

March 1, 2011

The Honorable Daniel Inouye, Chairman Senate Appropriations Committee Washington, D.C. 20510

The Honorable Harold Rogers, Chairman House Appropriations Committee Washington, DC 20515

Dear Chairman Inouye and Chairman Rogers:

On behalf of the American Shore & Beach Preservation Association (ASBPA), I ask you to please contact your colleagues on the Energy and Water Appropriations Subcommittee and urge them to support \$5 million for the Coastal Data Information Program (CDIP) within the FY 2012 US Army Corps of Engineers budget. CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous fiscal years.

Based at Scripps Institution of Oceanography, CDIP (http://cdip.ucsd.edu) is a collaborative program between the US Army Corps of Engineers and the State of California. CDIP measures, models, and forecasts waves along the coastal United States, including the Hawaiian Islands, the Caribbean, and Guam, enhancing and expanding the efforts of the national Integrated Ocean Observing System (IOOS). Through sophisticated observations and models, CDIP characterizes waves for regional coastlines, providing updated and accurate wave information to the operational maritime and coastal management communities.

The ASBPA recognizes that the shores, beaches and other coastal resources of America provide important quality-of-life assets within the reach of the largest possible number of people in accordance with the ideals of a democratic nation. The information that CDIP provides is critical to the effective management of our nation's shorelines and structures, as well as safe and efficient dredging projects, navigation, and coastal recreation. CDIP develops observation-based models of wave-driven coastal flooding to address the vulnerability, resilience, and adaptation of the coastal zone. Robust methods and models are being developed for the prediction of shoreline evolution, including beach processes, which will validate and support regional sediment management. Without these data, life and property would be at risk.

This funding is crucial to ensure the maintenance of CDIP's existing buoy network and the data products it enables, as well as the continuation of the program's expansion into areas lacking this valuable information. While the number of buoys in CDIP's array has increased in recent years,

PRESIDENT'S OFFICE

1100 Caswell Beach Road, Caswell Beach, NC 28465 (910) 200-7867 • Fax (800) 967-0816 E-mail: president@asbpa.org Visit the ASBPA online at www.asbpa.org WASHINGTON OFFICE c/o Marlowe & Company 1667 K Street, Suite 480, Washington, DC 20006 (202) 775-1796 • Fax (202) 775-0214 E-mail: beaches@asbpa.org

U.S. DEPARTMENT OF COMMERCE National Oceanic and Atmospheric Administration NATIONAL WEATHER SERVICE

10009 General Mahone Highway Wakefield, Virginia 23888-2742

February 17, 2011

Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institution of Oceanography
9500 Gilman Drive, 0214
La Jolla, CA 92093-0214

Dear Ms. Thomas:

The National Weather Service Forecast Office in Wakefield, Virginia, routinely uses the data provided by the wave monitoring buoy off of Cape Henry (NDBC ID 44099) to assist us to meet our mission to save lives and protect property. The buoy provides useful and timely wave information for our marine forecasts for the Atlantic coastal waters, and is currently the only source of nearshore wave information within our coastal waters region.

Our marine forecast area includes the Virginia portion of the Chesapeake Bay, and the Atlantic coastal waters from the Maryland/Delaware border to the northern outer banks of North Carolina. The Cape Henry Scripps Buoy (44009) is a critical observation point for the southern portion of our Atlantic waters forecast area. We rely on this buoy to monitor current nearshore sea state conditions as a basis for our routine forecast, in addition to helping verify our marine forecasts. During the warm season, this buoy also serves as a basis for determining the near-term rip current threat along the southern Virginia coast, especially the resort beaches at or near Virginia Beach.

We interact with marine users at boat shows and other forums. We often hear from them how important the observation data is to their decision making process. The buoy data are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and others. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Please feel free to contact me if I may be of further assistance.

Sincerely,

William R. Sammler

Acting Meteorologist-in-Charge

WFO Wakefield, VA

william.sammler@noaa.gov





City of Virginia Beach

VBgov.com

MUNICIPAL CENTER BUILDING NUMBER 2 2405 COURTHOUSE DRIVE VIRGINIA BEACH, VA 23456-9031

DEPARTMENT OF PUBLIC WORKS OFFICE OF THE CITY ENGINEER (757) 385-4131 FAX (757) 385-5668 TTY: 711

February 9, 2010

Julie Thomas Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of the City of Virginia Beach, I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. The data collected at the Cape Henry and Duck wave buoys is critical to our stewardship of over 28 miles of Atlantic Ocean and Chesapeake Bay public shoreline.

In addition to informing US Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP is crucial to our program of public shoreline stewardship and many users of Virginia's coastal resources. Please feel free to contact me if I may be of assistance.

Sincerely,

Phillip J. Roehrs, P.E.

Water Resources Engineer

DEPARTMENT OF THE ARMY



WILMINGTON DISTRICT, CORPS OF ENGINEERS 69 DARLINGTON AVENUE WILMINGTON, NORTH CAROLINA 28403-1343

February 23, 2011

Coastal, Hydrology and Hydraulics Section

Ms. Julie Thomas, Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, California 92093-0214

Dear Ms. Thomas:

On behalf of the U.S. Army Corps of Engineers, Wilmington District, I continue to enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

In North Carolina, the CDIP data station off of Masonboro Inlet continues to be critical for real-time and archived wave data offshore of 3 of our 4 renourished beaches (Wrightsville Beach, Carolina Beach and Kure Beach). This type of data is used in numerical wave modeling as input to nearshore models to look at sediment transport along our beach projects as well as helping us understand critical wave processes at many of our shallow-draft navigation projects and inlets. Understanding inlet processes and our maintenance of these shallow-draft inlets rely on data from this buoy. In addition, we use this data to support our Regional Sediment Management program which looks at how sediment moves to, within and across inlets.

In addition to informing U.S. Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Sincerely.

Gregory L. Williams, Ph.D., P.E.

Chief, Engineering Branch



UNITED STATES MARINE CORPS

AMPHIBIOUS VEHICLE TEST BRANCH P.O. BOX 555217, BLDG 210536 CAMP PENDLETON, CALIFORNIA 92055-5217

> IN REPLY REFER TO: 4400 AVTB-018 02 Dec 2010

From: Lab Director, Amphibious Vehicle Test Branch, USMC

To: Julie Thomas, Manager, CDIP

Subj: CDIP PRODUCTS

1. <u>Intent.</u> The intent of this letter is to inform you of the various ways in which my organization uses the information provided through your Coastal Data Information Program (CDIP) and to thank you for your continued work in this area. The information provided through CDIP is immensely useful to our day to day operations in support of the Expeditionary Fighting Vehicle (EFV).

2. <u>Background</u>. The EFV Program is the Marine Corps' number one priority ground weapon system acquisition program, as well as the only ACAT-1D program managed by the Marine Corps. Within the EFV Program, the Amphibious Vehicle Test Branch (AVTB) serves as the primary Test & Evaluation facility for the EFV. The EFV Program recently entered a critical pre-production phase and testing conducted at AVTB will be the focal point of the program. The EFV can be seen in Figure 1 below.



Figure 1 - EFV in the Open Ocean

3. <u>Data Usage Details</u>. The majority of the EFV developmental test activities take place in the open ocean near Camp

Pendleton. Knowledge of the sea conditions in the test area is critical in determining performance and safety thresholds. data provide by CDIP is used before, during, and after every test conducted in the open ocean. Not only do the predictions help AVTB to decide when to test but the near real time buoy information also provides clarity about the conditions during the test. Specifically, CDIP buoy information from the Dana Point, Torrey Pines, and Oceanside Buoys are compiled and reported for each test. These buoys are all operated and maintained by the CDIP program. CDIP also collects and reports buoy information from an AVTB owned buoy named "Camp Pendleton", in order to integrate the additional information into the CDIP website and prediction models. This provides convenient web access of our own data on the CDIP website. This mutually beneficial partnership has provided AVTB with a way to disseminate its own information to outside organizations. In closing, I would like to thank CDIP for all of the support and essential services they provide to AVTB and the Marine Corps.

C.R. Lauffer

Global Headquarters P.O. Box 6010 San Clemente, CA USA 92674-6010 Phone: (949) 492 8170

Fax: (949) 492 8142

SURFRIDER

February 25, 2011

Dear Members of the Coastal Congressional Delegation:

On behalf of the Surfrider Foundation, I ask you to contact your colleagues on the Energy and Water Appropriations Subcommittee and urge them to support \$5 million for the Coastal Data Information Program (CDIP) within the FY 2012 US Army Corps of Engineers budget. CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous fiscal years.

Based at Scripps Institution of Oceanography, CDIP (http://cdip.ucsd.edu) is a collaborative program between the US Army Corps of Engineers and the State of California. CDIP measures, models, and forecasts waves along the coastal United States, including the Hawaiian Islands, the Caribbean, and Guam, enhancing and expanding the efforts of the national Integrated Ocean Observing System (IOOS).

CDIP characterizes waves for regional coastlines, providing updated and accurate wave information to the operational maritime community. This information is critical to the safe and efficient navigation of dredging project managers as well as military, commercial, and recreational maritime traffic. CDIP also develops observation-based models of wave-driven coastal flooding, addressing the vulnerability, resilience, and adaptation of the coastal zone. Robust methods and models are being developed for the prediction of shoreline evolution, including beach processes, which will validate and support regional sediment management. Without these data, life and property would be at risk.

CDIP data helps Surfrider Foundation, as an organization, better understand how ocean movements and waves impact coastal ecosystems that relate to some of our existing programs and campaign issues. The data also helps our members gauge ocean activity for recreation.

This funding is crucial to ensure the maintenance of CDIP's existing buoy network and the data products it enables, as well as the continuation of the program's expansion into areas lacking this valuable information. While the number of buoys in CDIP's array has increased in recent years, benefiting its operational users, the program has been operating an expanded network with minimal resources. Given the importance of the information this program provides, I urge you to support the highest possible level of funding for CDIP in FY12.

Sincerely

Stefanie Sekich

Coastal Campaign Specialist



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services Carlsbad Fish and Wildlife Office 6010 Hidden Valley Road, Suite 101 Carlsbad, California 92011



In Reply Refer To: FWS-11CPA0022

FEB 2 5 2011

Julianna Thomas Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, California 92093-0214

Dear Ms. Thomas:

The U.S. Fish and Wildlife Service (Service) is writing this letter in support of the data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography, La Jolla, California.

We view Scripps Institution of Oceanography as one of many important partners of the Carlsbad Fish and Wildlife Office (CFWO) in providing timely and accurate data to support our mission of conserving federally listed species and other coastal trust resources. The data provided by CDIP enhances our ability to identify and designate critical habitat and helps inform our assessments of sea level rise and other climate change effects to species and their coastal habitats.

In addition, CDIP develops and validates regional sediment management models, characterizes ocean waves for regional coastline studies, and provides support to the Integrated Ocean Observing System, a Federal, regional, and private-sector partnership working to enhance the collection, delivery, and use of ocean information.

The Service believes that continued support of CDIP's programs including continuity of data sets will provide CFWO with valuable information that allows for a comprehensive evaluation of climate change effects to our coastal species and their habitats.

If you have any questions regarding this letter, please contact Tony McKinney of this office at (760) 431-9440, extension 259.

Sincerely,

Scott A. Sobiech Deputy Field Supervisor



Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institute of Oceanography
9500 Gilman Drive
La Jolla, Ca. 92093

Dear Julie,

On behalf of the pilots in the Port of Grays Harbor Washington State I would like to reiterate the essential role that the "Wave Rider Bouy" plays in pilotage. I would say that as the sizes of ships continually increases that the information plays an even bigger role in safety and efficiency. I simply could not do this job in the same fashion without the real time data. I sincerely hope that we will have this device in place for as long as we are transiting this waterway with seagoing vessels.

Thank you very much.

Capt.R.L.D'Angelo



DEPARTMENT OF THE NAVY

NAVAL AIR WARFARE CENTER WEAPONS DIVISION

1 ADMINISTRATION CIRCLE
CHINA LAKE, CA 93555-6100

575 I AVENUE SUITE 1
POINT MUGU, CA 93042-5049

2300 Ser 52300ME/4454 20 Sep 10

Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214

Attn: Julie Thomas, Program Manager

Ladies and Gentlemen:

On behalf of Naval Air Warfare Center, Weapons Division, I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

NAWCWD has been teaming with CDIP for many years, and we have come to rely on the quality of the CDIP data and its reliability. Many DOD test projects use the sea condition data at some point in the scenario, either for pilot ejection safety limits, sea-skimmer flight altitude settings, ship passenger transfer locations, RADAR clutter estimations, small boat operations, or target recovery. The swell height information, both direct measured and modeled, is used virtually daily. We also frequently use the newer surface current measurements and models, especially around San Nicolas Island. The database is also very valuable, to develop seasonal estimations of effects on DOD test systems. Finally, the Inundation Model you operate for the Point Mugu beaches regularly protects life and property, since that beach becomes fully submerged at least once a year.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Sincerely,

ROBERTO M. GARCIA

Head, Met., Ocean and Geophysics Branch



ORGANIZED 1956

CALIFORNIA MARINE AFFAIRS AND NAVIGATION CONFERENCE

20885 REDWOOD ROAD, # 345 ~ CASTRO VALLEY, CALIFORNIA 94546 PHONE: (925) 828-6215 ~ FAX: (925) 396-6005 ~ E-MAIL: Jim@cmanc.com ~ www.cmanc.com

Public Agency Members

Contra Costa, County of Crescent City Harbor Humboldt Bay Harbor Long Beach, Port of Los Angeles, County of Los Angeles, Port of Monterey, City of Morro Bay, City of Moss Landing Harbor Napa, County of Newport Beach, City of Noyo Harbor Dist. Oakland, Port of Oceanside, City of Orange, County of Oxnard Harbor Dist. Petaluma, City of Port Hueneme, City of Port San Luis Harbor Redondo Beach, City of Redwood City, Port of Richmond, Port of San Diego, Port of San Francisco, Port of San Leandro, City of San Mateo Co. Harbor San Rafael, City of Santa Barbara, City of Santa Cruz Port Dist. Seal Beach, City of Sonoma, County of Stockton, Port of Suisun City, City of Ventura, County of Ventura Port Dist.

West Sacramento, Port of

February 28, 2011

Julie Thomas Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214 JEFF WINGFIELD

MIKE CHRISTENSEN VICE CHAIR

LYN KRIEGER TREASURER

CHRIS BIRKELO
IMMEDIATE PAST CHAIR

JAMES M. HAUSSENER
EXECUTIVE DIRECTOR

Dear Ms. Thomas:

On behalf of California Marine Affairs and Navigation Conference, representing California's ports and harbors I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

The Ocean waters off the Coast of California can be dangerous to boaters. There are long distances between harbors of refuge and there is no "inter-coastal waterway" to duck into in times of rough seas. CDIP provides timely and accurate information to boaters to plan their trips up and down the Coast with the most accurate information, which reduces the need for harbor patrol services.

The Swell Forecast Model helps operators of commercial craft to plan their coastal trips to avoid inclement sea conditions, which reduces fuel consumption and green house gas emissions.

In addition to informing US Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Sincerely,

James M. Haussener

James M. Haussener Executive Director

JACOBSEN PILOT SERVICE, INC. LOS ANGELES AND LONG BEACH HARBORS

U.S. FEDERAL LICENSED PILOTS

OFFICE (562) 435-5435 • PILOT STATION (562) 432-0664 • FAX (310) 835-2485 P.O. BOX 32248

LONG BEACH, CALIFORNIA 90832-2248

March 4, 2011

Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institution of Oceanography
9500 Gilman Drive, 0214
La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of Jacobsen Pilot Service, Inc., Pilots for the Port of Long Beach, California, I completely endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

Our Pilots have been using this valuable information for many years now. We pilot some of the largest VLCC Super Tankers that come into American waters and it's critical for us to monitor the swells closely so we can reduce the chance that the vessel will pitch or roll to a point of touching bottom. Also, during storm conditions we use the offshore wave data to predict the wave patterns at our Pilot Boarding.

In addition to informing US Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Sincerely,

aptain Thomas A. Jacobse

President



DEPARTMENT OF THE NAVY

NAVAL MARITIME FORECAST CENTER JOINT TYPHOON WARNING CENTER 425 LUAPELE ROAD PEARL HARBOR HI 96860-3103

IN REPLY REFER TO:

9494 Ser N3/036 March 2, 2011

Ms. Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institution of Oceanography
9500 Gilman Drive, 0214
La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of the Naval Maritime Forecast Center/Joint Typhoon Warning Center, I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

As the primary Department of Defense (DoD) maritime safety forecasting center for the Pacific and Indian Ocean, Naval Maritime Forecast Center is an avid user of the buoys around the Hawaiian waters to write forecasts and provide DoD and U.S. government vessels safe routing around hazardous conditions at sea.

Specifically, to the northwest of the Hawaiian Islands we use the buoys to watch incoming swell waves associated with transiting low pressure systems. To the south, we use the buoys to watch for long period swell coming from the south associated with low pressure systems transiting south of the equator. Around the Hawaiian Islands, we use the buoys to help us produce coastal and local area forecasts for navy vessels operating in and around the Hawaiian Islands.

We rely on these buoys daily to have the most current data available. We use them to initialize our models and to produce both short and long term forecasts.

Of note, we regularly train our apprentice forecasters on use of these buoys as a critical part of our standard forecast

process here in Hawaii. We only wish ocean observing was this robust in other parts of our area of responsibility.

In addition to informing U.S. Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me at (808)471-2157 if I may be of further assistance.

Sincerely,

J. C. HINZ

Commander, U.S. Navy Operations Officer By direction of the Commanding Officer



Clean Seas LLC • 990 Cindy Lane, Unit B • Carpinteria, CA 93013-2900 • 24 Hr.: (805) 684-3838 • Fax: (805) 684-2650-G. E. "Ike" Ikerd General Manager

March 10, 2011

Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institution of Oceanography
9500 Gilman Drive, 0214
La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of Clean Seas LLC, I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

As you know, Clean Seas is an Oil Spill Response Organization (OSRO) that provides oil spill response services in the Santa Barbara Channel and along the Central Coast of California. Clean Seas Oil Spill Recovery Vessels (OSRVs) are on duty 24/7 ready to respond to an oil spill. The information provided by the CDIP is helpful during everyday vessel operations and particularly during oil spill response operations.

CDIP provides updated and accurate wave information to the operational maritime community. This information is critical to safe and efficient navigation by vessels serving offshore oil and gas operations as well as other commercial, military, and recreational maritime traffic. In addition, CDIP's observation-based models of wave-driven coastal flooding help address the vulnerability, resilience, and adaptation of the coastal zone. The robust methods and models that are being developed for the prediction of shoreline evolution, including beach processes, will validate and support regional sediment management. Without these data, life and property would be at risk.

CDIP also participates in the national Integrated Ocean Observing System (IOOS) and provides near real time wave data and models for the Southern California Coastal Ocean Observing System's (SCCOOS) integrated display of waves and ocean surface currents.

CDIP is funded through a Cooperative Agreement between the USACE and the California Department of Boating and Waterways. Sustained federal funding for CDIP will be crucial to the maintenance of the program's existing buoy network and the important data products it enables. Please feel free to contact me if I may be of assistance.

Sincerely,

BakerAECOM, LLC FEMA CONTRACT NO. HSFEHQ-09-D-0368/TASK ORDER NO. HSFE09-10-J-0002

Subcons	sultan	t Task	Order No.:	UCSD-PTS-001	Effective Date: August 16, 2012
		- 4			

Modification No.: 02

The Regents of The University of California
University of California, San Diego
9500 Gilman Drive, Dept. 0210, La Jolla, CA 92093-0210

The purposes of this task order modification are to: (1) fully fund the Phase III of the Scope of Work, as detailed in the original task order issue; (2) extend the authorized period of performance; and (3) make an administrative change to Attachment A. All other terms and conditions of the task order remain in full force and effect.

- 1. SCOPE OF WORK: As described in Section B Scope of Work.
- 2. TIME OF PERFORMANCE: Refer to Section C Period of Performance.
- 3. PRICE: As detailed in Section D, Compensation for Performance, and the Task Order Financial Summary below, the total amount of this Firm-Fixed-Price (FFP) Task Order shall not exceed \$567,757 without written authorization from Buyer and Seller shall not exceed funding limit of \$567,757 without written authorization from Buyer.
- 4. TERMS AND CONDITIONS: This Task Order shall be governed in its entirety by the terms and conditions of this Task Order and Subconsultant Agreement No. UCSD-S-1043, including all modifications thereto, which are incorporated herein by reference.
- 5. MISCELLANEOUS: See Section D for reporting and invoicing requirements supporting Buyer's earned value management reporting requirements.

ACCEPTED AND AGREED TO:	
BAKERAECOM, LLC	THE REGENT

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA UNIVERSITY OF CALIFORNIA, SAN DIEGO

By: J. Pagneth	By: Naung. F. Wilson
Printed Name: F. PASQUEL	Printed Name: Nancy A.F. Wilson
Title: Upe PRECIDENT	Title: Director, Office of Contract and Grant
Data: Plating	Date: X 122 113 Admin., SIO, UCSD

Task Order Financial Summary

Task Order Amount (including	profit)	Task Order Funding Limitation (including profit)		
Task Order Modification Amount	\$0	Task Order Modification Funding	\$321,200	
Prior Task Order Amount	\$0	Prior Task Order Funding Limitation	\$246,557	
Total Task Order Amount	\$567,757	Total Task Order Funding Limitation	\$567,757	

Task Order No. UCSD-PTS-001 – Mod 02 - Support under Buyer Prime Contract No. HSFEHQ-09-D-0368/Task Order No. HSFE09-10-J-0002

A. General Contract Requirements

The terms and conditions of the Subconsultant Agreement between Buyer and Seller together with the terms and conditions specified or referenced in this Task Order and any documents attached hereto govern the interpretation and performance of this Task Order.

B. Scope of Work

Phase III of the scope of work as detailed in the original task order issue is hereby authorized and fully-funded. Phase III Item (6) is now due on or before January 2, 2013.

C. Period of Performance

The period of performance for this task order is hereby extended to cover the period of April 26, 2011 through January 2, 2013.

D. Compensation for Performance

This Task Order is an incrementally-funded Firm-Fixed-Price (FFP) task order, as detailed in the scope of work above. The following not-to-exceed amounts are for the scope of services described herein.

Task Order Activities	Task	Initial Task Order	Task Order	Task Order
	Order	Funding Limitation	Funding Limitation	Funding Limitation
	Amount		(Mod 01)	(Mod 02)
Phase I	\$185,600	\$185,600	\$185,600	\$185,600
Phase II	\$135,600	\$0	\$135,600	\$135,600
Phase III	\$246,557	\$0	\$0	\$246,557
Total Firm-Fixed-Price	\$567,757	\$185,600	\$321,200	\$567,757

Seller shall not exceed the funding limits set forth above without prior written authorization from Buyer.

- E. Technical Data Deliverables Unchanged
- F. Reports of Professional Services Unchanged
- G. Special Requirements and Conditions *Unchanged*
- H. Technical and Contractual Representatives *Unchanged*

An administrative change to Attachment A follows on the next page.

Attachment B is unchanged.

BakerAECOM LLC Subconsultant Invoice Transmittal

Please attach this cover sheet to all invoices and transmittal letters. Contact Baker's Project Manager if you have any questions.

	Accounts Payable Michael Baker Corporation 4301 Dutch Ridge Road Beaver, PA 15009		
Or e-mail to:	AP@mbakercorp.com		
Following information to be comple	eted by subconsultant: [NOTE: Please complete all fields.]		
Invoice Date:			
Invoice Number:			
Total Invoice Amount:			
Less Retention (if applicab	ole):		
Total Payable:			
Dates Work Performed	From: To:		
Following information to be completed	eted by Baker's Project Manager:		
Project Name:	Region 9 Task Order 2 FY10 Coastal		
Subconsultant Name:	University of California, San Diego		
Subconsultant Number:	19358		
	(Check with Accounts Payable, if Subconsultant number is unknown.)		
Baker Project Manager:	Jeff Sparrow		
Ultimate Client:	FEMA		
Project Number:	121104		
Organization:	513.N3.A5		
Expenditure:	See Attached		
Task:	See Attached		
Baker Entity:	BakerAECOM LLC		
Payment Terms:	[PWP, N30, N45, N60, N90]PWP		
If this is a client certified small bus	iness, check appropriate box:		
SDB – Small Disadvantaged B WOSB – Woman-Owned Small	usiness VOSB – Veteran-Owned Small Business		



Main Office 111 S. Wooding St. PO Box 660 Aberdeen, WA 98520

February 15, 2011

360/533-9528

Julie Thomas Fax 360/533-9505 Program Manager

EMail/Web Page harbor@portgrays.org portofgraysharbor.com

Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214

Westport Marina PO Box 1601 Westport, WA 98595

Dear Ms. Thomas:

360/268-9665 Fax 360/268-9413 On behalf of the Port of Grays Harbor, I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

Commissioners: Jack Thompson Stan Pinnick Chuck Caldwell

The Port of Grays Harbor experienced an 85% increase in tonnage in 2010 over 2009. We also had a 45% increase in the number of vessel arrivals. This increase in traffic at the only deep-water Port on Washington's Pacific Coast, combined with our incumbent commercial and recreational mariners, reaffirms the importance of these buoys to safe navigation on Grays Harbor. Without publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Executive Director: Gary G. Nelson

> Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Sincerely,

PORT OF GRAYS HARBOR

Executive Director



COUNTY OF SANTA BARBARA COUNTY EXECUTIVE OFFICE

Chandra L. Wallar County Executive Officer

Michael D. Harris
Emergency Operations
Chief

OFFICE OF EMERGENCY SERVICES

105 East Anapamu St. Suite 3 – Santa Barbara – CA - 93101 805-560-1081 – office 805-560-1032 – fax

www.countyofsb.org/ceo/oes



ELECTRONICALLY TRANSMITTED BY EMAIL

February 22, 2011

Ms. Julie Thomas Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of the Santa Barbara County Office of Emergency Services (OES), I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

On a daily basis our office is responsible for emergency planning and coordination among the Santa Barbara Operational Area jurisdictions. One area OES is involved in is oil and gas production. Our office currently has a Memorandum of Understanding with the jurisdictions and the State to represent them in Unified Command as the Local On-Scene Coordinator during an offshore oil spill response. Currently the National Oceanic and Atmospheric Administration (NOAA) GNOME (General NOAA Operational Modeling Environment) is the oil spill trajectory model operators are using during an oil spill exercise to help them predict how current wind, wave currents, etc. might move and spread the simulated spilled oil. With the addition of surface current measurements to this model, as well as the availability of wave data from the Wave Buoy off Platform Harvest and others along southern California, oil and gas operators will have access to the most current information and another form to verify information is correct.

CDIP provides updated and accurate wave information to the operational maritime community. This information is critical to safe and efficient navigation by vessels serving offshore oil and gas operations, as well as dredging project managers and other military, commercial, and recreational maritime traffic. In addition, CDIP's observation-based models of wave-driven coastal flooding help address the vulnerability, resilience, and adaptation of the coastal zone.

Ms. Julie Thomas CDIP February 24, 2011 Page 2

The robust methods and models that are being developed for the prediction of shoreline evolution, including beach processes, will validate and support regional sediment management. Without these data, life and property would be at risk.

CDIP also participates in the national Integrated Ocean Observing System (IOOS) and provides near real time wave data and models for the Southern California Coastal Ocean Observing System's (SCCOOS) integrated display of waves and ocean surface currents.

CDIP is funded through a Cooperative Agreement between the USACE and the California Department of Boating and Waterways. Sustained federal funding for CDIP will be crucial to the maintenance of the program's existing buoy network and the important data products it enables. Please feel free to contact me if I may be of assistance.

Sincerely,

Elsa Arndt

Emergency Manager



ORANGE COUNTY SANITATION DISTRICT

We protect public health and the environment by providing effective wastewater collection, treatment, and recycling.

March 17, 2011

Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institution of Oceanography
9500 Gilman Drive, 0214
La Jolla, CA 92093-0214

SUBJECT: Support letter for continued US Army Corps Funding

The Orange County Sanitation District (OCSD) endorses the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. CDIP continues to be an integral part of the California ocean observation network with their contributions to the Southern California Coastal Ocean Observation System (SCCOOS). It has also come to my attention that CDIP is now responsible for monitoring and modeling beach erosion, an issue of critical importance to beach cities, through the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

CDIP swell and wave height modeling has helped OCSD with it offshore water quality program by providing information on whether current oceanographic conditions are suitably for field operations (i.e., Is it safe to sample?). Other products, like CDIP's surf zone transport model have helped in better understanding of bacteriological data from our receiving waters monitoring program. Both of these products are incorporated into contingency monitoring for any proposed or emergency use of OCSD's secondary outfall located approximately 1 mile from shore.

OCSD also recognizes CDIP's national importance for the coastal US. Thousands of users, including the military, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers, access its data and products. CDIP's characterization of waves on regional scales coastlines and predictions of beaches response to waves helps sediment management efforts. This capacity will become more important based on sea level rise predictions; predictions which have been officially accepted by the State of California.

In closing, continued funding for CDIP is necessary to ensure the maintenance of its at-sea equipment and the continuity of its data sets and informational products. Please feel free to contact me, if I may be of assistance.

Ed Torres

Director of Operations and Maintenance

ET:rm

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Serving

Anaheim

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Buena Park

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La Habra

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Los Alamitos

Newport Beach

Orange

Placentia

Santa Ana

Seal Beach

Tustin

Villa Park

Yorba Linda

Costa Mesa Sanitary District

Midway City Sanitary District

> Irvine Ranch Water District

County of Orange

03/23/2011 01:47 PM

CACHALOT CHARTERS
PO Box 348
Westport, WA 98595
360 268 0323
fishdiscovery@comcast.net
www.cachalotcharters.com

March 22, 2011

To Whom It May Concern:

I am writing in support of maintaining the National Data Buoy system. The reports coming off the buoys are imperative for navigation along our coast. With weather predictions being what they are, we are able to make prudent decisions in safety using the ocean information produced by the buoys. This data is important to us in the charter fleet and is also invaluable in our commercial fisheries along the coast. I strongly urge you to continue the maintenance of this buoy system.

Cordially,

David Camp, Owner

Cachalot Charters



United States Geological Survey

Pacific Science Center
400 Natural Bridges Drive
Santa Cruz, CA 95060
dhanes@usgs.gov

(831) 427-4718 voice (8

(831) 427-4748 fax

February 25, 2011

Julie Thomas Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214

Dear Ms. Thomas:

The Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography provides valuable data and services that I use on a nearly daily basis. When I needed specialized historical data the CDIP staff was of tremendous assistance creating and providing an archive of 2D MEM spectra for Buoy 029. We have used this data to investigate coastal erosion and sediment management in the San Francisco region.

In addition to informing US Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. During this period of contracting budgets it is particularly important to maintain funding to keep CDIP viable for both the short and long term.

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Sincerely,

Daniel M. Hanes



Columbia River Crab Fisherman's Association P.O. Box 461 Ilwaco, WA 98624 – 360-642-3942

...Serving the needs of the coastal crab fishing industry and coastal fishing communities...

CRCFA Commissioners:

Dale Beasley, President PO Box 461 Ilwaco, WA 98624 Phone & Fax (360) 642-3942 (360) 244-0096 cell crabby@willapabay.org

Ed Bittner 6810 V-Place Long Beach, WA 98631 (360) 642-2656 ebittner@centurytel.nt

Chris Doumit (alternate) PO Box 342 Cathlamet, WA 98612 (360) 795-0601 doumitmarine@centurytel.net

Dwight Eager PO Box 141 Chinook, WA 98614 (360) 777-8727 deager@centurytel.ne

John Edwards (alternate) PO Box Chinook, WA 98614 (360) 777johne2000@yahoo.com

Rob Greenfield PO Box 84 Chinook, WA 98614 (360) 777-8242 rtg327@hotmail.com

John Hanson (alternate) PO Box Chinook, WA 98614 (369) 777-8447 Carla_Hanson10@hotmail.com

Don Jester PO Box 860 Rodchester, WA 98579 (360) 269-4906 oceanballad@gmail.com

Bill Rhodes PO Box 2215 Gearhart, OR 97138 (503) 717-1068 crabber@pacifier.com

Kerry Suomela PO Box 522 Ilwaco, WA 98624 (360) 642-3589 socross@willapabay.org

Doug Westerlund alternate 128 Skyline Drive Astoria, OR 97103 (503) 325-1358 dougann378@msn.com **RE:** CDIP buoys

Commercial fishermen all up and down the coast rely heavily on marine weather buoys to make informed decisions about their safety at sea.

The CDIP wave rider buoys have had an excellent record of continuous operation even when the National Weather Service buoys fail, which has occurred off the Washington/Oregon coast all too often in mid-winter when we need the information the most.

We firmly support the continued operation of the most reliable buoys on the coast, CDIP.

In addition we would support a different wind speed indicator than an anemometer to the CDIP's if at all possible. Wind speed is also essential to safety at sea.

Thanks again for continuing the CDIP buoy that shows up in National Weather Service daily reports as buoy 46243, this has been a great addition to our decision making process. 46243 consistently has 2 to 3 foot less swell than 46249 with the NWS forecasts to. In the past the fishing fleet knew there was actually quite a discrepancy between 20 miles off shore and the location of the new 46243 buoy and had begun to ignore NWS forecasts decreasing the SAFETY in the decisions to go to sea or stay at the harbor losing a day's pay.

With the more reliable CDIP buoys we can more safely decide to fish when weather permits instead of ignoring forecasts.

Since the USCG has begun official bar closures at the Mouth of the Columbia River the C-DIP buoys can offer a reliable source of wave height information and help get the bars open sooner and commerce moving, making the marine industry more viable without compromising safety.

A concerned mariner and President of CRCFA,

Dale Beasley



California Shore & Beach Preservation Association

April 4, 2011

Julie Thomas, Program Manager; Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive, 0214 La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of California Shore & Beach Preservation Association (CSBPA), which is a state chapter of the American Shore & Beach Preservation Association (ASBPA), I enthusiastically endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now includes the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

CDIP provides data and information critical to support wise management of our coast. For example, nearshore wave characteristics provided by CDIP are fundamental to the assessment of coastal hazards, coastal engineering design, and the management of tidal inlets at the mouths of coastal lagoons and river estuaries.

In addition to informing US Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Robert (Bob) Battalio, P.E.

President, California Shore & Beach Preservation Association

February 22, 2011

Julie Thomas
Program Manager
Coastal Data Information Program
Scripps Institution of Oceanography
9500 Gilman Drive, 0214
La Jolla, CA 92093-0214

Dear Ms. Thomas:

On behalf of the Columbia River Bar Pilots, I thoroughly endorse the valuable data and services provided by the Coastal Data Information Program (CDIP) at Scripps Institution of Oceanography.

Now that a CDIP wave buoy has been deployed at the mouth of the Columbia River through its second winter, mariners have learned to rely on its reports throughout the severe Pacific Northwest storm systems. The remarkable performance of the inshore CDIP wave buoy was a catalyst for the purchase a second CDIP wave buoy that will be deployed further offshore later this spring. The goal of this two buoy system is to capture the change of the waves from deep to shallow water and further improve forecasting models and safety of navigation across the Columbia River Bar.

In addition to informing US Army Corps of Engineers projects, CDIP's high-resolution directional wave data and models for the coastal US are accessed regularly by thousands of military personnel, lifeguards, coastal engineers, boaters, fishermen, harbormasters, bar pilots, marine transporters, divers, and surfers. CDIP also characterizes waves for regional coastlines, seeks to understand and predict the response of beaches to waves, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP enhances and expands the efforts of the Integrated Ocean Observing System (IOOS) around the country.

Sustained funding for CDIP will be crucial to ensure the maintenance of its at-sea equipment and the continuity of its data sets. Please feel free to contact me if I may be of assistance.

Sincerely,

Captain Dan Jordan Columbia River Bar Pilot

100 16th Street

Astoria, OR 97103



INDIAN RIVER MARINE TOWING SERVICES,INC. /DBA Ft. Pierce/Vero Beach Towboat/US

PO Box 760 Very Beach Florida, 32961 (772) 465-0709 - (772) 978-9778

February 09, 2011

Julie Thomas, Program Manager Coastal Data Information Program Scripps Institution of Oceanography 9500 Gilman Drive La Jolla, CA 92093

Dear Ms. Thomas:

On behalf of Indian River Marine Towing Services, Inc. dba/ Ft.Pierce/Vero Beach Towboat/US, I enthusiastically endorse the valuable data and services provided by the Costal Data Information Program (CDIP) at Scripps Institution of Oceanography. I understand that CDIP now included the Southern California Beach Processes Study (SCBPS), which had been funded separately in previous years.

The local television stations, weather stations, and bulletins from Ft. Pierce Coast Guard Station informs the captains of freighters, the pilot boat that escorts the freighters into and out of our commercial port, fishing vessels, local and international visitors, who enter and leave our inlet valuable information of the wave heights, and weather offshore for their safety to and from our port. We are one of the best and safest inlets in the State of Florida because of having the Costal Data Information Program.

In addition to informing US Army Corps of Engineers projects, CDIP's high resolution directional wave data and models for the costal US are accessed regularly by thousands of the military personal, lifeguards, coastal engineers, boaters, fisherman, harbor masters, bar pilots, marine transporters, divers, and surfers. CDIP, also characterizes waves for regional coastlines, seeks to understand and predicts the response of beaches to waver, and develops and validates regional sediment management models. Without these publicly available data, life and property would be at risk. In addition, CDIP will be crucial to ensure the maintenance of its at -sea equipment and the continuity of its data sets. Please feel free to contact me if I maybe of assistance.

Sincerely,

Captain Larry Blanchett

benefiting its operational users, the program has been operating an expanded network with minimal resources. Given the importance of the information this program provides, we urge you to support the highest possible level of funding for CDIP in FY12.

We appreciate your attention to this request.

Sincerely,

Mayor Harry Simmons

President