



INTERNATIONAL HYDROGRAPHIC ORGANIZATION
MESO AMERICAN & CARIBBEAN SEA HYDROGRAPHIC
COMMISSION



**MACHC MEIP Maritime Environment Infrastructure Programme
Information Letter to Members - December 2017**

01 December 2017

Dear MACHC Member,

MACHC17 – DEC 2016 Recommendations / Decisions:

During the MACHC17 Meeting in Belem, Brazil the following Recommendations were presented during the MACHC Plenary Session.

MEIP Recommendations

- Continue to populate the viewer but only retain the open viewer
- Retain MEIP WG / MEIP Coordinator under the MACHC Chair
- MICC WG will continue to maintain the Viewer in support of the MEIP
- Find opportunities to raise awareness of the viewer / make more discoverable
- Include IHB Technical Visit Reports and ask OECS nations for their reports to make available geospatially in the viewer
- Monitor usage of MEIP viewer

After the MEIP Presentation the MACHC Chair invited the MACHC Attendees to think about the MEIP questions / recommendations and the issues would be brought to conclusion in a later agenda item. After some time and consideration, the following decisions were made concerning the MEIP:

MEIP Decisions

To approve the way forward as proposed by the MEIP vice-chair, as detailed below:

- The MACHC ENC viewer will be brought under the responsibility of the MICC;
- Only the open (non-password) MACHC ENC viewer will be continued;
- Mr Jim Rogers of NGA is appointed as the new MEIP coordinator, with the main task to act as MACHC focal point for MEIP/ SDI developments in the region;
- MEIP develops as opportunities arise, e.g. as a data layer in other initiatives or as discovery function, hosted on the MACHC website.

MEIP Progress in 2017:

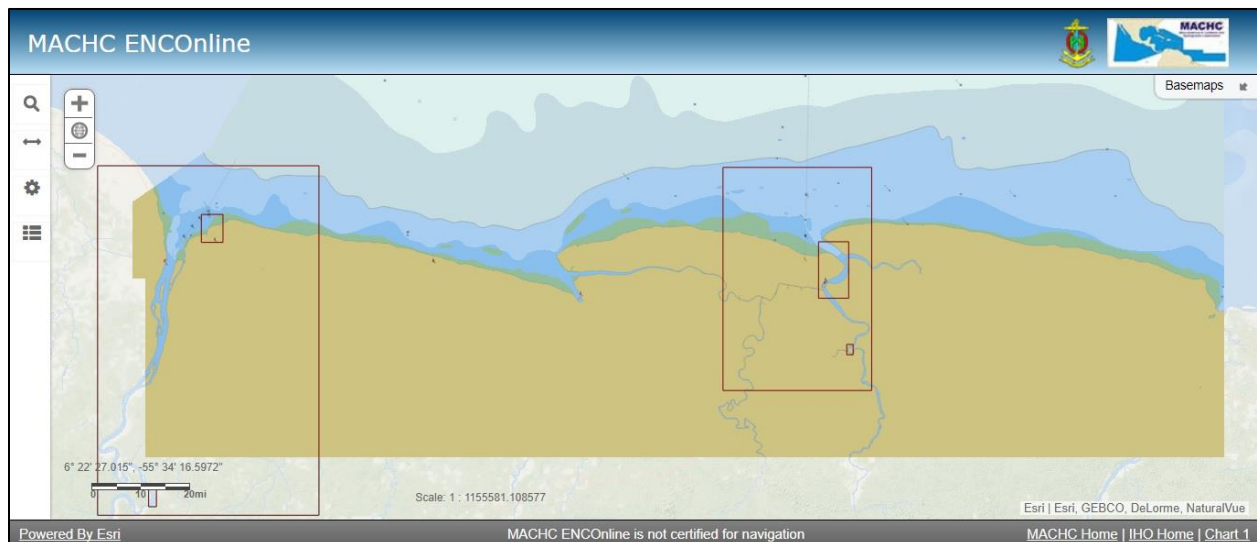
MACHC ENC Online Viewer

Since the MACHC17 Meeting in Belem, Brazil the MACHC ENC Password Protected Viewer has been discontinued. Only the Open version of the MACHC ENC Viewer remains today. The Open version of the Viewer currently contains ENC from the following contributing Member States.

Member States with ENC Data in the Open Viewer:

- Brazil
- Colombia
- Cuba
- Mexico
- Netherlands
- Suriname
- United States
- Venezuela

Suriname has contributed their ENC to the MACHC ENC Online Open Viewer in 2017. This contribution is very much appreciated by the MEIP. The MEIP would like to invite other Member States to contribute their ENC in the future in support of these non-navigational Marine Spatial Data Infrastructure (MSDI) users.



Suriname ENC in the MACHC ENC Online Open Viewer

MACHC MEIP / MSDI Focal Point

During 2017 the MEIPWG has been actively engaged in doing collaboration and research within the larger MSDI community. This research helps the MEIPWG understand what Spatial Data Infrastructure

(SDI) / Marine Spatial Data Infrastructure (MSDI) efforts are already out there in the Region and around the World. Many Member States have their own SDI / MSDI initiatives underway. Additionally, there are other Regional Organizations that have developed SDI / MSDI web portals as well. During the course of the year the MEIPWG has taken a look at some of these websites and gathered the website addresses to be placed on the MACHC MEIP webpage to enable better discoverability by non-navigation users and the Member States. This is not an exhaustive list of SDI / MSDI websites but it is a starting point.

SDI / MSDI Websites:

Brazil - <http://www.inde.gov.br>

Colombia - <http://www.icde.org.co>

El Salvador - <http://www.cnr.gob.sv/geoportal-cnr>

France - <http://data.shom.fr> ; <http://www.geoportail.gouv.fr>

Guatemala - <http://ide.segeplan.gob.gt>

Netherlands - <http://nationaalgeoregister.nl> ; <http://topotijdreis.nl>

Panama - <http://www.ipde.gob.pa>

United Kingdom - <http://www.spatialni.gov.uk> ; <http://www.ordnancesurvey.co.uk> ;

<https://www.gov.uk/government/publications/master-data-register> ; <http://www.oceannet.org/> ;

<http://defra.maps.arcgis.com/apps/webappviewer/index.html?id=3dc94e81a22e41a6ace0bd327af4f346> ; <https://marinescotland.atkinsgeospatial.com/nmpi/>

United States - <http://www.data.gov> ; <http://oceanexplorer.noaa.gov> ;

<http://portal.westcoastoceans.org> ; <http://service.ncddc.noaa.gov/website/EXAtlas/viewer.htm> ;

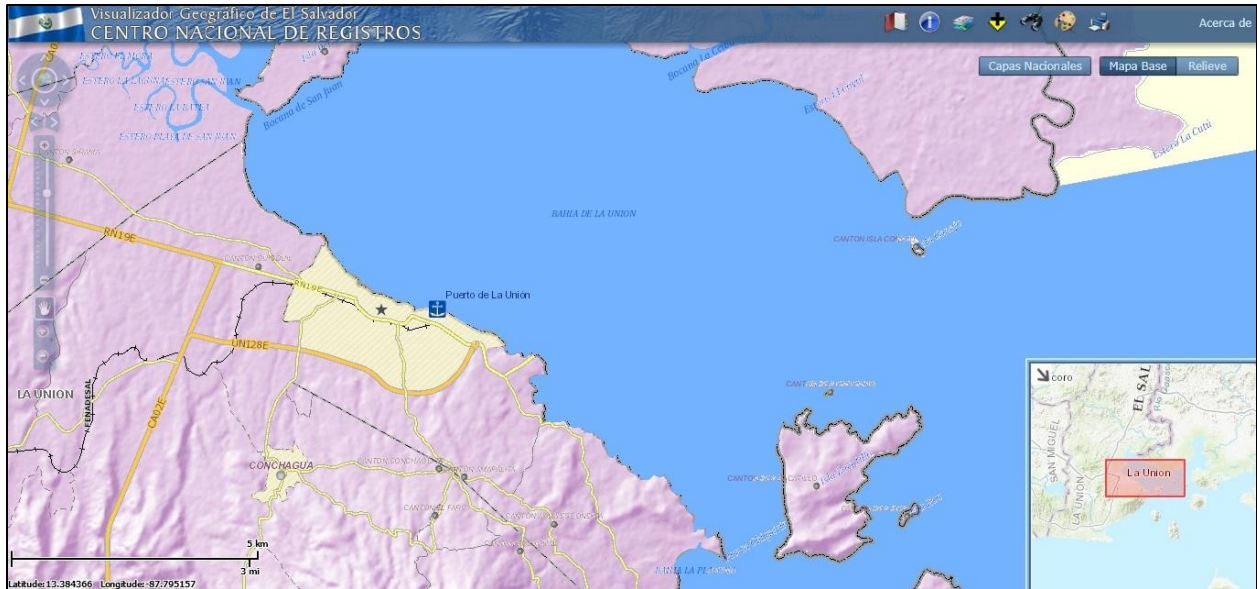
<http://www.restoration.noaa.gov/dwh/storymap> ; <http://marinecadastre.gov/viewers>

Venezuela - <http://igvsb.geoportalsb.gob.ve>

EU Inspire - <http://inspire-geoportal.ec.europa.eu>

GeoSUR - <http://www.geosur.info/geosur/index.php/en>

Each of these websites has various types of SDI / MSDI information available. Some make the data available for viewing only while others make the data available via WMS / WFS / REST services for use in GIS for other types of analysis. In the example below El Salvador has made certain data layers available via an online web GIS portal for viewing and querying.



El Salvador SDI GIS Portal

Additionally, the El Salvador website provides WMS / WFS / REST links so that the user can pull this data up in a GIS for further Analysis with other datasets. See the example below:

INICIO SUGERENCIAS Y QUEJAS CÓMO NAVEGAR NÚMEROS DE TELÉFONO BLOG INSTITUCIONAL PORTAL DE TRANSPARENCIA

2 - Servicios Geográficos

Servicios de mapas Web (**WMS**) del Consorcio Geoespacial Abierto (**OGC**) que es una especificación internacional para ofrecer y consumir mapas dinámicos desde la web.

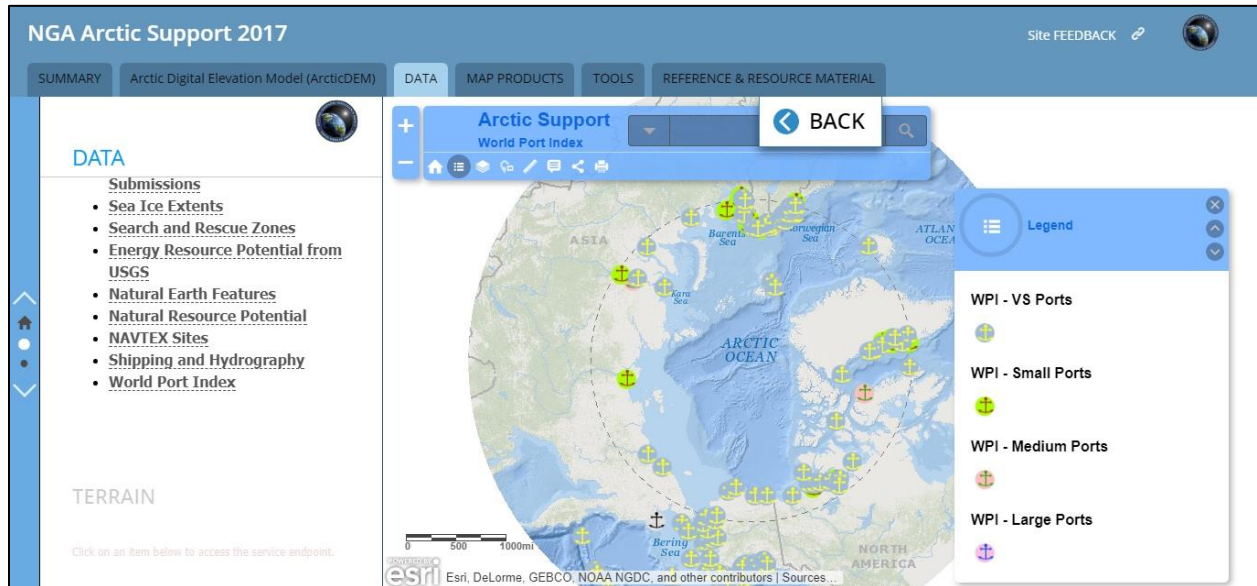
Servicios nativos de ArcGIS, que pueden consumirse con **ArcGIS Explorer** (de uso libre) o por medio del software propietario de **Esri**. También se puede aprovechar la tecnología **Esri** para visualizar en distintos formatos la información de estos servicios.

- Servicios WMS:**
 - <http://cloud.cnr.gob.sv/ArcGIS/services/SVWGS84/MapOficial/mapserver/WMServer>
 - <http://cloud.cnr.gob.sv/ArcGIS/services/SVWGS84/RelieveOficial/mapserver/WMServer>
- Servicios nativos de ArcGIS (Abrir estos enlaces desde el Software ArcGIS):**
 - <http://cloud.cnr.gob.sv/ArcGIS/services/SVWGS84/MapOficial/MapServer>
 - <http://cloud.cnr.gob.sv/ArcGIS/services/SVWGS84/RelieveOficial/MapServer>

El Salvador GIS Services Portal

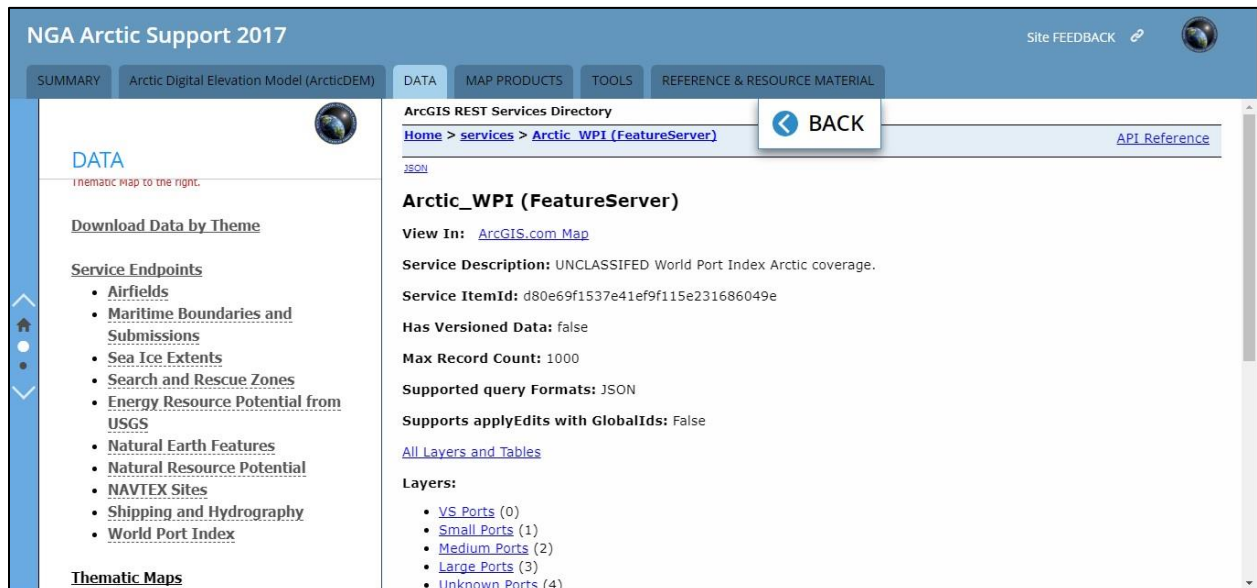
Data made available via a SDI / MSDI can support a variety of non-navigational users with their research and analysis. For example, this data can be used to support infrastructure development, environmental analysis, and collegiate research. All purposes the data was not originally intended for, but by making the data available incalculable benefits for the Member State and region are gained.

Another example of an SDI / MSDI that is currently being worked is from our colleagues in the Arctic Regional Hydrographic Commission (ARHC). The website does make a number of products available, but more importantly it makes numerous types of data available as well. This data can be viewed and queried via the website.



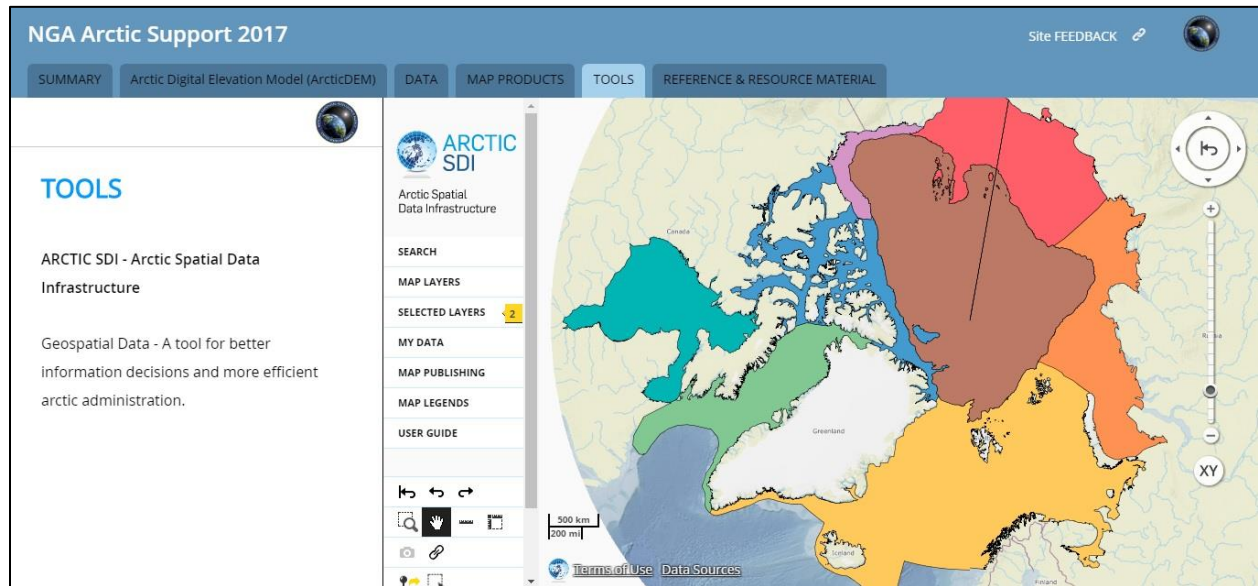
Arctic Support website

The Arctic Support site also makes various types of data available via a REST Service. This data can support various types of the Analysis within the Arctic Region in a GIS environment.



Arctic Support REST Service

Additionally, there is an Arctic SDI Tool available on the webpage. This tool allows the user to interactively turn map layers on and off, query features, and publish a map with the user's features of interest. This tool allows a non-traditional user to perform analysis with this data beyond the original navigation purposes of that data. This leads to greater discoverability, accessibility, and Interoperability of this data to a broader user base in the MSDI community.



Arctic Support SDI Tools

The efforts being put forth within ARHC and also by the various Member States concerning SDI / MSDI development are part of a larger focus in this area. Making this data available beyond the original purpose serves as a multiplier by not just improving safety of navigation but also supporting various socio-economic analysis and research efforts within national waters and the region. The MEIP is part of that larger SDI / MSDI focus. Ultimately, making data available is the key to SDI / MSDI.

In the coming year the MEIPWG will continue to encourage Member States to contribute additional ENC data to the ENC Online Viewer. Additionally, other types of data could be made available within the Viewer to support the non-traditional user. The MEIPWG will continue to build on the SDI / MSDI achievements from the last few years. The MEIPWG will work to improve the discoverability of the MEIP MSDI data to further support the non-navigation user.

I would like to thank you all for the valuable support to the MEIP over the past year. Please let me know if you have any questions. I send you my best wishes for this year's MACHC18 Meeting! Sorry I could not participate this year. I look forward to seeing you at a future MACHC Meeting.

Best wishes

Jim Rogers

MEIP Coordinator / Chair

James.E.Rogers@nga.mil