Pegel	Κανονική στάθμη υδάτων	Nivel normal	normaaltase

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
NAP	Nap	Côte normale d'Amsterdam	szokásos amszterdami vízszint	livello normale Amsterdam	Įprastinis Amsterdamo vandens lygis	Normālais Amsterdamas ūdens līmeņrādis	normaal Amsterdams peil	Nap
KP	kp	Côte locale	csatornavízszint	livello canale	Kanalo vandens lygis	Kanāla ūdens līmeņrādis	kanaalpeil	kp
FZP	fzp	Côte des canaux Frisons	frízföldi vízszint	livello estivo frisone	Friesch kanalo vandens lygis	Frīzijas ūdens līmeņrādis	Friesch zomerpeil	fzp
ADR	adria	Mer Adriatique	az Adriai-tenger szintje felett	livello adriatico	Adrijos sistema	Adrijas sistēma	Adriapeil	adria
TAW	Taw	2 ^e nivellement général	második általános vízszintezés	secondo livello idrometrico generale	Antrasis vandens lygio suvienodinimas	Otrā vispārējā ūdens līmeņa pielāgošana	tweede algemene waterpeil	Taw
PUL	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942
NGM	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm
ETRS	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89
POT	Potsdamer Datum	Potsdamer Datum	potsdami dátum	Potsdamer Datum	Potsdamo koordinančių sistema	Potsdamas koordinātu sistēma	Potsdamer Datum	Potsdamer Datum
LDC	Tonavan suoje-lukomission mukainen pieni vedenkorkeus	Commission du Danube, niveau bas des eaux	Duna bizottsági hajózási kisvízszint (LKHV)	livello di magra Commissione del Danubio	Žemas vandens lygis, Dunojaus komisija	Zems ūdens līmenis, Donavas komisija	laagwaterpeil Donau-commissie	Niski stan wody wg Komisji Dunajskiej
HDC	Tonavan suoje-lukomission mukainen suuri vedenkorkeus	Commission du Danube, niveau haut des eaux	Duna bizottsági hajózási nagyvízszint (LNHV)	livello di piena Commissione del Danubio	Aukštas vandens lygis, Dunojaus komisija	Augsts ūdens līmenis, Donavas komisija	hoogwaterpeil Donau-commissie	wysoki stan wody wg Komisji Dunajskiej
ZPG	vedenkorkeusmittarin nollakohta	Point de référence de niveau	vízmérce nulla pontja	zero idrometrico	Nulinis vandens lygio rodmuo	Ūdens līmeņrāža nulles punkts	referentiepunt peilschaal	punkt zerowy pomiaru
GIW	vastaava pieni vedenkorkeus	Étiage	egyenértékű kisvízszint	livello equivalente di magra	Žemo vandens lygio ekvivalentas	Minimālais ūdens līmenis	gelijkwaardige laagwaterstand	równoważny niski stan wody
HSW	suurin kulkukelpoinen vedenkorkeus	Plus hautes eaux navigables	legnagyobb hajózási vízszint (HNV)	massimo livello idrometrico navigabile	Aukščiausias laivybos vandens lygis	Augstākais kuģojamais ūdens līmenis	Hoogste scheepvaart waterstand	najwyższy stan wody dopuszczający żeglugę
LNW	Matala kulkukelpoinen vesi	Plus basses eaux navigables	hajózási kisvízszint (HKV)	livello di magra navigabile	Žemas laivybos vandens lygis	Zemākais kuģojamais ūdens līmenis	laagste scheepvaart waterstand (nationaal)	niski stan wody dopuszczający żeglugę
HNW	Korkea kulkukelpoinen vesi	Hautes eaux navigables	hajózási nagyvízszint (HNV)	livello di piena navigabile	Aukštas laivybos vandens lygis	Augsts kuģojamais ūdens līmenis	hoogste scheepvaart waterstand (nationaal)	wysoki stan wody dopuszczający żeglugę
IGN	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69
WGS	WGS 84	WGS84	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84
RN	normaali taso	Retenue normale	szokásos szint	livello idrometrico normale	Normalus lygis	Normāls ūdens līmenis	normaal peil	poziom normalny

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
NAP	Cota normal Amsterdão	Nivelul de referință Amsterdam	normálna amsterdamská úroveň hladiny	običajni vodostaj v Amsterdamu	normal nivå i Amsterdam	Normalni Amsterdamski vodomjer	новый амстердамский пегел	Normalni amsterdamski vodomer
KP	Cota local	Nivelul de referință local	prevádzková úroveň hladiny v kanáli	vodostaj v kanalu	kp	Vodomjer u kanalu	Судоходный уровень канала	Vodomer u kanalu
FZP	Cota frísia	Nivel de referință Friesland	frízská úroveň hladiny	vodostaj v Frizijskem kanalu	fzp	Vodomjer u Frizijskom kanalu	фризийский пегел	Vodomer u Frizijskom kanalu
ADR	Adriático	Marea Adriatică	výškový systém ADRIA	nivo Jadranskega morja	adria	Razina Jadranskog mora	Адриатическая система	Nivo Jadranskog mora
TAW	Tweede algemene waterpeil (segundo nivelamento geral)	Al doilea nivel de referință	druhá všeobecná úroveň vodnej hladiny	drugi običajni nivo	Taw	Druga opća razina	общее вторичное приравнение водного уровня	Drugi opšti nivo
PUL	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Pulkovo 1942	Пулково 1942	Pulkovo 1942
NGM	Ngm	Ngm	Ngm	Ngm	Ngm	Ngm	Нгм	Ngm
ETRS	Etrs89	Etrs 89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89	Etrs89
POT	Potsdamer Datum	Potsdam Datum	Potsdamer Datum	Potsdamer Datum	Potsdamer Datum	Potsdamer Datum	Координатная система Потсдам	Potsdamer Datum
LDC	Nível baixo da água, Comissão do Danúbio	Nivelul apei minim — Comisia Dunării	hladina nižkej regulačnej a plavebnej vody	nizek vodostaj po Donavski komisiji	lågvattnennivå enligt Donaukommissionen	Nizak vodostaj po Dunavskoj komisiji	Низкая вода уровня ДК	Nizak vodostaj po Dunavskoj komisiji
HDC	Nível alto da água, Comissão do Danúbio	Nivelul apei maxim — Comisia Dunării	hladina vysokej plavebnej vody	visok vodostaj po Donavski komisiji	Högvattennivå enligt Donaukommissionen	Visok vodostaj po Dunavskoj komisiji	Высокая вода уровня ДК	Visok vodostaj po Dunavskoj komisiji
ZPG	Ponto zero do fluviómetro	0 Miră	nulový bod mernej stanice	ničelna točka vodomera	ämningens nollpunkt	Nulta točka vodomjerne letve	ноль уровня	Nulta tačka vodomera
GIW	Nível baixo equivalente da água	Nivelul apei minim echivalent	ekvivalentná nízka vodná hladina	ekvivalent nizkega vodostaja	ekvivalent lågvattennivå	ekvivalentni niski vodostaj	Минимальный уровень	Ekvivalent niskom vodostaju
HSW	Nível máximo navegável	Cel mai mare nivel al apei pentru navigație	najvyššia plavebná hladina	najvišji vodostaj, pri katerem je mogoča plovba	högsta navigerbara vattennivå	Maksimalni vodostaj dovoljene plovidbe	Наивысший судоходный уровень	Najviši vodostaj za navigaciju
LNW	Nível mínimo navegável	Nivelul apei minim pentru navigație	nízka plavebná hladina	nizek vodostaj, pri katerem je mogoča plovba	låg navigerbart vatten	Niski vodostaj dovoljene plovidbe	Минимальный судоходный уровень	Nizak vodostaj, navigacija moguća
HNW	Nível alto navegável	Nivelul apei maxim pentru navigație	vysoká plavebná hladina	visok vodostaj, pri katerem je mogoča plovba	högt navigerbart vatten	Visoki vodostaj dovoljene plovidbe	максимальный судоходный уровень	Visok vodostaj, navigacija moguća
IGN	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69	IGN 69
WGS	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84	WGS 84	WGS84	WGS 84
RN	Nível normal	Nivelul apei normal	normálna úroveň	običajen nivo	normal nivå	Normalna razina		

Regime_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
NO	Normal	Нормално водно ниво	normální vodní stav	Normal vandstand	Regime: normaler Wasserstand	Κανονική	Normal	Tavaline
HI	High	Високи води	velká voda (povodeň)	Højvande	Hochwasser	Υψηλή	Alto	Kõrge
II	prohibitory water level	Възпрепятствашо водно ниво	vodní stav, při kterém se zastavuje plavba	Vandstand, hvor sejlads forbydes	Marke II	Απαγορευτική στάθμη υδάτων	Nivel de agua de prohibición	Keelatud veetase
I	water level of cautious navigation	Водно ниво, изискващо внимателна навигация	vodní stav vyžadující zvýšenou nautickou pozornost	Vandstand, hvor sejlads udføres med særlig agtpågivenhed	Marke I	Στάθμη υδάτων προσεκτικής ναυσιπλοΐας	Nivel de agua para navegación prudente	Ettevatliku laevatamise veetase
NN	normal water level for navigation	Нормално водно ниво за навигация	normální vodní stav pro plavbu	Normal vandstand for skibsfart	normaler Schifffahrtswasserstand	Κανονική στάθμη υδάτων ναυσιπλοΐας	Nivel de agua normal para navegación	Laevatamiseks normaalne veetase

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
NO	Normaali	Hauteur d'eau normale	normál vízállás	normale	Normalus vandens lygis	Normāls ūdens līmenis	regime is normaal	normalny
HI	Suuri	Plus hautes eaux navigables	magas vízállás	livello idrometrico elevato	Aukštas vandens lygis	Augsts ūdens līmenis	hoogwaterregime	wysoki
II	kiellon aiheuttava vedenkorkeus	Niveau d'eau d'interdiction	tilalmi vízszint	livello idrometrico proibitivo	Laivybą draudžiantis vandens lygis	Ūdens līmenis, kurā kuģošana aizliegta	waterstand met vaarverbod (Marke II)	stan wody uniemożliwiający żeglugę
I	varovaista liikumista edellyttävä vedenkorkeus	Niveau d'eau nécessitant une navigation prudente	kíméletes hajózási vízszint	livello idrometrico di prudenza per la navigazione	Laivybai pavojingas vandens lygis	Ūdens līmenis bīstams kuģošānai	waterstand met beperkte scheepvaart (Marke I)	stan wody wymagający ostrożnej żeglugi
NN	normaali vedenkorkeus alusliikenteelle	Niveau normal de navigation	normál hajózási vízszint	livello idrometrico normale per la navigazione	Laivybai tinkamas vandens lygis	Normāls ūdens līmenis kuģošānai	normaal waterpeil voor scheepvaart	normalny stan wody do żeglugi

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
NO	Nível da água normal	Nivelul normal	normálny vodný stav	normalen	normal	Režim: normalni vodostaj	Нормальный уровень	Normalan režim
HI	Nível da água alto	Nivelul maxim navigabil	vysoký vodný stav	visok	hög	Režim: visoke vode	Высокая вода	Visok vodostaj
II	Nível da água que impossibilita a navegação	Nivelul apei restrictiv pentru navigație	vodný stav, pri ktorom je zakázaná plavba	vodostaj, ki ne dovoljuje plovbe	förbud p.g.a. vattennivån	Vodostaj zabrane plovidbe	уровень запрещающий навигацию	Vodostaj koji ne dozvoljava navigaciju
I	Nível da água que obriga a navegação prudente	Nivelul apei de precauție pentru navigație	vodný stav pre opatrnú plavbu	vodostaj, ki zahteva previdno plovbo	försiktig navigering p.g.a. vattennivån	Vodostaj oprezne plovidbe	уровень опасный для навигации	Vodostaj koji zahteva opreznu navigaciju
NN	Nível da água normal para a navegação	Nivelul apei normal pentru navigație	normálny vodný stav pre plavbu	normalen vodostaj za plovbo	normal vattennivå för trafik	Vodostaj normalne plovidbe	обычный уровень	Normalni vodostaj za navigaciju

Reporting_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
INF	Information	Информация	informace	Informationspunkt	Informationspunkt	Πληροφορίες	Información	Teave
ADD	Additional duty to report	Допълнително съобщение е задължително	dodatečná povinnost hlášení	Yderligere rapporteringspligt	zusätzliche Meldepflicht	Πρόσθετο καθήκον αναφοράς	Obligación adicional de notificación	Täiendav tollimaks teatada
REG	Regular duty to report	Обичаен режим за съобщение	normální povinnost hlášení	Normal rapporteringspligt	normale Meldepflicht	Κανονικό καθήκον αναφοράς	Obligación normal de notificación	Tavatollimaks teatada

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
INF	Tiedot	Point d'information	információ	informazione	Informacija	Informācijas punkts	informatiepunt	punkt informacyjny
ADD	Ylimääräinen raportointivelvollisuus	Obligation complémentaire d'annonce	kiegészítő bejelentkezési kötelezettség	obbligo di ulteriore segnalazione	Privalomas papildomas pranešimas	Papildu ziņošanas pienākums	extra meldplicht	obowiązek dodatkowego meldowania
REG	Säännöllinen raportointivelvollisuus	Obligation d'annonce normale	bejelentkezési kötelezettség	regime normale di segnalazione	Įprastos pranešimo režimas	Pastāvīgas ziņošanas pienākums	normale meldplicht	obowiązek regularnego meldowania

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
INF	Informação	Punct de informare	informácie	informacije	information	Informacijski	Пункт информации	Mesto za informacije
ADD	Obrigação adicional de comunicação	Anunț adițional	dodatočná povinnosť hlásenia	dodatna obveznost poročanja	extra rapporteringsskyldighet	Dodatna obveza izvješćivanja	Дополнительное извещение обязательно	Dodatna obaveza prijave
REG	Obrigação normal de comunicação	Anunț normal	normálna povinnosť hlásenia	običajna obveznost poročanja	regelbunden rapporteringskyldighet	Redovna obveza izvješćivanja	Обычный режим извещения	Redovna obaveza prijave

Subject_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
OBSTRU	Blockage	Препятствие	uvávěra	Blokering	Sperre	Φραγμένο	Obstrucción	Blokeerimine
PAROBS	Partial obstruction	Частично препятствие	částečná uzavěra	Delvis blokering	teilweise Sperre	Μερική παρεμπόδιση	Obstrucción parcial	Osaline takistus
DELAY	Delay	Закъснение	zpoždění	Forsinkelse	Verzögerung	Καθυστέρηση	Retraso	Hilinemine
VESLEN	Vessel Length	Дължина на плавателния съд	délka plavidla	Fartøjets længde	Schiffslänge	Μήκος σκάφους	Eslora	Laeva pikkus
VESHEI	Vessel air draught	Височина на плавателния съд	výška plavidla	Fartøjets højde over vandlinjen	Schiffshöhe	Μέγιστο ύψος άνωθεν της ισάλου γραμμής	Altura de la obra muerta	Laeva kõrgus veepinnast
VESBRE	Vessel breadth	Широчина на плавателния съд	šířka plavidla	Fartøjets bredde	Schiffsbreite	Μέγιστο πλάτος σκάφους	Manga	Laeva laius
VESDRA	Vessel draught	Газене на плавателния съд	ponor plavidla	Fartøjets dybgang	Schiffstiefgang	Βύθισμα σκάφους	Calado	Laeva süvis
AVALEN	Available length	Разполагаема дължина	povolená délka	Disponibel længde	verfügbare Länge	Διαθέσιμο μήκος	Eslora disponible	Kasutatav pikkus
CLEHEI	Clearance height	Свободна височина	podjezdni výška	Frigang i højden	Durchfahrts-höhe	Ελεύθερο ύψος διέλευσης	Gálibo vertical	Kuja kõrgus
CLEWID	Clearance width	Свободна ширина	povolená šířka	Frigang, bredde	verfügbare Breite	Ελεύθερο πλάτος διέλευσης	Gálibo horizontal	Kuja laius
AVADEP	Available depth	Възможно газене	využitelná hloubka	Vanddybde	verfügbare Tiefe	Διαθέσιμο πλάτος	Profundidad disponible	Kasutatav sügavus
NOMOOR	No mooring	Забранено швартоването	zákaz přistávání	Fortøjning forbudt	Anlegeverbot	Απαγόρευση αγκυροβολίας	Prohibición de amarre	Sildumine keelatud
SERVIC	Limited service	Ограничено обслужване	provoz omezen	Begrænset betjening	Betrieb eingeschränkt	Περιορισμένη υπηρεσία	Servicio limitado	Piiratud teenindus
NOSERV	No service	Няма обслужване	provoz zastaven	Ingen betjening	Betriebssperre	Καμία υπηρεσία	Interrupción del servicio	Ei teenindata
SPEED	Speed	Скорост	nejvyšší rychlost	Hastighedsbegrænsning	Höchstgeschwindigkeit	Ταχύτητα	Límite de velocidad	Kiirus
WAVWAS	No wash of waves	Забранено създаване на вълни	zabraňte vlnobití	Undgå at lave efterdønninger	Wellenschlag vermeiden	Απαγόρευση πρόκλησης κυματισμών	No crear oleaje	Ei tekita voolu
PASSIN	No passing	Забранено преминаването	zákaz potkávání	Passage er ikke tilladt	Begegnungsverbot	Απαγόρευση διέλευσης	Prohibido el paso	Läbimine keelatud
ANCHOR	No anchoring	Забранено хвърляне на котва	zákaz kotvení	Opankring ikke tilladt	Ankerverbot	Απαγόρευση αγκυροβολίας	Prohibido fondhear	Ankrusse jäämine keelatud
OVRTAK	No overtaking	Забранено изпреварването	zákaz předjíždění	Overhaling ikke tilladt	Überholverbot	Απαγόρευση προσπέρασης	Prohibido adelantar	Möödasõit keelatud
MINPWR	Minimum power	Минимална мощност	minimální výkon	Minimum kraft	Mindestantriebsleistung	Ελάχιστη ισχύς	Potencia mínima	Minimaalne võimsus
DREDGE	Dredging	Драгажни работи	bagrovací práce	Opmudring	Baggerarbeiten	Βυθοκόρηση	Dragado	Süvendus
WORK	Work	Работи (действия)	práce	Arbejder	Arbeiten	Εργασίες	Obras	Töötamine
EVENT	Event	Случай	uspořádání akce	Begivenhed	Veranstaltung	Συμβάν	Suceso	Sündmus
CHGMAR	Change marks	Изменение в знаците	změna značení	Ændret signalering	Verkehrszeichen geändert	Αλλαγή σημείων	Cambio de señalización	Muudatustähis
CHGSER	Change service	Изменение в услугите	provoz změněn	Ændret betjening	Betrieb geändert	Αλλαγή υπηρεσίας	Cambio de servicio	Vahetusteenindus
SPCMAR	Special marks	Специална сигнализация	zvláštní znaky	Særlig signalering	besondere Zeichen	Ειδικά σημεία	Señalización especial	Eritähised
EXERC	Exercises	Упражнения	cvičení	Øvelser	Übungen	Ασκήσεις	Ejercicios	Õppused
LEADEP	Least depth sounded	Минимална дълбочина	minimální hloubka	Mindste loddede dybde	minimale Tiefe	Μικρότερο μετρηθέν βάθος	Profundidad mínima medida	Looditud väikseim sügavus

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
OBSTRU	Este	Restriction	zárlat	interruzione	Blokavimas	Bloķēts	stremming	zamknięcie
PAROBS	Osittainen este	Restriction partielle	részleges tilalom	ostruzione parziale	Dalinis blokavimas	Dalēji bloķēts	gedeeltelijke stremming	częściowe zamknięcie
DELAY	Viivästys	Délai	késedelem	ritardo	Delsa	Aizkavējums	oponthoud	opóźnienie
VESLEN	Aluksen pituus	Longueur du bateau	hajó hossza	lunghezza del natante	Laivo ilgis	Kuģa garums	scheepslengete	długość statku
VESHEI	Aluksen suurin korkeus vedenpinnasta	Tirant d'air du bateau	hajó magassága	altezza del natante dal pelo d'acqua	Laivo aukštis virš vandens	Kuģa viršūdens augstums	scheepshoogte	wysokość statku
VESBRE	Aluksen leveys	Largeur du bateau	hajó szélessége	larghezza del natante	Laivo plotis	Kuģa platums	scheepsbreedte	szerokość statku
VESDRA	Aluksen syväys	Tirant d'eau du bateau	hajó merülése	pescaggio del natante	Laivo grimzlė	Kuģa iegrimē	diepgang	zanurzenie statku
AVALEN	Käytettävissä oleva pituus	Longueur maximale	rendelkezésre álló hosszúság	lunghezza massima ammessa	Leistinas ilgis	Pielaujamais garums	doorvaartlengete	długość użytkowa
CLEHEI	Alikulkukorkeus	Tirant d'air maximal	szabad úrszelvénymagasság	tirante d'aria	Leistinas aukštis	Pielaujamais augstums	doorvaarthoogte	wysokość w świetle
CLEWID	Käytettävissä oleva leveys	Largeur maximale	hasznos szélesség	larghezza massima della via navigabile	Leistinas plotis	Pielaujamais platums	doorvaartbreedte	szerokość w świetle
AVADEP	Käytettävissä oleva syväys	Tirant d'eau maximal	rendelkezésre álló vízmélység	pescaggio massimo	Esamas gylis	Ūdens dziļums	beschikbare waterdiepte	głębokość użytkowa
NOMOOR	Kiinnittymien kielletty	Interdiction d'amarrage	veszteglési tilalom	divieto di ormeggio	Draudžiama švartuotis	Pietauvošanās aizliegta	afmeerverbod	zakaz cumowania
SERVIC	Rajoitettu palvelu	Exploitation limitée	korlátozott üzem	servizio limitato	Ribotas aptarnavimas	Ierobežots pakalpojums	beperkte service	usługa ograniczona
NOSERV	Ei palvelua	Manceuvre interrompue	üzemszünet	nessun servizio	Neaptarnaujama	Pakalpojums nav pieejams	geen bediening	usługa niedostępna
SPEED	Nopeus	Limite de vitesse	sebességkorlátozás	velocità	Ribojamas greitis	Ātruma ierobežojums	snelheidsbeperking	ograniczenie szybkości
WAVWAS	Voimakkaan aallokon tuottaminen kielletty	Remous interdits	hullámkeltést elkerülni	divieto di moto ondoso		Neradīt viļņus	hinderlijke waterbeweging vermijden	zakaz tworzenia fal
PASSIN	Ei läpikulkua	Trématage interdit	találkozás tilos	divieto di transito	Plaukti draudžiama	Aizliegts šķērsot	ontmoeten verboden	zakaz wymijania
ANCHOR	Ei ankkuroitumista	Mouillage interdit	horgonyozni tilos	divieto di ancoraggio	Draudžiama nuleisti inkara	Noenkuroties aizliegts	ankeren verboden	zakaz kotwiczenia
OVRTAK	Ei ohittamista	Trématage interdit	előzni tilos	divieto di sorpasso	Draudžiama lenkti	Apdzīt aizliegts	voorbijlopen verboden	zakaz wyprzedzania
MINPWR	Vähimmäisteho	Puissance minimale	minimális teljesítmény	potenza minima	Mažiausia galia	Minimālā jauda	minimaal vermogen	minimalna moc napędu
DREDGE	Ruoppaustyöt	Dragage	kotrási munkálatok	dragaggio	Dugno gilinimas	Bagarēšanas darbi	baggerwerkzaamheden	pogłębianie
WORK	Työt	Travaux	munkálatok	lavori	Darbai	Darbs	werkzaamheden	prace
EVENT	Tapahtumat	Événement	rendezvény	manifestazione	Įvykis	Pasākums	evenement	impreza
CHGMAR	Merkki muutuneet	Signalisation modifiée	forgalmi jelek változtatása	segnaletica modificata	Ženklių keitimasis	Mainītas zīmes	gewijzigde markering	zmiana oznakowania
CHGSER	Palvelu muutunut	Manceuvre des ouvrages modifiée	üzemidő változtatása	regime modificato	Aptarnavimo pasikeitimai	Pakalpojums mainīts	gewijzigde bediening	zmiana obsługi
SPCMAR	Erikoismerkit	Signalisation spéciale	speciális jelek	segnaletica speciale	Specialieji ženklai	Īpašās zīmes	bijzondere markering	znaki specjalne
EXERC	Harjoitukset	Exercices	gyakorlatok	esercitazioni	Pratybos	Vingrinājumi	oefeningen	ćwiczenia
LEADEP	Matalin luodattu syvyys	Profondeur minimale	minimális mélység	profondità minima rilevata	Mažiausias gylis	Mazākais izmērtais dziļums	minst gepeilde diepten	najmniejsza zmierzona głębokość

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
OBSTRU	Obstrução	Restricție	blokáda	zapora	blockering	Prepreka	Закрыто	Prepreka
PAROBS	Obstrução parcial	Restricție parțială	častočné prekážky	delna zapora	delvis obstruktion	Djelomična prepreka	Частично закрыто	Delimična prepreka
DELAY	Demora	Întârziere	meškanie	zamuda	försening	Kašnjenje	Задержка	Kašnjenje
VESLEN	Comprimento (embarcação)	Lungimea navei	dĺžka plavidla	dolžina pločila	fartygslängd	Duljina broda	Длина судна	Dužina plovila
VESHEI	Altura acima linha de água (embarcação)	Înălțimea deasupra liniei de plutire	výška plavidla	prosta višina plovila	fartygets höjd över vattenytan	Visina najviše fiksne točke broda iznad vode	Высота судна	Visina plovila
VESBRE	Boca (embarcação)	Lățimea navei	šírka plavidla	širina plovila	fartygsbredd	Širina broda	Ширина судна	Širina plovila
VESDRA	Calado (embarcação)	Pescajul navei	ponor plavidla	ugrez plovila	fartygets djupgående	Gaz broda	Осадка	Gaz plovila
AVALEN	Comprimento disponível	Lungimea admisă	povolená dĺžka	razpoložljiva dolžina	tillgänglig längd	Raspoloživa duljina	Ограничение длины	Raspoloživa dužina
CLEHEI	Altura livre	Gabaritul de înălțime	podjazdná výška	prosta višina prehoda	frihöjd	Visina plovnog otvora	ограничение высоты	Slobodna visina
CLEWID	Largura livre	Gabaritul de lățime	prejazdná šířka	prosta širina prehoda	farledsbredd	Širina plovnog otvora	Ограничение ширины	Slobodna širina
AVADEP	Profundidade disponível	Adâncimea disponibilă	dostupná hĺbka	razpoložljiva globina	tillgängligt djup	Raspoloživa dubina	Существующая глубина	Raspoloživa dubina
NOMOOR	Proibição de amarrar	Interdicție de acostare	zákaz vyvážování	prepovedan privez	förtöjning förbjuden	Zabranjen vez	Швартовка запрещена	Zabranjeno vezivanje
SERVIC	Serviço limitado	Manevră restricționată	obmedzená prevádzka	omejena storitev	begränsad service	Ograničena usluga	Ограниченное обслуживание	Ograničena usluga
NOSERV	Interrupção do serviço	Manevră interzisă	zastavená prevádzka	ni storitve	serviceförbud	Nema usluge	Не обслуживаемое	Bez usluge
SPEED	Limite de velocidade	Limită de viteză	najvyššia povolená rýchlosť	hitrost	hastighet	Brzina	Ограничение скорости	Brzina
WAVWAS	Não causar ondulação	Formarea valurilor interzisă	zákaz vlnobítia	prepovedano povzročanje valov	undvik svall	Zabranjeno pravljenje valova	Берегись волны	Zabranjeno pravljenje talasa
PASSIN	Proibição de passar	Traversarea interzisă	zákaz preplávania	prepovedan prehod	passering förbjuden	Zabranjen prolaz	Нет прохода	Zabranjen prolaz
ANCHOR	Proibição de ancorar	Ancorarea interzisă	zákaz kotvení	prepovedano sidranje	ankring förbjuden	Zabranjeno sidrenje	Якорная стоянка запрещена	Zabranjeno sidrenje
OVRTAK	Proibição de cruzar ou ultrapassar	Depășirea interzisă	zákaz předcházání	prepovedano prehitevanje	omkörning förbjuden	Zabranjeno pretjecanje	Обгон запрещен	Zabranjeno prestizanje
MINPWR	Potência mínima	Putere minimă	minimálny výkon	najmanjša moč	minsta motoreffekt	Minimalna snaga	минимальная мощность	Minimalna snaga
DREDGE	Dragagens	Lucrări de dragaj	bagrovacie práce	poglabljanje dna	muddring	Bageriranje	Встречное движение	Bagerovanje
WORK	Trabalhos	Lucrări	práce	delo	arbeten	Radovi	Прооветятся работы	Radovi
EVENT	Evento	Eveniment	udalosť	prireditve	evenemang	Događaj	Мероприятие	Događaj
CHGMAR	Alteração da sinalização	Semnalizare modificată	zmena značenia	sprememba oznak	ändrad märkning	Promjena navigacijske oznake	Изменение знаков	Promena oznaka
CHGSER	Alteração do serviço	Manevre modificate	zmena prevádzkových hodín	sprememba storitve	förändrad drift	Promjena usluge	Изменение часов работы	Promena usluge
SPCMAR	Sinalização especial	Semnalizare specială	špeciálne značenie	posebne oznake	särskilda markeringar	Posebne oznake	Специальные знаки	Posebne oznake
EXERC	Exercícios	Exerciții	cvičenia	vaje	övningar	Vježbe	упражнения	Vežbe
LEADEP	Profundidade mínima medida	Adâncime minimă	minimálna hĺbka	najmanjša izmerjena globina	minsta lodade djup	Minimalna dubina	Последнее зафиксированное значение глубины	Najmanja izmerena dubina

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
LEVDEC	Decreasing water level	Намаляващо водно ниво	klesající vodní stav	Faldende vandstand	fallender Wasserstand	Μειούμενη στάθμη υδάτων	Nivel de agua en descenso	Veetaseme alanemine
LEVRIS	Rising water level	Растящо водно ниво	stoupající vodní stav	Stigende vandstand	steigender Wasserstand	Αυξανόμενη στάθμη υδάτων	Nivel de agua en ascenso	Veetaseme tõusmine
ANNOUN	Announcement	Обява	zpráva	Meddelelse	Nachricht	Αγγελία	Aviso	Teadaanne
LIMITA	Limitations	Ограничение	omezení	Begrænsninger	Einschränkungen	Περιορισμοί	Limitaciones	Piirangud
CANCEL	Notice withdrawn	Анулирано съобщение	zpráva byla zrušena	Efterretning trukket tilbage	Nachricht aufgehoben	Απόσυρση αγγελίας	Anuncio anulado	Kehtetu mär-guanne
MISECH	False radar echos	Грешно радарно ехо	falešná ozvěna	Falsk radar-ekko	Geisterechos	Εσφαλμένα σήματα ραντάρ	Ecos radar falsos	Radari vale kajesignaal
ECDISU	Inland ECDIS update	Обновяване на ECDIS	aktualizace informací Inland ECDIS	Inland ECDIS update	Inland-ECDIS Update	Επικαιροποίηση ECDIS εσωτερικής ναυσιπλοΐας	Actualización ECDIS fluvial	Uuendatud sisemaine ECDIS
NEWOBJ	New object	Нов обект	nový objekt	Nyt objekt	neues Objekt	Νέο αντικείμενο	Nuevo objeto	Uus ese
WARNIN	Warning	Внимание	varování	Advarsel	Warnung	Προειδοποίηση	Alarma	Hoiatus
CHWWY	changing in the waterway	Промени във водния път	změna na vodní cestě	Ændring af farvandet	Änderung der Wasserstraße	Αλλαγή εντός πλωτής οδού	Cambio en la vía navegable	Veetee muutmine
CONWWY	constriction of waterway	Строителни работи по водния път	zúžení vodní cesty	Indsnævring af vandvejen	Einengung der Wasserstraße	Κατασκευή πλωτής οδού	Estrechamiento de vía navegable	Veetee konstriksioon
DIVER	diver under the water	Водолазни работи	práce pod vodou	Dykkere i vandet	Arbeiten unter Wasser	Υποβρύχιες εργασίες	Presencia de submarinistas	Tuuker vee all
SPECTR	special transport	Специализиран транспорт	zvláštní přeprava	Særlig transport	Sondertransport	Ειδικές μεταφορές	Transporte especial	Erivedu
LOCRUL	local rules of traffic	Местни (локални) правила за движение	místní úprava plavebních předpisů	Lokale trafikregler	lokal gultige Verkehrsvorschriften	Τοπικοί κανόνες κυκλοφορίας	Normas locales de tráfico	Kohalikud liikluseeskirjad
VHFCOV	Radio coverage	Радиопокрытие (обхват)	rádiové pokrytí	Radiodækning	Funkabdeckung	Κάλυψη ασυρμάτου	Cobertura de radio	Raadio leviala
HIGVOL	High voltage conduction	Високо напрежение	vedení vysokého napětí	Højspændingskabler	Hochspannung	Αγωγός υψηλής τάσης	Línea de alta tensión	Kõrgepingejuhtivus

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
LEVDEC	Vedenkorkeus laskee	Décruce	csökkenő vízállás	livello idrometrico in diminuzione	Mažėjantis vandens lygis	Krītošs ūdens līmenis	afnemend water	spadek stanu wody
LEVRIS	Vedenkorkeus nousee	Eaux montantes	emelkedő vízállás	livello idrometrico in aumento	Kylantis vandens lygis	Kāpjošs ūdens līmenis	wassend water	wzrost stanu wody
ANNOUN	Ilmoitus	Annonce	hirdetmény	annuncio	Pranešimas	Paziņojums	mededeling	komunikat
LIMITA	Rajoitukset	Limitations	korlátozás	limitazioni	Apribojimai	Ierobežojumi	beperkingen	ograniczenia
CANCEL	Ilmoitus peruutettu	Avis annulé	hirdetmény visszavonva	segnalazione revocata	Atšauktas pranešimas	Paziņojums atcelts	bericht ingetrokken	komunikat odwołany
MISECH	Virheellisiä tutkakaikuja	Faux échos radar	hamis radar-visszhangok	rilevazioni radar distorte	Klaidingi radaro rodmenys	Maldīgs radara ehosignāls	valse echo's	fałszywe echa radarowe
ECDISU	Sisävesiliikenteen ECDIS:n päivitys	Mise à jour des données Inland ECDIS	Inland ECDIS-frissítés	aggiornamento ECDIS interno	Inland ECDIS informacijos atnaujinimas	Inland ECDIS informācijas atjaunošana	Inland ECDIS update	aktualizacja Inland ECDIS
NEWOBJ	Uusi kohde	Nouvel objet	új objektum	nuovo oggetto	Naujas objektas	Jauns objekts	nieuw object	nowy obiekt
WARNIN	Varoitukset	Avertissement	figyelmeztetés	allerta	Išpėjimas	Brīdinājums	waarschuwing	ostrzeżenie
CHWWY	vesiväylän muutos	Modification de la passe navigable	hajóútváltozás	modifica della via navigabile	Pakeitimai vandens kelyje	Izmaiņas kuģu ceļā	verandering van de vaarweg	zmiany toru wodnego
CONWWY	vesiväylän kaventuminen	Rétrécissement de la passe navigable	hajóútszűkület	strettoia	Vandens kelio susiaurėjimas	Ūdens ceļa sašaurinājums	beperking van de vaarweg	zweżenie toru wodnego
DIVER	sukeltaja veden alla	Plongeurs au travail	víz alatti munkák	sommozzatore in immersione	Vandenyje naras	Ūdenslidēju darbi	duikwerkzaamheden	nurek pod wodą
SPECTR	erikoiskuljetus	Transport spécial	különleges szállítás	trasporto speciale	Specialus transportas	Īpašs transports	bijzonder transport	transport specjalny
LOCROL	paikalliset liikennöintisäännöt	Règlements de navigation locaux	helyi közlekedési rend (R)	regole di traffico locali	Vietinės laivų eismo taisyklės	Vietēji satiksmes noteikumi	lokale scheepvaart voorschriften	miejscowe przepisy ruchu statków
VHFCOV	Radion kuuluuusalue	Couverture radio	rádiós lefedettség	copertura radio	Radiojo ryšio zona	Radiosignālu pārklājums	radiobereik	pokrycie radiowe
HIGVOL	Korkeajännitejohto	Ligne haute tension	nagy feszültségű átfeszítés	alta tensione	Aukštos įtampos linijos	Augstspriegums	hoogspanning	linia wysokiego napięcia

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
LEVDEC	Descida do nível da água	Scăderea nivelului apei	klesajúca vodná hladina	nižanje vodostaja	sjunkande vattennivå	Vodostaj u opadanju	Падающий уровень воды	Spuštanje vodostaja
LEVRIS	Subida do nível da água	Creșterea nivelului apei	stúpajúca vodná hladina	višanje vodostaja	stigande vattennivå	Vodostaj u porastu	Повышающийся уровень	Porast vodostaja
ANNOUN	Comunicado	Anunț	oznámenie	obvestilo	meddelande	Najava	Оповещение	Najava
LIMITA	Restrições	Limitări	prekážka	omejitve	begränsningar	Zapreka	Ограничение	Ograničenje
CANCEL	Aviso anulado	Aviz anulat	správa bola vyzdvihnutá	obvestilo preklicano	återkallad märkning	Povučena obavijest	Отмена	Opoziv obaveštenja
MISECH	Ecos radar falsos	Ecou radar fals	falošná odozva	napačni odmev sonarja	falska radar-ekon	Pogrešan odziv	Закрыто для радара	Lažni odziv
ECDISU	Atualização ECDIS-Fluvial	Actualizarea datelor ECDIS	aktualizácia Inland ECDIS	posodobitev celinskega ECDIS	uppdatering av inlands-ECDIS	Nadopuna Inland ECDIS	Обновление Inland ECDIS информации	Ažuriranje Inland ECDIS
NEWOBJ	Novo objecto	Obiect nou	nový objekt	nov objekt	nytt föremål	Novi objekt	Новый объект	Novi objekat
WARNIN	Alerta	Avertisment	varovanie	opozorilo	varning	Upozorenje	Предупреждение	Upozorenje
CHWWY	Alterações na via navegável	Modificări ale căii navigabile	zmeny na vodnej ceste	spremembe na vodni poti	ändring av farleden	Promjene na plovnom putu	Изменение фарватера	Promene u rečnom toku
CONWWY	Estreitamento da via navegável	Îngustarea căii navigabile	zúženie vodnej cesty	zožanje vodne poti	smalare farled	Suženje plovnog puta	строительство фарватера	Suženje rečnog toka
DIVER	Presença de mergulhadores	Scafandru în apă	práce pod vodou	dela pod vodo	dykare i vattnet	Ronilac pod vodom	водолаз под водой	Ronilac pod vodom
SPECTR	Transporte especial	Transport special	špeciálna preprava	posebni prevoz	specialtransport	Poseban transport	Специальная перевозка	Specijalni transport
LOCRUL	Regras de tráfego locais	Regulamente locale de trafic	lokálne pravidlá plavby	lokalna prometna pravila	lokala trafikregler	Lokalni prometni propisi	Местные правила движения	Lokalna pravila saobraćaja
VHFCOV	Cobertura rádio	Acoperire radio	rádiové pokrytie	pokritost radijskih zvez	radiotäckning	Radijska pokrivenost	Покрытие радиосигналом	Radio
HIGVOL	Linha de alta tensão	Linie de înaltă tensiune	vedenie vysokého napätia	visoka napetost	högspänningsledning	Visoki napon	высоковольтный кабель	Visoki napon

Target_group_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
ALL	All	Всички	všichni	Alle	alle	Όλα	Todos	Kõik
CDG	Commercial vessels with dangerous goods	Търговски кораб, превозващ опасни товари	obchodní loď s nákladem nebezpečných věcí	Handelsskibe med farligt gods	kommerzielle Fahrzeuge mit gefährlichen Gütern	Εμπορικά σκάφη με επικίνδυνο φορτίο	Embarcaciones comerciales con mercancías peligrosas	Ohtliku lastiga kaubalaev
COM	Commercial vessels	Търговски кораб	obchodní loď	Handelsskibe	kommerzielle Fahrzeuge	Εμπορικά σκάφη	Embarcaciones comerciales	Kaubalaevad
PAX	Passenger vessels	Пътнически кораб	osobní loď	Passagerskibe	Fahrgastschiffe	Επιβατηγά σκάφη	Embarcaciones de pasajeros	Reisilaevad
PLE	Pleasurecraft	Спортен или увеселителен кораб	sportovní člun	Fritidsfartøjer	Sportboote	Σκάφη αναψυχής	Embarcaciones de recreo	Lõbusõidulaev
CNV	Convoys	Конвой	skupina plavidel	Konvojer	Verbände	Νηοπομπές	Convoyes	Koosseis
PUS	Pushed convoys	Конвой на тласкане	tlačná sestava	Skubbekonvojer	Schubverbände	Ωθούμενες νηοπομπές	Convoyes empujados	Tõugatav koosseis
NNU	non navigating users	Потребители извън навигация	jiní než námořní uživatelé	Brugere uden for skibsfart	andere als nautische Nutzer	Χρήση εκτός ναυσιπλοΐας	Usuarios no navegantes	Muud kasutajad, v.a alused

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
ALL	Kaikki	Tous les usagers	mindenkirevonatkozó	tutti	Visi	Visi	alle schepvaart	wszystkie jednostki
CDG	Kauppa-alukset, joissa on vaarallisia aineita	Transports de matières dangereuses	kereskedelmi hajó veszélyes áruval	natanti mercantili con carichi pericolosi	Prekybos laivai su pavojingu kroviniu	Komerckuģi ar bīstamu kravu	beroepsvaart gevaarlijke stoffen	statki handlowe przewożące ładunki niebezpieczne
COM	Kauppa-alukset	Bateau de commerce	kereskedelmi hajó	natanti mercantili	Prekybos laivai	Komerckuģi	beroepsvaart	statki handlowe
PAX	Matkustaja-alukset	Bateau à passagers	személyszállító hajó	navi passeggeri	Keleiviniai laivai	Pasažieru kuģi	passagiersschepen	statki pasażerskie
PLE	Huvialukset	Bateau de plaisance	kedvtelési célú hajó	natanti da diporto	Pramoginiai laivai	Izprieceļojumu kuģi	recreatievaart	statki rekreacyjne
CNV	Kytkeyeet	Convoi	hajókötelék	convogli	Konvojus	Karavānas	samenstel	konwoje
PUS	Työnnettyt kytkeyeet	Convois poussés	tolt kötelékek	convogli spinti	Konvojus su vilkiku	Karavānas ar stūmēju	duweenheid	konwoje pchane
NNU	muut käyttäjät kuin vesilläliikkuja	Usagers non navigants	nem hajózási használók	utilizzatori non in navigazione	Ne laivybos tikslais	Ar kuģošanu nesaistīti izmantotāji	niet nautische gebruikers	użytkownicy nieżeglujący

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
ALL	Todos os utens	Toți utilizatorii	všetci (používatelia)	vsi	alla	Sve vrste plovila	Все суда	Sve vrste plovila
CDG	Embarcações de comércio com mercadorias perigosas	Transport de materiale periculoase	obchodné lode s nebezpečným tovarom	trgovska plovila z nevarnim blagom	handelsfartyg med farlig last	Komercijalno plovilo s opasnim teretom	Торговое судно с опасным грузом	Komercijalno plovilo s opasnim teretom
COM	Embarcações de comércio	Navă comercială	obchodné lode	trgovska plovila	handelsfartyg	Komercijalno plovilo	Торговое судно	Komercijalno plovilo
PAX	Embarcações de passageiros	Navă de pasageri	osobné lode	potniška plovila	passagerarfartyg	Putničko plovilo	Пассажирское судно	Putničko plovilo
PLE	Embarcações de recreio	Navă de agrement	výletné lode	plovila, namenjena za šport in rekreacijo	fritidsbåtar	Plovilo za razonodu	Спортивное судно	Sportsko-rekreativno plovilo
CNV	Comboios	Convoi	zostavy	konvoji	konvojer	Konvoj	Караван	Sastav/Konvoj
PUS	Comboios empurrados	Convoi împins	tlačné zostavy	potisni konvoji	påskjuten konvoj	Gurani konvoj	караван с толкачем	Gurani sastav/konvoj
NNU	Utentes não navegantes	Personal nena-vigant	neplávajúci užívatelia	uporabniki, ki ne plujejo	andra än sjöfarande	Korisnici koji ne plove	для несудоходных целей	Korisnici koji nemaju navigaciju

Type_code

Value	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
RIV	River	Река	řeka	Flod	Fluss	Ποταμός	Río	Jõgi
CAN	Canal	Καναλ	kanál	Kanal	Kanal	Κανάλι	Canal	Kanal
LAK	Lake	Езеро	jezero	Sø	See	Λίμνη	Lago	Järv
FWY	Fairway	Фарватер	vodní cesta	Farvand	Fahrwasser	Δίαυλος	Vía navegable	Faarvaater
LCK	Lock	Бараж	plavební komora	Sluse	Schleuse	Υδατοφράκτης	Esclusa	Lüüs
BRI	Bridge (fixed, opening, lifting, aqueduct)	Мост — постоянен, отварящ се, повдигащ се, виадукт	most	Bro (fast, mobil, akvædukt)	Brücke	Γέφυρα (σταθερή, ανοιγόμενη, ανυψωμένη, υδραγωγός)	Puente (fijo, móvil)	Sild (fikseeritud, avatav, tõstetav, akvedukt)
RMP	Ramp	Рампа	rampa	Rampe	Rampe	Πλατοφόριο	Rampa	Ramp
BAR	Weir	Бент	jez	Overløbsdæmning	Wehr	Φράγμα ποταμού	Presa	Ülevoolupais
BNK	Bank (River bank, canal bank, lake shore)	Бряг — речен, на канал, на езеро	břeh	Bred (flodbred, kanalbred, søbred)	Ufer	Όχθη (όχθη ποταμού, όχθη καναλιού, ακτή λίμνης)	Margen (río, canal, lago)	Kallas (jõe kallas, kanali äär, järve rand)
GAU	Tide gauge	Водомерна станция	vodočet	Tidevandsmåler	Pegel	Παλirroιο-γράφος	Mareógrafo	Tõusu ja mõõna mõõtur
BUO	Buoy	Буй	bóje	Bøje	Boje	Σημαντήρας	Boyas	Poi
BEA	Beacon	Маяк	signalizační plavební znak	Fast sømærke	Bake	Υφαλοδείκτης	Balizas	Paak
ANC	Anchoring area	Κотвена стоянка	kotviště	Opankringsområde	Ankerplatz	Περιοχή αγκυροβολίας	Fondeadero	Ankruplats
BER	Berth	Κοραbно място (кей)	vývaziště	Kajplads	Liegeplatz	Αποβάθρα	Atracadero	Kai
MOO	Mooring facility	Швартово устройство	vyvazovací zařízení	Fortøjningsanlæg	Festmachereinrichtung	Εγκατάσταση πρόσδεσης	Amarradero	Sildumisrajatis
TER	Terminal	Терминал	překladiště	Terminal	Umschlagplatz	Τερματικός σταθμός	Terminal	Terminal
HAR	Harbour	Πριстаніще	přístav	Havn	Hafen	Λιμάνι	Puerto	Sadam
FDO	Floating dock	Плавач док	plovoucí dok	Flydedok	Schwimmdock	Πλωτή αποβάθρα	Muelle flotante	Ujuvdokk
CAB	Cable overhead	Далекопровод	vzdušné vedení kabelu	Luftledning	Überspannung	Εναέριο καλώδιο	Cable aéreo	Elektriliin
FER	Cable ferry	Фериботни буксирни въжета	lanová převozní loď	Kabelfærge	Seilfähre	Πορθμείο με σχοινιά	Andarivel	Kaablipraam
PIP	Pipeline	Τръбопровод	potrubí	Rørledning	Pipeline	Αγωγός	Conductos	Torujuhe
PPO	Pipeline overhead	Надземен тръбопровод	nadzemní vedení potrubí	Rørbro	Rohrbrücke	Εναέριος αγωγός	Conductos aéreos	Torustiku liin
HFA	Harbour facility	Πριстаніщно оборудване	přístavní zařízení	Havneanlæg	Hafeneinrichtung	Λιμενική εγκατάσταση	Instalación portuaria	Sadama rajatis
HMO	Harbour master's office	Капитан на пристанището	kancelář vedoucího přístavu	Havnekontor	Hafenmeisterbüro	Λιμεναρχείο	Capitanía de puerto	Sadamakapteni büroo
SHY	Shipyard	Κοραбостроителница	loděnice	Skibsværft	Werft	Ναυπηγείο	Astillero	Laevatehas
REF	Refuse dump	Сметище	sběrna odpadu	Affaldsdeponi	Abfallsammelstelle	Χώρος απόρριψης αποβλήτων	Depósito de residuos	Prahikallur
MAR	Notice mark	Информационно табло	plavební znak	Advarselsmærke	Schifffahrtszeichen	Προειδοποιητικό σημείο	Panel de señalización	Teatise tähis
LIG	Light	Светло	světlo	Lys	Licht	Φανός	Alumbrado	Tuli
SIG	Signal station	Сигнална станция	signální stanice	Signalstation	Signalstation	Σηματοφορικός σταθμός	Estación de señalización	Märguandepunkt
TUR	Turning basin	Обръщателен кръг	obratíště	Vendebassin	Wendeplatz	Λεκάνη στροφής	Cuenca de maniobra	Pöörde eeldokk
CBR	Canal bridge	Мост на канал	přemostění kanálu	Kanalbro	Kanalbrücke	Γέφυρα καναλιού	Puente canal	Kanalisild
TUN	Tunnel	Тунел	tunel	Tunnel	Tunnel	Σήραγγα	Túnel	Tunnel
BCO	Border Control	Граничен контрол	hraniční kontrola	Grænsekontrol	Grenzstation	Συνοριακός έλεγχος	Puesto fronterizo	Piirikontroll
REP	Reporting Point	Контролен пост	místo hlášení	Rapporteringspunkt	Meldepunkt	Σημείο αναφοράς	Puesto de notificación	Aruandluspunkt
FLO	Flood gate	Шлюз	ochranná vrata	Overløbslukke	Sperrtor	Θύρα υδροφράκτη	Compuertas	Tõusuveetõke

Value	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
RIV	Joki	Rivière	foljó	fiume	Upė	Upe	rivier	rzeka
CAN	Kanava	Canal	csatorna	canale	Kanalas	Kanāls	kanaal	kanal
LAK	Järvi	Bassin	tó	lago	Ežeras	Ezers	meer	jezioro
FWY	Väylä	Chenal	hajóút	canale navigabile	Farvateris	Kuģu ceļš	vaarweg	tor wodny
LCK	Sulku	Écluse	zsilip	conca	Šliuzas	Slūžas	sluis	śluza
BRI	Silta (kiinteä, avattava, nostosilta, kanavasilta)	Pont (fixe, mobile)	híd (állandó, nyitható)	ponte (fisso, mobile)	Tiltas (stacionarus, atidaro-mas, pakelia-mas, akveduk-as)	Tilts (nekustīgs, paceļams, nolaižams, akvedukts)	brug	most (stały, otwierany, zwodzony, akwedukt)
RMP	Ramppi	Plan incliné	rámpa	rampa	Rampa	Traps	helling	pochylnia
BAR	Pato	Barrage	gát	sbarramento	Užtvara	Aizsprosts	stuw	jaz
BNK	Ranta (joen, kanavan, jär-ven ranta)	Berge (de rivière, de canal, de bassin)	part	sponda (o riva, di fiume, canale, lago)	Krantas (upės krantas, kanalo krantas, ežero pakrantė)	Krasts (upes krasts, kanāla krasts, ezera krasts)	oever	brzeg (rzeki, kanału, jeziora)
GAU	Vuorovesimitari	Échelle/Marégraphe	vízmérce	mareometro	Mareografas	Paisuma/bēguma līmeņrādis	peilschaal	plywomierz
BUO	Poiju	Bouée	bója	boa	Plūduras; buja	Boja	boei	boja
BEA	Merimerkki	Balise	parti (irány)jel	gavitello	Švyturio žibintas	Bāka	baken	stawa
ANC	Ankkurointialue	Zone de stationnement	horgonyzóhely	area di anco-raggio	Inkaravimosi vieta	Enkurvieta	ankerplaats	kotwicowisko
BER	Laituripaikka	Point de stationnement	kikötőhely	attracco	Prieklauka	Pietauvošanas vieta	ligplaats	miejsce postoju
MOO	Kiinnittymislaitteisto	Aménagement d'amarrage	kikötőberendezés	struttura di ormeggio	Švartavimo įrenginys	Pietauvošanas ierīce	afmeerfaciliteit	cumowisko
TER	Terminaali	Terminal	rakodó	terminal	Terminalas	Termināls	terminal	terminal
HAR	Satama	Port	kikötő	porto	Uostas	Osta	haven	port
FDO	Uiva telakka	Pontons	úszódokk	bacino galleg-giante	Plūdrusis dokas	Peldošais doks	drijvend dok	dok plywający
CAB	Kaapeli ylä-puolella	Câble suspendu (chemin de câbles, lignes électriques)	átfeszítés	cavo sospeso	Iškeltas kabelis	Kabeļu pārvads	overhangende kabel	kabel napo-wietrzny
FER	Lossi	Bac à cable	köteles komp	funivia	Lyninis keltas	Prāmis ar trosi	veerpont (kabel)	prom linowy
PIP	Putkijohto	Oléoduc	csővezeték	conduttura	Vamzdynas	Caurulvads	pijpleiding	rurociąg
PPO	Putkijohto ylä-puolella	Oléoduc aérien	csőhíd	conduttura sospesa	Virš vandens iškeltas vamz-dynas	Caurulvadu pārvads	overhangende pijpleiding	rurociąg napo-wietrzny
HFA	Satamalait-teisto	Installation portuaire	kikötői létesít-mény	istallazione portuale	Uosto įranga	Ostas iekārta	havenfaciliteit	obiekt portowy
HMO	Satamakonttori	Capitainerie	kikötőkapi-tány-ság	capitaneria di porto	Uosto kapito-nas	Ostas kapteiņa dienests	havenkantoor	kapitanat portu
SHY	Telakka	Chantier naval	hajógyár	cantiere navale	Laiivų statykla	Kuģu būvētava	werf	stocznia
REF	Jäteasema	Station de col-lecte de déchets	hulladéklerakó	punto raccolta rifiuti	Išmestas gruntas	Atkritumu izgāztuve	afval afgiftepunt	wysypisko śmieci
MAR	Ilmoitusmerkki	Panneau de signalisation	hajózási jel(zés)	segnalazione	Išpėjimo ženklas	Informatīva zīme	verkeersteken	znak informa-cyjny
LIG	Valo	Feux	fény	fanale	Šviesos	Gaisma	licht	światło
SIG	Merkintanto-asema	Station de sig-nalisation	jelzőállomás	stazione di segnalamento	Signalų stotis	Signālstacija	seinstation	stacja sygna-lizacyjna
TUR	Kääntöallas	Bassin de virage	fordítóhely	bacino di manovra	Apsisukimo baseinas	Pagriešanās vieta	zwaaiikom	obrotnica
CBR	Kanavasilta	Pont canal	csatornahíd	acquedotto	Kanalo tiltas	Kanāla tilts	aqueduct	most kanałowy
TUN	Tunneli	Tunnel	alagút	tunnel	Tunelis	Tunelis	tunnel	tunel
BCO	Rajatarkastus	Poste de douane	határállomás	controllo di frontiera	Pasienio kontrolė	Robežkontrole	grensstation	kontrola gra-niczna
REP	Raportointi-piste	Poste de contrôle	jelentkezősi pont	punto di con-trollo	Kontrolės punktas	Ziņošanas vieta	meldpunt	punkt meldun-kowy
FLO	Sulkuportti	Porte de garde	zsilipkapu	paratoia	Dambos uždoris	Slūžas	keersluis	śluza

Value	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
RIV	Rio	Fluviu	rieka	reka	flod	Rijeka	Река	Reka
CAN	Canal	Canal	kanál	kanal	kanal	Kanal	Канал	Kanal
LAK	Lago	Lac	jazero	jezero	sjö	Jezero	Озеро	Jezero
FWY	Via navegável	Șenal	plavebná dráha	plovna pot	farled	Plovni put	Фарватер	Plovni put
LCK	Eclusa	Ecluză	plavebná ko-mora	zapornica	sluss	Ustava	Шлюз	Prevodnica
BRI	Ponte (fixa, móvel, aque-duto)	Pod (fix, mobil)	most (pevný, otvárací, zdví-hací, akva-dukt...)	most (fiksni, odpiranje, dvi-ganje, akva-dukt)	bro (fast, öppningsbar, lyftbro, akve-dukt)	Most	Мост	Most (fiksni, otvaranje, podi-zanje, akvadukt)
RMP	Rampa	Rampă	rampa	rampa	ramp	Rampa	Рампа	Rampa
BAR	Barragem	Baraj	hať	jez	damm	Pregrada	Плотина	Ustava
BNK	Margem (rio, canal, lago)	Mal înalt (râu, canal, bazin)	breh (breh rieký, breh kanála, breh jezera)	breg (rečni breg, breg kanala, obala jezera)	bank (flod-bank, kanal-bank, sjö-strand)	Obala	берег водоема (реки, канала, озера)	Obala (reke, kanala, jezera)
GAU	Fluviómetro/marégrafo	Miră de maree	stanica merania prilivu	vodomerna postaja	tidvattenmätare	Vodomjerna postaja	водомерная станция, водомер	Vodomerna stanica
BUO	Bóia	Geamandură	bója	plovec	boj	Plutača	Буй	Bova
BEA	Baliza	Baliză	maják	svetilnik	signalboj	Signal	Маяк	Svetionik
ANC	Ancoradouro	Sector de ancorare	kotvisko	sidrišče	ankringsområde	Područje sidrenja	Якорная стоянка	Sidrište
BER	Cais/fundea-douro	Punct de anco-rare	vývázisko lodí	privez	kaj	Vez	Причал	Privezište
MOO	Posto de amara-ção	Posibilitate de acostare	vyvážovacie zariadenie	naprava za pri-vez	förtöjningsan-läggning	Naprava za privez	Швартовое устройство	Oprema za izve-zivanje
TER	Terminal	Terminal	terminál	terminal	terminal	Terminal	Терминал	Terminal
HAR	Porto	Port	prístav	pristanišče	hamn	Luka	Гавань	Luka
FDO	Doca flutuante	Ponton	plávající dok	plavajoči dok	flytdocka	Plutajući dok	плавающий док	Ploveći dok
CAB	Cabo aéreo	Cablu suspen-dat	vzdušné vede-nie kábla	zračni daljno-vod	luftledning	Viseći daleko-vod	оконечность кабеля	Dalekovod
FER	Ferry de cabo	Bac pe cablu	lanová prie-vozná loď (kompa)	kabelski trajekt	linfärja	Skela na uže	Канатны паром	Skela
PIP	Conduta	Conducte	potrubie	cevovod	pipeline	Cjevovod	Трубопровод	Podvodnik
PPO	Conduta aérea	Conducte sus-pendate	vzdušné vede-nie potrubia	zračni cevovod	luftpipeline	Viseći cjevovod	Оголовок трубопровода	Nadvodna insta-lacija
HFA	Instalação por-tuária	Facilități por-tuare	prístavné zaria-denia	pristaniška naprava	hamnanläggning	Lučke građevine	Портовое оборудование	Lučka infra-struktura
HMO	Capitanía do porto	Căpitănie	kapitanát	pristaniška kapitanija	hamnkaptens kontor	Kapetanija	Капитания порта	Lučka kapetanija
SHY	Estaleiro naval	Șantier naval	lodenica	ladjedelnica	varv	Brodogradilište	Судостроитель-ный завод	Brodogradilište
REF	Instalação de recolha de resí-duos	Stație de colec-tare a deșeurilor	skládka odpadu	smetišče	sopinsamlings-punkt	Smetlište	отвал грунта	Skladište otpad-nih materija
MAR	Painel de sina-lização	Panou de semnalizare	plavebný znak	plovbna oznaka	trafikmärke	Plovidbena oznaka	Инфор-мационный знак	Obaveštenje
LIG	Luz	Semnal lumi-nos	svetlo	svetloba	ljus	Svijetlo	Огонь	Svetlo
SIG	Estação de sinalização	Stație de sem-nalizare	signálna sta-nica	signalna post-aja	signalstation	Signalana post-aja	Сигнальная станция	Signalna stanica
TUR	Bacia de vira-gem	Loc de rondou	obratový bazén	obračališče	vändplats	Mjesto za okretanje	разворотный бассейн	Bazen za mane-vrisanje
CBR	Ponte-aque-duto	Pod canal	premostenie kanála	most čez kanal	kanalbro	Most na kanalu	Аквиадук	Kanalski most
TUN	Túnel	Tunel	tunel	predor	tunnel	Tunel	Тунель	Tunel
BCO	Posto fronteiro	Punct control trecere frontieră	hraničná kontrola	mejna kontrola	gränskontroll	Granična kon-trola	Пограничный контроль	Granična kon-trola
REP	Ponto de noti-ficação	Punct raportare	miesto hlásenia	točka javljanja	rapporterings-punkt	Kontrolna točka	Точка оповещения	Prijavna tačka
FLO	Comporta	Poartă pentru regularizare debit	protipovod-nové vráta	drsna vrata	dammlucka	Vrata prevod-nice	шлюзы	Vrata prevodnice

Ice_condition_code

Code	Thickness	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
A	Unknown	clear water	Чиста вода	volná voda	Isfrit farvand	offenes Wasser	Ύδατα άνευ πάγου	Aguas normales	selge vesi
B	0-4 cm	light spread floating ice	Разпръснат плаващ лед	ledová tříšť	Let spredt drivis	Treibeis	Ελαφρά διασκορπισμένα τεμάχια επιπλέοντος πάγου	Hielo flotante ligero disperso	kergelt leviv triivjää
C	0-4 cm	light floating ice	Рядък плаващ лед	slabá ledová tříšť	Let drivis	leichtes Treibeis	Ελαφρά τεμάχια επιπλέοντος πάγου	Hielo flotante ligero	kerge triivjää
D	0-4 cm	light solid ice	Слабо залебяване	slabý led	Tynd fast is	leichtes Eis	Ελαφρά τεμάχια συμπαγούς πάγου	Hielo sólido ligero	kerge tahke jää
E	4-8 cm	medium spread floating ice to 40 % covered	Средно разреден плаващ лед (до 40 % покритие)	středně silná rozptýlená ledová tříšť, pokrytí ledem do 40 %	Middelsvær drivis op til 40 % dækket	mittelschweres zerstreutes Treibeis, bis 40 % eisbedeckt	Μέσου πάχους διασκορπισμένα επιπλέοντα τεμάχια πάγου που καλύπτει επιφάνεια 40 %	Hielo flotante disperso medio que cubre hasta un 40 %	keskmiselt leviv triivjää kuni 40 % kattuvusega
F	4-8 cm	medium spread floating ice 40 to 75 % covered	Средно разреден плаващ лед (40 %—70 % покритие)	středně silně rozptýlená ledová tříšť, pokrytí ledem od 40 % do 75 %	Middelsvær drivis 40-75 % dækket	mittelschweres zerstreutes Treibeis, 40 bis 75 % eisbedeckt	Μέσου πάχους διασκορπισμένα τεμάχια επιπλέοντος πάγου που καλύπτει επιφάνεια 40 % έως 75 %	Hielo flotante disperso medio que cubre entre un 40 % y un 75 %	keskmiselt leviv triivjää kattuvusega 40–75 %
G	4-8 cm	medium floating ice more than 75 % in sludge or lead	Плаващ лед със средна дебелина, покриващ над 75 %	středně silně rozptýlená ledová tříšť, pokrytí plavební dráhy ledem více než 75 %	Middelsvær drivis mere end 75 % dækket	mittelschweres Treibeis, mehr als 75 % der Rinne eisbedeckt	Μέσου πάχους επιπλέοντα τεμάχια πάγου σε επιφάνεια άνω του 75 %	Hielo flotante medio que cubre más del 75 % del canal	keskmiselt leviv triivjää, rohkem kui 75 % jääpankade või jäävallidena
H	4-8 cm	medium vast ice	Средно дебел твърд лед	středně silně pevný led	Middelsvær fast is	mittelschweres festes Eis	Μέσου πάχους εκτεταμένος πάγος	Hielo compacto medio	keskmine rüsiää
K	8-12 cm	heavy spread floating ice to 40 % covered	Дебел плаващ лед (до 40 % покритие)	silná rozptýlená ledová tříšť, až 40 % pokrytí ledem	Svær drivis op til 40 % dækket	schweres zerstreutes Treibeis, bis 40 % eisbedeckt	Βαρέα διασκορπισμένα τεμάχια επιπλέοντος πάγου σε έκταση 40 %	Hielo flotante pesado disperso que cubre hasta un 40 %	mitteleviv triivjää kuni 40 % kattuvusega
L	8-12 cm	heavy spread floating ice 40 to 75 % covered	Дебел плаващ лед (40 %—70 % покритие)	silná rozptýlená ledová tříšť, pokrytí ledem od 40 % až 75 %	Svær drivis 40-75 % dækket	schweres zerstreutes Treibeis, 40 bis 75 % eisbedeckt	Βαρέα διασκορπισμένα τεμάχια επιπλέοντος πάγου σε έκταση από 40 % έως 75 %	Hielo flotante pesado disperso que cubre entre un 40 % y un 75 %	mitteleviv triivjää kattuvusega 40–75 %
M	8-12 cm	heavy dense floating ice with more than 75 % chance on coagulation	Дебел плътен лед с вероятност за залебяване над 75 %	těžká stlačená ledová tříšť s více než 75 %, nebezpečí vytváření zátarasů	Svær og pakket drivis mere end 75 % dækket; risiko for fastfrysning	schweres zusammengepferchtes Treibeis mit mehr als 75 %, Gefahr für Dammbildung	Βαρέα τεμάχια επιπλέοντος πάγου με πιθανότητες πύξης άνω του 75 %	Hielo flotante pesado denso con más del 75 % de posibilidades de cuajar	paks tihe triivjää jäätumusega rohkem kui 75 %

Code	Thickness	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
A	Unknown	avovesi	eaux normales	jégmentes víz	acque normali	Švarus vanduo	Brīvs ūdens	open water	woda otwarta
B	0-4 cm	ohutta rikkonaista ajojäättä	glaces légères dispersées	vékony szórványos jég-táblák	leggero ghiaccio galleggiante sparso	Plonas pasklidęs plūduriuojantis ledas	Izklaidu peldošs plāns ledus	licht verspreid drijfijf	rozproszona, cienka kra lodowa
C	0-4 cm	ohutta ajojäättä	glaces légères flottantes	vékony jég-táblák	ghiaccio leggero galleggiante	Plonas plūduriuojantis ledas	Plāns peldošs ledus	licht drijfijf	cienka kra lodowa
D	0-4 cm	ohutta kiintojäättä	glace légère	könnyű beállt jég	leggero ghiaccio solido	Plonas kietas ledas	Plāna ledus kārta	licht vast ijs	cienka pokrywa lodowa
E	4-8 cm	keskiraskasta rikkonaista ajojäättä, enintään peittävyys 40 %	glaces moyennes dispersées couvrant 40 %	közepes szórványos jégtáblák 40 %-os jégfedettségig	ghiaccio sparso galleggiante di spessore medio con copertura fino al 40 %	Vidutinio kietumo pasklidęs plūduriuojantis ledas (dengia iki 40 % paviršiaus)	Vidėji biezis izklaidu peldošs ledus klāj līdz 40 % ūdens virsmas	middelzwaar verspreid drijfijf tot 40 % bedekt	rozproszona kra lodowa średniej grubości, pokrycie do 40 %
F	4-8 cm	keskiraskasta rikkonaista ajojäättä, peittävyys 40-75 %	glaces moyennes flottantes dispersées couvrant 40 à 75 %	közepes szórványos jégtáblák 40-75 % közötti jégfedettségig	ghiaccio sparso galleggiante di spessore medio con copertura compresa tra 40 % e 75 %	Vidutinio kietumo pasklidęs plūduriuojantis ledas (dengia 40 %-75 % paviršiaus)	Vidėji biezis izklaidu peldošs ledus klāj 40 līdz 75 % ūdens virsmas	middelzwaar verspreid drijfijf 40 tot 75 % bedekt	rozproszona kra lodowa średniej grubości, pokrycie 40 do 75 %
G	4-8 cm	keskiraskasta ajojäättä, peittävyys yli 40-75 % väylästä	glaces moyennes flottantes dispersées couvrant plus de 75 % du chenal	közepes jégtáblák több mint 75 %-ban kásajégként vagy jégmentes sávokban	ghiaccio galleggiante di spessore medio costituito per più del 75 % da frammenti o canale ricoperto da frammenti	Vidutinio kietumo plūduriuojantis ledas (daugiau kaip 75 % sudaro ižas)	Vidėji biezis peldošs ledus, vairāk nekā 75 % ūdens virsmas klāta viršiem	middelzwaar drijfijf meer dan 75 % in geul of slop	kra lodowa średniej grubości, pokrycie powyżej 75 % kanału
H	4-8 cm	keskiraskasta jäättä	glace moyenne	közepes beállt jég	ghiaccio di spessore medio fisso	Vidutinio kietumo ledas	Vidėji biezis blīvs ledus	middelzwaar vast ijs	pokrywa lodowa średniej grubości
K	8-12 cm	raskasta rikkonaista ajojäättä, peittävyys enintään 40 %	glaces lourdes flottantes dispersées couvrant jusqu'à 40 %	vastag szórványos jégtáblák 40 %-os jégfedettségig	ghiaccio spesso galleggiante con copertura fino al 40 %	Sunkus pasklidęs plūduriuojantis ledas (dengia iki 40 % paviršiaus)	Biezis izklaidu peldošs ledus klāj līdz 40 % ūdens virsmas	zwaar verspreid drijfijf tot 40 % bedekt	rozproszona, gruba kra lodowa, pokrycie do 40 %
L	8-12 cm	raskasta rikkonaista ajojäättä, peittävyys 40-75 %	glaces lourdes flottantes dispersées couvrant 40 à 75 %	vastag jégtáblák 40-75 % közötti jégfedettségig	ghiaccio spesso galleggiante con copertura compresa tra il 40 % e il 75 %	Sunkus pasklidęs plūduriuojantis ledas (dengia 40 %-75 % paviršiaus)	Biezis izklaidu peldošs ledus klāj 40 līdz 75 % ūdens virsmas	zwaar verspreid drijfijf 40 tot 75 % bedekt	rozproszona, gruba kra lodowa, pokrycie 40 do 75 %
M	8-12 cm	raskasta tiheää ajojäättä, peittävyys yli 75 %, hyytymisvaara	glaces lourdes flottantes dispersées couvrant plus de 75 % et chance de coagulation	vastag jégtáblák több mint 75 %-os jégfedettségig, torlaszképződés-veszély	ghiaccio spesso galleggiante con più del 75 % di probabilità di addensamento	Sunkus ir kietas plūduriuojantis ledas (dengia daugiau kaip 75 % paviršiaus ir gali koaguluotis)	Ļoti blīvs peldošs ledus, sabļvējumu veidošanās iespēja-vairāk nekā 75 %	zwaar opeengepakt drijfijf met meer dan 75 % kans op propvorming	gęsta, gruba kra lodowa, pokrycie powyżej 75 %, możliwość koagulacji

Code	Thickness	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
A	Unknown	Água livre	Fără gheață	voľná voda	brez ledu	öppet vatten	Plovidba slobodna	чистая вода	Plovidba slobodna
B	0-4 cm	Gelo flu-tuante ligeiro disperso	Gheață sub-țire plutitoare dispersată	ľadová triešť	plavajoči led	lätt spridd drivis	Raširene tanke sante leda	малораз-реженный плавучий лёд	Raširene tanke sante leda
C	0-4 cm	Gelo flu-tuante ligeiro	Gheață sub-țire plutitoare	slabá ľadová triešť	tanek plava-joči led	lätt drivis	Tanke sante leda	радкий пла-вучий лёд	Tanke sante leda
D	0-4 cm	Gelo com-pacto ligeiro	Gheață sub-țire	slabý ľad	tanek trdi led	lätt fastis	Lagano zale-đeno	мало-сплочённый лёд	Lagano zale-đeno
E	4-8 cm	Gelo flu-tuante médio disperso, cobrindo até 40 %	Gheață mij-locie pluti-toare disper-sată acope-rind 40 %	stredne silná rozptýlená ľadová triešť, pokrytie do 40 %	srednje debel plavajoči led, pokritost do 40 %	medelstor spridd drivis, 40 % istäcke	Srednje debele sante leda, pokri-venost do 40 %	плавучий лёд средней раз-реженности (до 40 %)	Srednje debele sante leda, pokrivenost do 40 %
F	4-8 cm	Gelo flu-tuante médio disperso, cobrindo 40 % a 75 %	Gheață mij-locie pluti-toare disper-sată acope-rind 40 % până la 75 %	stredne silná rozptýlená ľadová triešť, pokrytie od 40 % do 75 %	srednje debel plavajoči led, pokritost od 40 do 75 %	medelstor spridd drivis, 40-75 % istäcke	Srednje debele sante leda, pokri-venost 40 do 75 %	плавучий лёд средней раз-реженности (40 %-70 %)	Srednje debele sante leda, pokrivenost 40 do 75 %
G	4-8 cm	Gelo flu-tuante médio, cobrindo mais de 75 % da esteira	Gheață mij-locie pluti-toare disper-sată acope-rind peste 75 % din șenal	stredne silná rozptýlená ľadová triešť, pokrytie viac ako 75 %	srednje debel plavajoči led, pokritost večja od 75 %	medelstor spridd drivis, över 75 % av farrännan istäckt	Srednje debele sante leda, pokri-venost večja od 75 %	плавучий лёд средней раз-реженности (больше 75 % ледового канала покрыто ледяной кашей)	Srednje debele sante leda, pokrivenost večja od 75 %
H	4-8 cm	Gelo com-pacto médio	Gheață mij-locie	stredne pevný ľad	srednje debel trdi led	medeltjock fastis	Srednje debeli tvrđi led	лёд средней сплочённости	Srednje debeo, tvrđ led
K	8-12 cm	Gelo flu-tuante pesado dis-perso, cobrindo até 40 %	Gheață groasă pluti-toare disper-sată acope-rind până la 40 %	silná a roz-ptýlená ľadová triešť, pokrytie do 40 %	debel plava-joči led, pokritost do 40 %	tjock, spridd drivis, upp till 40 % istäcke	Debele sante leda, pokri-venost do 40 %	тяжелый раз-реженный плавучий лёд (до 40 %)	Debele sante leda, pokri-venost do 40 %
L	8-12 cm	Gelo flu-tuante pesado dis-perso, cobrindo 40 % a 75 %	Gheață groasă pluti-toare disper-sată acope-rind 40 % până la 75 %	silná a roz-ptýlená ľadová triešť, pokrytie od 40 % do 75 %	debel plava-joči led, pokritost od 40 do 75 %	tjock, spridd drivis, 40-75 % istäcke	Debele sante leda, pokri-venost 40 do 75 %	тяжелый раз-реженный плавучий лёд (40 %-75 %)	Debele sante leda, pokri-venost 40 do 75 %
M	8-12 cm	Gelo flu-tuante pesado denso, com probabili-dade de con-creção supe-rior a 75 %	Gheață groasă pluti-toare disper-sată acope-rind mai mult de 75 % și șanse de îngheț	hustá ľadová triešť s viac ako 75 % možnosťou koagulácie	debel plava-joči led, pokritost večja od 75 %, mož-nost sese-danja	tätt samman-packad dri-vis, över 75 % risk för stampisvall	Debele sante leda, pokri-venost večja od 75 % mogućnost zaleđivanja	очень сплочённый лёд, более 75 %-ая вер-оятность образования заторов	Debele sante leda, pokri-venost večja od 75 % moguć-nost zaleđi-vanja

Code	Thickness	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
P	8-12 cm	heavy floating ice with more than 75 % in sludge or lead currently broken sludge	Дебел пътен лед с покриващ над 75 % или току що разбит лед	těžká ledová tříšť, více než 75 % plavební dráhy pokryto ledem, plavební dráha dnes prolomena	Svær drivis mere end 75 % dækket; sejlrønde er brudt for nylig	schweres Treibeis, mehr als 75 % der Rinne eisbedeckt, Rinne heute gebrochen	Βαρέα τεμάχια πρόσφατα θραυσθέντος επιπλέοντος πάγου	Hielo flotante pesado que cubre más del 75 % del canal recientemente abierto	paks triivjäähohkem kui 75 % jääpankadena või ajuti murdunud vate jäävallidena
R	8-12 cm	heavy vast ice	Дебел твърд лед	těžký pevný led	Svær fast is	schweres festes Eis	Βαρέα τεμάχια εκτεταμένου πάγου	Hielo compacto pesado	paks rüsijää
S	> 12 cm	very heavy floating ice en solid ice nearly 100 % covered	Много дебел плаващ твърд лед, покриващ почти 100 %	velmi těžká ledová tříšť a ledové kry, téměř 100 % pokryto ledem	Meget svær drivis og fast is næsten 100 % dækket	sehr schweres Treibeis und Packeis, fast 100 % eisbedeckt	Πολύ βαρέα τεμάχια συμπαγούς πάγου σε έκταση σχεδόν 100 %	Hielo flotante muy pesado y sólido que cubre casi el 100 %	väga paks triivjäähohkem kui 100 % kattuvusega
U	> 40 cm	ice dam or drifting ice	Ледени прегради или струпвания	ledová bariéra nebo nahromadění ledu	Isdæmning eller isspærring	Eisdamm oder Eisstau	Φράγμα πάγου ή παρασυρόμενος πάγος	Barrera de hielo o hielo a la deriva	rüsijäävallid või rüsijää
O	Unknown	disappearing (pap)ice, no longer obstructing	Топящ се лед, няма препятствия	tenký měkký led, který již nepřekáží	Smelteis, ingen hindring længere	Pappeis, nicht länger behinderlich	Εξαφανιζόμενος πάγος που δεν προκαλεί πλέον εμπόδια	Hielo a punto de fundirse que ya no constituye un obstáculo	kaduv jää, enam mitte takistav
V	(No traffic)	navigation interrupted	Навигацията е преустановена	přerušení plavby	Skibsfarten er indstillet	Fahrverbot	Διακοπή ναυσιπλοΐας	Navegación interrumpida	navigeerimine katkestatud

Code	Thickness	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
P	8-12 cm	raskasta ajojäättä, peittävyys yli 75 % väylästä, joka on äskettäin murrettu	glaces lourdes flottantes couvrant plus de 75 % du chenal, chenal brisé récemment	vastag jégtablák több mint 75 %-os jégfedettséggel, most tört hajózócsatornával	ghiaccio spesso galleggiante costituito per più del 75 % da frammenti o canale attualmente coperto da ghiaccio frammentato	Sunkus plūduriuojantis ledas, kurio daugiau kaip 75 % sudaro ledo ižas)	Biezs peldošs ledus ar vairāk nekā 75 % vižņu, kuri nesē salūzuši	zwaar drijfijs met meer dan 75 % in geul of slop heden gebroken geul	gruba kra lodowa, pokrycie powyżej 75 % kanału, świeżo przełamany kanał
R	8-12 cm	raskasta jäätä	glace solide épaisse	vastag beállt jég	ghiaccio spesso ed esteso	Labai kietas ledas	Biezs blīvs ledus	zwaar vast ijs	gruba pokrywa lodowa
S	> 12 cm	erittäin raskasta ajojäättä ja kiintojäättä, peittävyys lähes 100 %	glaces flottantes très lourdes et banquise couvrant presque 100 %	nagyon vastag úszó és parti jég közel 100 %-os jégfedettséggel	ghiaccio galleggiante molto spesso e solido con copertura quasi del 100 %	Labai sunkus ir kietas plūduriuojantis ledas (dengia beveik 100 % paviršiaus)	Ļoti biezs peldošs ledus un ledus kārtā klāj gandrīz 100 % ūdens virsmas	zeer zwaar drijfijs en pakijis bijna 100 % bedekt	bardzo gruba kra lodowa i pokrywa lodowa, pokrycie niemal 100 %
U	> 40 cm	jääpato tai ajojäättä	barrage de glace ou débâcle	jégtorlasz vagy sodródó jég	barriera di ghiaccio o ghiaccio alla deriva	Ledo užtvara arba dreifuojantis ledas	Ledus aizsprosts vai dreifējošs ledus	ijsdam of kruiend ijs	bariera lodowa lub zator lodowy
O	Unknown	sulavaa jäätä, ei enää esteenä	glaces fondantes, aucune gêne	elolvadó (kásás) jég, akadályozás megszűnt	ghiaccio in fase di scioglimento	Tirpstantis, laivybai kliūčių nesudarantis ledas	Izzūdošs ledus, vairs nekavē kuģošanai	verdwijnd (pap)ijs, niet meer hinderlijk	zanikający lód (papka), nieprzeszkadzający w żegludze
V	(No traffic)	alusliikenne keskeytetty	navigation interrompue	hajózás szünetel	navigazione interrotta	Nutraukta laivyba	Kuģošana pārtraukta	vaarverbod	zakaz żeglugi

Code	Thickness	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
P	8-12 cm	Gelo flu- tuante pesado cobrindo mais de 75 % da esteira, passagem aberta recen- temente	Gheață groasă pluti- toare disper- sată acope- rind peste 75 % din șenal, șenal spart recent	silná a roz- ptýlená ľadová triešť, pokrytie viac ako 75 % plavebnej dráhy, dnes rozbytá ryha	debel plava- joči led, pokritost večja od 75 %, tre- nutno razbit	tjock drivis, över 75 % av farrännan täckt, rännan bruten i dag	Debele sante leda, pokri- venost veća od 75 % tre- nutno raz- bijen led	тяжелый плавающий лёд, более 75 %, в настоящий момент судоходство затруднено из-за ледяной каши в ледо- вом канале	Debele sante leda, pokri- venost veća od 75 %, tre- nutno razbijen led
R	8-12 cm	Gelo com- pacto pesado	Gheață groasă solidă	silne pevný ľad	debel trdi led	tjock fastis	Debeli tvrdi led	очень сплочённый лёд	Debeo tvrd led
S	> 12 cm	Gelo flu- tuante e gelo compacto ultrapesados, cobrindo quase 100 %	Banchize plutitoare groase aco- perind apro- ape 100 %	veľmi pevná ľadová triešť a ľadovce, pokrytie tak- mer 100 %	zelo debel plavajoči led in trdi led, pokritost skoraj 100 %	mycket tjock drivis och fastis med nästan 100 % istäcke	Vrlo debele sante i tvrdi led sa skoro 100 % pokri- venosti	очень тяжёлый плавающий и сплошной лёд (почти 100 %)	Vrlo debele sante i tvrd led sa skoro 100 % pokri- venosti
U	> 40 cm	Barreira de gelo ou gelo à deriva	Pod de gheață sau gheață pluti- toare	ľadová bariéra alebo nahromade- nie ľadu	ledena ovira ali naplavine	stampisvall eller drivis	Ledena pre- preka ili plu- tajući led	ледяной затор или скопление дрейфующего льда	Ledena pre- preka ili pluta- jući led
O	Unknown	Gelo em fusão, já não causa obstru- ção	Ghețari to- piți, niciunul periculos	strácajúci sa tenký ľad, žiadne pre- kážky	topljenje ledu, brez ovir	upplöst issörja, ingen blockering	Otapanje leda, nema prepreka	раз- рушающийся лёд с прота- линами, беспрепятст- венное судоход- ство	Otapanje leda, nema prepreka
V	(No traffic)	Navegação suspensa	Navigație întreruptă	zákaz plavby	prepoved plovbe	sjöfart för- bjuden	Zabrana plo- vidbe	судоходство остановлена	Zabrana plo- vidbe

Ice_accessibility_code

Code	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
A	navigation normal	Нормална навигация	normální plavební provoz	Normal skibsfart	Schiffahrt normal	Κανονική ναυσιπλοΐα	Navegación normal	Tavapärase navigatsioon
B	navigation not yet hindered	Навигацията все още е възможна	plavba je ještě možná	Skibsfarten hindres endnu ikke	Schiffahrt wird noch nicht behindert	Ναυσιπλοΐα που δεν παρεμποδίζεται ακόμη	Navegación posible	Navigatsioon ei ole veel takistatud
F	low traffic	Слаба навигация	slabý plavební provoz	Lav trafiktaethed	wenig Schiffahrt	Χαμηλός ρυθμός κυκλοφορίας	Tráfico escaso	Vähene liiklus
L	no navigation without breaking	Навигация само след ледоразбивач	nelze plout bez lámání ledu	Ingen skibsfart uden isbryder	keine Schiffahrt ohne Eisbrecher	Καμία ναυσιπλοΐα χωρίς θραύση των πάγων	Navegación imposible sin rompehielos	Vaid katkestustega liiklus võimalik
C	navigation possible for motorvessels with more than 0,74 Kw (1 hp) per 2 tons	Навигацията е възможна само за кораби с мощност над 0,5 к.с. на тон	plavba možná pro motorové lodě s výkonem od 0,74 kW (1 ks) na 2 tuny	Skibsfart er mulig for motorbåde med mere end 0,74 Kw (1 HK) pr. 2 tons	Schiffahrt möglich für Motorschiffe ab 0,74 kW (1 PS) pro 2 Tonnen	Ναυσιπλοΐα δυνατή για μηχανοκίνητα σκάφη ισχύος άνω των 0,74 kW (1 hp) ανά 2 τόρους	Navegación posible para embarcaciones motorizadas con más de 0,74 Kw (1 cv) por 2 toneladas	Mootorlaevade (suurema võimsusega kui 0,74 Kw (1 hp)/2 t) navigatsioon võimalik
D	navigation possible for motorvessels with more than 0,74 Kw (1 hp) per ton	Навигацията е възможна само за кораби с мощност над 1 к.с. на тон	plavba možná pro motorové lodě s výkonem od 0,74 kW (1 ks) na tunu	Skibsfart er mulig for motorbåde med mere end 0,74 Kw (1 HK) pr. ton	Schiffahrt möglich für Motorschiffe ab 0,74 kW (1 PS) pro Tonne	Ναυσιπλοΐα δυνατή για μηχανοκίνητα σκάφη ισχύος άνω των 0,74 kW (1 hp) ανά τόρο	Navegación posible para embarcaciones motorizadas con más de 0,74 Kw (1 cv) por tonelada	Mootorlaevade (suurema võimsusega kui 0,74 Kw (1 hp)/1 t) navigatsioon võimalik
E	navigation possibilities remain constant	Възможностите за навигация не са променени	setrvalé plavební podmínky	Ingen ændring af de nuværende sejlmuligheder	heutige Fahrtmöglichkeiten bleiben gleich	Οι δυνατότητες ναυσιπλοΐας παραμένουν σταθερές	Posibilidades de navegación estables	Navigatsioonivõimalused konstantsed
G	navigation possibilities may deteriorate rapidly	Възможно е рязко влошаване на навигационните условия	plavební podmínky se mohou náhle zhoršit	Sejlmulighederne kan hurtigt forværres	Fahrtmöglichkeit kann sich schnell verschlechtern	Οι δυνατότητες ναυσιπλοΐας μπορούν να επιδεινωθούν ταχέως	Posibilidades de navegación que pueden deteriorarse rápidamente	Navigatsioonivõimalused võivad kiiresti halveneda
H	no navigation but no obstruction	Няма навигация, но няма препятствия	přerušení plavby bez plavebních překážek	Ingen skibsfart, men ingen hindring	keine Fahrt, aber kein Fahrverbot	Καμία ναυσιπλοΐα αλλά ούτε και παρεμπόδιση	Navegación imposible pero sin obstrucciones	Navigatsiooni ei toimu, aga takistust ei ole
M	navigation possible with the aid of ice breakers	Навигацията е възможна само с ледорезни приспособления	plavba je možná s pomocí ledoborce	Skibsfart mulig med støtte fra isbrydere	Schiffahrt mit Eisbrecher möglich	Ναυσιπλοΐα δυνατή με τη βοήθεια παγοθραυστικών	Navegación posible con asistencia de rompehielos	Navigatsioon võimalik jäämurdjate abiga
K	navigation possible in convoy or towage	Навигацията е възможна в конвой или с буксир	plavba je možná ve skupině plavidel za sebou nebo ve vlečné sestavě	Skibsfart mulig i konvoj eller på slæb	Fahren im Geleitzug oder Schlepp möglich	Ναυσιπλοΐα δυνατή σε νηοπομπές ή με ρυμούλκηση	Navegación posible en convoy o remolque	Navigatsioon võimalik kolonnis või pukseerides
T	navigation possibilities may improve rapidly	Възможно е рязко подобряване на навигационните условия	plavební podmínky se mohou náhle zlepšit	Sejlmulighederne kan hurtigt forbedres	Fahrtmöglichkeit kann sich schnell verbessern	Οι δυνατότητες ναυσιπλοΐας μπορούν να βελτιωθούν ταχέως	Posibilidades de navegación que pueden mejorar rápidamente	Navigatsioonivõimalused võivad kiiresti paraneda
P	inland ports can hardly be reached	Речните пристанища са трудно достъпни	vnitrozemské přístavy jsou těžko dosažitelné	Indlandshavne svært tilgængelige	Innenhäfen kaum erreichbar	Δύσκολη προσέγγιση των εσωτερικών λιμένων	Puertos interiores casi inaccesibles	Siseveesadamad raskesti ligipääsetavad
V	no navigation allowed	Преустановена навигация	zákaz plavby	Sejlsads er ikke tilladt	Fahrverbot	Δεν επιτρέπεται η ναυσιπλοΐα	Navegación prohibida	Navigatsioon keelatud
X	navigation in convoys compulsory	Плаването в конвой е задължително	přikázaná plavba plavidel ve skupině za sebou	Sejlsads i konvoj er påbudt	Zugfahrt verpflichtend	Υποχρεωτική ναυσιπλοΐα σε νηοπομπές	Obligatorio navegar en convoy	Navigatsioon kolonnis kohustuslik

Code	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
A	normaali alusliikenne	Navigation normale	normális/szokásos hajózás	navigazione normale	Įprasta laivyba	Normāla kuģošana	scheepvaart normaal	żegluga normalna
B	alusliikenteessä ei vielä esteitä	Navigation possible	hajózás még nem korlátozott	navigazione non ancora ostacolata	Nekliudoma laivyba	Kuģošana vēl nav traucēta	scheepvaart ondervindt nog geen hinder	żegluga jeszcze bez przeszkód
F	vähäinen alusliikenne	Trafic faible	jelentékelen hajóforgalom	scarso traffico	Neintensyvus eismas	Neliela satiksmes intensitāte	scheepvaart gering	niskie natężenie żegluga
L	ei alusliikennettä ilman jäänmurtamista	Navigation seulement derrière brise-glace	jégtörő nélkül hajózási tilalom	nessuna navigazione senza rompighiaccio	Laivyba naudojant ledų laužimo įrangą	Kuģošana tikai ar ledus laušanu	geen vaart, indien niet wordt gebroken	żegluga tylko w asyście lodolamacza
C	alusliikenne mahdollista moottorialuksille, joiden teho on yli 0,74 Kw (1 hp) 2 tonnia kohden	La navigation est possible pour automoteurs de plus de 0,74 Kw (1 ch) par 2 tonnes	hajózás csak géphajóknak: minimum 0,74 kW (1 LE) 2 tonnánként	transito possibile per natanti con potenza di 0,74 kW (1 hp) per 2 tonnellate	Laivyba leidžiama motorlaiviams, kurių galia yra didesnė nei 0,74 Kw (1 hp) 2 tonoms	Kuģošana iespējama motorkuģiem, kuru jauda ir lielāka nekā 0,74 Kw (1 ZS) uz 2 tonnām	vaart mogelijk voor motorschepen vanaf 0,74 Kw (1 pk) per 2 ton	żegluga dozwolona dla jednostek z napędem silnikowym o mocy powyżej 0,74 kW (1 KM) na każde 2 tony masy
D	alusliikenne mahdollista moottorialuksille, joiden teho on yli 0,74 Kw (1 hp) tonnia kohden	La navigation est possible pour automoteurs de plus de 0,74 Kw (1 ch) par tonne	hajózás csak géphajóknak: minimum 0,74 kW (1 LE) tonnánként	transito possibile per natanti con potenza di 0,74 kW (1 hp) per tonnellata	Laivyba leidžiama motorlaiviams, kurių galia yra didesnė nei 0,74 Kw (1 hp) 1 tonai	Kuģošana iespējama motorkuģiem, kuru jauda ir lielāka nekā 0,74 Kw (1 ZS) uz tonnu	vaart mogelijk voor motorschepen vanaf 0,74 Kw (1 pk) per 1 ton	żegluga dozwolona dla jednostek z napędem silnikowym o mocy powyżej 0,74 kW (1 KM) na tonę masy
E	alusliikenne-mahdollisuudet pysyvät ennallaan	Les possibilités de navigation sont constantes	hajózási feltételek állandósultak	condizioni di transito costanti	Nepakitusios laivybos sąlygos	Kuģošanas iespējas nemainās	huidige vaarmogelijkheid blijft hetzelfde	warunki żegluga bez zmian
G	alusliikenne-mahdollisuudet voivat huonontua nopeasti	Les possibilités de navigation peuvent se détériorer rapidement	hajózási lehetőségek gyorsan változhatnak	navigabilità suscettibile di peggiorare rapidamente	Laivybos sąlygos gali greitai pablogėti	Kuģošanas iespējas var strauji pasliktināties	vaarmogelijkheid kan snel verslechteren	możliwość gwałtownego pogorszenia warunków żegluga
H	ei alusliikennettä, vaikkei estettä	Interruption de navigation même sans obstacle	hajózás akadálymentesség ellenére nincs	nessun transito anche senza ostruzione	Laivyba neleidžiama, tačiau kliūčių nėra	Kuģošana nenotiek, bet kuģošanas aizliegums nepastāv	geen vaart, maar niet gestremd	żegluga przerwana mimo braku zakazu żegluga
M	alusliikenne mahdollista jäänmurtajien avulla	La navigation est possible à l'aide d'un brise-glace	hajózás jégtörővel lehetséges	transito possibile con l'intervento dei rompighiaccio	Laivyba su ledlaužiu pagalba	Kuģošana iespējama ar ledlaužu palīdzību	scheepvaart met ijsbrekers mogelijk	możliwość żegluga w asyście lodolamaczy
K	alusliikenne mahdollista kytkeyeessä tai hinauksessa	La navigation est possible en convois ou avec remorqueur	hajózás kötelekben vagy vontatva lehetséges	navigazione possibile in convoglio o in traino	Laivyba leidžiama konvojuje arba su vilkiko pagalba	Kuģošana iespējama karavānā vai velkot tauvā	varen in konvooi of sleep mogelijk	możliwość żegluga w konwojach lub za holownikami
T	alusliikenne-mahdollisuudet voivat parantua nopeasti	Les possibilités de navigation peuvent s'améliorer rapidement	hajózási lehetőségek gyorsan javulhatnak	navigabilità suscettibile di migliorare rapidamente	Laivybos sąlygos gali greitai pagerėti	Kuģošanas iespējas var strauji uzlaboties	vaarmogelijkheid kan snel verbeteren	możliwość szybkiej poprawy warunków żegluga
P	vaikea päästä sisävesisatamiin	L'arrivée aux ports intérieurs est très difficile	belvízi kikötők alig elérhetők	porti fluviali difficilmente raggiungibili	Vidaus uostai sunkiai pasiekiami	Piekļuve iekšzemes ostām apgrūtināta	binnenhavens nauwelijks bereikbaar	ograniczone możliwości dotarcia do portów śródlądowych
V	alusliikenne ei ole sallittua	Navigation interrompue	hajózási tilalom	nessun transito consentito	Draudžiama laivyba	Kuģošana aizliegta	vaarverbod	zakaz żegluga
X	alusliikenne kytkeyeessä pakollista	Navigation en convois obligatoire	hajózás csak kötelekben engedélyezett	obbligo di navigazione in convoglio	Laivyba konvojuje yra privaloma	Obligāta kuģošana karavānā	verplichte konvooivaart	obowiązek żegluga w konwojach

Code	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
A	Navegação normal	Navigație normală	normálna plavba	normalna plovba	normal trafiking	Normalna plovidba	полная навигация	Normalna plovidba
B	Navegação possível	Navigație posibilă	plavba ešte nebude obmedzená	plovba je še vedno možna	ännu obehindrad sjöfart	Plovidba jos uvijek moguća	достаточная навигация	Plovidba još uvek moguća
F	Tráfego ligeiro	Trafic scăzut	nízka premávka	malo prometa	låg sjötrafik	Slab promet	незначительная навигация	Slab saobraćaj
L	Navegação impossível sem quebra-gelos	Nu se navighează fără dispozitiv de spargere a gheții	zákaz plavby bez ľadoborca	plovba brez ledolomilca ni dovoljena	ingen sjöfart utan isbrytning	Nema plovidbe bez lomljenja leda	плавание только под проводкой ледокольных средств	Nema plovidbe bez ledolomca
C	Navegação possível a embarcações motorizadas com mais de 0,74 kW (1 cv) por 2 toneladas	Navigația este posibilă pentru automotoare cu mai mult de 0,74 kW (1 CP) per 2 tone	plavba možná pre motorové plavidlá s výkonom viac ako 0,74 kW na 2 t (hp)	plovba mogoča za motorna plovila z močjo večjo od 0,74 Kw (1hp) na 2 toni	sjöfart möjlig med motorfartyg över 0,74 kW (1hp) per 2 ton	Plovidba dozvoljena za plovila sa motorom snage veće od 0,74 KW(1ks)/2t	навигация только для самоходных судов с удельной мощностью более 1 лошадиной силы на 2 тонны	Plovidba dozvoljena za plovila sa motorom snage veće od 1KS/2t
D	Navegação possível a embarcações motorizadas com mais de 0,74 kW (1 cv) por tonelada	Navigația este posibilă pentru automotoare cu mai mult de 0,74 kW (1 CP) per tonă	plavba možná pre motorové plavidlá s výkonom viac ako 0,74 kW/t (hp)	plovba mogoča za motorna plovila z močjo večjo od 0,74 Kw (1hp) na tono	sjöfart möjlig med motorfartyg över 0,74 kW (1hp) per ton	Plovidba dozvoljena za plovila sa motorom snage veće od 0,74 KW(1ks)/t	навигация только для самоходных судов с удельной мощностью более 1 лошадиной силы на 1 тонну	Plovidba dozvoljena za plovila sa motorom snage veće od 1KS/t
E	Possibilidades de navegação estáveis	Posibilitățile de navigație rămân constante	súčasný plavebný podmienky zostávajú rovnaké	možnost plovbe ostaja nespremenjena	farbarhet förblir oförändrad	Uvijeti plovidbe ostaju isti	навигационные условия без изменений	Uslovi plovidbe ostaju isti
G	Possibilidades de navegação podem deteriorar-se rapidamente	Posibilitățile de navigație se pot deteriora rapid	plavebné podmienky sa môžu rýchlo zhoršiť	možnost plovbe se lahko hitro poslabša	farbarheten kan minska snabbt	Uvijeti plovidbe se mogu naglo pogoršati	возможно резкое ухудшение условий плавания	Uslovi plovidbe se mogu naglo pogoršati
H	Navegação impossível, mas não há obstruções	Nu se navighează dar nu sunt obstrucții	zastavená plavba, bez plavebnej prekážky	plovba ni dovoljena, vendar ni ovir	ingen sjöfart, men ingen blockering	Nema plovidbe, nema prepreka	навигации нет, но движение разрешено	Nema plovidbe, nema prepreka
M	Navegação possível com a assistência de quebra-gelos	Navigația este posibilă cu ajutorul unui dispozitiv de spart gheața	plavba možná s pomocou ľadoborca	plovba mogoča s pomočjo ledolomilca	sjöfart möjlig med hjälp av isbrytare	Plovidba moguća uz upotrebu ledolomca	плавание под проводкой ледокольных средств разрешено	Plovidba moguća uz upotrebu ledolomca
K	Navegação possível em comboio ou a reboque	Navigația este posibilă în convoi sau remorcat	plavba možná v zostave alebo vo vleku	plovba mogoča v konvoju ali z vlečenjem	sjöfart möjlig i konvoj eller med bogsering	Plovidba moguća u konvoju ili u teglju	движение в составах или с буксирами	Plovidba moguća u konvojima i šlepovima
T	Possibilidades de navegação podem melhorar rapidamente	Posibilitățile de navigație se pot ameliora rapid	plavebné podmienky sa môžu rýchlo zlepšiť	možnost plovbe se lahko hitro izboljša	farbarheten kan öka snabbt	Uvijeti plovidbe se mogu naglo poboljšati	возможно резкое улучшение условий плавания	Uslovi plovidbe se mogu naglo poboljšati
P	Portos interiores quase inacessíveis	Accesul în porturile interioare poate fi foarte dificil	vnútrozemské prístavy sú ťažko dosiahnuteľné	rečna pristanišča so težko dostopna	inlandshamnar mycket svåråtkomliga	Riječne luke teško dostupne	доступ к внутренним портам сильно затруднен	Rečne luke teško dostupne
V	Navegação proibida	Navigația nu este permisă	zákaz plavby	plovba prepovedana	ingen trafik tillåten	Plovidba nije dozvoljena	навигация запрещена	Zabrana plovidbe
X	Obrigatório navegar em comboio	Navigația în convoaie este obligatorie	povinná plavba v zostave	obvezna plovba v konvojih	obligatorisk konvojgång	Obvezna plovidba u konvojima	движение конвоем обязательно	Obvezna plovidba u konvojima

Ice_classification_code

Code	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
A	Navigable	Свободна навигация	dobře splavná	Uhindret sejlads	gut befahrbar	Πλεύσιμος	Navegable	Navigeeritav
B	fairly navigable	Умерена навигация	dosti dobře splavná	Næsten uhindret sejlads	ziemlich gut befahrbar	Πλεύσιμος σε μικρό βαθμό	Razonablemente navegable	Keskmiselt navigeeritav
C	navigable with difficulty	Затруднена навигация	obtížně splavná	Sejlads vanskelig	schwer befahrbar	Πλεύσιμος με δυσκολία	Navegación difícil	Raskustega navigeeritav
D	navigable only with great difficulty	Сильно затруднена навигация	velmi obtížně splavná	Sejlads meget vanskelig	sehr schwer befahrbar	Πλεύσιμος μόνο με μεγάλη δυσκολία	Navegación muy difícil	Üksnes suurte raskustega navigeeritav
E	no navigation allowed	Преустановена навигация	zákaz plavby	Sejlads ikke tilladt	Fahrverbot	Δεν επιτρέπεται καθόλου η ναυσιπλοία	Navegación prohibida	Navigatsioon keelatud

Code	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
A	Kulkukelpoi- nen	navigable	hajózható	navigabile	Laivyba be kliūčių	Kuģojams	goed bevaar- baar	żeglowny
B	melko kulku- kelpoinen	raisonnable- ment navigable	teljes mérték- ben hajózható	abbastanza navigabile	Laivyba beveik be kliūčių	Diezgan labi kuģojams	vrij goed bevaarbaar	dość żeglowny
C	hankalasti kul- kukelpoinen	navigation pénible	nehezen hajóz- ható	navigabile con difficoltà	Sunki laivyba	Grūti kuģojams	moeilijk bevaarbaar	żeglowny z trudnościami
D	erittäin hanka- lasti kulkukel- poinen	navigation très pénible	nagyon nehe- zen hajózható	navigabile solo con grande dif- ficoltà	Laivyba su dideliais sun- kumais	Ļoti grūti kuģojams	zeer moeilijk bevaarbaar	żeglowny, ale z dużymi trudno- ściami
E	alusliikenne ei ole sallittua	navigation interrompue	hajózási tila- lom	nessuna navi- gazione con- sentita	Laivyba drau- džiama	Kuģošana aiz- liegta	vaarverbod	zakaz żeglugi

Code	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (RU)	Meaning (SR)
A	Navegável	Navigabil	splavný	plovno	farbar	Plovno	беспрепятствен- ное судоходство	Plovno
B	Razoavelmente navegável	Navigabil în condiții acceptabile	pomerne dobre splavný	precej dobro plovno	relativt farbar	Pretežno plovno	достаточно беспрепятствен- ное судоходство	Relativno plovno
C	Navegação difícil	Navigabil cu dificultate	splavný s ťažkosťami	težko plovno	svårframkomlig	Plovno uz teškoće	затруднённое судоходство	Plovno uz poteškoće
D	Navegação muito difícil	Navigabil numai cu mare dificultate	splavný len s veľkými ťažkosťami	zelo težko plovno	mycket svårframkomlig	Plovno uz velike teškoće	сильно затруднённое судоходство	Plovno uz velike poteškoće
E	Navegação proibida	Navigația nu este permisă	zákaz plavby	plovba prepovedana	sjöfart förbjuden	Plovidba nije dopuštena	судоходство запрещено	Zabrana plovidbe

Ice_situation_code

Code	Meaning (EN)	Meaning (BG)	Meaning (CS)	Meaning (DA)	Meaning (DE)	Meaning (EL)	Meaning (ES)	Meaning (ET)
nol	no limitation	Без ограничения	bez omezení	Ingen begrænsning	keine Behinderung	Κανένας περιορισμός	Sin limitación	piirangut ei ole
lim	limitation	Ограничение	omezení	Begrænset	Behinderung	Περιορισμός	Limitación	piirang
non	no navigation allowed	Преустановена навигация	plavba zastavena	Sejlad ikke tilladt	gesperret	Δεν επιτρέπεται καμία ναυσιπλοΐα	Navegación prohibida	navigatsioon keelatud

Code	Meaning (FI)	Meaning (FR)	Meaning (HU)	Meaning (IT)	Meaning (LT)	Meaning (LV)	Meaning (NL)	Meaning (PL)
nol	ei rajoitusta	pas de limitation	nincs korlátozás	nessuna limitazione	Apribojimų nėra	Bez ierobežojumiem	geen beperkingen	brak ograniczeń
lim	rajoitus	limitation	korlátozás	limitazione	Apribojimai	Ierobežojums	beperkingen	ograniczenie
non	alusliikenne ei ole sallittua	navigation interdite	hajózás nem megengedett	nessuna navigazione consentita	Laivyba draudžiama	Kuģošana aizliegta	vaarverbod	zakaz żeglugi

Code	Meaning (PT)	Meaning (RO)	Meaning (SK)	Meaning (SL)	Meaning (SV)	Meaning (HR)	Meaning (SR)	Meaning (RU)
nol	Sem restrições	Fără restricții	bez obmedzenia	brez omejitev	ingen begränsning	Nema ograničenja	bez ograničenja	без ограничений
lim	Restrições	Cu restricții	obmedzenie	omejitev	begränsad trafik	Ograničenje	ograničenje	ограниченно
non	Navegação proibida	Navigația nu este permisă	plavba uzavretá	plovba prepovedana	trafik förbjuden	Plovidba nije dopuštena	navigacija nije dozvoljena	навигация запрещена

Gauges

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
AT	Achleiten	Danube	2 223,05	2 226,72	2 214,51	LDC	255	MW	324	HDC	502	28 804	Adriatic s.	ATXXX00001GAUGE22231
AT	Wilhering	Danube	2 144,31	2 146,48	2 130,60	LDC	240	MW	406	HDC	716	24 912	Adriatic s.	ATXXX00001GAUGE21443
AT	Linz	Danube	2 135,17	2 146,48	2 130,60	LDC	316	MW	389	HDC	545	24 774	Adriatic s.	ATLNZ00001GAUGE21352
AT	Mauthausen	Danube	2 110,98	2 119,20	2 106,85	LDC	380	MW	434	HDC	547	23 598	Adriatic s.	ATMAU00001GAUGE21109
AT	Grein	Danube	2 079,10	2 075,00	2 081,00	LDC	667	MW	715	HDC	883	21 943	Adriatic s.	ATXXX00001GAUGE20791
AT	Ybbs	Danube	2 058,79	2 060,20	2 049,60	LDC	190	MW	305	HDC	524	21 222	Adriatic s.	ATXXX00001GAUGE20588
AT	Kienstock	Danube	2 015,20	2 006,00	2 036,00	LDC	177	MW	318	HDC	624	19 400	Adriatic s.	ATXXX00001GAUGE20152
AT	Korneuburg	Danube	1 941,46	1 948,88	1 929,09	LDC	196	MW	288	HDC	537	159,87	Adriatic s.	ATKBG00001GAUGE19415
AT	Wildungsmauer	Danube	1 894,72	1 880,00	1 920,00	LDC	173	MW	316	HDC	576	13 948	Adriatic s.	ATXXX00001GAUGE18947
SK	Devín	Danube	1 879,80	1 880,20	1 873,20	LDC	120			HDC	613	13 287	Baltic sea	
SK	Bratislava	Danube	1 868,75	1 873,20	1 851,75	LDC	233			HDC	640	12 843	Baltic sea	
SK	Čunovo	Danube-derivation canal		1 851,75	8,8 km of the canal	LDC	13 010			HDC	13 125	0	Baltic sea	
SK	Gabčíkovo	Danube derivation canal												
SK	Medveďov	Danube	1 806,35	1 810,00	1 791,00	LDC*	100			HDC	549	10 842	Baltic sea	
HU	Gönyű	Danube	1 791,30	1 811,00	1 780,00	LDC*	-1	MW	218	HDC	498	10 621	Baltic sea	
HU	Komárom	Danube	1 768,34	1 780,00	1 740,00	LDC*	91	MW	251	HDC	555	10 388	Baltic sea	
SK	Komárno	Danube	1 766,20	1 791,00	1 736,00	LDC*	137			HDC	600	10 340	Baltic sea	
SK	Štúrovo	Danube	1 718,60	1 736,00	1 708,20	LDC*	73			HDC	510	10 096	Baltic sea	
HU	Esztergom	Danube	1 718,52	1 736,00	1 708,20	LDC*	72	MW	236	HDC	508	10 096	Baltic sea	
HU	Nagymaros	Danube	1 694,60			LDC	-10	MW	182	HDC	510	9 938	Baltic sea	
HU	Budapest	Danube	1 646,50	1 708,20	1 560,60	LDC	80	MW	287	HDC	668	9 498	Baltic sea	
HU	Dunaújváros	Danube	1 580,60	1 520,00	1 566,00	LDC	-8	MW	223	HDC	551	9 028	Baltic sea	
HU	Dunaföldvár	Danube	1 560,60	1 520,00	1 520,00	LDC	-54	MW	189	HDC	550	8 886	Baltic sea	
HU	Baja	Danube	1 478,70	1 520,00	1 465,00	LDC	118	MW	376	HDC	801	8 099	Baltic sea	
HU	Mohács	Danube	1 446,90	1 465,00	1 433,00	LDC	144	MW	397	HDC	815	7 920	Baltic sea	
SR	Bezdan	Danube	1 425,50			LDC	51	Moyen	258	HDC	596	8 064	Adriatic s.	
HR	Batina	Danube	1 424,84			LDC	51	Moyen	258	HDC	596	8 064	Adriatic s.	
SR	Apatin	Danube	1 401,40			LDC	87			HDC	665	7 884	Adriatic s.	
HR	Aljmaš	Danube	1 380,50					Mean	289			7 808	Adriatic s.	
SR	Bogojevo	Danube	1 367,30			LDC	80	Moyen	292	HDC	635	7 746	Adriatic s.	
HR	Dalj	Danube	1 355,10					Mean	182			7 528	Adriatic s.	

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
HR	Vukovar	Danube	1 333,10			LDC	73	Moyen	258	HDC	570	7 619	Adriatic s.	
HR	Ilok	Danube	1 298,80			LDC	96	Moyen	277	HDC	589	7 397	Adriatic s.	
SR	Novi Sad	Danube	1 255,10			LDC	80	Moyen	263	HDC	599	7 173	Adriatic s.	
SR	Slankamen	Danube	1 215,50			LDC	142			HDC	642	6 968	Adriatic s.	
SR	Zemun	Danube	1 173,00			LDC	223	Moyen	279	HDC	636	6 787	Adriatic s.	
SR	Smederevo	Danube	1 116,30			LDC	434	Moyen	372	HDC	680	6 536	Adriatic s.	
SR	Pančevo	Danube	1 154,00			LDC	261			HDC	630	6 733	Adriatic s.	
HR	Osijek	Drava	19,10					Mean	123			8 148	Adriatic s.	
HR	Belisce	Drava	53,80					Mean	210			8 399	Adriatic s.	
HR	Donji Miholjac	Drava	77,00					Mean	79			8 857	Adriatic s.	
HR	Moslavina	Drava										9 094	Adriatic s.	
HR	Vrbovska	Drava										9 321	Adriatic s.	
HU	Drávaszabolcs	Drava	77,70			LNW	110		179	HNW	490	8 672	Baltic sea	
HU	Barcs	Drava	153,50			LNW	40		107	HNW	420	9 813	Baltic sea	
HR	Terezino Polje	Drava	152,70					Mean	-79			10 067	Adriatic s.	
HR	Botovo	Drava	227,10					Mean	170			12 155	Adriatic s.	
SR	Sremska Mitro- vica	Sava	136,00					Moyen	302			7 222	Adriatic s.	
HR	Zupanja	Sava	262,00					Mean	371			7 628	Adriatic s.	
HR	Slavonski Samac	Sava	306,00					Mean	219			8 070	Adriatic s.	
HR	Slavonski Brod	Sava	360,00					Mean	300			8 180	Adriatic s.	
HR	Mackovac	Sava	439,00					Mean	432			8 364	Adriatic s.	
HR	Davor	Sava	418,00					Mean	401			8 259	Adriatic s.	
HR	Jasenovac	Sava	500,50					Mean	335			8 682	Adriatic s.	
HR	Crnac	Sava	575,00					Mean	135			9 134	Adriatic s.	
SR	S. Rača	Sava	175,00			LDC	70			HDC	739	7 466	Adriatic s.	
SR	Šabac	Sava	102,60			LDC	-43			HDC	549	7 261	Adriatic s.	
SR	Beograd	Sava	0,90			LDC	182			HDC	602	6 828	Adriatic s.	
HU	Győr-Bácsa	Mosoni-Duna	9,20			LNW	62			HNW	518	10 698	Baltic sea	
HU	Dunabogdány	Szentendrei- Duna	27,40			LNW	-3			HNW	526	9 894	Baltic sea	
HU	Szentendre há.	Szentendrei- Duna	11,00			LNW	-25			HNW	581	9 768	Baltic sea	

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
HU	Kvassay-zsilip (Duna 1 642. fkm.)	Ráckevei-Duna	57,20			LNW	110			HNW	150	9 482	Baltic sea	
HU	Tassi-zsilip (Duna 1 586. fkm.)	Ráckevei-Duna	0,80			LNW	646			HNW	706	8 926	Baltic sea	
HU	Vásárosnamény	Tisza	684,50	686,00	650,00	LNW	-140			HNW	752	10 198	Baltic sea	
HU	Záhony	Tisza	627,80	650,00	597,00	LNW	-230			HNW	554	9 821	Baltic sea	
HU	Dombrád	Tisza	593,08	597,00	565,00	LNW	10			HNW	650	9 405	Baltic sea	
HU	Tokaj	Tisza	543,11	565,00	525,00	LNW	350			HNW	720	8 933	Baltic sea	
HU	Tiszalök-felső	Tisza	518,22	525,00	518,00	LNW	350			HNW	580	8 932	Baltic sea	
HU	Tiszalök-alsó	Tisza	518,22	518,00	490,00	LNW	100			HNW	580	8 932	Baltic sea	
HU	Tiszapalkonya	Tisza	484,70	490,00	440,00	LNW	-30			HNW	610	8 728	Baltic sea	
HU	Tiszafüred	Tisza	430,50	440,00	410,00	LNW	345			HNW	577	8 316	Baltic sea	
HU	Kisköre-felső	Tisza	403,20	410,00	403,20	LNW	525			HNW	635	8 132	Baltic sea	
HU	Kisköre-alsó	Tisza	403,20	403,20	380,00	LNW	-160			HNW	635	8 132	Baltic sea	
HU	Szolnok	Tisza	334,61	380,00	260,00	LNW	-205			HNW	659	7 878	Baltic sea	
HU	Csongrád	Tisza	246,20	260,00	230,00	LNW	-35			HNW	622	7 623	Baltic sea	
HU	Szeged	Tisza	173,60	230,00	160,00	LNW	94			HNW	630	737	Baltic sea	
SR	N. Kneževac	Tisa	141,60			LDC	50			HDC	617	7 974	Adriatic s.	
SR	Senta	Tisa	122,00			LDC	125			HDC	630	7 910	Adriatic s.	
SR	Novi Bečej	Tisa	65,00			LDC	213			HDC	718	7 905	Adriatic s.	
SR	Titel	Tisa	9,80			LDC	133			HDC	646	7 624	Adriatic s.	
HU	Felsőberecki	Bodrog	47,75	50,00	40,00	LNW	90			HNW	530	9 216	Baltic sea	
HU	Sárospataki közúti híd	Bodrog	37,09	40,00	15,00	LNW	110			HNW	512	9 182	Baltic sea	
HU	Tokaj (Tisza 543,11)	Bodrog		15,00	0,00	LNW	350			HNW	720	8 933	Baltic sea	
HU	Bökényi duz-zasztó	Hármas-Körös	5,60			LNW	77			HNW	551	7 521	Baltic sea	
HU	Kunszentmárton régi közúti híd	Hármas-Körös	19,80			LNW	-13			HNW	629	—	Baltic sea	
HU	Kunszentmárton új közúti híd és vm.	Hármas-Körös	21,20			LNW	-8			HNW	605	7 613	Baltic sea	
HU	Kunszentmárton vasúti híd	Hármas-Körös	22,40			LNW	-30			HNW	545	—	Baltic sea	

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
HU	Békésszentandrás duzzasztómű és vm. Alvízi és felvízi	Hármas-Körös	47,50			LNW	35			HNW	784	7 313	Baltic sea	
HU	Szarvasi vasúti híd	Hármas-Körös	53,80			LNW	50			HNW	628	7 726	Baltic sea	
HU	Endrődi közúti híd	Hármas-Körös	72,90			LNW	80			HNW	537	—	Baltic sea	
HU	Gyoma vasúti híd	Hármas-Körös	76,00			LNW	88			HNW	424	—	Baltic sea	
HU	Gyoma közúti híd és vm.	Hármas-Körös	79,20			LNW	91			HNW	606	7 866	Baltic sea	
HU	Kettős-Körös-torkolat (91,30)	Kettős-Körös	0,00			LNW	9			HNW	—	—	Baltic sea	
HU	Kőröstarcsai közúti híd vm. (98,40)	Kettős-Körös	7,10			LNW	29			HNW	616	8 001	Baltic sea	
HU	Mezőberényi közúti híd (103,70)	Kettős-Körös	12,40			LNW	144			HNW	591	—	Baltic sea	
HU	Békési közúti híd és vm. (11470)	Kettős-Körös	23,40			LNW	108			HNW	500	8 112	Baltic sea	
HU	Hármas-Körös-torkolat (91,30)	Sebes-Körös	0,00			LNW	9			HNW	—	—	Baltic sea	
HU	Kőrösladányi közúti híd és vm. (100,80)	Sebes-Körös	9,50			LNW	108			HNW	500	8 112	Baltic sea	
DE	Emmerich	Rhein	852,00	857,40	837,00	GLW	80			HSW	700			
DE	Wesel	Rhein	814,00	837,00	794,00	GLW	155			HSW	870			
DE	Duisburg-Ruhrort	Rhein	780,00	794,00	763,00	GLW	225			HSW	1 130			
DE	Düsseldorf	Rhein	744,00	763,00	716,00	GLW	105			HSW	710			
DE	Köln	Rhein	688,00	716,00	660,00	GLW	145			HSW	620			
DE	Oberwinter	Rhein	638,00	660,00	624,00					HSW	680			
DE	Andernach	Rhein	613,00	624,00	601,00	GLW	95			HSW	760			
DE	Koblenz	Rhein	591,00	601,00	566,00	GLW	80			HSW	650			
DE	Kaub	Rhein	546,00	566,00	540,00	GLW	80			HSW	640			
DE	Bingen	Rhein	528,00	540,00	511,00	GLW	100			HSW	490			
DE	Mainz	Rhein	498,00	511,00	462,00	GLW	170			HSW	630			
DE	Worms	Rhein	444,00	462,00	431,50	GLW	65			HSW	650			
DE	Mannheim	Rhein	425,00	431,50	412,00	GLW	155			HSW	760			

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
DE	Speyer	Rhein		412,00	384,00	GLW	220			HSW	730			
DE	Maxau	Rhein	365,00	384,00	179,10	GLW	360			HSW	750			
DE	Heidelberg	Neckar	26,00							HSW	260			
DE	Gundelsheim	Neckar	94,00							HSW	380			
DE	Trunstadt	Main	388,00	359,00	387,00					HSW	370			
DE	Schweinfurt	Main	338,00	275,00	359,00					HSW	370			
DE	Würzburg	Main	252,00	219,00	275,00					HSW	340			
DE	Steinbach	Main	200,00	160,00	219,00					HSW	370			
DE	Obernau	Main	93,00	83,00	113,00					HSW	380			
DE	Kleinheubach	Main	121,00	113,00	160,00					HSW	370			
DE	Frankfurt	Main	37,00	28,00	83,00					HSW	370			
DE	Raunheim	Main	12,00	0,00	28,00					HSW	400			
DE	Leun	Lahn	111,00							HSW	360			
DE	Kalkofen	Lahn	32,00	135,00	70,00					HSW	360			
DE	St. Arnual	Saar	90,00							HSW	230			
DE	Fremersdorf	Saar	48,00	5,00	66,00					HSW	390			
DE	Trier	Mosel	193,00							HSW	695			
DE	Cochern	Mosel	52,00							HSW	600			
DE	Hattingen	Ruhr	57,00							HSW				
DE	Bamberg	Main-Donau-Kanal	7,00	13,00	32,00					HSW	370			
DE	Bamberg	Main-Donau-Kanal	7,00	2,00	7,00					HSW	370			
DE	Riedenburg	Main-Donau-Kanal	151,00							HSW	520			
DE	Oberndorf	Danube	2 397,00			GLW	170			HSW	480			
DE	Schwabelweis	Danube	2 376,00			GLW	292			HSW	520			
DE	Pfelling	Danube	2 305,00			GLW	290			HSW	620			
DE	Hofkirchen	Danube	2 256,00			GLW	207			HSW	480			
DE	Passau-Donau	Danube	2 226,00			GLW	415			HSW	780			
DE	Dresden	Elbe	55,00	0,00	109,00					HSW	500			
DE	Torgau	Elbe	154,00	109,00	200,00					HSW	620			
DE	Wittenberg	Elbe	214,00	200,00	290,00					HSW	550			
DE	Barby	Elbe	295,00	290,00	322,00					HSW	570			

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
DE	Magdeburg-Strombruecke	Elbe	326,00	322,00	343,00					HSW	550			
DE	Rothensee	Elbe	333,00							HSW	745			
DE	Tangermunde	Elbe	388,00	343,00	422,00					HSW	620			
DE	Wittenberge	Elbe	453,00	422,00	502,00					HSW	610			
DE	Doemitz	Elbe	504,00	502,00	569,00					HSW	580			
DE	Hohnstorf	Elbe	569,00							HSW	820			
DE	Friedrichsthal	Havel-Oder-Wasserstrasse	133,00	126,00	134,00					HSW	660			
DE	Eisenhuettenstadt	Oder	553,00							HSW	535			
DE	Frankfurt/Oder	Oder	584,00							HSW	490			
DE	Kienitz	Oder	632,00							HSW	535			
DE	Stuetzkow	Oder	680,00							HSW	920			
DE	Calbe	Saale	17,00	0,00	20,00					HSW	690			
DE	Trotha	Saale								HSW	440			
DE	Trotha	Saale								HSW	400			
DE	Gartz	Westoder								HSW	630			
NL	Lobith	Boven-Rijn	862,20									0	NAP	
NL	Pannerdensche kop	Waal	867,00									0	NAP	
NL	Nijmegen haven	Waal	864,80									0	NAP	
NL	Tiel Waal	Waal	913,40									0	NAP	
NL	Zaltbommel	Waal	934,70									0	NAP	
NL	Vuren	Waal	951,75									0	NAP	
NL	IJsselkop	Neder-Rijn	878,60									0	NAP	
NL	Driel boven	Neder-Rijn	891,15									0	NAP	
NL	Driel beneden	Neder-Rijn	891,75									0	NAP	
NL	Amerongen boven	Neder-Rijn	922,10									0	NAP	
NL	Amerongen beneden	Neder-Rijn	922,60									0	NAP	
NL	Culemborg brug	Lek	939,60									0	NAP	
NL	Hagestein boven	Lek	946,65									0	NAP	
NL	Hagestein beneden	Lek	947,75									0	NAP	
NL	Schoonhoven	Lek	971,55									0	NAP	

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
NL	Sambeek beneden	Maas	147,00									0	NAP	
NL	Mook	Maas	165,00									0	NAP	
NL	Grave beneden	Maas	175,70									0	NAP	
NL	Megen	Maas	191,50									0	NAP	
NL	Lith boven	Maas	200,85									0	NAP	
NL	Lith dorp	Maas	202,40									0	NAP	
NL	Heesbeen	Maas	230,60									0	NAP	
NL	Keizersveer	Maas	247,50									0	NAP	
BG	Novo Selo	Danube	833,75			LDC	120			HDC	784	2 700	Black sea — Varna	
BG	Vidin	Danube	790,30			LDC	163			HDC	802	2 481	Black sea — Varna	
BG	Artchar	Danube	770,60			LDC	182			HDC	778	2 400	Black sea — Varna	
BG	Lom	Danube	743,00			LDC	174			HDC	795	2 289	Black sea — Varna	
BG	Dolni Tzibar	Danube	717,60			LDC	130			HDC	740	2 250	Black sea — Varna	
BG	Kozlodui	Danube	703,50			LDC	134			HDC	742	2 200	Black sea — Varna	
BG	Oriahovo	Danube	678,00			LDC	46			HDC	658	2 158	Black sea — Varna	
BG	Gorni Vadin	Danube	653,00			LDC	123			HDC	722	2000	Black sea — Varna	
BG	Somovit	Danube	607,70			LDC	136			HDC	768	1 786	Black sea — Varna	
BG	Nikopol	Danube	597,50			LDC	165			HDC	716	1 735	Black sea — Varna	
BG	Svistov	Danube	554,30			LDC	88			HDC	782	1 510	Black sea — Varna	
BG	Rousse	Danube	495,60			LDC	107			HDC	783	1 199	Black sea — Varna	
BG	Toutrakan	Danube	433,00			LDC	128			HDC	827	889	Black sea — Varna	
BG	Silistra	Danube	375,50			LDC	86			HDC	717	650	Black sea — Varna	
RO	Baziaş	Danube	1 075,00									64 000	Black sea — Sulina	

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
RO	Moldova Veche	Danube	1 048,00	1 075,00	1 033,00							63 000	Black sea — Sulina	
RO	Drencova	Danube	1 016,00	1 033,00	898,00							60 000	Black sea — Sulina	
RO	Turnu Severin	Danube	931,00	1 075,00	845,00							34 000	Black sea — Sulina	
RO	Orșova	Danube	954,00	998,00	944,00							44 000	Black sea — Sulina	
RO	Gruia	Danube	951,00	890,00	831,00	LDC	34			HDC	748	29 000	Black sea — Sulina	
RO	Cetate	Danube	811,00			LDC	60			HDC	729	27 000	Black sea — Sulina	
RO	Calafat	Danube	795,00	831,00	730,00	LDC	50			HDC	702	26 000	Black sea — Sulina	
RO	Bechet	Danube	679,00	720,00	655,00	LDC	42			HDC	683	22 000	Black sea — Sulina	
RO	Bistreț	Danube	725,00			LDC	49			HDC	687	23 000	Black sea — Sulina	
RO	Corabia	Danube	630,00	655,00	617,00	LDC	23			HDC	680	20 000	Black sea — Sulina	
RO	Turnu Măgurele	Danube	597,00	617,00	573,00	LDC	34			HDC	614	19 000	Black sea — Sulina	
RO	Zimnicea	Danube	553,00	573,00	530,00	LDC	57			HDC	724	16 000	Black sea — Sulina	
RO	Giurgiu	Danube	493,00	530,00	455,00	LDC	44			HDC	707	13 000	Black sea — Sulina	
RO	Oltenița	Danube	430,00	455,00	400,00	LDC	9			HDC	714	10 000	Black sea — Sulina	
RO	Călărași	Danube	370,00	400,00	350,00	LDC	-9			HDC	639	7 000	Black sea — Sulina	
RO	Cernavodă	Danube	300,00	324,00	285,00	LDC	-35			HDC	604	4 000	Black sea — Sulina	
RO	Hârșova	Danube	253,00	285,00	237,00	LDC	19			HDC	644	3 000	Black sea — Sulina	
RO	Brăila	Danube	170,00	337,00	160,00	LDC	46			HDC	578		Black sea — Sulina	
RO	Galați	Danube	150,00	300,00	134,00	LDC	52			HDC	553	800	Black sea — Sulina	
RO	Isaccea	Danube	103,00	118,00	96,00	LDC	42			HDC	458	700	Black sea — Sulina	
RO	Tulcea	Danube	71,00	96,00	79,00	LDC	28			HDC	388	600	Black sea — Sulina	

Country	Name of gauge	Waterway	Place	Area of applicability		Reference level 1		Reference level 2		Reference level 3		Zero point	Geod. ref.	ISRS location code
			km	From km	To km	Code	value	Code	value	Code	value	(cm)		
CS	Přelouč	Labe	114,30	102,50	31,80					HSW	300			
CS	Brandýs n. L.	Labe	27,80	31,80	0,00					HSW	350	16 438	Baltic sea	
CS	Mělník	Labe	0,45	0,00	49,10					HSW	450	15 314	Baltic sea	
CS	Ústí n. L. — Střekov	Labe	70,55	49,10	69,20					HSW	520	13 127	Baltic sea	
CS	Ústí n. L. — Střekov	Labe	70,55	69,20	109,27					HSW	540	13 127	Baltic sea	
CS	Praha	Vltava	60,08	0,00	46,00					II	450 m3/ sec	18 761	Baltic sea	
CS	Praha	Vltava	60,08	46,00	54,30					II	600 m3 sec	18 761	Baltic sea	
CS	Praha	Vltava	60,08	54,30	61,70					II	800 m3/ sec	18 761	Baltic sea	
CS	Praha	Vltava	60,08	61,70	91,60					II	600 m3/ sec (OTHER LCK Modřany 450 m3/ sec	18 761	Baltic sea	

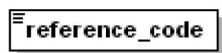
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	<u>ice_condition</u>	
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element **reference_code**

diagram



Code of the reference used
in the value

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used by complexTypes **limitation wrm**

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- enumeration **TAW**
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- enumeration **POT**
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- enumeration **ZPG**
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- enumeration **RN**

annotation documentation
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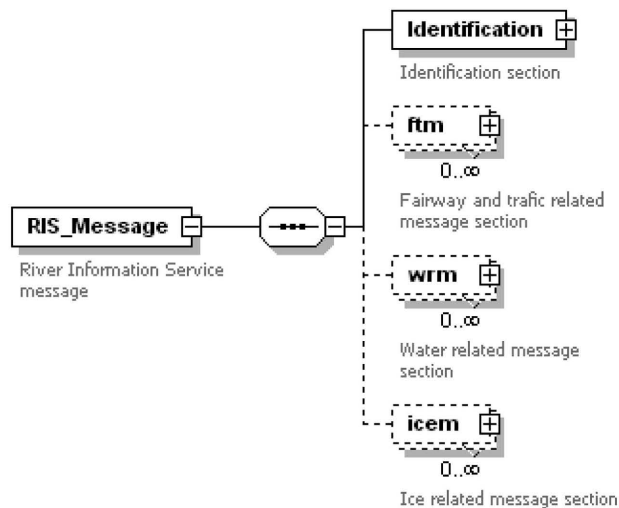
```

<xs:restriction base="xs:string">
  <xs:maxLength value="4"/>
  <xs:enumeration value="NAP"/>
  <xs:enumeration value="KP"/>
  <xs:enumeration value="FZP"/>
  <xs:enumeration value="ADR"/>
  <xs:enumeration value="TAW"/>
  <xs:enumeration value="PUL"/>
  <xs:enumeration value="NGM"/>
  <xs:enumeration value="ETRS"/>
  <xs:enumeration value="POT"/>
  <xs:enumeration value="LDC"/>
  <xs:enumeration value="HDC"/>
  <xs:enumeration value="ZPG"/>
  <xs:enumeration value="GLW"/>
  <xs:enumeration value="HSW"/>
  <xs:enumeration value="LNW"/>
  <xs:enumeration value="HNW"/>
  <xs:enumeration value="IGN"/>
  <xs:enumeration value="WGS"/>
  <xs:enumeration value="RN"/>
</xs:restriction>
</xs:simpleType>
</xs:element>

```

element RIS_Message

diagram



namespace www.RISexpertgroups.org

properties content complex

children [Identification](#) [ftm](#) [wrm](#) [icem](#)

annotation documentation
River Information Service message

```

source
<xs:element name="RIS_Message">
  <xs:annotation>
    <xs:documentation>River Information Service message</xs:documentation>
  </xs:annotation>
  <xs:complexType>
    <xs:sequence>
      <xs:element name="Identification" type="Identification">
        <xs:annotation>
          <xs:documentation>Identification section</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="ftm" type="ftm" minOccurs="0" maxOccurs="unbounded">
        <xs:annotation>
          <xs:documentation>Fairway and traffic related message section</xs:documentation>
        </xs:annotation>
      </xs:element>
      <xs:element name="wrm" type="wrm" minOccurs="0" maxOccurs="unbounded">
        <xs:annotation>

```

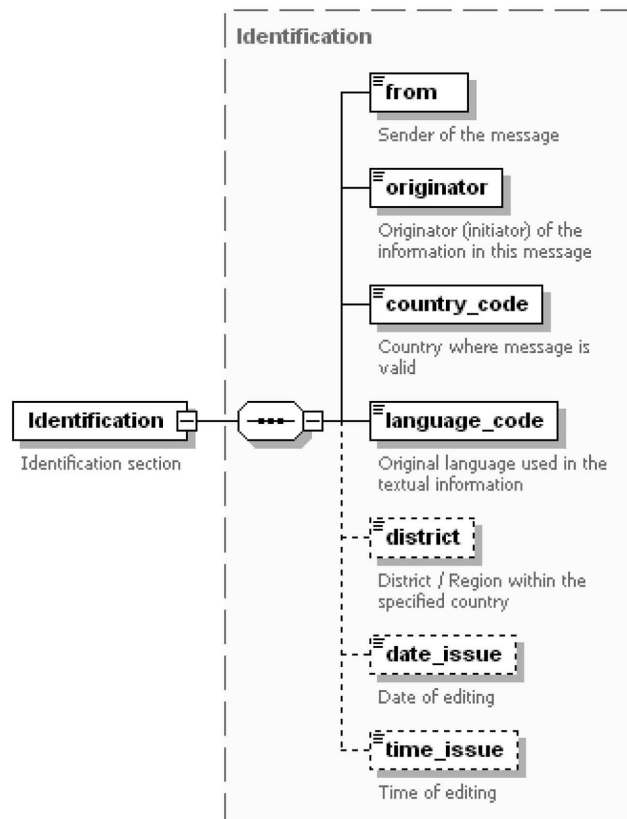
```

    <xs:documentation>Water related message section</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="icem" type="icem" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Ice related message section</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
</xs:complexType>
</xs:element>

```

element **RIS_Message/Identification**

diagram



namespace **www.RISexpertgroups.org**

type **Identification**

properties
isRef 0
content complex

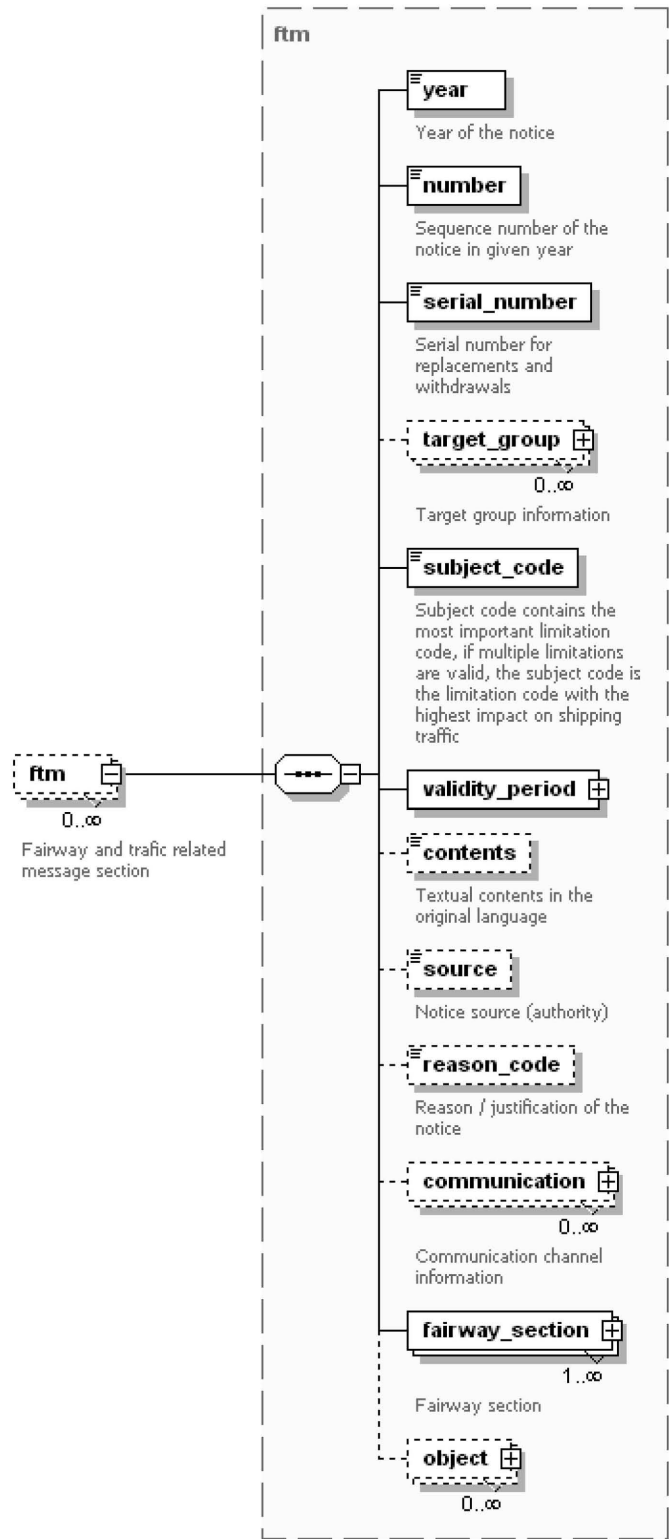
children **from originator country_code language_code district date_issue time_issue**

annotation
documentation
Identification section

source
 <xs:element name="Identification" type="Identification">
 <xs:annotation>
 <xs:documentation>Identification section</xs:documentation>
 </xs:annotation>
 </xs:element>

element **RIS_Message/ftm**

diagram



namespace **www.RISexpertgroups.org**

type **ftm**

properties

isRef	0
minOcc	0
maxOcc	unbounded

content complex

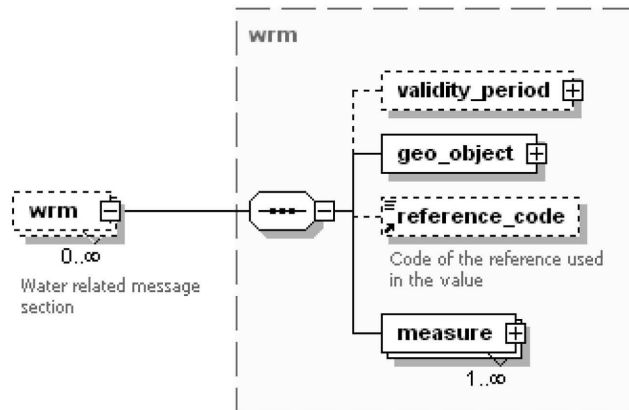
children year number serial number target group subject code validity period contents source reason code
communication fairway section object

annotation documentation
Fairway and trafic related message section

source <xs:element name="ftm" type="ftm" minOccurs="0" maxOccurs="unbounded">
<xs:annotation>
<xs:documentation>Fairway and trafic related message section</xs:documentation>
</xs:annotation>
</xs:element>

element RIS_Message/wrm

diagram



namespace www.RISexpertgroups.org

type wrm

properties isRef 0
minOcc 0
maxOcc unbounded
content complex

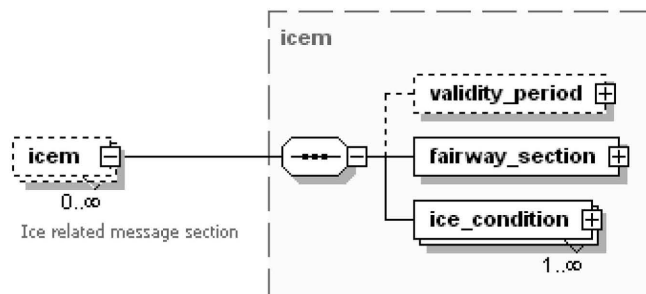
children validity period geo object reference code measure

annotation documentation
Water related message section

source <xs:element name="wrm" type="wrm" minOccurs="0" maxOccurs="unbounded">
<xs:annotation>
<xs:documentation>Water related message section</xs:documentation>
</xs:annotation>
</xs:element>

element RIS_Message/icem

diagram



namespace www.RISexpertgroups.org

type icem

properties isRef 0
minOcc 0
maxOcc unbounded
content complex

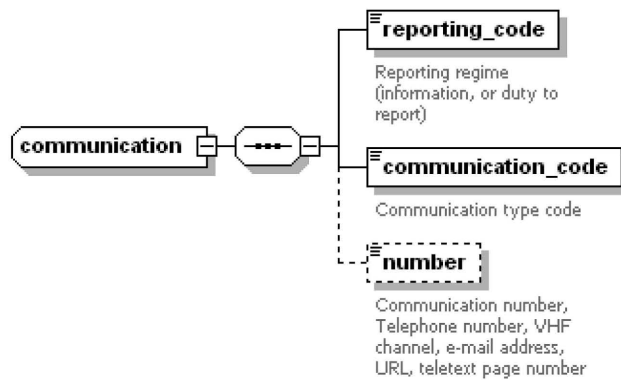
children **validity period fairway section ice condition**

annotation documentation
Ice related message section

source `<xs:element name="icem" type="icem" minOccurs="0" maxOccurs="unbounded">`
`<xs:annotation>`
`<xs:documentation>Ice related message section</xs:documentation>`
`</xs:annotation>`
`</xs:element>`

complexType communication

diagram



namespace **www.RISexpertgroups.org**

children **reporting code communication code number**

used by element **ftm/communication**

source `<xs:complexType name="communication">`
`<xs:sequence>`
`<xs:element name="reporting_code">`
`<xs:annotation>`
`<xs:documentation>Reporting regime (information, or duty to report)</xs:documentation>`
`</xs:annotation>`
`<xs:simpleType>`
`<xs:restriction base="xs:string">`
`<xs:maxLength value="3"/>`
`<xs:enumeration value="INF"/>`
`<xs:enumeration value="ADD"/>`
`<xs:enumeration value="REG"/>`
`</xs:restriction>`
`</xs:simpleType>`
`</xs:element>`
`<xs:element name="communication_code">`
`<xs:annotation>`
`<xs:documentation>Communication type code</xs:documentation>`
`</xs:annotation>`
`<xs:simpleType>`
`<xs:restriction base="xs:string">`
`<xs:maxLength value="3"/>`
`<xs:enumeration value="TEL"/>`
`<xs:enumeration value="VHF"/>`
`<xs:enumeration value="EM"/>`
`<xs:enumeration value="INT"/>`
`<xs:enumeration value="TXT"/>`
`<xs:enumeration value="FAX"/>`
`<xs:enumeration value="LIG"/>`
`<xs:enumeration value="FLA"/>`
`<xs:enumeration value="SOU"/>`
`</xs:restriction>`
`</xs:simpleType>`
`</xs:element>`
`<xs:element name="number" minOccurs="0">`
`<xs:annotation>`
`<xs:documentation>Communication number, Telephone number, VHF channel, e-mail address, URL, teletext page number</xs:documentation>`
`</xs:annotation>`
`<xs:simpleType>`
`<xs:restriction base="xs:string">`

```

        <xs:maxLength value="128"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:element>
</xs:sequence>
</xs:complexType>

```

element **communication/reporting_code**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties isRef 0

content simple

facets maxLength 3

enumeration INF

enumeration ADD

enumeration REG

annotation documentation

Reporting regime (information, or duty to report)

source <xs:element name="reporting_code">

<xs:annotation>

<xs:documentation>Reporting regime (information, or duty to report)</xs:documentation>

</xs:annotation>

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="3"/>

<xs:enumeration value="INF"/>

<xs:enumeration value="ADD"/>

<xs:enumeration value="REG"/>

</xs:restriction>

</xs:simpleType>

</xs:element>

element **communication/communication_code**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties isRef 0

content simple

facets maxLength 3

enumeration TEL

enumeration VHF

enumeration EM

enumeration INT

enumeration TXT

enumeration FAX

enumeration LIG

enumeration FLA

enumeration SOU

annotation documentation

Communication type code

source <xs:element name="communication_code">

<xs:annotation>

<xs:documentation>Communication type code</xs:documentation>

</xs:annotation>

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="3"/>

<xs:enumeration value="TEL"/>

<xs:enumeration value="VHF"/>

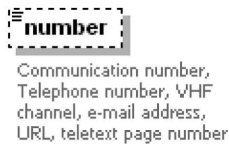

```

<xs:enumeration value="EM"/>
<xs:enumeration value="INT"/>
<xs:enumeration value="TXT"/>
<xs:enumeration value="FAX"/>
<xs:enumeration value="LIG"/>
<xs:enumeration value="FLA"/>
<xs:enumeration value="SOU"/>
</xs:restriction>
</xs:simpleType>
</xs:element>

```

element **communication/number**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties
 isRef 0
 minOcc 0
 maxOcc 1
 content simple
 facets
 maxLength 128

annotation documentation

Communication number, Telephone number, VHF channel, e-mail address, URL, teletext page number

source <xs:element name="number" minOccurs="0">

<xs:annotation>

<xs:documentation>Communication number, Telephone number, VHF channel, e-mail address, URL, teletext page number</xs:documentation>

</xs:annotation>

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="128"/>

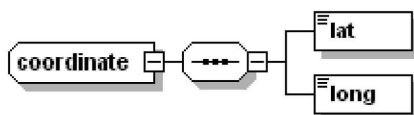
</xs:restriction>

</xs:simpleType>

</xs:element>

complexType **coordinate**

diagram



namespace **www.RISexpertgroups.org**

children **lat long**

used by element **geo object/coordinate**

source <xs:complexType name="coordinate">

<xs:sequence>

<xs:element name="lat">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:minLength value="12"/>

<xs:maxLength value="13"/>

</xs:restriction>

</xs:simpleType>

</xs:element>

<xs:element name="long">

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:minLength value="12"/>

<xs:maxLength value="13"/>

</xs:restriction>

```

</xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>

```

element **coordinate/lat**

diagram



namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties isRef 0
content simple
facets minLength 12
maxLength 13

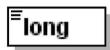
```

source <xs:element name="lat">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="12"/>
      <xs:maxLength value="13"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **coordinate/long**

diagram



namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties isRef 0
content simple
facets minLength 12
maxLength 13

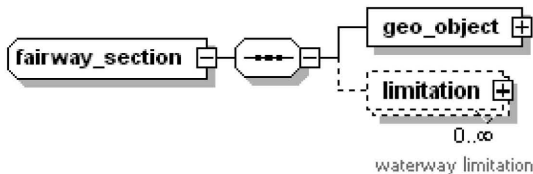
```

source <xs:element name="long">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:minLength value="12"/>
      <xs:maxLength value="13"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

complexType **fairway_section**

diagram



namespace www.RISexpertgroups.org

children **geo_object limitation**

used by elements **ftm/fairway_section icem/fairway_section**

```

source <xs:complexType name="fairway_section">
  <xs:sequence>
    <xs:element name="geo_object" type="geo_object"/>
    <xs:element name="limitation" type="limitation" minOccurs="0" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>waterway limitation</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

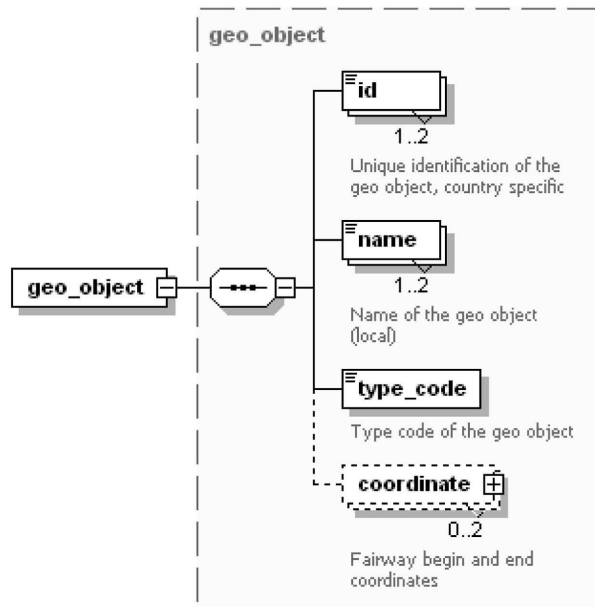
```

</xs:element>
</xs:sequence>
</xs:complexType>

```

element **fairway_section/geo_object**

diagram



namespace **www.RISexpertgroups.org**

type **geo_object**

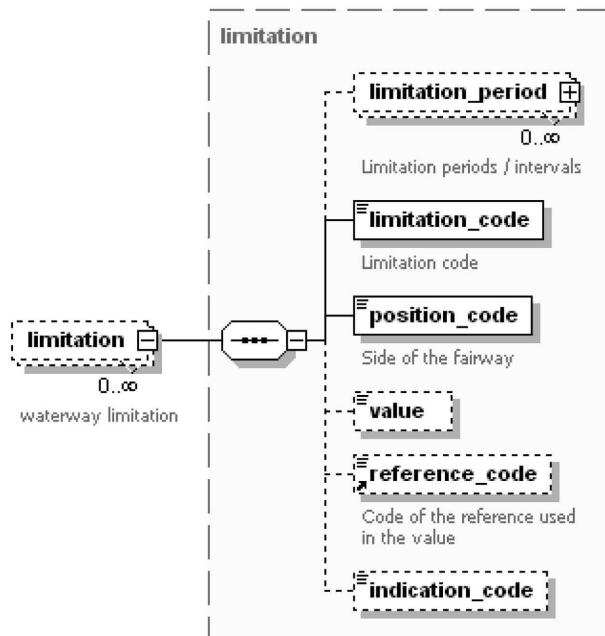
properties isRef 0
content complex

children **id name type_code coordinate**

source `<xs:element name="geo_object" type="geo_object"/>`

element **fairway_section/limitation**

diagram



namespace www.RISexpertgroups.org

type **limitation**

properties isRef 0
 minOcc 0
 maxOcc unbounded
 content complex

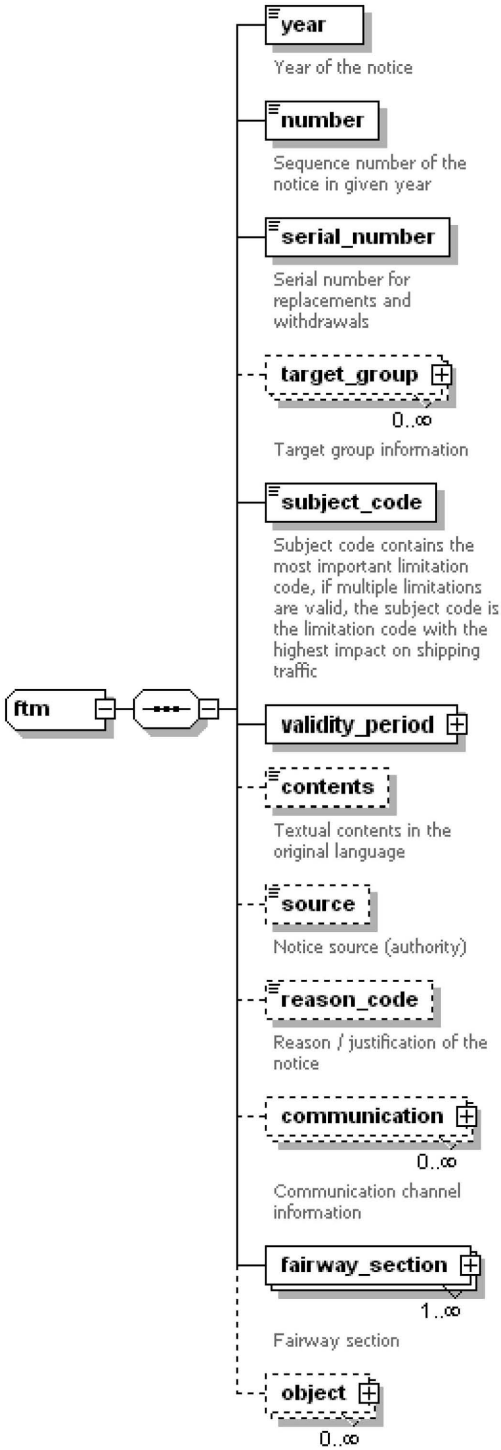
children **limitation period limitation code position code value reference code indication code**

annotation documentation
 waterway limitation

source <xs:element name="limitation" type="limitation" minOccurs="0" maxOccurs="unbounded">
 <xs:annotation>
 <xs:documentation>waterway limitation</xs:documentation>
 </xs:annotation>
 </xs:element>

complexType **ftm**

diagram



namespace **www.RISexpertgroups.org**

children **year** **number** **serial_number** **target_group** **subject_code** **validity_period** **contents** **source** **reason_code** **communication** **fairway_section** **object**

used by element **RIS Message/ftm**

source `<xs:complexType name="ftm">
<xs:sequence>
<xs:element name="year">`

```

<xs:annotation>
  <xs:documentation>Year of the notice</xs:documentation>
</xs:annotation>
<xs:simpleType>
  <xs:restriction base="xs:gYear">
    <xs:minInclusive value="2000"/>
    <xs:maxInclusive value="9999"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="number">
  <xs:annotation>
    <xs:documentation>Sequence number of the notice in given year</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:maxInclusive value="9999"/>
      <xs:minInclusive value="0000"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="serial_number">
  <xs:annotation>
    <xs:documentation>Serial number for replacements and withdrawals</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:integer">
      <xs:maxInclusive value="99"/>
      <xs:minInclusive value="00"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="target_group" type="target_group" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>
    <xs:documentation>Target group information</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="subject_code">
  <xs:annotation>
    <xs:documentation>Subject code contains the most important limitation code, if multiple limitations are valid, the
    subject code is the limitation code with the highest impact on shipping traffic    </xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="6"/>
      <xs:minLength value="3"/>
      <xs:enumeration value="OBSTRU"/>
      <xs:enumeration value="PAROBS"/>
      <xs:enumeration value="DELAY"/>
      <xs:enumeration value="VESLEN"/>
      <xs:enumeration value="VESHEI"/>
      <xs:enumeration value="VESBRE"/>
      <xs:enumeration value="VESDRA"/>
      <xs:enumeration value="AVALEN"/>
      <xs:enumeration value="CLEHEI"/>
      <xs:enumeration value="CLEWID"/>
      <xs:enumeration value="AVADEP"/>
      <xs:enumeration value="NOMOOR"/>
      <xs:enumeration value="SERVIC"/>
      <xs:enumeration value="NOSERV"/>
      <xs:enumeration value="SPEED"/>
      <xs:enumeration value="WAVWAS"/>
      <xs:enumeration value="PASSIN"/>
      <xs:enumeration value="ANCHOR"/>
      <xs:enumeration value="OVRTAK"/>
      <xs:enumeration value="MINPWR"/>
      <xs:enumeration value="DREDGE"/>
      <xs:enumeration value="WORK"/>
      <xs:enumeration value="EVENT"/>
      <xs:enumeration value="CHGMAR"/>
      <xs:enumeration value="CHGSER"/>
      <xs:enumeration value="SPCMAR"/>
      <xs:enumeration value="EXERC"/>
      <xs:enumeration value="LEADEP"/>
      <xs:enumeration value="LEVDEC"/>
      <xs:enumeration value="LEVRIS"/>
      <xs:enumeration value="ANNOUN"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

```

<xs:enumeration value="LIMITA"/>
<xs:enumeration value="CANCEL"/>
<xs:enumeration value="MISECH"/>
<xs:enumeration value="ECDISU"/>
<xs:enumeration value="NEWOBJ"/>
<xs:enumeration value="WARNIN"/>
<xs:enumeration value="CHWWY"/>
<xs:enumeration value="CONWWY"/>
<xs:enumeration value="DIVER"/>
<xs:enumeration value="SPECTR"/>
<xs:enumeration value="LOCRUL"/>
<xs:enumeration value="VHFCOV"/>
<xs:enumeration value="HIGVOL"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="validity_period" type="validity_period"/>
<xs:element name="contents" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Textual contents in the original language</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="500"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="source" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Notice source (authority)</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="64"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="reason_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Reason / justification of the notice</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="6"/>
      <xs:minLength value="3"/>
      <xs:enumeration value="EVENT"/>
      <xs:enumeration value="WORK"/>
      <xs:enumeration value="DREDGE"/>
      <xs:enumeration value="EXERC"/>
      <xs:enumeration value="HIGWAT"/>
      <xs:enumeration value="HIWAI"/>
      <xs:enumeration value="HIWAI"/>
      <xs:enumeration value="LOWWAT"/>
      <xs:enumeration value="SHALLO"/>
      <xs:enumeration value="CALAMI"/>
      <xs:enumeration value="LAUNCH"/>
      <xs:enumeration value="DECLEV"/>
      <xs:enumeration value="FLOMEA"/>
      <xs:enumeration value="BLDWRK"/>
      <xs:enumeration value="REPAIR"/>
      <xs:enumeration value="INSPEC"/>
      <xs:enumeration value="FIRWRK"/>
      <xs:enumeration value="LIMITA"/>
      <xs:enumeration value="CHGFWY"/>
      <xs:enumeration value="CONSTR"/>
      <xs:enumeration value="DIVING"/>
      <xs:enumeration value="SPECTR"/>
      <xs:enumeration value="EXT"/>
      <xs:enumeration value="MIN"/>
      <xs:enumeration value="SOUND"/>
      <xs:enumeration value="OTHER"/>
      <xs:enumeration value="INFSER"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="communication" type="communication" minOccurs="0" maxOccurs="unbounded">
  <xs:annotation>

```

```

      <xs:documentation>Communication channel information</xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="fairway_section" type="fairway_section" maxOccurs="unbounded">
    <xs:annotation>
      <xs:documentation>Fairway section</xs:documentation>
    </xs:annotation>
  </xs:element>
  <xs:element name="object" type="object" minOccurs="0" maxOccurs="unbounded"/>
</xs:sequence>
</xs:complexType>

```

element **ftm/year**

diagram



Year of the notice

namespace **www.RISexpertgroups.org**

type **restriction of xs:gYear**

properties isRef 0
content simple
facets minInclusive 2000
maxInclusive 9999

annotation documentation
Year of the notice

source <xs:element name="year">
 <xs:annotation>
 <xs:documentation>Year of the notice</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:gYear">
 <xs:minInclusive value="2000"/>
 <xs:maxInclusive value="9999"/>
 </xs:restriction>
 </xs:simpleType>
</xs:element>

element **ftm/number**

diagram



Sequence number of the
notice in given year

namespace **www.RISexpertgroups.org**

type **restriction of xs:integer**

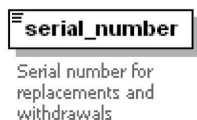
properties isRef 0
content simple
facets minInclusive 0000
maxInclusive 9999

annotation documentation
Sequence number of the notice in given year

source <xs:element name="number">
 <xs:annotation>
 <xs:documentation>Sequence number of the notice in given year</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:integer">
 <xs:maxInclusive value="9999"/>
 <xs:minInclusive value="0000"/>
 </xs:restriction>
 </xs:simpleType>
</xs:element>

element **ftm/serial_number**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of xs:integer**

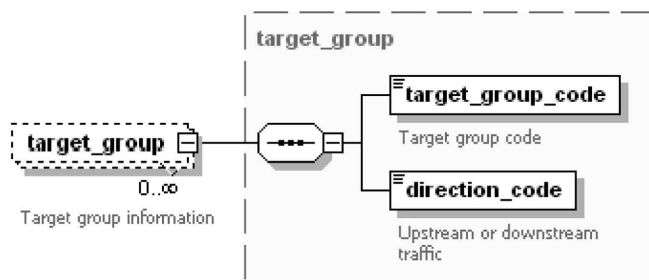
properties
 isRef 0
 content simple
 facets
 minInclusive 00
 maxInclusive 99

annotation
 documentation
 Serial number for replacements and withdrawals

source
 <xs:element name="serial_number">
 <xs:annotation>
 <xs:documentation>Serial number for replacements and withdrawals</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:integer">
 <xs:maxInclusive value="99"/>
 <xs:minInclusive value="00"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element **ftm/target_group**

diagram



namespace **www.RISexpertgroups.org**

type **target_group**

properties
 isRef 0
 minOcc 0
 maxOcc unbounded
 content complex

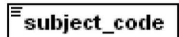
children **target_group_code direction_code**

annotation
 documentation
 Target group information

source
 <xs:element name="target_group" type="target_group" minOccurs="0" maxOccurs="unbounded">
 <xs:annotation>
 <xs:documentation>Target group information</xs:documentation>
 </xs:annotation>
 </xs:element>

element **ftm/subject_code**

diagram



Subject code contains the most important limitation code, if multiple limitations are valid, the subject code is the limitation code with the highest impact on shipping traffic

namespace **www.RISexpertgroups.org**type **restriction of xs:string**

properties isRef 0
 content simple
 facets minLength 3
 maxLength 6
 enumeration OBSTRU
 enumeration PAROBS
 enumeration DELAY
 enumeration VESLEN
 enumeration VESHEI
 enumeration VESBRE
 enumeration VESDRA
 enumeration AVALEN
 enumeration CLEHEI
 enumeration CLEWID
 enumeration AVADEP
 enumeration NOMOOR
 enumeration SERVIC
 enumeration NOSERV
 enumeration SPEED
 enumeration WAVWAS
 enumeration PASSIN
 enumeration ANCHOR
 enumeration OVRTAK
 enumeration MINPWR
 enumeration DREDGE
 enumeration WORK
 enumeration EVENT
 enumeration CHGMAR
 enumeration CHGSER
 enumeration SPCMAR
 enumeration EXERC
 enumeration LEADEP
 enumeration LEVDEC
 enumeration LEVRIS
 enumeration ANNOUN
 enumeration LIMITA
 enumeration CANCEL
 enumeration MISECH
 enumeration ECDISU
 enumeration NEWOBJ
 enumeration WARNIN
 enumeration CHWWY
 enumeration CONWWY
 enumeration DIVER
 enumeration SPECTR
 enumeration LOCRUL
 enumeration VHFCOV
 enumeration HIGVOL

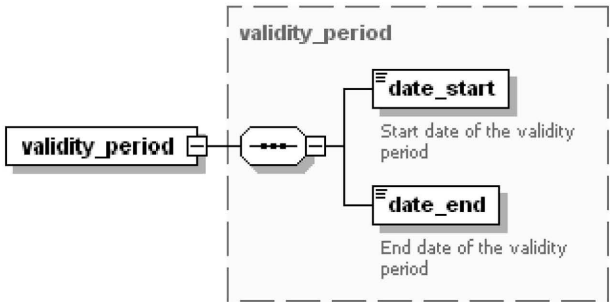
annotation documentation
 Subject code contains the most important limitation code, if multiple limitations are valid, the subject code is the limitation code with the highest impact on shipping traffic

source <xs:element name="subject_code">
 <xs:annotation>
 <xs:documentation>Subject code contains the most important limitation code, if multiple limitations are valid, the subject code is the limitation code with the highest impact on shipping traffic </xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:string">
 <xs:maxLength value="6"/>

```
<xs:maxLength value="3"/>
<xs:enumeration value="OBSTRU"/>
<xs:enumeration value="PAROBS"/>
<xs:enumeration value="DELAY"/>
<xs:enumeration value="VESLEN"/>
<xs:enumeration value="VESHEI"/>
<xs:enumeration value="VESBRE"/>
<xs:enumeration value="VESDRA"/>
<xs:enumeration value="AVALEN"/>
<xs:enumeration value="CLEHEI"/>
<xs:enumeration value="CLEWID"/>
<xs:enumeration value="AVADEP"/>
<xs:enumeration value="NOMOOR"/>
<xs:enumeration value="SERVIC"/>
<xs:enumeration value="NOSERV"/>
<xs:enumeration value="SPEED"/>
<xs:enumeration value="WAVWAS"/>
<xs:enumeration value="PASSIN"/>
<xs:enumeration value="ANCHOR"/>
<xs:enumeration value="OVRTAK"/>
<xs:enumeration value="MINPWR"/>
<xs:enumeration value="DREDGE"/>
<xs:enumeration value="WORK"/>
<xs:enumeration value="EVENT"/>
<xs:enumeration value="CHGMAR"/>
<xs:enumeration value="CHGSER"/>
<xs:enumeration value="SPCMAR"/>
<xs:enumeration value="EXERC"/>
<xs:enumeration value="LEADEP"/>
<xs:enumeration value="LEVDEC"/>
<xs:enumeration value="LEVVIS"/>
<xs:enumeration value="ANNOUN"/>
<xs:enumeration value="LIMITA"/>
<xs:enumeration value="CANCEL"/>
<xs:enumeration value="MISECH"/>
<xs:enumeration value="ECDISU"/>
<xs:enumeration value="NEWOBJ"/>
<xs:enumeration value="WARNIN"/>
<xs:enumeration value="CHWWY"/>
<xs:enumeration value="CONWWY"/>
<xs:enumeration value="DIVER"/>
<xs:enumeration value="SPECTR"/>
<xs:enumeration value="LOCRUL"/>
<xs:enumeration value="VHFCOV"/>
<xs:enumeration value="HIGVOL"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
```

element **ftm/validity_period**

diagram



namespace **www.RISexpertgroups.org**

type **validity_period**

properties isRef 0
 content complex

children **date_start date_end**

source `<xs:element name="validity_period" type="validity_period"/>`

element **ftm/contents**

diagram



Textual contents in the original language

namespace **www.RISexpertgroups.org**type **restriction of xs:string**

properties	isRef	0
	minOcc	0
	maxOcc	1
	content	simple
facets	maxLength	500

annotation
 Textual contents in the original language

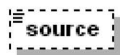
```

source <xs:element name="contents" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Textual contents in the original language</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="500"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **ftm/source**

diagram



Notice source (authority)

namespace **www.RISexpertgroups.org**type **restriction of xs:string**

properties	isRef	0
	minOcc	0
	maxOcc	1
	content	simple
facets	maxLength	64

annotation
 Notice source (authority)

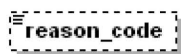
```

source <xs:element name="source" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Notice source (authority)</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="64"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **ftm/reason_code**

diagram



Reason / justification of the notice

namespace **www.RISexpertgroups.org**type **restriction of xs:string**

properties	isRef	0
	minOcc	0

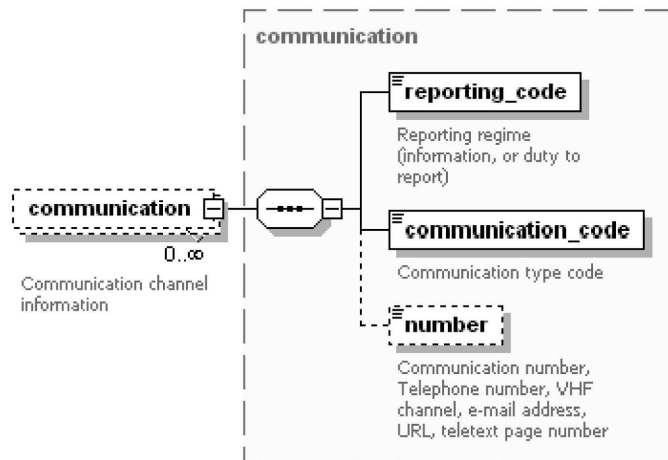
```

maxOcc 1
content simple
facets
  minLength 3
  maxLength 6
  enumeration EVENT
  enumeration WORK
  enumeration DREDGE
  enumeration EXERC
  enumeration HIGWAT
  enumeration HIWAI
  enumeration HIWAI
  enumeration LOWWAT
  enumeration SHALLO
  enumeration CALAMI
  enumeration LAUNCH
  enumeration DECLEV
  enumeration FLOMEA
  enumeration BLDWRK
  enumeration REPAIR
  enumeration INSPEC
  enumeration FIRWRK
  enumeration LIMITA
  enumeration CHGFWY
  enumeration CONSTR
  enumeration DIVING
  enumeration SPECTR
  enumeration EXT
  enumeration MIN
  enumeration SOUND
  enumeration OTHER
  enumeration INFSER
annotation documentation
Reason / justification of the notice
source <xs:element name="reason_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Reason / justification of the notice</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="6"/>
      <xs:minLength value="3"/>
      <xs:enumeration value="EVENT"/>
      <xs:enumeration value="WORK"/>
      <xs:enumeration value="DREDGE"/>
      <xs:enumeration value="EXERC"/>
      <xs:enumeration value="HIGWAT"/>
      <xs:enumeration value="HIWAI"/>
      <xs:enumeration value="HIWAI"/>
      <xs:enumeration value="LOWWAT"/>
      <xs:enumeration value="SHALLO"/>
      <xs:enumeration value="CALAMI"/>
      <xs:enumeration value="LAUNCH"/>
      <xs:enumeration value="DECLEV"/>
      <xs:enumeration value="FLOMEA"/>
      <xs:enumeration value="BLDWRK"/>
      <xs:enumeration value="REPAIR"/>
      <xs:enumeration value="INSPEC"/>
      <xs:enumeration value="FIRWRK"/>
      <xs:enumeration value="LIMITA"/>
      <xs:enumeration value="CHGFWY"/>
      <xs:enumeration value="CONSTR"/>
      <xs:enumeration value="DIVING"/>
      <xs:enumeration value="SPECTR"/>
      <xs:enumeration value="EXT"/>
      <xs:enumeration value="MIN"/>
      <xs:enumeration value="SOUND"/>
      <xs:enumeration value="OTHER"/>
      <xs:enumeration value="INFSER"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **ftm/communication**

diagram

namespace **www.RISexpertgroups.org**type **communication**

properties

isRef	0
minOcc	0
maxOcc	unbounded
content	complex

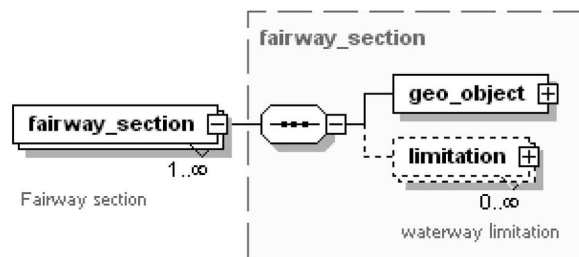
children **reporting_code communication_code number**

documentation
Communication channel information

source `<xs:element name="communication" type="communication" minOccurs="0" maxOccurs="unbounded">`
`<xs:annotation>`
`<xs:documentation>Communication channel information</xs:documentation>`
`</xs:annotation>`
`</xs:element>`

element **ftm/fairway_section**

diagram

namespace **www.RISexpertgroups.org**type **fairway_section**

properties

isRef	0
minOcc	1
maxOcc	unbounded
content	complex

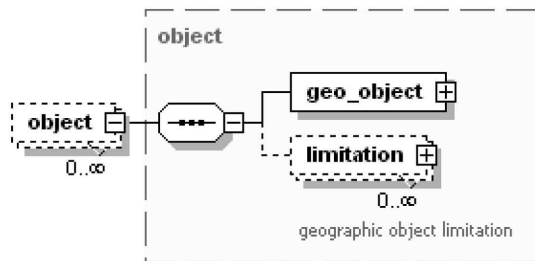
children **geo_object limitation**

documentation
Fairway section

source `<xs:element name="fairway_section" type="fairway_section" maxOccurs="unbounded">`
`<xs:annotation>`
`<xs:documentation>Fairway section</xs:documentation>`
`</xs:annotation>`
`</xs:element>`

element **ftm/object**

diagram

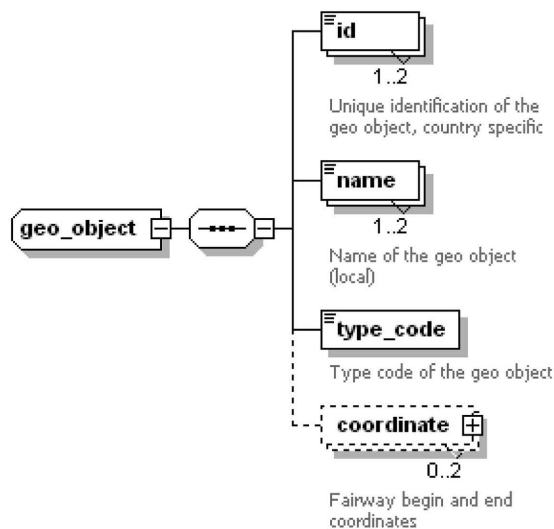
namespace www.RISexpertgroups.orgtype **object**

properties

isRef	0
minOcc	0
maxOcc	unbounded
content	complex

children **geo_object limitation**source `<xs:element name="object" type="object" minOccurs="0" maxOccurs="unbounded"/>`complexType **geo_object**

diagram

namespace www.RISexpertgroups.orgchildren **id name type_code coordinate**used by elements **wrm/geo_object fairway_section/geo_object object/geo_object**

```

source <xs:complexType name="geo_object">
  <xs:sequence>
    <xs:element name="id" maxOccurs="2">
      <xs:annotation>
        <xs:documentation>Unique identification of the geo object, country specific</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="64"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="name" maxOccurs="2">
      <xs:annotation>
        <xs:documentation>Name of the geo object (local)</xs:documentation>
      </xs:annotation>

```



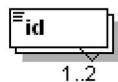
```

<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:maxLength value="64"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="type_code" default="FWY">
  <xs:annotation>
    <xs:documentation>Type code of the geo object</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="RIV"/>
      <xs:enumeration value="CAN"/>
      <xs:enumeration value="LAK"/>
      <xs:enumeration value="FWY"/>
      <xs:enumeration value="LCK"/>
      <xs:enumeration value="BRI"/>
      <xs:enumeration value="RMP"/>
      <xs:enumeration value="BAR"/>
      <xs:enumeration value="BNK"/>
      <xs:enumeration value="GAU"/>
      <xs:enumeration value="BUO"/>
      <xs:enumeration value="BEA"/>
      <xs:enumeration value="ANC"/>
      <xs:enumeration value="BER"/>
      <xs:enumeration value="MOO"/>
      <xs:enumeration value="TER"/>
      <xs:enumeration value="HAR"/>
      <xs:enumeration value="FDO"/>
      <xs:enumeration value="CAB"/>
      <xs:enumeration value="FER"/>
      <xs:enumeration value="PIP"/>
      <xs:enumeration value="PPO"/>
      <xs:enumeration value="HFA"/>
      <xs:enumeration value="HMO"/>
      <xs:enumeration value="SHY"/>
      <xs:enumeration value="REF"/>
      <xs:enumeration value="MAR"/>
      <xs:enumeration value="LIG"/>
      <xs:enumeration value="SIG"/>
      <xs:enumeration value="TUR"/>
      <xs:enumeration value="CBR"/>
      <xs:enumeration value="TUN"/>
      <xs:enumeration value="BCO"/>
      <xs:enumeration value="REP"/>
      <xs:enumeration value="FLO"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="coordinate" type="coordinate" minOccurs="0" maxOccurs="2">
  <xs:annotation>
    <xs:documentation>Fairway begin and end coordinates</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
</xs:complexType>

```

element geo_object/id

diagram



Unique identification of the
geo object, country specific

namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties	isRef	0
	minOcc	1
	maxOcc	2
	content	simple

facets maxLength 64

annotation documentation
Unique identification of the geo object, country specific

source <xs:element name="id" maxOccurs="2">
 <xs:annotation>
 <xs:documentation>Unique identification of the geo object, country specific</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:string">
 <xs:maxLength value="64"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element **geo_object/name**



namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties isRef 0
 minOcc 1
 maxOcc 2
 content simple

facets maxLength 64

annotation documentation
Name of the geo object (local)

source <xs:element name="name" maxOccurs="2">
 <xs:annotation>
 <xs:documentation>Name of the geo object (local)</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:string">
 <xs:maxLength value="64"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element **geo_object/type_code**



namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties isRef 0
 content simple
 default FWY

facets maxLength 3
 enumeration RIV
 enumeration CAN
 enumeration LAK
 enumeration FWY
 enumeration LCK
 enumeration BRI
 enumeration RMP
 enumeration BAR
 enumeration BNK
 enumeration GAU
 enumeration BUO
 enumeration BEA
 enumeration ANC

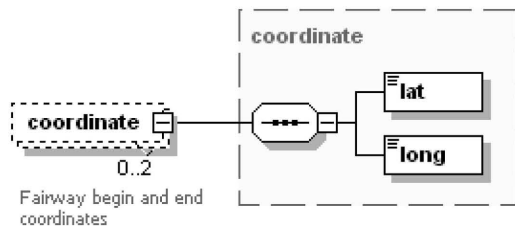
```

enumeration BER
enumeration MOO
enumeration TER
enumeration HAR
enumeration FDO
enumeration CAB
enumeration FER
enumeration PIP
enumeration PPO
enumeration HFA
enumeration HMO
enumeration SHY
enumeration REF
enumeration MAR
enumeration LIG
enumeration SIG
enumeration TUR
enumeration CBR
enumeration TUN
enumeration BCO
enumeration REP
enumeration FLO
annotation documentation
Type code of the geo object
source <xs:element name="type_code" default="FWY">
  <xs:annotation>
    <xs:documentation>Type code of the geo object</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="RIV"/>
      <xs:enumeration value="CAN"/>
      <xs:enumeration value="LAK"/>
      <xs:enumeration value="FWY"/>
      <xs:enumeration value="LCK"/>
      <xs:enumeration value="BRI"/>
      <xs:enumeration value="RMP"/>
      <xs:enumeration value="BAR"/>
      <xs:enumeration value="BNK"/>
      <xs:enumeration value="GAU"/>
      <xs:enumeration value="BUO"/>
      <xs:enumeration value="BEA"/>
      <xs:enumeration value="ANC"/>
      <xs:enumeration value="BER"/>
      <xs:enumeration value="MOO"/>
      <xs:enumeration value="TER"/>
      <xs:enumeration value="HAR"/>
      <xs:enumeration value="FDO"/>
      <xs:enumeration value="CAB"/>
      <xs:enumeration value="FER"/>
      <xs:enumeration value="PIP"/>
      <xs:enumeration value="PPO"/>
      <xs:enumeration value="HFA"/>
      <xs:enumeration value="HMO"/>
      <xs:enumeration value="SHY"/>
      <xs:enumeration value="REF"/>
      <xs:enumeration value="MAR"/>
      <xs:enumeration value="LIG"/>
      <xs:enumeration value="SIG"/>
      <xs:enumeration value="TUR"/>
      <xs:enumeration value="CBR"/>
      <xs:enumeration value="TUN"/>
      <xs:enumeration value="BCO"/>
      <xs:enumeration value="REP"/>
      <xs:enumeration value="FLO"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **geo_object/coordinate**

diagram

namespace **www.RISexpertgroups.org**type **coordinate**

properties

- isRef 0
- minOcc 0
- maxOcc 2
- content complex

children **lat long**

annotation

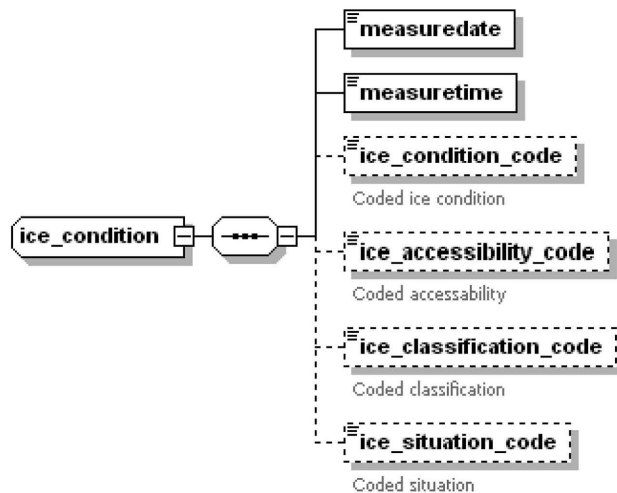
documentation
Fairway begin and end coordinates

source

```
<xs:element name="coordinate" type="coordinate" minOccurs="0" maxOccurs="2">
  <xs:annotation>
    <xs:documentation>Fairway begin and end coordinates</xs:documentation>
  </xs:annotation>
</xs:element>
```

complexType **ice_condition**

diagram

namespace **www.RISexpertgroups.org**

children **measuredate measuretime ice_condition_code ice_accessibility_code ice_classification_code ice_situation_code**

used by

element **icem/ice_condition**

source

```
<xs:complexType name="ice_condition">
  <xs:sequence>
    <xs:element name="measuredate">
      <xs:simpleType>
        <xs:restriction base="date">
          <xs:maxInclusive value="30001231"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="measuretime" type="time"/>
    <xs:element name="ice_condition_code" minOccurs="0">
      <xs:annotation>
```

```

    <xs:documentation>Coded ice condition</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="1"/>
      <xs:enumeration value="A"/>
      <xs:enumeration value="B"/>
      <xs:enumeration value="C"/>
      <xs:enumeration value="D"/>
      <xs:enumeration value="E"/>
      <xs:enumeration value="F"/>
      <xs:enumeration value="G"/>
      <xs:enumeration value="H"/>
      <xs:enumeration value="K"/>
      <xs:enumeration value="L"/>
      <xs:enumeration value="M"/>
      <xs:enumeration value="P"/>
      <xs:enumeration value="R"/>
      <xs:enumeration value="S"/>
      <xs:enumeration value="U"/>
      <xs:enumeration value="O"/>
      <xs:enumeration value="V"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="ice_accessibility_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Coded accessibility</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="1"/>
      <xs:enumeration value="A"/>
      <xs:enumeration value="B"/>
      <xs:enumeration value="F"/>
      <xs:enumeration value="L"/>
      <xs:enumeration value="C"/>
      <xs:enumeration value="D"/>
      <xs:enumeration value="E"/>
      <xs:enumeration value="G"/>
      <xs:enumeration value="H"/>
      <xs:enumeration value="M"/>
      <xs:enumeration value="K"/>
      <xs:enumeration value="T"/>
      <xs:enumeration value="P"/>
      <xs:enumeration value="V"/>
      <xs:enumeration value="X"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="ice_classification_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Coded classification</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="1"/>
      <xs:enumeration value="A"/>
      <xs:enumeration value="B"/>
      <xs:enumeration value="C"/>
      <xs:enumeration value="D"/>
      <xs:enumeration value="E"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="ice_situation_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Coded situation</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="NOL"/>
      <xs:enumeration value="LIM"/>
      <xs:enumeration value="NON"/>
    </xs:restriction>
  </xs:simpleType>

```

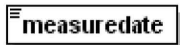
```

</xs:element>
</xs:sequence>
</xs:complexType>

```

element ice_condition/measuredate

diagram



namespace www.RISexpertgroups.org

type restriction of date

properties isRef 0
content simple
facets minInclusive 20000101
maxInclusive 30001231

source

```
<xs:element name="measuredate">
  <xs:simpleType>
    <xs:restriction base="date">
      <xs:maxInclusive value="30001231"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
```

element ice_condition/measuretime

diagram



namespace www.RISexpertgroups.org

type time

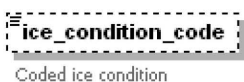
properties isRef 0
content simple
facets minInclusive 0000
maxInclusive 2359

source

```
<xs:element name="measuretime" type="time"/>
```

element ice_condition/ice_condition_code

diagram



namespace www.RISexpertgroups.org

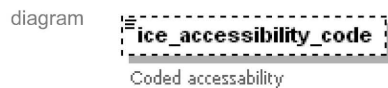
type restriction of xs:string

properties isRef 0
minOcc 0
maxOcc 1
content simple
facets maxLength 1
enumeration A
enumeration B
enumeration C
enumeration D
enumeration E
enumeration F
enumeration G
enumeration H
enumeration K
enumeration L
enumeration M
enumeration P
enumeration R
enumeration S
enumeration U
enumeration O
enumeration V

annotation documentation
Coded ice condition

source <xs:element name="ice_condition_code" minOccurs="0">
 <xs:annotation>
 <xs:documentation>Coded ice condition</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:string">
 <xs:maxLength value="1"/>
 <xs:enumeration value="A"/>
 <xs:enumeration value="B"/>
 <xs:enumeration value="C"/>
 <xs:enumeration value="D"/>
 <xs:enumeration value="E"/>
 <xs:enumeration value="F"/>
 <xs:enumeration value="G"/>
 <xs:enumeration value="H"/>
 <xs:enumeration value="K"/>
 <xs:enumeration value="L"/>
 <xs:enumeration value="M"/>
 <xs:enumeration value="P"/>
 <xs:enumeration value="R"/>
 <xs:enumeration value="S"/>
 <xs:enumeration value="U"/>
 <xs:enumeration value="O"/>
 <xs:enumeration value="V"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element ice_condition/ice_accessibility_code



namespace www.RISexpertgroups.org

type restriction of xs:string

properties isRef 0
minOcc 0
maxOcc 1

facets content simple
 maxLength 1
 enumeration A
 enumeration B
 enumeration F
 enumeration L
 enumeration C
 enumeration D
 enumeration E
 enumeration G
 enumeration H
 enumeration M
 enumeration K
 enumeration T
 enumeration P
 enumeration V
 enumeration X

annotation documentation
Coded accessibility

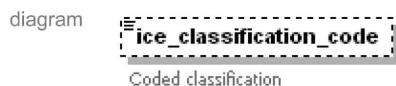
source <xs:element name="ice_accessibility_code" minOccurs="0">
 <xs:annotation>
 <xs:documentation>Coded accessibility</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:string">
 <xs:maxLength value="1"/>
 <xs:enumeration value="A"/>
 <xs:enumeration value="B"/>
 <xs:enumeration value="F"/>
 <xs:enumeration value="L"/>
 <xs:enumeration value="C"/>
 <xs:enumeration value="D"/>

```

<xs:enumeration value="E"/>
<xs:enumeration value="G"/>
<xs:enumeration value="H"/>
<xs:enumeration value="M"/>
<xs:enumeration value="K"/>
<xs:enumeration value="T"/>
<xs:enumeration value="P"/>
<xs:enumeration value="V"/>
<xs:enumeration value="X"/>
</xs:restriction>
</xs:simpleType>
</xs:element>

```

element ice_condition/ice_classification_code



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties	isRef 0
	minOcc 0
	maxOcc 1
	content simple
facets	maxLength 1
	enumeration A
	enumeration B
	enumeration C
	enumeration D
	enumeration E
annotation	documentation
	Coded classification
source	<pre> <xs:element name="ice_classification_code" minOccurs="0"> <xs:annotation> <xs:documentation>Coded classification</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:string"> <xs:maxLength value="1"/> <xs:enumeration value="A"/> <xs:enumeration value="B"/> <xs:enumeration value="C"/> <xs:enumeration value="D"/> <xs:enumeration value="E"/> </xs:restriction> </xs:simpleType> </xs:element> </pre>

element ice_condition/ice_situation_code



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties	isRef 0
	minOcc 0
	maxOcc 1
	content simple
facets	maxLength 3
	enumeration NOL
	enumeration LIM
	enumeration NON
annotation	documentation
	Coded situation
source	<pre> <xs:element name="ice_situation_code" minOccurs="0"> <xs:annotation> </pre>

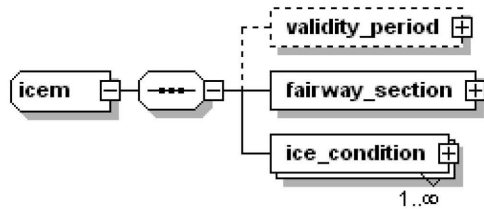
```

<xs:documentation>Coded situation</xs:documentation>
</xs:annotation>
<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:maxLength value="3"/>
    <xs:enumeration value="NOL"/>
    <xs:enumeration value="LIM"/>
    <xs:enumeration value="NON"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>

```

complexType icem

diagram



namespace www.RISexpertgroups.org

children [validity_period](#) [fairway_section](#) [ice_condition](#)

used by element [RIS Message/icem](#)

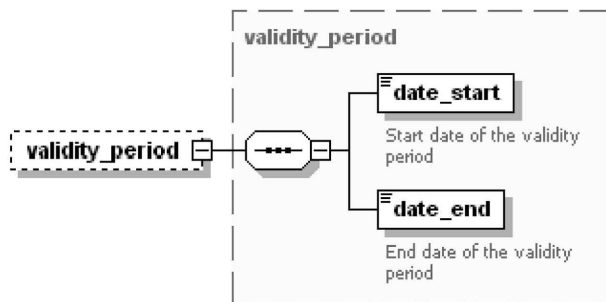
```

source <xs:complexType name="icem">
  <xs:sequence>
    <xs:element name="validity_period" type="validity_period" minOccurs="0"/>
    <xs:element name="fairway_section" type="fairway_section"/>
    <xs:element name="ice_condition" type="ice_condition" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>

```

element icem/validity_period

diagram



namespace www.RISexpertgroups.org

type [validity_period](#)

properties

isRef	0
minOcc	0
maxOcc	1
content	complex

children [date_start](#) [date_end](#)

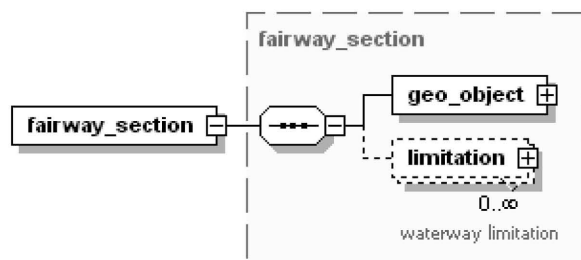
```

source <xs:element name="validity_period" type="validity_period" minOccurs="0"/>

```

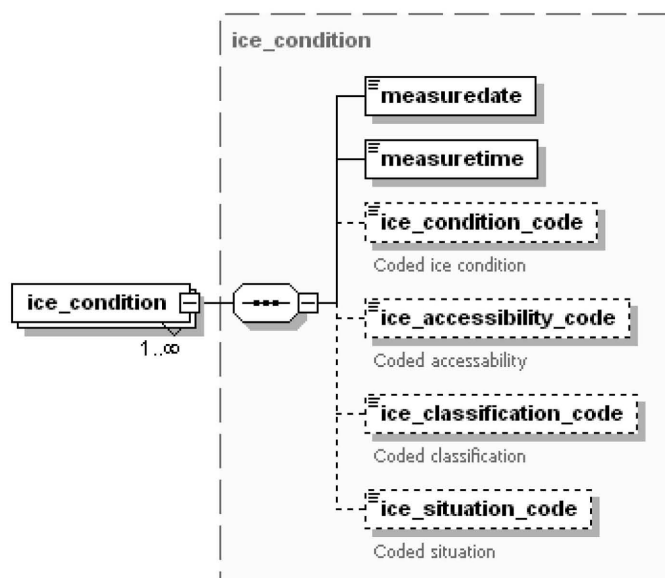

element icem/fairway_section

diagram

namespace www.RISexpertgroups.orgtype **fairway_section**
 properties
 isRef 0
 content complex
children **geo_object** **limitation**source `<xs:element name="fairway_section" type="fairway_section"/>`

element icem/ice_condition

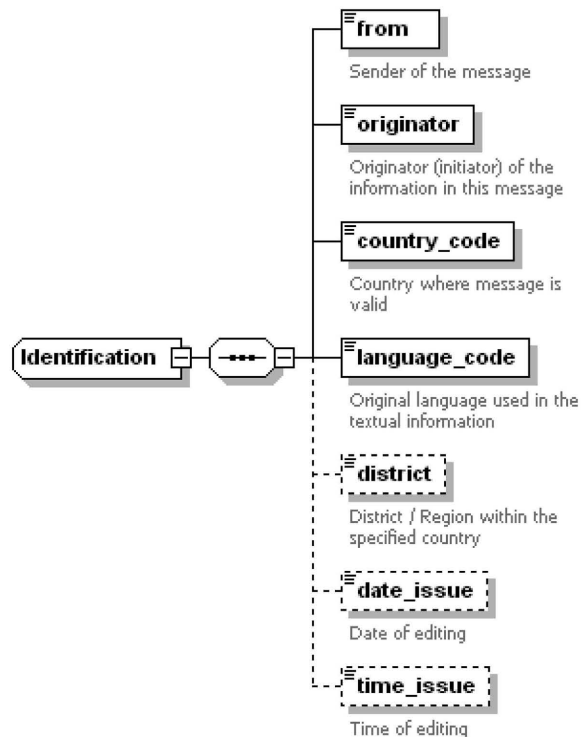
diagram

namespace www.RISexpertgroups.orgtype **ice_condition**
 properties
 isRef 0
 minOcc 1
 maxOcc unbounded
 content complex

 children **measuredate** **measuretime** **ice_condition_code** **ice_accessibility_code** **ice_classification_code**
ice_situation_code
source `<xs:element name="ice_condition" type="ice_condition" maxOccurs="unbounded"/>`

complexType **Identification**

diagram

namespace www.RISexpertgroups.orgchildren **from originator country_code language_code district date_issue time_issue**used by element **RIS Message/Identification**

```

source <xs:complexType name="Identification">
  <xs:sequence>
    <xs:element name="from">
      <xs:annotation>
        <xs:documentation>Sender of the message</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="64"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="originator">
      <xs:annotation>
        <xs:documentation>Originator (initiator) of the information in this message</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="64"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="country_code">
      <xs:annotation>
        <xs:documentation>Country where message is valid</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="2"/>
          <xs:enumeration value="AT"/>
          <xs:enumeration value="BE"/>
          <xs:enumeration value="BG"/>
          <xs:enumeration value="CH"/>
          <xs:enumeration value="CS"/>
          <xs:enumeration value="CY"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="language_code">
      <xs:annotation>
        <xs:documentation>Original language used in the textual information</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="2"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="district">
      <xs:annotation>
        <xs:documentation>District / Region within the specified country</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="64"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="date_issue">
      <xs:annotation>
        <xs:documentation>Date of editing</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="10"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="time_issue">
      <xs:annotation>
        <xs:documentation>Time of editing</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="10"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

```

<xs:enumeration value="CZ"/>
<xs:enumeration value="DE"/>
<xs:enumeration value="DK"/>
<xs:enumeration value="EE"/>
<xs:enumeration value="ES"/>
<xs:enumeration value="FI"/>
<xs:enumeration value="FR"/>
<xs:enumeration value="GB"/>
<xs:enumeration value="GR"/>
<xs:enumeration value="HR"/>
<xs:enumeration value="HU"/>
<xs:enumeration value="IE"/>
<xs:enumeration value="IT"/>
<xs:enumeration value="LT"/>
<xs:enumeration value="LU"/>
<xs:enumeration value="LV"/>
<xs:enumeration value="MD"/>
<xs:enumeration value="MT"/>
<xs:enumeration value="NL"/>
<xs:enumeration value="PL"/>
<xs:enumeration value="PT"/>
<xs:enumeration value="RO"/>
<xs:enumeration value="SE"/>
<xs:enumeration value="SI"/>
<xs:enumeration value="SK"/>
<xs:enumeration value="RU"/>
<xs:enumeration value="UA"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="language_code">
  <xs:annotation>
    <xs:documentation>Original language used in the textual information</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="2"/>
      <xs:enumeration value="DE"/>
      <xs:enumeration value="EN"/>
      <xs:enumeration value="FR"/>
      <xs:enumeration value="NL"/>
      <xs:enumeration value="SK"/>
      <xs:enumeration value="HU"/>
      <xs:enumeration value="HR"/>
      <xs:enumeration value="SR"/>
      <xs:enumeration value="BG"/>
      <xs:enumeration value="RO"/>
      <xs:enumeration value="RU"/>
      <xs:enumeration value="CS"/>
      <xs:enumeration value="PL"/>
      <xs:enumeration value="PT"/>
      <xs:enumeration value="ES"/>
      <xs:enumeration value="SV"/>
      <xs:enumeration value="FI"/>
      <xs:enumeration value="DA"/>
      <xs:enumeration value="ET"/>
      <xs:enumeration value="LV"/>
      <xs:enumeration value="LT"/>
      <xs:enumeration value="IT"/>
      <xs:enumeration value="MT"/>
      <xs:enumeration value="EL"/>
      <xs:enumeration value="SL"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="district" minOccurs="0">
  <xs:annotation>
    <xs:documentation>District / Region within the specified country</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="64"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="date_issue" type="date" minOccurs="0">
  <xs:annotation>

```

```

        <xs:documentation>Date of editing</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="time_issue" type="time" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Time of editing</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

element **Identification/from**

diagram



Sender of the message

namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties isRef 0
content simple
facets maxLength 64

annotation documentation
Sender of the message

```

source <xs:element name="from">
  <xs:annotation>
    <xs:documentation>Sender of the message</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="64"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **Identification/originator**

diagram



Originator (initiator) of the
information in this message

namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties isRef 0
content simple
facets maxLength 64

annotation documentation
Originator (initiator) of the information in this message

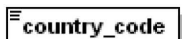
```

source <xs:element name="originator">
  <xs:annotation>
    <xs:documentation>Originator (initiator) of the information in this message</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="64"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element **Identification/country_code**

diagram

Country where message is
validnamespace **www.RISexpertgroups.org**type **restriction of xs:string**

properties isRef 0

content **simple**

facets maxLength 2

enumeration AT

enumeration BE

enumeration BG

enumeration CH

enumeration CS

enumeration CY

enumeration CZ

enumeration DE

enumeration DK

enumeration EE

enumeration ES

enumeration FI

enumeration FR

enumeration GB

enumeration GR

enumeration HR

enumeration HU

enumeration IE

enumeration IT

enumeration LT

enumeration LU

enumeration LV

enumeration MD

enumeration MT

enumeration NL

enumeration PL

enumeration PT

enumeration RO

enumeration SE

enumeration SI

enumeration SK

enumeration RU

enumeration UA

annotation documentation

Country where message is validsource **<xs:element name="country_code">****<xs:annotation>****<xs:documentation>Country where message is valid</xs:documentation>****</xs:annotation>****<xs:simpleType>****<xs:restriction base="xs:string">****<xs:maxLength value="2"/>****<xs:enumeration value="AT"/>****<xs:enumeration value="BE"/>****<xs:enumeration value="BG"/>****<xs:enumeration value="CH"/>****<xs:enumeration value="CS"/>****<xs:enumeration value="CY"/>****<xs:enumeration value="CZ"/>****<xs:enumeration value="DE"/>****<xs:enumeration value="DK"/>****<xs:enumeration value="EE"/>****<xs:enumeration value="ES"/>****<xs:enumeration value="FI"/>****<xs:enumeration value="FR"/>****<xs:enumeration value="GB"/>****<xs:enumeration value="GR"/>****<xs:enumeration value="HR"/>****<xs:enumeration value="HU"/>****<xs:enumeration value="IE"/>****<xs:enumeration value="IT"/>**

```

<xs:enumeration value="LT"/>
<xs:enumeration value="LU"/>
<xs:enumeration value="LV"/>
<xs:enumeration value="MD"/>
<xs:enumeration value="MT"/>
<xs:enumeration value="NL"/>
<xs:enumeration value="PL"/>
<xs:enumeration value="PT"/>
<xs:enumeration value="RO"/>
<xs:enumeration value="SE"/>
<xs:enumeration value="SI"/>
<xs:enumeration value="SK"/>
<xs:enumeration value="RU"/>
<xs:enumeration value="UA"/>
</xs:restriction>
</xs:simpleType>
</xs:element>

```

element Identification/language_code

diagram

language_code

Original language used in the
textual information

namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties isRef 0

content simple

facets maxLength 2

enumeration DE

enumeration EN

enumeration FR

enumeration NL

enumeration SK

enumeration HU

enumeration HR

enumeration SR

enumeration BG

enumeration RO

enumeration RU

enumeration CS

enumeration PL

enumeration PT

enumeration ES

enumeration SV

enumeration FI

enumeration DA

enumeration ET

enumeration LV

enumeration LT

enumeration IT

enumeration MT

enumeration EL

enumeration SL

annotation documentation

Original language used in the textual information

source <xs:element name="language_code">

<xs:annotation>

<xs:documentation>Original language used in the textual information</xs:documentation>

</xs:annotation>

<xs:simpleType>

<xs:restriction base="xs:string">

<xs:maxLength value="2"/>

<xs:enumeration value="DE"/>

<xs:enumeration value="EN"/>

<xs:enumeration value="FR"/>

<xs:enumeration value="NL"/>

<xs:enumeration value="SK"/>

<xs:enumeration value="HU"/>

<xs:enumeration value="HR"/>

<xs:enumeration value="SR"/>

<xs:enumeration value="BG"/>

```

<xs:enumeration value="RO"/>
<xs:enumeration value="RU"/>
<xs:enumeration value="CS"/>
<xs:enumeration value="PL"/>
<xs:enumeration value="PT"/>
<xs:enumeration value="ES"/>
<xs:enumeration value="SV"/>
<xs:enumeration value="FI"/>
<xs:enumeration value="DA"/>
<xs:enumeration value="ET"/>
<xs:enumeration value="LV"/>
<xs:enumeration value="LT"/>
<xs:enumeration value="IT"/>
<xs:enumeration value="MT"/>
<xs:enumeration value="EL"/>
<xs:enumeration value="SL"/>
</xs:restriction>
</xs:simpleType>
</xs:element>

```

element Identification/district

diagram



namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties
 isRef 0
 minOcc 0
 maxOcc 1
 content simple
 facets
 maxLength 64

documentation
 District / Region within the specified country

source

```

<xs:element name="district" minOccurs="0">
  <xs:annotation>
    <xs:documentation>District / Region within the specified country</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="64"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

element Identification/date_issue

diagram



namespace www.RISexpertgroups.org

type **date**

properties
 isRef 0
 minOcc 0
 maxOcc 1
 content simple
 facets
 minInclusive 20000101
 maxInclusive 99999999

documentation
 Date of editing

source

```

<xs:element name="date_issue" type="date" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Date of editing</xs:documentation>
  </xs:annotation>
</xs:element>

```

element **Identification/time_issue**

diagram

namespace **www.RISexpertgroups.org**type **time**

properties

- isRef 0
- minOcc 0
- maxOcc 1
- content simple

facets

- minInclusive 0000
- maxInclusive 2359

annotation

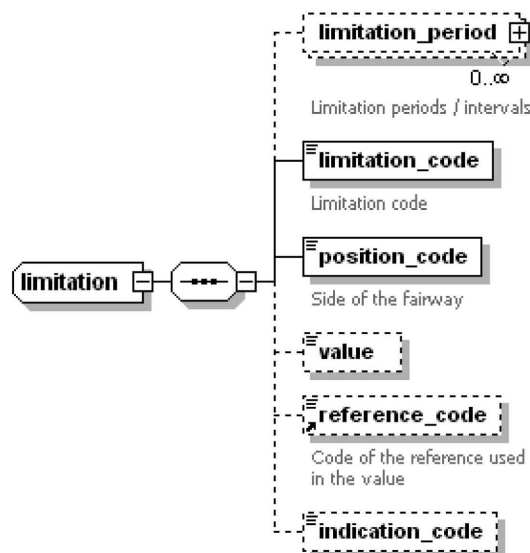
documentation
Time of editing

source

```
<xs:element name="time_issue" type="time" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Time of editing</xs:documentation>
  </xs:annotation>
</xs:element>
```

complexType **limitation**

diagram

namespace **www.RISexpertgroups.org**children **limitation period limitation code position code value reference code indication code**used by elements **fairway_section/limitation object/limitation**

source

```
<xs:complexType name="limitation">
  <xs:sequence>
    <xs:element name="limitation_period" type="limitation_period" minOccurs="0" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>Limitation periods / intervals</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="limitation_code">
      <xs:annotation>
        <xs:documentation>Limitation code</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="6"/>
          <xs:enumeration value="OBSTRU"/>
          <xs:enumeration value="PAROBS"/>
          <xs:enumeration value="DELAY"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="position_code">
      <xs:annotation>
        <xs:documentation>Side of the Fairway</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="6"/>
          <xs:enumeration value="OBSTRU"/>
          <xs:enumeration value="PAROBS"/>
          <xs:enumeration value="DELAY"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="value">
      <xs:annotation>
        <xs:documentation>Code of the reference used in the value</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="6"/>
          <xs:enumeration value="OBSTRU"/>
          <xs:enumeration value="PAROBS"/>
          <xs:enumeration value="DELAY"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="reference_code">
      <xs:annotation>
        <xs:documentation>Code of the reference used in the value</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="6"/>
          <xs:enumeration value="OBSTRU"/>
          <xs:enumeration value="PAROBS"/>
          <xs:enumeration value="DELAY"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="indication_code">
      <xs:annotation>
        <xs:documentation>Code of the reference used in the value</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="6"/>
          <xs:enumeration value="OBSTRU"/>
          <xs:enumeration value="PAROBS"/>
          <xs:enumeration value="DELAY"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```



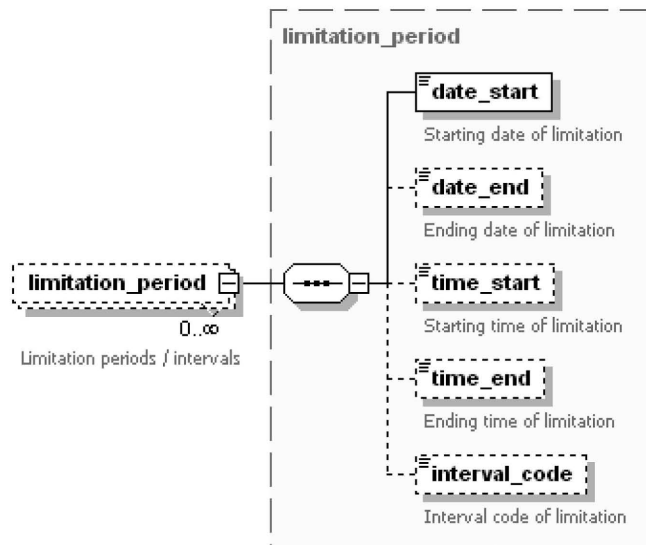
```

<xs:enumeration value="VESLEN"/>
<xs:enumeration value="VESHEI"/>
<xs:enumeration value="VESBRE"/>
<xs:enumeration value="VESDRA"/>
<xs:enumeration value="AVALEN"/>
<xs:enumeration value="CLEHEI"/>
<xs:enumeration value="CLEWID"/>
<xs:enumeration value="AVADEP"/>
<xs:enumeration value="NOMOOR"/>
<xs:enumeration value="SERVIC"/>
<xs:enumeration value="NOSERV"/>
<xs:enumeration value="SPEED"/>
<xs:enumeration value="WAVWAS"/>
<xs:enumeration value="PASSIN"/>
<xs:enumeration value="ANCHOR"/>
<xs:enumeration value="OVRTAK"/>
<xs:enumeration value="MINPWR"/>
<xs:enumeration value="ALTER"/>
<xs:enumeration value="CAUTIO"/>
<xs:enumeration value="NOLIM"/>
</xs:restriction>
</xs:simpleType>
</xs:element>
<xs:element name="position_code" default="AL">
  <xs:annotation>
    <xs:documentation>Side of the fairway</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="2"/>
      <xs:enumeration value="AL"/>
      <xs:enumeration value="LE"/>
      <xs:enumeration value="MI"/>
      <xs:enumeration value="RI"/>
      <xs:enumeration value="LB"/>
      <xs:enumeration value="RB"/>
      <xs:enumeration value="N"/>
      <xs:enumeration value="NE"/>
      <xs:enumeration value="E"/>
      <xs:enumeration value="SE"/>
      <xs:enumeration value="S"/>
      <xs:enumeration value="SW"/>
      <xs:enumeration value="W"/>
      <xs:enumeration value="NW"/>
      <xs:enumeration value="BI"/>
      <xs:enumeration value="SM"/>
      <xs:enumeration value="OL"/>
      <xs:enumeration value="EW"/>
      <xs:enumeration value="MP"/>
      <xs:enumeration value="FP"/>
      <xs:enumeration value="VA"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="value" type="xs:float" minOccurs="0"/>
<xs:element ref="reference_code" minOccurs="0"/>
<xs:element name="indication_code" minOccurs="0">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="MAX"/>
      <xs:enumeration value="MIN"/>
      <xs:enumeration value="RED"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>

```

element **limitation/limitation_period**

diagram



namespace www.RISexpertgroups.org

type **limitation_period**

properties
 isRef 0
 minOcc 0
 maxOcc unbounded
 content complex

children **date start date end time start time end interval code**

annotation
 documentation
 Limitation periods / intervals

source
 <xs:element name="limitation_period" type="limitation_period" minOccurs="0" maxOccurs="unbounded">
 <xs:annotation>
 <xs:documentation>Limitation periods / intervals</xs:documentation>
 </xs:annotation>
 </xs:element>

element limitation/limitation_code

diagram



namespace www.RISexpertgroups.org

type **restriction of xs:string**

properties
 isRef 0
 content simple
 maxLength 6

facets

- enumeration OBSTRU
- enumeration PAROBS
- enumeration DELAY
- enumeration VESLEN
- enumeration VESHEI
- enumeration VESBRE
- enumeration VESDRA
- enumeration AVALEN
- enumeration CLEHEI
- enumeration CLEWID
- enumeration AVADEP
- enumeration NOMOOR
- enumeration SERVIC
- enumeration NOSERV
- enumeration SPEED
- enumeration WAVWAS
- enumeration PASSIN
- enumeration ANCHOR
- enumeration OVRTAK
- enumeration MINPWR

	enumeration	ALTER
	enumeration	CAUTIO
	enumeration	NOLIM
annotation	documentation	
	Limitation code	
source	<pre><xs:element name="limitation_code"> <xs:annotation> <xs:documentation>Limitation code</xs:documentation> </xs:annotation> <xs:simpleType> <xs:restriction base="xs:string"> <xs:maxLength value="6"/> <xs:enumeration value="OBSTRU"/> <xs:enumeration value="PAROBS"/> <xs:enumeration value="DELAY"/> <xs:enumeration value="VESLEN"/> <xs:enumeration value="VESHEI"/> <xs:enumeration value="VESBRE"/> <xs:enumeration value="VESDRA"/> <xs:enumeration value="AVALEN"/> <xs:enumeration value="CLEHEI"/> <xs:enumeration value="CLEWID"/> <xs:enumeration value="AVADEP"/> <xs:enumeration value="NOMOOR"/> <xs:enumeration value="SERVIC"/> <xs:enumeration value="NOSERV"/> <xs:enumeration value="SPEED"/> <xs:enumeration value="WAVWAS"/> <xs:enumeration value="PASSIN"/> <xs:enumeration value="ANCHOR"/> <xs:enumeration value="OVRTAK"/> <xs:enumeration value="MINPWR"/> <xs:enumeration value="ALTER"/> <xs:enumeration value="CAUTIO"/> <xs:enumeration value="NOLIM"/> </xs:restriction> </xs:simpleType> </xs:element></pre>	

element limitation/position_code



namespace www.RISexpertgroups.org

	type	restriction of xs:string
properties	isRef	0
	content	simple
	default	AL
facets	maxLength	2
	enumeration	AL
	enumeration	LE
	enumeration	MI
	enumeration	RI
	enumeration	LB
	enumeration	RB
	enumeration	N
	enumeration	NE
	enumeration	E
	enumeration	SE
	enumeration	S
	enumeration	SW
	enumeration	W
	enumeration	NW
	enumeration	BI
	enumeration	SM
	enumeration	OL
	enumeration	EW
	enumeration	MP
	enumeration	FP
	enumeration	VA

annotation documentation
Side of the fairway

source

```
<xs:element name="position_code" default="AL">
  <xs:annotation>
    <xs:documentation>Side of the fairway</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="2"/>
      <xs:enumeration value="AL"/>
      <xs:enumeration value="LE"/>
      <xs:enumeration value="MI"/>
      <xs:enumeration value="RI"/>
      <xs:enumeration value="LB"/>
      <xs:enumeration value="RB"/>
      <xs:enumeration value="N"/>
      <xs:enumeration value="NE"/>
      <xs:enumeration value="E"/>
      <xs:enumeration value="SE"/>
      <xs:enumeration value="S"/>
      <xs:enumeration value="SW"/>
      <xs:enumeration value="W"/>
      <xs:enumeration value="NW"/>
      <xs:enumeration value="BI"/>
      <xs:enumeration value="SM"/>
      <xs:enumeration value="OL"/>
      <xs:enumeration value="EW"/>
      <xs:enumeration value="MP"/>
      <xs:enumeration value="FP"/>
      <xs:enumeration value="VA"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
```

element limitation/value



namespace www.RISexpertgroups.org

type **xs:float**

properties

isRef	0
minOcc	0
maxOcc	1
content	simple

source

```
<xs:element name="value" type="xs:float" minOccurs="0"/>
```

element limitation/indication_code



namespace www.RISexpertgroups.org

type **restriction of xs:string**

properties

isRef	0
minOcc	0
maxOcc	1
content	simple

facets

maxLength	3
enumeration	MAX
enumeration	MIN
enumeration	RED

source

```
<xs:element name="indication_code" minOccurs="0">
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="MAX"/>
      <xs:enumeration value="MIN"/>
      <xs:enumeration value="RED"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
```

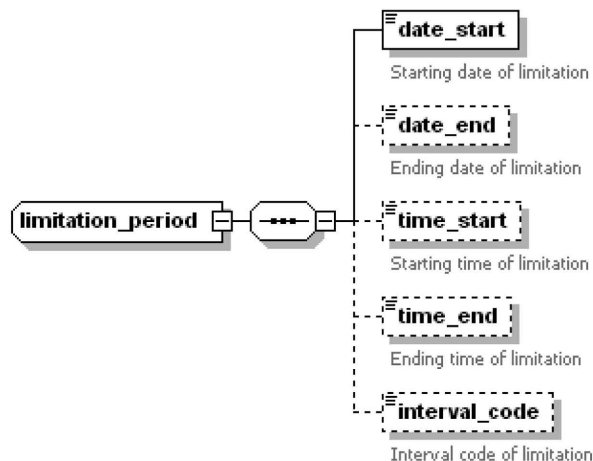
```

</xs:restriction>
</xs:simpleType>
</xs:element>

```

complexType **limitation_period**

diagram



namespace www.RISexpertgroups.org

children [date_start](#) [date_end](#) [time_start](#) [time_end](#) [interval_code](#)

used by element [limitation/limitation_period](#)

```

source <xs:complexType name="limitation_period">
  <xs:sequence>
    <xs:element name="date_start">
      <xs:annotation>
        <xs:documentation>Starting date of limitation</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="date">
          <xs:maxInclusive value="30001231"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="date_end" type="date" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Ending date of limitation</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="time_start" type="time" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Starting time of limitation</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="time_end" type="time" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Ending time of limitation</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element name="interval_code" minOccurs="0">
      <xs:annotation>
        <xs:documentation>Interval code of limitation</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="3"/>
          <xs:enumeration value="CON"/>
          <xs:enumeration value="DAY"/>
          <xs:enumeration value="WRK"/>
          <xs:enumeration value="WKN"/>
          <xs:enumeration value="SUN"/>
          <xs:enumeration value="MON"/>
          <xs:enumeration value="TUE"/>
          <xs:enumeration value="WED"/>
          <xs:enumeration value="THU"/>

```

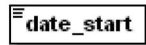
```

    <xs:enumeration value="FRI"/>
    <xs:enumeration value="SAT"/>
    <xs:enumeration value="DTI"/>
    <xs:enumeration value="NTI"/>
    <xs:enumeration value="RVI"/>
    <xs:enumeration value="EXC"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>
</xs:sequence>
</xs:complexType>

```

element limitation_period/date_start

diagram



Starting date of limitation

namespace www.RISexpertgroups.org

type restriction of date

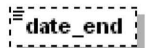
properties isRef 0
content simple
facets minInclusive 20000101
maxInclusive 30001231

annotation documentation
Starting date of limitation

source <xs:element name="date_start">
 <xs:annotation>
 <xs:documentation>Starting date of limitation</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="date">
 <xs:maxInclusive value="30001231"/>
 </xs:restriction>
 </xs:simpleType>
</xs:element>

element limitation_period/date_end

diagram



Ending date of limitation

namespace www.RISexpertgroups.org

type date

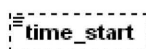
properties isRef 0
minOcc 0
maxOcc 1
content simple
facets minInclusive 20000101
maxInclusive 99999999

annotation documentation
Ending date of limitation

source <xs:element name="date_end" type="date" minOccurs="0">
 <xs:annotation>
 <xs:documentation>Ending date of limitation</xs:documentation>
 </xs:annotation>
</xs:element>

element limitation_period/time_start

diagram



Starting time of limitation

namespace www.RISexpertgroups.org

type **time**

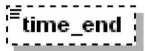
properties isRef 0
minOcc 0
maxOcc 1
content simple

facets minInclusive 0000
maxInclusive 2359

annotation documentation
Starting time of limitation

source <xs:element name="time_start" type="time" minOccurs="0">
<xs:annotation>
<xs:documentation>Starting time of limitation</xs:documentation>
</xs:annotation>
</xs:element>

element limitation_period/time_end

diagram 
Ending time of limitation

namespace www.RISexpertgroups.org

type **time**

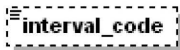
properties isRef 0
minOcc 0
maxOcc 1
content simple

facets minInclusive 0000
maxInclusive 2359

annotation documentation
Ending time of limitation

source <xs:element name="time_end" type="time" minOccurs="0">
<xs:annotation>
<xs:documentation>Ending time of limitation</xs:documentation>
</xs:annotation>
</xs:element>

element limitation_period/interval_code

diagram 
Interval code of limitation

namespace www.RISexpertgroups.org

type restriction of **xs:string**

properties isRef 0
minOcc 0
maxOcc 1
content simple

facets maxLength 3
enumeration CON
enumeration DAY
enumeration WRK
enumeration WKN
enumeration SUN
enumeration MON
enumeration TUE
enumeration WED
enumeration THU
enumeration FRI
enumeration SAT
enumeration DTI
enumeration NTI
enumeration RVI
enumeration EXC

annotation documentation
Interval code of limitation

source <xs:element name="interval_code" minOccurs="0">

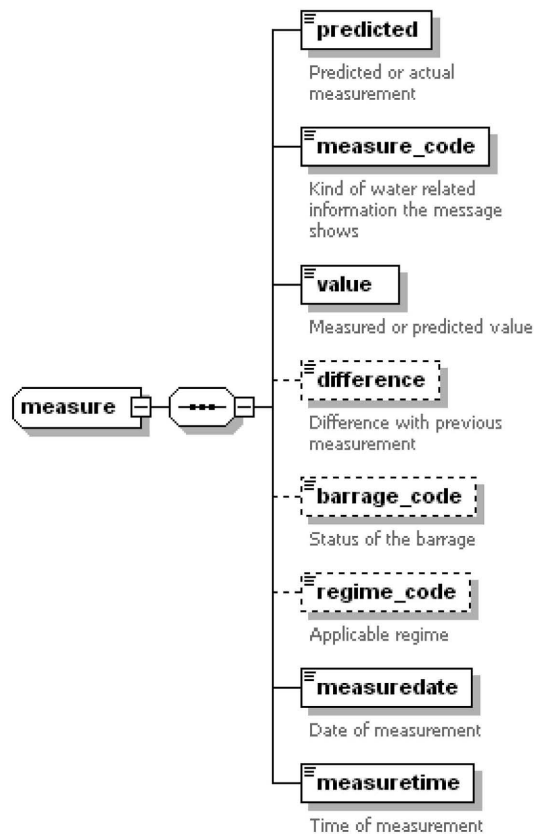

```

<xs:annotation>
  <xs:documentation>Interval code of limitation</xs:documentation>
</xs:annotation>
<xs:simpleType>
  <xs:restriction base="xs:string">
    <xs:maxLength value="3"/>
    <xs:enumeration value="CON"/>
    <xs:enumeration value="DAY"/>
    <xs:enumeration value="WRK"/>
    <xs:enumeration value="WKN"/>
    <xs:enumeration value="SUN"/>
    <xs:enumeration value="MON"/>
    <xs:enumeration value="TUE"/>
    <xs:enumeration value="WED"/>
    <xs:enumeration value="THU"/>
    <xs:enumeration value="FRI"/>
    <xs:enumeration value="SAT"/>
    <xs:enumeration value="DTI"/>
    <xs:enumeration value="NTI"/>
    <xs:enumeration value="RVI"/>
    <xs:enumeration value="EXC"/>
  </xs:restriction>
</xs:simpleType>
</xs:element>

```

complexType measure

diagram



namespace www.RISexpertgroups.org

children [predicted](#) [measure_code](#) [value](#) [difference](#) [barrage_code](#) [regime_code](#) [measuredate](#) [measuretime](#)

used by element [wrm/measure](#)

```

source <xs:complexType name="measure">
  <xs:sequence>
    <xs:element name="predicted" type="xs:boolean">
      <xs:annotation>
        <xs:documentation>Predicted or actual measurement</xs:documentation>
      </xs:annotation>

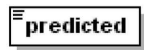
```



```
</xs:element>
<xs:element name="measure_code">
  <xs:annotation>
    <xs:documentation>Kind of water related information the message shows</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="DIS"/>
      <xs:enumeration value="REG"/>
      <xs:enumeration value="BAR"/>
      <xs:enumeration value="VER"/>
      <xs:enumeration value="LSD"/>
      <xs:enumeration value="WAL"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="value" type="xs:float">
  <xs:annotation>
    <xs:documentation>Measured or predicted value</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="difference" type="xs:float" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Difference with previous measurement</xs:documentation>
  </xs:annotation>
</xs:element>
<xs:element name="barrage_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Status of the barrage</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="CLD"/>
      <xs:enumeration value="OPG"/>
      <xs:enumeration value="CLG"/>
      <xs:enumeration value="OPD"/>
      <xs:enumeration value="OPN"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="regime_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Applicable regime</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="2"/>
      <xs:enumeration value="NO"/>
      <xs:enumeration value="HI"/>
      <xs:enumeration value="II"/>
      <xs:enumeration value="I"/>
      <xs:enumeration value="NN"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="measuredate">
  <xs:annotation>
    <xs:documentation>Date of measurement</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="date">
      <xs:maxInclusive value="30001231"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
<xs:element name="measuretime" type="time">
  <xs:annotation>
    <xs:documentation>Time of measurement</xs:documentation>
  </xs:annotation>
</xs:element>
</xs:sequence>
</xs:complexType>
```

element measure/predicted

diagram



Predicted or actual
measurement

namespace **www.RISexpertgroups.org**

type **xs:boolean**

properties isRef 0
content simple

annotation documentation
Predicted or actual measurement

source `<xs:element name="predicted" type="xs:boolean">
<xs:annotation>
<xs:documentation>Predicted or actual measurement</xs:documentation>
</xs:annotation>
</xs:element>`

element measure/measure_code

diagram



Kind of water related
information the message
shows

namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

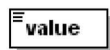
properties isRef 0
content simple
facets maxLength 3
enumeration DIS
enumeration REG
enumeration BAR
enumeration VER
enumeration LSD
enumeration WAL

annotation documentation
Kind of water related information the message shows

source `<xs:element name="measure_code">
<xs:annotation>
<xs:documentation>Kind of water related information the message shows</xs:documentation>
</xs:annotation>
<xs:simpleType>
<xs:restriction base="xs:string">
<xs:maxLength value="3"/>
<xs:enumeration value="DIS"/>
<xs:enumeration value="REG"/>
<xs:enumeration value="BAR"/>
<xs:enumeration value="VER"/>
<xs:enumeration value="LSD"/>
<xs:enumeration value="WAL"/>
</xs:restriction>
</xs:simpleType>
</xs:element>`

element measure/value

diagram



Measured or predicted value

namespace **www.RISexpertgroups.org**

type **xs:float**

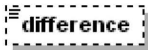
properties isRef 0
content simple

annotation documentation
Measured or predicted value

source

```
<xs:element name="value" type="xs:float">
  <xs:annotation>
    <xs:documentation>Measured or predicted value</xs:documentation>
  </xs:annotation>
</xs:element>
```

element measure/difference

diagram 
Difference with previous measurement

namespace **www.RISexpertgroups.org**

type **xs:float**

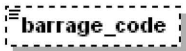
properties isRef 0
minOcc 0
maxOcc 1
content simple

annotation documentation
Difference with previous measurement

source

```
<xs:element name="difference" type="xs:float" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Difference with previous measurement</xs:documentation>
  </xs:annotation>
</xs:element>
```

element measure/barrage_code

diagram 
Status of the barrage

namespace **www.RISexpertgroups.org**

type restriction of **xs:string**

properties isRef 0
minOcc 0
maxOcc 1
content simple

facets maxLength 3
enumeration CLD
enumeration OPG
enumeration CLG
enumeration OPD
enumeration OPN

annotation documentation
Status of the barrage

source

```
<xs:element name="barrage_code" minOccurs="0">
  <xs:annotation>
    <xs:documentation>Status of the barrage</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="CLD"/>
      <xs:enumeration value="OPG"/>
      <xs:enumeration value="CLG"/>
      <xs:enumeration value="OPD"/>
      <xs:enumeration value="OPN"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>
```

element **measure/regime_code**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

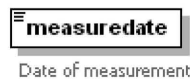
properties
 isRef 0
 minOcc 0
 maxOcc 1
 content simple
 facets
 maxLength 2
 enumeration NO
 enumeration HI
 enumeration II
 enumeration I
 enumeration NN

annotation
 documentation
 Applicable regime

source
 <xs:element name="regime_code" minOccurs="0">
 <xs:annotation>
 <xs:documentation>Applicable regime</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="xs:string">
 <xs:maxLength value="2"/>
 <xs:enumeration value="NO"/>
 <xs:enumeration value="HI"/>
 <xs:enumeration value="II"/>
 <xs:enumeration value="I"/>
 <xs:enumeration value="NN"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element **measure/measuredate**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of date**

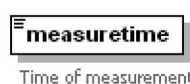
properties
 isRef 0
 content simple
 facets
 minInclusive 20000101
 maxInclusive 30001231

annotation
 documentation
 Date of measurement

source
 <xs:element name="measuredate">
 <xs:annotation>
 <xs:documentation>Date of measurement</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="date">
 <xs:maxInclusive value="30001231"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element **measure/measurertime**

diagram



namespace www.RISexpertgroups.org

type **time**

properties isRef 0
content simple

facets minInclusive 0000
maxInclusive 2359

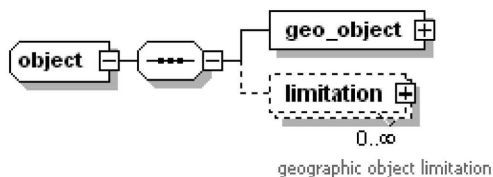
annotation documentation
Time of measurement

source

```
<xs:element name="measuretime" type="time">
  <xs:annotation>
    <xs:documentation>Time of measurement</xs:documentation>
  </xs:annotation>
</xs:element>
```

complexType **object**

diagram



namespace www.RISexpertgroups.org

children **geo object limitation**

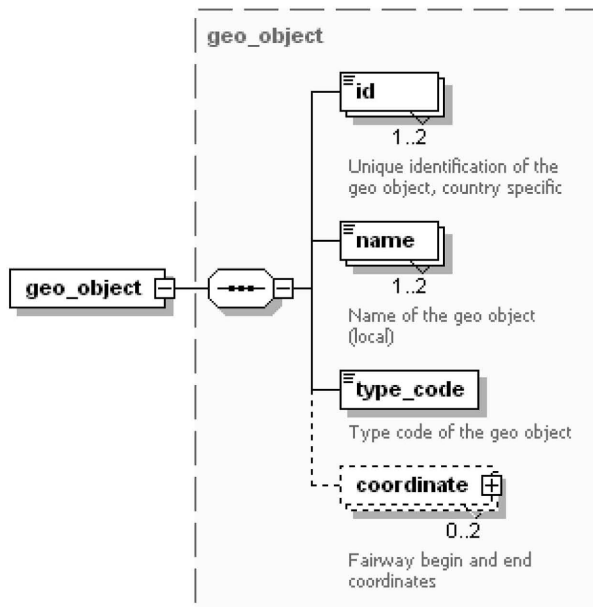
used by element **ftm/object**

source

```
<xs:complexType name="object">
  <xs:sequence>
    <xs:element name="geo_object" type="geo_object"/>
    <xs:element name="limitation" type="limitation" minOccurs="0" maxOccurs="unbounded">
      <xs:annotation>
        <xs:documentation>geographic object limitation</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>
</xs:complexType>
```

element **object/geo_object**

diagram

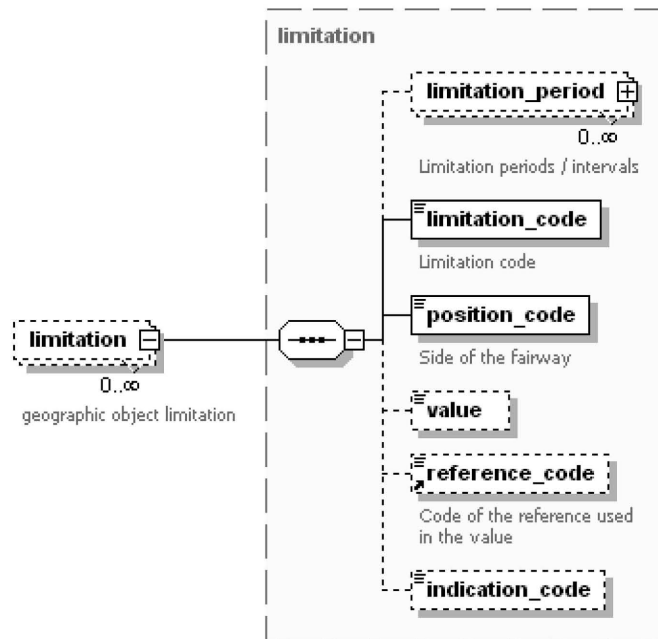


namespace www.RISexpertgroups.org

type **geo_object**
 properties isRef 0
 content complex
 children **id name type code coordinate**
 source <xs:element name="geo_object" type="geo_object"/>

element **object/limitation**

diagram

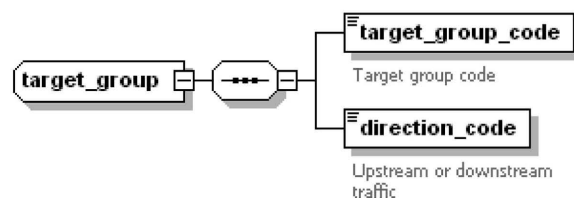


namespace **www.RISexpertgroups.org**

type **limitation**
 properties isRef 0
 minOcc 0
 maxOcc unbounded
 content complex
 children **limitation period limitation_code position_code value reference_code indication_code**
 annotation documentation
 geographic object limitation
 source <xs:element name="limitation" type="limitation" minOccurs="0" maxOccurs="unbounded">
 <xs:annotation>
 <xs:documentation>geographic object limitation</xs:documentation>
 </xs:annotation>
 </xs:element>

complexType **target_group**

diagram



namespace **www.RISexpertgroups.org**

children **target_group_code direction_code**
 used by element **ftm/target_group**

```

source <xs:complexType name="target_group">
  <xs:sequence>
    <xs:element name="target_group_code" default="ALL">
      <xs:annotation>
        <xs:documentation>Target group code</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="3"/>
          <xs:enumeration value="ALL"/>
          <xs:enumeration value="CDG"/>
          <xs:enumeration value="COM"/>
          <xs:enumeration value="PAX"/>
          <xs:enumeration value="PLE"/>
          <xs:enumeration value="CNV"/>
          <xs:enumeration value="PUS"/>
          <xs:enumeration value="NNU"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="direction_code" default="ALL">
      <xs:annotation>
        <xs:documentation>Upstream or downstream traffic</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:maxLength value="3"/>
          <xs:enumeration value="ALL"/>
          <xs:enumeration value="UPS"/>
          <xs:enumeration value="DWN"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

```

element target_group/target_group_code

diagram



namespace www.RISexpertgroups.org

type restriction of xs:string

properties isRef 0
content simple
default ALL
facets maxLength 3
enumeration ALL
enumeration CDG
enumeration COM
enumeration PAX
enumeration PLE
enumeration CNV
enumeration PUS
enumeration NNU

annotation documentation
Target group code

```

source <xs:element name="target_group_code" default="ALL">
  <xs:annotation>
    <xs:documentation>Target group code</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="ALL"/>
      <xs:enumeration value="CDG"/>
      <xs:enumeration value="COM"/>
      <xs:enumeration value="PAX"/>
      <xs:enumeration value="PLE"/>
      <xs:enumeration value="CNV"/>
      <xs:enumeration value="PUS"/>
      <xs:enumeration value="NNU"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

```

</xs:restriction>
</xs:simpleType>
</xs:element>

```

element **target_group/direction_code**

diagram



namespace **www.RISexpertgroups.org**

type **restriction of xs:string**

properties

- isRef 0
- content simple
- default ALL

facets

- maxLength 3
- enumeration ALL
- enumeration UPS
- enumeration DWN

annotation

documentation
Upstream or downstream traffic

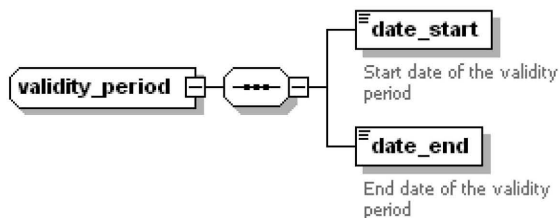
```

source <xs:element name="direction_code" default="ALL">
  <xs:annotation>
    <xs:documentation>Upstream or downstream traffic</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
      <xs:maxLength value="3"/>
      <xs:enumeration value="ALL"/>
      <xs:enumeration value="UPS"/>
      <xs:enumeration value="DWN"/>
    </xs:restriction>
  </xs:simpleType>
</xs:element>

```

complexType **validity_period**

diagram



namespace **www.RISexpertgroups.org**

children **date_start date_end**

used by elements **ftm/validity_period wrm/validity_period icem/validity_period**

```

source <xs:complexType name="validity_period">
  <xs:sequence>
    <xs:element name="date_start">
      <xs:annotation>
        <xs:documentation>Start date of the validity period</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="date">
          <xs:maxInclusive value="30001231"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="date_end" type="date">
      <xs:annotation>
        <xs:documentation>End date of the validity period</xs:documentation>
      </xs:annotation>
    </xs:element>
  </xs:sequence>

```


</xs:complexType>

element **validity_period/date_start**

diagram



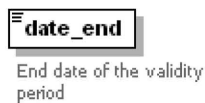
namespace **www.RISexpertgroups.org**

type **restriction of date**

properties isRef 0
 content simple
 facets minInclusive 20000101
 maxInclusive 30001231
 annotation documentation
 Start date of the validity period
 source <xs:element name="date_start">
 <xs:annotation>
 <xs:documentation>Start date of the validity period</xs:documentation>
 </xs:annotation>
 <xs:simpleType>
 <xs:restriction base="date">
 <xs:maxInclusive value="30001231"/>
 </xs:restriction>
 </xs:simpleType>
 </xs:element>

element **validity_period/date_end**

diagram



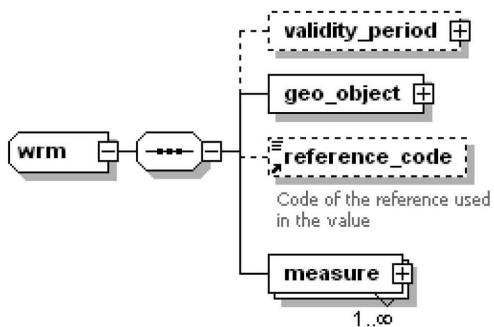
namespace **www.RISexpertgroups.org**

type **date**

properties isRef 0
 content simple
 facets minInclusive 20000101
 maxInclusive 99999999
 annotation documentation
 End date of the validity period
 source <xs:element name="date_end" type="date">
 <xs:annotation>
 <xs:documentation>End date of the validity period</xs:documentation>
 </xs:annotation>
 </xs:element>

complexType **wrm**

diagram



namespace **www.RISexpertgroups.org**

children **validity_period** **geo_object** **reference_code** **measure**

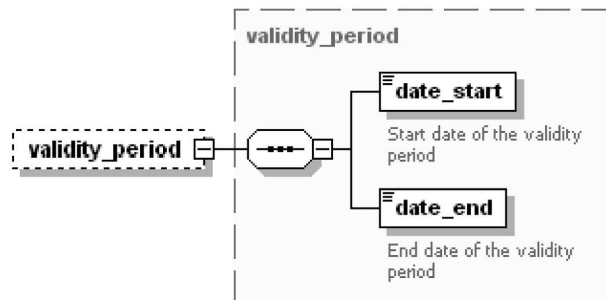
used by element **RIS Message/wrm**

source

```
<xs:complexType name="wrm">
  <xs:sequence>
    <xs:element name="validity_period" type="validity_period" minOccurs="0"/>
    <xs:element name="geo_object" type="geo_object"/>
    <xs:element ref="reference_code" minOccurs="0"/>
    <xs:element name="measure" type="measure" maxOccurs="unbounded"/>
  </xs:sequence>
</xs:complexType>
```

element **wrm/validity_period**

diagram



namespace **www.RISexpertgroups.org**

type **validity_period**

properties
 isRef 0
 minOcc 0
 maxOcc 1
 content complex

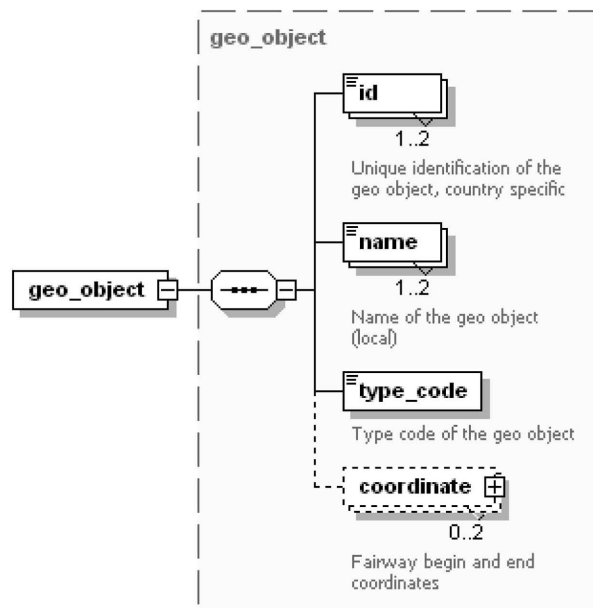
children **date_start** **date_end**

source

```
<xs:element name="validity_period" type="validity_period" minOccurs="0"/>
```

element **wrm/geo_object**

diagram



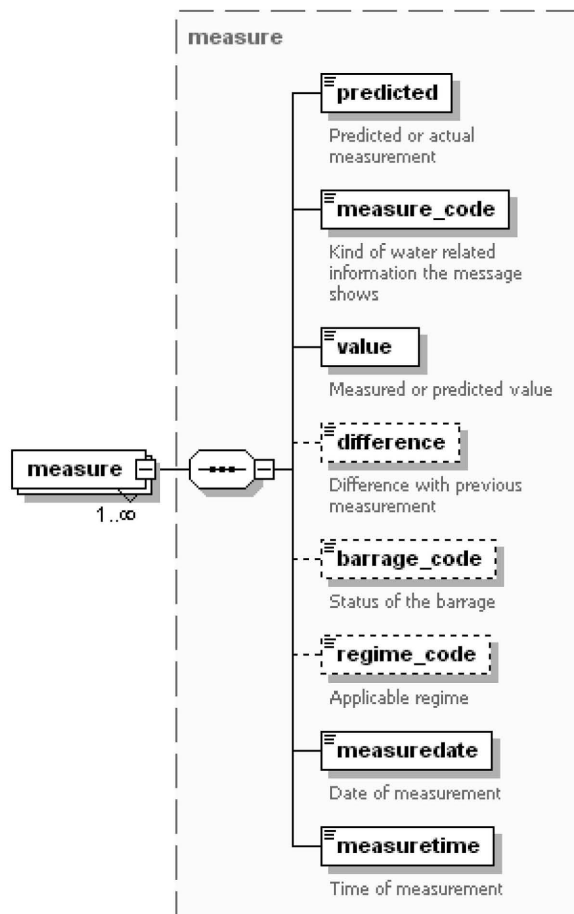
namespace **www.RISexpertgroups.org**

type **geo_object**

properties isRef 0
content complex
children id name type code coordinate
source <xs:element name="geo_object" type="geo_object"/>

element wrm/measure

diagram



namespace www.RISexpertgroups.org

type measure

properties isRef 0
minOcc 1
maxOcc unbounded
content complex

children predicted measure_code value difference barrage_code regime_code measuredate measuretime

source <xs:element name="measure" type="measure" maxOccurs="unbounded"/>

simpleType date

namespace www.RISexpertgroups.org

type restriction of [xs:positiveInteger](#)

used by elements validity_period/date end limitation period/date end Identification/date issue validity period/date start limitation period/date start measure/measuredate ice condition/measuredate

facets minInclusive 20000101
maxInclusive 99999999

source <xs:simpleType name="date">
<xs:restriction base="xs:positiveInteger">
<xs:minInclusive value="20000101"/>

```
<xs:maxInclusive value="99999999"/>
</xs:restriction>
</xs:simpleType>
```

simpleType time

namespace **www.RISexpertgroups.org**

type restriction of **xs:nonNegativeInteger**

used by elements **measure/measuretime ice_condition/measuretime limitation period/time end**
Identification/time issue limitation period/time start

facets
minInclusive 0000
maxInclusive 2359

source

```
<xs:simpleType name="time">
  <xs:restriction base="xs:nonNegativeInteger">
    <xs:minInclusive value="0000"/>
    <xs:maxInclusive value="2359"/>
  </xs:restriction>
</xs:simpleType>
```

XML Schema documentation generated by **XMLSpy** Schema Editor <http://www.altova.com/xmlspy>
