**DATA INTEGRATION AND VISUALIZATION, OFFSHORE OF POINT CONCEPTION MAP AREA, CALIFORNIA**

By

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**D iscussion**

The offshore of Point Conception (34°30'N 120°12'W) and the neighboring areas within State Waters have been the subject of extensive hydrographic, geophysical, and visual surveys by the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Geological Survey (USGS). These surveys have generated a large volume of data on the seafloor characteristics, including bathymetry, seafloor composition, and sediment transport dynamics. The National Oceanic and Atmospheric Administration's Digital Coast program has made much of this data available to the public.

In recent years, efforts have been made to integrate and visualize these datasets in a useful way for coastal and marine management. This presentation focuses on the offshore of Point Conception, where an asphalt deposit, possibly formed by mobilization and transport of sediment by strong currents that wrap around Point Conception, has been identified. The deposit is 10 m of vertical relief at “a” above surrounding seafloor and has a width of about 1 km in the east-west direction and about 2 km in the north-south direction.

Perspective views of this deposit are shown in Figures 1, 2, 4, 5, 6. These views demonstrate the complexity of the seafloor morphology, with asphalt deposits, pockmarks, and eroded and fractured bedrock being evident. The asphalt deposit appears to have intermediate backscatter intensities, suggesting that it is composed of relatively fresh asphalt that has little or no sediment mixed in.

The bathymetric profile shown in Figure 3 displays the depth changes across the mosaic, with a vertical exaggeration of about 2x. The width of the mosaic changes because the field of view of the camera-sled tow direction is from bottom to top; however, the distance across the bottom of the image is about 1.6 km. The image shows green dots that are lasers on a camera-sled, which is used to capture video of the seafloor.

Another perspective view, shown in Figure 4, provides a view of asphalt deposits in the nearshore area and pockmark fields along the outer shelf. The asphalt deposits are shown in Figure 5, along with other features such as bathymetric profile and colored shaded-relief bathymetry. The map of the offshore of Point Conception map area is shown in Figure 6, along with a perspective view of the area.

The seafloor characteristics, habitat, and geologic maps are used for fisheries, other stakeholders. Seafloor-character, habitat, and geologic maps may be used for fisheries to assist in the coastal and marine spatial-planning capability of coastal-zone managers and other stakeholders. Seafloor-character, habitat, and geologic maps may be used for fisheries to assist in the coastal and marine spatial-planning capability of coastal-zone managers and other stakeholders.