This acoustic-backscatter map of the Offshore of Point Reyes map area in northern California was generated from backscatter data collected by Fugro Pelagos and by California State University, Monterey Bay (CSUMB) (fig. 1). Mapping was completed between 2007 and 2010, using a combination of 200-kHz and 30-kHz acoustic data collected from different systems and different processing methods.

The onshore-area image was generated by applying an illumination having an azimuth of 300° and from U.S. Geological Survey’s National Elevation Dataset (available at http://ned.usgs.gov/). California’s State Waters and from NOAA Coastal Service Center’s 122° 55’ 38° 38’ 38° 5’ bathymetric contours were then clipped to the boundary of the map area.

The acoustic-backscatter imagery from each different mapping system and processing method were merged into their own individual grids. These individual grids, which cover different areas, were displayed in a GIS to create this map, on which brighter tones indicate higher backscatter intensity, and darker tones lower backscatter intensity. Overlap between parallel lines was resolved using a priority table whose values were based on the column sound velocity using the AM SVPlus data, and for variations in water height (tides) using vertical-echosounder. Soundings were corrected for vessel motion using the Applanix POS MV data, for variations in water-velocity, variations in water-temperature, and between X and Y directions on the same plotter, and paper may change size due to atmospheric conditions; therefore, scale and dimension may vary. Additional information can be found in the CSUMB 2013 Acoustic Backscatter Report. This map was printed on an electronic plotter directly from digital files. Dimensional calibration may vary between electronic plotters. The map is available in GeoTIFF format at a Digital Elevation Model scale of 1:24,000 on the U.S. Geological Survey Open-File Report 2015–1114, pamphlet 39 p., 10 sheets, scale 1:24,000, http://dx.doi.org/10.3133/ofr20151114 or http://pubs.usgs.gov/of/2015/1114/.

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