Leaflet

Notices to Skippers
Leaflet
Edition 2011

Notices to Skippers

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1. **Introduction**

1.1 **Purpose**

The international Standard for Notices to Skippers shall boost the use of modern information technology on board of inland navigation vessels and in particular the distribution of notices to skippers by River Information Services. The distribution of notices to skippers without regard to borders and language areas is contributing to the increase of economic efficiency and safety in inland navigation. An international standard is necessary to ensure the effective and safe distribution of notices to skippers by River Information Services.

1.2 **Terminology**

**Notices to Skippers** means the international standard for the distribution of notices to skippers on inland shipping routes as established by the Central Commission for the Navigation of the Rhine (CCNR) and by the Commission Regulation (EC) 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.

**Fairway and traffic related message** means a notice, which provides information about a fairway section or an object.

**Water level related message** means a notice, which provides information on the water level, the least sounded depth, the vertical clearance, the barrage status, the discharge, the regime, the predicted water level, the least sounded predicted depth or the predicted discharge.

**Ice message** means a notice, which provides information on the ice situation.

**Weather related message** means a notice, which provides information on the weather situation. (The states are not required to provide weather data.)


1.3 **History and goal of standardization**

Notices to skippers are among the most common means of information in inland navigation. Traditionally they have been distributed by VHF, in writing, on notice boards or by fax. Web services have been installed in most countries in the last years. But these services are providing the information in the national language only. While this may be acceptable on a river like the Rhine with only three languages, it causes a lot of problems on a European level. A skipper on the Danube for example would have to be able to read notices in German, Slovak, Hungarian, Croatian, Serbian, Bulgarian, Romanian, and Russian language. A standard, which provides automatic translation of the most important safety relevant information, was urgently needed therefore.
Due to the enormous variety of notices to skippers and the big differences in the grammar of the languages it was not possible to provide grammatically correct translations of sentences, but only translation of standardized pieces of information (i.e. code format, exemplary for the limitation: “overtaking prohibited”).

Information on restrictions and delays is not only read by skippers, but is also used in voyage planning applications. A second goal of standardization was the possibility to provide machine readable files, which can be used directly by these applications.

1.4 Features of the international Standard for Notices to Skippers

The international Standard for Notices to Skippers provides a standardized data format, which can be used for publishing notices to skippers on the internet (pull-services) or for distribution by e-mail (push services).

The content of the messages is encoded in a machine readable XML-file. This file can be used by software applications like voyage planning or Inland ECDIS on board of a vessel or by internet sites. The encoded information can be used directly for calculations, as for example in voyage planning, or be translated to the language of the user and displayed. The reference tables of the standard contain 21 languages of the member countries of the European Union, and additional 3 languages, namely Croatian, Serbian, and Russian language, and guarantee, that a skipper is able to read and understand the notices to skippers for all the major European waterways (facilitating safety of navigation).

1.5 Notices to Skippers Expert Group

Since 20 December 2010 the newly approved Terms of Reference are available for the Notices to Skippers Expert Group. The Expert Group has more than 80 members and the community portal for Notices to Skippers is available for the members of the EG with username and password under http://eg.ris.eu/nts/.

Various information is published at the RIS Portal under http://www.ris.eu/documents/nts, where the available RIS indexes can also be downloaded.

2. International Standard for Notices to Skippers

2.1 Purpose

The standardization of notices to skippers shall
• provide automatic translation of the most important content of notices in all the languages of the participating countries,
• provide a harmonized 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 and weather information,
• be compatible with the data-structure of Inland ECDIS to facilitate integration of notices to skippers in Inland ECDIS,
• facilitate data-exchange between different countries.

Its purpose is to contribute to safety and efficiency on the inland shipping routes and thus also to protect the environment. In addition Inland ECDIS should simultaneously reduce the workload when navigating the ship as compared to traditional information methods.

2.2 Legal basis


2.3 Current edition


2.4 Structure and content of the standard

The standard (Edition 3.0) comprises
• the edition overview,
• the description of the different messages,
• the description of the way of distributions,
• the description of the procedures for changes in the reference tables and the XML Scheme,
• the XML definition showing the structure of the messages,
• the explanation of the tags (structural elements of the messages),
• the explanation of the codes (standardized content of the messages),
• three appendices
  - Appendix A: Specifications of examples for the implementations of the Notices to Skippers Standard,
  - Appendix B: Reference tables,
  - Appendix C: XML scheme.

3. Modes of distribution

Notices to skippers according to this standard can be provided on the internet (pull services) or distributed by e-mail (push services).

3.1 Pull services

Internet services should provide a possibility to select:
• a specific waterway section or a specific part of a waterway, defined by the river-km of the starting and the end point,
• a time of validity and
• a date of publication of the notice.
Notices to skippers can be displayed

- as plain text, which is built from a text mask and standardized elements, in English, Dutch, French or German,
- as tags and values in – depending on implementation – up to 24 languages available in standardized translations of reference tables, incl. Bulgarian, Croatian, Czech, Danish, Dutch, English, Estonian, Finnish, French, German, Greek, Hungarian, Italian, Latvian, Lithuanian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish or Swedish.


<table>
<thead>
<tr>
<th>NTS no.</th>
<th>Title</th>
<th>From</th>
<th>Until</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011/0243/01</td>
<td>Notice withdrawn - Kanaal Brugge-Zeebrugge, Verbindingssluis Brugge</td>
<td>4/19/2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Kanaal Brugge-Zeebrugge, Verbindingssluis Brugge)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011/0242/00</td>
<td>Warning - Ringvaart om Gent, Sluizen te Merelbeke (Merelbeke)</td>
<td>4/19/2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Ringvaart om Gent, Sluizen te Merelbeke)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figures 1: Examples of selection tools for display on the internet (Flanders and Austria)

Notices to skippers can be provided for download
- as plain text,
- as tags and values or
- as a machine readable XML file with minimum volume, which can be translated to the language of the user by a receiving application (specific software for Notices to Skippers) using the reference tables or used by an application like voyage planning for further calculations.
3.2 Push services

Notices to skippers according to this standard can be distributed by e-mail (as subscription)
- as plain text,
- as tags and values or
- as a machine readable XML file with minimum volume, which can be translated to the language of the user by a receiving application (specific software for Notices to Skippers) using the reference tables or used by an application like voyage planning or Inland ECDIS viewer for further calculations.

![Subscription Notices to Skippers](image)

Figure 2: Screen example for the Notices to Skippers subscription (Flanders)
Registration e-mail service

Here you can register for the notices to skippers e-mail service. Fill the text fields and click "Register" to receive an e-mail with a link to activate your user account. After successful activation you can subscribe for the different notices in the desired format.

Figure 3: Screen example for the Notices to Skippers subscription (Austria)

N O L H R A

Figure 4: Screen example to manage the user account in the Notices to Skippers subscription (Austria)
3.3 International data exchange between authorities

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.

A standardized method for exchanging notices to skippers by means of web service (WS) technology is currently under elaboration. WS will enable an easier and more secure method for exchanging notices to skippers between authorities as well as private companies.

4. Content of the Notices to Skippers

Notices to skippers are messages with navigation information for inland skippers about a geographical object or a waterway section.

![Figure 5: Message structure of the notices to skippers](image-url)
A standardized notice to skippers in XML-format contains therefore 5 different sections:

- identification,
- fairway and traffic related messages,
- water level related messages,
- ice messages,
- weather related messages.

In one notice to skippers generally only two sections will be filled in: the identification section and at least one of the following sections (fairway and traffic related, water level related, ice, or weather related message).

### 4.1 Explanation of the subject codes of fairway and traffic related messages

**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 2 hours on January 13 2008 between 08:00 and 17:00.*

**Encoded:**

```plaintext
encoded:
date_start: 20080113
date_end: 20080113
time_start: 0800
time_end: 1700
limitation_code: Delay
position_code: all
value: 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.

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.

Military exercising  Military 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.

4.2 Explanation of the ice condition codes in ice messages
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.

5. Implementation of Notices to Skippers

5.1 Austria
The Austrian Notices to Skippers are provided by the Supreme Navigation Authority and via donau on behalf of the Austrian Ministry of Transport, Innovation and Technology according to the international Standard for Notices to Skippers. A new Notices to Skippers application (Notices to Skippers Edition 3.0) was put in operation in March 2011 in the framework of the project IRIS Europe II and is accessible at http://nts.doris.bmvit.gv.at.

Standardized notices to skippers are provided in full text format in German, English, French and Dutch and in code format (tags and values) in all the 24 languages of the standard. Also machine-readable notices in XML-format are available.

In Austria standardized fairway and traffic related messages, water level related messages and ice messages are published. In addition enhanced ice reports and the fairway information overview including lock status and shallow section information are available (not standardized).

The website offers the possibility to subscribe to the Notices to Skippers e-mail service. First tests of the standardized notices to skippers web service for international notices to skippers data exchange with the neighbouring countries Germany and Slovakia are performed in 2011. After successful testing, search for notices from other countries will be enabled at the Austrian Notices to Skippers website.

5.2 Belgium

Flemish waterways

On 25 of May 2010, Flanders has officially introduced notices to skippers according to the Notices to Skippers Standard Edition 2.0 (XSD Edition 3.0). The website itself is available in four languages, i.e. Dutch, French, German and English and can be consulted via http://nts.flaris.be.
A map of Flanders on the front page shows all actual messages, giving an immediate impression of the current situation of the Flemish waterways. Besides exploring the website, users can also register themselves and indicated their preferences (incl. time period) to receive only messages they are interested in.

Besides the notices to skippers, visitors can also look up the operating times of locks and bridges and in the near future, water level information will be available.

**Walloon Waterways**

The General Management of Waterways already issues notices to skippers and the journal for inland waterways transport which provide pieces of information of general purpose and about discharge regimes, weirs, limitations, etc.

These data are directly sent to concerned services by means of mail, fax, e-mail, are broadcasted on radio and television and published on the website.

The current publishing of this information as well as its content will be adapted to the International Standard for Notices to Skippers and distributed on the web server or by e-mail. The opportunity of developing a specific RIS server will be studied during the implementation of the RIS directive.

The studies and developments of the new Walloon Notices to Skippers were postponed compared to the first schedule.

The new Walloon Notices to Skippers application, which generates notices to skippers in 4 languages (French, Dutch, English and German) and in XML format as described in the European RIS standards is currently in a test phase and should be operational by the end of 2008.

**Westerscheldt River area**

Notices to Skippers is implemented in the Westerscheldt River area (RIS Gemeenschappelijk Nautisch Beheer - GNB) according to the Commission Regulation (EC) No 416/2007 and is fully integrated in the existing RIS (FIS) Portal [www.vts-scheldt.net](http://www.vts-scheldt.net). The RIS GNB authority has the possibility to create notices to skippers message via an extended and user-friendly Notices to Skippers Editor. Users have the possibility to query Notices to Skippers in a grid view through many selection criteria that are provided. The notices to skippers are shown on an interactive map as an additional functionality and are available in HTML, XML and PDF format. A notices to skippers mailing list is publicly available. Users can subscribe to this mailing list.

The most frequently used message to inform the skippers in the Westerscheldt River area, is the existing BASS (Messages to River Scheldt shipping and Mutual Publications) messages. The BASS messages will also be used in the future. It is available on the RIS (FIS) Portal [www.vts-scheldt.net](http://www.vts-scheldt.net) and can also be automatically converted and distributed as a notices to skippers message on demand of the RIS GNB authority.

The IVS (Informatie- en Volgsysteem voor de Scheepvaart) information system is responsible for keeping track of the voyage related information. This system has also the capability to inform its users with special notifications. A functionality is foreseen to translate these IVS notifications in notices to skippers messages and make them available like any other notices to skippers message.
Machine to machine integration with other systems/third-party authorities is possible via the Notices to Skippers web services, as defined by the Notices to Skippers Web Taskforce. The WSDL files and documentation are available on www.ris.eu.

The GNB authority uses for many years the Central Broker System (CBS) to exchange information, different types of messages, with the sea ports and neighbouring authorities in the Westerscheldt area. The CBS is also ready to exchange the notices to skippers messages between the involved partners.


5.3 Bulgaria


Notices to Skippers is a subsystem of BULRIS implemented according to the Notices to Skippers Standard Edition 3.0. Input, publishing, change of notices are made via web based GUI accessible with appropriate user rights. The system supports a pull service by means of a website (www.bulris.bg) and also offers a push service by e-mail service on subscription. Following messages are implemented: fairway and traffic related messages (FTM), water level related messages (WRM), ice messages (ICEM) and weather related messages (WERM).

Standardized notices to skippers are provided in all three formats defined in the standard - full text format in German, English, French and Dutch, code format (tags and values) in all the 24 languages of the standard, and machine-readable XML-format. The system also provides a web service allowing external systems to search and retrieve notices to skippers as XML messages using the same search criteria as in the pull service.

First tests are undertaken in July 2011. The system is expected to be fully operational in the beginning of 2012.

5.4 Croatia

A Notices to Skippers application was implemented in Croatia as a part of the CRORIS (Croatian River Information Services), which was initiated by the Ministry of the Sea, Transport and Infrastructure and executed by Inland Navigation Development Centre (CRUP). The project started in 2003, while electronic notices to skippers were introduced in 2005.

Notices to skippers are provided by four harbour master's offices on Croatian inland waterways (Osijek, Vukovar, Slavonski Brod, Sisak) for all navigable inland waterways in Croatia (Danube, Sava, Drava and Kupa). The notices are published by the Agency for Inland Waterways on its website http://nts.vodniputovi.hr/.

The Notices to Skippers application in Croatia is developed according to the international standard of the Central Commission for the Navigation of the Rhine (CCNR). The current application is based on Edition 2.1 of the Standard, while the new Edition 3.0 will be implemented in summer 2011.
Three types of messages are available in Croatian notices to skippers: fairway and traffic related messages (FTM), water level related messages (WRM) and ice messages (ICEM). Besides Croatian, all the information is available in 11 foreign languages: English, German, Bulgarian, French, Hungarian, Dutch, Romanian, Russian, Slovenian, Serb and Czech.

The website http://nts.vodniputovi.hr/ offers a possibility to subscribe to the Notices to Skippers e-mail service for those who wish to receive regular updates by e-mail.

5.5 Czech Republic

The implementation of notices to skippers service according to the Edition 3.0 of the Notices to Skippers Standard is finalised and in test operation. Following messages are implemented: WRM, ICEM, WERM and FTM. Notices to skippers in the Czech Republic are accessible under www.lavdis.cz. The Notices to Skippers application can generate notices to skippers in the XML format based on the European standard, transmittable by e-mail.

Works on the development of the hydrological model of the Elbe-Moldau waterway allowing better specifications of the water levels forecast have been finalised.

An analysis of the possibility of using meteorological information available on the waterway to be included into the WERM was performed. An analysis of the potential of a model for ice phenomena has been undertaken. Based on the conclusions of the analysis, the development of the ice phenomena model has been started.

5.6 France

VNF provides notices to skippers according to the standard on the website www.vnf.fr (under Avis à la batellerie). This concerns geographical information and up-to-date information such as restrictions (changes of water level ...) and blockage of navigation. This information can be retrieved per location, section and waterways.

Notices to skippers are available in France since 2003, able to send notices to skippers by fax or e-mail in text format.

Since the end of 2007 the French Notices to Skippers application can generate notices to skippers in XML format based on the European standard, transmittable by Mail.

Furthermore, France has developed different tools on the VNF website:
- users can consult the notices to skippers on a map,
- a French route planner, which takes into account notices to skippers into account, is available since August 2010.

France will implement an exchange system by web service before the end of 2011.
5.7 Germany

The Federal Waterways and Shipping Administration provides notices to skippers according to the Notices to Skippers Standard on the website www.elwis.de.

Standardized German notices to skippers (fairway and traffic related messages) are provided in code format (tags and values) in the languages: Croatian, Czech, Dutch, English, French, German, Hungarian, Polish, Romanian and Slovak.

The website also offers the possibility to subscribe for the ELWIS-Abo-service. This service is free of charge and provides fairway and traffic related messages, water related messages and ice messages via e-mail and SMS also as e-mails with attached XML-files of these notices. A short instruction manual for the use of the ELWIS-Abo-service: http://www.elwis.de/abo/xml_kurz_en/index.html.

The standardized notices to skippers web service for international notices to skippers data exchange is implemented and available.

Competent authorities of other countries and private companies are allowed to include the notices into their own service.

5.8 Hungary

The test implementation of the standardised Notices to Skippers (Edition 3.0) will be available at http://test.pannonris.hu/. The pilot implementation is the subject of the IRIS Europe II project.

The Hungarian National Transport Authority (NTA) is in the final stage of the implementation of its new IT system. Notices to Skippers will be an integral part of this system. After the exact setup NTA will forward the FTM messages to the PannonRIS system. The information will be displayed on the PannonRIS website, where an email subscription will be available.

Connection is established between the Hungarian hydrological institution and the RIS Centre to receive water level and ice information.

Notices to skippers will also be available in PDF and XML format.

5.9 The Netherlands

Static and dynamic information about the Netherlands fairways will be available at a central point, the RIS server (www.risserver.nl). It contains geographical information (ENCs) and up-to-date information such as water related messages, fairway and traffic related messages, ice messages and weather forecast.

This information can be retrieved per fairway, route, corridor or country.

At the end of 20011 a new FIS portal will replace the RIS server.

On behalf of the Vessel Traffic Management Centre, the “Waterkamer” (Water Chamber) already provides fairway and traffic related messages, water related messages and ice messages in accordance with the XML standard by secured ftp.
For a free ftp account send an email to waterkamer@rws.nl, part of Ministry of Infrastructure and the Environment, Rijkswaterstaat.

Information on the Notices to Skippers implementation in the Westerscheldt River area can be found in part 5.2 of this Leaflet.

5.10 Poland

Notices to skippers in Poland are available at the website of the Water Management Authorities www.rzgw.szczezin.pl. They are prepared in the PDF format in the Polish language and they do not comply to the Notices to Skippers Standard yet. However, works on a test implementation of Notices to Skippers according to Notices to skippers Standard are carried out in the Maritime University of Szczecin under the research and development project „Technology of building RIS in Poland”. The notices will be prepared according to the Notices to Skippers Standard Edition 3.0 and the web service will follow the latest standards for Notices to Skippers Web Services. The test implementation is planned to be completed in June 2011.

5.11 Romania

Notices to skippers are implemented in Romania according to the Notices to Skippers Standard. Notices are available in the test phase under http://www.roris.ro.

Furthermore, provision of weather information is implemented at the moment. However, the weather messages implementation is in the test phase. Automatic weather measuring stations are to be connected to the system. Weather messages as implemented are not in line with the newly proposed Notices to Skippers Standard amendment.

The next step, RoRIS II, which is now the in implementation period, will contain the latest version of the Notices to Skippers Standard (Edition 3.0). The implementation period will end in the second part of 2012.

5.12 Serbia

Notices to skippers are implemented according to the Notices to Skippers Standard Edition 1.1 and are in a test phase. The upgrade to the Edition 2.1 of the Notices to Skippers Standard is ongoing and will be finalized in September 2011. Currently only water level related messages (WRM) are published. Full implementation of the Notices to Skippers will soon be available under http://nts.risserbia.rs.

5.13 Slovakia

The State Navigation Administration provides notices to skippers according to the Commission Regulation (EC) 416/2007. The URL address of the test environment is http://nts.slovris.sk.

The service provides fairway and traffic related messages, water level messages and ice messages. However, the water level messages are only in test operation and the data are not guaranteed by the State Navigation Administration.
The messages can be displayed on the website as full text in English, Dutch, German and French; in code (tags and values) format in 12 languages and in XML format. Furthermore, the user can subscribe for notices to skippers delivery via e-mail service.

Currently the new version of the standard (upcoming amendment of the EC Regulation, XSD Edition 3.0) is implemented within the IRIS Europe II project. The web services interface for exchange of notices to skippers will be implemented as well. Pilot operation of the new application shall start in the 2nd half of 2011; full operation is planned from beginning of 2012.

5.14 Switzerland

In their function as the Swiss navigation administration, the Swiss Rhine ports offer notices to skippers according to this standard on their webpage www.port-of-switzerland.ch and on the webpage of the German Federal Waterways and Shipping Administration www.elwis.de.

5.15 Ukraine

Notices to skippers in Ukraine are distributed by VHF broadcast especially for Danube region via UDP broadcast center in Izmail. The software solution to provide notices to skippers via web interface shall be elaborated.
Contact addresses of competent waterway authorities

Austria:
Bundesministerium für Verkehr, Innovation und Technologie, Oberste Schifffahrtsbehörde, Radetzkystrasse 2, 1030 Wien
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