

# S100 Working Group Update

Julia Powell

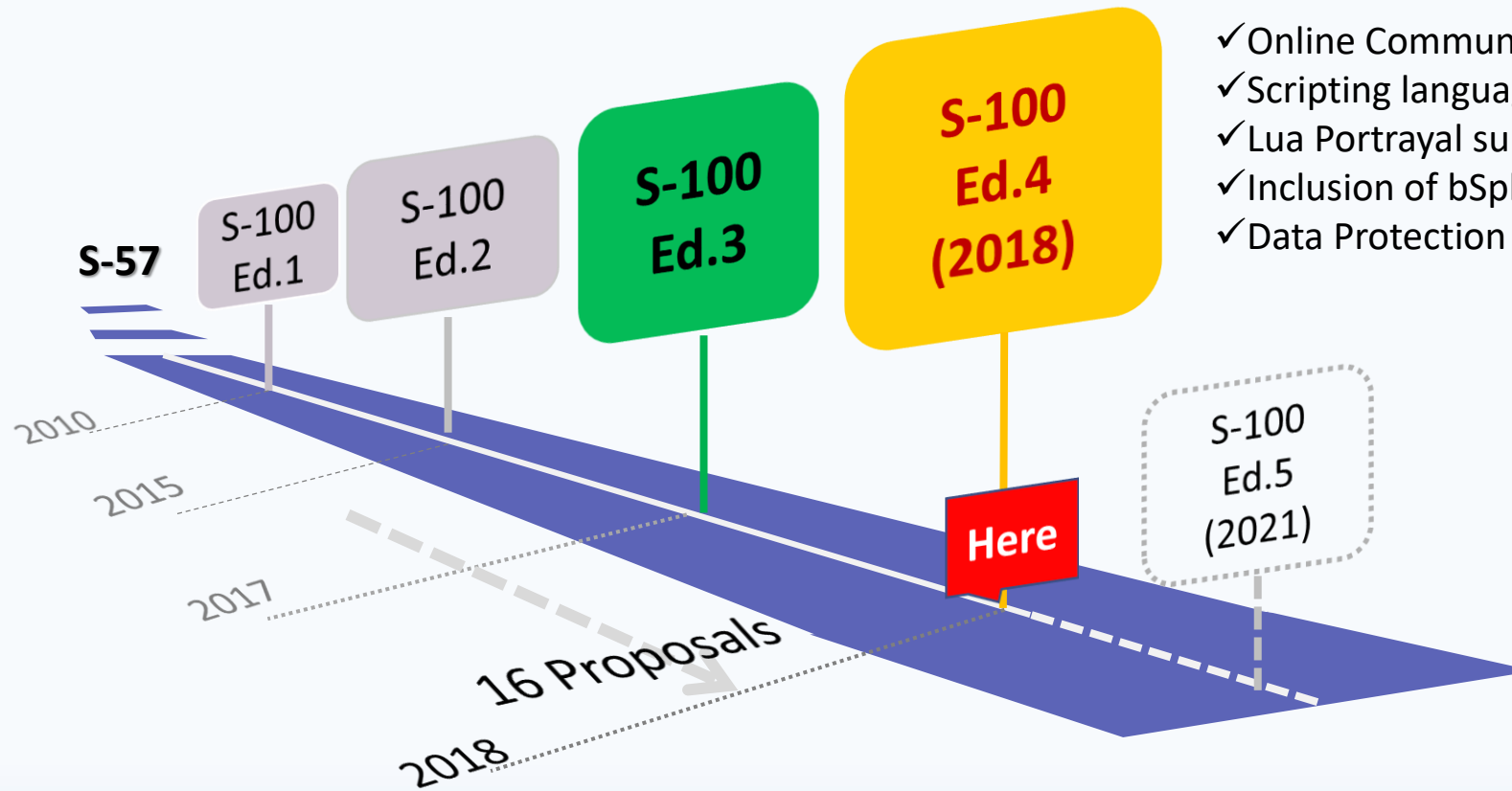


International Hydrographic Organization  
*Organisation Hydrographique Internationale*

**Office of Coast Survey**  
National Oceanic and Atmospheric Administration



# S-100 Today



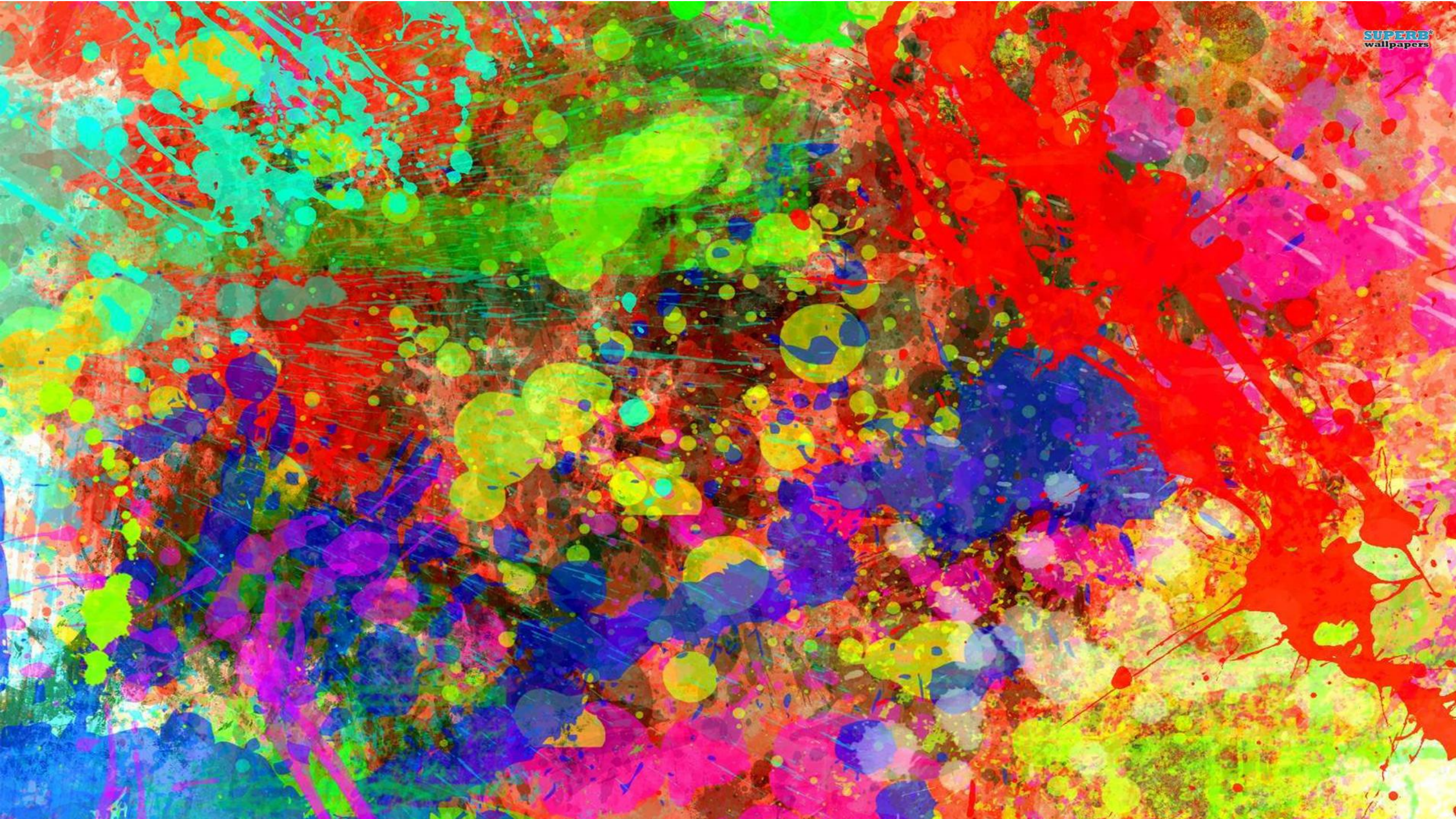
- ✓ Online Communication Extension (IALA)
- ✓ Scripting language support (OEMs)
- ✓ Lua Portrayal support (OEMs)
- ✓ Inclusion of bSpline Spatial (WMO)
- ✓ Data Protection



# Who is developing on S-100









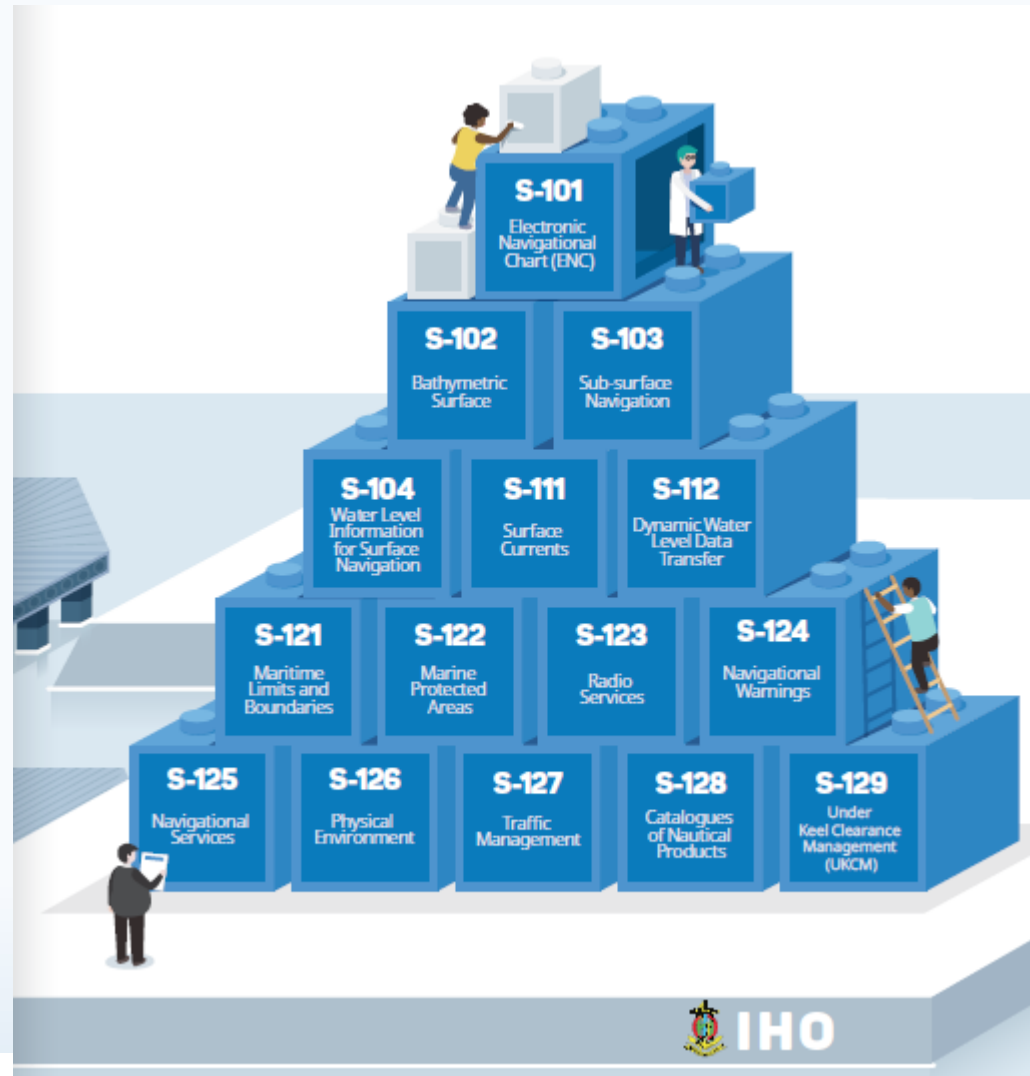
# Better Interoperability

**Rules Applied**

- Bathymetry no longer goes over the shoreline
- Underlying ENC features are Visible



# S-100 Product Development



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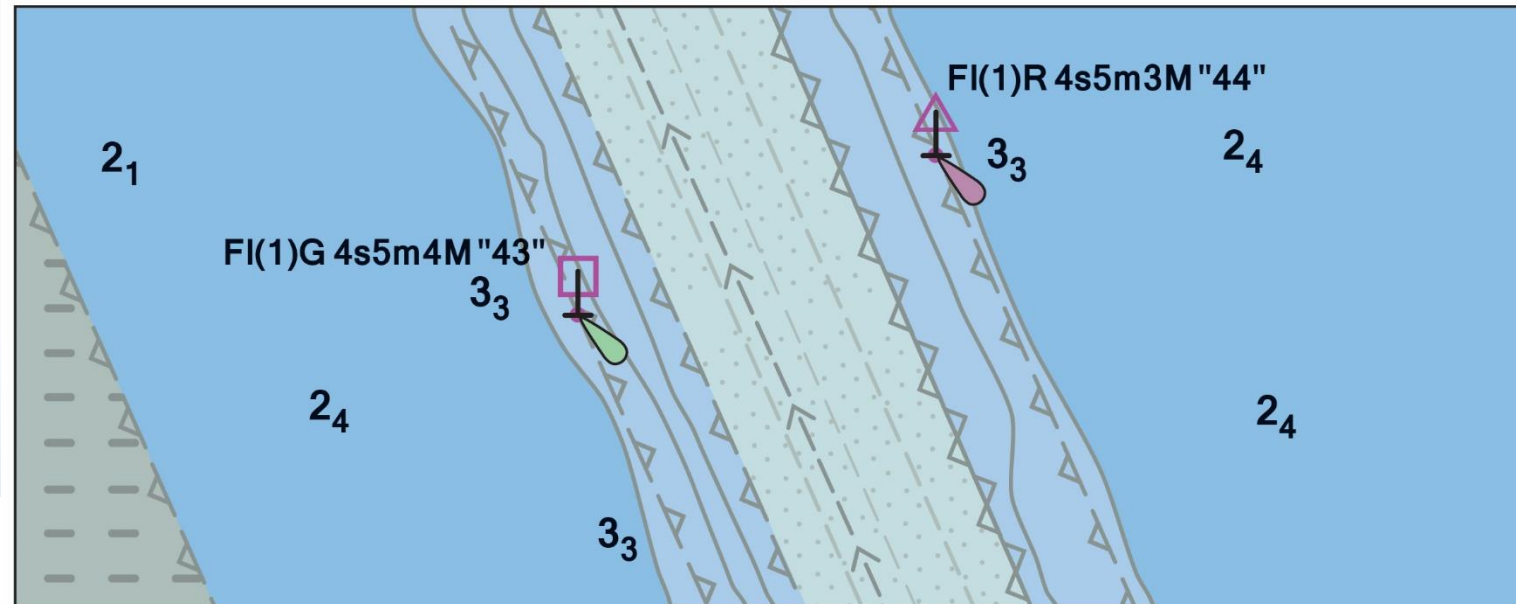
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# S-101 Electronic Navigational Charts

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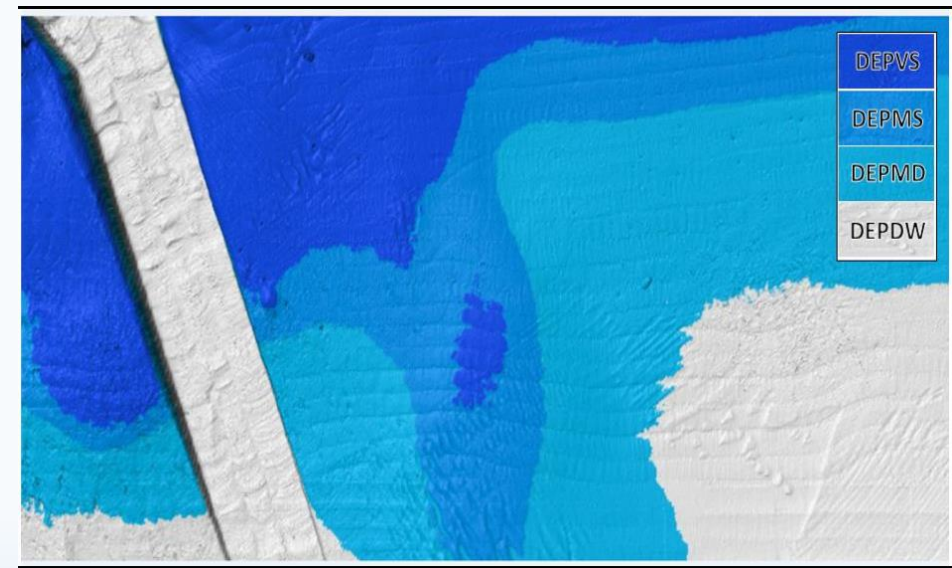
- Improved Data Modeling
- Machine readable catalogues
- NOAA and ESRI developed an S-57 to S-101 Converter
- S-101 Edition 1.0.0 published December 2018
  - Testing Edition for system implementers



# S-102 High Resolution Bathymetry for Navigation Systems

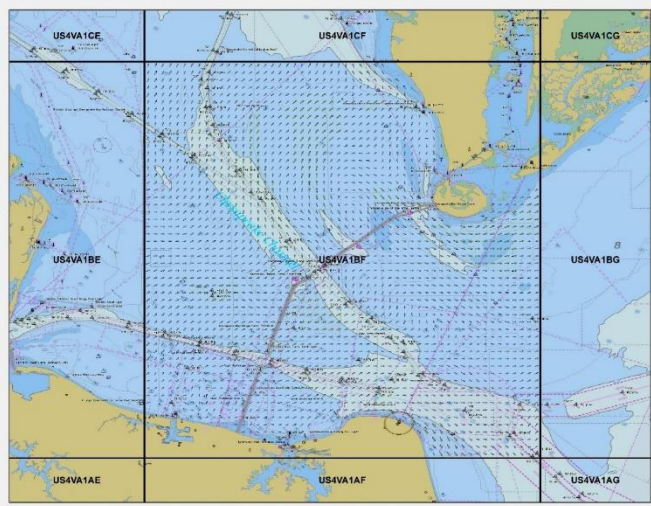
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- Provides high resolution gridded bathymetry in support of navigation
- BAG to S-102 convertor program was created by NAVOCEANO and NOAA to provide the ability to produce S-102 datasets for testing
- Edition 2.0.0 release late 2019





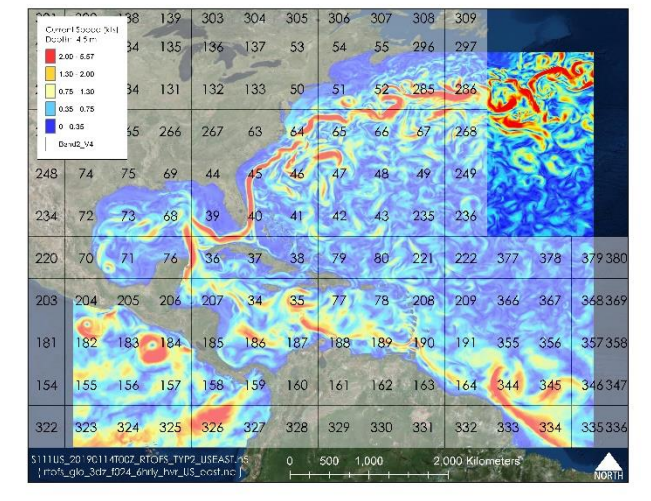
# S-111 Surface Currents



- Edition 1.0.0 published in December 2018
- Describes how surface currents should be packaged and displayed in navigation systems

## Operationalization at NOAA

- 500 meter resolution with 48 hour forecasts in 1 hour increments
  - Chesapeake and Delaware Bay
  - New York/New Jersey
  - Testing the global RTOFS model
- Component of NOAA's Precision Navigation Dissemination
- Implementing Machine to Machine Data Discovery



[ftp://ocsftp.ncd.noaa.gov/OFS\\_Data/](ftp://ocsftp.ncd.noaa.gov/OFS_Data/)



# S-412 Weather and Wave Hazards

- S-100 GML

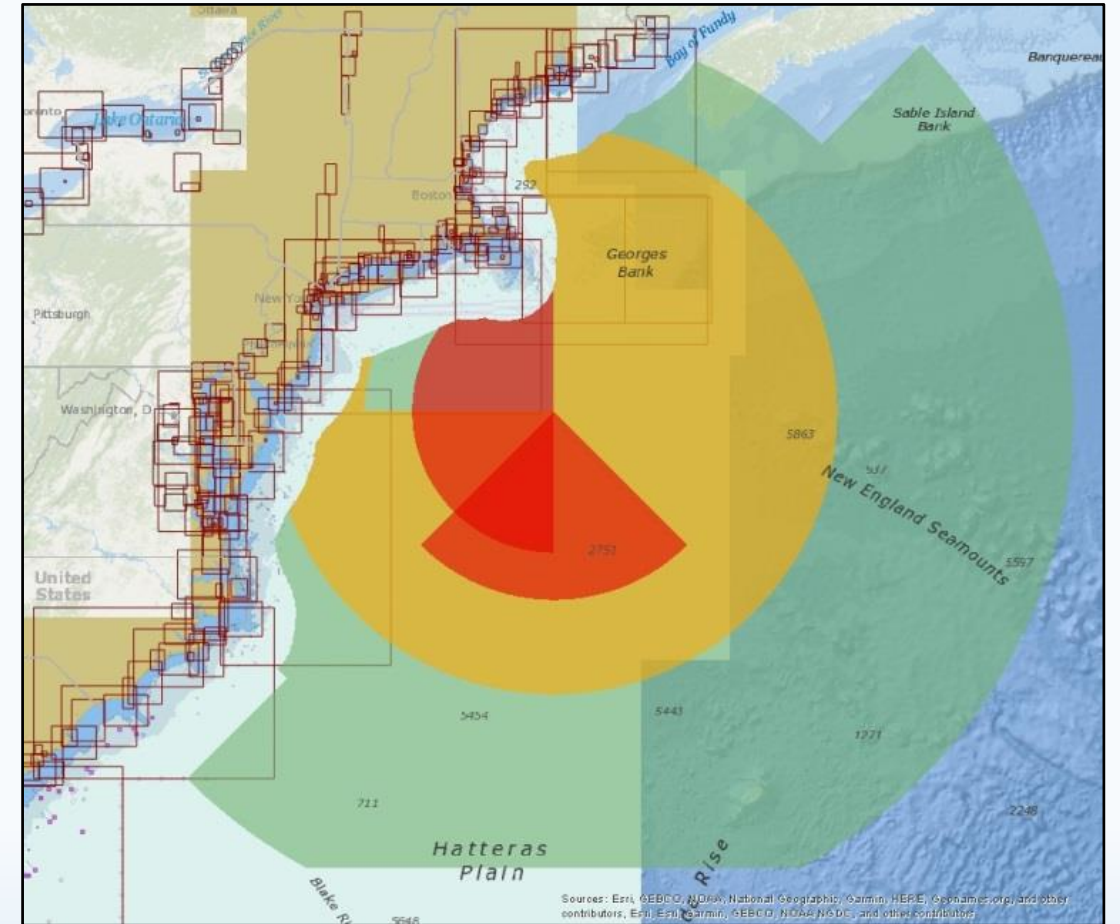
## Weather Messages

- Weather message
- Tropical cyclone messages
- Thunderstorm message
- High wind message
- Freezing spray message
- Reduced visibility message
- Large seas message
- Precipitation message
- Temperature message

## Weather Systems

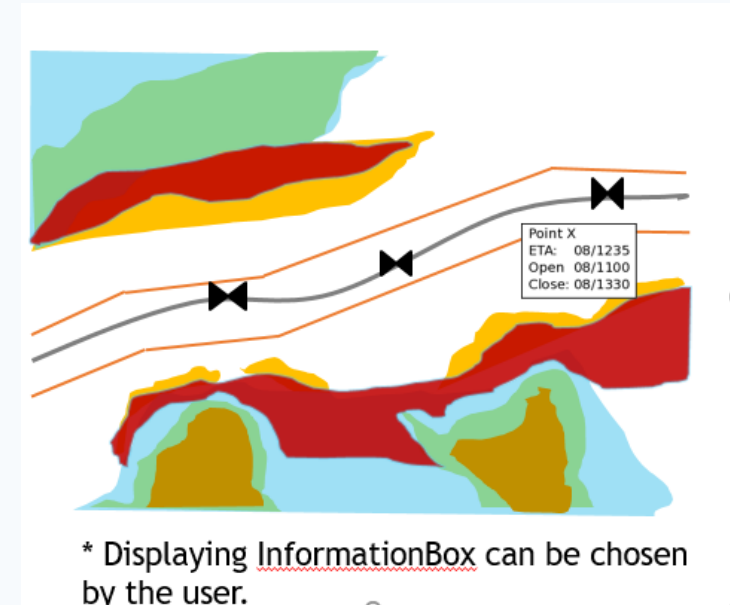
- Tropical cyclone
- Low
- Convergent Boundary
- Front
- Ridge
- Squall
- Thunderstorm
- Cyclone Track
- Cone of Uncertainty

- Future Specifications include
  - Weather and Wave Conditions
  - Weather and Wave Observations



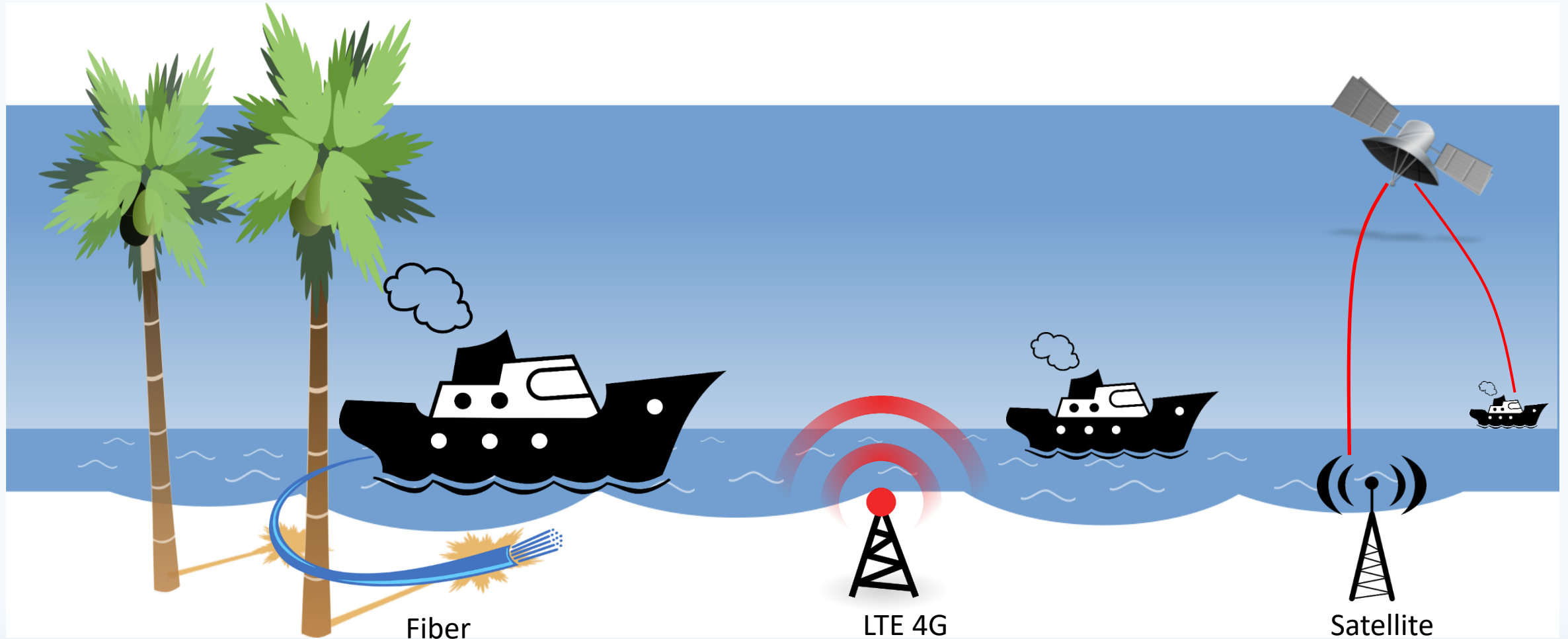
# On the Horizon

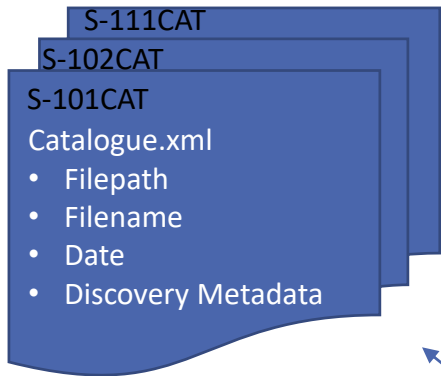
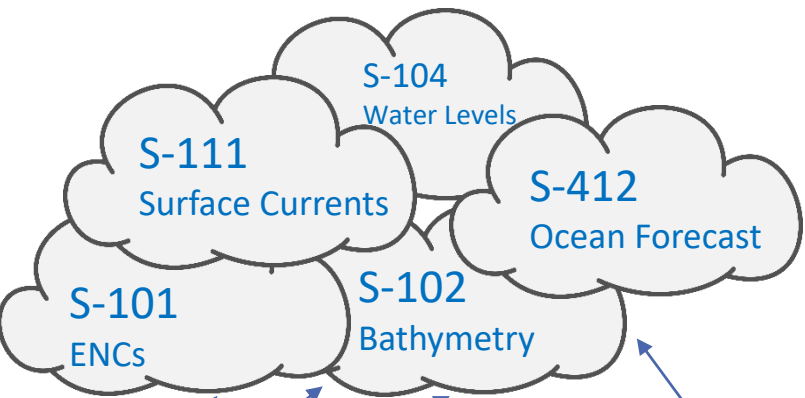
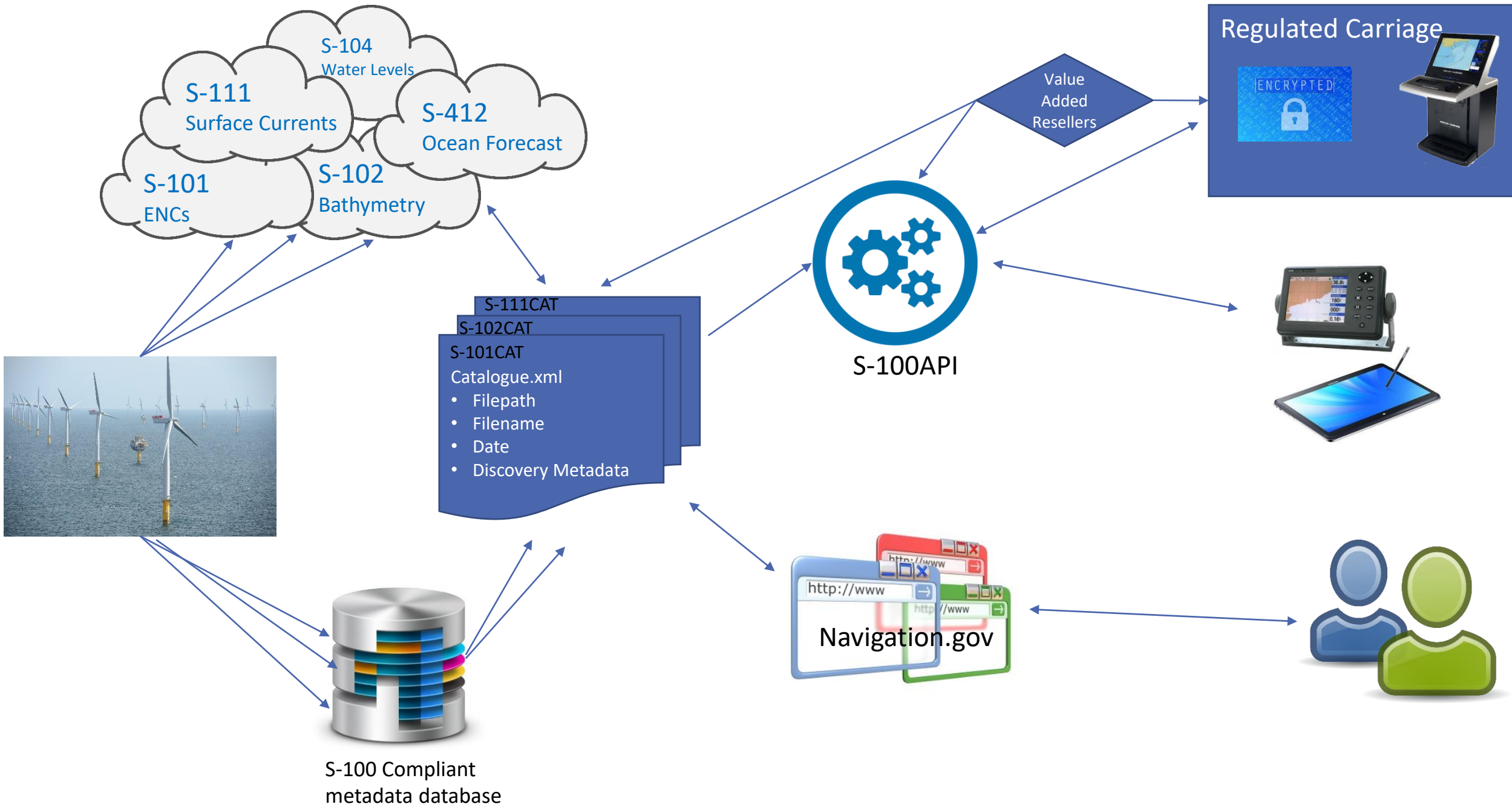
- S-104 Water Level
  - Predicted and Real Time?
  - Currently under development by the IHO
- S-129 Underkeel Clearance Management
  - Depicts go/no go areas based on inputs in UKC systems from bathymetry, surface currents and water levels
  - Edition 1.0.0 anticipated in late 2019





# A little about Data Dissemination

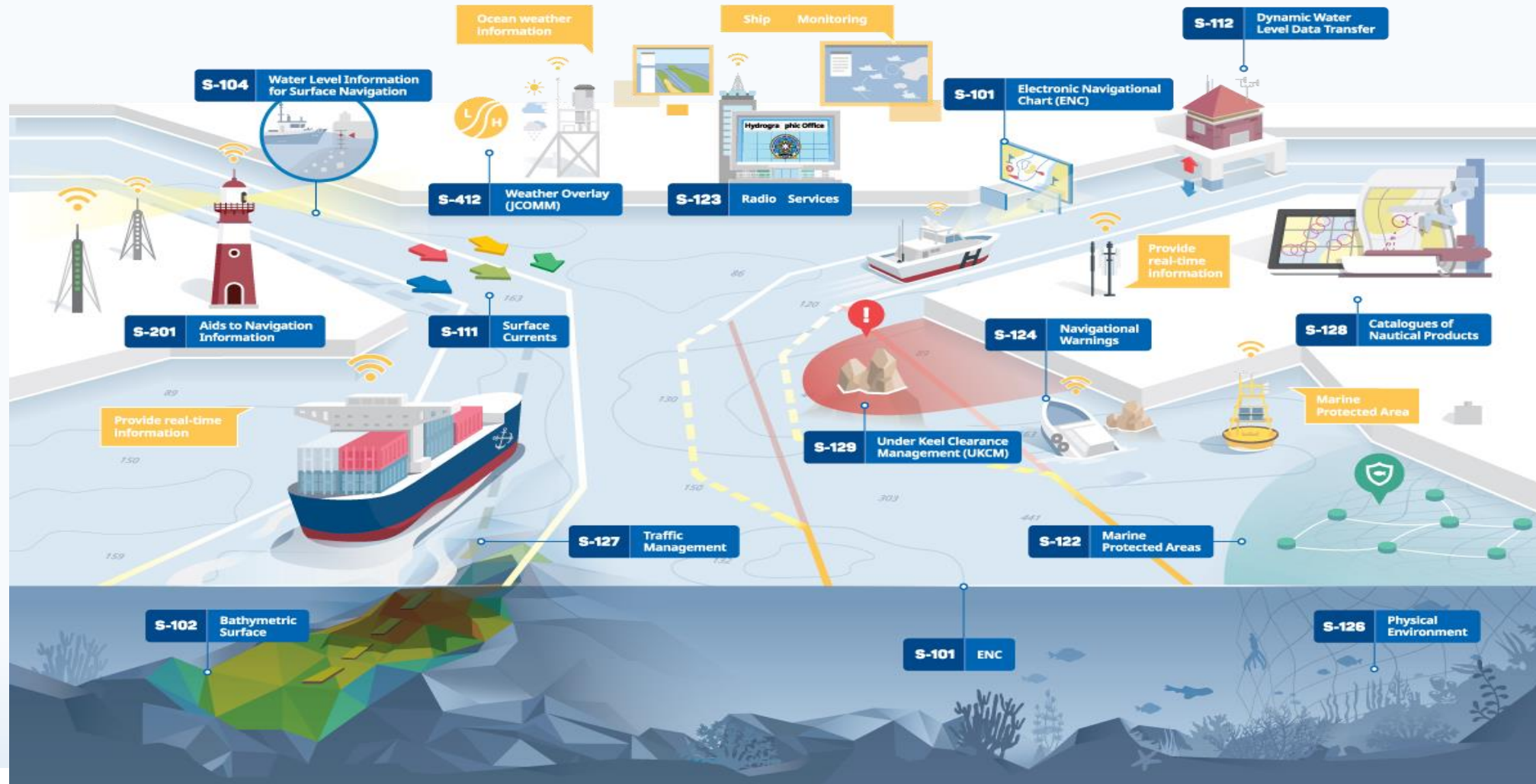




S-100 Compliant metadata database



# The World of S-100





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## Point of Contact

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S-100 Working Group Chair



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