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## **Notices to Skippers for Inland Navigation**

### **International Standard**

**Edition 1.1**

**27.4.2006**



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**Preface**

In the recent years many countries have implemented internet-services for notices to skippers. Most of the existing services are providing information in the national language. As many notices are safety related or very important for the planning of voyages, the availability of all the notices for European waterways in all the languages would contribute to increasing safety and competitiveness of Inland Navigation.

This draft of an European standard has been developed by the “Notices to Skippers Expert Group”.



## **Introduction (Primary Functions and Performance)**

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,
- 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.

It will not be possible to standardize all the information, which is contained in Notices to Skippers. Part of the information will be provided as “free text” without automatic translation. The standardized 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 2010)
- 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.

## **Data standard**

Notices to Skippers shall be provided according to Annex 1, XML Message Specification. The use of free text should be restricted to a minimum.

## **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 is using the Glw, “gleichwertiger Wasserstand”, for example, 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.

Appendix A of Annex 1 is 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 standard.

### **Way of distribution**

If the competent authorities provide Notices to Skippers of their own country in such a way, that they can be used by users of other languages, they shall be provided according to this standard 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 Annex 1, Table 1) or
- a specific part of a waterway, defined by the river-km (fairway hectometer of the ID according to Annex 1, Table 1) of the starting and the end point;
- a time of validity (starting date and end date according to Annex 1, Table 1)
- and a date of publication of the notice (date of publication according to Annex 1, Table 1).

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

- WAP services,
- E-mail services.

Data exchange between the authorities is recommended. All the authorities using this standard can integrate Notices 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.



## Annex 1 - Structure of the messages and coding in XML-format

### 1. Introduction

This annex describes the structure and formatting of standardized electronic navigation information - messages that can be sent by local authorities to (inland) ships.

#### 1.1 Edition overview

| <b>Edition</b> | <b>Date</b> | <b>Description</b>                              |
|----------------|-------------|---|
| 1.0            | 28.5.2004   | Adoption by CCNR                                |
| 1.1            | 27.4.2006   | Amendments adopted by the CCNR Police Committee |

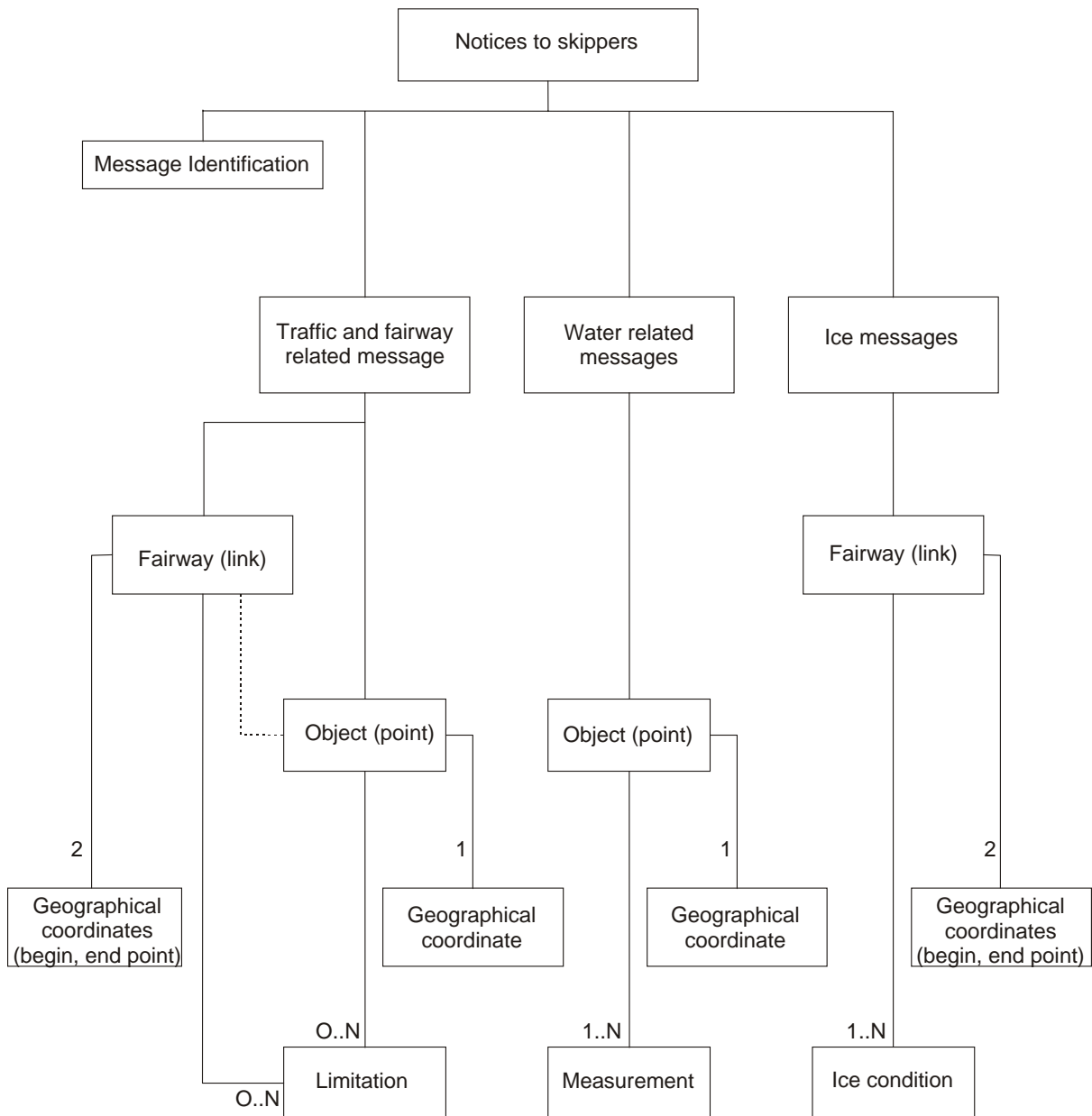
Each document version is identified bottom left on each page.

### 2. Structure of the Notices to Skippers

#### 2.1 General

Navigation messages, with navigation information for inland skippers about a geographical object 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 Navigation Message structure**

A standardized message in XML-format contains therefore also 4 different sections:

- Identification
- Fairway and traffic related messages
- Water level related messages
- Ice messages

Normally in one message only 2 sections will be filled: The identification section and at least **one** of the sections: Notices to Skippers, 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. The diagram also shows that a Notice to Skippers relates 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 one 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).

## 2.2 XML definition overview

This section gives an overview of the definition of the message coded in XML. Appendix-A contains a complete definition for all the XML elements including the possible formats.



Table 1, XML message specification

| Nr.        | 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  |                       |                 |
| <b>1s</b>  | <b>&lt;identification&gt;</b>                                   | <b>Identification section</b>   | M                     | 1               |
| 1.1        | <b>&lt;from&gt;String&lt;/from&gt;</b>                          | Sender of the message   | M                     |                 |
| 1.2        | <b>&lt;originator&gt;Riza&lt;/originator&gt;</b>                | Originator (initiator) of the information in this message                       | M                     |                 |
| 1.3        | <b>&lt;country_code&gt;CH&lt;/country_code&gt;</b>              | Country where message is valid  | M                     |                 |
| 1.4        | <b>&lt;language_code&gt;HU&lt;/language_code&gt;</b>            | Original language used in the textual info. (contents)                          | M                     |                 |
| 1.5        | <b>&lt;district&gt;WaddenZee&lt;/district&gt;</b>               | District / Region within the specified country, where the message is applicable | C                     |                 |
| 1.6        | <b>&lt;date_issue&gt;20011231&lt;/date_issue&gt;</b>            | Date of editing   | C                     |                 |
| 1.7        | <b>&lt;time_issue&gt;1145&lt;/time_issue&gt;</b>                | Time of editing   | C                     |                 |
| <b>1e</b>  | <b>&lt;/identification&gt;</b>                                  |   |                       |                 |
| <b>2s</b>  | <b>&lt;ftm&gt;</b>  | <b>Fairway and traffic related section</b>                                      | C                     | 1               |
| 2.1        | <b>&lt;year&gt;2001&lt;/year&gt;</b>                            | Year of first issuing of the notice   | M                     |                 |
| 2.2        | <b>&lt;number&gt;9999&lt;/number&gt;</b>                        | Number of the notice (per year)   | M                     |                 |
| 2.3        | <b>&lt;serial_number&gt;99&lt;/serial_number&gt;</b>            | Serial no of notice (replacements and withdrawals)<br>original notice: 00       | M                     |                 |
| 2.4s       | <b>&lt;target_group&gt;</b>                                     | Target group information  | C                     |                 |
| 2.4.1      | <b>&lt;target_group_code&gt;ALL&lt;/target_group_code&gt;</b>   | Target group (vessel type) for this message                                     | M                     | Default: all    |
| 2.4.2      | <b>&lt;direction_code&gt;ALL&lt;/direction_code&gt;</b>         | Upstream or downstream traffic, or both   | M                     | Default:all     |
| 2.4e       | <b>&lt;/target_group&gt;</b>                                    |   |                       |                 |
| 2.5        | <b>&lt;subject_code&gt;OBSTRU&lt;/subject_code&gt;</b>          | Subject code (also see paragraph 2.3.1)   | M                     |                 |
| 2.6s       | <b>&lt;validity_period&gt;</b>                                  | Overall period of validity  | M                     |                 |
| 2.6.1      | <b>&lt;date_start&gt;20011231&lt;/date_start&gt;</b>            | Start date of validity period   | M                     |                 |
| 2.6.2      | <b>&lt;date_end&gt;99999999&lt;/date_end&gt;</b>                | End date of validity period (indefinite: 99999999)                              | M                     |                 |
| 2.6e       | <b>&lt;/validity_period&gt;</b>                                 |   |                       |                 |
| 2.7        | <b>&lt;contents&gt;String&lt;/contents&gt;</b>                  | Contents / notice text in original language                                     | C                     |                 |
| 2.8        | <b>&lt;source&gt;String&lt;/source&gt;</b>                      | Notice source (authority)   | C                     |                 |
| 2.9        | <b>&lt;reason_code&gt;REPAIR&lt;/reason_code&gt;</b>            | Reason / justification of notice  | C                     |                 |
| 2.10s      | <b>&lt;communication&gt;</b>                                    | Communication channel information   | C                     |                 |
| 2.10.1     | <b>&lt;reporting_code&gt;INF&lt;/reporting_code&gt;</b>         | Reporting regime (information or duty to report)                                | M                     | 5               |
| 2.10.2     | <b>&lt;communication_code&gt;TEL&lt;/communication_code&gt;</b> | Communication code (telephone, VHF etc.)  | M                     | 5               |
| 2.10.3     | <b>&lt;number&gt;String&lt;/number&gt;</b>                      | Telephone, VHF number, e-mail address, URL or teletext                          | C                     | 5               |
| 2.10e      | <b>&lt;/communication&gt;</b>                                   |   |                       |                 |
| 2.11s      | <b>&lt;fairway_section&gt;</b>                                  | Fairway section, also available for objects (no. 2.12)                          | M                     | 2               |
| 2.11.1s    | <b>&lt;geo_object&gt;</b>                                       | Geo information of fairway  | M                     |                 |
| 2.11.1.1   | <b>&lt;id&gt;String&lt;/id&gt;</b>                              | Unique id of the fairway section (1x or 2x)                                     | M                     |                 |
| 2.11.1.2   | <b>&lt;name&gt;String&lt;/name&gt;</b>                          | (Local) Name of the fairway section (f.e.: Rhine between bridge A and bridge B) | M                     |                 |
| 2.11.1.3   | <b>&lt;type_code&gt;FWY&lt;/type_code&gt;</b>                   | Type of geographical object   | M                     | Default: FWY    |
| 2.11.1.4s  | <b>&lt;coordinate&gt;</b>                                       | Fairway section begin and end coordinates (2x)                                  | C                     |                 |
| 2.11.1.4.1 | <b>&lt;lat&gt;42 34.1234 N&lt;/lat&gt;</b>                      |   | M                     | 5               |
| 2.11.1.4.2 | <b>&lt;long&gt;123 45.1234 E&lt;/long&gt;</b>                   |   | M                     | 5               |
| 2.11.1.4e  | <b>&lt;/coordinate&gt;</b>                                      |   |                       |                 |
| 2.11.1e    | <b>&lt;/geo_object&gt;</b>                                      |   |                       |                 |
| 2.11.2s    | <b>&lt;limitation&gt;</b>                                       | Fairway section limitations   | C                     |                 |
| 2.11.2.1s  | <b>&lt;limitation_period&gt;</b>                                | Limitation periods / intervals  | C                     |                 |
| 2.11.2.1.1 | <b>&lt;date_start&gt;20011231&lt;/date_start&gt;</b>            | Start date of limitation period (overall)                                       | M                     | 5               |
| 2.11.2.1.2 | <b>&lt;date_end&gt;20011231&lt;/date_end&gt;</b>                | End date of limitation period   | C                     |                 |
| 2.11.2.1.3 | <b>&lt;time_start&gt;1420&lt;/time_start&gt;</b>                | Start time of limitation period   | C                     |                 |
| 2.11.2.1.4 | <b>&lt;time_end&gt;0500&lt;/time_end&gt;</b>                    | End time of limitation period   | C                     |                 |
| 2.11.2.1.5 | <b>&lt;interval_code&gt;SAT&lt;/interval_code&gt;</b>           | Interval for limitation if applicable   | C                     |                 |

| Nr.        | Tag (Group headers and closers are boldly printed)           | Description   | Mandatory Conditional | Rule applicable |
|------------|--|---|-----------------------|-----------------|
| 2.11.2.1.e | <b>&lt;/limitation_period&gt;</b>                            |   |                       |                 |
| 2.11.2.2   | <b>&lt;limitation_code&gt;OBSTRU&lt;/limitation_code&gt;</b> | Kind of limitation  | M                     | 5               |
| 2.11.2.3   | <b>&lt;position_code&gt;AL&lt;/position_code&gt;</b>         | Position, which side                                      | M                     | 5, default: all |
| 2.11.2.4   | <b>&lt;value&gt;3.14159&lt;/value&gt;</b>                    | Value of limitation (i.e. max draught)                    | C                     |                 |
| 2.11.2.5   | <b>&lt;reference_code&gt;NAP&lt;/reference_code&gt;</b>      | Value reference   | C                     |                 |
| 2.11.2.6   | <b>&lt;indication_code&gt;MAX&lt;/indication_code&gt;</b>    |   |                       |                 |
| 2.11.2e    | <b>&lt;/limitation&gt;</b>                                   |   |                       |                 |
| 2.11.e     | <b>&lt;/fairway_section&gt;</b>                              |   |                       |                 |
| 2.12s      | <b>&lt;object&gt;</b>  | Object section ()   | C                     | 3               |
| 2.12.1s    | <b>&lt;geo_object&gt;</b>                                    | Geo Information of object                                 | M                     | 5               |
| 2.12.1.1   | <b>&lt;id&gt;String&lt;/id&gt;</b>                           | Unique id of the geographical object                      | M                     | 5               |
| 2.12.1.2   | <b>&lt;name&gt;String&lt;/name&gt;</b>                       | (Local) Name of the geographical object                   | M                     | 5               |
| 2.12.1.3   | <b>&lt;type_code&gt;FWY&lt;/type_code&gt;</b>                | Type of geographical object                               | M                     | 5               |
| 2.12.1.4s  | <b>&lt;coordinate&gt;</b>                                    | Object coordinates (1x)                                   | C                     |                 |
| 2.12.1.4.1 | <b>&lt;lat&gt;42 34.1234 N&lt;/lat&gt;</b>                   |   | M                     | 5               |
| 2.12.1.4.2 | <b>&lt;long&gt;123 45.1234 E&lt;/long&gt;</b>                |   | M                     | 5               |
| 2.12.1.4e  | <b>&lt;/coordinate&gt;</b>                                   |   |                       |                 |
| 2.12.1e    | <b>&lt;/geo_object&gt;</b>                                   |   |                       |                 |
| 2.12.3s    | <b>&lt;limitation&gt;</b>                                    | Object limitation section                                 | C                     |                 |
| 2.12.3.1s  | <b>&lt;limitation_period&gt;</b>                             | Limitation periods / intervals<br>(see <fairway section>) | C                     |                 |
| 2.12.3.1.1 | <b>&lt;date_start&gt;20011231&lt;/date_start&gt;</b>         |   | M                     | 5               |
| 2.12.3.1.2 | <b>&lt;date_end&gt;20011231&lt;/date_end&gt;</b>             |   | C                     |                 |
| 2.12.3.1.3 | <b>&lt;time_start&gt;1420&lt;/time_start&gt;</b>             |   | C                     |                 |
| 2.12.3.1.4 | <b>&lt;time_end&gt;0500&lt;/time_end&gt;</b>                 |   | C                     |                 |
| 2.12.3.1.5 | <b>&lt;interval_code&gt;SAT&lt;/interval_code&gt;</b>        |   | C                     |                 |
| 2.12.3.1e  | <b>&lt;/limitation_period&gt;</b>                            |   |                       |                 |
| 2.12.3.2   | <b>&lt;limitation_code&gt;OBSTRU&lt;/limitation_code&gt;</b> |   | M                     | 5               |
| 2.12.3.3   | <b>&lt;position_code&gt;AL&lt;/position_code&gt;</b>         |   | M                     | 5, default: all |
| 2.12.3.4   | <b>&lt;value&gt;3.14159&lt;/value&gt;</b>                    |   | C                     |                 |
| 2.12.3.5   | <b>&lt;reference_code&gt;NAP&lt;/reference_code&gt;</b>      |   | C                     |                 |
| 2.12.3.6   | <b>&lt;indication_code&gt;MAX&lt;/indication_code&gt;</b>    |   | C                     |                 |
| 2.12.3e    | <b>&lt;/limitation&gt;</b>                                   |   |                       |                 |
| 2.12e      | <b>&lt;/object&gt;</b>                                       |   |                       |                 |
| 2e         | <b>&lt;/ftm&gt;</b>  |   |                       |                 |
| <b>3s</b>  | <b>&lt;wrm&gt;</b>   | <b>Water level related section</b>                        | C                     | 1               |
| 3.1s       | <b>&lt;validity_period&gt;</b>                               | Overall period of validity of water level message         | C                     |                 |
| 3.1.1      | <b>&lt;date_start&gt;20011231&lt;/date_start&gt;</b>         | Start date of validity period                             | M                     | 5               |
| 3.1.2      | <b>&lt;date_end&gt;20011231&lt;/date_end&gt;</b>             | End date of validity period                               | M                     | 5               |
| 3.1e       | <b>&lt;/validity_period&gt;</b>                              |   |                       |                 |
| 3.2s       | <b>&lt;geo_object&gt;</b>                                    | Geo Information of measurement location, tide gauge       | M                     | 5               |
| 3.2.1      | <b>&lt;id&gt;String&lt;/id&gt;</b> (Waterway section)        | Unique id of the geographical object                      | M                     | 5               |
| 3.2.2      | <b>&lt;name&gt;String&lt;/name&gt;</b> (Pegelname)           | (Local) Name of the geographical object                   | M                     | 5               |
| 3.2.3      | <b>&lt;type_code&gt;FWY&lt;/type_code&gt;</b>                | Type of geographical object                               | M                     | 5, default: FWY |
| 3.2.4s     | <b>&lt;coordinate&gt;</b>                                    | Object coordinates (1x or 2x)                             | C                     |                 |
| 3.2.4.1    | <b>&lt;lat&gt;42 34.1234 N&lt;/lat&gt;</b>                   |   | M                     | 5               |
| 3.2.4.2    | <b>&lt;long&gt;123 45.1234 E&lt;/long&gt;</b>                |   | M                     | 5               |
| 3.2.4e     | <b>&lt;/coordinate&gt;</b>                                   |   |                       |                 |
| 3.2e       | <b>&lt;/geo_object&gt;</b>                                   |   |                       |                 |
| 3.3        | <b>&lt;reference_code&gt;NAP&lt;/reference_code&gt;</b>      | Value reference (measurement reference)                   | M                     | 6               |
| 3.4s       | <b>&lt;measure&gt;</b>                                       | Measurements (normal or predicted values)                 | M                     | 5               |
| 3.4.1      | <b>&lt;predicted&gt;1&lt;/predicted&gt;</b>                  | Predicted measurement (1) or real measurement (0)         | M                     | 5               |
| 3.4.2      | <b>&lt;measure_code&gt;DIS&lt;/measure_code&gt;</b>          | Kind of water level related information                   | M                     | 5               |
| 3.4.3      | <b>&lt;value&gt;314159&lt;/value&gt;</b>                     | Value   | M                     | 6               |
| 3.4.4      | <b>&lt;difference&gt;314159&lt;/difference&gt;</b>           | Difference with previous measurement                      | C                     |                 |

| Nr.       | Tag (Group headers and closers are boldly printed)                            | Description                                    | Mandatory<br>Conditional | Rule applicable |
|-----------|---|--|--------------------------|-----------------|
| 3.4.5     | <code>&lt;barrage_code&gt;OPD&lt;/barrage_code&gt;</code>                     | Barrage status                                 | C                        |                 |
| 3.4.6     | <code>&lt;regime_code&gt;HIG&lt;/regime_code&gt;</code>                       | Regime applicable                              | C                        |                 |
| 3.4.7     | <code>&lt;measuredate&gt;20011231&lt;/measuredate&gt;</code>                  | Date of measurement                            | M                        | 5               |
| 3.4.8     | <code>&lt;measuretime&gt;1420&lt;/measuretime&gt;</code>                      | Time of measurement                            | M                        | 5               |
| 3.4e      | <code>&lt;/measure&gt;</code>   |  |                          |                 |
| 3e        | <code>&lt;/wrm&gt;</code>   |  |                          |                 |
| <b>4s</b> | <b><code>&lt;icem&gt;</code></b>  | <b>Ice related section</b>                     | C                        | 1               |
| 4.1s      | <code>&lt;validity_period&gt;</code>  | Overall period of validity of ice information  | C                        |                 |
| 4.1.1     | <code>&lt;date_start&gt;20011231&lt;/date_start&gt;</code>                    | Start of validity period                       | M                        | 5               |
| 4.1.2     | <code>&lt;date_end&gt;20011231&lt;/date_end&gt;</code>                        | End of validity period                         | M                        | 5               |
| 4.1e      | <code>&lt;/validity_period&gt;</code>   |  |                          |                 |
| 4.2s      | <code>&lt;fairway_section&gt;</code>  | Fairway  | M                        | 5               |
| 4.2.1     | <code>&lt;geo_object&gt;</code>   | Geo Information of fairway location            | M                        | 5               |
| 4.2.1.1   | <code>&lt;id&gt;String&lt;/id&gt;</code>                                      | Unique id of the fairway section (1x or 2x)    | M                        | 5               |
| 4.2.1.2   | <code>&lt;name&gt;String&lt;/name&gt;</code>                                  | (Local) Name of the fairway section            | M                        | 5               |
| 4.2.1.3   | <code>&lt;type_code&gt;FWY&lt;/type_code&gt;</code>                           | Type of geographical object                    | M                        | 5, default: FWY |
| 4.2.1.4   | <code>&lt;coordinate&gt;</code>   | Fairway section begin and end coordinates (2x) | C                        |                 |
| 4.2.1.4.1 | <code>&lt;lat&gt;42 34.1234 N&lt;/lat&gt;</code>                              |  | M                        | 5               |
| 4.2.1.4.2 | <code>&lt;long&gt;123 45.1234 E&lt;/long&gt;</code>                           |  | M                        | 5               |
| 4.2.1.4e  | <code>&lt;/coordinate&gt;</code>  |  |                          |                 |
| 4.2.1e    | <code>&lt;/geo_object&gt;</code>  |  |                          |                 |
| 4.2e      | <code>&lt;/fairway_section&gt;</code>   |  |                          |                 |
| 4.3s      | <code>&lt;ice_condition&gt;</code>  | Ice conditions                                 | M                        | 5               |
| 4.3.1     | <code>&lt;measuredate&gt;20011231&lt;/measuredate&gt;</code>                  | Date of measurement                            | M                        | 5               |
| 4.3.2     | <code>&lt;measuretime&gt;1420&lt;/measuretime&gt;</code>                      | Time of measurement                            | M                        | 5               |
| 4.3.3     | <code>&lt;ice_condition_code&gt;A&lt;/ice_condition_code&gt;</code>           | Condition code (see ch. 2.3.2)                 | C                        | 4               |
| 4.3.4     | <code>&lt;ice_accessibility_code&gt;A&lt;/ice_accessibility_code&gt;</code>   | Accessibility code (see ch.2.3.2)              | C                        | 4               |
| 4.3.5     | <code>&lt;ice_classification_code&gt;A&lt;/ice_classification_code&gt;</code> | Classification code (see ch. 2.3.2)            | C                        | 4               |
| 4.3.6     | <code>&lt;ice_situation_code&gt;A&lt;/ice_situation_code&gt;</code>           | Situation code (see ch.2.3.2)                  | C                        | 4               |
| 4.3e      | <code>&lt;/ice_condition&gt;</code>   |  |                          |                 |
| 4e        | <code>&lt;/icem&gt;</code>  |  |                          |                 |
|           | <code>&lt;/RIS_Message&gt;</code>   |  |                          |                 |

## Rules applicable to table 1:

- 1 In one message at least 2 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 clearances

## 2.3 Explanation of tags

The meaning of the different tags used in the XML definition is described on the page "Tags" of appendix A.

## 2.4 Explanation of codes

The meaning of the different codes used in the XML definition is described in Appendix A. The formats and possible values of all XML elements are described in the XML Scheme in Appendix B.

Viewpoints/considerations - notices to skippers

- Notices 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.
- Lat Long 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, m<sup>3</sup>/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 LOCODE according to the Ship Reporting Standard has to be used as unique ID.

### 2.4.1 Subject codes assigned to the notices to skippers

#### 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 November 13 between 08:00 and 17:00.*

*Encoded:*

```

date_start:      20021113
date_end:        20021113
time_start       0800
time_end         1700
limitation_code: Delay
Position_code:   all
value:           2

```



|                           |   |
|---------------------------|---|
| <u>No service</u>         | <p>In case a movable bridge is not operated during a specified period. This period should lie within the normal operating hours. This period should lie within the normal operating hours.</p> <p>No service of a lock is an Obstruction or Delay.</p> <p>No service of a movable bridge means that passing under the bridge still is possible. Otherwise it is an Obstruction.</p>   |
| <u>Change Service</u>     | <p>In case a modification in the normal operating hours occurs at a lock or bridge</p> <p>Normally this means a limitation of the operating hours, due to work, rather than an increase.</p> <p>A limitation in the operating hours of a lock usually implies an obstruction</p> <p>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.</p> <p>A limitation in the operating hours of a bridge usually implies "No Service".</p> |
| <u>Vessel length</u>      | <p>In case somewhere a smaller maximum length for passing vessels is allowed / possible.</p> <p>Usually this occurs at a lock (half lock chamber).</p>  |
| <u>Clearance width</u>    | <p>In case somewhere a smaller maximum width for passing vessels is available.</p> <p>This occurs during work on a lock / bridge.</p> <p>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.</p>   |
| <u>Vessel air draught</u> | <p>In case somewhere a smaller maximum height for passing vessels is allowed.</p>   |
| <u>Clearance height</u>   | <p>This occurs also if the vertical clearance is locally decreased by for example painting equipment</p>  |
| <u>Vessel draught</u>     | <p>In case somewhere a smaller maximum draught for passing vessels is allowed.</p>  |
| <u>Available depth</u>    | <p>In case the least sounded depth is modified. This has no impact on the maximum draught.</p>  |
| <u>No mooring</u>         | <p>In case somewhere on the fairway mooring is not allowed.</p>   |
| <u>Change of marks</u>    | <p>In case a change occurs in the fairway marks used for navigational purposes, such as buoys, beacons, sectorlights, notice marks, etc.</p>  |
| <u>Work</u>               | <p>Other activities on or near the fairway which do not fall within the mentioned subjects</p>  |

|                         |  |
|-------------------------|--|
| <u>Dredging</u>         | Dredging activities for which none of the other mentioned subjects are valid                       |
| <u>Exercises</u>        | Exercises for which none of the other mentioned subjects are valid                                 |
| <u>Event</u>            | Events (rowing competitions, fireworks etc. ) where none of the other mentioned subjects are valid |
| <u>Announcement</u>     | All other notices where none of the other (structured) subjects are valid                          |
| <u>Notice withdrawn</u> | 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.

#### 2.4.2 Explanation of Ice codes

The meaning of the ice codes used in the XML definition is described in Appendix A.

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.

#### 2.4.3 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 C - Specifications of examples for the implementation of the Notices to Skippers Standard

### C.1 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, Schiffahrtspolizei** [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](http://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 1902,000 to 1902,600**: **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 1950,000**: **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**] [ and skippers face **no limitation**.]