

CHANNEL ISLANDS DATUM INSTALLATION PROJECT

1.0 DESCRIPTION OF UNDERTAKING

1.1 Geographic Setting

Located offshore from Santa Barbara and Ventura Counties in southern California, the Channel Islands National Marine Sanctuary's (CINMS or Sanctuary) jurisdiction extends offshore of the following islands and offshore rocks: San Miguel Island, Santa Cruz Island, Santa Rosa Island, Anacapa Island, Santa Barbara Island, Richardson Rock, and Castle Rock. Sanctuary boundaries extend from mean high tide to six nautical miles offshore surrounding each of the islands and rocks. The Channel Islands National Park's (CINP) proprietary jurisdiction extends out to one nautical mile offshore around Santa Rosa, Santa Cruz, Anacapa, and Santa Barbara islands, and non-proprietary jurisdiction extends out to one nautical mile offshore from San Miguel Island. This one nautical mile of jurisdiction overlaps with that of the Sanctuary. The state of California's overlapping jurisdiction extends from mean high to three nautical miles offshore and is managed by the California State Lands Commission (CSLC).

1.2 Regulatory Setting

Designated in 1980, the CINMS is administered by the National Oceanic and Atmospheric Administration (NOAA), a component of the Department of Commerce. NOAA's commitment to the protection and preservation of archaeological resources as stated in the Marine Protection, Research and Sanctuaries Act of 1972, is to manage these resources consistent with the Federal Archaeological Program. Congress in 1980 designated the CINP, which is housed within the Department of the Interior. CINMS and the CINP are committed to working closely together on the protection and management of shared marine resources and partner on projects ranging from enforcement, education and outreach, and research and monitoring. CINMS and CINP adhere to the Federal Archaeological Program as established by the National Historic Preservation Act of 1966 and revisions (16 U.S.C. 470f). Federal agencies with land management responsibilities for public lands must inventory their holdings (Sec. 110) and ensure mitigation of any federally-funded activities that threaten historical and cultural resources on those lands (Sec. 106).

CSLC manages and protects the sovereign lands of the state pursuant to section 6301 of the California Public Resources Code. These lands include the tide and submerged lands along California's more than 1,100 miles of coastline and offshore islands, extending from the mean high tide line out to three nautical miles offshore. The CSLC's policies for the management of the state's lands and natural resources are based upon the highest standards of environmental protection, financial responsibility and the Public Trust Doctrine, which imposes a duty to preserve the public's lands for the use and enjoyment of future generations.



1.3 Shipwreck Reconnaissance Program

A Shipwreck Reconnaissance Program was established at the Channel Islands in partnership with the CINMS, CINP, and Coastal Maritime Archaeology Resources (CMAR), a community group of avocational archaeologists. A comprehensive inventory of Maritime Heritage Resources (MHRs) began in the early 1980s and continues today. To date, 30 of the 140 known historic sites in the Sanctuary and Park have been recorded. The major submerged archaeological sites have been recorded and mapped within recreational diving depths providing an accurate reconstruction of the sites.

The continuing discovery, exploration, documentation and study of these resources provide a richer understanding of the region's maritime community. MHRs provide an excellent historical record to past human behavior patterns and uses in the Sanctuary and Park. Submerged maritime heritage resources are subject to irreversible damage and can be severely compromised by human and environmental impacts. Although CINMS and CINP allow for certain compatible activities, it is weighing multiple-use against the over-riding responsibility for protecting both maritime heritage resources and natural resources for current and future generations. With the development of underwater technologies that bring the public physically and virtually closer to the marine environment, there is increasing interest in the protection of MHRs at the Channel Islands.

1.4 Undertaking

The CINMS, CINP, CMAR and CSLC have collectively proposed a program for long-term non-intrusive evaluation of human and environmental impacts to maritime heritage resources within the Channel Islands Sanctuary and Park. The program consists of installing permanently imbedded datums into the sea floor and/or rocks contiguous to selected shipwreck sites. Each datum would serve as a reference point for establishing DGPS (Differential Global Position System) positions. With a series of datum locations (not to exceed 8 at each site), accurate measurements can be established for recording the current positions of submerged artifacts. The datum(s) will also be utilized for permanent camera positions for recording still and videotape documentation of major artifacts. The established Shipwreck Reconnaissance Program will revisit each shipwreck site on an annual basis implementing a repeatable non-intrusive site recording process, utilizing measurements and photography. The datum installation program will establish a baseline of data for evaluation of human and environmental impacts occurring on the shipwreck sites, ultimately assisting the agencies in making informed decisions on managing the sites.

1.5 Datum Installation Process

Utilizing a small portable pneumatic (air activated) drilling machine, holes will be bored into the sea floor and/or rock contiguous to the shipwreck sites. The depth of the holes will vary depending on hardness of rock, but typically will not exceed 20 inches. A 1-inch non-ferrous solid post will be inserted into the bored hole and epoxy applied to bond the post into the



anchoring substrate. The post will extend above the substrate approximately 4 to 6 inches (see Figure 1).

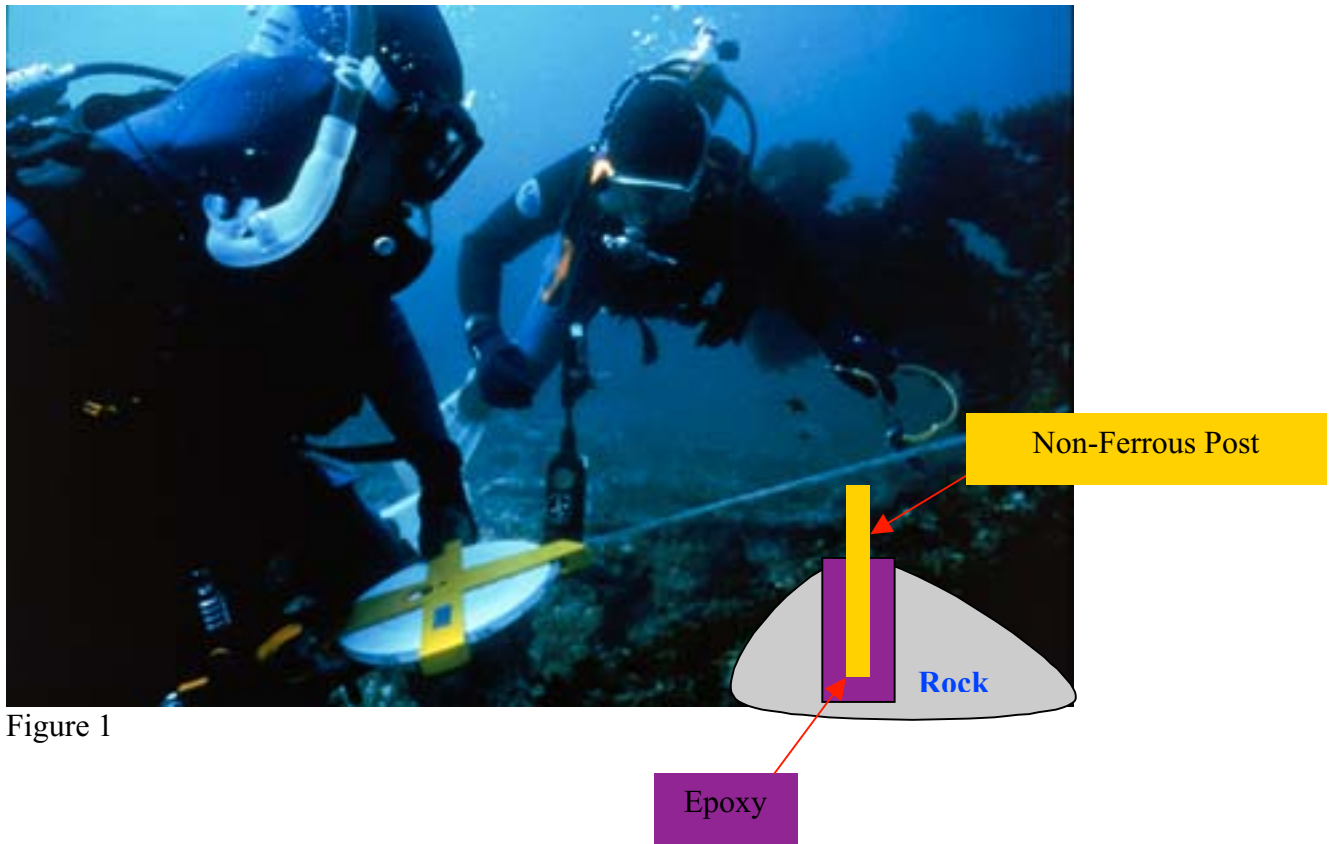


Figure 1

1.6 Permit Requirement

The proposed datum installation program requires permits from the California State Lands Commission and the Channel Islands National Marine Sanctuary. A representative from the State Lands Commission has been consulted and the commission is scheduled to meet in October 2003, issuance of the permit is expected. The National Marine Sanctuary Program has also been consulted and will issue a permit by October 2003.

1.7 Proposed Datum Installation Schedule

Upon completion of the Section 106 review, and with state and federal permits issued, the first phase of the datum installation program will begin during the annual Shipwreck Reconnaissance Program expedition scheduled for October 13 – 17, 2003. The site(s) selected will be dependent on weather and sea state just prior to the departure of the expedition. If the datum installation project is not completed in October '03, further expeditions will be planned and may include the 2004 field season.

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2.0 DESCRIPTION OF APE’s HISTORIC PROPERTIES AND THE UNDERTAKING WITH NO ADVERSE EFFECTS

In compliance with Section 106 of the National Historic Preservation Act the APE describes four historic shipwreck properties. Since the installation of a permanent datum(s) will be positioned in the sea floor and/or existing rock, there will be no adverse effect to the shipwreck artifact(s) or fabric of the shipwreck(s) and no negative impact to the marine environment. Although there will be sea floor disturbance requiring a federal permit from NOAA, little if any change will effect the visual characteristics of the submerged sites.

2.0.1 Historic Shipwreck Properties

Name	<i>Aggi</i>	<i>Cuba</i>	<i>Goldenhorn</i>	<i>Winfield Scott</i>
Type	Steel Full-Rigged Sailing Vessel	Steel Propeller Passenger Steamer	Iron Bark Sailing Vessel	Wooden Side-Wheel Passenger Steamer
Built	1894	1897	1883	1850
Lost	1915	1923	1892	1853
Historic Theme	International Grain Trade	International Cargo-Passenger	International Coal Trade	California Gold Rush Passenger-Cargo
Gross Tonnage	1,898	3,168	1,914	1,291
Length*	265	307.7	268.6	225
Breadth*	39.1	42.2	40.2	34.8
Depth of Hold*	23.3	24.7	23.7	29.2

Note: * - Dimensions in feet.

2.1 Eligibility Criteria For Shipwrecks To The National Register For Historic Places

For a shipwreck to be eligible for listing, the vessel must be significant in American history, architecture, archaeology, engineering, or culture; and possess integrity of location, design, setting, materials, and workmanship. It may also evoke an aesthetic feeling of the past. The association of the vessel to its setting can also be important. The shipwreck should meet one or more of the four NRHP criteria:

Criteria Number

1. Be associated with events that have made a significant contribution to the broad patterns of our history;
2. Be associated with the lives of persons significant in our past;
3. Embody the distinctive characteristics of a type, period, or method of construction, represent the work of a master, possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; and
4. Have yielded, or may be likely to yield, information important to prehistory or history.



Grouping these shipwrecks into a Maritime District rather than listing as individual sites may also meet the criteria listing to the NRHP. Maritime Districts make up a geographically definable area possessing a significant concentration, linkage, or continuity of maritime sites, buildings, structures, or objects united by past events or by plan or physical development.

2.1.2 Brief Description Of Shipwreck Historic Properties

2.1.2.1 *Aggi*

Official No: 102136

History: Mackie and Thomson built the three-masted full-rigged ship *Aggi* in 1894 at Glasgow, Scotland. This steel-hulled vessel was originally christened *Seerose*, which was later changed to *Sant' Erasmo*, then renamed *Apise*. At the time of loss, *Aggi* was owned by the Norwegian firm of B.A. Olsen and Son.

Shipwreck Event and Location (Figure 2): With a cargo of barley and beans, the *Aggi* departed San Francisco on April 29, 1915, under tow by the steamer *Edgar H. Vance*. En route for the Panama Canal to later sail on to Malmo, Sweden, the two vessels encountered a severe storm, which caused the towing hawser to part. The steamer limped back to San Francisco, leaving the *Aggi* on its own. The cargo shifted, putting the lee rails under water and submerging half the bunks in the forecastle. Although an effort was made to reach Santa Barbara, the vessel was unmanageable and struck Talcott Shoal, Santa Rosa Island.

Submerged Site (Figure 3): The remains of the *Aggi* lie at the top of the shoal in 14 feet of water and are scattered into deeper water to approximately 60 feet. A massive anchor chain still connects to a windlass, hawsehole and hawsepipe at the top of the shoal. The cutwater of the bow lies in deeper water over 200 feet from the windlass. The main wreckage scatter descends into deeper water, although nearly the entire hull bottom, containing the keelson, side keelsons, and deep floors is located on top of the submerged shoal. The extent of the keelson is more than 200 feet long with mainmast and mizzenmast 76 feet apart. The rudder, tiller, and patent steering gear lie nearby. Mast fragments and portions of the vessel's rigging are scattered into deeper water including the donkey steam boiler.

National Register Consideration: The shipwreck site of the *Aggi* represents European advancements in the introduction of steel constructed sailing vessels over iron or wood, in the late nineteenth century. *Aggi's* final career represents this nation's international grain trade shortly after the opening of the Panama Canal.

National Register Criteria: 3 & 4



2.1.2.2 *Cuba*

Official No: 215771

History: The German-designed and built steamer *Cuba* was launched as the *Coblentz* at the Hamburg shipyard of Blohm and Voss on March 18, 1897. Blohm and Voss, which survived two world wars and is still in existence today, and is, recognized for building vessels such as the German battleship *Bismarck* and the sailing vessel *Horst Wessel*, now known as the U.S. Coast Guard training ship *Eagle*. *Coblentz* was originally built for the Norddeutscher Lloyd of Bremen as an oceangoing passenger steamer and served this line until seized as a World War I prize in the Philippines. It was admitted to American registry under a joint resolution of Congress on May 12, 1917 and given the name *Sachem*. Pacific Mail Steamship Company purchased the *Sachem* and later changed its name to *Cuba*. Ultimately, the steamer was put on the Panama - San Francisco route.

Shipwreck Event and Location (Figure 4): In the early morning darkness of September 8, 1923, *Cuba* was northbound en route from the Panama Canal to San Francisco with 112 onboard and a cargo of silver and coffee. In thick fog for 3 days, the ship navigated blindly up the coast, which led to its stranding on the treacherous reefs of Point Bennett, San Miguel Island. There was no loss of life. The passengers boarded lifeboats and were picked up by passing ships that included the Naval destroyer USS *Reno*. The USS *Reno* was part of a naval squadron of destroyers conducting high-speed maneuvers while en route from San Francisco to San Diego. Later that same day, seven US destroyers would go aground just north of Point Conception, the US Navy's worst peacetime disaster. The USS *Reno* was spared since the destroyer was far ahead of the squadron. *Cuba's* stranding may have played a part in the stranding of the naval destroyers due to the USS *Reno* breaking radio silence during the squadron's exercises.

Submerged Site (Figure 5): The shipwreck site is in 35- feet of water and offers an opportunity to study late nineteenth-century ship construction and propulsion design. The triple-expansion steam engines sit upright 14 feet off the sea floor, with the Scott boilers are still positioned in front of the engines. *Cuba* is the most compact and organized of all the major shipwrecks in the Sanctuary and Park, with much of its deck equipment in place. The vessel's cutwater of the bow is tilted back at a 45-degree angle on the sea floor. In front of the bow is one of the anchors with chain attached. Aft of the bow is the anchor windlass, capstan and hawsepipe. Further aft are the cargo-handling windlasses and ceramic tile flooring.

National Register Consideration: The shipwreck site of the *Cuba* represents vessels that were seized in World War I and put into American passenger and cargo service. *Cuba's* builder, Blohm and Voss, is still internationally recognized for its achievements in the development of vessels, submarines, and aircraft. *Cuba's* stranding incident may have contributed to the US Navy's worst peacetime disaster.

National Register Criteria: 1, 3 & 4



2.1.2.3

Goldenhorn

Official No: 86279

History: The four-masted bark *Goldenhorn* was built for J.R. de Wolf and Son by Russell and Company of Greenock, Scotland, in 1883. The iron-hulled vessel was originally ship-rigged, later changing to a bark rig. The *Goldenhorn* was the second of three sister ships, preceded by the *Matterhorn* later followed by the *Silberhorn*. Home ported in Liverpool, England the *Goldenhorn* had the highest Lloyd's of London rating and carried a crew of 26.

Shipwreck Event and Location (Figure 6): On the evening of September 12, 1892, the *Goldenhorn* was en route from Newcastle, New South Wales, Australia, to San Pedro, California, with coal destined for the Southern Pacific Railroad Company. Encountering thick fog off Santa Rosa Island, the bark was becalmed and driven ashore by a strong current and swell at 8:00 in the evening. The vessel struck bow first, although by the time the crew had taken to the boats, the vessel was completely gutted aft. After the vessel struck, soundings showed six fathoms on the port side and four-and-one-half on the starboard. The crew abandoned all personal effects from the vessel, eventually rowing to Santa Barbara via Becher's Bay, Santa Rosa Island in the two 25 foot ship's boats.

Submerged Site (Figure 7): The shipwreck scatter of the *Goldenhorn* lies off the southwest coast of Santa Rosa Island in 40- feet of water. Mapping of this site was started in 1985, and three separate scatters of wreckage were identified, including a section of bottom hull. The largest single piece of the vessel is the 83-foot section of bottom hull that includes an I-beam centerline keelson, two side keelsons. Further offshore are fragments of the stern that include the jiggermast step and hold stanchion on the centerline keelson, still fixed to the solid keel of the ship. A 60-foot section of the port side hull lies in slightly shallower water inshore. Still further inshore lies the bow section with cutwater and hawsehole.

National Register Consideration: The shipwreck site of the *Goldenhorn* represents the European coal trade during America's railroad expansion in the late nineteenth century. Artifacts associated with the shipwreck *Goldenhorn* were used in the establishment of fishing camps during Chinese occupation of Santa Rosa Island.

National Register Criteria: 3 & 4



2.1.2.2 *Winfield Scott*

History: The *Winfield Scott* was launched on 22 October 1850, built of wood with double iron bracing, which included White Oak, Live Oak, Locust, Cedar and Georgia Yellow Pine. Mounted to the vessel's round stern was an American eagle with a coat of arms and on the bow a bust carved in the likeness of General Winfield Scott. The steamer had accommodations for 165 cabin and 150 steerage passengers, although the steamer would ultimately carry numbers exceeding 400. *Winfield Scott* was not immediately dispatched to the Pacific Coast but was engaged in servicing the New York – New Orleans route, under the flag of Davis, Brooks and Company. In 1852, ownership transferred to the New York and San Francisco Steamship Company Line and the side-wheel passenger steamer arrived in San Francisco, via Cape Horn, on 28 April 1852. The steamer was advertised as “doubled engined” connecting with the steamer *United States* for New York. The line changed its name on 18 May 1853 to New York and California Steamship Company and retained ownership of the *Winfield Scott* until the company came to an end, and the vessel was sold on 8 July 1853 to the Pacific Mail Steamship Company. The steamer had become quite popular on the Panama - San Francisco route and provided not only passenger service but carried important intelligence, mail, newspapers, express freight which included gold mined from the mother-load returning east.

Shipwreck Event and Location (Figure 8): On December 3, 1853, the *Winfield Scott* was en route from San Francisco to Panama along the California coast. While navigating in fog through the Santa Barbara Channel at night, the steamer became stranded on Anacapa Island with over 450 passengers aboard. On the following day the side-wheel steamer *California*, on the north bound run to San Francisco with a full complement of passengers, arrived at the island and took on some of the women and children and the cargo of gold bullion. After eight long days on the island, the *California* returned well provisioned and rescued the remaining passengers. The crew stayed behind to recover what they could of the remaining mail and passenger baggage still submerged in the hull.

Submerged Site (Figure 9): The submerged remains of the *Winfield Scott* include portions of the steamer's side-lever machinery and bottom hull structure in 25- feet of water. The port paddle-wheel hub and shaft lie near the paddle-wheel support structure. Near the wooden hull structure are the remains of a piston cylinder base and half of a side-lever. The shipwreck site offers an opportunity to study mid nineteenth-century ship construction and propulsion design. The *Winfield Scott* is significant to the archaeological and historical understanding of wooden-hulled paddle-wheel steamship construction in New York City and the United States.

National Register Criteria: Listed August 12, 1988



2.2. APE Referenced Documentation

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