

# NATIONAL CHARTING PLAN

## *A strategy to transform nautical charting*

### What is the National Charting Plan?

The charting plan is a strategy to improve NOAA nautical chart coverage, products, and distribution. It describes the evolving state of marine navigation and nautical chart production, and outlines actions that will provide the customer with a suite of **products that are more useful, up-to-date, and safer for navigation**. It is not a plan for the maintenance of individual charts, but a strategy to improve all charts.

### Why is the charting plan needed?

Since the introduction of electronic navigational charts (ENC) thirty years ago, the size of commercial vessels has increased four-fold and navigation systems have become more sophisticated. There are also now over 15 million recreational boat users in the U.S. and many have joined professional mariners in using electronic chart displays and NOAA digital chart products when navigating. User groups of all types are increasingly expecting more precise, higher resolution charts, as well as more timely, easier to access chart updates. **The National Charting Plan presents NOAA's strategies to meet this growing demand.**

### What is ENC rescheming?

ENC rescheming is a major component of the charting plan and is the means by which many other aspects of the plan will be implemented – such as compiling depth contours in metric units. The layout of the extents or footprints of ENC charts is called a scheme – a term meaning a systematic configuration.

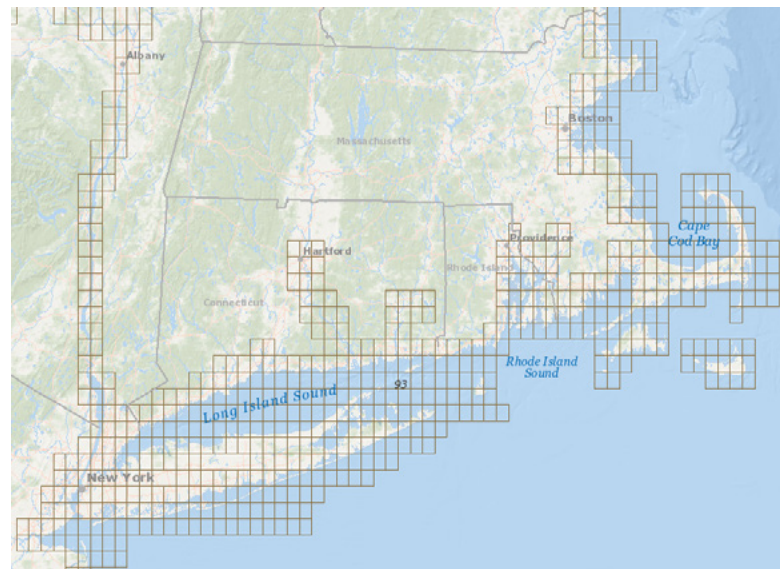
The current ENC scheme is based on the extents of the paper nautical charts from which ENCs were originally digitized. Rescheming will replace

this puzzle-piece layout with a rectangular grid of ENCs, **often providing larger scale, more detailed coverage than the existing paper charts.**

### How will the plan improve marine navigation?

Key improvement activities include:

- Reduce unwarranted ECDIS alarms
- Convert to metric
- Improve chart coverage
- Provide timelier data
- Create an orderly layout for ENCs
- Reduce uncertainties
- Improve chart update information
- Increase efficiency



*Reschemed ENC plans for 1:20,000 scale coverage between New York and Boston.*

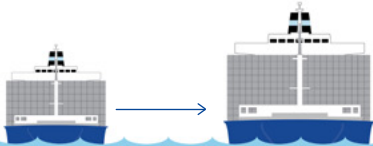
The National Charting Plan is available on the Coast Survey Website: [nauticalcharts.noaa.gov/publications/docs/national-charting-plan.pdf](https://nauticalcharts.noaa.gov/publications/docs/national-charting-plan.pdf)



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## A CHANGING WORLD

*Ships are growing, requirements are changing, technology is advancing*



Container ship size has increased four fold in 30 years.



Use of electronic charts and ECDIS will soon be mandatory for all large commercial vessels.



Electronic chart display use is rising among recreational boaters.

## A STRATEGY TO IMPROVE NAUTICAL CHARTING

*Key actions that will improve charting and marine navigation*

**Reduce unwarranted alarms**



Reduce alarms and clutter of “isolated danger” symbols in ECDIS by calculating and encoding safe clearance depths for wrecks deeper than 20 meters.

**Create an orderly layout**



Create an orderly layout for ENC charts that will replace the current set of 1,182 irregularly shaped ENC cells compiled at 131 different scales.

**Convert to metric**



Compile depth areas on ENCs in whole (integer) meters and work toward converting raster charts from fathoms and feet to meters.

**Reduce uncertainties**



Implement a systematic review of features categorized as “reported” or “existence doubtful” and features labeled as “position approximate” to start resolving uncertainties.

**Provide timelier data**



Earlier access to new shoreline and hydrographic survey data. Work with U.S. Army Corps of Engineers to expedite the provision of minimum channel depths on NOAA products and Corps’ websites.

**Improve chart update information**



New online tools provide information about all the changes made to ENC and raster charts since the release of their previous editions.

**Improve chart coverage**



Migrate small craft chart coverage into standard nautical charts of equal or greater scale and eventually cancel all small craft charts.

**Increase efficiency**



Work with the U.S. Coast Guard to develop methods to ingest changes to the database of Coast Guard maintained aids to navigation directly into NOAA’s chart production system.

## OUTCOME

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