

*NSHC 27th Conference
Rostock, September 2006*



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HYDROGRAPHIE

Item E1

Report of the Working Group on Standardisation of Digital Exchange of Notices to Mariners

*Work done by correspondence between
France, Netherlands, UK and Germany*

Terms of Reference (excerpt)

Investigate existing data interchange formats to serve as a common NtM interchange format.

Develop proposals for a common NtM data interchange format which facilitates both digital and paper based NtM versions.

*Technical methods in use
to produce digital NtM*



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Some HOs already distribute digital versions of their NtM, either in the form of PDF files, and/or extracted from a data base (XML).



Current status of exchange of NtM between NSHC members

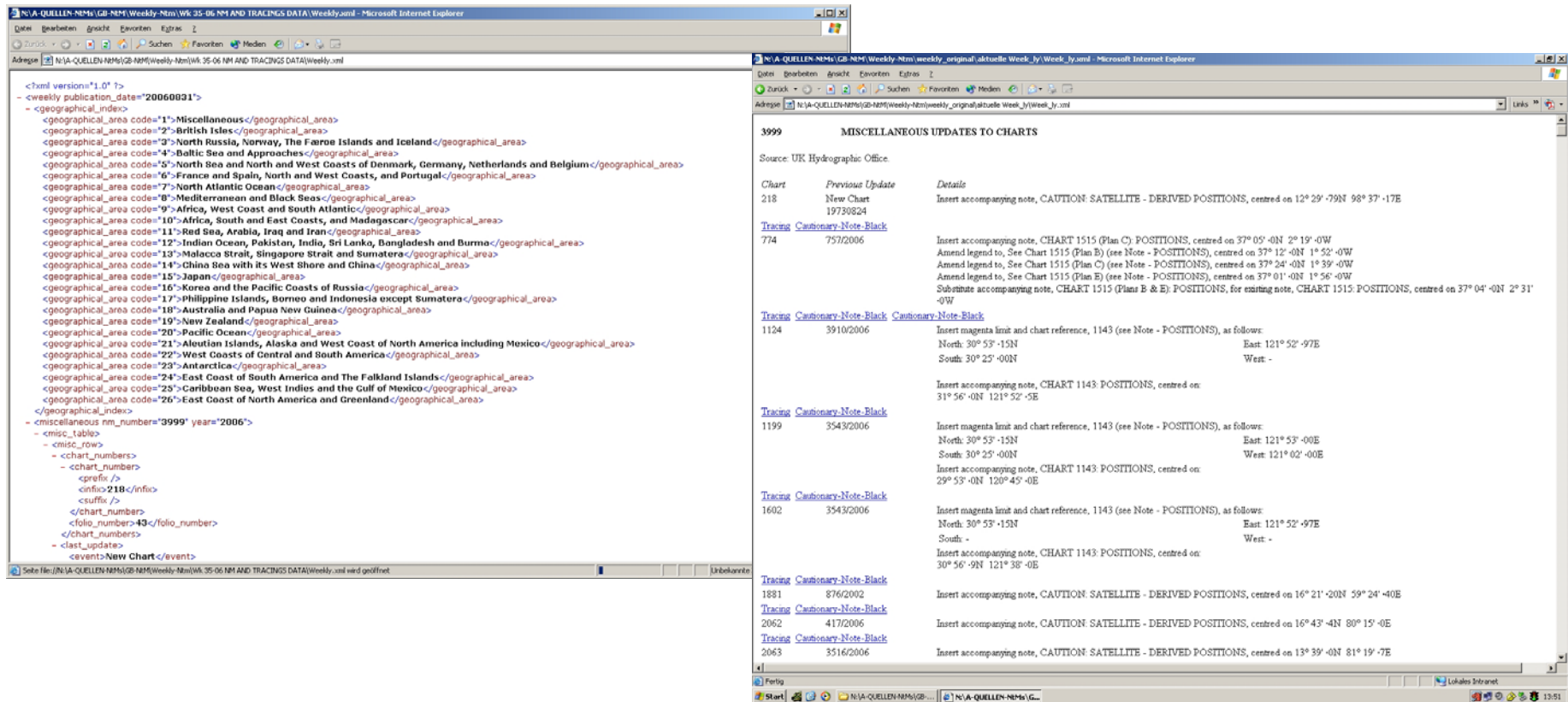
Digital versions in use differ in format and structure similar to the different structure and appearance of the printed NtMs of NSHC members.

The HO receiving a digital NtM to be re-produced in its own products, has to employ laborious and time-consuming methods to make use of the NtM information.

The digital NtM in XML format provided by the UKHO is the only digital version of NtM distributed at the moment which allows further digital processing.

Workflow of NtM filtering for selected items

Original NtM version of UKHO distributed in XML format ready to visualise in Internet Browser



The image shows two browser windows side-by-side. The left window displays an XML document with a list of geographical areas and chart numbers. The right window displays a page titled 'MISCELLANEOUS UPDATES TO CHARTS' with a table of updates.

XML Document Content (Left Window):

```
<?xml version="1.0" ?>
<weekly_publication_date="20060031">
  <geographical_index>
    <geographical_area code="1">Miscellaneous</geographical_area>
    <geographical_area code="2">British Isles</geographical_area>
    <geographical_area code="3">North Russia, Norway, The Faroe Islands and Iceland</geographical_area>
    <geographical_area code="4">Baltic Sea and Approaches</geographical_area>
    <geographical_area code="5">North Sea and North and West Coasts of Denmark, Germany, Netherlands and Belgium</geographical_area>
    <geographical_area code="6">France and Spain, North and West Coasts, and Portugal</geographical_area>
    <geographical_area code="7">North Atlantic Ocean</geographical_area>
    <geographical_area code="8">Mediterranean and Black Seas</geographical_area>
    <geographical_area code="9">Africa, West Coast and South Atlantic</geographical_area>
    <geographical_area code="10">Africa, South and East Coasts, and Madagascar</geographical_area>
    <geographical_area code="11">Red Sea, Arabia, Iraq and Iran</geographical_area>
    <geographical_area code="12">Indian Ocean, Pakistan, India, Sri Lanka, Bangladesh and Burma</geographical_area>
    <geographical_area code="13">Malacca Strait, Singapore Strait and Sumatera</geographical_area>
    <geographical_area code="14">China Sea with its West Shore and China</geographical_area>
    <geographical_area code="15">Japan</geographical_area>
    <geographical_area code="16">Korea and the Pacific Coasts of Russia</geographical_area>
    <geographical_area code="17">Philippine Islands, Borneo and Indonesia except Sumatera</geographical_area>
    <geographical_area code="18">Australia and Papua New Guinea</geographical_area>
    <geographical_area code="19">New Zealand</geographical_area>
    <geographical_area code="20">Pacific Ocean</geographical_area>
    <geographical_area code="21">Aleutian Islands, Alaska and West Coast of North America including Mexico</geographical_area>
    <geographical_area code="22">West Coasts of Central and South America</geographical_area>
    <geographical_area code="23">Antarctica</geographical_area>
    <geographical_area code="24">East Coast of South America and The Falkland Islands</geographical_area>
    <geographical_area code="25">Caribbean Sea, West Indies and the Gulf of Mexico</geographical_area>
    <geographical_area code="26">East Coast of North America and Greenland</geographical_area>
  </geographical_index>
  <miscellaneous_nm_numbers="3999" years="2006">
    <misc_table>
      <misc_row>
        <chart_numbers>
          <chart_number>
            <refix />
            <info>218</info>
            <suffix />
          </chart_number>
          <folio_number>43</folio_number>
        </chart_numbers>
        <class_update>
          <event>New Chart</event>
        </class_update>
      </misc_row>
    </misc_table>
  </miscellaneous_nm_numbers>
</weekly_publication_date>
```

Chart Update Page Content (Right Window):

Chart	Previous Update	Details
218	New Chart 19730824	Insert accompanying note, CAUTION - SATELLITE - DERIVED POSITIONS, centred on 12° 25' -79N 98° 37' -17E
774	7572006	Insert accompanying note, CHART 1515 (Plan C) POSITIONS, centred on 37° 05' -0N 2° 19' -0W Amend legend to, See Chart 1515 (Plan B) (see Note - POSITIONS), centred on 37° 12' -0N 1° 52' -0W Amend legend to, See Chart 1515 (Plan C) (see Note - POSITIONS), centred on 37° 24' -0N 1° 39' -0W Amend legend to, See Chart 1515 (Plan E) (see Note - POSITIONS), centred on 37° 01' -0N 1° 56' -0W Substitute accompanying note, CHART 1515 (Plans B & E) POSITIONS, for existing note, CHART 1515 POSITIONS, centred on 37° 04' -0N 2° 31' -0W
1124	3910/2006	Insert magenta limit and chart reference, 1143 (see Note - POSITIONS), as follows: North: 30° 53' -15N East: 121° 52' -97E South: 30° 25' -00N West -
1199	3543/2006	Insert accompanying note, CHART 1143 POSITIONS, centred on: 31° 56' -0N 121° 52' -5E
1602	3543/2006	Insert magenta limit and chart reference, 1143 (see Note - POSITIONS), as follows: North: 30° 53' -15N East: 121° 53' -00E South: 30° 25' -00N West: 121° 02' -00E Insert accompanying note, CHART 1143 POSITIONS, centred on: 29° 53' -0N 120° 45' -0E
1881	876/2002	Insert accompanying note, CAUTION - SATELLITE - DERIVED POSITIONS, centred on 16° 21' -20N 59° 24' -00E
2062	417/2006	Insert accompanying note, CAUTION - SATELLITE - DERIVED POSITIONS, centred on 16° 43' -4N 80° 15' -0E
2063	3516/2006	Insert accompanying note, CAUTION - SATELLITE - DERIVED POSITIONS, centred on 13° 39' -0N 81° 19' -7E

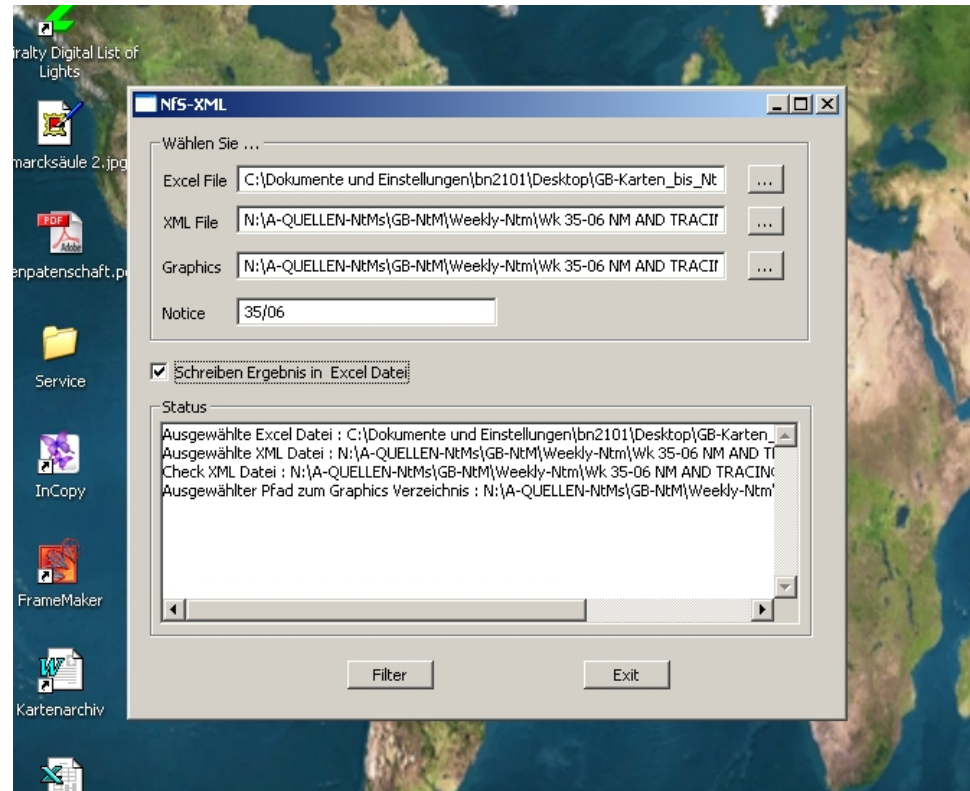


Germany has developed a software solution to extract selected items from XML-formatted NtMs.

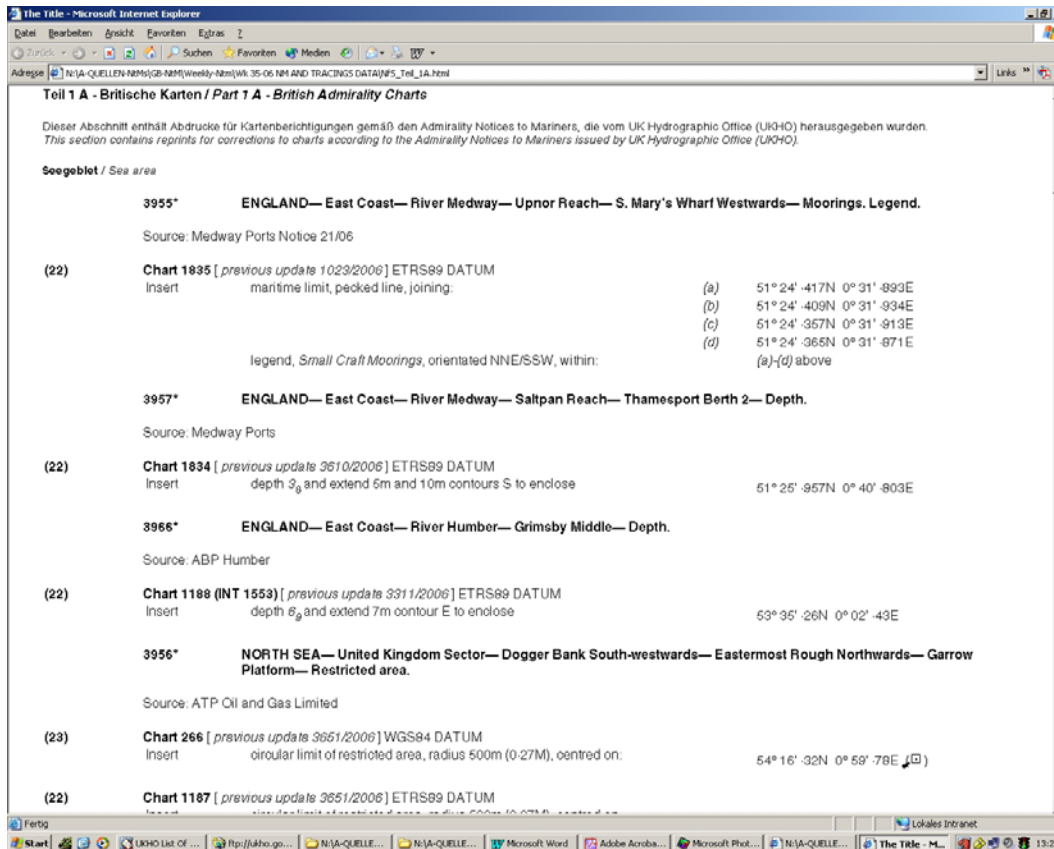
Select NtMs referring to a prepared list of charts

Admiralty Charts No.
(22) GB 1187
(22) GB 1188
(22) GB 1834
(22) GB 1835
(22) GB 3497
(23) GB 266
(23) GB 292
(25) GB 3008
(34) GB 2049
(34) GB 2057
(34) GB 2667
(49) GB 2216
(49) GB 2242
(49) GB 3303
(61) GB 886
(61) GB 1847
(61) GB 1856
(61) GB 1858
(61) GB 1869
(61) GB 1870
(61) GB 3133
(61) GB 3134

Process the filter software ...



Workflow of NtM filtering for selected items (continued again)



The screenshot shows a web browser window with the following content:

Teil 1 A - Britische Karten / Part 1 A - British Admiralty Charts

Dieser Abschnitt enthält Abdrucke für Kartenberichtigungen gemäß den Admiralty Notices to Mariners, die vom UK Hydrographic Office (UKHO) herausgegeben wurden.
This section contains reprints for corrections to charts according to the Admiralty Notices to Mariners issued by UK Hydrographic Office (UKHO).

Seegebiet / Sea area

3955* ENGLAND— East Coast— River Medway— Upton Reach— S. Mary's Wharf Westwards— Moorings. Legend.
Source: Medway Ports Notice 21/06

(22) **Chart 1835** [previous update 1023/2006] ETRS89 DATUM
Insert maritime limit, pecked line, joining:

(a)	51° 24' -417N 0° 31' -990E
(b)	51° 24' -409N 0° 31' -934E
(c)	51° 24' -357N 0° 31' -913E
(d)	51° 24' -365N 0° 31' -871E

legend, Small Craft Moorings, orientated NNE/SSW, within:
(a)-(d) above

3957* ENGLAND— East Coast— River Medway— Saltpan Reach— Thamesport Berth 2— Depth.
Source: Medway Ports

(22) **Chart 1834** [previous update 3610/2006] ETRS89 DATUM
Insert depth 3₀ and extend 5m and 10m contours S to enclose 51° 25' -867N 0° 40' -803E

3966* ENGLAND— East Coast— River Humber— Grimsby Middle— Depth.
Source: ABP Humber

(22) **Chart 1188 (INT 1553)** [previous update 3311/2006] ETRS89 DATUM
Insert depth 8₀ and extend 7m contour E to enclose 53° 35' -26N 0° 02' -43E

3956* NORTH SEA— United Kingdom Sector— Dogger Bank South-westwards— Eastermost Rough Northwards— Garrow Platform— Restricted area.
Source: ATP Oil and Gas Limited

(23) **Chart 266** [previous update 3651/2006] WGS84 DATUM
Insert circular limit of restricted area, radius 500m (0.27M), centred on: 54° 16' -32N 0° 59' -78E

(22) **Chart 1187** [previous update 3651/2006] ETRS89 DATUM
Insert circular limit of restricted area, radius 500m (0.27M), centred on:

... and get the result in style of "Nachrichten für Seefahrer" for direct take over by desktop publishing tools.

Recommendations of the Working Group for the exchange of digital NtM

XML and its derivate GML for geographic representation, should be adopted as the carrier for further harmonisation of digital NtMs.

The XML version of UK should become standard for the interim and UK should provide guidance on how to implement this format.

Germany could provide filter software on request.

To match the individual style of printed NtMs, style sheets have to be developed for individual publication. This development should include the unified coding for the cartographic symbolisation of the NtM messages.

Recommendations of the Working Group for the exchange of digital NtM (continued)

HOs contributing to the work of the WG have already started to model production data bases which will facilitate the full digital workflow for NtM production. Export functions for digital NtMs should be implemented as part of the process.

The modelling of digital NtM articles by means of GML, linked to S-100 objects which in turn may be linked to a standardised symbolisation like the Presentation Library of S-52 should be continued. This action should be done in co-operation with SNPWG, TSMAD and CSMWG of CHRIS.

It is proposed to endorse the recommendations of the working group and to task it to complete its work accordingly