Guide to California Seafloor and Coastal Mapping Program Product Suites

The California Seafloor and Coastal Mapping Program represents a collaboration lead by the Ocean Protection Council, USGS, and NOAA working to map California's coastal areas and state waters, improving the data available to state and federal agencies as well as the scientific and NGO communities. This information sheet is intended as a quick-reference guide to the different CSCMP product suites. These product suites include but are not limited to ArcGIS files, web-portal access, jpg images, and the large-format map sheets shown.

CSCMP maps are available at: <u>https://walrus.wr.usgs.gov/mapping/csmp/sheets.html</u> CSCMP data catalog is available at: <u>https://walrus.wr.usgs.gov/mapping/csmp/gis.html</u> CSCMP video and photograph portal is available at: <u>http://dx.doi.org/10.5066/F7J1015K</u>



Seafloor Bathymetry: Sheets 1 and 2 contain processed and merged high-resolution bathymetry coverage.



Acoustic Backscatter: Sheet 3 shows processed and merged acoustic backscatter, providing information on seafloor "hardness" and composition (e.g., rock, coarse sediment, fine sediment).

Data Integration and Visualization: Sheet 4 integrates information from Sheets 1-3 to highlight particular seafloor characteristics in perspective views.







Seafloor Character: Sheet 5 depicts the "seafloor character" raster dataset, which is a numerical classification of the seafloor using rugosity calculated from multibeam bathymetry (for ruggedness), and multibeam backscatter intensity (for hardness). Ground truth survey data (Sheet 6) is used to both supervise the numerical classification (a small subset of the ground truth data) and assess the accuracy of the classification (all remaining ground truth data). The classified raster retains the resolution of the multibeam data from which it is derived. **Ground-Truth Survey:** Sheet 6 shows the results of ground-truth surveys, which are conducted by towing a camera sled which collects both video imagery and still photographs. These images validate the geological and habitat interpretations of the sonar data shown in Sheets 5, 7, and 10. Observations of seafloor physical characteristics, and the presence of key biota are published as a point shapefile.



Potential Habitats Map: The potential habitats shown in Sheet 7 are delineated on the basis of substrate type, geomorphology, seafloor process, or other attributes that may provide a habitat for a specific species or assemblage of organisms.





Seismic Reflection Profiles: Sheet 8 compiles representative seismic-reflection profiles, showing subsurface stratigraphy and structure. The emphasis is on recently collected, shallow, high-resolution data. Sediment Distribution and Thickness: Sheet 9 shows the distribution and thickness of "young" sediment (deposited during the most recent period of sea level rise). These data and map products are produced from interpretation of the seismic reflection data from Sheet 8.



Geologic Mapping: Sheet 10 is a seamless onshoreoffshore geologic map that combines existing onshore mapping (compiled by California Geological Survey) and new seafloor mapping that integrates data from Sheets 1, 2, 3, 6, and 8.



Video and Photograph Portal: The portal displays an interactive map of California with tracklines along which videos and photographs were taken.

More than 550 kilometers of trackline video and 87,000 photographs were collected. You can view this content at the above link.