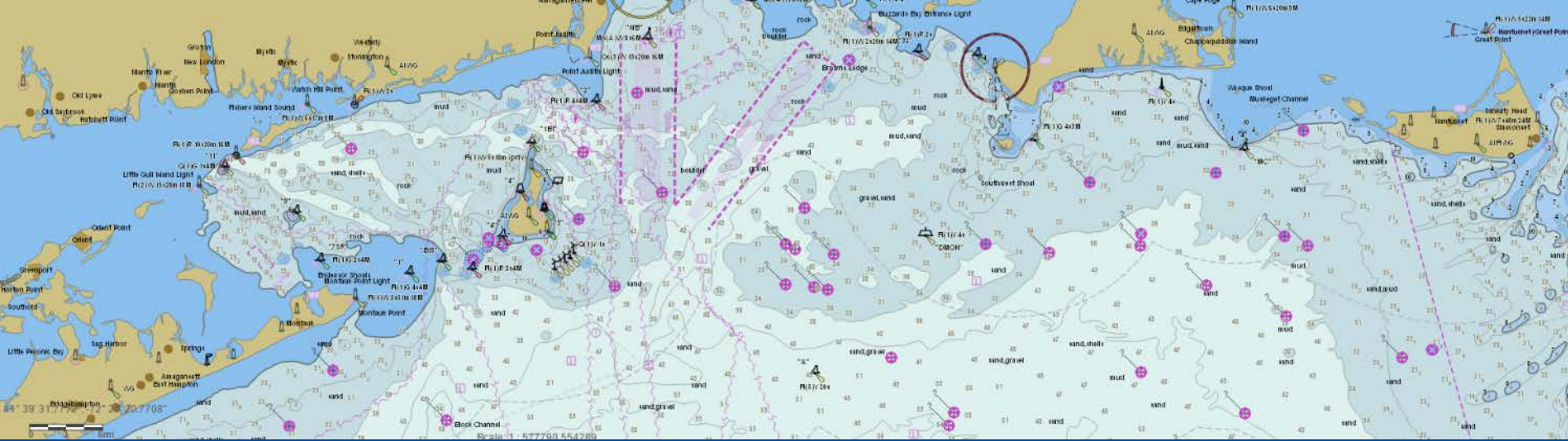




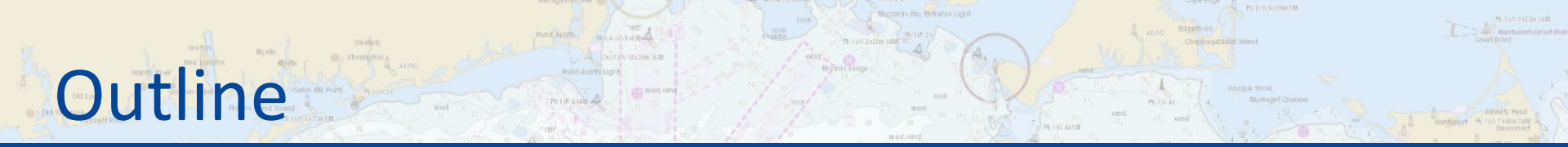
NOAA Navigation Services

Evolving Services in an Evolving Context

November 8, 2018



Office of Coast Survey
National Oceanic and Atmospheric Administration



Outline

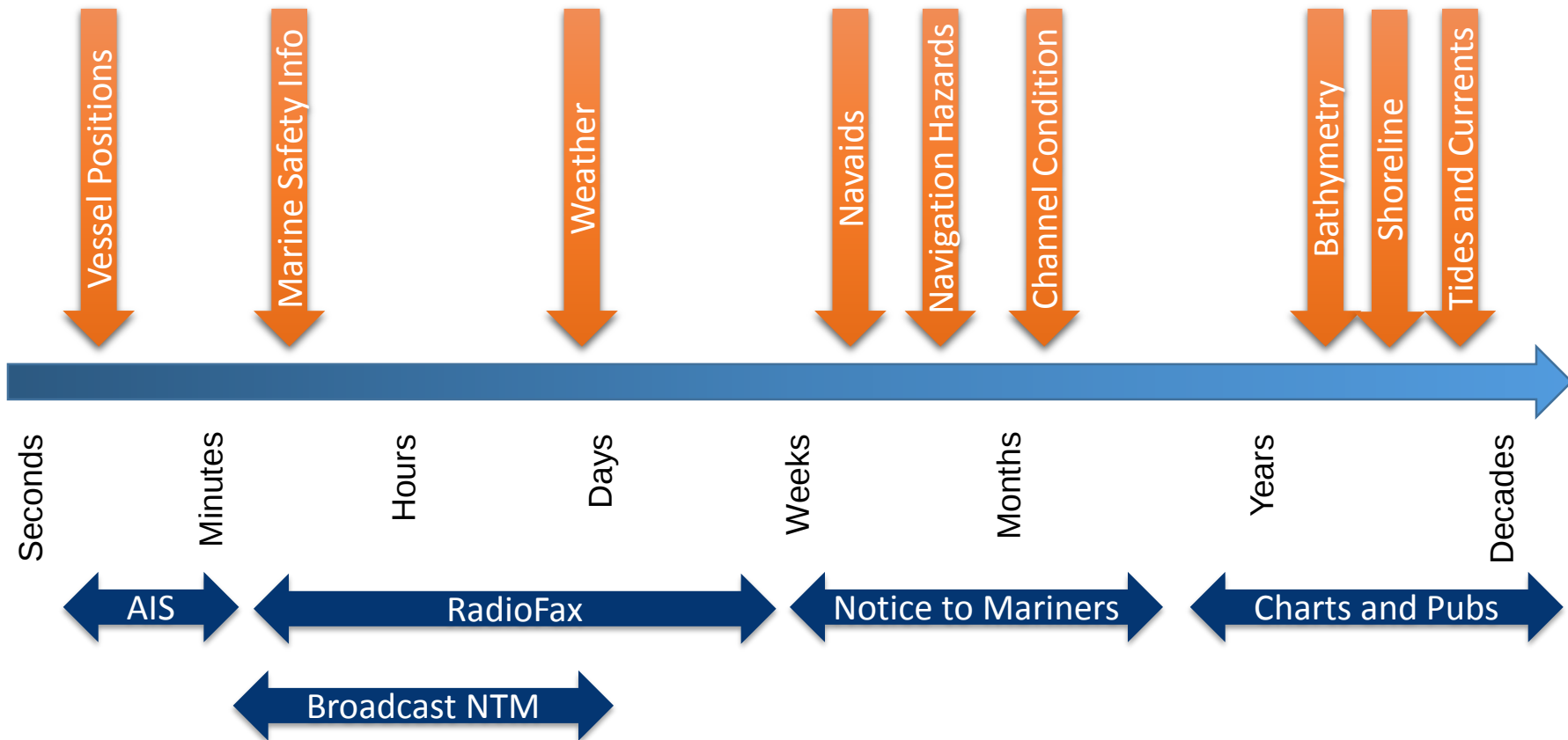
- Timescale of Navigation Information
- Precision Navigation
- National Charting Plan
- Partnerships and Value Chain
- Unmanned Systems for Hydrography
- External Source Data
- IHO and Other International
- Looking Forward



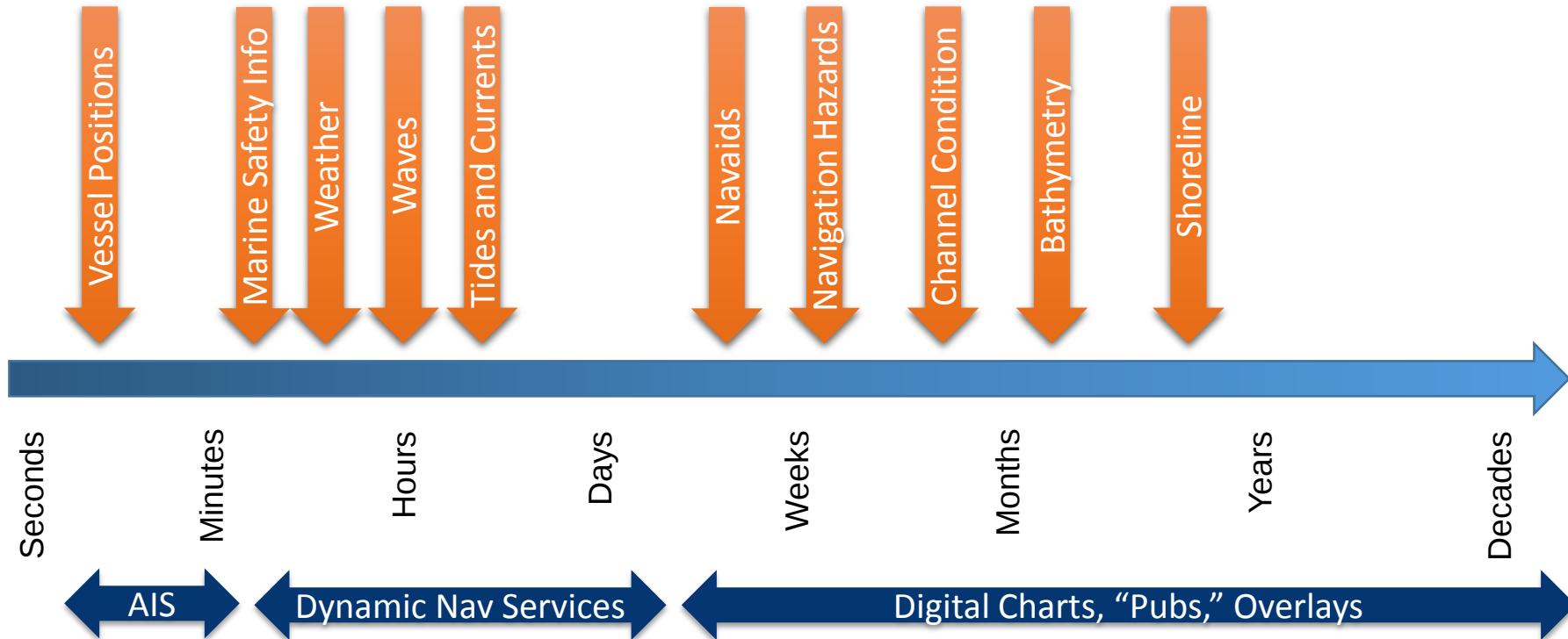
NOAA Navigation Services Users



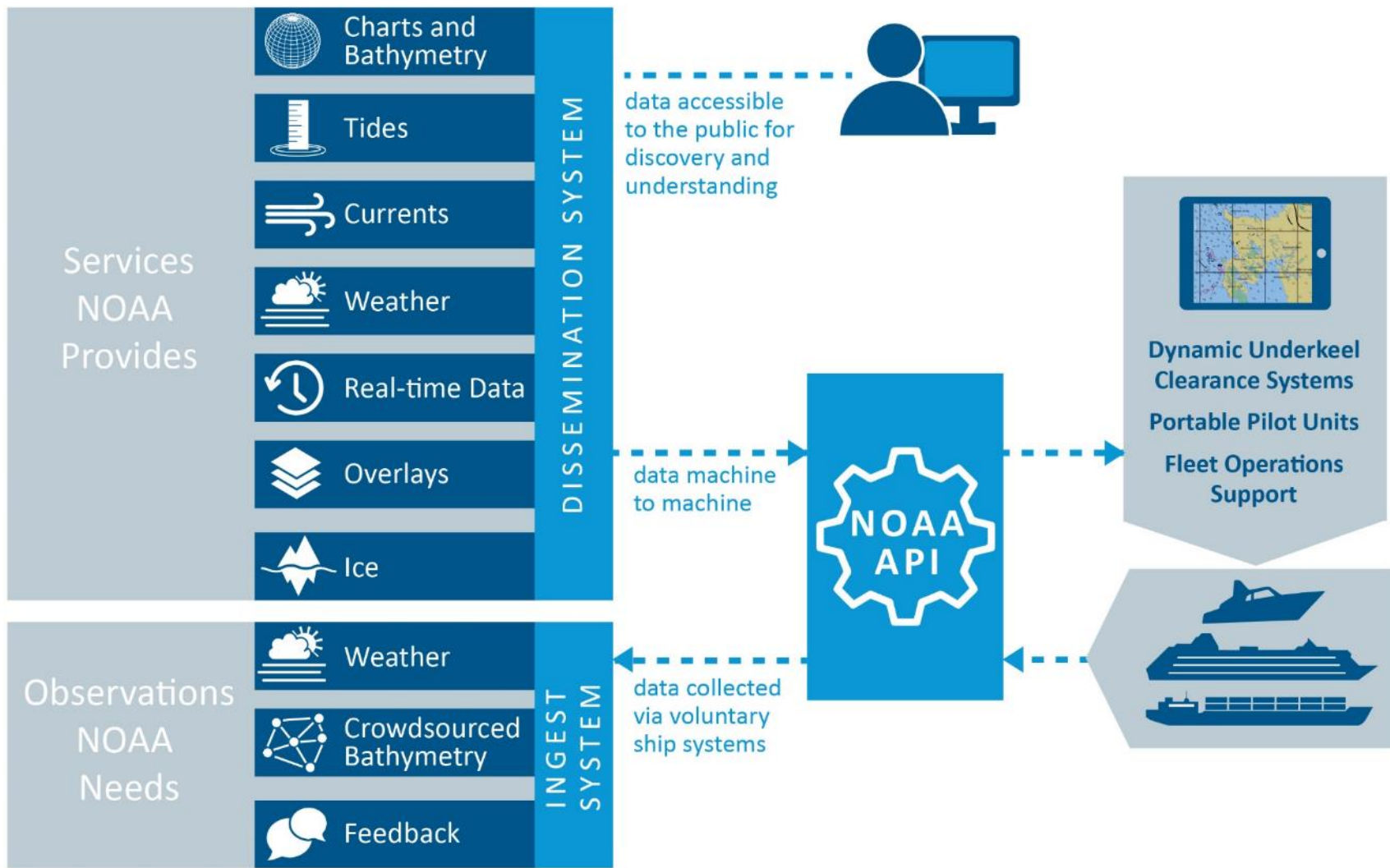
Time Scales of Navigation Information 2010



Time Scales of Navigation Information 2025



NOAA Dissemination and Ingest Model



Precision Navigation-Critical Underkeel Clearance Support



NATIONAL CHARTING PLAN

A strategy to transform nautical charting

Purpose Improve NOAA nautical chart coverage, products, and distribution

Improvements

Reduce
unwarranted
alarms



Convert to metric



Provide
timelier data



Improve
chart coverage



Create an
orderly layout



Reduce
uncertainties



Improve chart
update information



Increase
efficiency



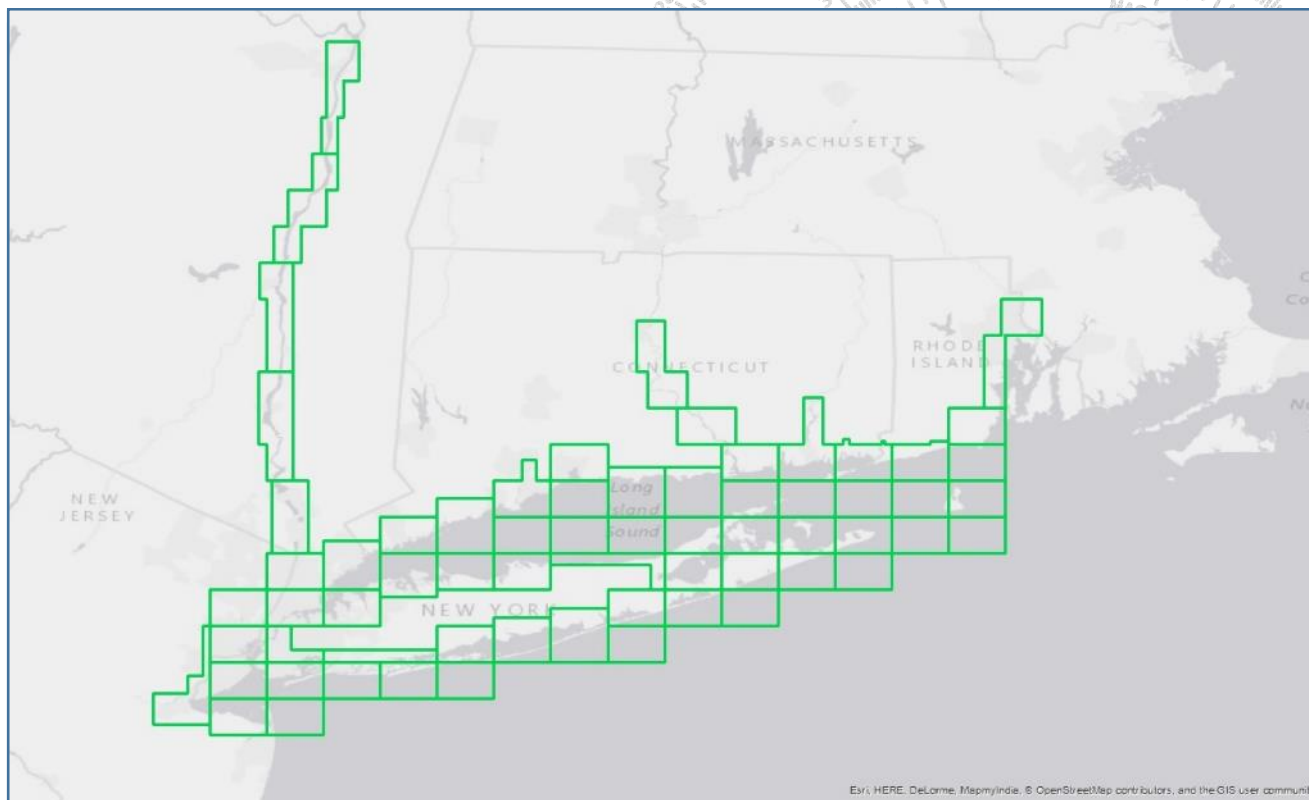
Outcome Ease of access to more precise, higher-resolution charts that deliver the most up-to-date navigation information possible



Improving Chart Schemes



Create an orderly layout for ENCs

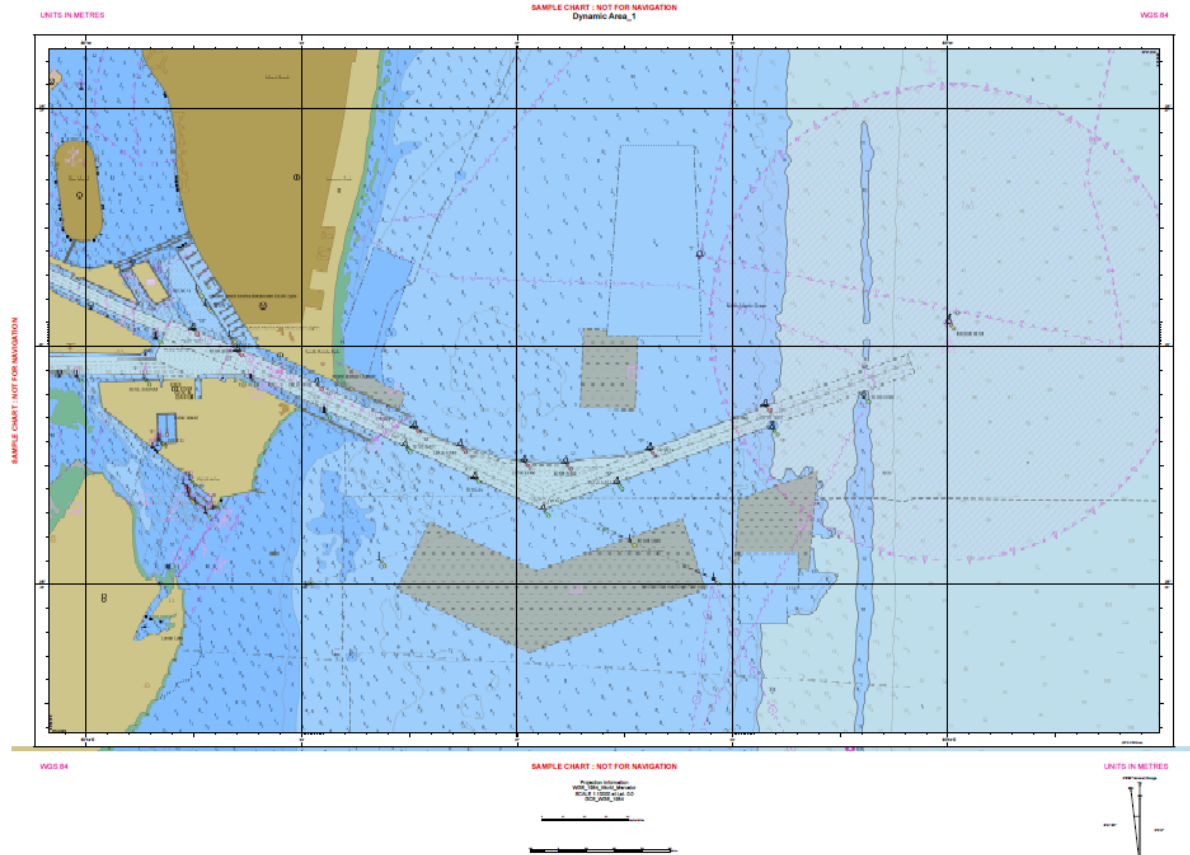
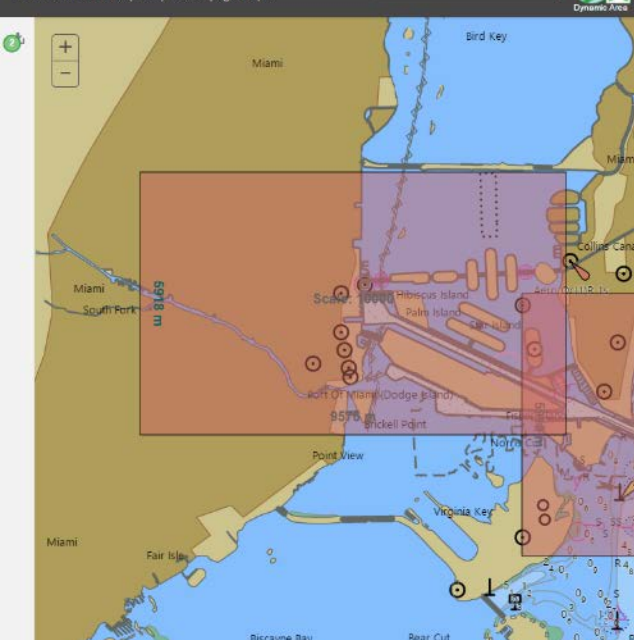


Office of Coast Survey
National Oceanic and Atmospheric Administration

Improving Chart Schemes

Chart Product on Demand

ArcGIS for Maritime: Server
Product on Demand (POD): vector page maps



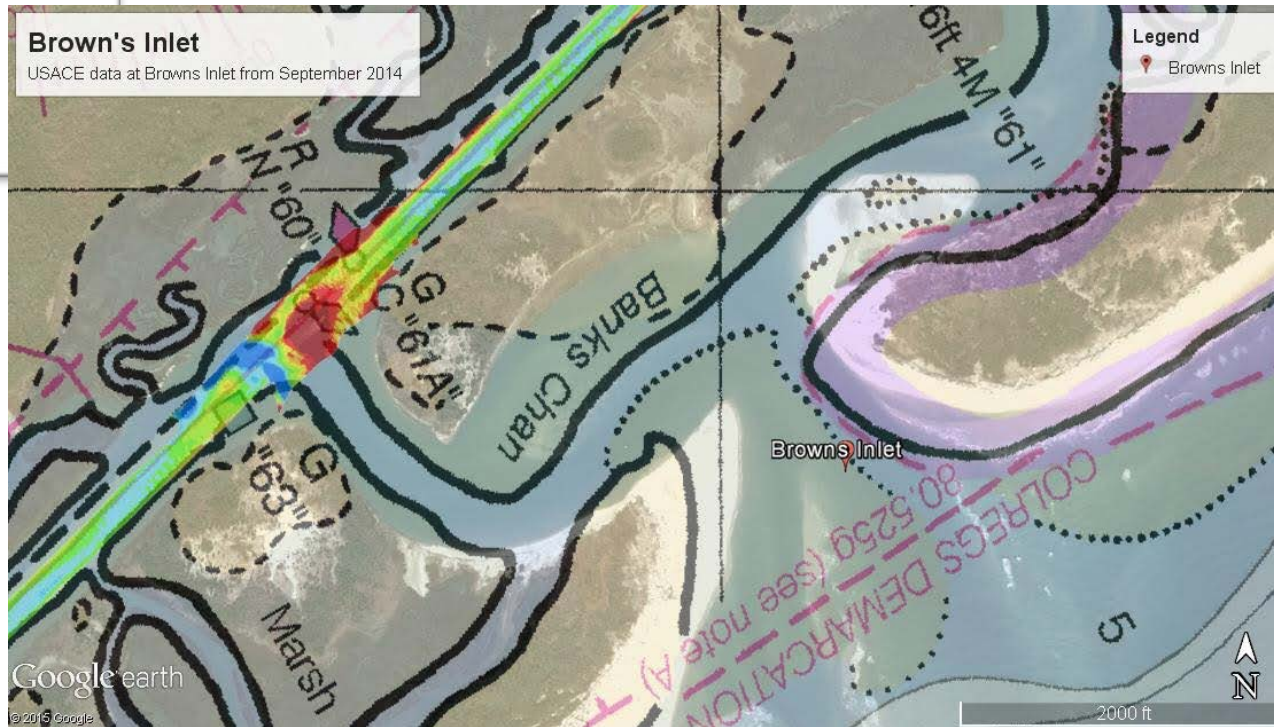
Office of Coast Survey
National Oceanic and Atmospheric Administration

National Charting Plan

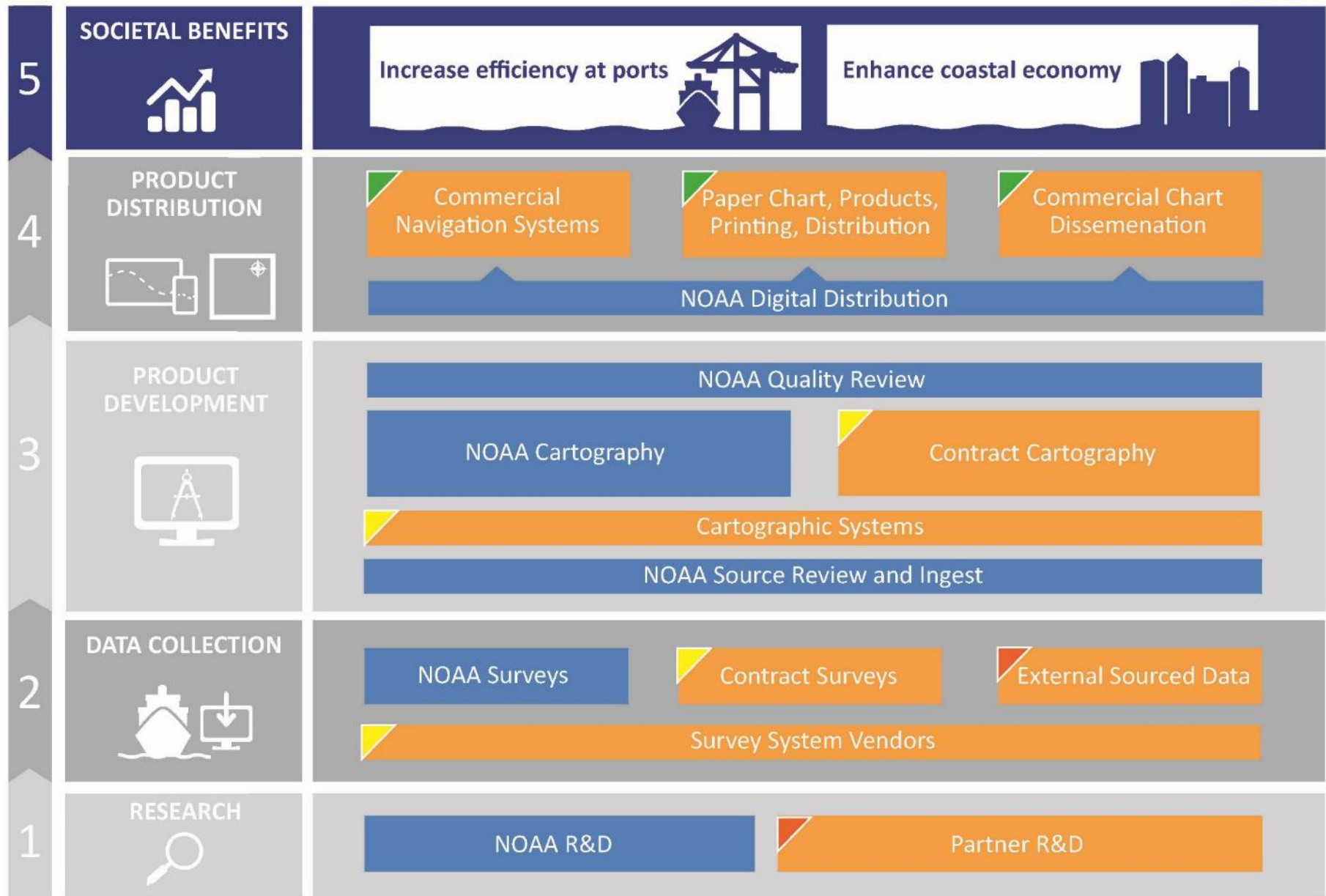
- More detailed charts
- Digital Charting Focus
- Faster updates, direct to user and indirectly
- Fixing chart discrepancies



National Charting Plan
A Strategy to Transform Nautical Charting
November 1, 2017



NOAA Coast Survey Partnerships *every step of the way*



NOAA in-house



External to NOAA



Partnerships

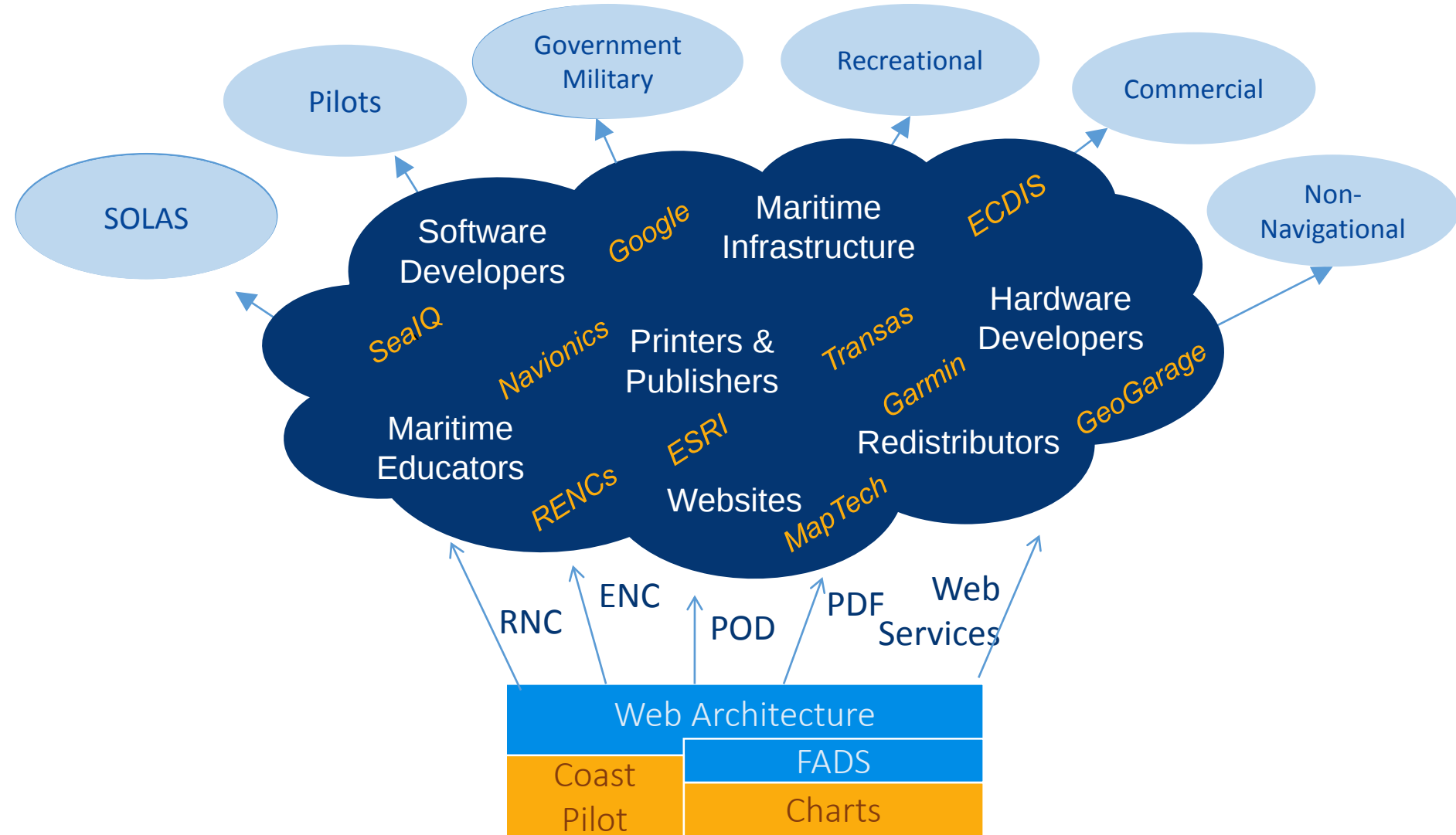


Contracts



Private sector activities not federally funded

Coast Survey Value Chain



NOAA INDUSTRY DAY

at the
ANNAPOLIS BOAT SHOW

Thursday, October 4, 2018
8 a.m. - 3 p.m.

Annapolis Yacht Club
2 Compromise Street
Annapolis, MD

JOIN US TO LEARN ABOUT:

NOAA data streams for hardware, software, app developers, mariners, and boaters

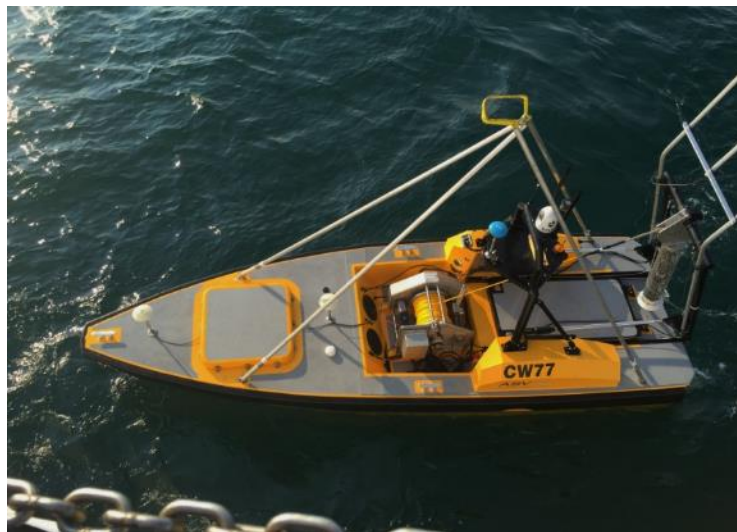
- Web services for raster and electronic navigational charts
- Shoreline and nearshore bathymetry
- Tides and currents: station observations & predictions
- Operational forecast systems
- Marine weather data
- Sea surface temperature
- Marine buoy data

Next steps with the National Charting Plan

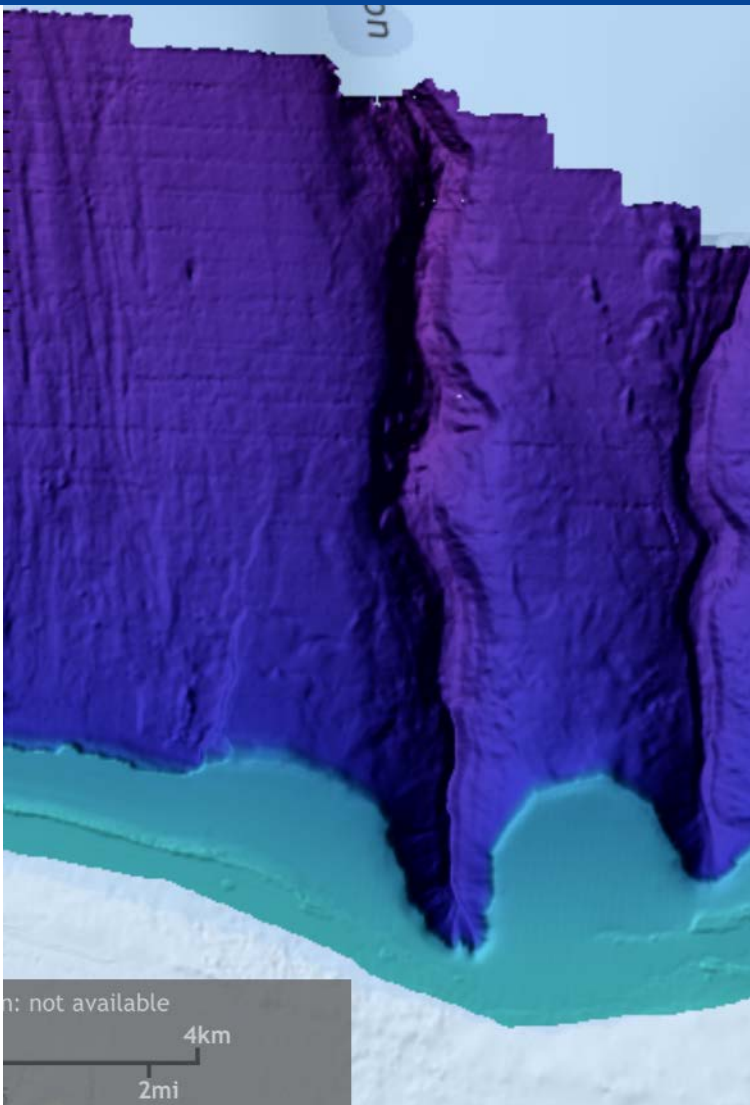
National Oceanic and Atmospheric Administration



Unmanned Systems for Hydrography



External Source Data Policy (2017)

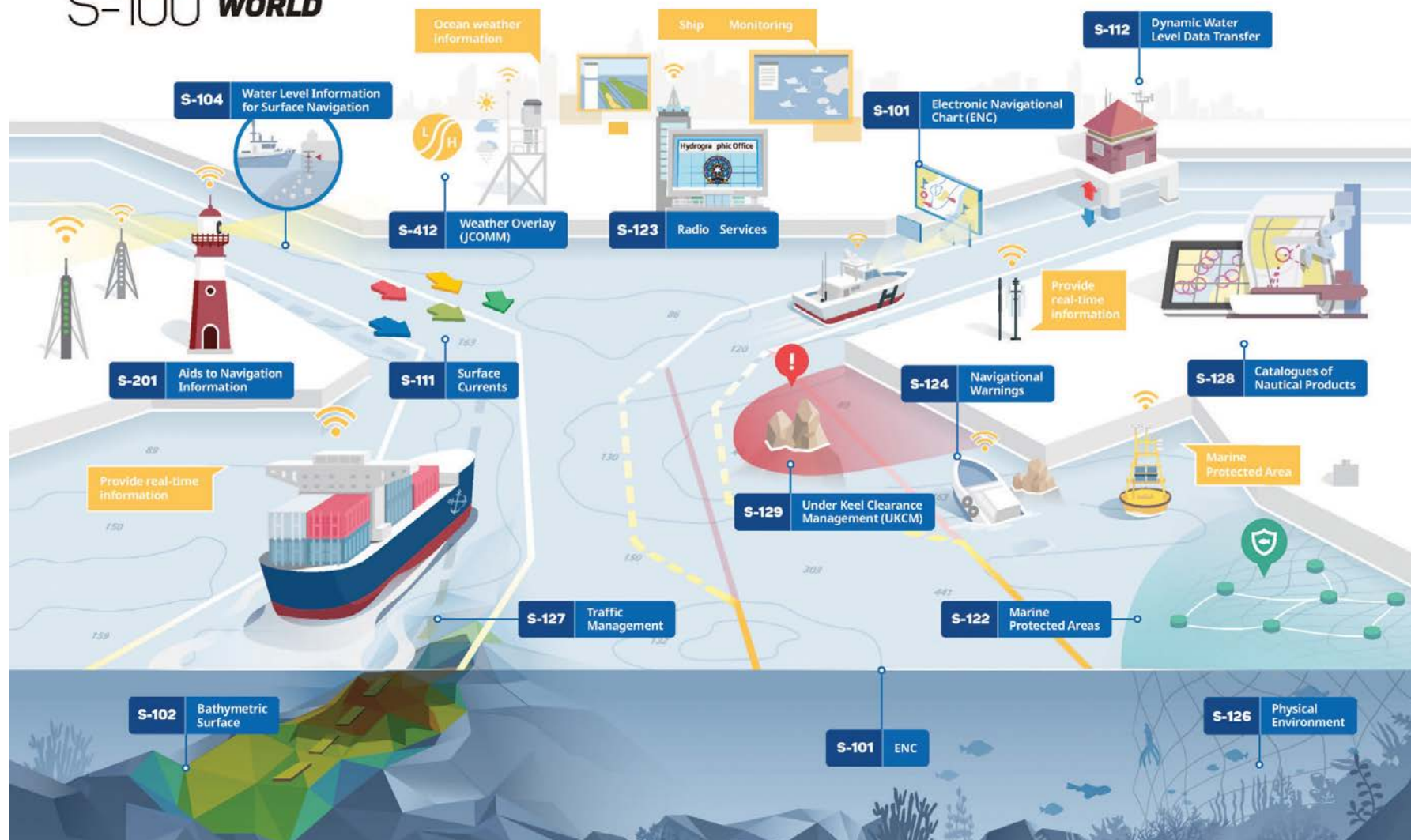


- NOAA uses the “best available data” to updated its charts.
- We will proactively seek out available data to meet our needs.
- Data need not be “applied to the chart” to be useful-prioritizing surveys, confirming other data, etc.
- Data need not meet NOAA or IHO standards to be used for charting. It just needs to be the best available.
- The CATZOC and source diagram will reflect NOAA’s assessment of data quality.
- There is more data available than we can handle. Priority will be given to data which improves navigation safety and is most easily accessible and assessable.



International

S-100 **WORLD**



Training Requirements

Next generation services need next generation training



Unmanned Shipping

