Chapter 14. The *Holoholo* Mystery: An Unsolved UH Sea Tragedy with a Lasting Impact



'O hear us when we cry to thee, for those in peril on the sea"
William Whiting
(1825-1878)
The Sailor's Hymn

In January 1975, the 17-m *Gulf Stream* – a research vessel operated by Nova University – disappeared off Booth Bay, Maine, while conducting oceanographic research; all hands aboard were lost at sea. The *Gulf Stream* incident jolted the UNOLS organization to adopt a set of minimum safety standards for sea research conducted by its member institutions, including a requirement that a cruise plan be filed prior to sailing, the use of Emergency Position Indicating Radio Beacon (EPIRB) devices, and a recommendation for regular radio communication with a shore base. These would assist greatly in any future search and rescue operations of US academic fleet vessels. The University of Hawaii, a charter member of the UNOLS organization (see *Box 5.2*), readily complied with these safety recommendations. The tragic loss of five lives aboard the *Gulf Stream* was a hard lesson learned. However, just three years later history would repeat itself when a team of UH-led oceanographers vanished at sea while conducting research aboard a chartered vessel in Hawaiian waters.

14.1. Events Leading up to the Tragic Loss of *Holoholo*

"They were always adversaries and the sea won – that's all"
From a poem composed by Bob Harvey's sister, Ann Day, for the commemorative service for those lost at sea aboard the motor vessel Holoholo while conducting oceanographic research in December 1978

At approximately 1430 hr on 9 December 1978, the motor vessel *Holoholo* (Figure 14.1) – on charter to RCUH to support oceanographic research off Ke-ahole Point, Hawaii in conjunction with the OTEC site survey – departed Snug Harbor with 10 persons aboard: the owner (John Laney), the skipper (Michael J. Trens), one crew member (John Rusekas), and seven scientists -- three from UH (Gary Niemeyer, 31; Robert R. Harvey, 39; and Michael H. Allen, 29), two from the NOAA-Pacific Marine Environmental Laboratory in Seattle (Robert L. Charnell, 41; and Norman P. Laird, 42) and two from the Lawrence Berkeley Laboratory of the University of California (James C. Sandusky, 32; and Stephen R. Shannon, 35). All were part of the US Department of Energy-sponsored research program, and the UH scientists were working under a contract from the Lawrence Berkeley Laboratory to Gary Neimeyer, an assistant professor of ocean engineering at UH. This $169,393 contract (1 September 1978 to 30 November

1979) was to provide site survey data for the possible placement of an OTEC facility in Hawaiian waters. The project also received matching funds from the state of Hawaii that were administered through John Craven, then the state of Hawaii marine affairs coordinator and UH dean of marine programs (see section 6.1). This was to be the second of six planned 6-day voyages in support of the OTEC research project at Ke-ahole Point, Hawaii.



Figure 14.1*:* The *Holoholo* berthed at pier 45 prior to the fateful December 1978 expedition. (from SOEST archives)

On 11 December 1978, the vessel failed to rendezvous at Kawaihae Harbor on the Big Island to exchange scientific parties, and at 0920 hr on 12 December the USCG was advised that the *Holoholo* was overdue. Harbor checks were made before authorities began an extensive air-and-sea search. Initially, a USCG C-130 aircraft searched the direct-course track line between Honolulu and Kawaihae Harbor, the leeward coasts of the islands between Oahu and Hawaii, the Alenuihaha Channel, and an area downwind from the channel. A US Navy P-3 Orion aircraft searched the west coast of Hawaii out to 75 nmi from shore. Eventually, other search and rescue assets from the USCG, Navy, Air Force, Coast Guard auxiliary, Civil Air Patrol, and UH searched more than 520 flight-hours and 377,000 square miles – without success.

Two items of interest did emerge. The first was the discovery on 17 December of a wooden box known to be aboard the *Holoholo* when it departed Honolulu on 9 December. The box, used to hold a current meter that was to have been deployed at the

OTEC benchmark site west of Kawaihae at 20°N, 156°08'W, was empty. Barnacles attached to the external surface led investigators to conclude that it had been in the water for "at least 3-5 days" – the box was found by a fisherman about 6 nmi off the southwestern coast of Hawaii, 50 nmi south of the OTEC benchmark (see location in Figure 14.2).

The second item was a photograph captured by a high altitude U-2 aircraft reconnaissance flight on 18 December. It showed a vessel – perhaps the *Holoholo* – adrift at a location approximately 75 nmi south-southwest of the OTEC benchmark site.

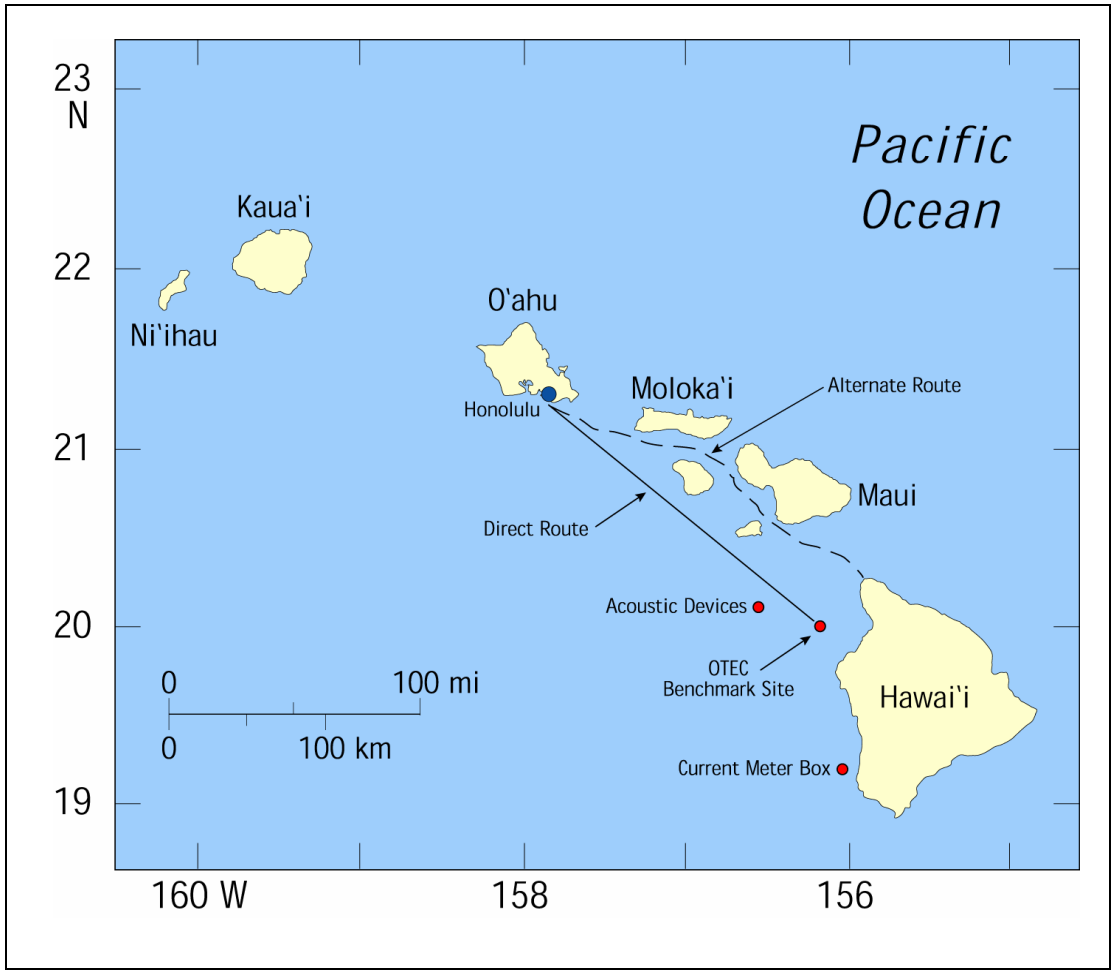


Figure 14.2: Map of the Hawaiian Islands showing the direct, and possible alternate, routes presumed to be used by the *Holoholo* from Honolulu Harbor to the OTEC benchmark site. Also shown on the figure are the locations of the acoustic devices and the current meter box found afloat by a local fisherman. This figure, prepared by Lance Fujieki, is adapted from "Figure 4" of the publicly available USCG marine casualty report on the disappearance of the *Holoholo* (report No. USCG 16732/01280) that was prepared following the incident.

The official search ended on Christmas eve with nothing to show for what had become an enormous, coordinated effort. A telegram composed by Ted Murphy of UH and sent to members of the international science community read:

> "WITH DEEPEST REGRETS AND SORROW WE MUST INFORM YOU THAT DR. ROBERT HARVEY, DR. GARY NIEMEYER AND THEIR ASSISTANT, MICHAEL ALLEN, ALONG WITH 7 OTHER PERSONS, WERE LOST AT SEA DEC. 9, 1978 ON THE VESSEL *HOLOHOLO*. EXTENSIVE AIR/SEA SEARCH CONCLUDED WITHOUT RESULTS. INVESTIGATION UNDERWAY. DETAILS PROVIDED BY MAIL. THE SHOCK IS PROFOUND, AND WE KNOW YOU ALL SHARE THIS LOSS. THE EXAMPLE AND STANDARDS THESE MEN HAVE SET AS MEN AND AS SCIENTISTS WILL BE HONORED IN OUR FUTURE COOPERATIVE PROGRAMS."
>
> Signed Dennis Moore, Director of JIMAR, Youngsook Kim Harvey, Susan Niemeyer, Joyce Miller, Steve Poole, and Ted Murphy

It was a very sad Christmas for the extended families and friends of those still missing and presumed lost at sea. Many UH and NOAA employees and friends of the missing scientists – too numerous to mention by name here – gave freely of their time and expertise to assist in the search and rescue effort. Chartered helicopters and aircraft, as well as watercraft were engaged in these volunteer efforts (see *Box 14.1*). On Thursday 14 December, it was decided that long-range reconnaissance was needed so calls were made to procure the use of a U-2 surveillance aircraft from the US Air Force (see section 14.4). When the US Coast Guard (USCG) decided to suspend their official search effort at 1700 hr on Thursday, 21 December, many at UH considered this action to be premature. A meeting was held and the decision was made to continue a UH-based search with Brent Gallagher – then associate professor of oceanography and close friend of the missing UH scientists – as coordinator.

Prior to Niemeyer's selection of the privately owned *Holoholo* for this research project, several other charter vessels were considered and then ruled out, including *Holokai*, *Machias*, *Easy Rider*, *El Greco*, *Spirit of Adventure*, as well as two UH-owned and operated vessels *Noi'i* and *Kana Keoki* (see section 13). According to subsequent testimony by UH spokesperson Charles McDonald, the *Holoholo* was the only vessel available that "met the Lawrence Berkeley Laboratory requirements (minimum size) and was within the project's budget." At that time, the *Holoholo* charter rate was $1,000 per day plus an additional $500 per day for the crew. The UH vessel R/V *Kana Keoki*, by comparison, would have been $3,500 per day and was "more than they needed," according to McDonald. At that time, RCUH administered most sea-going research contracts and grants, a procedure still in force today.

Box 14.1*: R/V *Kana Keoki* Cruise KK78-12-15: The Search for the *Holoholo

The R/V *Kana Keoki* was working off the Big Island when the *Holoholo* was reported missing. The science party aboard R/V *Kana Keoki* was conducting OTEC-related research in collaboration with that supported by the *Holoholo*. The R/V *Kana Keoki* departed Honolulu on 10 December – 1 day after the *Holoholo* – and crossed the channel that evening. When the *Holoholo* was reported overdue at Kawaihae, the R/V *Kana Keoki* immediately joined the massive sea and air search for the *Holoholo*. Because wind and sea conditions had deteriorated and the R/V *Kana Keoki* was unable to make a port call on the Big Island, the vessel returned to Honolulu to exchange personnel and on 15 December at 1322 hr, the *Kana Keoki* departed pier 45 again – this time on a rescue mission. Don Hussong led the expedition of scientists, technicians, and graduate students. Just prior to departure, a UH chartered aircraft spotted a large orange object near 20°55'N, 158°12'W so the *Kana Keoki* initially headed to that position. The object was never located.

Gale force winds and high seas were encountered throughout the seven-day search period. According to Hussong's final report, these adverse weather conditions "slowed the vessel, caused poor surface visibility, and generally hampered the search effort."

The R/V *Kana Keoki* carried gear to communicate with the current meters and Helle pingers known to be aboard the *Holoholo* when the vessel departed Honolulu on 9 December. Unfortunately, the acoustic hydrophone aboard the *Kana Keoki* was lost on 16 December. The scientists aboard then rigged a second interrogation system, with no results.

They moved over Penguin Banks on 17 December to begin a towed hydrophone survey to detect the 27 kHz Helle pingers. By 1500 hr, the hydrophone array was destroyed by "pounding against the ship's hull as a result of adverse weather." After the loss of the hydrophone array, the R/V *Kana Keoki* broke off for Ke-ahole Point on the Big Island to rendezvous with two scientists who had brought additional equipment from the NOAA laboratory in Seattle. During the transit across the Alenuihaha Channel the winds were gusting 60 kts. Anyone who has been out at sea in the vicinity of the Hawaiian islands during gale force conditions knows what the science party must have endured during this stressful and disappointing mission.

On 19 December, the *Kana Keoki* broke off again to steam to the position of the U-2 sighting of a vessel adrift near 18°50'N, 156°44'W. Radar contact was made with a vessel at 18°49'N, 156°38'W, but it was apparently a Japanese fishing boat, not the *Holoholo*. According to Hussong's cruise report, "our closest approach to the vessel was 3.9 miles."

At 1605 hr on 21 December the *Kana Keoki* broke off for the last time and headed back to Honolulu, arriving at 0300 hr on 22 December. The KK-78-12-15 cruise report was submitted by Hussong on 27 December 1978.

The motor vessel *Holoholo* (Hawaiian for "to go out for pleasure"; note: many newspaper accounts and other correspondence of the *Holoholo* incident refer to the vessel as *Holo Holo* – 2 words – which is incorrect. The author was not able to trace origin of this mistaken identity) was designed by naval architect E. R. Simmerer, and custom built in Honolulu between 1959 and 1961 as a private pleasure craft by and for Arthur F. Stubenberg, owner of Keehi Drydock Co. The vessel was about 90 feet long, 25 feet wide with an admeasured 134 gross tons. The hull and main deck were constructed of ¼-inch thick steel plates with steel frames spaced approximately 21 inches apart. The vessel was propelled by four GM model 671 diesel engines and four propellers (see Figure 14.3). The *Holoholo* was an unusual design with blunt bow shape and a length-to-beam ratio of 3.6:1, unlike the approximately 5:1 ratio used for most open ocean vessels.

She also had a flat bottom. Because of the formal registry as a pleasure yacht, she was exempted from the normal safety inspection and oversight provided by the USCG and the American Bureau of Shipping (ABS). According to newspaper reports, on 15 September 1978, the *Holoholo* was sold to John Laney for $75 K on an agreement of sale with a $10 K deposit. Laney, a professional airline pilot and novice mariner, had planned to convert the vessel for charter use in oceanographic research (Figure 14.4). The *Holoholo* did not carry hull insurance which would have required a marine survey. The new owner had made arrangements to insure the vessel for $500 K, but the documents were never signed. Furthermore, because the vessel was hired for short-term, project-specific use, the UH Marine Center personnel were not involved in the charter agreement. Nevertheless, the *Holoholo* was known to have a sound hull and had already been used for the Ke-ahole Point OTEC project two months prior to the planned December 1978 expedition. David A. Ziemann, a participant in the October 1978 *Holoholo* voyage later testified that all work had gone "very smoothly" except that they had run out of potable water en route to the Big Island. However, the research planned for the second expedition was more involved than that accomplished in October 1978, and required that the vessel be modified for the expanded mission. Furthermore, and in contradiction to Ziemann's assessment of the success of the first cruise, the lead scientist – Gary Niemeyer – and arguably the most experienced cruise participant – Mike Allen – did not think the first cruise was all that successful. According to Joyce Miller, who was very close to the source, Allen did not like the boat or the owner, Laney. Due to a lack of qualified crew members on the first *Holoholo* expedition, Allen had to stand watch. Because he was a former NOAA bridge officer he had the expertise and experience – even though he was a member of the science party, not the crew. Allen reported that the radios did not work properly. There were not even enough bunks for the personnel aboard and Allen slept on the deck. These limitations and concerns about the operation and safety of *Holoholo* led Niemeyer to attempt to cancel the contract because the vessel was deemed unsuitable for future use. Again according to Joyce Miller, a meeting was held with RCUH officials and the outcome was "a contract is a contract" and the scientists must continue to use the *Holoholo*. This would prove to be a key point – in the litigation that followed the tragedy – because RCUH and UH officials attempted to lay the blame on the principal investigator when, in fact, Niemeyer neither wanted to use the vessel nor apparently had the authority to cancel the contractual agreement.

As is true for many oceanographic research expeditions, cruise preparations for the December 1978 *Holoholo* charter lasted right up until the final minutes prior to sailing. Because the *Holoholo* was not designed as a research vessel, several structural modifications had been made to facilitate the research demands. One, in particular, turned out to be extremely noteworthy; the removal of a deck coaming and hatch cover and placement by a temporary plywood hatch cover and removal of piping that would eventually compromise the water-tight bulkhead.

One thing that caused great concern with several of the scientists aboard was the placement of the five sets of railroad wheels – that would be used as anchors for the moorings. According to Joyce Miller, when the *Holoholo* departed the anchors were hung over the stern because of lack of deck space. One can only imagine the potential

risk to safety and the vessel integrity if these suspended anchors were to move unexpectedly in heavy seas.

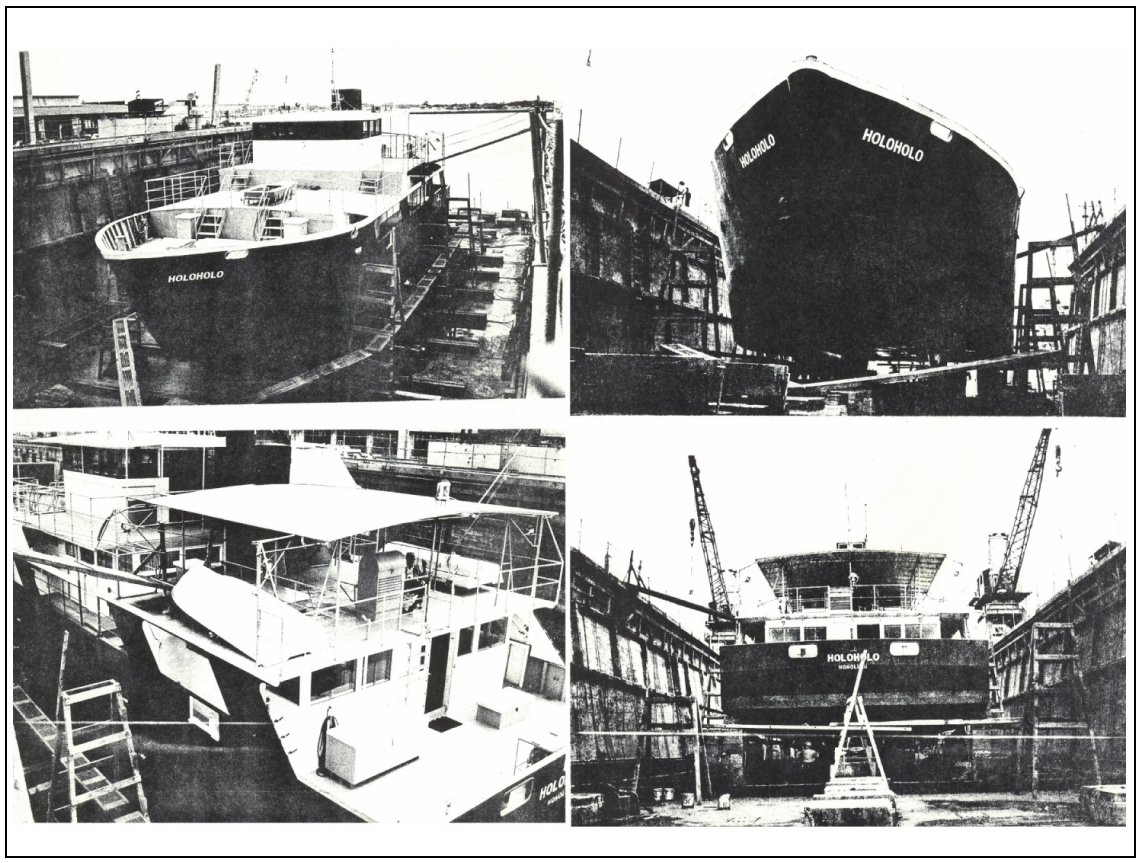


Figure 14.3: Various views of the M/V *Holoholo* from a dry dock period circa 1968. From top left, clockwise: view of hull shape and forecastle deck; view of hull; stern view and propellers; aft deck showing area to starboard of entry door where the hatch and coaming were removed prior to the RCUH-UH charter in December 1978. Photo source unknown to the author. Several of these photos appeared in the publicly available NTSB marine accident report (report #NTSB-Mar-80-15) and in the Poole Report on the disappearance of the *Holoholo* (see text for more details).

Victoria Woltz, a tour boat skipper, may have been the last person to see *Holoholo* afloat as it headed past the Ala Wai channel markers at about 1430 hr on 9 December. Woltz later testified that the vessel was "doing quite a bit of pitching, taking a lot of spray over her front deck." Seas were running only 2-3 feet off Diamond Head at the time, but with winds gusting 25 kts the *Holoholo* was heading for seas of 8-12 feet "and rising" in the Molokai Channel, Woltz estimated.

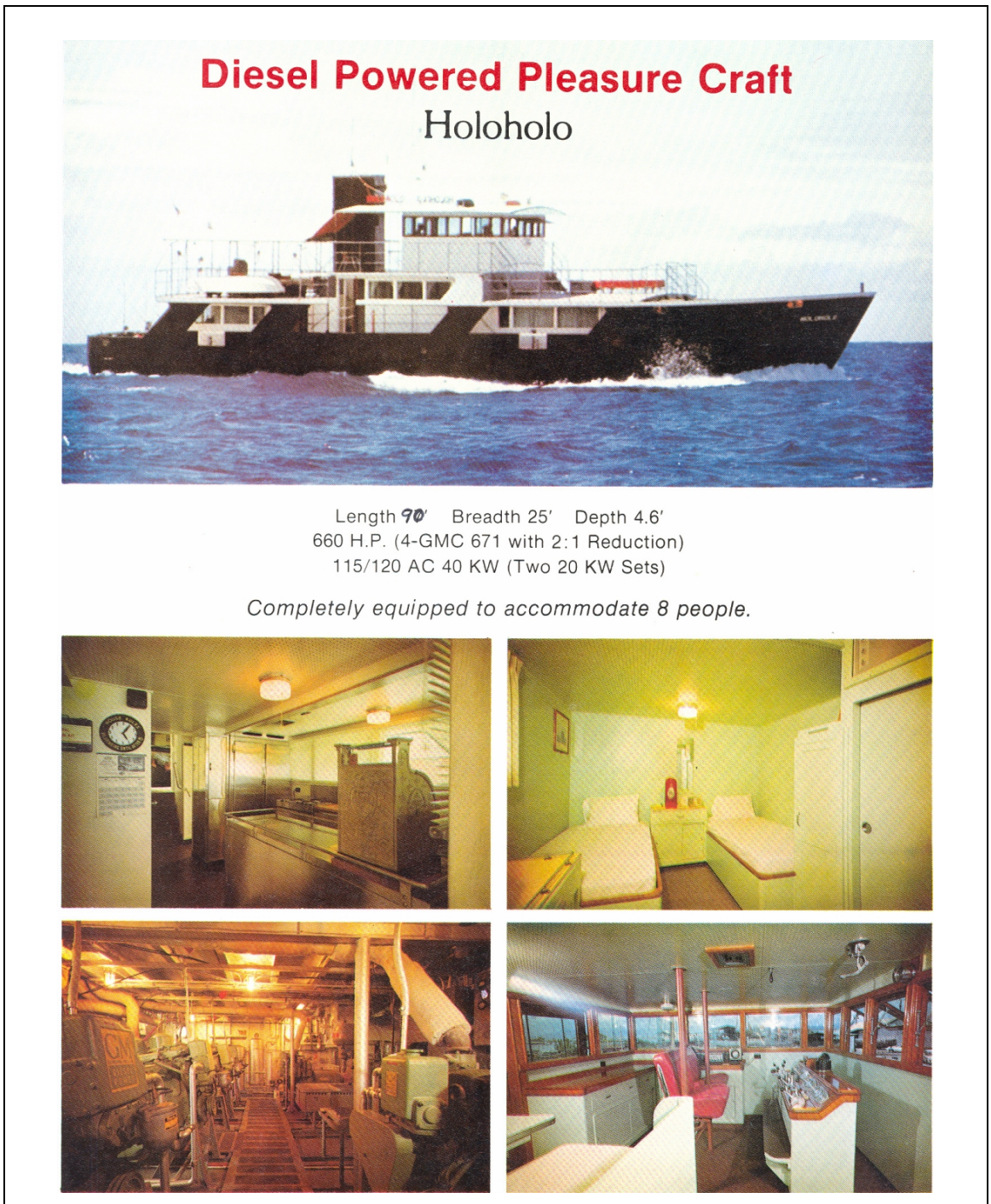
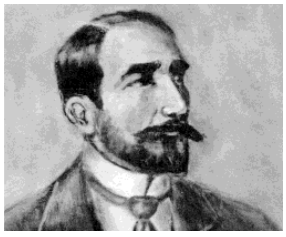


Figure 14.4: Charter the M/V *Holoholo*. [Top] The vessel at sea shown in its configuration prior to the RCUH-UH charter agreement. [Bottom] View of some of the interior spaces, clockwise from top left: galley – from aft to forward, starboard side; forward of mess is a double stateroom with shower; wheelhouse and dinette; engine room is viewed from starboard to port, with four main engines (aft). Source unknown to author, presumably a *Holoholo* promotional charter brochure, circa 1978.

The weather would later be determined to be a major contributing factor to the vessel's disappearance. On 7 December 1978 the published weather forecast was for "moderate or strong northeasterly trades," on the day of departure, 9 December, computer maps showed "an upper level trough developing on 10 December to the northwest, which may cause some high cloudiness and decreasing trade winds." So it looked like the weather, at least the wind and sea states, was to improve so the vessel departed on schedule. However, by Monday 11 December conditions had deteriorated to "moderate to strong trades with increasing trades tomorrow" (Tuesday 12 December). The forecast turned out to be correct; strong gusty trades. This was the day that the USCG was advised that the *Holoholo* was overdue at Kawaihae Harbor. Things got even worse on 13 December when the search and rescue effort was in full force – "strong to howling trades" were in effect throughout the primary region of interest. These 30-mph-plus gusts were caused by a stationary high-pressure system located approximately 800 miles north of Honolulu (see *Box 14.1*). Long range computer forecasts showed the high-pressure continuing to dominate the North Pacific for another week, at least through Christmas eve – the day the official search for those lost aboard the *Holoholo* was called off. Thus ended one of the longest periods of sustained strong, gusty trade winds in recent history.

Shortly after the tragic loss of the vessel and all hands aboard, the USCG held hearings in Honolulu in an attempt to determine the facts surrounding the mysterious disappearance. The National Transportation Safety Board (NTSB) also participated in these hearings, and eventually published their own report. The investigations and subsequent litigation would continue for more than three years, and in the final analysis no firm conclusions about the fate of the vessel or her crew were ever determined.

14.2. The Aftermath: Solemn Memorials and Probing Investigations



"The sea – this truth must be confessed – has no generosity. No display of manly qualities – courage, hardihood, endurance, faithfulness – has ever been known to touch its irresponsible consciousness of power."

Joseph Conrad
(1857-1924)

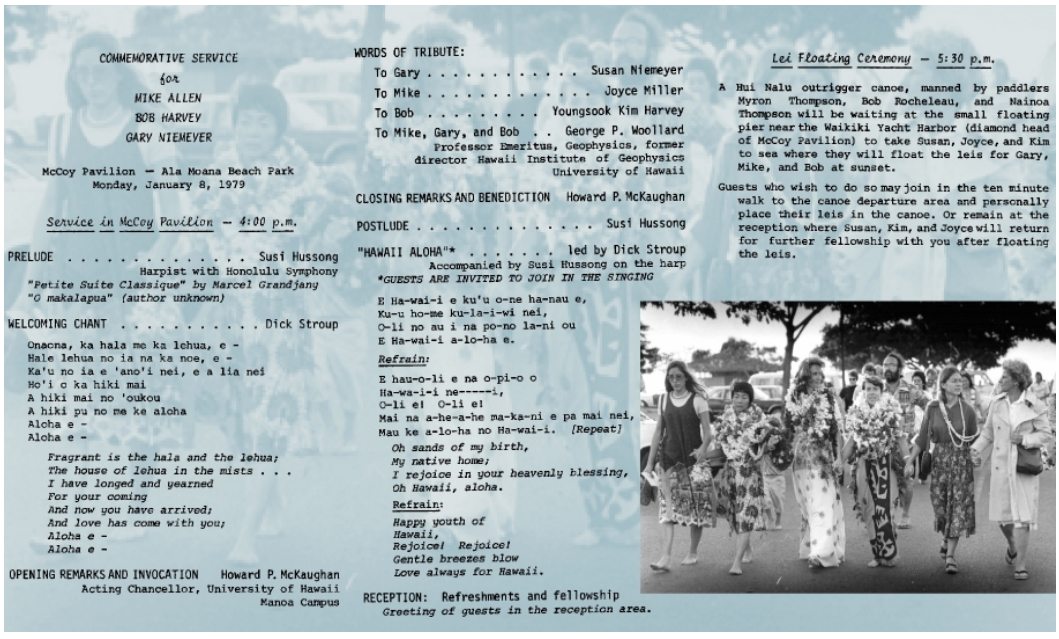
The main facts of this incident, that the *Holoholo* disappeared while under charter to RCUH to conduct oceanographic research off Ke-Ahole Point for scientists affiliated with the university's Departments of Ocean Engineering and Oceanography, were not in dispute. The initial focus of the board of inquiry was to determine the condition of the vessel at the time of its disappearance, the experience and capabilities of the charter crew, the nature of the charter agreement, including liabilities, and other technical details.

The state of Hawaii had appropriated $32 K for the *Holoholo* project on an emergency basis through the MAC John Craven; the governor approved the expenditure just days before the disappearance. According to the newspaper reports of the hearings,

Craven later testified that the responsibility for safety rested with the principal investigator – the scientist in charge of running the program – in this case, Gary Niemeyer. RCUH administrative director William Coops stated that his organization had no relevant safety guidelines for chartered vessels, and made no independent inquiry to determine whether the vessel or its crew were suitable for the planned research.

This position regarding principal investigator responsibility for vessel safety, and the liability that follows, was challenged by some UH oceanographers. If true, this would place an undue burden on professional scientists who are novice mariners. In addition to these important matters, the testimony received during the initial 12-day hearing also included charges of a secret classified research mission, several *Holoholo* "sightings" after the 11 December date of disappearance, mystery female crew, and other matters of intrigue.

On the eve of the formal inquiry, a commemorative service was held for the three UH scientists lost at sea aboard the *Holoholo* – Michael Allen, Robert Harvey, and Gary Niemeyer. At 1600 hr on 8 January 1979, family and friends gathered at McCoy Pavilion in Ala Moana Park to hear more about the personal and professional lives of these men from the women they had loved. There were also prayers, harp music by Susi Hussong, and a Hawaiian chant by Dick Stroup; the service ended with a lei-floating ceremony off Magic Island (Figure 14.5).



COMMEMORATIVE SERVICE
for
MIKE ALLEN
BOB HARVEY
GARY NIEMEYER

McCoy Pavilion — Ala Moana Beach Park
Monday, January 8, 1979

Service in McCoy Pavilion — 4:00 p.m.

PRELUDE . . . . . Susi Hussong
Harpist with Honolulu Symphony
"Petite Suite Classique" by Marcel Grandjany
"O makalapua" (author unknown)

WELCOMING CHANT . . . . . Dick Stroup

Onaona, ka hala me ka lehua, e -
Hale lehua no ia na ka noe, e -
Ka'u no ia e 'ano'i nei, e a lia nei
Ho'i o ka hiki mai
A hiki mai no 'oukou
A hiki pu no me ke aloha
Aloha e -
Aloha e -

Fragrant is the hala and the lehua;
The house of lehua in the mists . . .
I have longed and yearned
For your coming
And now you have arrived;
And love has come with you;
Aloha e -
Aloha e -

OPENING REMARKS AND INVOCATION Howard P. McKaughan
Acting Chancellor, University of Hawaii Manoa Campus

WORDS OF TRIBUTE:
To Gary . . . . . Susan Niemeyer
To Mike . . . . . Joyce Miller
To Bob . . . . . Youngsook Kim Harvey
To Mike, Gary, and Bob . . George P. Woollard
Professor Emeritus, Geophysics, former director Hawaii Institute of Geophysics University of Hawaii

CLOSING REMARKS AND BENEDICTION Howard P. McKaughan

POSTLUDE . . . . . Susi Hussong

"HAWAII ALOHA"* . . . . . led by Dick Stroup
Accompanied by Susi Hussong on the harp
**GUESTS ARE INVITED TO JOIN IN THE SINGING*

E Ha-wai-i e ku'u o-ne ha-nau e,
Ku-u ho-me ku-la-i-wi nei,
O-li no au i na po-no la-ni ou
E Ha-wai-i a-lo-ha e.

Refrain:

E hau-o-li e na o-pi-o o
Ha-wa-i-i ne----i,
O-li e! O-li e!
Mai na a-he-a-he ma-ka-ni e pa mai nei,
Mau ke a-lo-ha no Ha-wai-i. *[Repeat]*

Oh sands of my birth,
My native home;
I rejoice in your heavenly blessing,
Oh Hawaii, aloha.

Refrain:

Happy youth of
Hawaii,
Rejoice! Rejoice!
Gentle breezes blow
Love always for Hawaii.

RECEPTION: Refreshments and fellowship
Greeting of guests in the reception area.

Lei Floating Ceremony — 5:30 p.m.

A Hui Nalu outrigger canoe, manned by paddlers Myron Thompson, Bob Rocheleau, and Nainoa Thompson will be waiting at the small floating pier near the Waikiki Yacht Harbor (diamond head of McCoy Pavilion) to take Susan, Joyce, and Kim to sea where they will float the leis for Gary, Mike, and Bob at sunset.

Guests who wish to do so may join in the ten minute walk to the canoe departure area and perscnally place their leis in the canoe. Or remain at the reception where Susan, Kim, and Joyce will return for further fellowship with you after floating the leis.

Figure 14.5*:* Program from the 8 January 1979 commemorative services for Mike Allen, Bob Harvey, and Gary Niemeyer held at McCoy Pavilion. Inset photo by Gregory Yamamoto at bottom right first appeared in a Barbara Hastings article in the *Honolulu Star-Bulletin* on 9 January 1979 (reproduced with permission from *The Honolulu Advertiser*) shows Youngsook Kim Harvey, Susan Niemeyer, Joyce Miller (2nd, 3rd and 4th from left, respectively), and several close friends just prior to lei-floating ceremony. (collage design by N. Hulbirt)

Gary Carl Niemeyer was a surfer and a competitive ocean swimmer who received his PhD in physical oceanography at UH in 1977. As his wife Susan lamented, he spent most of his life as a student – preparing – and now finally he had the opportunity to conduct his own marine research. Michael Hanson Allen, not yet 30 years old at the time of his disappearance, was a 1972 Stanford University graduate and NOAA Corps veteran. At the time of his disappearance he was employed by the NOAA-UH Joint Tsunami Research Effort (JTRE). Mike was also a graduate student in the Department of Geology and Geophysics; he was awarded a posthumous MS degree for his work on sedimentology of Pearl Harbor dredge spoils. Robert Richard Harvey received his PhD degree in physical oceanography from the UH in 1972 and had worked with both the JTRE and JIMAR. He was involved in several international research programs at the time of his disappearance, and he left two step-children and a loving wife, Youngsook Kim, ashore. The entire program was as moving as it was painful for all those gathered together on that sad occasion.

A second memorial service for the missing men on the *Holoholo* was held aboard the NOAA ship *Oceanographer* at pier 2-C on 17 February 1979, following a final search for debris and for underwater sound signals that might be derived from electronic instruments aboard the *Holoholo* at the time of its disappearance. It, too, was a very solemn occasion. A campus memorial was also established to honor the three UH scientists who were lost at sea (see Figure 14.6 and *Box 14.2*).



Figure 14.6*:* Re-dedication of the *Holoholo* memorial garden on the UH at Manoa campus (see also *Box 14.2*). Top: The two remaining gold trees in rare, full bloom. Bottom: Chant and lei-draping ceremonies following a memorial service in HIG auditorium on 29 September 1995. Shown at lower right are Dick Stroup, Dennis Moore, and Tom Schroeder placing maile lei at the new memorial. (photos: D. Karl, collage design: N. Hulbirt)

Box 14.2*: A Campus Memorial for the UH Scientists Lost at Sea aboard the *Holoholo

Shortly after the loss of the *Holoholo*, the UH marine science community established a memorial garden at the Diamond Head end of the HIG building. In 1979, three gold trees (*Tabebuia donnel-smithii*) were planted to commemorate our men. A plaque was subsequently attached to a lava rock and placed in the memorial garden during a dedication ceremony on 29 September 1995 (Figure 14.6).

During the construction phase of the POST building in the mid-1990s, one of the memorial trees was accidentally damaged and eventually died, leaving two gold trees remaining. Once the POST building was erected and with subsequent buildings and grounds projects near the *Holoholo* memorial that affected water drainage, the gold trees were in less than excellent health and rarely flowered; the stump of the third tree was still visible in the memorial garden.

A group of concerned SOEST scientists led by JIMAR Director Tom Schroeder petitioned the university's landscape committee for a new memorial design. In March 2003 a proposal calling for three mature sealing wax palms surrounded by rhapis palms and crotons and a ground cover of dwarf laua'e was drawn up and approved (see below). The new memorial, designed by Janet Gilmar, was rededicated on 18 December 2003, the 25th anniversary of this tragic incident and a more formal memorial service was held on 23 January 2004 (see section 14.6).



In 1979 the departments of oceanography and ocean engineering established the Gary C. Niemeyer Memorial Fund to honor their colleague who was lost at sea. According to the charter, this fund "will make small grants to graduate students in oceanography and ocean engineering to meet unusual or emergency needs that cannot reasonably be taken care of by the student himself or by other established sources of funding. The need may be personal, or may be related to a student's studies or research, but it must be clearly important to the person's career as a graduate student." Unofficially, these "grants" were to be regarded as interest-free loans to be repaid to the account as soon as possible.

14.3. A Formal US Coast Guard and National Transportation Safety Board Inquiry

The first six witnesses in the US Coast Guard's investigation into the disappearance of the *Holoholo* were subpoenaed on 4 January 1979 to begin testimony on 9 January 1979. The board consisted of (1) chairperson Captain George K. Greiner, chief of marine

inspections in Portland, Oregon, (2) Commander Alfred D. Utara, marine safety officer in Honolulu, and (3) Lt. Commander Robert E. Isherwood of San Francisco who also served as recorder. The NTSB representative was Orland D. French. The "parties in interest" were determined and they too – or their legal representatives – were also able to ask questions. A party of interest must face some potential liability. The board convened in court room #4 of the Prince Kuhio Federal Building, 300 Ala Moana Blvd.

The first witness was Ralph F. Woody, a welder. He was one of the last persons to leave the vessel the night before it sailed. He testified that an aft hatch was open and that some watertight bulkheads had been penetrated during vessel reconfiguration. The attorney for the owner said Woody may have misrepresented the vessel's condition at time of sailing as these repairs were ongoing right up to the time of departure.

As mentioned above, Laney – the owner – had purchased the vessel in Fall 1978 from Arthur F. Stubenberg who had operated it as a "pleasure vessel" since its christening. No change of title was ever filed, so the vessel was apparently not technically in compliance with mandatory USCG documentation. Woody, who had worked on the vessel in the past and during the period just prior to the fateful cruise, was hired to reconfigure the main deck to accommodate the science mission. He cut away main deck aft bulkheads to open a compartment above waist level. He also testified that a raised aft hatch and coaming were removed to clear additional deck space. He also tack-welded three winches – each weighing at least a ton – to the deck.

William M. Young, a marine repairman, said he would not sail on the *Holoholo* because of the open hatch; Laney said he would cover it with plywood for the trip to the Big Island. According to news accounts, Young was to have sailed as engineer, but did not because Young said Laney "was not a seaman and had absolutely no experience … he insisted on damaging the watertight integrity of the vessel and destroying her buoyancy." Young also said Laney was under pressure to get the ship ready for the RCUH charter.

David J. Russell, a marine surveyor and boat operator from Lahaina, Maui, testified that he turned down Laney's offer to skipper the *Holoholo* on its first trip to the OTEC site in October. He had refused the job offer because the pay was inadequate and because "it wasn't a smooth operation," referring to the last-minute preparations that were underway including, but not limited to, the hiring of a crew.

On 12 January, William Ridgeway – a crew member aboard the UH research vessel *Kana Keoki* which was tied up near the *Holoholo* at Snug Harbor before it sailed on 9 December 1978 – told the board by telephone that the crew may have also included two women. It was known that the *Holoholo* owner was looking for a cook and mess person, and Ridgeway said two "young, caucasian girls" were aboard the day it sailed. At this time, the *Kana Keoki* was in San Diego en route to a mission in Mexican waters so Ridgeway was not able to testify in person. Because no crew list was ever filed, this new claim could not be immediately verified; one thing was for certain – there was no cook or

mess person among the three known *Holoholo* crew, so it was not unreasonable to think that a last-minute hire was possible.

Honolulu police had no unsolved female missing persons for the period 8-15 December, but this was not sufficient proof that no female crew were aboard the missing vessel. Sally Culbreth – a friend of missing crewman James Ruseckas – was at the vessel on the morning of 9 December and escorted James aboard. John Laney asked her to come along as a cook, and during her tour of the vessel she noted the galley was not shipshape. In January 2004, the author learned that Joyce Miller was asked – on 8 December – if she would like to sail on the *Holoholo* expedition as a cook. She turned down this offer because she was scheduled to sail on the R/V *Kana Keoki* on 10 December. She was aboard the *Holoholo* the morning of 9 December. These facts, taken together, suggested that no cook had been hired. Perhaps Ridgeway had seen Culbreth and Miller on the vessel and had mistaken them for the *Holoholo* cooks. In any case, the issue of the existence of female crew was never resolved.

On 24 January, board members grilled state of Hawaii Marine Affairs Coordinator and UH Dean of Marine Programs John Craven on the charter operation of the *Holoholo*. According to news reports, Craven's only defense regarding the lapse of safety was that *Holoholo* was chartered and therefore exempt from UH and UNOLS safety regulations. During Craven's testimony it was also revealed that the original owner of the *Holoholo*, Arthur F. Stubenberg, had offered the vessel as a gift to the UH about one year before the disappearance. Craven had rejected the offer primarily on the grounds of high maintenance costs, not safety issues. However, Henry J. White Jr., an investigator with RCUH who had also recommended against accepting the *Holoholo* gift, later conceded that safety considerations were also part of their concern about the vessel.

Finally, Craven denied previous speculation that the *Holoholo* mission was "classified" as had been charged by Tony Hodges, an environmentalist and 1976 "splinter party" candidate for US Senate. According to newspaper accounts, Hodges claimed that Robert Harvey, one of the UH scientists aboard the vessel at the time of its disappearance, had recently returned from a research voyage to the Kurile Islands aboard a Russian research vessel. Hodges speculated that Harvey may have been the target of a kidnapping plot, but sources close to Harvey called this claim outrageous. Hodges also testified that he thought "a submarine collided with the *Holoholo* and caused the death of all aboard." This was hard for most informed people to believe, but two decades later there was a collision at sea between the submarine USS Greenville and the Japanese fisheries training vessel *Ehime Maru* that resulted in loss of the vessel and life. Hodges further claimed that this is why an Air Force U-2 "spy plane" was called to the scene during the initial search and rescue mission. When David McClung, attorney for Michael Trens' wife (Michael Trens was the captain of the *Holoholo* on the ill-fated voyage) again raised the question of the involvement of other "government agencies" with secret missions, the board of inquiry chair Captain Greiner called a press conference to spike these ill-founded rumors. However, this only fueled the *Holoholo* intrigue.

There was extensive testimony regarding the qualifications of the *Holoholo* crew, and some confusion as well. Timothy E. Scroghan, 26, was the captain during the first OTEC cruise in October 1978. During his cruise they had "flat seas with no wind" – ideal for research in the Alenuihaha Channel. He had decided not to sail on the ill-fated December cruise when he saw a large 2'x4' uncovered deck hatch and other vessel modifications which he apparently thought were unsafe.

According to records, Scroghan was the only person authorized to provide master/crew under the RCUH agreement. This agreement had been signed during a 10-minute meeting with William Coops, RCUH director, just before the October trip. According to news reports, the terms of the contract would provide Scroghan $500 per day to provide captain, crew and operation/maintenance of the vessel. Instead he endorsed the check to the vessel's "owner" for a cash payment of $50 per day, and Laney paid the rest of the crew. Scroghan's contract gave him full and final authority as captain, but Scroghan charged that Laney was really in charge and claimed he did not need an engineer because "he (Laney) could do it."

Michael Trens, the captain hired by Laney for the fateful *Holoholo* voyage, signed on only days before sailing. Trens, then 61, had retired from the US Navy with the rank of commander in 1970 after 30 years of service, including 17 years at sea. He held a USCG license – issued on 30 June 1975 – as master, oceanographic research vessels, any gross tons. Captain Michael Trens was the only person aboard *Holoholo* who carried any license approved by the USCG. Trens had previously served as commanding officer of the USS *Rehoboth*, an oceanographic survey vessel, during his last Navy seagoing tour of duty. In addition, Trens had made a six week oceanographic voyage to Tahiti as a mate on the R/V *Kana Keoki* (see section 13.4). Barbara Trens, the captain's widow, later testified that he had been paid $50 per day and the other crew member, James Ruseckas, received $30 per day. Ray Ruseckas, brother of the missing *Holoholo* crewman James Ruseckas, said his brother was hired by Laney only two days before the voyage to do some mechanical work on the vessel despite the fact he had no marine experience. He later hired on for the ill-fated OTEC voyage.

The far-ranging board of inquiry ended phase I of their investigation on 25 January 1979, after a 12-day public hearing on the disappearance. An editorial entitled "*Holoholo* Aftermath" published in *The Honolulu Advertiser* on 29 January 1979 lamented "We do not know and will likely never know what happened to the *Holoholo* – what if anything was done wrong." Had the *Holoholo* completed its voyage without incident – of course – the issues uncovered in the inquiry would have mattered little, if at all. But in the aftermath tough questions were asked. The editorial concluded by stating that "strict enforcement of safety standards may add to the cost of ocean research, but if it is too expensive to be done at a reasonable level of safety, perhaps the research ought not be done at all."

In March 1979, Greiner proposed that a naval architect be hired to make calculations of the *Holoholo's* stability and hull strength, coupled with analyses of wind and sea conditions which the vessel may have been exposed to. This request was a response to

testimony received during the formal board of inquiry in January regarding the probable condition of the vessel at the time of its disappearance.

These stability tests on the *Holoholo* would later indicate that the vessel would have capsized in rough weather if it had taken heavy waves over the bow or if its two aftermost compartments had filled with water. The aft hatch coaming that had been removed prior to sailing could have made the vessel more vulnerable to flooding, ultimately affecting its stability. Furthermore the report concluded that *Holoholo's* structure gave it the "potential of trapping a large amount of seawater" – as much as 34 tons – behind 3-foot high bulwarks on the forward deck. Under these conditions capsizing would be inevitable. There was testimony earlier in the investigation that there were seas of 10-12 feet in the Alenuihaha Channel between Maui and the Big Island the day the *Holoholo* was thought to have disappeared.

On 25 July 1979, the Hawaii State Senate held an independent hearing on the December 1978 disappearance of the *Holoholo*. During the four-hour procedure called by then state senator and chair of the senate higher education committee Neil Abercrombie, the discussion focused on the safety of ocean research conducted at UH. At this hearing, Roger Lukas – then a graduate student in the UH Department of Oceanography – presented a set of guidelines that he said the department had formulated to meet federal and state ocean regulations. Marine dean John Craven said the new regulations would become fully enforceable in September. Hodges, who had earlier testified at the USCG inquiry, reiterated his conspiracy theory concerning a Russian plot to subvert a classified defense-related *Holoholo* mission, and further alleged that Craven had CIA connections and should be fired from his jobs in the state government and UH administration; Craven characterized his comments as "cruel speculations."

Abercrombie concluded the hearings with a stern warning, "We've got to get the University to get one thing straight. They must pursue with vigor to see that this kind of thing doesn't happen again. If the USCG board of inquiry finds that the state is liable, we could be sued for millions of dollars. We need to know where responsibility for research starts and ends."

14.4. U-2 Photograph and Underwater Signals: Contradictions on the Location of *Holoholo*

Another controversy arose following the inquiry, this one related to a possible sighting of *Holoholo* off the southeast coast of Hawaii on 18 December 1978. Shortly after the search for the missing vessel got underway, the Joint Rescue Coordinating Center requested U-2 aircraft support from the US Air Force for the search-and-rescue mission. The "spy plane" arrived from the mainland on 16 December and flew the next day with no results. Then on 18 December, during its routine search pattern between Hawaii and Johnston Island – far to the west – the crew learned that an instrument box, positively identified as being from the *Holoholo*, was found by a fisherman from Kona about 6 miles SW of Milolii (see location in Figure 14.2).

The U-2 was diverted to the Kona coast and at 1415 hr a camera aboard the plane captured the image of a ship on frame #1728 from an altitude of approximately 62,000 feet. The 1.5 m long x 10 cm wide negative clearly showed a 3 mm sized image near the center of the frame. Air Force experts determined that it was a vessel, approximately 72-88 feet in length and 20-24 feet across – the *Holoholo* was 90 feet by 25 feet – with a similar, but not identical, shape and different color pattern than *Holoholo*. Was this the missing vessel? Could its shape and color have been altered by an on-board explosion or fire? The U-2 returned to the known location on 19 December, but did not see the vessel again. During the USCG inquiry Air Force expert Master Sergeant Richard F. Callahan of the 548th Reconnaissance Technical Group concluded that the sighting was no more than "possible" (the categories include possible, probable, and confirmed).

Despite this testimony, others were more convinced that the boat-like image was indeed the *Holoholo*. NOAA Lieutenant Stephen L. Poole, who was also employed by UH through the JIMAR program, and Roger Lukas, then a graduate student in the Department of Oceanography, produced a computer analysis of the blueprints for the *Holoholo*. When the computer image of the vessel was tilted slightly, the main bulkheads were a perfect match with the U-2 image, even though the stern section was still off (Figure 14.7). On 29 March 1979, Poole submitted a report, "The Search for the Holo Holo." In this comprehensive document, he presented details of the events preceding the disappearance, the chronology of the search effort, and – most importantly – the analysis of the U-2 photographs. (note: As far as the author has been able to determine, Poole's report was not an "official document" but may have been prepared in response to a request from John Apel – then director of the NOAA Pacific Marine Environmental Laboratory in Seattle – to "write the report on events surrounding the apparent loss of life and ship." I was able to obtain a copy of the "Poole Report" in July 2003 from Tom Schroeder, then director of JIMAR at UH.)

According to the Poole Report on the disappearance of *Holoholo*, the computer projections that were made by Lukas, based on blueprints of the *Holoholo*, showed an almost exact correspondence between the *Holoholo* projection and the vessel in the U-2 photo (Figure 14.7). In his 14 March 1979 report to Poole, "U-2- photograph taken during search mission for the M/V *Holo Holo*," that was included as an appendix of Poole's report, Lukas carefully outlines his methods of analysis and his results. Although he emphasized that "one can never state with 100% confidence that an aerial image of a vessel on the open ocean is a particular vessel…" Lukas concluded his memo "My estimate is that the photograph is of the missing M/V *Holo Holo* with about 95% probability."

Others, including Bill Austin – then master of the R/V *Moana Wave* – also were convinced that the U-2 photo was the *Holoholo*. In a 25 December 1978 cable sent by Austin from Fiji to Dean John Craven, he stated his opinion emphatically that "the object in the photograph is the *Holoholo*, capsized." In addition to other lines of evidence he pointed out that "Three of her four propeller shafts are awash and plainly visible in the location where they should be." He also thought that in the vessel's current state – adrift, but floating due to trapped air – "She would sink quickly with any change in attitude that

would allow air to escape through deck openings." According to information contained in the Poole Report, the USCG officials made the original U-2 negative taken on 18 December available to JIMAR for further analysis. JIMAR contacted experts at NASA's Jet Propulsion Laboratory for computer enhancements (see Figure 14.8), but no new information was obtained.

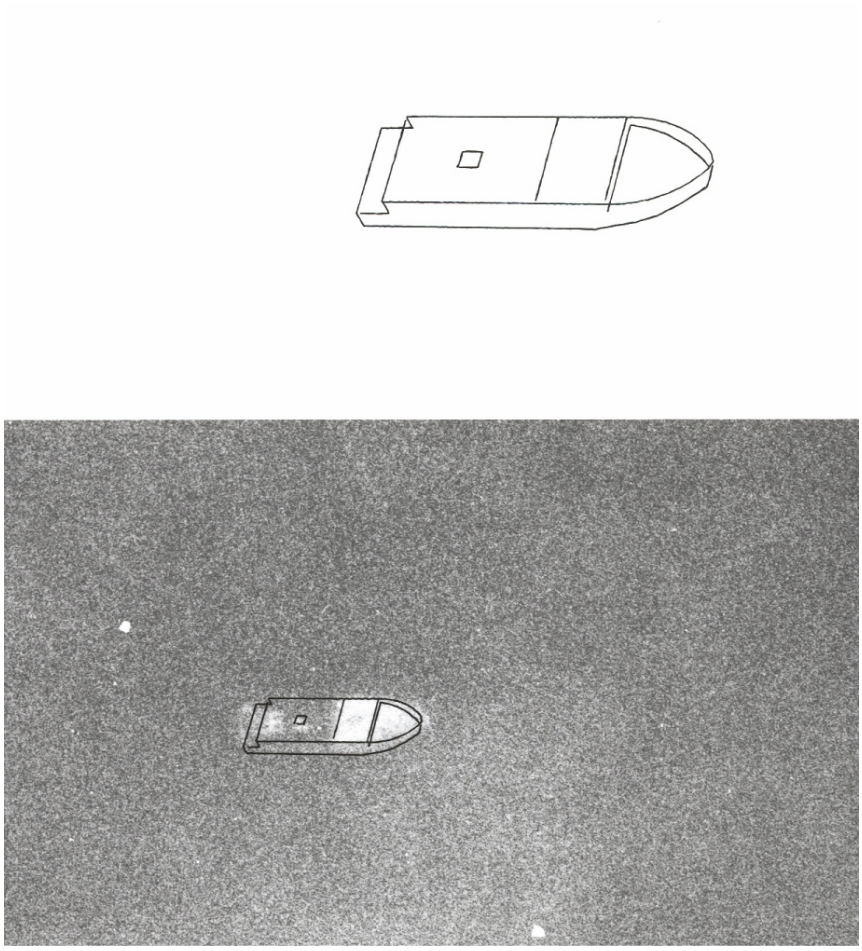


Figure 14.7: Computer image of the hull shape of the M/V *Holoholo* prepared by Roger Lukas from blueprints provided by the naval architect following the disappearance of the vessel in December 1978. Lukas and his colleagues worked tirelessly in an attempt to determine whether the image captured by the U-2 surveillance aircraft (shown at bottom with *Holoholo* overlay, and as enhanced images in Figure 14.8) was in fact the missing vessel. While the official US Air Force photo interpretation characterized this sighting as "possible" – the lowest probability of the three categories used by them – others involved in the search were more convinced the image was the *Holoholo* (see text for more details). (Courtesy of T. Schroeder, director of JIMAR)

Although Poole correctly characterized the U-2 photo as "the most controversial piece of evidence in the *Holo Holo* search" he eventually concluded that "Based on the projections the unidentified vessel appears to be either the *Holo Holo*, or its sister ship." He went on to state that "The identity of the unidentified vessel may seem purely

academic were it not for strong evidence indicating that it is the *Holo Holo* in some altered or damaged form." He ended his 53-page report with: "Until the unidentified vessel is identified as being something other than the *Holo Holo*, we are faced with an even greater tragedy – that the *Holo Holo* could survive intense gales to stay afloat for at least 9 days and yet be overlooked by the most extensive search effort in Hawaii's history." Poole's report was not widely distributed, but news reports of it suggested that the *Holoholo* was still afloat on 18 December and could have been rescued. This speculation only added to the mysterious disappearance.

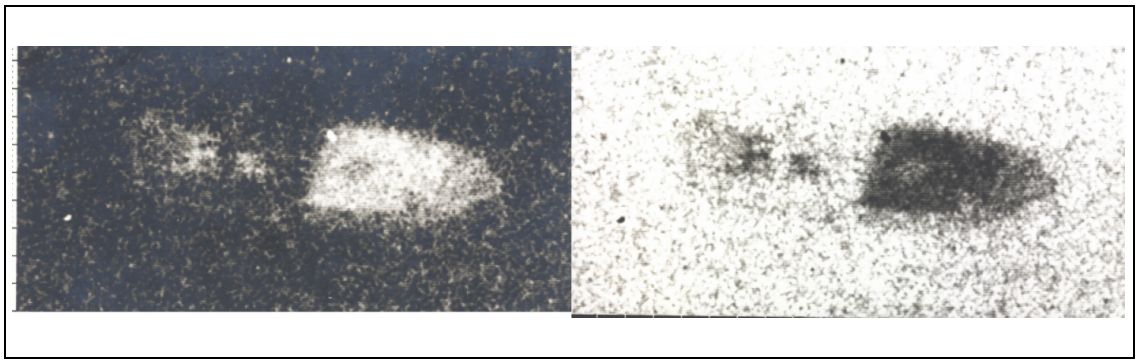


Figure 14.8: Computer-enhanced positive and reversed image of the unidentified vessel captured by the U-2 aircraft showing details of the sighting. These images were prepared by experts at NASA's Jet Propulsion Laboratory in Pasadena, California from the negative supplied by the US Air Force. This portion of the photo analysis was coordinated and facilitated by Stephen Poole. (From the Poole Report, courtesy of T. Schroeder, director of JIMAR)

Several months later, the NOAA ship *Townsend Cromwell* (see *Box 5.6*) – almost one year to the date of the disappearance of the *Holoholo* – picked up electronic signals in the Alenuihaha Channel that were believed to originate from instruments known to have been aboard the *Holoholo* in December 1978 on its expedition to the Big Island. A NOAA press release dated 12 December 1979, reported that – yesterday – the vessel *Townsend Cromwell* had received signals from two of three acoustic devices believed to be from the *Holoholo*. The signals were received at a point "28 miles south of Maui and came from a depth of 7200 feet" (see location in Figure 14.2) David Pashinski, a NOAA oceanographer on board the *Townsend Cromwell*, identified the signals. At the time, *Cromwell* was on a routine fisheries mission, when Pashinski and other NOAA scientists made the discovery (note: Both Robert Charnell and Norman Laird – two men lost on the *Holoholo* – had been employed at the same NOAA lab in Seattle, Washington). They reasoned that this might be the last chance given the approximately one-year life span of the batteries in the acoustic devices. Once located on the seafloor it was determined that the two instruments were 200-500 m apart. Ironically, two other NOAA ships, the R/V *Fairweather* and R/V *Oceanographer*, had unsuccessfully searched near this same area in February 1979 shortly after the disappearance – perhaps as close as five miles from the location where the *Townsend Cromwell* had received the underwater signals. The location of the instruments on the seafloor was along the likely course the vessel would have taken from Honolulu to Ke-ahole Point. The sound patterns received from the located instrument indicated that it had not yet been "armed," or readied for service,

which would be consistent with accidental deployment or other inadvertent loss from the surface or with sinking of the vessel. If the *Holoholo* sank in the channel, then the object photographed by the U-2 must have been some other vessel, perhaps a fishing boat. This would explain why it was not in the same location the day after it was first sighted, as might have been expected for a vessel that was adrift with no power unless it sank.

Still there was no conclusive proof that the *Holoholo* sank at, or near, the location of the instruments. With this new information in hand, officials asked the US Navy to deploy a deep-sea camera system in an attempt to image the hull. Hopes were dashed to get a positive identification of the *Holoholo* when the US Navy lost their experimental Remote Unmanned Work System (RUWS) on 20 January 1980 when a cable linking the device to its mother ship snapped during tests off Kailua-Kona. Although apparently no firm commitment had yet been made by the Navy to use the undersea camera system to help locate the *Holoholo*, according to news accounts, a formal request from NOAA had been under consideration. In a 30 January 1980 *The Honolulu Advertiser* article, staff writer Walter Wright quoted Stan Margolis – then chairman of the Department of Oceanography – "UH is considering building a submersible camera and sonar device to look and listen for the missing research vessel *Holoholo*." The package – according to Margolis – would be put together by JIMAR and funded by NOAA. Margolis was also quoted as saying "The reason a lot of us here are interested in doing it (the underwater search) is that the people who are missing are friends and colleagues of ours and we want to know what happened to them."

Throughout the period of search and rescue, and the period of formal investigation of the *Holoholo* incident, there was local, national, and international news coverage including *The Honolulu Advertiser*, *Honolulu Star-Bulletin*, *Ka Leo O Hawaii*, *Sun Press*, *Seattle Post-Intelligence*, *Seattle Times*, *South China Morning Post*, *LA Times*, and *National Fisherman*, to name a few. In March 1980 (Bo Derek issue), *Playboy* published a full-page account of the disappearance in their "Mystery of the Month" section. The article, "The missing ship *Holo Holo* – A ghostly reappearance?" played on the intrigue of the U-2 photograph and Steve Poole's efforts to systematically analyze it. The article included the U-2 photo and the computer drawn image of the *Holoholo* concluding, "The cross visible on the rear deck of the ship gave officials reason to fear the ship had been hijacked." The article went on to suggest that the *Holoholo* may have been "marked" for observation by Russian spy satellites. Not too many years before, in 1974, Howard Hughes and the CIA successfully raised part of a Russian submarine under the cover of "ocean science." The *Playboy* article ended by saying "If the photo is of the *Holo Holo* (note: many reasonable people still believe this to be the case), how could the ship have survived the seas undetected for eight days? And why did it suddenly disappear again after its picture was taken?"

While the 1979 Poole Report made a strong case for the U-2 photo/*Holoholo* match, neither the NTSB Marine Accident Report nor the USCG Marine Casualty Report gave this evidence much credence (see section 14.5 and *Boxes 14.3 and 14.4*). This is most likely because of the underwater signals from *Holoholo*-based instruments that were detected close to the OTEC benchmark site, well after the Poole Report was completed.

14.5. Aftermath: The Final Reports and the Subsequent Legal Battles

In September 1980, the NTSB filed their Marine Accident Report concerning the loss of the *Holoholo* (see *Box 14.3*). The NTSB concluded that the *Holoholo* disappearance might have been prevented if standard safety procedures had been followed by the university and by the vessel's owner. The vessel lacked such basic safeguards as regular radio communications and an EPIRB device, and John Laney, the *Holoholo* owner, "retained complete operational control" of the *Holoholo* despite the fact that he had little marine knowledge or experience. The formal USCG report awaited the completion of stability tests – a key point in the ongoing investigation. The NTSB report concluded that that actual condition of *Holoholo* on 9 December 1978 is not known because the vessel was registered as a yacht, thereby exempting it from USCG or ABS inspections.

***Box 14.3*: The National Transportation Safety Board Marine Accident Report**

On 29 September 1980, the NTSB filed their Marine Accident Report "Sinking of the M/V *Holoholo* in the Pacific Ocean near the Hawaii Islands, December 1978" (NTSB-MAR-80-15). The report was unclassified and, therefore, available to the public. Selected findings were:

(1) The *Holoholo* probably sank about 17 nmi northwest of the benchmark site, near the location of the acoustic release/transponder instruments.
(2) The sinking of the *Holoholo* probably did not result from a severe fire/explosion or from a catastrophic failure of the hull.
(3) The *Holoholo* could have capsized because of the combined effects of seawater being trapped on the forecastle deck and of the vessel's being poised on the crest of a wave. The vessel then could have sunk because of flooding of the rudder compartment followed by flooding of the aft storage compartment and engine room. However, the actual circumstances regarding the sinking of the vessel are unknown.
(4) The *Holoholo* was not seaworthy for the intended voyage. In this regard, the chartering and contracting procedures used by RCUH were not adequate to insure the seaworthiness of chartered vessels and the safety of chartered vessel research voyages.

In summary, the probable cause was listed as:

"The National Transportation Safety Board determines that the probable cause of this accident was the operation of the M/V HOLOHOLO in an unseaworthy condition as directed by the owner and accepted by the Research Corporation of the University of Hawaii. Contributing to the vessel's unseaworthiness were a 2-ft by 4-ft opening in the after main deck and a large opening in the aftermost deckhouse bulkhead which would allow rapid internal flooding, unsealed below-deck bulkhead penetrations which would allow progressive flooding, inadequate freeing ports which would allow shipped water to be trapped on deck, and the insufficient number of qualified operating personnel to provide a 24-hour navigation watch. The lack of a distress signal or radio message might have contributed to the loss of life."

The report ended with several recommendations to enhance overall safety including six items that were identified as "Class I – Urgent Action." Appendix C of the NTST report was a letter to James King – then chairman of the NTSB – from Fujio Matsuda – then president of UH – with the official UH response to the Board's findings. Among the issues raised in the response, Matsuda stated that "although the UH was not a named party in interest at the Coast Guard proceedings, we do not concur that the evidence uncovered to date supports all of your statements regarding the loss of the *Holo Holo* – especially to the extent that your findings involved the University of Hawaii, its agents or its employees."

One year later, in November 1981, the USCG filed their Marine Casualty Report concerning the *Holoholo* incident and presumed loss of life (see *Box 14.4*). This report covered much of the same ground, including findings of fact, conclusions, and recommendations. Among the conclusions, the report stated that "The photographic sighting by the high altitude SAR (U-2) aircraft was not that of the *Holoholo*." They also emphasized that the exact cause of the casualty is unknown.

As might be expected, the end of the formal board of inquiry into the disappearance of *Holoholo* marked the beginning of the in-court battles. The first to file suit on 2 August 1979 was Barbara K. Trens, widow of skipper Michael J. Trens, who asked for $8.8 M in damages against six defendants named in the federal court suit, including UH, RCUH, the state of Hawaii, the University of California, *Holoholo* owner John Laney who was aboard the vessel and presumed dead, and Arthur F. Stubenberg – the registered owner of the vessel. In her suit Trens said her 61-yr old husband was earning in excess of $25,000 per year and that his death was caused by negligent and unlawful acts of the defendants and their agents in the design, maintenance, and operation of the *Holoholo*.

On 6 August 1979, Continental Insurance, the New York company contracted to insure the *Holoholo* for owner John Laney and the RCUH for up to $500 K, filed suit in federal court to limit liability to this amount for this entire incident.

On 24 August 1979, the brother of a *Holoholo* crewman filed a $10.5 M lawsuit in federal court. Robert Ruseckas, brother of James Edward Ruseckas, 21, named the same six parties listed above as defendants in the suit. Ruseckas' lawsuit alleged that the defendants violated safety procedures and caused unsafe conditions aboard the vessel.

On 2 January 1980, Youngsook Kim Harvey and Susan W. Niemeyer filed a multi-million dollar lawsuit on behalf of their husbands who were lost at sea. The named defendants were again the "big four" (UH/RCUH/state of Hawaii/University of California) and the two owners of the vessel.

Finally, on 1 February 1980, the fourth lawsuit was filed, this one on behalf of the two families of oceanographers Robert Lewis Charnell, 40, and Norman P. Laird, 43, both lost at sea. The defendants were UH, RCUH, and the University of California; the two separate suits asked for a total of $20.4 M in damages. According to Joyce Miller, the parents of Michael Allen also filed a lawsuit, but the author has no additional information. The widows of UH scientists Robert Harvey and Gary Niemeyer also filed claims with the State Employees Retirement System for accidental death benefits.

***Box 14.4*: Department of Transportation Coast Guard Marine Casualty Report**

On 18 November 1981, the USCG filed their Marine Casualty Report "M/V *Holo Holo* (sic); Disappearance in the Pacific Ocean on 11 December 1978 with presumed loss of life" (USCG 16732/02180). This report included both the findings of the USCG Marine Board of Investigation and the USCG Commandant's Action. Like the NTSB report published in September 1980, this report was unclassified and available to the public. Many of its findings and conclusions were similar to those presented in the NTSB report, but it also went into much more detail on matters related to vessel stability, the weather during the period in question, and the Air Force U-2 sighting of a vessel-like object at position 18°15'N, 156°44'W, approximately 68 miles, bearing 205 degrees true from the OTEC benchmark site. With regard to the latter, they reiterated that the Air Force's expert photo – interpreters determined that the object was possibly the *Holoholo* and then emphasized that "possible" was the lowest category; "probable" and "confirmed" are more certain. The only similarity between *Holoholo* and the photograph was the length-to-beam ratio. Key factors discounting the possibility that this was *Holoholo* were: (1) color of the canopy, (2) safety rails, square stack, and "A" frame known from *Holoholo* were not discernible in the photo, (3) a white cross and small protrusion on the port side of the vessel in the photograph were not consistent with *Holoholo*, and (4) the forecastle raft on the photo was not the size or position known from *Holoholo*. They eventually concluded, as did the NTSB report, that "the photographic sighting by the high altitude SAR aircraft was not that of *Holoholo*."

On Saturday, 6 December 1978 – the departure date for the *Holoholo* expedition – the 1700 hr weather forecast was, "Caution is advised due to marginal wind and sea conditions for all Hawaiian waters…winds over coastal waters east-to-northeast 20 knots, seas 8 feet – all major channels east-to-northeast 25 knots, seas 10 feet." By 1100 hrs on 10 December the forecast was for "small craft advisories for all Hawaiian waters exposed to strong, gusty trades…all major channels east-to-northeast 30 knots, seas 12 feet." The vessel *Jeanoyce* reported ENE winds at 35 knots and 20 foot seas in the Kaiwi Channel at 1845 hr, 10 December.

Conditions did not improve. At 1700 hr on 11 December, gale warnings were posted, and they remained in effect until 0500 hr on 22 December. This period of continuous gale force conditions was later characterized as one of the longest in recent history. The weather was certain to have been a major factor in the disappearance of the *Holoholo*; it also was to have a major impact on the air and sea search and rescue missions.

Although the Coast Guard report acknowledged that the exact cause of the casualty is unknown, the final conclusion – based on all available information – was that the *Holoholo* sank "at or near position 20°6'N, 156°28'W, where the acoustic devices were found, and where *Holoholo* is now located on the bottom." The report went on to conclude that "the casualty occurred on 10 December 1978 during the afternoon or evening. Significant wave heights at the probable time/place of the casualty were 14-17.5 feet with occasional wave heights of 22.4-28 feet."

The primary cause of the casualty was determined to be ingress of water in heavy seas and possible progressive flooding. This may have started with ingress into the steering gear compartment through the compromised (non-watertight) 2'x4' opening left by the earlier removal of the fantail deck hatch. Alternatively, the casualty might have been caused by the slamming force of *Holoholo* trying to make headway into heavy seas. The heavy pitching combined with the vessel's flat bottom might have provided unusually high stresses in critical areas of the main deck. A structural fracture of this sort, however, should have produced additional debris. Regardless of the primary cause, the report concluded that the loss was immediate and catastrophic which precluded radio distress calls, signaling, deployment of life rafts or, other life saving operations.

These legal battles lasted several years, both in federal and in state of Hawaii courts. In April 1981, US District Judge Samuel P. King denied the state's request to dismiss federal wrongful death lawsuits arising from the disappearance of the *Holoholo*. The state of Hawaii had argued that it was immune from such lawsuits, citing the US Constitution's 11th amendment which has been interpreted as prohibiting private citizens from suing states in federal courts. Judge King disagreed, and in his 27-page decision he stated "The total consequences may have been unknown – they surely did not expect the *Holoholo* to go down – but the possibility of facing claims in federal court brought by the United States, or the other state, or private citizens must have been obvious." This decision paved the way for either a trial or an out-of-court settlement with the survivors. The ruling was also significant because both the state of Hawaii and the state of California were the only defendants with "deep pockets" – meaning the ability to pay significant damages if found to be negligent.

Ten months later, in February 1983, more than four years after the disappearance of the *Holoholo*, state of Hawaii-supported attorney Nelson Chang opened the non-jury trial before federal Judge Samuel P. King. Chang was defending UH against multi-million dollar lawsuits filed on behalf of eight of the ten missing men. Chang argued that the *Holoholo* was probably swamped by a large wave during a storm and sank immediately after it was hit. He was prepared to present scale model test results in support of this theory. The vessel, he argued, was otherwise seaworthy, with a competent crew.

Attorneys for the plaintiffs, including David Schutter, disputed the state's contention that the vessel sank suddenly, and referred to the U-2 photos as "proof" the vessel was still afloat after the storm. They also contended that university officials had not ensured the safety of the vessel. These issues were identical to those uncovered in the board of inquiry – without resolution. Shortly after the trial began, a recess was called to provide additional time to reach an out of court settlement.

On 16 February 1983 it was announced that a $3.46 million settlement would be paid by the three institutions that had chartered the vessel – UH, the University of California, and RCUH – in an out of court settlement with survivors of eight of the ten aboard the *Holoholo* when she disappeared in December 1978. According to terms of the settlement, amounts ranging from $75 K to $820 K would be paid to each of the eight families, depending on the number of surviving relatives. All but John Laney, the *Holoholo* owner, and University of California scientist James Sandusky were included in the lawsuit. The reason(s) for the latter are not known to the author. The payment breakdown for the $3.46 M settlement was University of Hawaii ($1.5 M), University of California ($850 K), RCUH ($300 K), and the remainder from an insurance company covering John Laney and the vessel.

So ended the prolonged, expensive and bitterly contested legal battle. In the final analysis, the terms of the settlement do not really matter; they cannot bring back the lives of these young, promising marine scientists. The fact that blame needs to be assigned at all is a sad commentary on our society – this was and will always be simply a sea tragedy.

I had initially entitled this chapter, "The *Holoholo* Mystery: A UH Sea Tragedy with Hard Lessons and a Lasting Impact." However, after Joyce Miller so kindly read the earlier draft, she pointed out that the lessons – if any – got lost. Since we do not know what actually happened to the vessel, or how the tragedy might have been prevented, we really don't have a lesson. For those who were very close to one or more of the men lost at sea, they are still haunted by the fact that there is still no explanation for this tragedy. It remains an unsolved mystery.

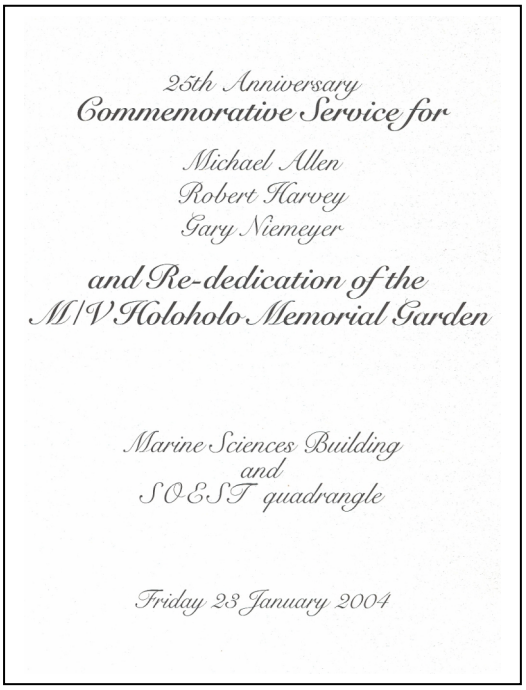
14.6. 25 Years Later, "The Wound Still Bleeds"

In November 2003, through the fine efforts of the UH landscape committee – led by Janet Gilmar – and the UH Building and Grounds Management staff – led by Roxanne Adams – a new memorial garden was designed and constructed (Figure 14.9). Funds for this project were provided by generous donations from a broad base of concerned family and friends of those who were lost at sea, as well as UH faculty, staff and students – some of who had never previously heard of this sea tragedy. On 18 December 2003, nearly 25 years to the day of the tragic loss, a small group was present to open the new garden and to replace the restored memorial plaque (Figure 14.9).



Figure 14.9: Construction and initial dedication, in December 2003, of the new *Holoholo* memorial garden on the UH at Manoa campus. (photos by D. Karl)

Approximately one month later, on 23 January 2004, there was a more formal re-dedication of the *Holoholo* memorial garden and 25th anniversary commemorative service for our friends and colleagues who were lost at sea (Figure 14.10). Following remarks by UH at Manoa Chancellor Peter Englert, Tom Schroeder and Dave Karl, the featured speakers at this standing-room-only event, Joyce Miller, Ted Murphy, and Bob Rocheleau provided emotional remembrances of Mike, Bob and Gary. Tom Schroeder then read a letter that was sent to him by Susan Niemeyer Gardner, wife of Gary. This moving ceremony, reported in a 25 January 2004 *Honolulu Star-Bulletin* article written by Helen Altonn, is best summarized by a poignant remark that was made by Bob Rocheleau, "I never thought a wound could still bleed after 25 years." The program ended with a chant by Keali'I Olu'olu Gora of the Halau Ku Mana, and lei draping (Figure 14.11).



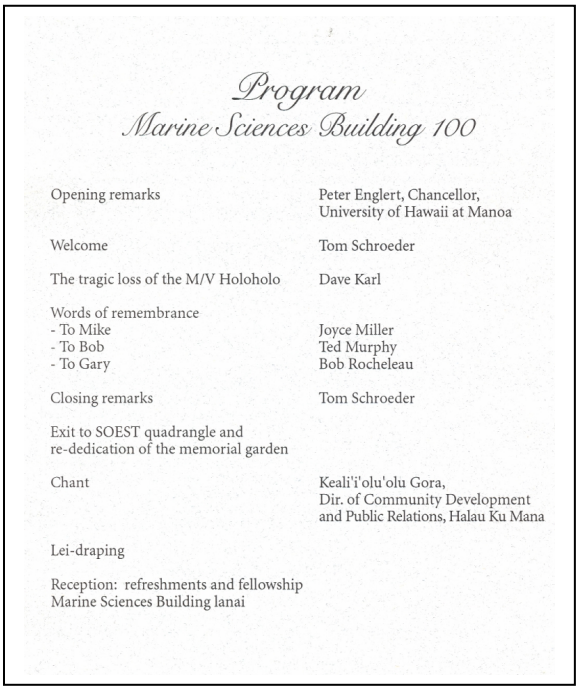
25th Anniversary
Commemorative Service for

Michael Allen
Robert Harvey
Gary Niemeyer

and Re-dedication of the
M/V Holoholo Memorial Garden

Marine Sciences Building
and
SOEST quadrangle

Friday 23 January 2004



Program
Marine Sciences Building 100

Opening remarks	Peter Englert, Chancellor, University of Hawaii at Manoa
Welcome	Tom Schroeder
The tragic loss of the M/V Holoholo	Dave Karl
Words of remembrance - To Mike - To Bob - To Gary	 Joyce Miller Ted Murphy Bob Rocheleau
Closing remarks	Tom Schroeder
Exit to SOEST quadrangle and re-dedication of the memorial garden	
Chant	Keali'i'olu'olu Gora, Dir. of Community Development and Public Relations, Halau Ku Mana
Lei-draping	
Reception: refreshments and fellowship Marine Sciences Building lanai	

Figure 14.10: Program for the 23 January 2004 25th Anniversary Commemorative Service for Michael Allen, Robert Harvey, and Gary Niemeyer and formal Re-dedication of the M/V *Holoholo* Memorial Garden.



Figure 14.11: At top is the *Honolulu Star-Bulletin*'s George F. Lee photo that accompanied the 25 January 2004 Helen Altonn article (http://starbulletin.com/2004/01/25/news/story11.html) on the 25th anniversary commemorative service for our colleagues who were lost at sea aboard the M/V *Holoholo*. Shown are Ted Murphy, left, Bob Rocheleau and Joyce Miller. At bottom, the refinished, lei-draped memorial plaque (photo by D. Karl).