



Historical coastline (contours) between Scaevan 1860, North America Datum 1983
Longitude of central meridian 70°15' W, latitude of true scale 41°30' N
This map is not intended for navigational purposes.

SCALE 1:80,000
ONE CENTIMETER ON THE MAP REPRESENTS 800 METERS ON THE SEAFLOOR

0 1 2 3 4 5 6 7 8 9 10
KILOMETERS
0 1 2 3 4 5
NAUTICAL MILES

CONTOUR INTERVALS: METERS
BROWN CONTOURS REPRESENT TOPOGRAPHIC ELEVATIONS
DARKER BROWN CONTOURS REPRESENT DEPTHS BELOW SEA LEVEL

SEA FLOOR TERRAIN RUGGEDNESS INDEX

Interval not shown on map
Interval not shown on map

Interval >10 to 100 cm (100-cm increments)
Interval >1 to 2 m (100-cm increments)
Interval >2 to 8 m (100-cm increments)

Colors represent the average change in elevation, in centimeters, between a central area (a 13 x 13 m pixel) and the eight pixels that surround it. The filter calculation is three pixels by three pixels, or 39 x 39 m in size. For example, on the map green represents central pixels having an average elevation change of >100 to 150 cm with respect to their surrounding eight-pixel area. Note the elevation-change increments in the color scale vary from 10 cm to 50 cm to 100 cm. A filter was applied to the ruggedness index image to smooth the boundaries between the ruggedness intervals. The filter calculation is three pixels by three pixels, or 39 x 39 m in size. Areas of ruggedness were calculated using this filtered image; see table 1 for map D on the DVD-ROM.

Sheet 4.—Sea floor ruggedness in the >1- to 2-meter range and sun-illuminated topography.
MAP D.—SEA FLOOR RUGGEDNESS IN THE STELLWAGEN BANK NATIONAL MARINE SANCTUARY REGION
By
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Sea Floor Image Maps Showing Topography, Sun-Illuminated Topography, Backscatter Intensity, Ruggedness, Slope, and the Distribution of Boulder Ridges and Bedrock Outcrops in the Stellwagen Bank National Marine Sanctuary Region off Boston, Massachusetts
Page C. Valentine, editor

