



US Army Corps
of Engineers®

Coastal Field Data Collection

Coastal Data Information Program (CDIP): Beaches

Issue Planning for shoreline protection, beach maintenance, coastal inlet dredging and related engineering activities requires a regional understanding of the coastal processes extending tens of miles up and down the coast from an individual project. Techniques of observations and modeling that are economical and effective for small stretches of coastline are not necessarily useful for regional coastline management. As the size of the region increases, so do differences in the wave climate and underlying geology. Regional management tools, which have been evaluated in a variety of locations, are required. An ideal location of regional study is southern California with its narrow continental shelves, swell-dominated wave climate, and cliff-backed beaches.

Research Approach

Coastal processes and beach changes are monitored along a 110-mile-long region extending from the Mexican border to Long Beach, CA (map at right). Since 2002, the CDIP-Beaches program has been using airborne LiDAR to semi-annually map beach and cliff changes. At certain focus areas, in-situ surveys using Global Positioning System (GPS)-equipped all terrain vehicles and Jet Skis are also performed. These data are combined with CDIP wave data to analyze process/response relationships and to develop analysis tools. This program complements the Corps Regional Sediment Management research program and contributes to the Corps' National Coastal Mapping Program.



Partners This project is performed by the Scripps Institution of Oceanography in collaboration with the State of California and the Engineer Research and Development Center and in partnership with the Los Angeles District of the US Army Corps of Engineers.

Products Documents, papers, data, and products can be found at the program Web site: <http://cdip.ucsd.edu/SCBPS>. LiDAR data are available from the Digital Coast Web site: (<http://www.csc.noaa.gov/digitalcoast/index.html>).

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