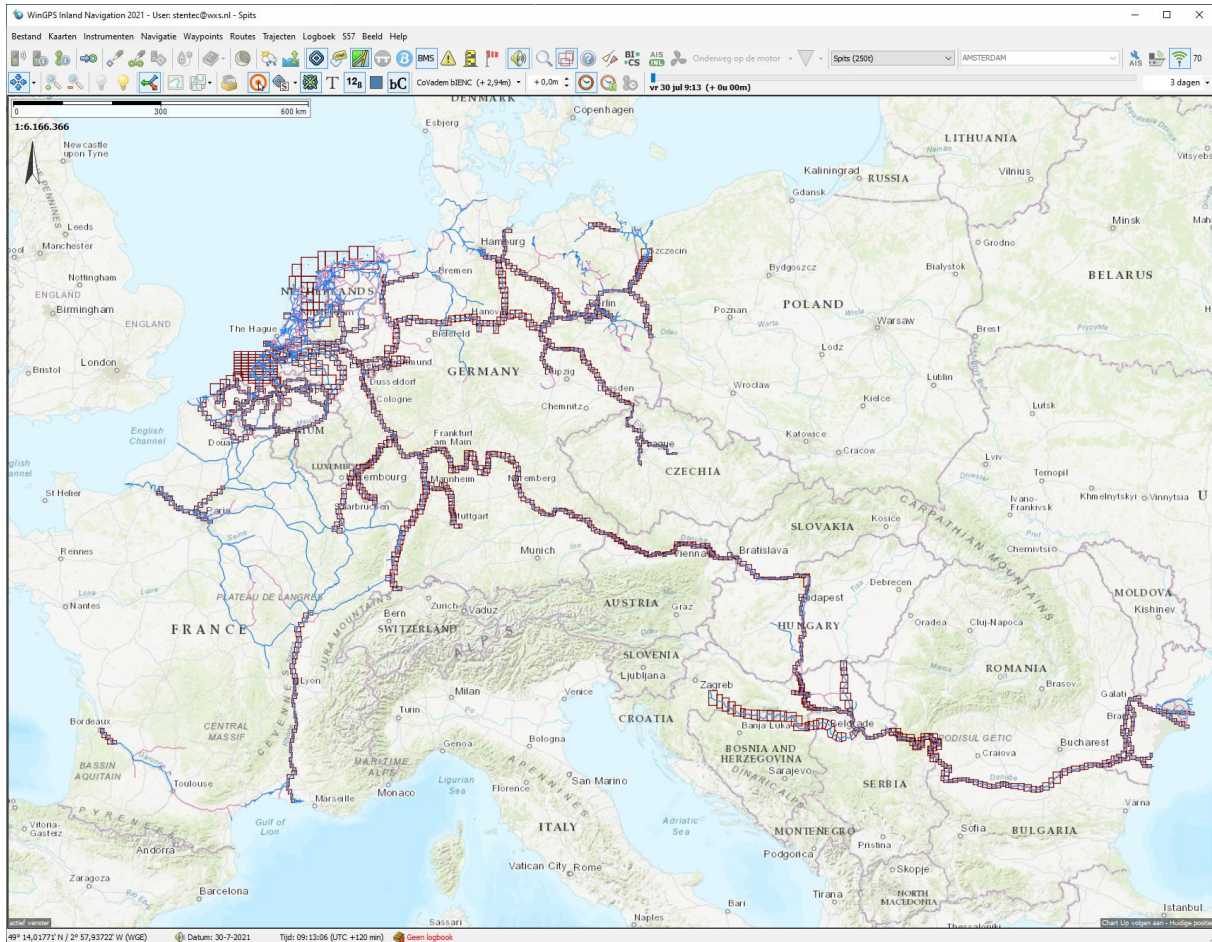


The status of the European IENC until October 31 2021

Ir. Wouter Kuik, Stentec Software, Heeg, stentec@wxs.nl



Summary

A recent update is given of the status of the official IENC charts of the European authorities compared to the legal EU law.

For the IENC investigation our new WinGPS Inland navigation software was used, giving access to the latest Inland S57 on the Stentec IENC Server for save navigation. IENC Server statistics are shown per county.

Recommendations are given for improvement satisfying the S57 and Inland IENC standard. This includes biENC (bathymetric IENC) and overlapping IENC of the Danube countries and Chechia.

Table of content

1. Introduction
2. Legal EU goal
3. Quality procedure
4. Country report summary
5. Update Statistics of the Stentec IENC Server
6. Conclusions
7. Recommendations

Appendices

- A1. List of IENC sources
- A2. IENC Report per Country
- A3. Logfile of the Stentec IENC Server
- A4. Relevant parts of the Encoding Guide for Inland ENCs

1. Introduction

This report give you the latest update of the status of the IENC chart coverage and quality of the participating European governments. These charts are the official charts in S57 format mainly conform Inland ECDIS Standard 2.4.

Free accessible IENC's are used in navigation software, directly as they are, or as basic S57 to be corrected and enriched with additional cartographic data and published together with an update service at commercial prices.

If IENC navigation software is not available, one of the free software can be used for investigation. Like the [WinGPS ENC Viewer](#) (Stentec) or [SeeMyENC](#) (SevenC's).

In some countries like Germany IENC's are legally required to be used for navigation by skippers of professional inland ships.

2. Legal EU goal

The legal requirements from the European Union countries regarding IENC can be found in <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0909>

This document is available in many languages. For the Netherlands it can be downloaded from the IENC-kennisportal: <https://ienc-kennisportaal.nl/eu-verordening-9092013/>
Summarized by Rijkswaterstaat in Dutch:

De EU uitvoeringsverordening 909/2013 bepaalt dat elke beheerder van een vaarweg met klasse V of hoger een IENC moet produceren die voldoet aan de daarin beschreven richtlijnen.

3. Quality procedure

The IENC quality per country is tested on the following items:

- Exceeding of the required 5MB cell size maximum.
- Plotting quality conform IENC and S57 INLAND ECDIS standards.
- Availability of additional data for bridge and locks pictures (jpg or JPEG, TIF), service (XML) and information (txt).
- Bathymetry included in the IENC or as standalone bIENC (bENC).

4. Country report summary

In appendix A2 the investigation of the IENC per country is reported. This concerns:

- Available IENC sets
- Current status
- Remarks
- Recommendations

5. Update Statistics of the Stentec IENC Server

The Chart manager of WinGPS Inland is showing per country the number of IENC cells and the date of the newest S57 cells. See figure below. The country codes are defines in appendix A1.

In totally there are 1389 cells (3-9-2021), although there are partly overlapping cells at the Danube borders of Hungary-Slovakia, Croatia-Serbia and Romania- Serbia.

Austria and Chechia until so far are the only countries where bIENC are defined. In this case for the Danube. These include 78 and 8 cells with bathymetric data based on soundings.

Germany is showing the largest numbers of cells. A number of 443 is 1/3 of 1389 for the whole EU.

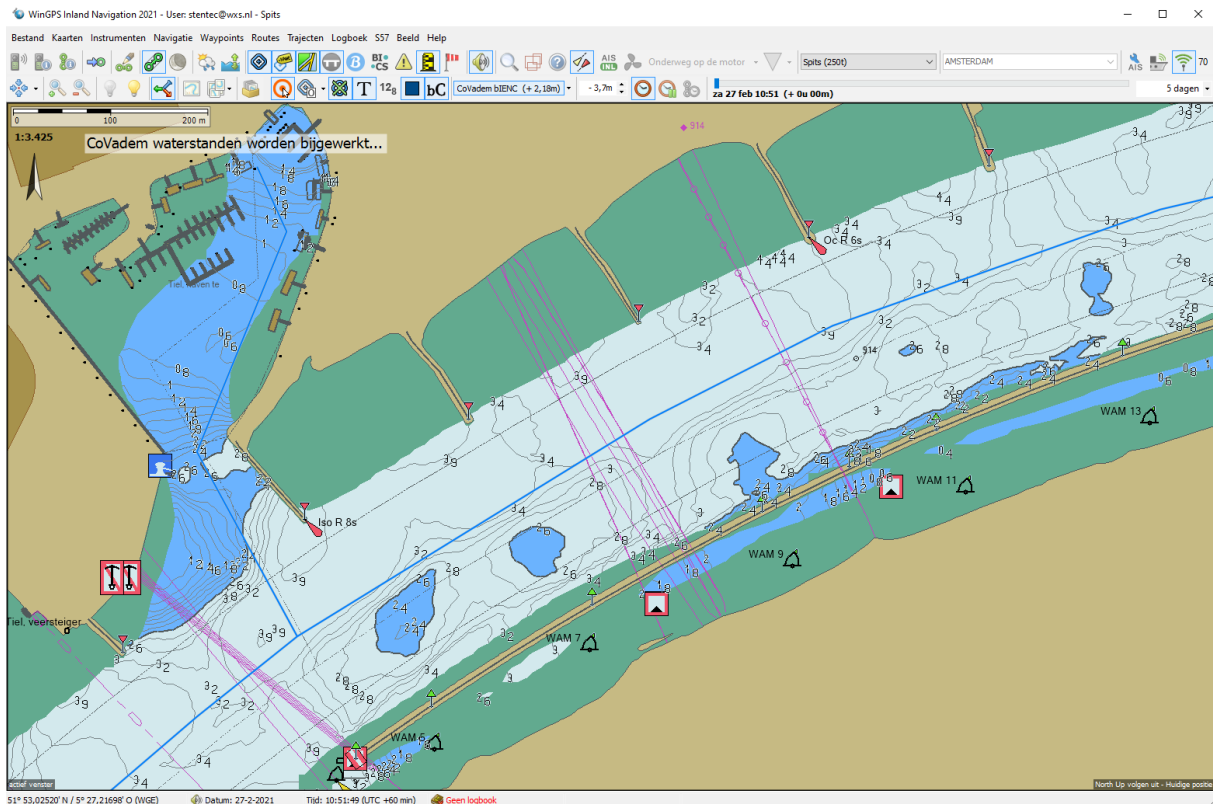
Most country IENC are updated in 2021. NL and DE some in 2020 (NL and DE). A few countries did not update in 2019 or 2020. This concerns Wallonia, France except Siene Aval (2020) and Croatia with most recent IENC from 2018.

☒	Stentec IENC Server	1424	25-10-2021
☒	AT	112	30-9-2021
☒	BE	144	29-7-2021
☒	BG	19	30-9-2021
☒	CH	1	18-2-2019
☒	CZ	45	20-9-2021
☒	DE	468	28-9-2021
☒	FR	134	16-6-2021
☒	HU	37	26-8-2021
☒	KR	29	11-9-2018
☒	NL	202	25-10-2021
☒	PL	10	16-12-2019
☒	RO	132	30-9-2021
☒	RS	77	7-6-2021
☒	SK	14	23-8-2021
☒	CoVadem bIENC Service	61	29-10-2021

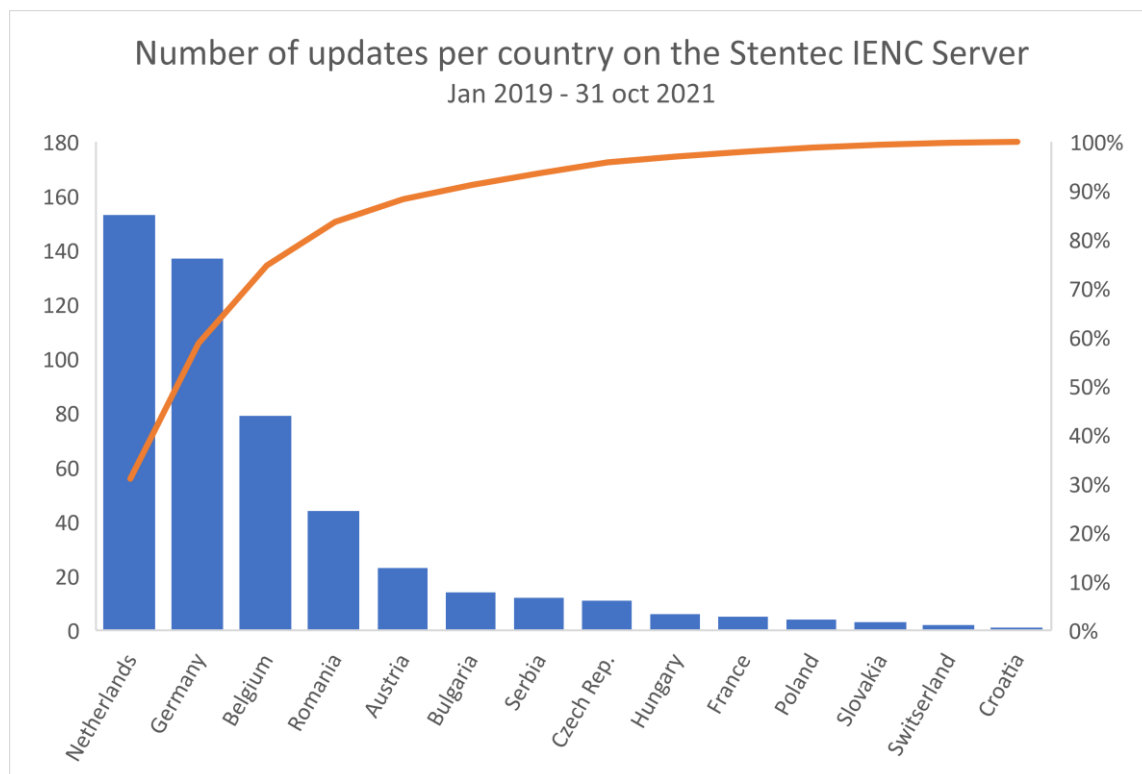
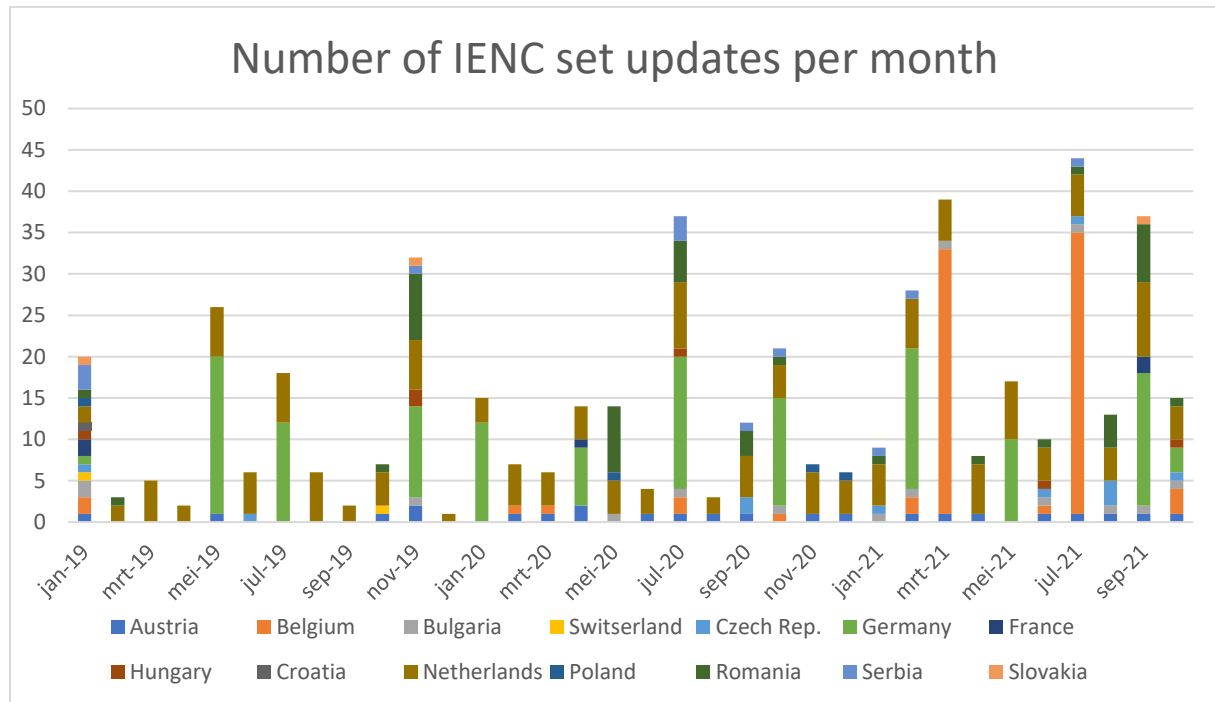
In 2021 almost alle IENC of the Netherlands are updated by RWS CIV.

CoVadem bIENC Service

New from February 2021 are the actual bIENC's from CoVadem supported in WinGPS 5 Inland 2021 based on measurements of more than 250 commercial inland ships sailing the river Rhine from Vuren near Rotterdam to lock Iffezheim in Germany. These bIENC's are corrected for water level prediction up to 6 days in future especially useful low water conditions and voyage planning. See fig. below.



From Januari 2019 useful statistics of all European IENC-set updates are generated from the latest IENC LOG file of Stentec' IENC server for WinGPS Inland. Although 2019 was a start-up year to come to a weekly IENC update service this gives an impression useful in our opinion to the EU en country IENC organizations as well to users of WinGPS Inland with an Inland Update Abonnement saving the a lot of work navigation with the most up-to-date IENC charts.



So far totally 494 IENC cells have been updated, with a monthly average of 14 IENC or biENC updates. Germany, Belgium and the Netherlands together are taking 75% of all EU updates into account. Those are the countries with most inland waterways.

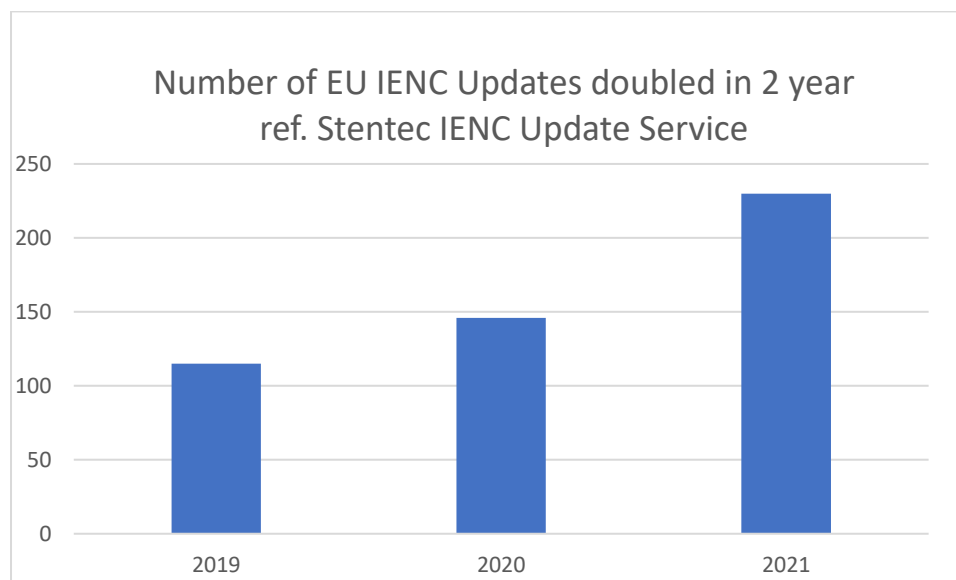
Conclusions

The European IENC are of improving coverage and quality due to a continuing effort of governmental institutions.

Almost all CEMT V waterways in Europe are covered by IENC. One exception is the Seine South of Paris. bIENC are only produced by Austria for the Danube. Two bIENC slightly exceed the 5MB maximum.

For Rotterdam, Slovakia and Romania the bathymetry is included in the IENC. Most of the Slovakian IENC did became so big (10-100MB), that opening them can takes minutes on slow PC's. For Romanian Danube this concern 2 cells of around 10MB.

From the Stentec IENC Update Server statistics it can be very positively concluded that the number of European IENC updates has doubled from 2019 to 2021. For November and December 2021 a conservative estimation of only 10 updates has been used, See figure below.



6. Recommendations

It is recommended to producers of the IENC of Slovakia and Romania to take the bathymetry of the IENC and put them in bIENC like Austria conform the IENC standard. This is also easier for bathymetric updates.

For Stentec it is recommended to investigate if it's possible to use the Bathymetry button also for the plotting of bathymetric content included in IENC and speeding it up scale dependent.

For the Netherlands.

- Adding additional data (jpg, XML, txt) for bridges and locks
- Names of Bridges and locks for IENC Rotterdam
- Adding bathymetry for IJsselmeer, Markermeer and Waddenzee.
- Checking dredged waterways in IJsselmeer from Amsterdam-Lelystad-Lemmer.
- Adding local water and names for IJsselmeer, Markermeer and Waddenzee.

For France.

- Publishing the missing IENC of the Seine from Paris direction South to Montereau (CEMT V)

For Belgium, Antwerpen Haven:

- Add SCAMIN to terminals (container, oil), and berths.
- Remove from BE7BZ001 the unsurveyed area in Kanaaldok B2 if applicable.
- Merge the data of cells BE7BZ001, 8V8POA001 and 7V7SRIJN

For Austria the bounds in the meta data of some bIENC cells has to be corrected.

For Slovakia.

- Maximize IENC cell size to the required 5 MB by putting the bathymetric data in bIENC. This concerns 12 cells including one of 100Mb.

Romania

- Maximize IENC cell sizes to the required 5 MB by putting the bathymetric data in bIENC or splitting the 2 large cells in multiple cells of 5 MB max.

Danube countries.

- Prevent overlapping border areas of different quality and actuality.

This has to be Investigated in more detail to offer the best quality IENC for navigation.

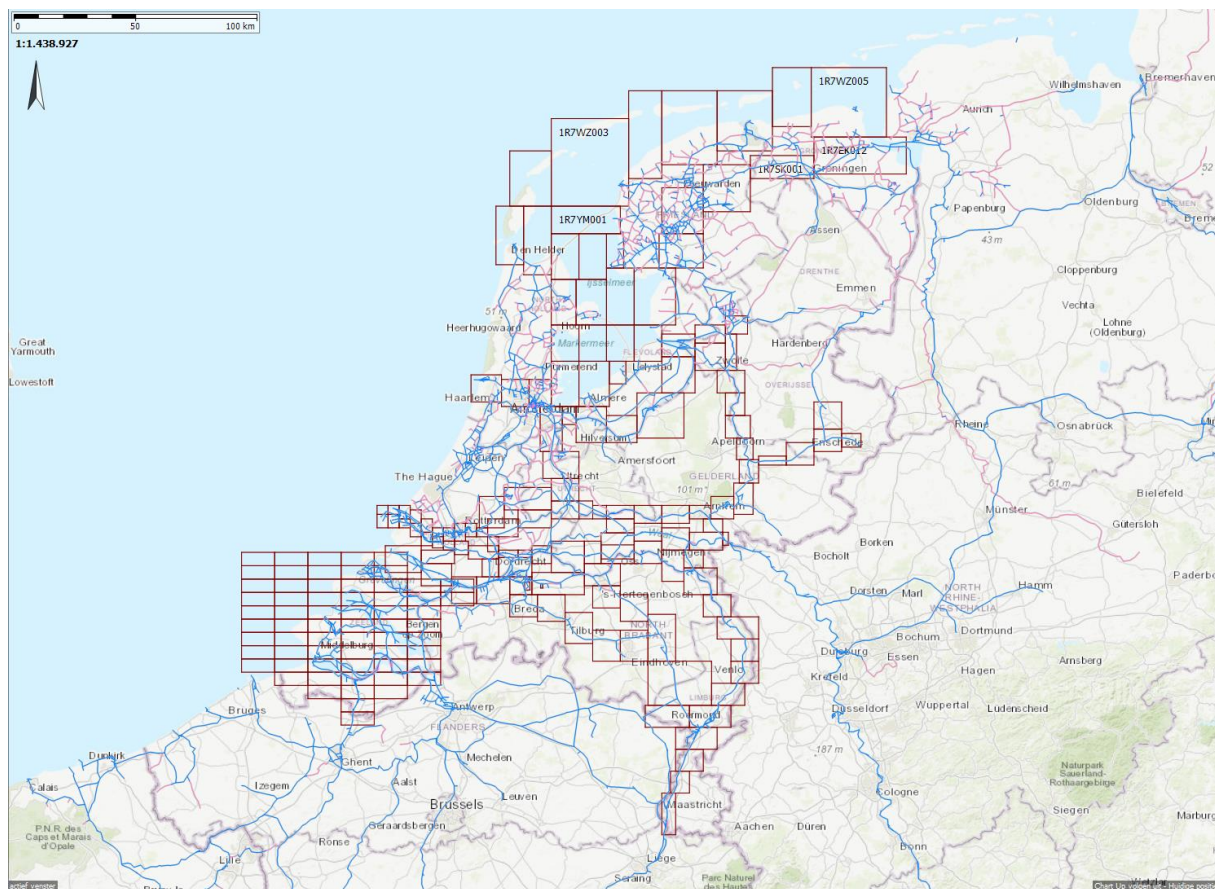
Appendix A1. Country codes and IENC-download links in Europe

Alphabetic per country code

AT Austria	http://www.doris.bmvit.gv.at/karten/inland-encs/downloads/inland-encs-inland-ecdis-standard-24/
BE Belgium	
Flanders	http://ris.vlaanderen.be/
Brussels	https://port.brussels/nl/scheepvaart/river-information-services-ris
Wallonia	http://geoportail.wallonie.be/catalogue/3d57a714-7786-4da0-a144-2813fcc8a0b1.html
BG Bulgaria	http://appd-bg.org/
CH Switzerland	https://port-of-switzerland.ch/hafenservice/schiffahrtsservice/inland-enc-hochrhein/
CZ Czechia	http://mapy.spspraha.cz/lpm/maps_S57.asp?lang=en
DE Germany	https://www.elwis.de/DE/dynamisch/IENC/
FR France	http://www.vnf.fr/ecdis/ecdis.html
Rhône	www.inforhone.fr/Infos/CarteECDIS
HU Hungary	http://vodniputovi.hr/en/ris/enc-charts/
KR Croatia	http://www.vodniputovi.hr/en/ris/enc-charts/
NL Netherlands	https://www.vaarweginformatie.nl/frp/main/#/page/infra_enc
PL Poland	http://ang.szczecin.uzs.gov.pl/files/422_ienc_18042016.zip
RO Romania	http://afdj.ro/en/content/inland-enc
RS Serbia	http://www.plovput.rs/electronic-navigational-charts
SK Slovakia	https://www.svp.sk/sk/uvodna-stranka/odstepne-zavody/oz-bratislava/riecne-informacne-sluzby/

Appendix A2. IENC Report per Country

The Netherlands ([Vaarweginformatie RWS](#))



☒ NL	202	25-10-2021
☒ IENC Haven Geertruidenberg	1	16-2-2017
☒ IENC Haven Waspik	1	18-4-2016
☒ Nederland (exclusief Zeeland)	118	5-7-2021
☒ Rotterdam	18	7-1-2021
☒ Zeeland	64	25-10-2021

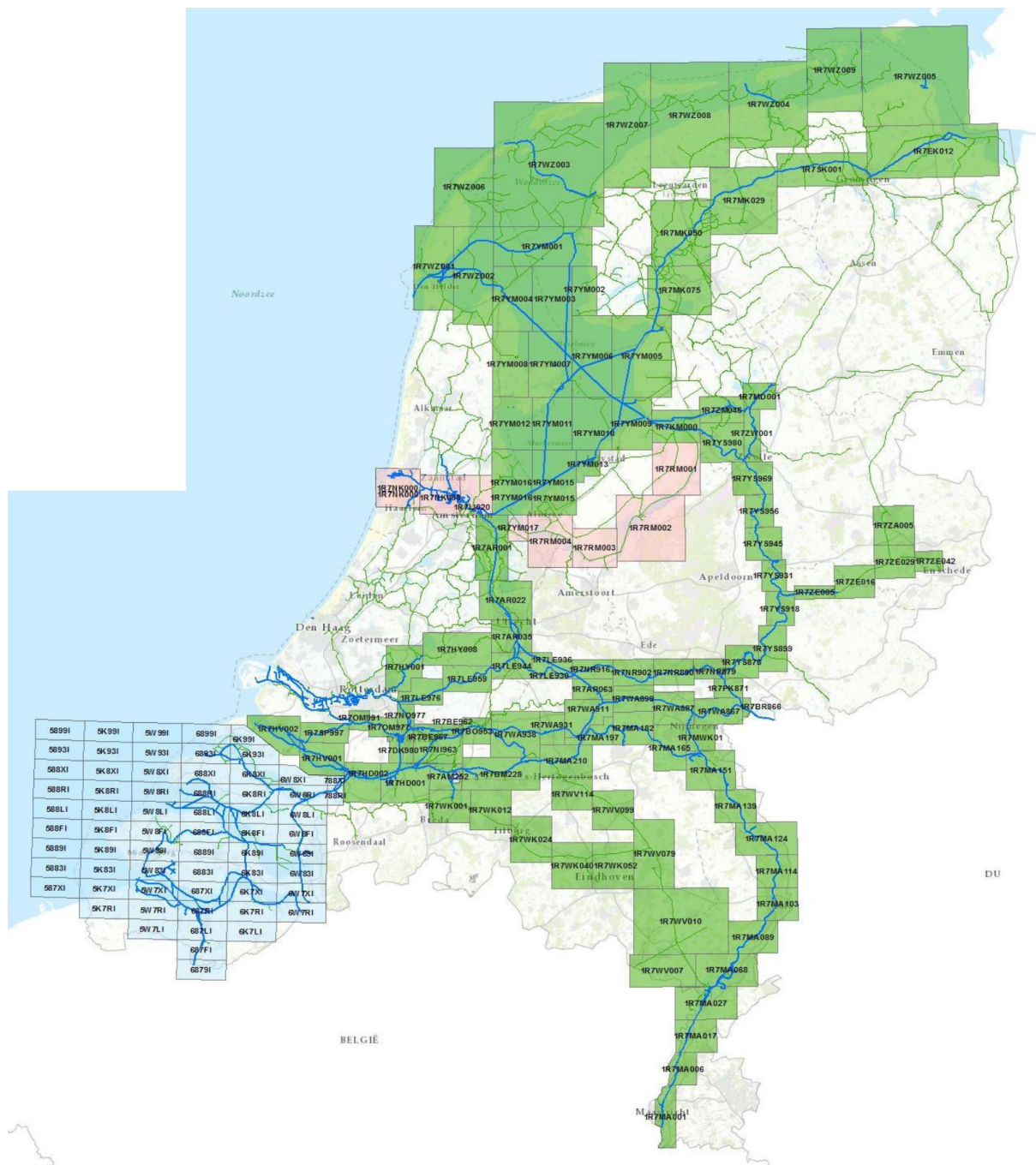
All of the main Dutch IENC Cell's are updated in 2021 (RWS CIV).

Zeeland from RWS Zeeland is updated weekly and is also containing bathymetric data.

IENC Havenbedrijf Rotterdam has been updated recently (dec 2020) also including bathymetric data of the Port of Rotterdam. This update is not yet available on [Vaarweginformatie.nl](#) of RWS.

The main part of the IENC of the Netherlands is produced by RWS CIV. The set 'Nieuwe kaarten' is updated a few times a year until all content is conform specification. After that a yearly update can be expected. The updates of Buoys and Marks of will be done on a weekly basis (RWS).
 July.2020 update IENC Nieuwe kaarten with IENC's from 2018 - 2021.

See picture (ref. RWS-CIV) below. Updated July 2020. The picture shows the current situation with green and red New Publications. Normally red is a publication of the previous year. Blue is Zeeland Complete. Class V waterways are drawn as blue lines and Class I - IV in green.



For the Dutch IENC above there is no exceeding of the required 5MB cell size maximum.

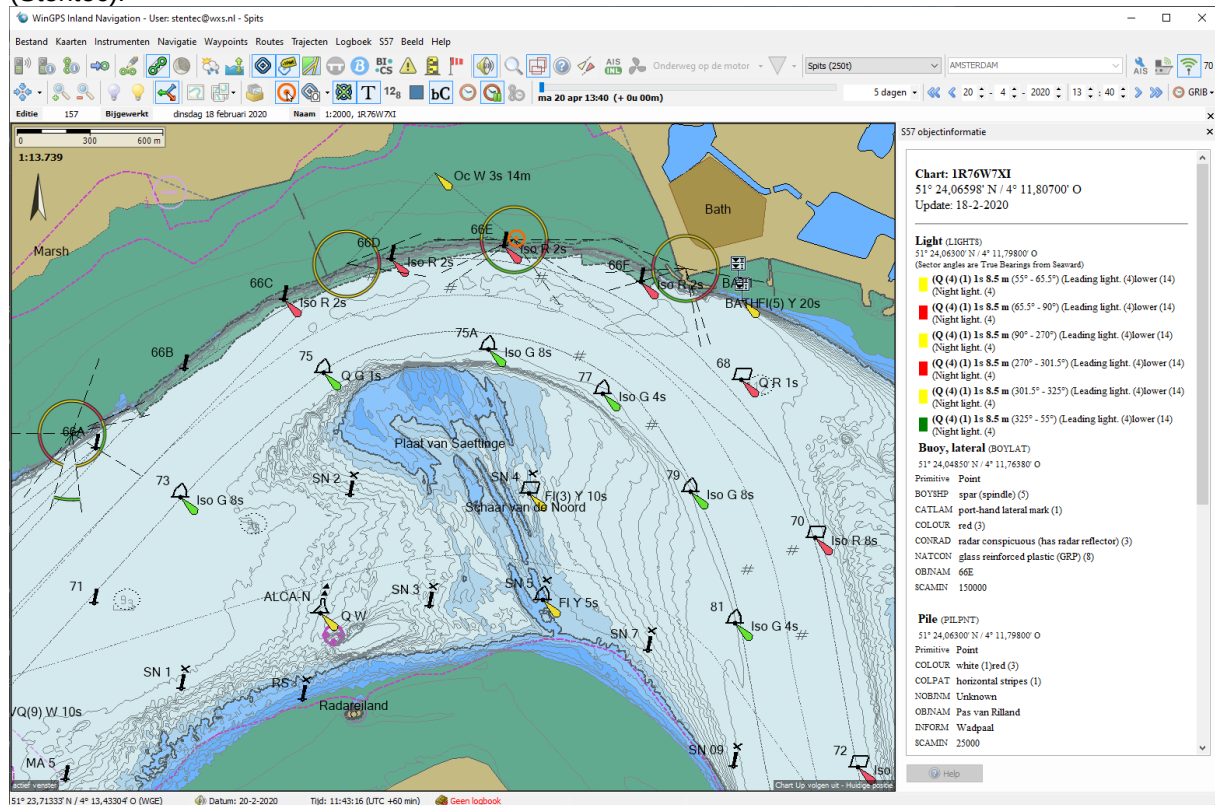
Plotting quality conform IENC and S57 standards

Zeeland RWS-Zeeland (2020)

High quality IENC including bathymetry. Weekly updated.

Names, geometry, service times and pictures of bridges and locks are still missing.

See below an impression of the Westerschelde near de Plaat van Saetfinge in WinGPS Inland (Stentec).



Rotterdam – Havenbedrijf (dec 2020)

High quality IENC including bathymetry.

Update procedure and content production process under construction.

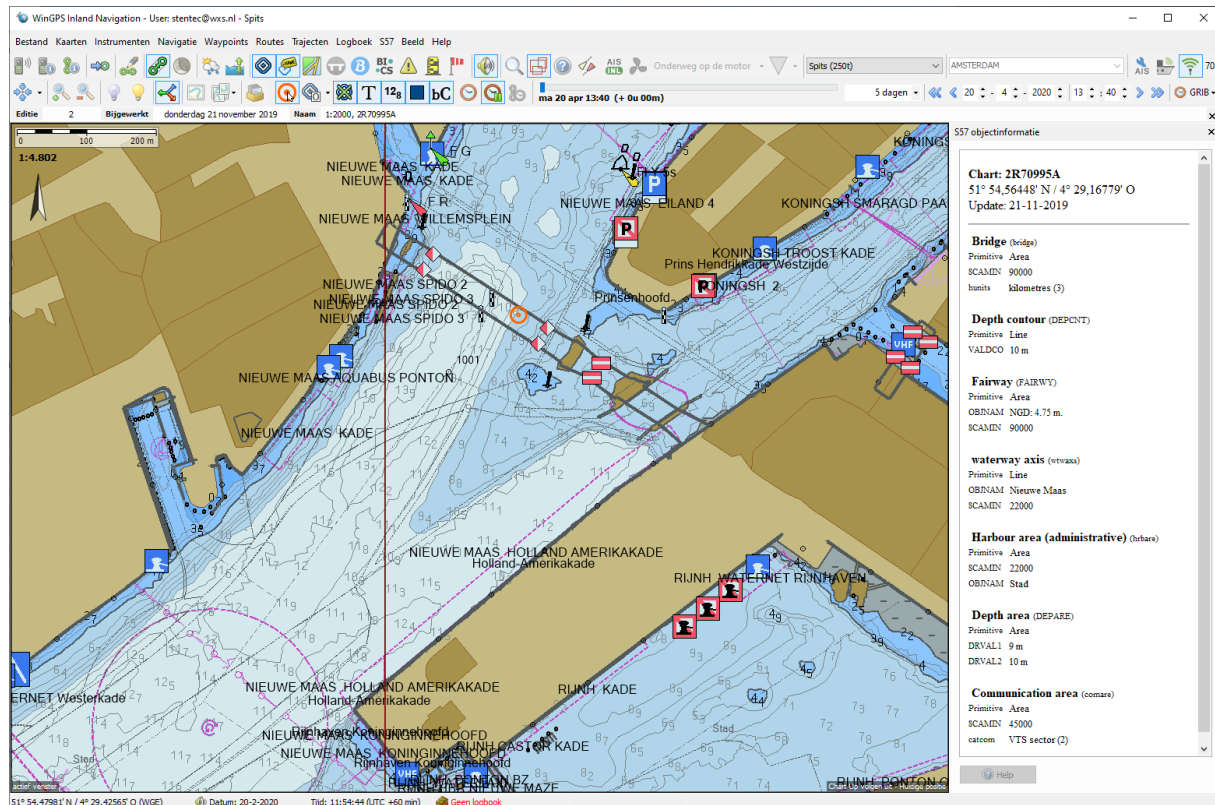
Names, geometry, service times and pictures of bridges and locks are still missing.

Names of waterways are not as Text visible on the chart.

See an impression below with all data switched on.

The Bathymetry is included in the cells instead of in IENC for update reasons.

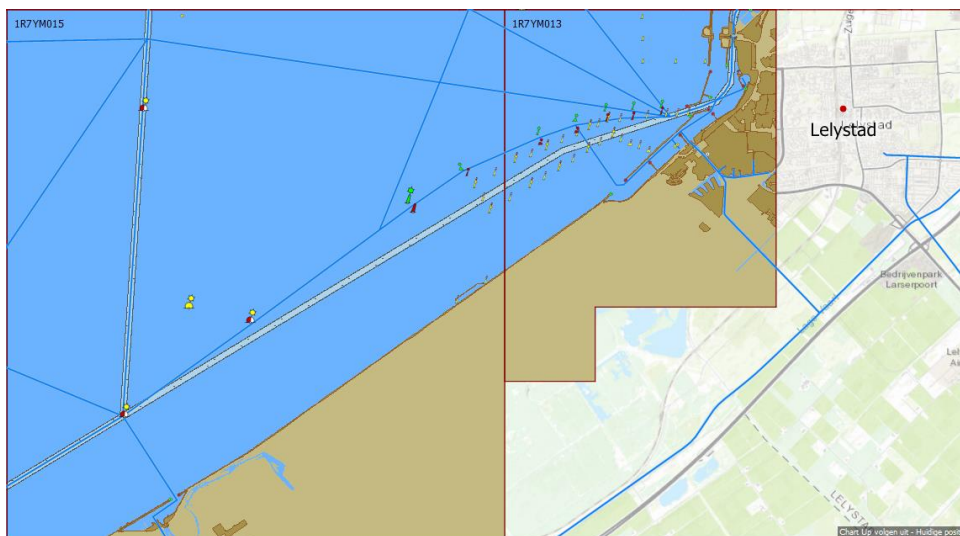
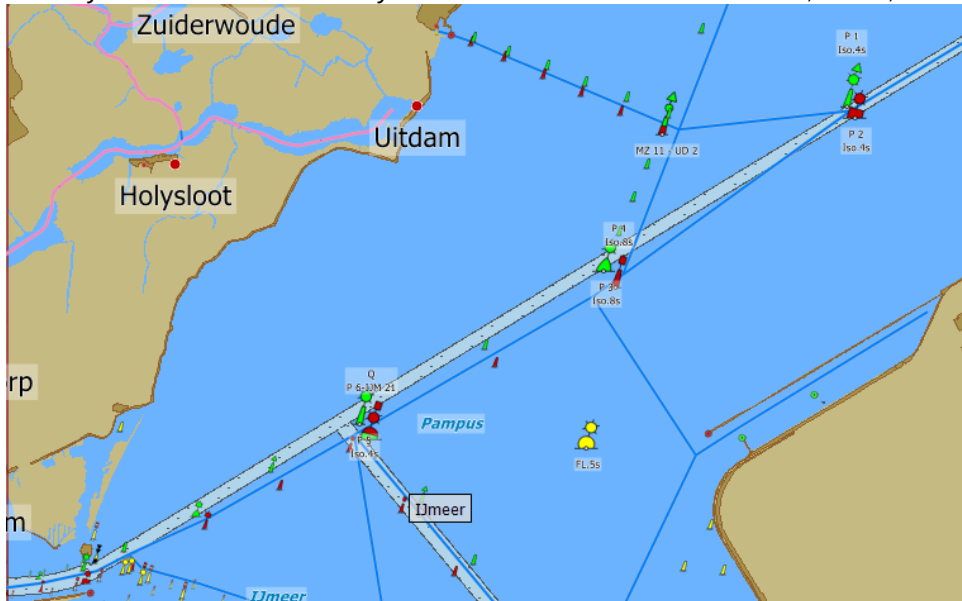
The yearly update of IENC Rotterdam has been released in January 2021



Nieuwe Kaarten RWS-CIV (2021)

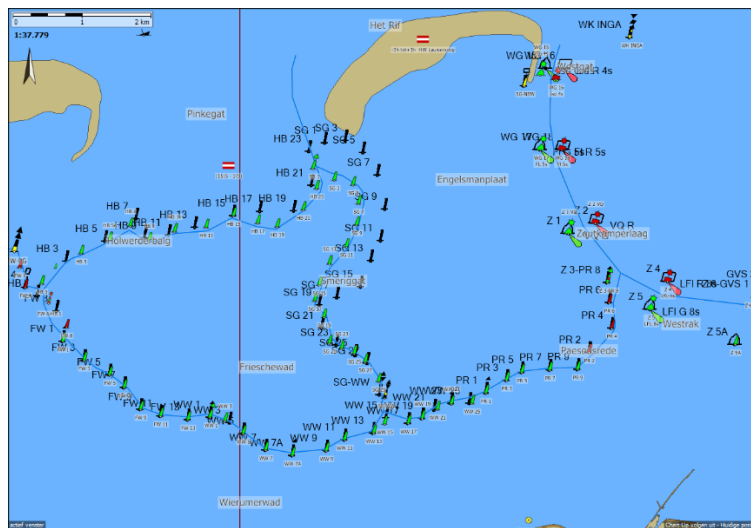
IJsselmeer and Markermeer without bathymetry and without names of waterarea's. Names, geometry, service times and pictures of bridges and locks are still missing

Fairway from Amsterdam to Lelystad not correct on Cell 1R7YM016, M015, M013 (up-to date buoys)



The IENC Fairway of 1R7YM005 does not match the buoys line to PM channel near Lemmer.



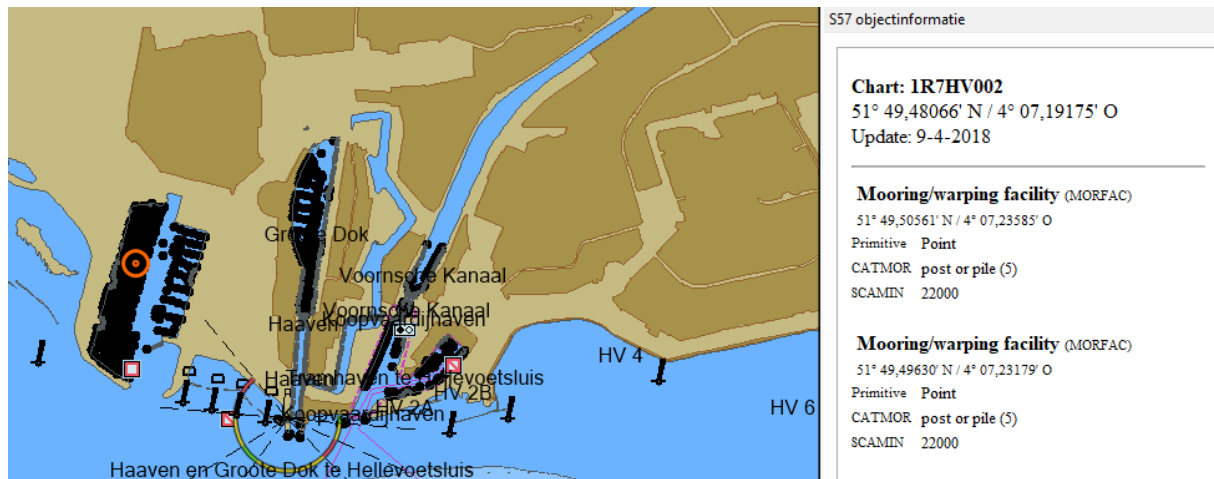


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Investigation the Raw IENC image

In WinGPS Inland the plotting of the IENC is optimized by the Chart Image Optimization option in the S57-settings. When this option is switched off, the “raw” IENC cells are shown as they were produced. This is investigated below.

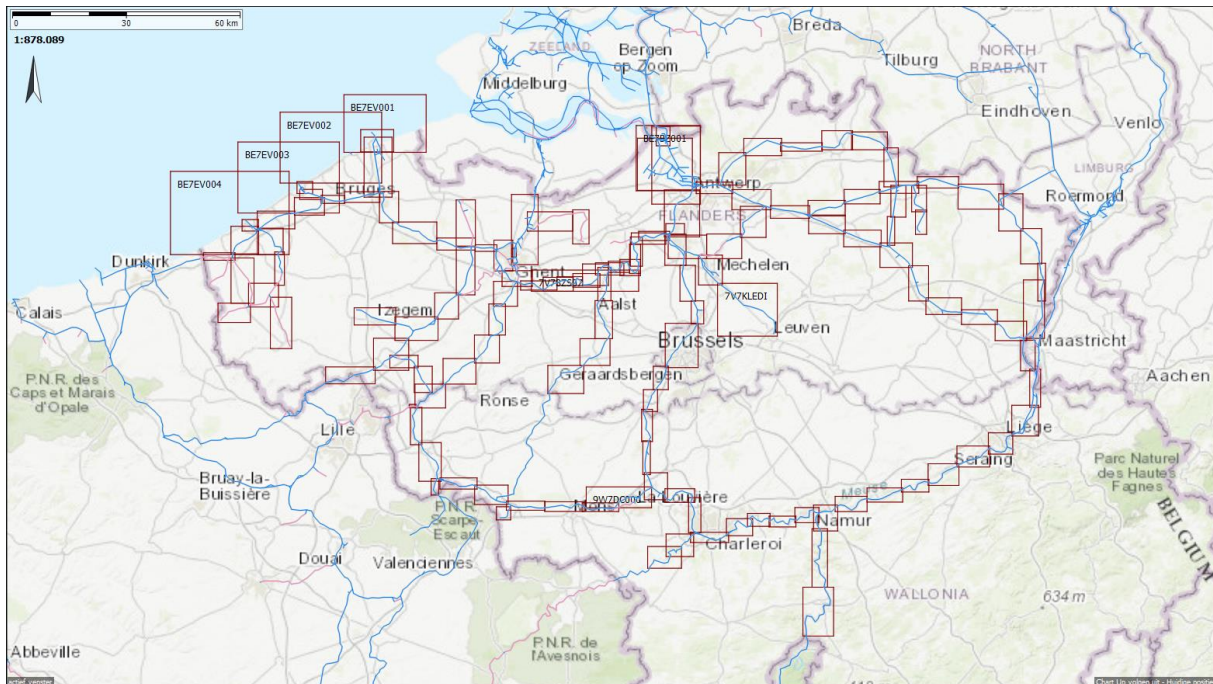
The Mooring/warping facilities have a very high SCAMIN of 22000 resulting in an overflow at a scale of 1:19.000. See below. It is recommended to reduce the SCAMIN value to 8000 and reducer the pixel size of the objects slightly.



Below the optimized IENC in WinGPS 5 Inland 2021



Belgium - Flanders ([VisuRIS](#)) and Wallonia ([Geoportal](#))



There are IENC produced for almost all Belgium waterways. Not only Class V or higher. See the screenshot above. There are no IENC for the Brussel area and for the Wallonian Dendre plus Kanaal Ath-Blathon. IENC Flanders and IENC Wallonia are separated productions.

The February 2020 update from the IENC Flanders from VisuRIS contain IENC mostly from November 2019. IENC Wallonia is published in April 2018 by Geoportal Wallonia.

In October 2020 we added IENC Brussels produced in June 2020. A major missing area in our Inland Update Serving for WinGPS Inland. Also new is IENC Peene from the WSV in North East Germany.

IENC cell exceeding the 5MB maximum are reported below (not updated 4 August 2020).

Antwerpen Haven

 8V8POA01.000	21-12-2019 11:34	000-bestand	6.358 kB
--	------------------	-------------	----------

Beneden Dijle

 7V7BEDIJ.000	7-2-2020 12:16	000-bestand	5.380 kB
--	----------------	-------------	----------

Beneden Zeeschelde

 BE7BZ001.000	7-2-2020 12:16	000-bestand	5.153 kB
--	----------------	-------------	----------

Gent Terneuzen

 BE7GT017.000	21-12-2019 11:35	000-bestand	6.788 kB
--	------------------	-------------	----------

Haven van Antwerpen

 8V8POA02.000	7-2-2020 12:17	000-bestand	8.333 kB
--	----------------	-------------	----------

Kanaal Gent-Terneuzen

 BE7GT017.000	7-2-2020 12:18	000-bestand	5.320 kB
--	----------------	-------------	----------

Rupel en Beneden Dijle

 7W7BEDIJ.000	21-12-2019 11:38	000-bestand	5.328 kB
--	------------------	-------------	----------

Van Zeebrugge Achterhaven- inclusief...

 BE7BK001.000	21-12-2019 11:38	000-bestand	5.471 kB
--	------------------	-------------	----------

Zeebrugge Achterhaven

 BE8BK001.000	7-2-2020 12:19	000-bestand	9.736 kB
--	----------------	-------------	----------

Zeekanaal

 7W7ZEEK1.000	21-12-2019 11:39	000-bestand	8.014 kB
--	------------------	-------------	----------

 7W7ZEEK2.000	21-12-2019 11:39	000-bestand	5.231 kB
--	------------------	-------------	----------

Zeekanaal Brussel Schelde

 7V7ZEEK1.000	7-2-2020 12:19	000-bestand	8.058 kB
--	----------------	-------------	----------

 7V7ZEEK2.000	7-2-2020 12:19	000-bestand	5.260 kB
--	----------------	-------------	----------

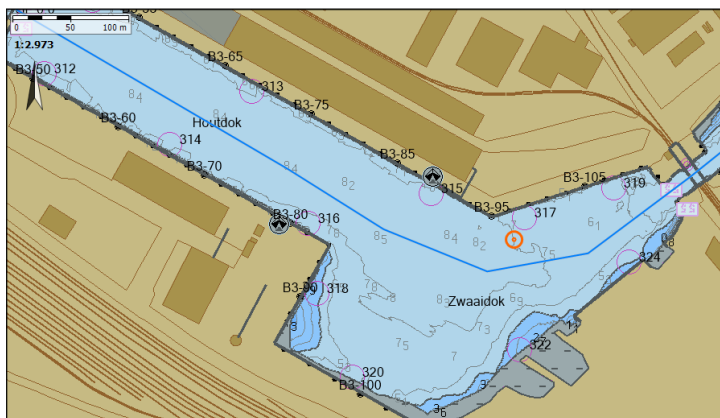
Additional data (bridge pictures, service times, text files)

- Flanders Totally 687 jpg, 180 XML and 51 txt
- Wallonia no TIF, JPG or XML

The upper (1:7.500) BE7BZ001 is showing unsurveyed area of the Kanaaldok B2, where at zooming in, the lower (1:5.000) 8V8POA02 is showing a DRVAL minimum dept of 5m, instead.

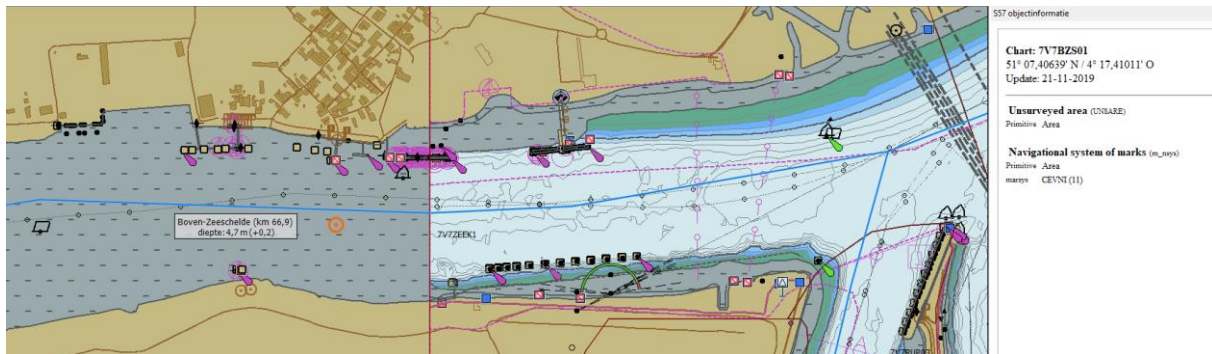


The (1:2.500) 2017 bathymetry around Oostende harbor is overruled by the (1:25.000) 2019 unsurveyed aera stripes below. Tn the txt files is mentioned that the depths are frequently liable to changes. Zooming in to the 2017 cell gives the old bathymetry.

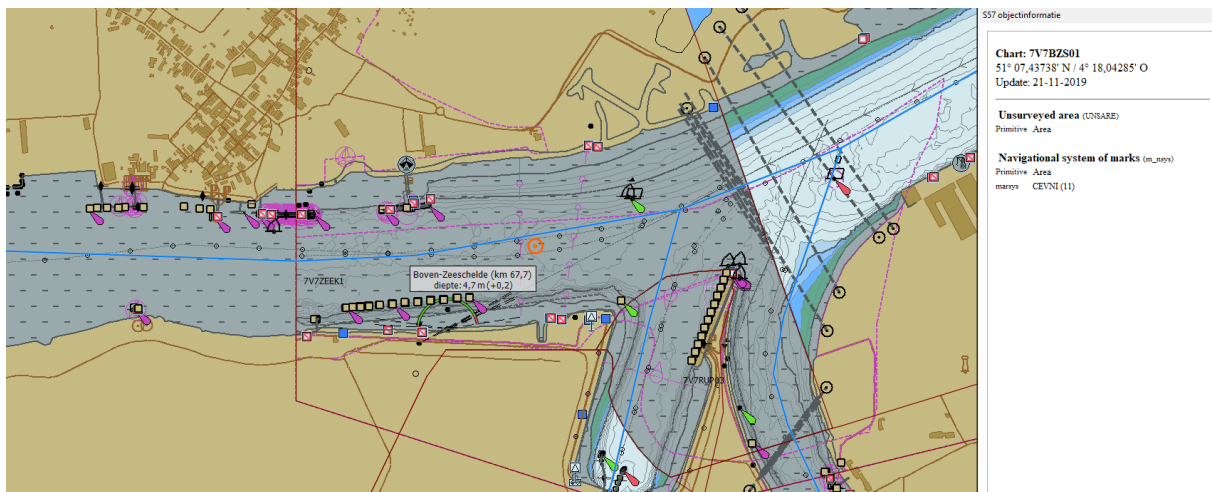


Unsurveyed Area in the Boven-Zeeschelde

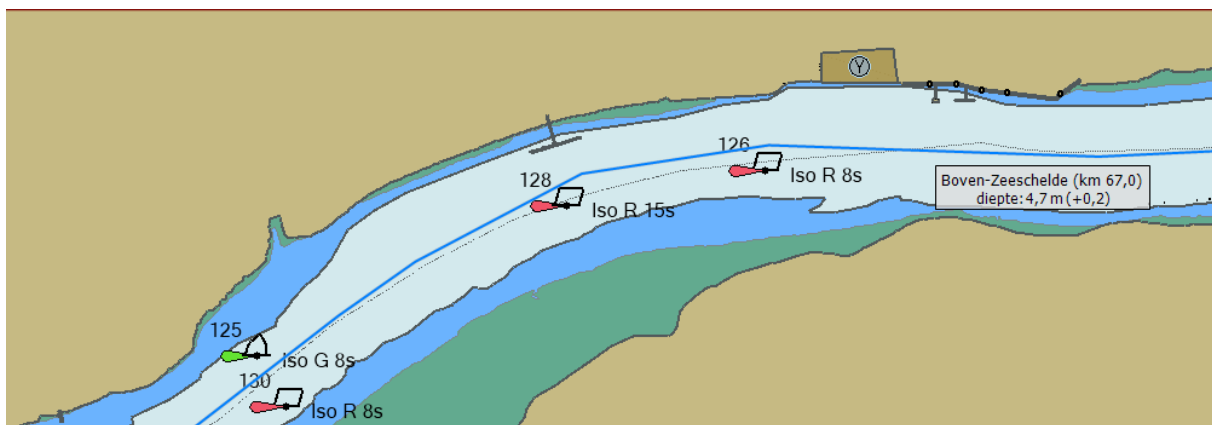
There are Unsurveyed Area stripes on the Boven- Zeeschelde river, although it is relative deep water (4,7m) for smaller ships (Spits) and there is a Navigation system of marks (buoys) defined. See figure below on the left. The grey stripe river area is not an optimal navigation underground (more than 50km). For a possible solution we refer to the Encoding Guide, see Appendix A4 point B.



Zooming out another part of the area above is marked as an Unsurveyed area. See below. All cells are from the end of 2019.



Older IENC of the Boven-Zeeschelde, published 12 Nov 2018, didn't show the Unsurveyed Area but the fairway data instead. See below. These older cells are not available anymore.



Kaarten ▲	TK	Aantal	Schaal	Bijgewerkt
☒ BE		144		29-7-2021
☒ Brussel		1		20-11-2020
☒ Vlaanderen, Afdelingskanaal van de Leie		2		1-3-2021
☒ Vlaanderen, Albert II dok		1		15-9-2020
☒ Vlaanderen, Albertkanaal		11		5-5-2021
☒ Vlaanderen, Beneden Dijle		1		1-3-2021
☒ Vlaanderen, Beneden Zeeschelde		2		8-3-2021
☒ Vlaanderen, Beneden-Nete		1		2-3-2021
☒ Vlaanderen, Boven Schelde		5		1-3-2021
☒ Vlaanderen, Boven-Durme		1		2-3-2021
☒ Vlaanderen, Boven-Zeeschelde		14		2-3-2021
☒ Vlaanderen, Dender		4		2-3-2021
☒ Vlaanderen, Durme		1		2-3-2021
☒ Vlaanderen, Estuaire vaart Noordzee		4		21-5-2021
☒ Vlaanderen, Haven van Antwerpen		2		23-7-2021
☒ Vlaanderen, IJzer		4		2-3-2021
☒ Vlaanderen, Kanaal Bocholt-Herentals		5		1-3-2021
☒ Vlaanderen, Kanaal Bossuit-Kortrijk		2		2-3-2021
☒ Vlaanderen, Kanaal Dessel-Kwaadmechelen		2		2-3-2021
☒ Vlaanderen, Kanaal Dessel-Turnhout-Schoten		6		2-3-2021
☒ Vlaanderen, Kanaal Gent-Oostende		8		26-5-2021
☒ Vlaanderen, Kanaal Gent-Terneuzen		2		29-7-2021
☒ Vlaanderen, Kanaal Ieper-IJzer		1		2-3-2021
☒ Vlaanderen, Kanaal Leuven-Dijle		1		2-3-2021
☒ Vlaanderen, Kanaal naar Beverlo		2		1-3-2021
☒ Vlaanderen, Kanaal naar Charleroi		2		2-3-2021
☒ Vlaanderen, Kanaal Nieuwpoort-Duinkerke		2		21-5-2021
☒ Vlaanderen, Kanaal Plassendale-Nieuwpoort		3		2-3-2021
☒ Vlaanderen, Kanaal Roeselare-Leie		1		2-3-2021
☒ Vlaanderen, Leie		4		2-3-2021
☒ Vlaanderen, Lokanaal		1		2-3-2021
☒ Vlaanderen, Moervaart		1		2-3-2021
☒ Vlaanderen, Netekanaal		1		2-3-2021
☒ Vlaanderen, Ringvaart om Gent		2		2-3-2021
☒ Vlaanderen, Rupel		1		2-3-2021
☒ Vlaanderen, Schelde-Rijnverbinding		1		2-3-2021
☒ Vlaanderen, Spierekanaal		1		2-3-2021
☒ Vlaanderen, Zeebrugge Achterhaven		1		21-11-2018
☒ Vlaanderen, Zeekanaal Brussel-Schelde		3		2-3-2021
☒ Vlaanderen, Zuid-Willemsvaart		4		2-3-2021
☒ Wallonie		33		27-4-2018

France ([VNF](#) and [InfoRhône](#))

There are no IENC updates published by the VNF in 2019 or 2020 with exception of Seine Aval from April 2020. All other charts are older. The IENC Seine from Paris direction South to Montereau as CEMT Class V has not yet been published. There are no IENC of lower CEMT Class I-IV.

☒ FR	134	16-6-2021
☒ Canal du Rhone au Rhin, Branche Sud	1	2-8-2016
☒ Garonne	6	23-1-2015
☒ Grande Saone	15	3-8-2018
☒ Liaison Dunkerque Escaut	19	27-3-2015
☒ Lyon	1	11-8-2017
☒ Moselle	11	3-4-2013
☒ Oise	7	15-6-2016
☒ Rhin	15	2-8-2016
☒ Rhone dans Lyon	32	22-1-2008
☒ Seine Amont	10	18-8-2020
☒ Seine Aval	17	16-6-2021

Test on 5MB per cell maximum

No exceeding

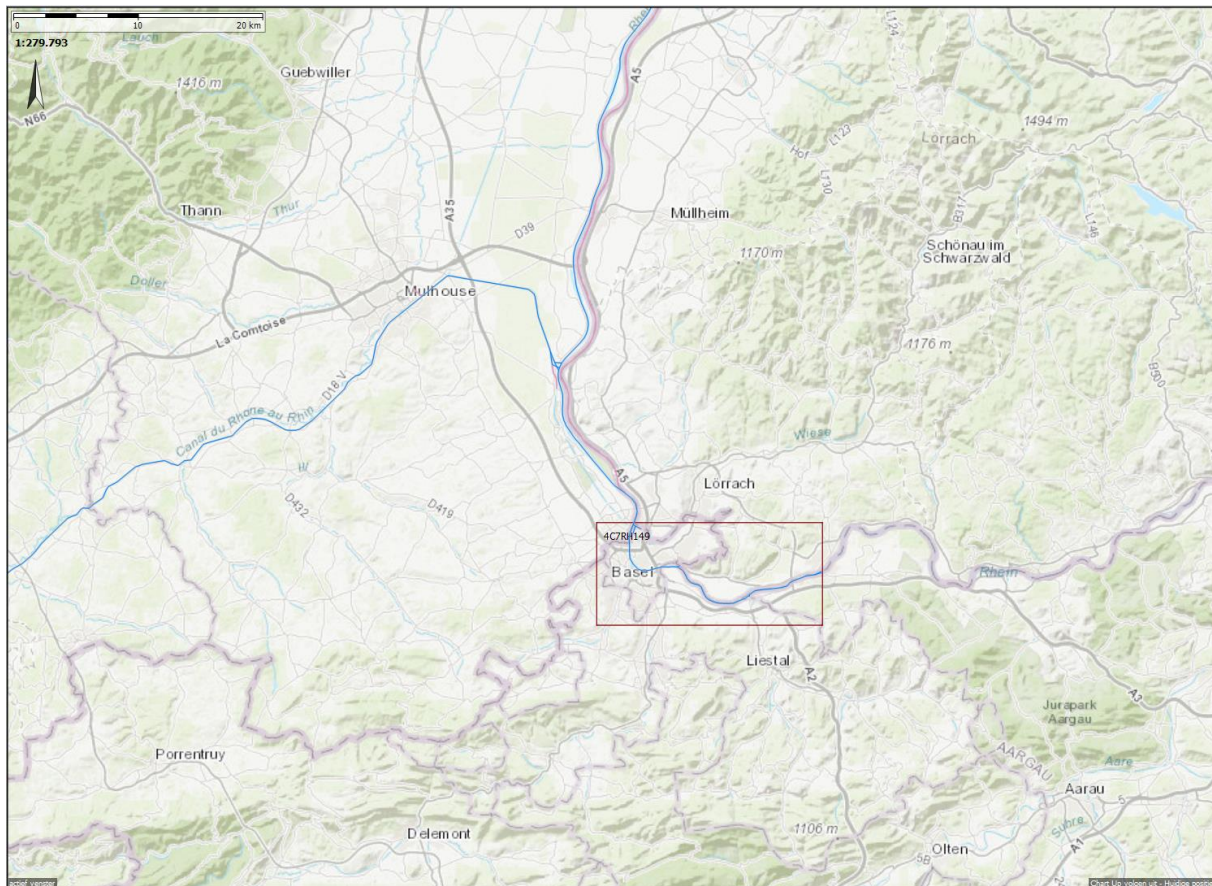
Plotting quality conform IENC and S57 standards
Not yet investigated.

Additional data (bridge pictures, service times, text files)

For Grand Saone (9 XML), Duinkerck Escout (185 jpg, 23 XML), Mouselle (169 TIF), Oise (7 XML) and Seine Aval (8 XML)

Bathymetry

No bIENC

Switzerland ([Port of Switzerland](#))

☐ ☒ CH	1	18-2-2019
---	---	-----------

Test on 5MB per cell maximum
No exceeding of the 5 MB

Plotting quality conform IENC and S57 standards
Not yet investigated.

Additional data (bridge pictures, service times, text files)
10 jpeg, 4 jpg

Bathymetry
No bIENC

Germany ([ELWIS](#))



German IENC is produced by the WSV and available on the ELWIS website. See appendix A1. There are currently 459 cells divided over 36 IENC sets. Most important are the Rhine, Elbe and Mittellandkanal. New is IENC Peene in North East Germany.

The German Rhine with the Mosel connected to the French one, the Main with the Main-Danube channel connected to the Danube in Austria and with the Neckar. The German Rhine connects upstream to France (15 Cells) and Switzerland (1 Cell, Basel) and downstream to the Dutch Rhine direction Rotterdam.

A good 82% of the cells are updated in 2019 or 2020, but there are some older sets (18%). Donau (Danube), Mittellandkanal and Potsdamer Havel from 2018. Lahn and Neckar from 2016.

Test on 5MB per cell maximum
No exceeding of the 5 MB

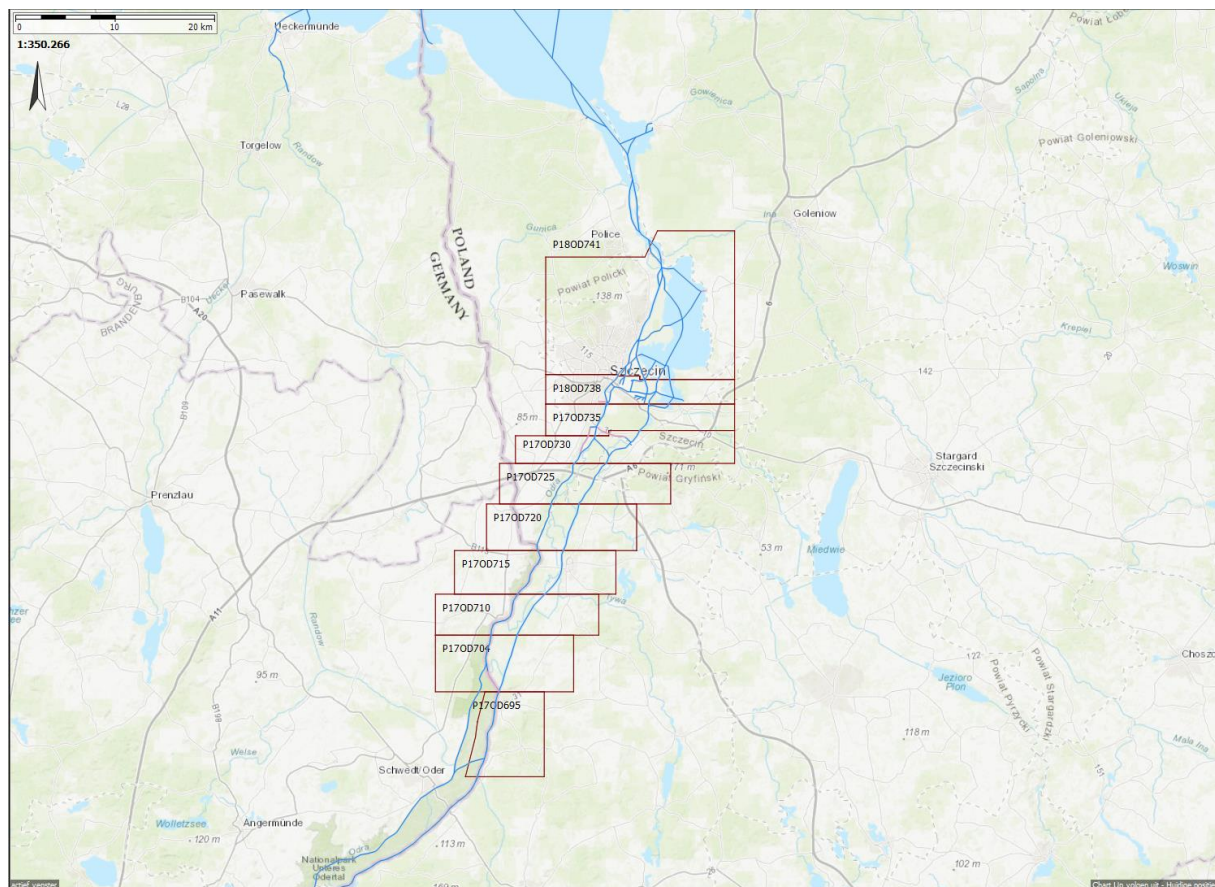
Plotting quality conform IENC and S57 standards
Not yet investigated.

Additional data (bridge pictures, service times, text files)

Only for Donau (65 jpg, 25 XML), Main (174 jpg, 58 XML) and Main-Donau Kanal (135 jpg, 16 XML)

Bathymetry, No bIENC

☐	☒ DE	468	28-9-2021
☐	☒ Berlin-Spandauer-Schiffahrtskanal	1	24-6-2021
☐	☒ Datteln-Hamm-Kanal	5	22-6-2021
☐	☒ Donau	22	10-12-2020
☐	☒ Dortmund-Ems-Kanal	23	22-6-2021
☐	☒ Elbe	64	17-12-2020
☐	☒ Elbe-Havel-Kanal	5	19-6-2020
☐	☒ Elbe-Luebeck-Kanal	6	7-12-2020
☐	☒ Elbe-Seitenkanal	12	27-5-2021
☐	☒ Havel-Oder-Wasserstrasse	13	8-12-2020
☐	☒ Havelkanal	3	4-12-2020
☐	☒ Kanaltrave	1	7-12-2020
☐	☒ Kuestenkanal	7	17-3-2021
☐	☒ Lahn	1	6-4-2016
☐	☒ Landwehrkanal	1	23-6-2021
☐	☒ Main	39	21-12-2020
☐	☒ Main-Donau-Kanal	18	19-11-2020
☐	☒ Mittellandkanal	32	1-6-2021
☐	☒ Mittellandkanal_Stichkanal_Hannover-Linden	1	18-5-2021
☐	☒ Mittellandkanal_Stichkanal_Hildesheim	1	12-7-2018
☐	☒ Mittellandkanal_Stichkanal_Osnabrueck	1	31-5-2021
☐	☒ Mittellandkanal_Stichkanal_Salzgitter	1	18-5-2021
☐	☒ Mosel	25	17-6-2021
☐	☒ Neckar	21	22-6-2020
☐	☒ Oder	17	15-6-2021
☐	☒ Peene	7	28-9-2020
☐	☒ Potsdamer_Havel	3	3-12-2020
☐	☒ Rhein	56	19-3-2021
☐	☒ Rhein-Herne-Kanal	4	30-3-2021
☐	☒ Ruhr	1	17-3-2021
☐	☒ Saale	9	29-3-2021
☐	☒ Saar	10	17-6-2021
☐	☒ Spree-Oder-Wasserstrasse	13	28-9-2021
☐	☒ Teltowkanal	4	24-6-2021
☐	☒ Untere-Havel-Wasserstrasse_0-69	8	31-3-2021
☐	☒ Untere-Havel-Wasserstrasse_70-155	9	24-9-2021
☐	☒ Wesel-Datteln-Kanal	6	22-6-2021
☐	☒ Weser	16	2-6-2021
☐	☒ Westoder	2	24-9-2020

Poland ([RIS-ODER](#))

IENC Poland contains 10 cells produced from October 2018 to August 2019 covering the Oder and West-Oder.

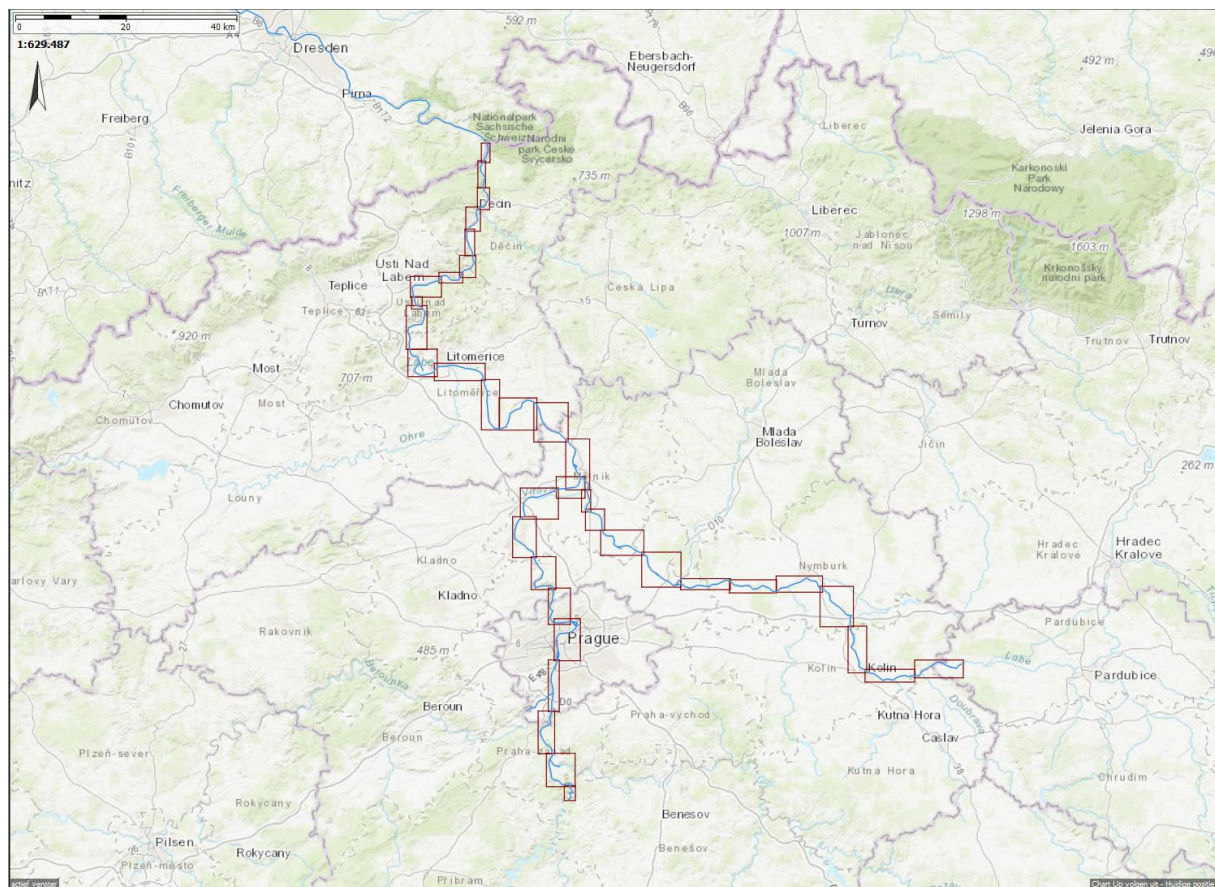
☒ PL	10	16-12-2019
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Test on 5MB per cell maximum
No exceeding of 5MB

Plotting quality conform IENC and S57 standards
No names of bridges on the IENC.

Additional data (bridge pictures, service times, text files)
Not available

The bathymetry is included in the IENC.

Czechia ([Lavdis](#))

IENC Czechia contains 37 recently updated cells from the Elbe and Moldau.
 New are the 8 biENC of the Labe/Elbe connected to the German Elbe.

☒ CZ	45	20-9-2021
☒ biENC	8	30-6-2020
☒ IENC	37	20-9-2021

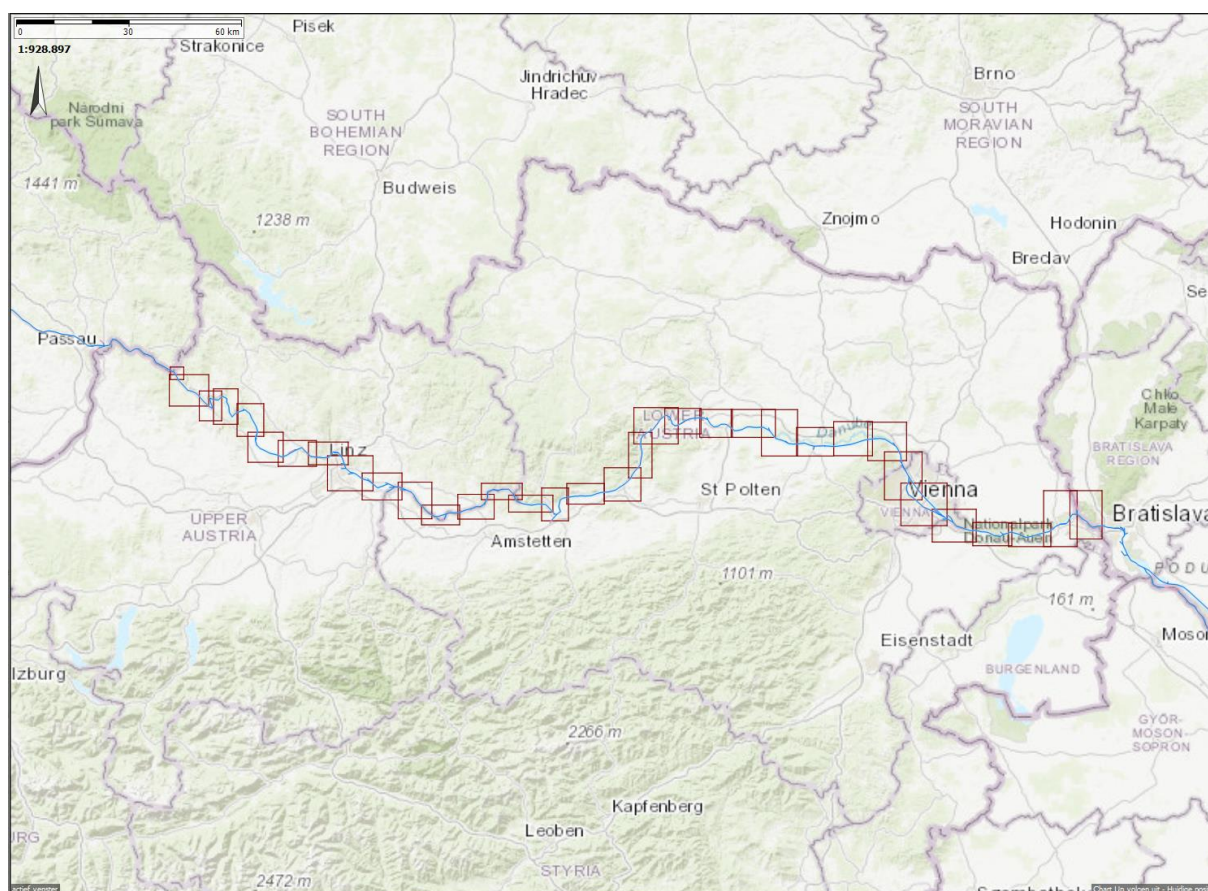
Test on 5MB per cell maximum
 No exceeding of the 5 MB

Plotting quality conform IENC and S57 standards
 Not yet investigated. First impression is good.

Additional data (bridge pictures, service times, text files) in the 2020 update.

Bathymetry
 biENC Elbe from German border until km767

Austria (DoRIS)



IENC Danube plus bIENC (showing bathymetric data)

☒ AT	112	30-9-2021
☒ bIENC	78	30-9-2021
☒ IENC	34	30-9-2021

All IENC and bIENC are below 5 MB with exception of the following bIENC cell.

2WBKD017.000

19-10-2021 08:32

000-bestand

5.485 kB

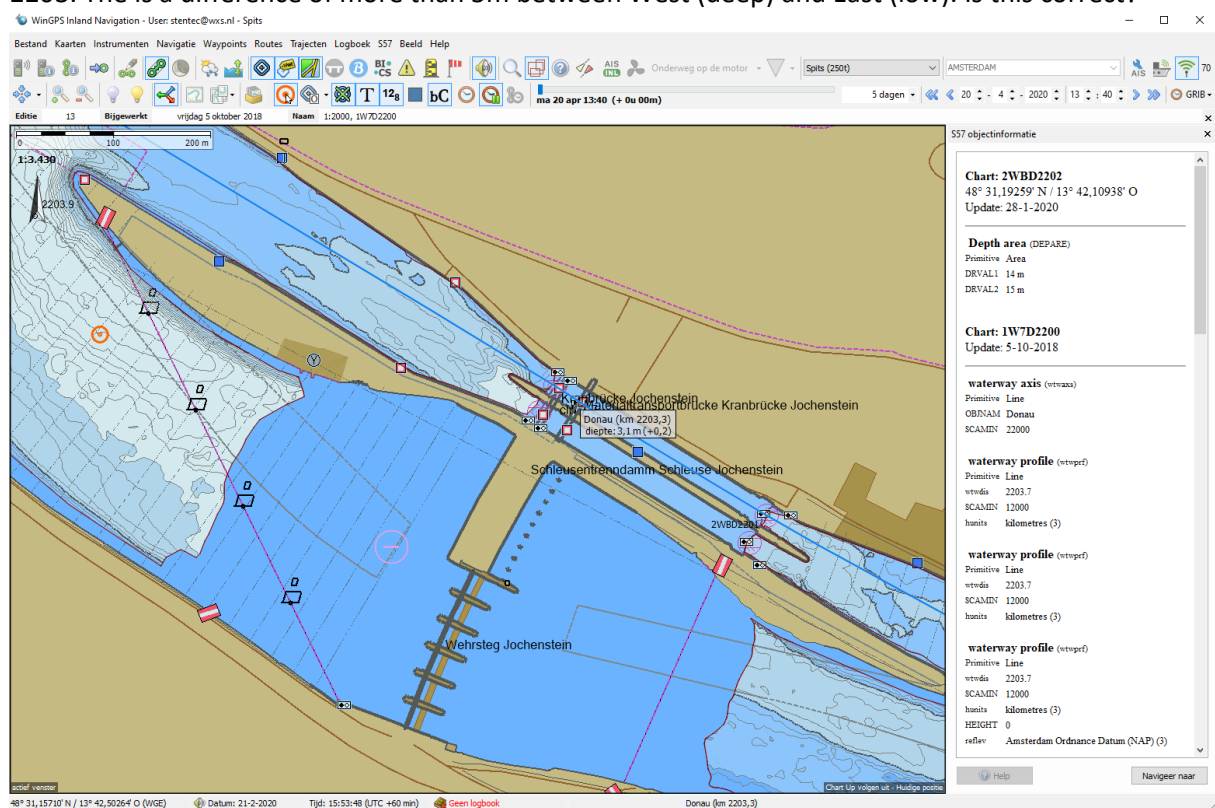
Plotting quality conform IENC and S57 standards in ECDIS 2.3 and 2.4 format. Sometimes update files are published (.001, etc.) The recommended 2.4 format is used for the Stentec Update Service.

Additional data (bridge pictures, service times, text files): 32 TIF of Bridges and 42 XML.

The bENC of Austria also includes the Danube on the German border covered by German IENC.

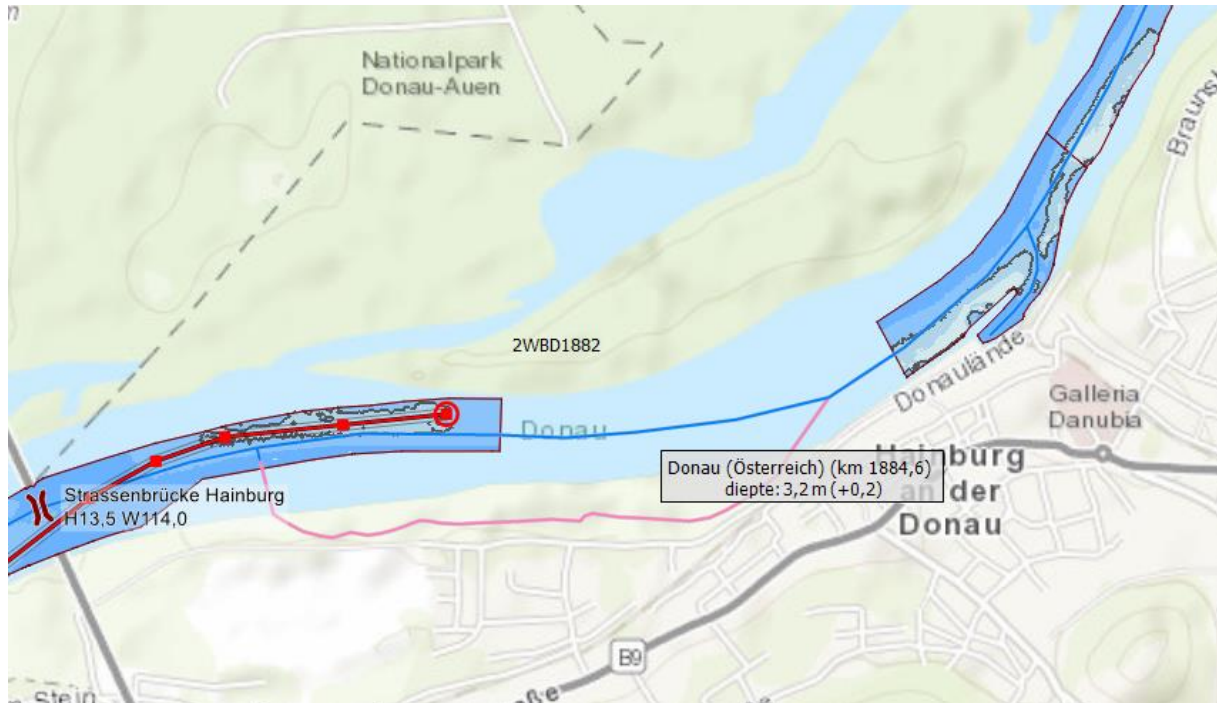


The bIENC colors show the 10m depth in white only on the left side of the Jochenstein lock at km 2203. The is a difference of more than 5m between West (deep) and East (low). Is this correct?

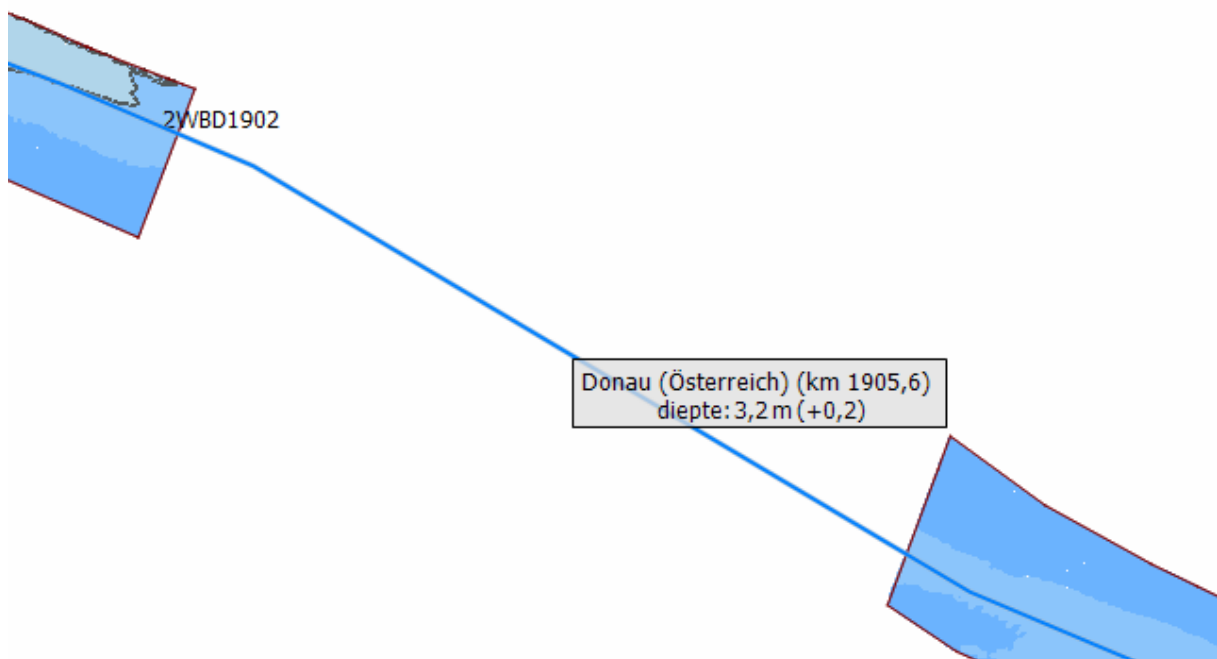


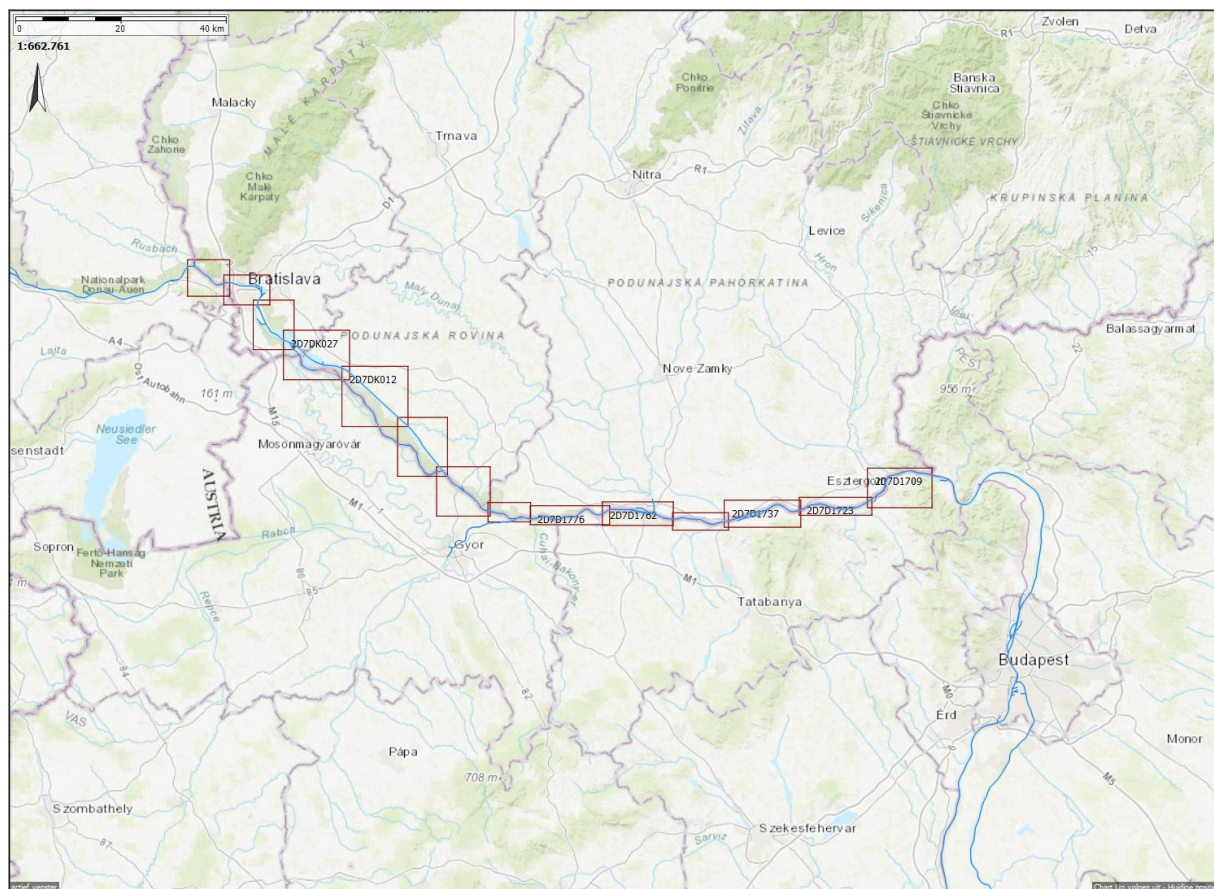
Also the Austrian bIENC does not contain or show Soundings.

Although the Austrian bIENC is of good quality and is updated regularly, we found that some files are not shown on the map when zoomed in, because the rectangular bounds in the Metadata of the bIENC were not always current. See the screenshots below. In WinGPS Inland this was solved by calculating the bounds directly from the bIENC cell data itself.



2WBD1901



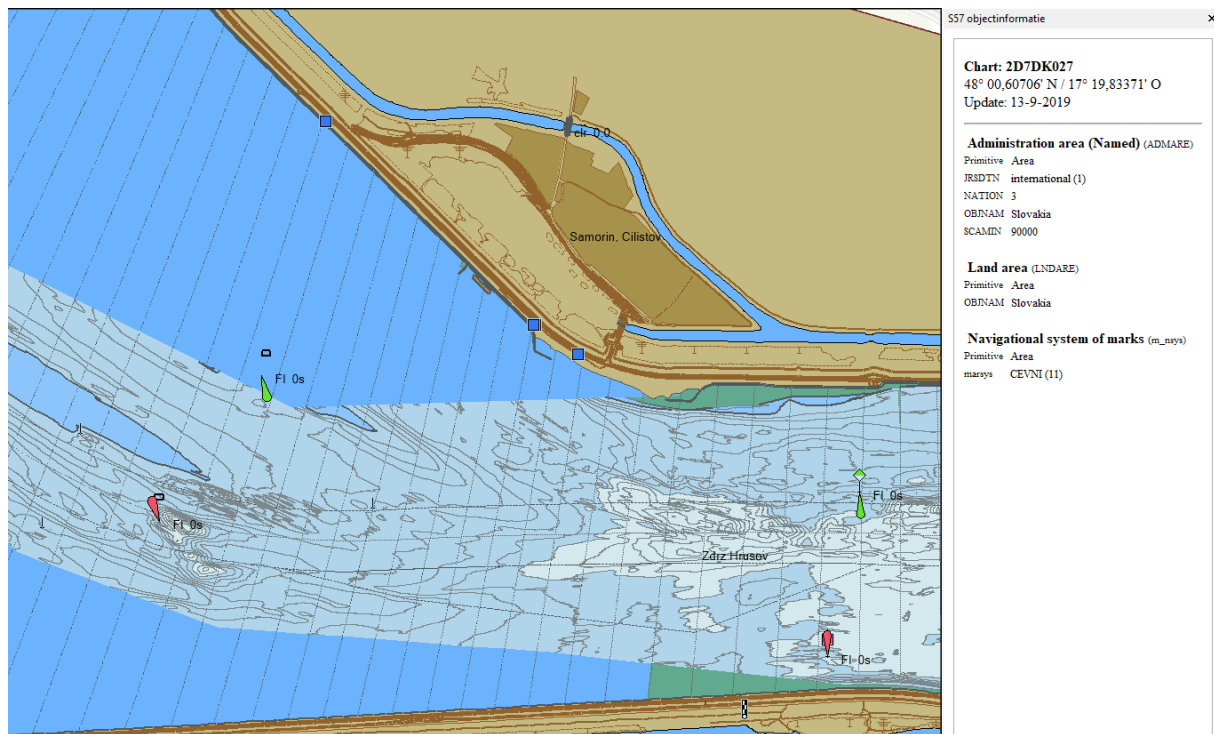
Slovakia ([Danube FIS portal](#))

☒ SK	14	23-8-2021
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Test on 5MB per cell maximum

Most cells of Slovakia do not match the required 5 MB maximum, because bathymetric data of the Danube is included. The 2D7K027.00 even contains 110 MB. This can result in very slow opening of the large cells in plotters and navigation software.

2D7D1854.000	19-10-2021 08:46	000-bestand	112.513 kB
2D7DK000.000	19-10-2021 08:46	000-bestand	94.638 kB
2D7DK012.000	19-10-2021 08:47	000-bestand	93.621 kB
2D7DK027.000	19-10-2021 08:47	000-bestand	86.656 kB
2D7D1723.000	19-10-2021 08:46	000-bestand	64.770 kB
2D7D1709.000	19-10-2021 08:46	000-bestand	37.015 kB
2D7D1776.000	19-10-2021 08:46	000-bestand	33.256 kB
2D7D1872.000	19-10-2021 08:46	000-bestand	31.487 kB
2D7D1800.000	19-10-2021 08:46	000-bestand	27.600 kB
2D7D1737.000	19-10-2021 08:46	000-bestand	22.601 kB
2D7D1791.000	19-10-2021 08:46	000-bestand	20.088 kB
2D7D1864.000	19-10-2021 08:46	000-bestand	15.076 kB
2D7D1752.000	19-10-2021 08:46	000-bestand	13.653 kB
2D7D1762.000	19-10-2021 08:46	000-bestand	12.862 kB



Above the 100MB cell is shown in WinGPS Inland without correction or improvement. Not all bathymetric data is shown. The depth contours besides the waterway is overlapped with the standard blue waterway color.

Plotting quality conform IENC and S57 standards
Not yet investigated.

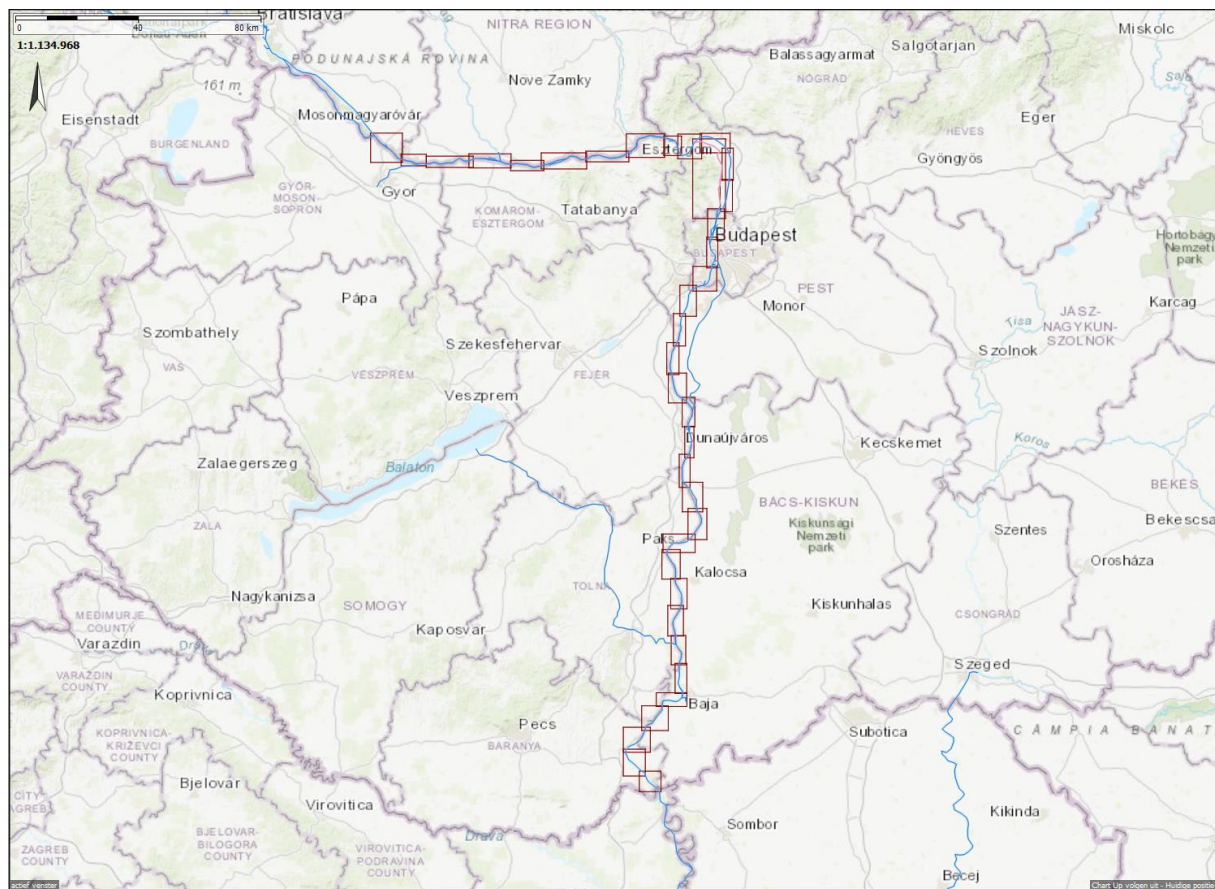
Additional data (bridge pictures, service times, text files)
Not available

Bathymetry
No bIENC. Bathymetry included in the mostly large cells.

Recommendations

To developers: In principle navigation software developers can find a solution for fast handling of the oversized S57 containing bathymetric data. This because in the highest (Other) cell quality bathymetric data only be shown zoomed in. Also the blue water overlap can be handled in the IENC navigation software.

To governments: It is strongly recommended to the official IENC producers of Slovakia not to exceed the cell maximum of 5 MB and put the bathymetric data in the for this goal specially defined bIENC (bathymetric IENC) conform the bIENC of Austria. Showing bIENC data in the Basic, Standard and Other quality must be an easy accessible option in the navigation software.

Hungary ([Danube FIS portal](#))

☒ HU	37	26-8-2021
☒ Duna km 1433-1811	36	26-8-2021
☒ Szduna km 0-30	1	17-12-2019

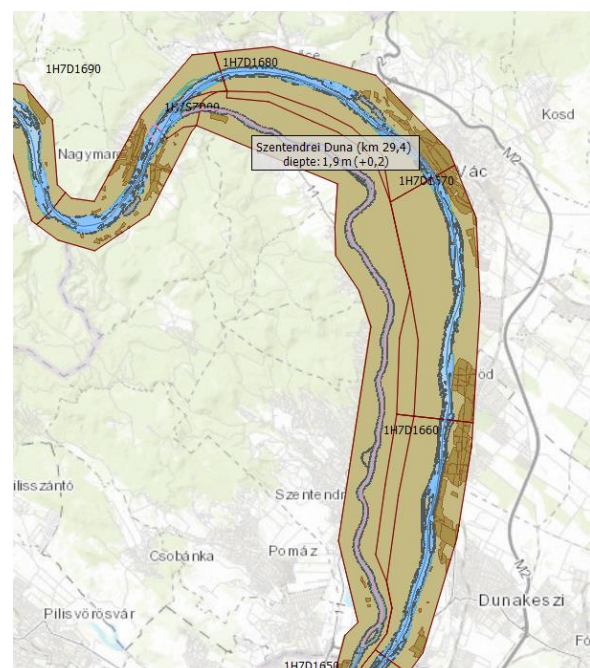
The Szduna (Zsentendrei) is the west side river of the Hungarian Danube. Both have been updated recently.

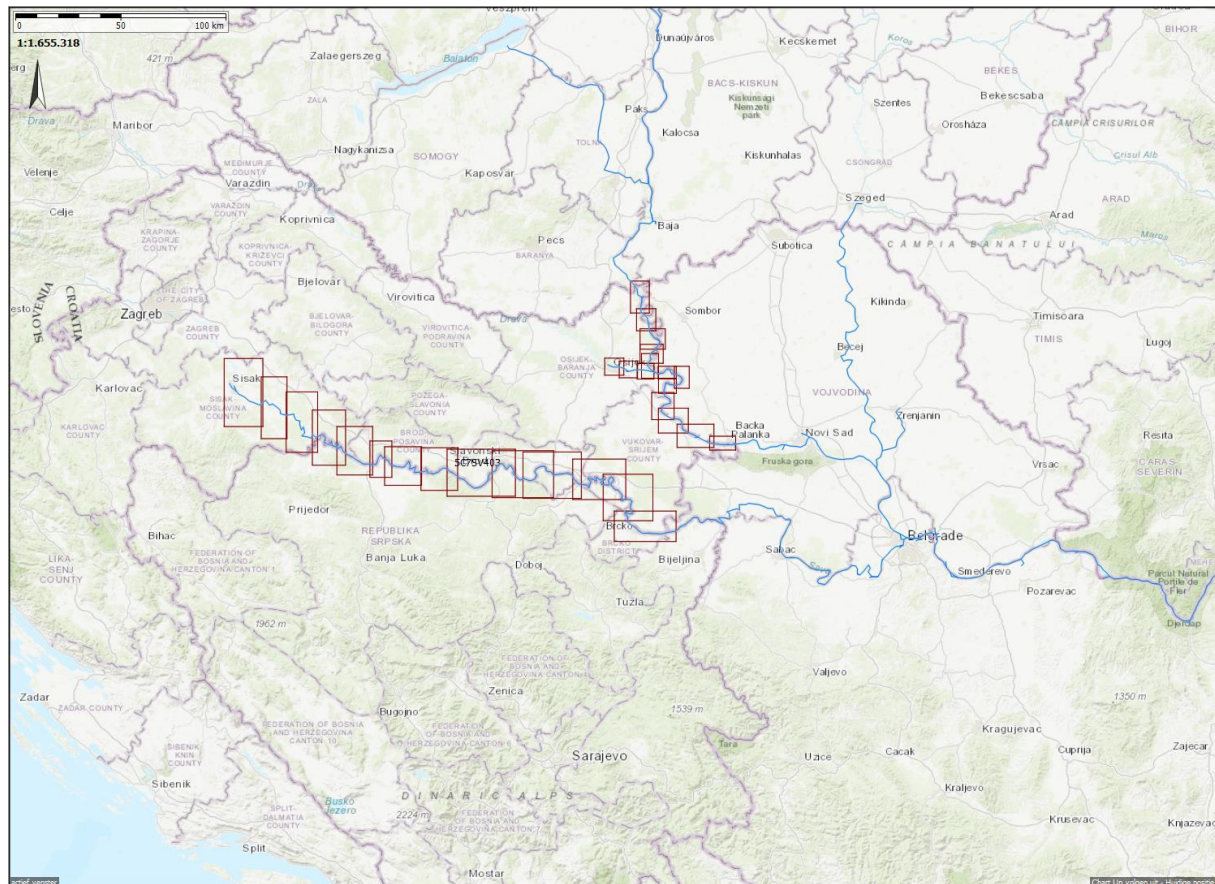
Test on 5MB per cell maximum
No exceeding

Plotting quality conform IENC and S57 standards
Not yet investigated.

Additional data (bridge pictures, service times, text files).
No additional files.

Bathymetry
No biENC



Croatia ([Danube FIS portal](#))

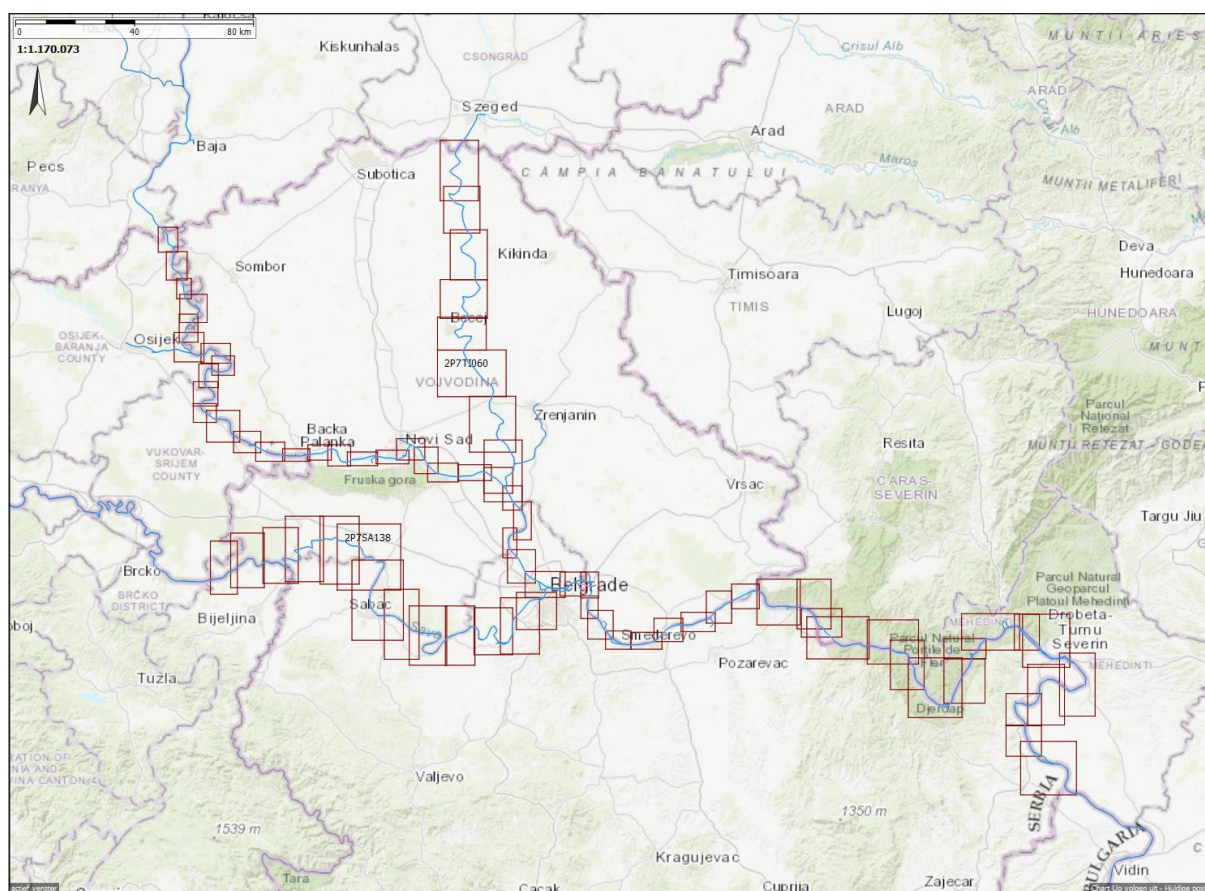
☒ KR	29	11-9-2018
☒ Drava	3	10-11-2010
☒ Dunav	12	11-9-2018
☒ Sava	14	18-11-2010

Test on 5MB per cell maximum
No exceeding of 5MB

Plotting quality conform IENC and S57 standards
Not yet investigated.

Additional data (bridge pictures, service times, text files)
For Danube 4 jpg and 6 XML

Bathymetry
No BIENC

Serbia ([Danube FIS portal](#))

☒	RS	77	7-6-2021
☒	Danube	56	7-6-2021
☒	Sava	13	24-12-2020
☒	Tisza	8	30-12-2019

Test on 5MB per cell maximum

No exceeding of 5 MB

Plotting quality conform IENC and S57 standards

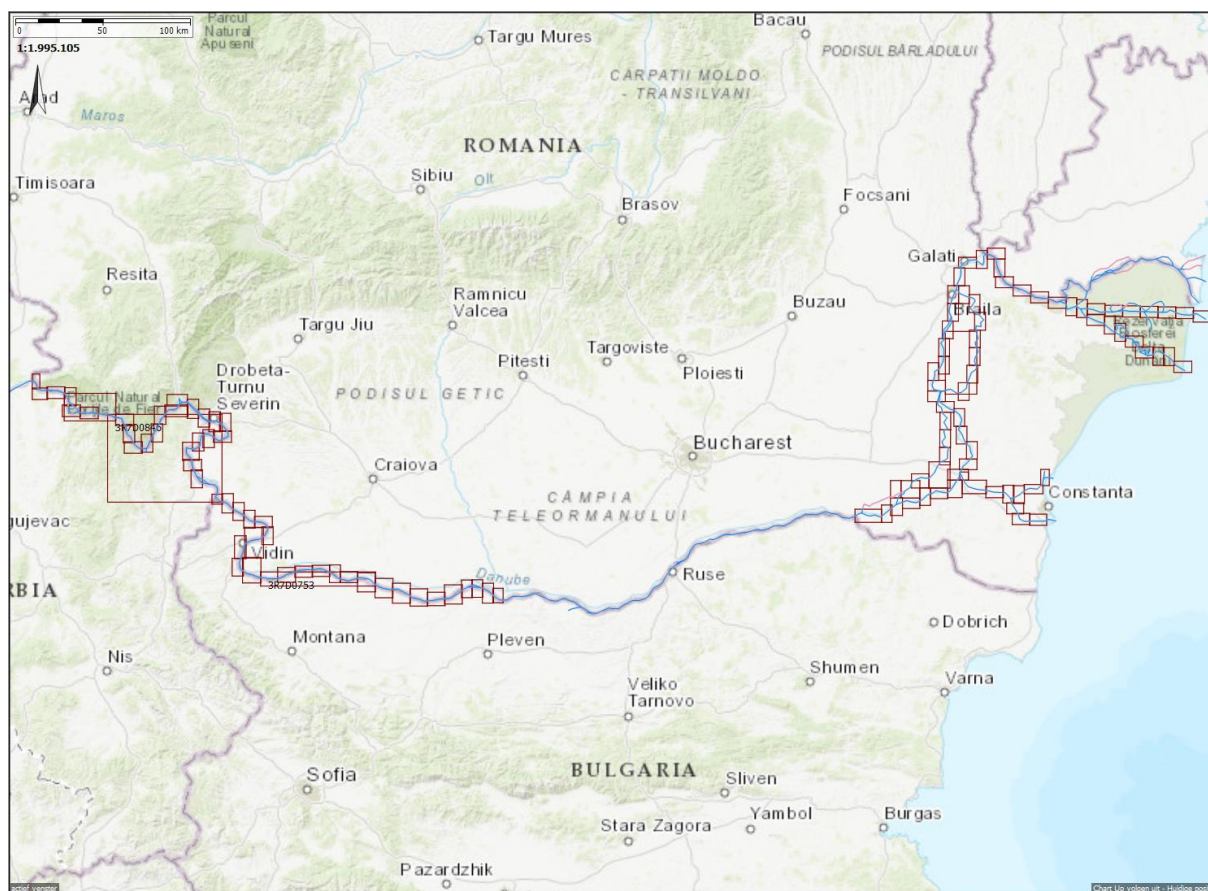
Not yet investigated.

Additional data (bridge pictures, service times, text files)

Danube 16 jpg and 2 XML, Sava 14 jpg, Tisza 5 jpg

Bathymetry

No biENC

Romania ([Danube FIS portal](#))

☒	RO	132	30-9-2021
☒	Borcea	9	1-9-2021
☒	Canal Dunare-Marea Neagra	13	3-8-2021
☒	Donau, km 0 - km 47	10	30-9-2021
☒	Donau, km 175 - km 297	12	30-9-2021
☒	Donau, km 297 - km 375	11	21-9-2021
☒	Donau, km 47 - km 175	9	30-9-2021
☒	Donau, km 610 - km 845	26	1-9-2021
☒	Donau, km 845 - km 1075	26	1-9-2021
☒	Macin	8	15-10-2019
☒	Sf. Gheorghe	8	6-11-2012

Test on 5MB per cell maximum

Danube km 297 - km 375

 3RB4DC01.000

19-10-2021 08:45

000-bestand

5.463 kB

Plotting quality conform IENC and S57 standards

Not yet investigated.

Additional data (bridge pictures, service times, text files)

Not available

Bathymetry

No bIENC. Bathymetry included in 3R7D0304.000 for Danube km 304,7 – km 309,6 and Canal Dunare-Maerea Neagra 3R7PAM01. See below.



Bulgaria ([Danube FIS portal](#))

☐ BG	19	30-9-2021
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Test on 5MB per cell maximum
No exceeding of the 5MB size.

Plotting quality conform IENC and S57 standards
Not yet investigated.

Additional data (bridge pictures, service times, text files)
No additional data

Bathymetry
No bIENC

Appendix A3. Logfile for Stentec IENC Server

Date	Who	Country	IENC	Authority	Size	Byte
2019-01-23	WK	EU	14 Countries	All	1,56	GB
2019-01-23	WK	NL	20190117_U7Inland_week03_NL	RWS Zeeland	39	MB
2019-01-28	VK	BG	21.01.2019	Danube FIS Portal	1,75	MB
2019-01-28	VK	FR	Rhone_Lyon_Edition_1	VNF	620	kB
2019-01-28	VK	RS	Danube_RS_2018_E03_U02	Danube FIS Portal	44,7	MB
2019-01-28	VK	RS	Sava_RS_2018_E03_U03	Danube FIS Portal	33,5	MB
2019-01-28	VK	RS	Tisza_RS_2018_E03_U02	Danube FIS Portal	9,3	MB
2019-02-04	VK	RO	Donau_2019_U01	Danube FIS Portal	2	MB
2019-02-08	VK	NL	20190206_U7Inland_week06_NL	RWS Zeeland	90	MB
2019-02-15	VK	NL	20191302_U7Inland_week07_NL	RWS Zeeland	90	MB
2019-03-12	VK	NL	20190306_U7inland_week10_NL	RWS Zeeland	90	MB
2019-03-12	VK	NL	20190311_U7_NDB_Wrak_Cardium_MD082-19_NL	RWS Zeeland	1	MB
2019-03-18	VK	NL	20190313_U7inland_week11_NL	RWS Zeeland	90	MB
2019-03-18	VK	NL	20190311_U7_NDB_Wrak_Cardium_MD082-19_NL	RWS Zeeland	1	MB
2019-03-18	VK	NL	Nederland(Nieuwe publicatie)	RWS CIV	102	MB
2019-04-23	VK	NL	20190417_U7inland_week16_NL	RWS Zeeland	90	MB
2019-04-29	VK	NL	20190424_U7inland_week17_NL	RWS Zeeland	90	MB
2019-05-03	VK	NL	20190501_U7inland_week18_NL	RWS Zeeland	90	MB
2019-05-08	VK	NL	20190507_U7Inland_Week19_NL	RWS Zeeland	90	MB
2019-05-08	VK	DE	Berlin-Spandauer-Schiffahrtskanal	WSV ELWIS	300	kB
2019-05-08	VK	DE	Datteln-Hamm-Kanal	WSV ELWIS	845	kB
2019-05-08	VK	DE	Dortmund-Ems-Kanal	WSV ELWIS	2,9	MB
2019-05-08	VK	DE	Elbe	WSV ELWIS	15	MB
2019-05-08	VK	DE	Elbe-Havel-Kanal	WSV ELWIS	800	kB
2019-05-08	VK	DE	Elbe-Lübeck-Kanal	WSV ELWIS	960	kB
2019-05-08	VK	DE	Havelkanal	WSV ELWIS	360	kB
2019-05-08	VK	DE	Havel-Oder-Wasserstrasse	WSV ELWIS	2,5	MB
2019-05-08	VK	DE	Küstenkanal	WSV ELWIS	700	kB
2019-05-08	VK	DE	Oder	WSV ELWIS	2,1	MB
2019-05-08	VK	DE	Rhein	WSV ELWIS	11	MB
2019-05-08	VK	DE	Rhein-Herne-Kanal	WSV ELWIS	740	kB
2019-05-08	VK	DE	Ruhr	WSV ELWIS	390	kB
2019-05-08	VK	DE	Spree-Oder-Wasserstrasse	WSV ELWIS	670	kB
2019-05-08	VK	DE	Teltowkanal	WSV ELWIS	760	kB
2019-05-08	VK	DE	Untere-Havel-Wasserstrasse_70_155	WSV ELWIS	1,95	MB
2019-05-08	VK	DE	Untere-Havel-Wasserstrasse_0-69	WSV ELWIS	3,0	MB
2019-05-08	VK	DE	Wesel-Datteln-Kanal	WSV ELWIS	750	kB
2019-05-08	VK	DE	Weser	WSV ELWIS	1,75	MB
2019-05-16	VK	NL	20190515_U7Inland_Week20_NL	RWS Zeeland	41	MB
2019-05-16	VK	NL	20190515_U7Inland_Week20_1 Cel4	RWS Zeeland	2	MB
2019-05-21	VK	AT	2W7D_Edition_13	DORIS	42	MB

2019-05-22	VK	NL	20190522_U7Inland_Week_21_NL	RWS Zeeland	91	MB
2019-05-22	VK	NL	20190515_U7Inland_Week20_1 Cel4	RWS Zeeland	2	MB
2019-06-03	VK	NL	20190529_U7Inland_Week22_NL	RWS Zeeland	91	MB
2019-06-04	VK	NL	20190604_U7Inland_Week23_NL	RWS Zeeland	91	MB
2019-06-05	VK	NL	20190604_U7Inland_Week23_1 Cel	RWS Zeeland	1	MB
2019-06-20	VK	NL	20190619_U7Inland_Week25_NL	RWS Zeeland	91	MB
2019-06-21	VK	CZ	Vlatava_Labe	Lavdis	20	MB
2019-06-26	VK	NL	20190626_U7Inland_Week26_NL	RWS Zeeland	91	MB
2019-07-04	VK	NL	Nederland (nieuwe publicatie) met kaart 2019-07-01	RWS CIV	39	MB
2019-07-05	SB	NL	20190702_U7Inland_Reissue_NL	RWS Zeeland	91	MB
2019-07-10	VK	NL	20190710_U7Inland_Week28_NL	RWS Zeeland	91	MB
2019-07-12	VK	DE	Saar_2019_06_11	WSV ELWIS	3,5	MB
2019-07-12	VK	DE	Oder_2019_01_21	WSV ELWIS	7,7	MB
2019-07-12	VK	DE	Saale_2019_05_16	WSV ELWIS	5,5	MB
2019-07-12	VK	DE	Ruhr_2019_06_27	WSV ELWIS	1,4	MB
2019-07-12	VK	DE	Rhein-Herne-Kanal_2019-06-27	WSV ELWIS	2,3	MB
2019-07-12	VK	DE	Rhein_2019-06-27	WSV ELWIS	37,5	MB
2019-07-12	VK	DE	Mosel_2019-06-06	WSV ELWIS	8	MB
2019-07-12	VK	DE	Westoder_2016-06-24	WSV ELWIS	300	kB
2019-07-12	VK	DE	Dormund-Ems-Kanal_2019-06-27	WSV ELWIS	9,3	MB
2019-07-12	VK	DE	Elbe_2019_05_16	WSV ELWIS	51	MB
2019-07-12	VK	DE	Elbe-Havel-Kanal_2019_05_15	WSV ELWIS	3,3	MB
2019-07-12	VK	DE	Mosel_2019-06-06	WSV ELWIS	8	MB
2019-07-22	VK	NL	Nederland (nieuwe publicatie) met kaart 2019-07-18	RWS CIV	39	MB
2019-07-22	VK	NL	20190717_U7Inland_Week29_NL	RWS Zeeland	91	MB
2019-07-25	VK	NL	20190724_U7Inland_Week30_NL	RWS Zeeland	91	MB
2019-08-02	VK	NL	20190731_U7Inland_Week31_NL	RWS Zeeland	93	MB
2019-08-08	VK	NL	Nederland (nieuwe publicatie) met kaart 2019-08-07	RWS CIV	43	MB
2019-08-08	VK	NL	Nederland (nog te vervangen) met kaart 2019-08-07	RWS CIV	6	MB
2019-08-14	VK	NL	20190813_U7Inland_Week33_NL	RWS Zeeland	93	MB
2019-08-22	VK	NL	20190821_U7Inland_Week34_NL	RWS Zeeland	93	MB
2019-08-29	VK	NL	20190827_U7Inland_Week35_NL	RWS Zeeland	93	MB
2019-09-11	VK	NL	20190910_U7Inland_Week37_NL	RWS Zeeland	93	MB
2019-09-25	VK	NL	20190925_U7Inland_week39_NL	RWS Zeeland	93	MB
2019-10-02	VK	CH	ENC_Hochrhein_Update_2019	Lavdis	5	MB
2019-10-02	VK	NL	20191002_U7Inland_Reissue_NL	RWS Zeeland	93	MB
2019-10-02	VK	RO	Galati_Lower_Danube_RA	Danube FIS Portal	44	MB
2019-10-17	VK	AT	2W_Update_20191010	DORIS	10	MB
2019-10-17	VK	NL	20191010_U7Inland_Week 41_NL	RWS Zeeland	41	MB
2019-10-17	VK	DE	Datteln-Hamm-Kanal_2019-09-18	WSV ELWIS	846	kB
2019-10-17	VK	DE	Dortmund-Ems-Kanal_2019-09-18	WSV ELWIS	2,9	MB
2019-10-17	VK	DE	Elbe_2019-09-30	WSV ELWIS	15	MB
2019-10-17	VK	DE	Elbe_Seitenkanal_2019-09-30	WSV ELWIS	885	kB

2019-10-17	VK	DE	Küstenkanal_2019-09-18	WSV ELWIS	698	kB
2019-10-17	VK	DE	Rhein-Herne-Kanal_2019-09-18	WSV ELWIS	740	kB
2019-10-17	VK	DE	Saale_2019-09-30	WSV ELWIS	1,76	MB
2019-10-17	VK	DE	Saar_2019-09-25	WSV ELWIS	1,72	MB
2019-10-17	VK	DE	Untere-Havelwasserstraße_70-155_2019-10-02	WSV ELWIS	3,06	MB
2019-10-17	VK	DE	Untere-Havelwasserstraße_0-69_2019-10-02	WSV ELWIS	1,95	MB
2019-10-17	VK	DE	Wesel-Datteln-Kanal_2019-09-18	WSV ELWIS	753	kB
2019-10-23	VK	SK	Dunai_km_1709_km_1872_DK	Danube FIS Portal	107	MB
2019-10-23	VK	NL	20191018_U7Inland_Week 42_NL	RWS Zeeland	41	MB
2019-10-23	VK	HU	Duna_km_1433_km_1811	Danube FIS Portal	10	MB
2019-10-23	VK	HU	Szduna_km_0_km_30	Danube FIS Portal	152	kB
2019-10-29	VK	RS	Danube_2P7D1267	Danube FIS Portal	711	kB
2019-11-01	VK	NL	20191030_U7Inland_Week 44_NL	RWS Zeeland	41	MB
2019-11-06	VK	NL	20191106_U7Inland_Week 45_NL	RWS Zeeland	41	MB
2019-11-15	VK	NL	20191113_U7Inland_Week 46_NL	RWS Zeeland	41	MB
2019-11-21	VK	NL	20191121_U7Inland_Week 47_NL	RWS Zeeland	40	MB
2019-11-22	SB	NL	Rotterdam 2019-11-21	Havenbedrijf Rotterdam	38	MB
2019-11-28	VK	NL	20191127_U7Inland_Week 48_NL	RWS Zeeland	40	MB
2019-11-28	VK	AT	2W7D_Edition_15	DORIS	6,3	MB
2019-11-28	VK	AT	2WBD_Edition_2	DORIS	36,3	MB
2019-11-28	VK	RO	14112019_cdmn-pamn_0	Danube FIS Portal	5,6	MB
2019-11-28	VK	RO	20191015-macin_1	Danube FIS Portal	64	kB
2019-11-28	VK	RO	20191015-mm0-mm47	Danube FIS Portal	430	kB
2019-11-28	VK	RO	20191015-mm47-km175_0	Danube FIS Portal	163	kB
2019-11-28	VK	RO	20191004-km175-km297_1	Danube FIS Portal	240	kB
2019-11-28	VK	RO	20191114_km297-km375	Danube FIS Portal	6,4	MB
2019-11-28	VK	RO	23102019_km610_km845	Danube FIS Portal	6,9	MB
2019-11-28	VK	RO	23102019_km845_km1075	Danube FIS Portal	390	kB
2019-11-28	VK	BG	BG_IENC_2.3_20.09.2019	Danube FIS Portal	510	kB
2019-12-20	VK	NL	20191218_U7Inland_Week 51_NL	RWS Zeeland	41	MB
2020-01-14	VK	NL	20200110_U7_Inland Week 2_NL	RWS Zeeland	41	MB
2020-01-14	VK	DE	Berlin-Spandauer-Schiffahrtskanal_2019-12-18	WSV ELWIS	302	kB
2020-01-14	VK	DE	Dortmund-Ems-Kanal_2019-12-18	WSV ELWIS	2,9	MB
2020-01-14	VK	DE	Elbe_2020-01-06	WSV ELWIS	15	MB
2020-01-14	VK	DE	Elbe-Luebeck-Kanal_2019-12-09	WSV ELWIS	964	kB
2020-01-14	VK	DE	Havelkanal_2019-12-10	WSV ELWIS	385	kB
2020-01-14	VK	DE	Kanaltrave_2019-12-09	WSV ELWIS	164	kB
2020-01-14	VK	DE	Main_2019-11-27	WSV ELWIS	12	MB
2020-01-14	VK	DE	Main-Donau-Kanal_2019-10-28	WSV ELWIS	9,8	MB
2020-01-14	VK	DE	Rhein_2019-12-18	WSV ELWIS	11	MB
2020-01-14	VK	DE	Rhein-Herne-Kanal_2019-12-18	WSV ELWIS	731	kB
2020-01-14	VK	DE	Spree-Oder-Wasserstrasse_2020-01-08	WSV ELWIS	680	kB
2020-01-14	VK	DE	Teltowkanal_2020-01-06	WSV ELWIS	756	kB

2020-01-23	VK	NL	20200110_U7_Inland Week 4_NL	RWS Zeeland	93	MB
2020-01-30	VK	NL	20200129_U7_Inland Week 5_NL	RWS Zeeland	93	MB
2020-02-06	VK	BE	Vlaanderen_ris_25_11_2019	VisuRIS	230	MB
2020-02-06	VK	NL	20200206_U7_Inland Week 6_NL	RWS Zeeland	93	MB
2020-02-12	VK	NL	20200211_U7_Inland_Week 7_NL	RWS Zeeland	93	MB
2020-02-13	VK	AT	2W_Update_20200128	DORIS	5,1	MB
2020-02-14	VK	NL	Nederland (nieuwe publicatie) met kaart 2020-02-12	RWS CIV	112	MB
2020-02-18	VK	NL	20200218_U7_Inland_Week 8_NL	RWS Zeeland	93	MB
2020-02-25	VK	NL	20200225_U7_Inland_Week 9_NL	RWS Zeeland	93	MB
2020-03-04	VK	NL	20200303_U7_Inland_Week 10_NL	RWS Zeeland	93	MB
2020-03-10	VK	AT	2W_Update_20200302	DORIS	10	MB
2020-03-12	VK	NL	20200310_U7_Inland_Week 11_NL	RWS Zeeland	93	MB
2020-03-20	VK	NL	20200318_U7_inland_Week 12_NL	RWS Zeeland	93	MB
2020-03-20	VK	BE	Boven_Schelde_Belgie_oud_2019	VisuRIS	860	kB
2020-03-24	VK	NL	20200324_U7_Inland_Week 13_NL	RWS Zeeland	93	MB
2020-04-02	VK	NL	20200324_U7_Inland_Week 14_NL	RWS Zeeland	93	MB
2020-04-09	VK	NL	20200324_U7_Inland_Week 15_NL	RWS Zeeland	93	MB
2020-04-09	VK	DE	Berlin-Spandauer-Schiffahrtskanal_2020-03-31	WSV ELWIS	1,35	MB
2020-04-09	VK	DE	Elbe_2020-03-31	WSV ELWIS	52,5	MB
2020-04-09	VK	DE	Elbe-Seitenkanal_2020-03-02	WSV ELWIS	2,4	MB
2020-04-09	VK	DE	Havel-Oder-Wasserstrasse_2020-03-31	WSV ELWIS	10,5	MB
2020-04-09	VK	DE	Main_2020-02-26	WSV ELWIS	27,7	MB
2020-04-09	VK	DE	Mittellandkanal_2020-01-13	WSV ELWIS	7,45	MB
2020-04-09	VK	DE	Spree-Oder-Wasserstrasse_2020-03-31	WSV ELWIS	3,14	MB
2020-04-15	VK	NL	20200324_U7_Inland_Week 16_NL	RWS Zeeland	93	MB
2020-04-16	VK	AT	biENC 2W_Update_20200406	DORIS	8,6	MB
2020-04-16	VK	FR	ENC_ROOT_SEINE_AVAL_ED1_MAJ1	VNF	2	MB
2020-04-30	VK	NL	20200429_U7_Inland_Week 18_NL	RWS Zeeland	93	MB
2020-04-30	VK	AT	2W_Update_20200427	DORIS	1,9	MB
2020-05-07	VK	NL	20200507_U7_Inland_Week 19_NL	RWS Zeeland	93	MB
2020-05-12	VK	BG	BG_IENC_2.3_07.05.2020	Danube FIS Portal	1,76	MB
2020-05-12	VK	RO	20200205_Bala_Borcea	Danube FIS Portal	820	kB
2020-05-12	VK	RO	14112019_CDMN-PAMN	Danube FIS Portal	22,6	MB
2020-05-12	VK	RO	20200403-mm47-km175	Danube FIS Portal	612	kB
2020-05-12	VK	RO	20200403-mm0-mm47	Danube FIS Portal	1,44	MB
2020-05-12	VK	RO	20200317_km610_km845	Danube FIS Portal	16	MB
2020-05-12	VK	RO	20191218-km175-km297	Danube FIS Portal	948	kB
2020-05-12	VK	RO	10042020_km375_km297	Danube FIS Portal	16,8	MB
2020-05-12	VK	RO	06042020_km 845_km 1075	Danube FIS Portal	1,16	MB
2020-05-20	VK	NL	20200520_U7_Inland_Week 21_NL	RWS Zeeland	93	MB
2020-05-26	VK	PL	ienc_05022020	RIS-ODER	11,8	MB
2020-05-27	VK	NL	20200520_U7_Inland_Week 22_NL	RWS Zeeland	93	MB
2020-06-10	VK	NL	20200609_U7_Inland_Week 24_NL	RWS Zeeland	93	MB
2020-06-17	VK	NL	20200617_U7_Inland_Week 25_NL	RWS Zeeland	93	MB

2020-06-19	VK	AT	2W_Update_20200608	DORIS	4	MB
2020-06-25	VK	NL	20200623_U7_Inland_Week 26_NL	RWS Zeeland	93	MB
2020-07-02	VK	AT	2W_Update_20200629	DORIS	4,81	MB
2020-07-02	VK	NL	20200630_U7_Inland Zeeland_Reissue_NL	RWS Zeeland	92	MB
2020-07-02	VK	RS	IENC_2P7D_edition03_20191231	Danube FIS Portal	24,7	MB
2020-07-02	VK	RS	IENC_2P7SA_edition03_20191220	Danube FIS Portal	10,1	MB
2020-07-02	VK	RS	IENC_2P7TI_edition03_20191222	Danube FIS Portal	10,4	MB
2020-07-02	VK	RO	0200520-km175-km297	Danube FIS Portal	876	kB
2020-07-02	VK	RO	20200615_Km610 - Km845	Danube FIS Portal	16,7	MB
2020-07-02	VK	RO	14052020_km845 - km1075	Danube FIS Portal	1,01	MB
2020-07-02	VK	HU	IENC_2_3_ED6_17122019	Danube FIS Portal	26,5	MB
2020-07-02	VK	BG	BG_IENC_2.3_16.06.2020	Danube FIS Portal	1,65	MB
2020-07-08	VK	NL	20200707_U7_Inland_week 28_NL	RWS Zeeland	93	MB
2020-07-08	VK	DE	Wesel-Datteln-Kanal_2020-06-23	WSV ELWIS	2,3	MB
2020-07-08	VK	DE	Teltowkanal_2020-06-17	WSV ELWIS	3,3	MB
2020-07-08	VK	DE	Spree-Oder-Wasserstrasse_2020-05-05	WSV ELWIS	3,2	MB
2020-07-08	VK	DE	Saale_2020-06-15	WSV ELWIS	6,5	MB
2020-07-08	VK	DE	Ruhr_2020-06-23	WSV ELWIS	1,25	MB
2020-07-08	VK	DE	Rhein-Herne-Kanal_2020-06-23	WSV ELWIS	2,2	MB
2020-07-08	VK	DE	Rhein_2020-06-24	WSV ELWIS	36,5	MB
2020-07-08	VK	DE	Neckar_2020-06-22	WSV ELWIS	16,5	MB
2020-07-08	VK	DE	Mosel_2020-06-25	WSV ELWIS	8,1	MB
2020-07-08	VK	DE	Küstenkanal_2020-06-23	WSV ELWIS	2,1	MB
2020-07-08	VK	DE	Elbe-Havel-Kanal_2020-06-19	WSV ELWIS	2,8	MB
2020-07-08	VK	DE	Elbe_2020-06-18	WSV ELWIS	58,5	MB
2020-07-08	VK	DE	Dortmund-Ems-Kanal_2020-06-23	WSV ELWIS	9,3	MB
2020-07-08	VK	DE	Donau_2020-04-23	WSV ELWIS	13,5	MB
2020-07-08	VK	DE	Datteln-Hamm-Kanal_2020-06-23	WSV ELWIS	2,1	MB
2020-07-08	VK	DE	Berlin-Spandauer-Schiffahrtskanal_2020-05-05	WSV ELWIS	1,3	MB
2020-07-08	VK	BE	Estuaire_Vaart_Noordzee_02-06-2020	VisuRIS	13,2	MB
2020-07-08	VK	BE	Kanaal_Nieuwpoort-Duinkerke_02-06-2020	VisuRIS	1,3	MB
2020-07-15	VK	NL	20200715_U7_Inland_week 29_NL	RWS Zeeland	93	MB
2020-07-23	VK	NL	20200722_U7_Inland_week 30_NL	RWS Zeeland	93	MB
2020-07-29	VK	NL	20200729_U7_Inland_week 31_NL	RWS Zeeland	93	MB
2020-07-29	VK	RO	29072020_km 845_km 1075	Danube FIS Portal	1	MB
2020-07-29	VK	RO	29072020_km 610_km 845	Danube FIS Portal	16,7	MB
2020-07-31	VK	NL	20200729_U7_Inland_week 32_NL	RWS Zeeland	92	MB
2020-07-31	VK	NL	Nederland (nieuwe publicatie) met kaart 2020-07-30	RWS CIV	120	MB
2020-07-31	VK	NL	Nederland (nog te vervangen) met kaart 2020-07-30	RWS CIV	13	MB
2020-08-07	VK	NL	20200804_U7_Inland_week 33_NL	RWS Zeeland	92	MB
2020-08-26	VK	NL	20200825_U7_Inland_week 35_NL	RWS Zeeland	91	MB
2020-08-26	VK	AT	2W_Update_20200730	DORIS	15,6	MB
2020-09-04	VK	NL	20200901_U7Inland_week 36_NL	RWS Zeeland	91	MB

2020-09-04	VK	RS	IENC_2P7D_edition03_20200904	Danube FIS Portal	24,8	MB
2020-09-09	VK	NL	20200908_U7Inland_week 37_NL	RWS Zeeland	91	MB
2020-09-09	VK	CZ	23_07_2020_Vlatava_Elbe	Lavdis	7	MB
2020-09-09	VK	CZ	23_07_2020_Elbe_Bathemetry	Lavdis	8	MB
2020-09-15	VK	NL	20200915_U7Inland_week 38_NL	RWS Zeeland	91	MB
2020-09-24	VK	NL	20200922_U7Inland_Week 39_NL	RWS Zeeland	91	MB
2020-09-28	VK	AT	2W_Update_20200928	DORIS	1,9	MB
2020-09-30	VK	RO	20200903_mm0-mm47	Danube FIS Portal	1,4	MB
2020-09-30	VK	RO	20200918-mm47-km175	Danube FIS Portal	502	kB
2020-09-30	VK	RO	20200903-km175-km297	Danube FIS Portal	876	kb
2020-09-30	VK	NL	20200930_U7_Inland Zeeland_Reissue_NL	RWS Zeeland	91	MB
2020-10-07	VK	NL	20201006_U7_Inland_week 41_NL	RWS Zeeland	91	MB
2020-10-07	VK	DE	Datteln-Hamm-Kanal_2020-09-29	WSV ELWIS	2,1	MB
2020-10-07	VK	DE	Dortmund-Ems-Kanal_2020-09-29	WSV ELWIS	9,3	MB
2020-10-07	VK	DE	Elbe_2020_09_29	WSV ELWIS	56,5	MB
2020-10-07	VK	DE	Elbe-Luebeck-Kanal_2020-09-25	WSV ELWIS	3,4	MB
2020-10-07	VK	DE	Havelkanal_2020-08-25	WSV ELWIS	1,5	MB
2020-10-07	VK	DE	Havel_Oder_Wasserstrasse_2020_09	WSV ELWIS	12,3	MB
2020-10-07	VK	DE	Oder_2020-09-25	WSV ELWIS	7,8	MB
2020-10-07	VK	DE	Rhein-Herne-Kanal_2020-09-29	WSV ELWIS	2,1	MB
2020-10-07	VK	DE	Ruhr_2020-09-29	WSV ELWIS	1,2	MB
2020-10-07	VK	DE	Spree-Oder-Wasserstrasse_2020-09-23	WSV ELWIS	10	MB
2020-10-07	VK	DE	Wesel-Datteln-Kanal_2020-09-29	WSV ELWIS	2,3	MB
2020-10-07	VK	DE	Westoder_24-09-2020	WSV ELWIS	780	kB
2020-10-07	VK	DE	Peene_2020-09-28	WSV ELWIS	2,8	MB
2020-10-14	VK	NL	20201014_U7Inland_week 42_NL	RWS Zeeland	90	MB
2020-10-21	VK	NL	20201020_U7Inland_week 43_NL	RWS Zeeland	90	MB
2020-10-23	VK	BE	ENC_ROOT_2020-06	Port Brussels	13,8	MB
2020-10-28	VK	NL	20201026_U7Inland_week 44_NL	RWS Zeeland	90	MB
2020-10-28	VK	RS	IENC_2P7SA_edition03_20200910	Danube FIS Portal	11,4	MB
2020-10-28	VK	RO	08102020_km_610_km_845	Danube FIS Portal	2,33	MB
2020-10-28	VK	BG	BG_IENC_2.3_23.10.2020	Danube FIS Portal	1,65	MB
2020-11-03	VK	NL	20201103_U7Inland_week 45_NL	RWS Zeeland	90	MB
2020-11-13	VK	NL	20201110_U7Inland_week 46_NL	RWS Zeeland	90	MB
2020-11-18	VK	NL	20201117_U7Inland_week 47_NL	RWS Zeeland	90	MB
2020-11-18	VK	AT	2W_Update_20201029	DORIS	683	kB
2020-11-18	VK	PL	ienc_05022020	RIS-ODER	11,8	MB
2020-11-26	VK	NL	20201123_U7Inland_week 48_NL	RWS Zeeland	90	MB
2020-11-27	VK	NL	Nederland (Excl. Zeeland) met kaart 2020-11-26	RWS CIV	49	MB
2020-12-01	VK	NL	20201201_U7Inland_week 49_NL	RWS Zeeland	91	MB
2020-12-08	VK	NL	20201208_U7Inland_week 50_NL	RWS Zeeland	91	MB
2020-12-16	VK	NL	20201208_U7Inland_week 51_NL	RWS Zeeland	91	MB
2020-12-22	VK	NL	20201222_U7Inland_week 52_NL	RWS Zeeland	91	MB
2020-12-22	VK	AT	2W_Update_20201218	DORIS	570	kB

2021-01-06	VK	NL	20210105_U7_Inland_week 01_NL	RWS Zeeland	91	MB
2021-01-07	VK	NL	Rotterdam 2021-07-01	Havenbedrijf Rotterdam	27,8	MB
2021-01-12	VK	NL	20210112_U7Inland_ week 02_NL	RWS Zeeland	91	MB
2021-01-19	VK	NL	20210119_U7Inland_ week 03_NL	RWS Zeeland	91	MB
2021-01-19	VK	CZ	20201209_Labe-společný hranicní úsek	Danube FIS Portal	173	kB
2021-01-19	VK	BG	BG_IENC_2.3_07.01.2021	Danube FIS Portal	1,66	MB
2021-01-19	VK	RO	20201217_Sectorul_Dunare	Danube FIS Portal	5	MB
2021-01-19	VK	RS	IENC_2P7D_edition03_20201230	Danube FIS Portal	38,4	MB
2021-01-26	VK	NL	20210126_U7Inland_week_04_NL	RWS Zeeland	91	MB
2021-02-02	VK	NL	20210202_U7Inland_week_05_NL	RWS Zeeland	91	MB
2021-02-03	VK	DE	Datteln-Hamm-Kanal_2020-12-22	WSV ELWIS	2,12	MB
2021-02-03	VK	DE	Donau_2020-12-10	WSV ELWIS	11,8	MB
2021-02-03	VK	DE	Dortmund-Ems-Kanal_2020-12-22	WSV ELWIS	9,51	MB
2021-02-03	VK	DE	Elbe_2020-12-17	WSV ELWIS	56,1	MB
2021-02-03	VK	DE	Elbe-Luebeck-Kanal_2020-12-07	WSV ELWIS	3,34	MB
2021-02-03	VK	DE	Havel-Oder-Wasserstraße_2020-12-08	WSV ELWIS	12,2	MB
2021-02-03	VK	DE	Havelkanal_2020-12-04	WSV ELWIS	1,48	MB
2021-02-03	VK	DE	Kanaltrave_2020-12-07	WSV ELWIS	598	MB
2021-02-03	VK	DE	Main_2020-12-21	WSV ELWIS	25,6	MB
2021-02-03	VK	DE	Main-Donau-Kanal_2020-12-19	WSV ELWIS	13,8	MB
2021-02-03	VK	DE	Oder_2020-12-01	WSV ELWIS	7,69	MB
2021-02-03	VK	DE	Potsdamer Havel_2020-12-03	WSV ELWIS	8,14	MB
2021-02-03	VK	DE	Saale_2020-12-11	WSV ELWIS	6,56	MB
2021-02-03	VK	DE	Untere-Havel-Wasserstraße_70-155_2020-12-07	WSV ELWIS	6,93	MB
2021-02-03	VK	DE	Untere-Havel-Wasserstraße_0-69_2020-11-26	WSV ELWIS	12,6	MB
2021-02-03	VK	DE	Wesel-Datteln-Kanal_2020-12-22	WSV ELWIS	2,45	MB
2021-02-03	VK	DE	Westoder_2020-12-01	WSV ELWIS	766	kB
2021-02-10	VK	NL	20210209_U7Inland_ week 06_NL	RWS Zeeland	91	MB
2021-02-12	VK	NL	Nederland (excl Zeeland) 2021-02-11	RWS CIV	134	MB
2021-02-12	VK	BE	Albert-II-dok 23092020	VisuRIS	3,73	MB
2021-02-12	VK	BE	Haven-van-Antwerpen 10122020	VisuRIS	5,5	MB
2021-02-12	VK	AT	2W-Update_20210129	DORIS	6,34	MB
2021-02-12	VK	RS	Tisza_RS_2021_E04	Danube FIS Portal	9,78	MB
2021-02-12	VK	BG	BG_IENC_2.3_12.02.2021	Danube FIS Portal	1,66	MB
2021-02-16	VK	NL	20210216_U7Inland_ week 07_NL	RWS Zeeland	91	MB
2021-02-23	VK	NL	20210223_U7Inland_ week 08_NL	RWS Zeeland	91	MB
2021-02-26	VK	NL	Nederland (excl Zeeland) met kaart 2021-02-26	RWS CIV	49	MB
2021-03-04	VK	NL	20210304_U7Inland_ week 09_NL	RWS Zeeland	90	MB
2021-03-08	VK	AT	2W_Update_20210305	DORIS	3,9	MB
2021-03-08	VK	BE	Zuid-Willemsvaart 03032021	VisuRIS	6	MB
2021-03-10	VK	BE	Zeekanaal Brussel-Schelde 03032021	VisuRIS	18,8	MB
2021-03-10	VK	BE	Spierekanaal 03032021	VisuRIS	83	kB
2021-03-10	VK	BE	Schelde-Rijnkanaal 03032021	VisuRIS	292	kb

2021-03-10	VK	BE	Rupel 03032021	VisuRIS	1,7	MB
2021-03-10	VK	BE	Ringvaart Gent 03032021	VisuRIS	5,4	MB
2021-03-10	VK	BE	Moervaart 03032021	VisuRIS	2	MB
2021-03-10	VK	BE	Lokanaal 03032021	VisuRIS	1,4	MB
2021-03-10	VK	BE	Leie 03032021	VisuRIS	12	MB
2021-03-10	VK	BE	Kanaal Roeselare-Leie 03032021	VisuRIS	4,6	MB
2021-03-10	VK	BE	Netekanaal 03032021	VisuRIS	2,9	MB
2021-03-10	VK	BE	Kanaal naar Charleroi 03032021	VisuRIS	5,7	MB
2021-03-10	VK	BE	Kanaal Nieuwpoort Duinkerke 03032021	VisuRIS	2	MB
2021-03-10	VK	BE	Kanaal Plassendale Nieuwpoort 03032021	VisuRIS	4,4	MB
2021-03-10	VK	BE	Kanaal Leuven-Dijle 03032021	VisuRIS	4,7	MB
2021-03-10	VK	BE	Kanaal Ieper-IJzer 03032021	VisuRIS	1,4	MB
2021-03-10	VK	BE	Kanaal Gent-Oostende 03032021	VisuRIS	15,3	MB
2021-03-10	VK	BE	Kanaal naar Beverlo 03032021	VisuRIS	1,8	MB
2021-03-10	VK	BE	IJzer 03032021	VisuRIS	3	MB
2021-03-10	VK	BE	Kanaal Kortrijk-Bossuit 03032021	VisuRIS	3,3	MB
2021-03-10	VK	BE	Kanaal Turnhout-Dessel-Schoten 03032021	VisuRIS	9,5	MB
2021-03-10	VK	BE	Kanaal Dessel-Kwaadmechelen 03032021	VisuRIS	1,1	MB
2021-03-10	VK	BE	Kanaal Bocholt-Herentals 03032021	VisuRIS	8	MB
2021-03-10	VK	BE	Dender 03032021	VisuRIS	12,2	MB
2021-03-10	VK	BE	Boven-Zeeschelde 03032021	VisuRIS	8,5	MB
2021-03-10	VK	BE	Boven-Schelde 03032021	VisuRIS	5,6	MB
2021-03-10	VK	BE	Beneden-Zeeschelde 03032021	VisuRIS	8	MB
2021-03-10	VK	BE	Beneden-Nete 03032021	VisuRIS	2,2	MB
2021-03-10	VK	BE	Boven-Durme 03032021	VisuRIS	2,3	MB
2021-03-10	VK	BE	Beneden-Dijle 03032021	VisuRIS	6,4	MB
2021-03-10	VK	BE	Afleidingskanaal Leie 03032021	VisuRIS	2,7	MB
2021-03-10	VK	BE	Albertkanaal 03032021	VisuRIS	12	MB
2021-03-10	VK	NL	20210309_U7Inland_week 10_NL	RWS Zeeland	90	MB
2021-03-16	VK	NL	20210316_U7Inland_week 11_NL	RWS Zeeland	90	MB
2021-03-23	VK	NL	20210323_U7Inland_week 12_NL	RWS Zeeland	90	MB
2021-03-23	VK	BG	BG_IENC_2.3_20.03.2021	Danube FIS Portal	1,16	MB
2021-03-31	VK	NL	20210330_U7Inland_week 13_NL	RWS Zeeland	90	MB
2021-04-01	VK	NL	Nederland(excl Zeeland) 2021-03-26	RWS CIV	2	MB
2021-04-06	VK	AT	Donau_Edition_Edition_16_Update_3003 21	DORIS	128	MB
2021-04-08	VK	NL	20210407_U7Inland_week 14_NL	RWS Zeeland	90	MB
2021-04-13	VK	NL	20210413_U7Inland_week 15_NL	RWS Zeeland	90	MB
2021-04-13	VK	RO	01042021_km845_km1075	Danube FIS Portal	1,18	MB
2021-04-14	VK	NL	Nederland(excl Zeeland) 2021-04-13	RWS CIV	7,8	MB
2021-04-20	VK	NL	20210420_U7Inland_week 16_NL	RWS Zeeland	90	MB
2021-04-22	VK	NL	Nederland(excl Zeeland) 2021-04-20	RWS CIV	23,5	MB
2021-05-03	VK	NL	20210426_U7Inland_week 17_NL	RWS Zeeland	90	MB
2021-05-04	VK	NL	20210504_U7Inland_week 18_NL	RWS Zeeland	90	MB
2021-05-06	VK	DE	Datteln-Hamm-Kanal_2021-03-16	WSV ELWIS	2,4	MB

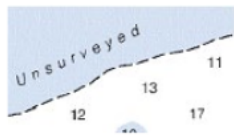
2021-05-06	VK	DE	Dortmund-Ems-Kanal_2021-04-12	WSV ELWIS	13	MB
2021-05-06	VK	DE	Kuestenkanal_2021-03-17	WSV ELWIS	3,3	MB
2021-05-06	VK	DE	Rhein_2021-03-19	WSV ELWIS	40	MB
2021-05-06	VK	DE	Rhein-Herne-Kanal_2021-03-30	WSV ELWIS	3,1	MB
2021-05-06	VK	DE	Ruhr_2021-03-17	WSV ELWIS	2,1	MB
2021-05-06	VK	DE	Saale_2021-03-29	WSV ELWIS	6,5	MB
2021-05-06	VK	DE	Teltowkanal_2021-04-21	WSV ELWIS	3,4	MB
2021-05-06	VK	DE	Untere Havel-WasserstraÙe_0-69_2021-03-31	WSV ELWIS	12,5	MB
2021-05-06	VK	DE	Wesel-Datteln-Kanal_2021-03-17_0_60	WSV ELWIS	3,2	MB
2021-05-11	VK	NL	20210511_U7Inland_week 19_NL	RWS Zeeland	90	MB
2021-05-12	VK	NL	Nederland(excl Zeeland) met kaart 2021-05-12	RWS CIV	11	MB
2021-05-18	VK	NL	20210518_U7Inland_week 20_NL	RWS Zeeland	90	MB
2021-05-21	VK	NL	Nederland(excl Zeeland) met kaart 2021-05-21	RWS CIV	12,4	MB
2021-05-28	VK	NL	Nederland(excl Zeeland) met kaart 2021-05-28	RWS CIV	6	MB
2021-06-01	VK	NL	20210601_U7Inland_week 22_NL	RWS Zeeland	90	MB
2021-06-01	VK	CZ	VL01_Vlatava_2021_05_31_NL	Danube FIS Portal	8,3	MB
2021-06-07	VK	AT	2W_Update_20210429	DORIS	5,3	MB
2021-06-07	VK	BG	BG_IENC_2.3_21.05.2021	Danube FIS Portal	1,7	MB
2021-06-07	VK	HU	HU_IENC_2_3_ED6_19.05.2021	Danube FIS Portal	27	MB
2021-06-07	VK	RO	02062021_Sectorul_Donare	Danube FIS Portal	36	MB
2021-06-11	VK	NL	20210610_U7Inland_week 23_NL	RWS Zeeland	90	MB
2021-06-15	VK	NL	20210615_U7Inland_week 24_NL	RWS Zeeland	90	MB
2021-06-16	VK	BE	IENC_v2.4_prob_2020_11	VisuRIS	13,4	MB
2021-06-22	VK	NL	20210622_U7Inland_week 25_NL	RWS Zeeland	90	MB
2021-07-06	VK	NL	20210705_U7Inland_week 27_NL	RWS Zeeland	90	MB
2021-07-09	VK	NL	Nederland (excl Zeeland) 2021-07-08	RWS CIV	9	MB
2021-07-15	VK	NL	20210714_U7Inland_week 28_NL	RWS Zeeland	90	MB
2021-07-19	VK	BE	Durme_2021_07_01	VisuRIS	800	kB
2021-07-19	VK	BE	Albertkanaal_2021_07_01	VisuRIS	21	MB
2021-07-19	VK	BE	Afleidingskanaal_der_Leie_2021_07_01	VisuRIS	2,7	MB
2021-07-19	VK	BE	Beneden_Dijle_2021_07_01	VisuRIS	6,5	MB
2021-07-19	VK	BE	Boven_Zeeschelde_2021_07_01	VisuRIS	9	MB
2021-07-19	VK	BE	Boven_Schelde_2021_07_01	VisuRIS	5,7	MB
2021-07-19	VK	BE	Dender_2021_07_01	VisuRIS	12,2	MB
2021-07-19	VK	BE	Estuaire Vaart Noordzee_2021_07_01	VisuRIS	13,3	MB
2021-07-19	VK	BE	Kanaal_Bocholt_Herentals_2021_07_01	VisuRIS	8	MB
2021-07-19	VK	BE	Kanaal_Dessel_Kwaadmechelen_2021_07_01	VisuRIS	1,1	MB
2021-07-19	VK	BE	Kanaal_Dessel_Turnhout_Schoten_2021_07_01	VisuRIS	9,5	MB
2021-07-19	VK	BE	Kanaal_Bosuit_Kortrijk_2021_07_01	VisuRIS	3,3	MB
2021-07-19	VK	BE	IJzer_2021_07_01	VisuRIS	2,96	MB
2021-07-19	VK	BE	Kanaal_naar_Beverlo_2021_07_01	VisuRIS	1,8	MB
2021-07-19	VK	BE	Kanaal_Gent_Oostende_2021_07_01	VisuRIS	15	MB

2021-07-19	VK	BE	Kanaal_Ieper_IJzer_2021_07_01	VisuRIS	1,5	MB
2021-07-19	VK	BE	Kanaal_Gent_Terneuzen_2021_07_01	VisuRIS	1	MB
2021-07-19	VK	BE	Kanaal_Leuven_Dijle_2021_07_01	VisuRIS	4,7	MB
2021-07-19	VK	BE	Kanaal_Plassendale_Nieuwpoort_2021_07_01	VisuRIS	6,9	MB
2021-07-19	VK	BE	Kanaal_naar_Charleroi_2021_07_01	VisuRIS	5,7	MB
2021-07-19	VK	BE	Kanaal_Roeselare_Leie_2021_07_01	VisuRIS	4,6	MB
2021-07-19	VK	BE	Leie_2021_07_01	VisuRIS	12	MB
2021-07-19	VK	BE	Lokanaal_2021_07_01	VisuRIS	1,4	MB
2021-07-19	VK	BE	Moervaart_2021_07_01	VisuRIS	2	MB
2021-07-19	VK	BE	Ringvaart_Gent_2021_07_01	VisuRIS	5,4	MB
2021-07-19	VK	BE	Rupel_2021_07_01	VisuRIS	1,7	MB
2021-07-19	VK	BE	Netekanaal_2021_07_01	VisuRIS	2,9	MB
2021-07-19	VK	BE	Spierekanaal_2021_07_01	VisuRIS	84	kB
2021-07-19	VK	BE	Schelde_Rijnverbinding_2021_07_01	VisuRIS	300	kB
2021-07-19	VK	BE	Zeekanaal_Brussel_Schelde_2021_07_01	VisuRIS	18,8	MB
2021-07-19	VK	BE	Zeebrugge_Achterhaven_2021_07_01	VisuRIS	7	MB
2021-07-19	VK	BE	Zeebrugge_Koning_Willem_II_Haven_2021_07_01	VisuRIS	3,7	MB
2021-07-19	VK	BE	Zuidwillemsvaart_2021_07_01	VisuRIS	6	MB
2021-07-19	VK	BE	Boven-Durme_2021_07_01	VisuRIS	2,2	MB
2021-07-20	VK	AT	2W_Update_20210630	DORIS	11	MB
2021-07-20	VK	BG	BG_IENC_2.3_13.07.2021	Danube FIS Portal	1,9	MB
2021-07-20	VK	CZ	CZ_IENC_20.07.2021	Danube FIS Portal	80	MB
2021-07-20	VK	RO	RO_IENC_20.07.2021	Danube FIS Portal	20	MB
2021-07-20	VK	RS	Danube_RS_2020_E03_U05	Danube FIS Portal	1	MB
2021-07-22	VK	NL	20210720_U7Inland_week 29_NL	RWS Zeeland	90	MB
2021-07-27	VK	NL	20210727_U7Inland_week 30_NL	RWS Zeeland	90	MB
2021-08-05	VK	NL	20210804_U7Inland_week 31_NL	RWS Zeeland	90	MB
2021-08-11	VK	NL	20210810_U7Inland_week 32_NL	RWS Zeeland	90	MB
2021-08-18	VK	NL	20210817_U7Inland_week 33_NL	RWS Zeeland	90	MB
2021-08-18	VK	AT	2W_Update_20210730	DORIS	55	kB
2021-08-18	VK	RO	03082021_km297-km375	Danube FIS Portal	10	MB
2021-08-18	VK	RO	11082021_km610_km845	Danube FIS Portal	2,4	MB
2021-08-18	VK	RO	11082021_km845_km1075	Danube FIS Portal	1,2	MB
2021-08-18	VK	RO	03082021_CDMN_PAMN	Danube FIS Portal	17,2	MB
2021-08-18	VK	CZ	VL01_29072021	Danube FIS Portal	7,4	MB
2021-08-18	VK	CZ	EL01_29072021	Danube FIS Portal	1,9	kB
2021-08-18	VK	CZ	EL02_29072021	Danube FIS Portal	500	kB
2021-08-18	VK	BG	BG_IENC_2.3_13082021	Danube FIS Portal	2	MB
2021-08-26	VK	NL	20210824_U7Inland_week 34_NL	RWS Zeeland	90	MB
2021-09-01	VK	NL	20210831_U7Inland_week 35_NL	RWS Zeeland	88	MB
2021-09-01	VK	NL	20210831_U7Inland_week 35_NL	RWS Zeeland	88	MB
2021-09-07	VK	NL	20210907_U7Inland_week 36_NL	RWS Zeeland	88	MB
2021-09-08	VK	FR	16062021_Seine_Aval_ED_2	VNF	7,5	MB
2021-09-08	VK	FR	16062021_Seine_Amont_ED_1	VNF	3,5	MB

2021-09-08	VK	DE	Berlin-Spandauer Schifffahrtskanal 20210624	WSV ELWIS	1,3	MB
2021-09-08	VK	DE	Datteln-Hamm-Kanal 20210622	WSV ELWIS	2,4	MB
2021-09-08	VK	DE	Dortmund-Ems-Kanal 20210622	WSV ELWIS	13,4	MB
2021-09-08	VK	DE	Elbe-Seitenkanal 20210527	WSV ELWIS	2,7	MB
2021-09-08	VK	DE	Landwehrkanal 20210623	WSV ELWIS	1,2	MB
2021-09-08	VK	DE	Mittellandkanal 20210601	WSV ELWIS	9	MB
2021-09-08	VK	DE	Stichkanal Linden 20210518	WSV ELWIS	360	kB
2021-09-08	VK	DE	Stichkanal Osnabrück 20210531	WSV ELWIS	440	kB
2021-09-08	VK	DE	Stichkanal Salzgitter 20210518	WSV ELWIS	490	kB
2021-09-08	VK	DE	Mosel 20210617	WSV ELWIS	9	MB
2021-09-08	VK	DE	Oder 20210615	WSV ELWIS	7,7	MB
2021-09-08	VK	DE	Saar 20210617	WSV ELWIS	6,1	MB
2021-09-08	VK	DE	Spree-Oder-Wasserstraße 20210623	WSV ELWIS	10,3	MB
2021-09-08	VK	DE	Teltowkanal 20210624	WSV ELWIS	3,5	MB
2021-09-08	VK	DE	Wesel-Datteln-Kanal 20210622	WSV ELWIS	3,2	MB
2021-09-08	VK	DE	Weser 20210602	WSV ELWIS	5,6	MB
2021-09-08	VK	RO	01092021_Bala_Borcea	Danube FIS Portal	460	kB
2021-09-08	VK	RO	20210827-mm0-mm47	Danube FIS Portal	1,4	MB
2021-09-08	VK	RO	20210827-mm47-km175	Danube FIS Portal	500	kB
2021-09-08	VK	RO	20210827-km175-km297	Danube FIS Portal	900	kB
2021-09-08	VK	RO	01092021_km297_km375	Danube FIS Portal	9,8	MB
2021-09-08	VK	RO	01092021_km610_km845	Danube FIS Portal	2,5	MB
2021-09-08	VK	RO	01092021_km845_km1075	Danube FIS Portal	1,3	MB
2021-09-14	VK	NL	20210913_U7_Wijzigingen_Oosterschelde	RWS Zeeland	5,6	MB
2021-09-15	VK	NL	20210914_U7_Wijzigingen_Oosterschelde	RWS Zeeland	2,9	MB
2021-09-16	VK	NL	20210915_U7_Wijzigingen_Oosterschelde	RWS Zeeland	7,1	MB
2021-09-16	VK	SK	20210823_Dunai_km_1709-1864_DK_km_0-27	Danube FIS Portal	619	MB
2021-09-16	VK	BG	BG_IENC_2.3_03.09.2021	Danube FIS Portal	1,9	MB
2021-09-16	VK	AT	2W_Edition_31.08.2021	DORIS	114	MB
2021-09-17	VK	NL	20210916_U7_Wijzigingen_Oosterschelde	RWS Zeeland	3,8	MB
2021-09-22	VK	NL	20210921_U7Inland_week 38_NL	RWS Zeeland	88	MB
2021-09-30	VK	NL	20210928_U7Inland_week 39_NL	RWS Zeeland	87	MB
2021-10-07	VK	NL	20211006_U7Inland_week 40_NL	RWS Zeeland	87	MB
2021-10-12	VK	NL	20211012_U7Inland_week 41_NL	RWS Zeeland	87	MB
2021-10-12	VK	BE	Kanaal_Gent_Oostende_2021_07_14	VisuRIS	4	MB
2021-10-12	VK	BE	Kanaal_Gent_Terneuzen_2021_07_13	VisuRIS	860	kB
2021-10-12	VK	BE	Haven_van_Antwerpen_2021_09_14	VisuRIS	8,2	MB
2021-10-12	VK	AT	2W_Update_20210930	DORIS	17,6	MB
2021-10-12	VK	BG	BG_IENC_2.3_30.09.2021	Danube FIS Portal	1,9	MB
2021-10-12	VK	CZ	Vltava_Labe_20.09.2021	Danube FIS Portal	20	MB
2021-10-12	VK	DE	Rhein_Neckar_Lahn_20210804	WSV ELWIS	50	MB
2021-10-12	VK	HU	HU_IENC_2.3_ED07_20210906	Danube FIS Portal	136	MB

2021-10-12	VK	RO	Donau_Salina_20210930	Danube FIS Portal	12,5	MB
2021-10-21	VK	NL	20211020_U7Inland_week 42_NL	RWS Zeeland	88	MB
2021-10-26	VK	NL	20211026_U7Inland_week 43_NL	RWS Zeeland	88	MB
2021-10-28	VK	DE	Spree-Oder-Wasserstraße_2021-09-28	WSV ELWIS	15	MB
2021-10-28	VK	DE	Untere Havel-Wasserstraße_2021-09-28	WSV ELWIS	19	MB

Appendix A4. Relevant parts of the Encoding Guide for Inland ENC

I - Depths		
I.1 Depths in Fairways and Areas		
I.1.9 Unsurveyed Area (C)		
An area for which no bathymetric survey information is available. (S-57standard)		
Graphics	Encoding Instructions	Object Encoding
Chart Symbol  IENC Symbolization 	A) Those areas in the river which cannot be surveyed, for example, due to depths too shallow for surveying boats and hence no depth data is available, shall be coded by UNSARE. This shall only be done for areas below the specific water level to which the depth of the river is referred. For areas above this specific water level, DEPARE - DRVAL2 = 0 shall be used (refer to I.1.6). B) Especially in case parts of the navigable water area are not surveyed but may be deep enough for navigation, DEPARE with QUASOU = 2 (depth unknown) or 8 (value reported (not surveyed)) shall be used in order to show that ships may navigate in these areas as well. This may imply especially for sidearms or private marinas. C) All navigable water bodies shall be covered by either DEPARE, depare, DRGARE or UNSARE (Group 1) objects using one of the options mentioned in I.1.1 to I.1.9.	Object Encoding Object Class = UNSARE(A) (C) QUASOU = (Refer to letter B) (C) SORDAT = [YYYYMMDD] (C) SORIND = (Refer to Section B, General Guidance) Object Encoding Object Class = DEPARE(A) (M) DRVAL1 = ["0"] (M) DRVAL2 = ["Unknown" or [x.x] (metres), e.g. 2.7] (C) QUASOU = (Refer to letter B) (C) SORDAT = [YYYYMMDD] (C) SORIND = (Refer to Section B, General Guidance)