The Value of a Bounding Box

Moving Historical Charts beyond the Image Browser

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CONTENTS AND USE
Office of Coast Survey’s Historical Map & Chart Collection covers the land and waters of the United States of America, including territories and possessions (past and present). The images are free to download, and may be used for commercial or educational purposes. Although not required, we encourage users to cite “NOAA’s Historical Map & Chart Collection” when using the image(s).

BACKGROUND
Today’s Office of Coast Survey traces its charting efforts back to 1807, when President Thomas Jefferson founded the Survey of the Coast. To celebrate and preserve this long history, NOAA started assembling the collection in 1995 as a data rescue effort. NOAA continues to preserve charts and maps produced by NOAA’s Coast Survey and its predecessors, especially the U.S. Coast and Geodetic Survey and the U.S. Lake Survey (previously under the Department of War).

The collection also covers many areas that most people may not realize were once a part of early Coast Survey history. As the first federal scientific agency, the U.S. Coast and Geodetic Survey (as the agency was known from 1878 to 1970) produced land sketches, Civil War battle maps, and aeronautical charting from the 1920s to the 1960s.

NOW WITH 2 SEARCH OPTIONS:
Point on Map | Geographic Name

The Historical Map and Charts team is looking for your feedback. Please let us know if you have any comments, questions, or concerns by submitting a query. We will get back to you as soon as possible.
Focus of the Collection

All Nautical Charts produced by NOAA and its predecessors
Focus of the Collection

- Nautical charts
- Civil War maps
- Bathymetric maps
- City plans
- Aeronautical Charts
- Sketches

Years: 1807 to Yesterday
99.9% Images are Maps/Charts

Images Available: 38,540
79% are Nautical Charts
Important Aspects

- Corner Points not Displayed
- Geo-Extents of a Series could Shift
- Consistency in Latitude and Longitude
Digital Method

Ratio of Distances

<table>
<thead>
<tr>
<th># Pixels of the Whole</th>
<th># Pixels of the Part</th>
</tr>
</thead>
<tbody>
<tr>
<td># Units of the Whole</td>
<td># Units of the Part</td>
</tr>
</tbody>
</table>

The Distance Formula

\[ D = \sqrt{(X_2 - X_1)^2 + (Y_2 - Y_1)^2} \]
Searching by Point

Result
Result
Result
Result

Point Information

Database

Results
Place Name Search

Place Name (X, Y)
Place Name (X, Y)
Place Name (X, Y)
Place Name (X, Y)

Result
Result
Result
Result

Point Information

Results

Database
Possible Future Step
Key Points

• Outline a method used to make scans into Geographic Information
• 38,000+ Historical Maps and Charts
  – Free and easily accessible
  – [http://www.nauticalcharts.noaa.gov/history](http://www.nauticalcharts.noaa.gov/history)
  – Feedback is encouraged!
  – [historicalcharts@noaa.gov](mailto:historicalcharts@noaa.gov)
(Questions)

• Thank You

• For code questions
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