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## United States Senate

COMMITTEE ON  
ENERGY AND NATURAL RESOURCES  
WASHINGTON, D.C. 20510

DANIEL A. DREYFUS, STAFF DIRECTOR  
D. MICHAEL HARVEY, CHIEF COUNSEL  
STEVEN G. KICHOK, STAFF DIRECTOR FOR THE MINORITY

August 18, 1980

Mr. George H. Balazs  
Assistant Marine Biologist  
and Deputy Chairman  
Hawaii Institute of Marine Biology  
University of Hawaii at Manoa  
P. O. Box 1346  
Kaneohe, Hawaii 96744

Dear George:

Thank you for sending me a copy of your recent letter to Mr. William Bodde, Jr., Director of the Office of Pacific Island Affairs of the Department of State concerning the proposal to establish a spent nuclear fuel storage facility on a U. S.-owned Pacific island territory. I regret the delay in my response.

I have noted with a great deal of interest your concern over the State Department's proposal to store nuclear wastes in the Pacific in terms of the risks posed by such storage to marine turtles protected under the Endangered Species Act. As you indicated, the Endangered Species Act requires the Federal Government to ensure that its programs and activities are not likely to jeopardize any listed endangered species. Certainly, the Federal agencies involved in the State Department's Pacific storage proposal must give careful and comprehensive consideration to its possible impact on marine turtles. You will be pleased to know that I have brought your letter to the attention of the Senate Energy and Natural Resources Committee, which has jurisdiction over the affairs of the U. S. insular areas and the storage and disposal of nuclear waste material.

As you probably know, the United States and Japan recently concluded an agreement to conduct a joint feasibility study of the establishment of a spent nuclear fuel storage facility in the Pacific Basin. According to the Department of State, which is the lead agency in this project, the study will take at least three full years to complete and may possibly extend to five years. It is my understanding that the three insular areas upon which the study will be focused will be those identified last year by the Department of State as preliminary choices for the locating of a storage facility--Palmyra, Wake, and Midway islands.

Mr. George H. Balazs  
August 18, 1980  
Page Two

Needless to say, the people of Hawaii and many other islands of the Pacific have expressed deep concern over the proposed storage of nuclear waste material in the Pacific Basin. Accordingly, I introduced legislation last year, which was signed into law by President Carter on March 12, 1980, requiring that the Administration transmit to the Congress, in the form of legislation, any proposal to establish a nuclear waste storage facility on any U. S. territory or possession anywhere in the world. Furthermore, under my amendment, the Department of the Interior is required to provide the Congress with a detailed report on the desirability of the proposed legislation. Both houses of Congress will then, in turn, have a full opportunity to make a full, public review of the proposal, receiving testimony from the peoples of the areas involved, and an informed judgment on whether or not interim storage of spent nuclear fuel on a Pacific island should be authorized. I believe it is safe to say that if such a legislative proposal was brought before the Congress today, there is a good chance that it would be rejected, based on the risks posed to the health and safety of the people of the Pacific and their precious environment by nuclear waste storage. I am also optimistic that before the Congress must consider the proposal for interim storage in the Pacific, the United States will have moved to find more permanent and safe solutions to the twin problems of nuclear waste disposal and nuclear non-proliferation.

I appreciated your writing to me on this most important issue. I am looking forward to hearing from you again in the near future.

Aloha and best wishes.

Sincerely,

  
Spark Matsunaga  
U. S. Senator



# University of Hawaii at Manoa

Hawaii Institute of Marine Biology  
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744  
Cable Address: UNIHAW

May 27, 1980

Mr. William Bodde, Jr., Director  
Office of Pacific Island Affairs  
East Asian and Pacific Affairs Bureau  
2201 C Street, N. W.  
Washington, D. C. 20520

Dear Mr. Bodde:

As a researcher of marine turtles, I would like to make your office aware of my deep concern over the continuing interest by the U. S. State Department in storing nuclear wastes from Japan on a small Pacific island such as Palmyra Atoll. Marine turtles are known to nest on sand beaches and live in coastal waters of many islands throughout the Pacific. During certain stages of their life history, these turtles undertake lengthy migrations that often transcend international boundaries. Native peoples throughout Polynesia, Melanesia and Micronesia consider turtles as an esteemed food source, thereby resulting in their capture and consumption whenever circumstances permit. In the case of Palmyra, green turtles (*Chelonia mydas*) are known to occur within the lagoon, but information on long-distance movements, breeding sites, food sources and other basic biological aspects are virtually unknown at the present time. Furthermore, as you may already be aware, all species of marine turtles occurring at areas under U. S. jurisdiction are listed and protected by our Endangered Species Act. Section 7 of this Act requires Federal agencies to insure that their activities or programs are not likely to jeopardize listed species. Any proposals for nuclear waste storage at Palmyra will therefore have to give careful and comprehensive consideration to the potential impacts on marine turtles.

I appreciate having the opportunity to bring this important matter to your attention. When the information becomes available, I would like to be notified of the State Department's specific plans for evaluating possible storage sites in the Pacific.

Sincerely,

GEORGE H. BALAZS  
Assistant Marine Biologist  
and Deputy Chairman  
IUCN/SSC Marine Turtle Group

GHB:ec

cc: Hawaii Congressional Delegation  
South Pacific Commission  
Dr. Archie Carr, Chairman, IUCN/SSC Marine Turtle Group



DEPARTMENT OF STATE

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL  
ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

June 17, 1980

Mr. George H. Balazs  
Assistant Marine Biologist and Deputy Chairman  
IUCN/SSC Marine Turtle Group  
University of Hawaii at Manoa  
Post Office Box 1346  
Coconut Island  
Kaneohe, Hawaii 96744

Dear Mr. Balazs:

This is in response to your letter of May 27, 1980 to Mr. Bodde, expressing your concern about marine turtles in connection with the proposed study of the feasibility of interim spent nuclear fuel storage in the Pacific Basin. I have enclosed a copy of a State Department Foreign Affairs Memorandum, which explains the proposed study and the preliminary work already undertaken.

Your concern for marine turtles is actively shared by many who work within the US Government. Indeed, preliminary work has already highlighted this concern and indicated the necessity for careful, thorough study on this and other similar matters. As far as the requirements of US law, you can be assured that they will be followed fully. If the study should indicate that the concept of interim spent fuel storage in the area is feasible, before a decision to go ahead with such a project is made, a full Environmental Impact Statement in accordance with the National Environmental Policy Act of 1969 would be prepared.

Thank you for forwarding your thoughts.

Sincerely,

Louis V. Nosenzo  
Deputy Assistant Secretary

Enclosure  
As stated

cc: Dr. Archie Carr, Chairman  
Hawaii Congressional Delegation  
South Pacific Commission  
IUCN/SSC Marine Turtle Group

# FOREIGN

# AFFAIRS

From: J. Brian Atwood, Assistant Secretary of State

# MEMORANDUM

This is one of a series of papers on current foreign affairs issues, prepared for Members of Congress and their staffs.

November 1979

## U.S. Non-Proliferation Policy and Studies of Interim Spent Fuel Storage in the Pacific Basin Area

### Summary

The United States has made preliminary studies on the possibility of establishing in the Pacific Basin an international facility for the temporary storage of spent fuel from nuclear power reactors. This work is being undertaken in accordance with U.S. non-proliferation policy. Interim storage constitutes less of a proliferation risk than the alternative of premature reprocessing which would separate out of the spent fuel weapons-usable plutonium. The U.S. has placed attention on the Pacific Basin area because of projected future storage needs of Western Pacific countries and the importance that dealing with those needs has for global energy and non-proliferation concerns.

No decision will be reached in the near future on whether to build such a facility and where it might be located. A primary consideration in determining whether to move forward with the project will be the results of a thorough evaluation of the possible impact on health, safety, and environment of the region. The U.S. is asking Japan to join in a full feasibility study of the proposal. The United States has informed governments in the region of the concept; further consultations with interested nations and other parties will be undertaken as this evaluation proceeds. The relevant congressional committees are informed, and congressional approval will be sought at various stages. Permanent disposal of nuclear waste in the Pacific is not being considered in these interim fuel storage studies.

## Background on Proliferation Risks

The generation of electricity from nuclear power also produces substantial amounts of spent fuel, which contains materials such as unused uranium and plutonium created during the process of using the fuel in the reactor. Mixed with these materials are many waste fission products, some of which are highly radioactive. A chemical technique called reprocessing separates these materials and makes them available for use. With a reprocessing plant, plutonium can be separated from the spent fuel and prepared for use as a nuclear fuel. Plutonium is also suitable material for nuclear weapons.

The spread of reprocessing capabilities and the premature use of them on a large scale would result in wider access to plutonium, providing an available avenue for many countries to develop and acquire nuclear weapons, and thus increasing the threat of a nuclear war. Also, terrorists might want to steal separated plutonium for bombs. They would be much less likely to try to steal spent fuel to get plutonium because of the intense radioactivity and the difficulty for them of attempting to reprocess.

The pressure of accumulating spent fuel may spur the spread of reprocessing and plutonium recovery before adequate safeguards, agreements, and institutions are in place. If plutonium is to be one of the fuels of the future (e.g., in breeder reactors), the international system needs time to establish better mechanisms to deal with its proliferation risks. It appears that such time exists, because uranium should continue to be sufficiently abundant at price-levels that make plutonium use economically unattractive for at least the next few decades. Acceptable and economical interim storage approaches would also be of major help in reducing the pressure for early reprocessing.

## Non-Proliferation Policy Basis

U.S. non-proliferation policy aims at developing an international regime that will provide the widest possible separation between the peaceful applications of nuclear energy and potential associated weapons uses. Timely availability of adequate interim storage capacity throughout the world for spent fuel from reactors is an important element of such a regime.

The Administration has stated a policy approach on foreign spent fuel storage comprising two elements: (a) for the near-term, an offer to store in the U.S. limited quantities when such action would advance U.S. non-proliferation objectives; and (b) for the longer-term, advocacy of international cooperative efforts.

U.S. officials have discussed with representatives of the Japanese Government the concept and the results of our preliminary studies. Because the U.S. and Japan maintain close nuclear energy cooperation and share non-proliferation goals, we proposed a joint feasibility study. The two sides are proceeding to try to work out an appropriate arrangement for conducting a joint feasibility study.

The U.S. has informed all of the nations in Oceania, the Western Pacific Basin nations, and many other capitals of the nature of the proposed study. We have informed Micronesian representatives and other island nation officials. Governors of the State of Hawaii and of all U.S. Pacific Territories have been informed.

#### Congressional Information and Approval

Congressional approval is required under:

- Section 104(f)(1) of the Nuclear Non-Proliferation Act, before the President may enter into binding international undertakings for the establishment of spent fuel storage facilities.

- Section 107 of the DOE Authorization Act of 1978 -- Civilian Applications -- which provides that expenditures of funds by the Department of Energy for the storage of spent power reactor fuel would be subject to detailed congressional review.

- Section 131(f) of the Atomic Energy Act of 1954, as amended, which prohibits the DOE from entering into arrangements for the storage or other disposition in the United States of spent foreign power reactor fuel until either a specific or generic plan has been submitted to Congress for the prescribed period of 60 days of continuous session.

The relevant Congressional Committees are informed about the preliminary studies and the status of discussions with other nations. In addition to the regular congressional oversight and hearings process, the Administration will keep Congress informed throughout the evaluation period.

For further information or a briefing, contact either the Office of Congressional Relations (632-8722), or the Bureau of Public Affairs (632-2492), U.S. Department of State.

SPARK M. MATSUNAGA  
HAWAII

WASHINGTON OFFICE:  
362 RUSSELL BUILDING  
WASHINGTON, D.C. 20510

HONOLULU OFFICE:  
3104 PRINCE KUHIU BUILDING  
HONOLULU, HAWAII 96850

## United States Senate

WASHINGTON, D.C. 20510

October 12, 1980

CHIEF DEPUTY  
MAJORITY WHIP

CHAIRMAN, SUBCOMMITTEE ON  
TOURISM AND SUGAR  
COMMITTEE ON FINANCE

MEMBER:

COMMITTEE ON ENERGY AND  
NATURAL RESOURCES

COMMITTEE ON  
VETERANS' AFFAIRS

Mr. George H. Balazs  
Assistant Marine Biologist  
Hawaii Institute of Marine Biology  
University of Hawaii at Manoa  
P. O. Box 1346  
Kaneohe, Hawaii 96744

Dear George:

Thank you for your most recent letter concerning the State Department's plans to conduct a feasibility study of the storage of spent nuclear fuel in the Pacific Basin. I appreciated your providing me with a copy of the letter you received on this matter from the Deputy Assistant Secretary of State for Oceans and International Environmental and Scientific Affairs.

I must say that I was pleased by the tone of Assistant Secretary Nosenzo's letter which indicates that the Department of State is cognizant of its responsibility to conduct extensive environmental impact studies of proposed nuclear storage areas in order to protect endangered species such as marine turtles. While it does not appear from Mr. Nosenzo's letter that the State Department is willing to keep private citizens and interested private parties apprised of the progress of its feasibility and environmental impact studies, you will be pleased to learn that the Department has made a firm commitment to keep the Congress and, in particular, its committees with oversight jurisdiction over nuclear and insular affairs, fully informed of the progress of these activities. As a member of the Senate Committee on Energy and Natural Resources, I am in the position to closely monitor each facet of the Department's efforts in this matter and its final findings and recommendations, which, under a law I authored, must be submitted to the Congress. Please be assured that I will keep you and other interested parties apprised of any important developments.

I appreciated your writing to me again on this important issue.

Aloha and best wishes.

Sincerely,

  
Spark Matsunaga  
U. S. Senator



DANIEL K. INOUE  
HAWAII

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## United States Senate

ROOM 105, RUSSELL SENATE BUILDING  
WASHINGTON, D.C. 20510  
(202) 224-3234

June 2, 1980


Dr. George H. Balazs  
Assistant Marine Biologist  
and Deputy Chairman  
IUCN/SSC Marine Turtle Group  
Hawaii Institute of Marine Biology  
University of Hawaii at Manoa  
P.O. Box 1346  
Coconut Island  
Kaneohe, Hawaii 96744

Dear Dr. Balazs:

I wish to thank you for sharing with me a copy of your letter to Mr. William Bodde, Jr. of the Department of State.

If you have any difficulty in getting an adequate response to your concerns, please do not hesitate to contact me.

Aloha,

  
DANIEL K. INOUE  
United States Senator

DKI:bhm

SPARK M. MATSUNAGA  
HAWAII

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WASHINGTON, D.C. 20510

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## United States Senate

WASHINGTON, D.C. 20510

June 3, 1980

CHIEF DEPUTY  
MAJORITY WHIP

CHAIRMAN, SUBCOMMITTEE ON  
TOURISM AND SUGAR  
COMMITTEE ON FINANCE

MEMBER:  
COMMITTEE ON ENERGY AND  
NATURAL RESOURCES

COMMITTEE ON  
VETERANS' AFFAIRS

Mr. George H. Balazs  
Assistant Marine Biologist  
and Deputy Chairman  
Hawaii Institute of Marine Biology  
University of Hawaii at Manoa  
P. O. Box 1346  
Kaneohe, Hawaii 96744

Dear Mr. Balazs:

Re: Storing Nuclear Waste on  
Palmyra Atoll  
This is just to acknowledge receipt  
of your recent communication addressed  
to Mr. William Bodde, Jr.  
and sent to Senator Spark Matsunaga.

Please be assured that the Senator  
will be responding to you at the earliest  
possible moment.

Yours Truly,



Cherry Matano (Ms.)  
Administrative Assistant  
to Senator Matsunaga

COMMITTEE ON  
WAYS AND MEANS

SUBCOMMITTEE  
HEALTH  
OVERSIGHT

CECIL "CEC" HEFTEL  
1ST DISTRICT, HAWAII

**Congress of the United States**  
**House of Representatives**  
**Washington, D.C. 20515**

June 23, 1980

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George H. Balazs  
Assistant Marine Biologist  
and Deputy Chairman  
Hawaii Institute of Marine Biology  
P.O. Box 1346  
Kaneohe, Hawaii 96744

Dear George:

Mahalo for sending me a copy of your letter to William Bodde regarding the impact of Pacific nuclear waste storage on marine turtles.

As you may be aware, I have been actively involved in the issue of nuclear waste storage on Palmyra Island, and chaired hearings in Hawaii last December on this matter. I am adamantly opposed to any such storage and am fully aware of the potential adverse impact upon the ecology, health and safety of the Pacific community. I believe that the protection of our Pacific environment should be a number one priority and will continue to work toward this goal.

Your input is appreciated and I look forward to hearing from you again about this or any other matter of mutual concern.

With best wishes and aloha,

Sincerely,



Cec Heftel, M.C.

CH:v1

REMARKABLE EVENTS.

- September 2. Great fire in London, 1666.
- 3. Cromwell died, 1658; new style in calendar, 1754.
- 6. First Congress in Philadelphia, 1774.
- 7. American Board first met, 1810.
- 8. Lafayette born, 1757.
- 7. Hannah More died, 1838.
- 10. Battle of Lake Erie, 1813.
- 11. Battle of Braderine, 1777.
- 14. Moscow burned, 1812; Duke of Wellington died, 1852.
- 17. United States Constitution adopted, 1787.
- 18. Cornwallis surrendered, 1781.
- 19. First book in English, 1471.
- 20. Charles Carroll born, 1737.
- 21. France a Republic, 1792.
- 23. Andre taken, 1780.
- 25. Pacific ocean discovered by Balboa, 1513.
- 26. Constantinople found, 329; Clarkson died, 1846.
- 27. First railroad, (Stockton in England.) 1825.
- 28. Massillon died, 1742.
- 30. Whitefield died, 1770.

Marine News.

HONOLULU, Sept 11, 1855.

Editor of the Friend.

DEAR SIR.—Two years since, when on a passage from this port to New London, I discovered a small shoal or reef not laid down on my charts, and having had several inquiries made relative to it, I have thought best to ask you, to publish an account of it, and believe that by so doing you will contribute to the safety of ships passing in that vicinity.

Copy from my journal of Nov. 29th, 1853 the following:

KEEP IN LAT. 6° 27' NORTH, LONG. 162° 12' WEST.

At 10 A. M. made breakers ahead, kept on our course until we were within a mile of them, when we steered W. S. W., and ran on that course ten miles, when, judging that we were past all danger hauled up to the South, and soon saw bottom, cast the lead and found six fathoms of water, again kept off and shortly deepened to twenty five fathoms and no bottom.

This shoal is composed of coral and sand, and when the breakers on the North East part bear East with a moderate wind, a few small spots of sand or coral, can be seen above water. The northern part runs E. N. E. & W. S. W., for about twelve miles, and shoal water appeared to extend several miles to the southward. With a moderate breeze there are no breakers except on the N. E. point of the reef, but a heavy swell rolls for several miles to the westward.

This shoal is near the spot assigned to "Danger rock" on some charts, and it is in my opinion, very dangerous to approach in the night, particularly with a light wind and smooth sea, as such, there would be no breakers visible until a ship was so near as to be in considerable danger.

The position I have given this danger I believe to be very nearly correct, as I took several observations to determine it, and was assisted by Capt. Sherman, late of Ship "Marcus," of New Bedford, who was a passenger with me at the time, and as all our observations agreed very nearly, I think navigators may rely upon their accuracy.

W. E. KINGMAN.

Master of Ship "Shooting Star," of Boston.

Information Wanted.

SIR.—I take the liberty to trouble you again for any information you may know of my brother William Woodland, his father having died since receiving your kind letter in answer to the one he sent you concerning him some three years ago—my mother received a letter from the last one in the Spring of 1853, dated Dec. 31, 1853 or '54, stating that he was an officer on board of the ship "Sheward," of Edgerton, Maui, Sandwich Islands, and if all proved well in 18 months from the date of his letter, he should be home—since that we have heard nothing of him, and could you give me any information of the ship or himself, I will be truly thankful—and sir, should you see him, that by accounts heard by us at different times, there is some property on his deceased father's side pending on his life and in duty bound, I will ever pray.

I remain your humble servant,

GEORGE WOODLAND.

Shipwright, H. M. Dockyard, Portsmouth, England.

Information Wanted.

New London, May 17, 1855.

REV. S. C. DAMON.—Dear sir, we have been informed that information is regard to a certain Thomas Forsythe, who had sailed from this port in the ship Bengal, Capt. Hempstead, some 8 years since, could be best obtained for his family by applying to you. His last letter was dated Owyhee, 1849, and his mother has had no reliable information of his whereabouts since. Acting upon the information of your character communicated to me by a friend, I have made bold to address you though a stranger.

Please forward any knowledge of the above-mentioned young man, and you will greatly oblige, H. POTTER.

Information Wanted.

RESPECTING George Washington Whitney, 25 years of age, left Boston 1851, on board clipper "Nightingale" for Australia, and subsequently visited California. If this notice falls under his observation, he is requested to communicate with the Seaman's Chaplain, Honolulu, or his friends.

NOTICE TO SEAMEN.

SECTION 5th, of article 3d, of the "Local Regulations" of the port of HONOLULU, reads as follows:—The Governor of Oahu shall cause a bell to be rung at the port of Honolulu, at nine and a half o'clock of each evening, as a signal to all mariners at that time on shore without his permission, to return on board their vessels, and it shall be incumbent upon them to do so, upon pain of two dollars fine, if apprehended at or after ten o'clock of the evening, when said Governor shall cause the bell to be again rung, as a signal for their apprehension.

"PENAL CODE LAWS."

Section 2d, Chapter 27th, reads as follows:—Whoever furiously, or heedlessly of the safety of others, rides any horse or other animal, or drives or conducts any vehicle, though the personal safety of any person be not endangered thereby, shall be punished by fine, not less than five dollars, not exceeding one hundred.

Section 1st, Chapter 25th, reads as follows:—Whoever is found drunk in any street, road or other place, from the use of any intoxicating liquor, shall on the first conviction for such offence, be punished by a fine not exceeding six dollars, and on any conviction of any like offence committed after the first conviction, by a fine not exceeding twelve dollars or by imprisonment not more than three months.

Chapter 41st reads as follows:—All loud noise at night is taboo. Whoever, after sun-set, shall by hallooing, singing in the streets, or in any other way, make any disturbance or disorderly noise, in any village, town or part of this Kingdom, without justifiable cause for so doing, shall be liable to summary arrest and imprisonment by any constable or police officer, and upon conviction be punished by a fine not exceeding ten dollars.

SESSION LAWS, 1855.

Of a Act to Prevent the Carrying of Deadly Weapons. Section 1st reads as follows:—Any person not authorized by law, who shall carry or be armed with any bow, knife, sword-cane, pistol, air gun, gun, shot, or other deadly weapon, shall be liable to a fine of not more than thirty, and no less than ten dollars, or in default of payment of such, to imprisonment at hard labor for a term, not exceeding two months, and no less than fifteen days, upon conviction of such offence before any District Magistrate, unless, good cause be shown for having such dangerous weapons; and any such person may be immediately arrested without warrant, by the Marshal, or any Sheriff, Constable, or other officer or person, until he can be taken before such Magistrate.

HENRY S. SWINTON.

Honolulu, Sept 1855. H. Perfect of Police

8 KING ARTHURS CT  
ST. JAMES, N.Y. 11780  
23 MAY 1980

Dear Mr. Balazs:-

I received your letter dated 5/14/80 and thank you for your concern for my health. All is fine - we even added a new addition to the family on 4/19/80 - a 6 lb 11 oz baby boy - everything at home now really topsey-turvy!

I can help you obtain permission to enter the Kagon Reef area but first may I ask the following questions -

- 1) When will you be going if in fact you will be
- 2) Is it Sponsored (grant, etc) from the university
- 3) Since we did not complete all our research, is there the slightest chance that your vessel would

have room for 2 additional  
passengers? We would love to  
finish our job out there —  
all costs to Hawaii, of course,  
would be at our expense  
Since I have already been there,  
I believe I might be quite  
helpful in aiding your team

Again, I will be happy to steer you  
to the right agency for permission — ~~but~~ if  
there is the slightest outside chance to  
accompany your team, please investigate it  
fully. If we cannot join you, we  
completely understand —

Waiting to hear from you

Sincerely yours  
Jay Kobelin

JAY

Kobelin

# Ruling May Affect Waipahu Amateurs

By Katashi Nose

Of importance to amateurs located near the Waipahu Monitoring Station is a new ruling by the Federal Communications Commission.

With  
Hawaii's  
Radio  
Amateurs

It says: "Applicants for an amateur radio station license to operate in the vicinity of an FCC monitoring station are advised to give consideration, prior to filing applications, to the possible need to protect the FCC stations from harmful interference...

Applications for stations (except mobile stations) in the vicinity of monitoring stations may be reviewed by commission staff on a case-by-case basis to determine the potential for harmful interference to the monitoring station. Depending on the theoretical field strength value and existing root-sum-square or other ambient radio field signal levels at the indicated coordinates, a clause protection the monitoring station may be added to the station license."

The call sign for the Kingman Reef DXpedition was WA2FIJ/KH5K and for Palmyra, it was K6LPL/KH5. The expedition aircraft was wrecked on landing on Palmyra. The only casualty was WA6YQW, Jan Gould, who suffered a fractured pelvis and other injuries, and was flown to Tripler Hospital in Honolulu. The DXpedition from Kingman Reef made about 5,000 contacts and about 12,000 from Palmyra.

Several weeks ago I wrote about the KWM380 transceiver. I stand corrected about this transceiver not being operational for the new bands. I find that it is fully operational from 2.2 megacycles to 30 megacycles.

A successful launch of the Ariane L01 launch vehicle was carried out Dec. 24 from Korou, French Guiana, after a 24-hour delay due to bad weather. Launch took place at 1715Z, successfully putting a ballast payload into a highly elliptical Earth orbit similar to the initial orbit expected for the AMSAT Phase III-A spacecraft.

WA 498 8219 (Palmyra) - 2500  
WA 498 8219 (Palmyra) - 2500  
WA 498 8219 (Palmyra) - 2500  
WA 498 8219 (Palmyra) - 2500

Honolulu Star-Bulletin Thursday, January 17, 1980

Telephoned 1/31/80 - ill  
Jan Gould - still hospitalized  
He will send me information

Jay L. Kobelin  
8 King Arthurs Court  
St. James, N.Y. 11780

8 King Arthurs Cove  
ST. JAMES, N.Y. 11780  
19 MARCH 1980

Dear Mr. Balazs:-

First, let me apologize for my late response to your letter dated 4 Feb 1980. It took me quite some time to recuperate from the crash landing on Palmyra on 5 Jan 1980.

Our team flew to Palmyra where a boat met us to take the team to Kingman Reef.

Enclosed is a picture of the shoals that we lived on ~~the reef~~ for 3 days. The reef itself very rarely appears above the surface of the water - just spotty, higher points of the reef.



The shoals, about 400' long in a long "S" configuration, is about 7' out of the sea at low tide and about 2-2 1/2' out of the Pacific during high tide. <sup>It is about 8-10' wide.</sup>

As you can see, the reef wouldn't, that best I understand about sea turtles, support sea turtles. We didn't see any sea life except many sharks and a few crabs that would venture on to the shoals. Note the line in the picture - this was a 1200' safety line put between the shoals and our boat.

No other sea life of consequence was spotted but you should keep in mind

boat and expedition to the reef was  
for ionospheric studies and not marine  
studies.

I hope you find this info from  
me helpful in any regards to your field -  
Thank you for the booklet - Great photography  
and great reading -

Take care and again I hope  
the info <sup>was</sup> helpful -

Sincerely yours

Ody Kobelin  
Ody Kobelin

P.S. - The ~~the~~ picture is yours to keep -  
As you can see, it is ~~made~~ <sup>made</sup> up of  
sea shells, broken coral, etc. - no  
sand whatsoever.





KINGMAN Reef - Shoals  
JAN, 1980  
Picture taken by JAY Kobelin

February 4, 1980

Mr. Jay L. Kobelin  
8 King Arthurs Court  
St. James, New York 11780

Dear Mr. Kobelin:

Mr. Katashi Nose has provided me with your name and address as a result of my interest in obtaining biological information on Kingman Reef. It is my understanding that you and your colleagues recently visited this remote location for a short period of time. As a researcher of sea turtles, I am interested in learning of any observations of these marine reptiles that may have taken place. This might include nesting activity by turtles on sand beaches, or their occurrence in the shallow surrounding waters. Any information that you are able to provide would be greatly appreciated in that virtually no data presently exist for this location.

I have enclosed a booklet on Hawaii's seabirds, sea turtles and monk seal which you may find interesting. I look forward to hearing from you at your earliest convenience.

Sincerely,

George H. Balazs  
Assistant Marine Biologist

mk  
enclosure

# May Affect Waihu Amateurs

By Katashi Nose

Of importance to amateurs located near the Waihu Monitoring Station is a new ruling by the Federal Communications Commission.

With  
Hawaii's  
Radio  
Amateurs

It says: "Applicants for an amateur radio station license to operate in the vicinity of an FCC monitoring station are advised to give consideration, prior to filing applications, to the possible need to protect the FCC stations from harmful interference . . . Applications for stations (except mobile stations) in the vicinity of monitoring stations may be reviewed by commission staff on a case-by-case basis to determine the potential for harmful interference to the monitoring station. Depending on the theoretical field strength value and existing root-sum-square or other ambient radio field signal levels at the indicated coordinates, a clause protection the monitoring station may be added to the station license."

The call sign for the Kingman Reef DXpedition was WA2FIJ/KH5K and for Palmyra, it was K6LPL/KH5. The expedition aircraft was wrecked on landing on Palmyra. The only casualty was WA6YQW, Jan Gould, who suffered a fractured pelvis and other injuries, and was flown to Tripler Hospital in Honolulu. The DXpedition from Kingman Reef made about 5,000 contacts and about 12,000 from Palmyra.

Several weeks ago I wrote about the KWM380 transceiver. I stand corrected about this transceiver not being operational for the new bands. I find that it is fully operational from 2.2 megacycles to 30 megacycles.

A successful launch of the Ariane L01 launch vehicle was carried out Dec. 24 from Korou, French Guiana, after a 24-hour delay due to bad weather. Launch took place at 1715Z, successfully putting a ballast payload into a highly elliptical Earth orbit similar to the initial orbit expected for the AMSAT Phase III-A spacecraft.

WJ 448 8719 (Advised) by ham 734 - 1463

CS Honolulu Star-Bulletin Thursday, January 17, 1980

May, 1937

# Kingman Reef Becomes American

By JOHN L. PADGETT

LITTLE is known about the love-life of the polyp except that it must be satisfactory to the polyps, hence most of the South Sea Islands. A short while ago—as the world goes and grows—a colony of these minute sea lives settled and set up housekeeping on a barely submerged mountain peak and expanded. Not bothered by rents, transportation and politicians, generation after generation multiplied and lived, each on the skeleton of the preceding generation. Such is their life. Eventually the many tiers of infinitesimal bones piled up into a large sized island at low tide—a reef at high tide. The washing of the waves broke loose the dead coral and drifting currents deposited the particles on the highest point.

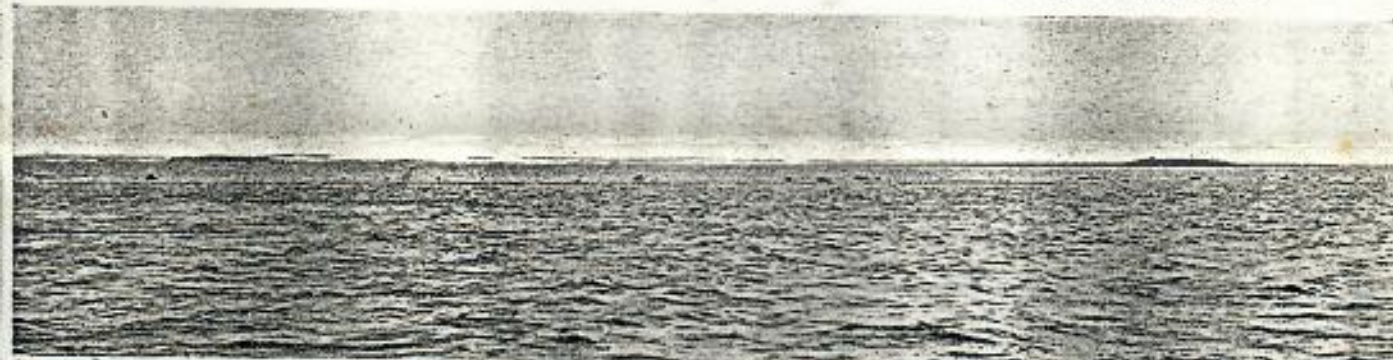
Later on, wandering vessels far from the regular lanes, saw the surf pounding and passed it by. Some unknown sea legend, bred in the forecabin or barroom dubbed this speck "Kingman Reef." In 1921, the *Sailing Directions for the North Pacific Islands* gave the correct position but then noted—"Existence Doubtful." This Federal Govern-

ment printed book in one breath warned all ships to avoid the spot and in the next told the wandering seamen not to be surprised if they did not find it. Since no one was sure it was there no one claimed it. (See *Paradise of the Pacific*, January, 1937 for story of Kingman Reef and its being named after Captain Kingman of the American ship *Shooting Star*).

Mr. and Mrs. Fullard-Leo owned the nearest fleet of Islands—Palmyra. They and a Hui owned and operated the fishing sampan *Palmyra* with a seven-ton icing capacity. On one of her regular trips she carried in addition to Captain J. R. Lemmel and Japanese crew a party of Conchologists headed by the late Lorrin A. Thurston, myself as First Mate—polite name for cook.

The first night out we crowded into the tiny cabin, seasick, wet and sporting a "Oh well it can't get any worse" attitude. Mr. Thurston rather bravely dug out the Sealed Orders and by the dim light read them to us. We were to

*Continued to Page Twenty-Nine*



Kingman Reef, 1922 (upper). Captain Lemmel and Mr. Padgett on Kingman Reef, in 1922 (lower left). Mr. Thurston and Ted Dranga on Palmyra—John L. Padgett Photos

### Kingman Reef

Continued from Page Nine

proceed to and report at a certain Latitude and Longitude and annex the doubtful Kingman Reef in the name of the United States of America and Mr. and Mrs. Fullard-Leo.

All we had to do was keep enough food down to live and trust Captain Lemmel to find it. The Captain deserves much credit for his navigation. For five days without a shot at the sun, by dead reckoning and with a keel-less craft of unknown drift, the Captain raised the surf of Kingman Reef at the dawn of the sixth day.

That day we fished. One ton of finny strangers came aboard. Unbelievably true fish stories every minute which no one will believe so why tell them.

At dusk we dropped the hook and all hands slept including the watch. The next morning we found ourselves inside of the lagoon having drifted over the same reef which the day before we had considered too dangerous to sail over. After fifteen years I still feel scared over that one.

Slowly we proceeded to the North end (or toe) of the horseshoe and leaving the Japanese to fish, rowed ashore. No Rube Goldberg or any D.T. imagination could describe the three hundred yards of wading through the shallows to the small dab of dry land.

Giant sea clams up to two feet in diameter, weighing up to four hundred pounds and with ten gallon capacity unfolded to display colors never dreamed of by the most demented surrealist artist. Disturbed by our footsteps they snapped shut jutting streams of water six to eight feet in the air. Our advance was preceded by a barrage of these jets and the "clunk" of the bivalves closing up.

Varigated sea anemones added more spots of color to the delirious spectrum and then closed up tight to form a lump of "goo." The only neutral shades were supplied by a ring of dull dirty grey sharks circling around and around, half in, half out of the shallow water. However they were only babies five or six feet long.

The dry land could not have aroused a sales talk from even an unusually insane Los Angeles Realtor. Just a pancake of dead coral some two hundred feet in diameter. Not a sign of vegetable life. Only the remains of the busy polyps dredged up by the restless sea. With all of these strange and weird sights on hand we still had work to do.

We lined up on the highest point while Mr. Thurston read off a proclamation full of the usual monotonous legal roughage. We all signed our names to the paper and it was then filed in a glass pickle jar along with an American Flag, copies of the Honolulu *Advertiser* and *Star-Bulletin*... The two newspapers were NOT fighting as we piled coral lumps over the jar and around a boat hook to form a cairn. No remarks were passed about the "last far flung frontier."

No comparison with Daniel Boone or Captain Cook. Our shell hunters then hunted shells. It was May 10, 1922.

Captain Lemmel worried about getting to Palmyra before dark. I worried about cooking enough to fill Ted Dranga and the shell hunters worried about having to leave.

On the way back to the small boat I noticed a small brown lump start to move away so I picked it up. Aboard the sampan, "Mike" Thaanum cleaned it up and it was a large *Tigeris Moneta* the size of my fist and pure black and white. Years later I gave it to Mr. Thurston to complete his collection which was then nationally famous. He told me it was the prize shell collected on the entire trip—the only one collected by me on my own hunting.

We were supposed to go to Palmyra so we went. On my return to Honolulu I was called before Rear-Admiral Edward Simpson and staff. They still seemed to believe the *Sailing Directions* "Existence Doubtful" but after a morning of questions let me go back to my drawing board. Shortly after this the U. S. Navy sent a Mine Sweeper down which found Kingman Reef and that made it official.

Having helped to make history while worrying about my cooking and having traveled the course in six days which the Air-Clippers now cover in a little over six hours there is still another and more lasting benefit. By that I mean the opportunity to walk and talk with Lorrin A. Thurston. That kindly gentleman was learned in Hawaiian history, lore and legend. Ready to fight at the drop of the hat if he was assured the cause was just; kindly, considerate and enjoying the evening of his life in the pursuit of the hobby he loved. Back in the time I write of the days would have been long without him—sometimes they are now.

Today the giant Clipper settles down on the calm lagoon, a rest, then on its restless way. The polyps continue, undisturbed, trying to make something of Kingman Reef—their work. Between the polyp and the Pan-American Airways the Pacific World is a new one.

### Taro Flour Recipes

Continued from Page Twelve

#### MUFFINS

Two cups taro flour, one egg, well beaten, add the egg to a cup of milk and sufficient yeast to make thick, stir in the flour over night, in the morning add a little soda, place the batter in muffin rings and cook until done.

#### ROLLS

Add two eggs well beaten, to two cups boiled milk, a little yeast, adding a little salt, stir in flour over night, in the morning add soda to sweeten, stir well, then bake in a slow oven till done.

#### BREAD

This can be made the same as wheat flour, care being taken not to make the batter too thick, and baking in a slow oven.

#### PUDDING

Two cups of milk, four large spoonful of flour, stir well and boil until done, add one or two well beaten eggs, stir thoroughly together and bake from ten to fifteen minutes, eat with milk and sugar or flavored dressing.

#### GRIDDLE CAKES

Take one cup of wheat flour, and two cups taro flour and mix with sour milk to the consistency of ordinary batter cakes, add a little soda to counteract acidity of the milk, fry in plenty of hot fat.

#### GEMS

Mix same as above, and bake in a hot gem pan.

### Hawaii and Philippine Sugar Salute Each Other

Continued from Page Fifteen

Regarding conditions on the Hawaiian plantations, Mr. Alunan stressed earnestly the fact that the Filipinos now working in the Territory should note their good living conditions, and their wages which exceed those of their fellow workers in the homeland in cash value, although not in respective purchasing power since commodities in the provinces of the Philippines are very cheap.

Commenting on the contributions of the Filipinos to the



ed that gave them an indication of Samoa's whereabouts, but the men were so weak that the mate forebore to tell them that it was yet 50 miles away, but he cheered them, and they responded. "Never shall I forget your courage in sharing with me this terrible voyage", he said. "Under the provocation of hunger and thirst you did not utter one word of complaint; there is the land of promise now in sight".

A storm broke over them and delayed their arrival. Thunder rolled and lightning flashed, so they stood till daylight. As they neared the land they signalled a craft and discovered it to be in charge of a Samoan chief. He was shocked at the spectacle he beheld in the condition of the crew and astounded to hear

that they had covered 1,600 miles from Palmyra Islands.

The schooner Vindex was despatched with McDonald aboard for the island to rescue the marooned company. It took her 28 days to make the voyage. Meanwhile the United States warship Mohican (which was at Samoa when McDonald and his crew arrived) passed on word to the mail steamer Mariposa of the plight of the people at Palmyra Island. She made a detour of 1,500 miles and rescued the marooned people 13 days before the arrival of the Vindex on a similar mission.

An interesting sequel occurred years later. McDonald was mate on the Glasgow-owned Auldgirth in 1898,

when she was at Portland, Oregon. One day he was taking a stroll on deck when two women came to the gangway and asked for the chief officer. McDonald informed them that he was that functionary. Then one of the women showed him the ring he had given to a little girl on Palmyra Island before setting out on his perilous enterprise. The two women were Laura and Ada Hastings, who were among the shipwrecked passengers of the Henry James, one of them being the little girl whose distress prompted the mate to set out for relief across the ocean.

## NAVIGATION LIGHTS.

On Howland, Baker and Jarvis.

From Our Own Correspondent.  
HONOLULU, Dec. 2.

THE final chapter in the story of the loss of the American aviators, Mrs. Amelia Earhart Putnam and Fred Noonan, near Howland Island, in mid-Pacific, was nearly completed last week when a stone plaque, inscribed "Earhart Light, 1937", was set as a base for a



The Earhart Monument, set up on Howland Island by the United States.

navigation light-tower which is being built on the western side of Howland (see "P.I.M." of November).

A short ceremony was held at the placing of the plaque by U.S. officials led by Dr. Ernest Gruening, director of the division of territories of the U.S. Department of the Interior, which administers the island.

The light-tower will be 20 feet high and the 300-millimetres acetylene-gas lantern on top will have a visibility of 10 miles.

Dr. Gruening, upon return to Honolulu last week, announced that a similar light and tower will be built on nearby Baker Island, and on Jarvis Island, 1,000 miles due east.

Dr. Gruening spiked rumour by stating that the U.S. Navy will continue to administer U.S. Samoa and Guam. Rumour had it that the Interior Department was to take over the islands.

Pastor R. W. Lane, of the S.D.M. Mission at Suvavou, Fiji, has been appointed principal of the Mission's training school at Buresala, Ovalau Island.

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# EPIC VOYAGE IN OPEN BOAT

**KINGMAN REEF**, the second hop in the proposed Pacific air route from San Francisco to New Zealand was the scene, nearly half a century ago of a wreck that was followed by an epic sea voyage in a lifeboat that has few parallels in the history of sea navigation in the Pacific (said a writer in the Melbourne "Herald" recently.)

Wairaki Boys' High School, Oamaru, have preserved the memorials of that adventure. Captain Donald McDonald, the hero of the exploit, on retiring from the sea in the late 'nineties, settled down to a quiet country life in the beautiful district of North Otago. There he lived for 32 years till his death in 1931, loved by all who knew the gallant old sailor of the days of the wind-jammer.

Captain McDonald was mate of the barque Henry James that set out from New Zealand (Australia) coal-laden for San Francisco in 1828. When the vessel struck the reef McDonald swung the foremast overboard in the hope of getting the barque afloat. As it was impossible to launch the forward lifeboats, they had to be abandoned with the two after boats.

The company delayed their departure from the doomed vessel in the hope of procuring from her food and clothing before their departure for the uninhabited island of Palmyra, some 50 miles away. Because of rough seas they were unable to do this and set sail with meagre provisions. The captain commanded the ship's boat with 20 of the crew and passengers (the latter including women and children). The mate (Donald McDonald) was in charge of the gig with ten seamen. The latter craft was covering more miles than the captain's so that he sighted the land first, but awaited the captain's orders before attempting a landing. The captain, however, considered that the sea was too rough and the night too far advanced to land; he ordered the boats to drift till the morning. McDonald disobeyed orders and landed on the shore. Taking two tacks, he landed successfully; the captain follow-

ing measures were taken to mark the skipper's displeasure at his orders being set at defiance, history does not record it. Subsequent events showed that he recognised in McDonald a man of sound mind. Palmyra Island provided no food beyond birds and fish, and, as far as could be ascertained, it was destitute of fresh water. Means to meet the desperate situation of the marooned company were considered and finally the captain expressed confidence in the ability of his mate to reach Samoa, which the captain indicated by the chart was 100 miles S.S.W. The hazardous nature of the enterprise set McDonald thinking, but he was spurred to the superhuman feat by an incident he witnessed. To quote his own words:—

"In the evening I returned to camp—hungry and miserable. . . . As I lay down one of the little girls was eating a raw bird. It 'came against her', and as she was exhausted with retching she threw herself in my lap and fell asleep. . . . The sight of the poor little girl gave me an inspiration—I was determined then and there to reach Samoa—according to my own plan. I took my rifle and gave it to her, saying: 'Don't worry, I'm going away with the boat to get you plenty of nice things to eat'."

**T**HE captain of the Henry James gave McDonald a free hand as to his course of action. The larger boat was loaded with coconuts, the masts and stays were strengthened and volunteers called for. Three Irishmen and one American responded, but as one of the former was considered rather young, a German took his place. The five men then fared forth on their perilous enterprise. The sea was rough and they had hardly got clear of the island when their rudder was carried away. The following few days saw the boat travelling well before a favouring breeze. It crossed the equator on the fifth day out, covering 150 miles the day before crossing. Tempestuous weather again descended on the craft—the rain, wind and thunderstorms took the heart out of the company, but the mate heartened them to renewed efforts when the sea abated.

**F**OR some days McDonald had followed a circuitous course to get the benefit of the trade winds, but matters became so desperate that he decided to pick a straight course from the chart. After 19 days an island was sight-

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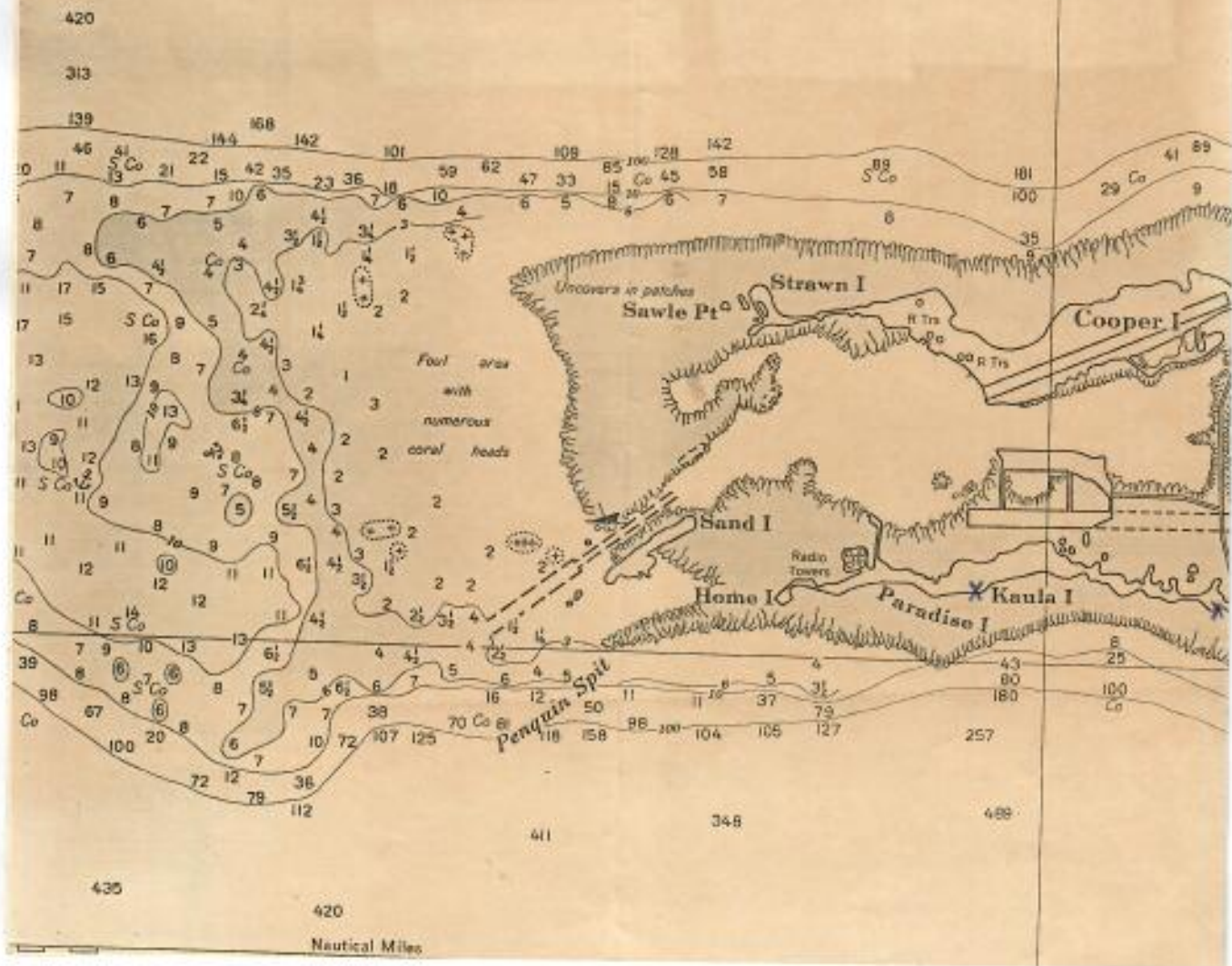
*Teja* - Please mark sites of  
your turtle sightings - Mahalo -  
George Balazs

978

04'

07' 45" 30" 15" 06'

05'



X - spotted herds, supposed homes

x - came ashore

from Teya  
INTERVIEW 5/82

324  
Co

588

480

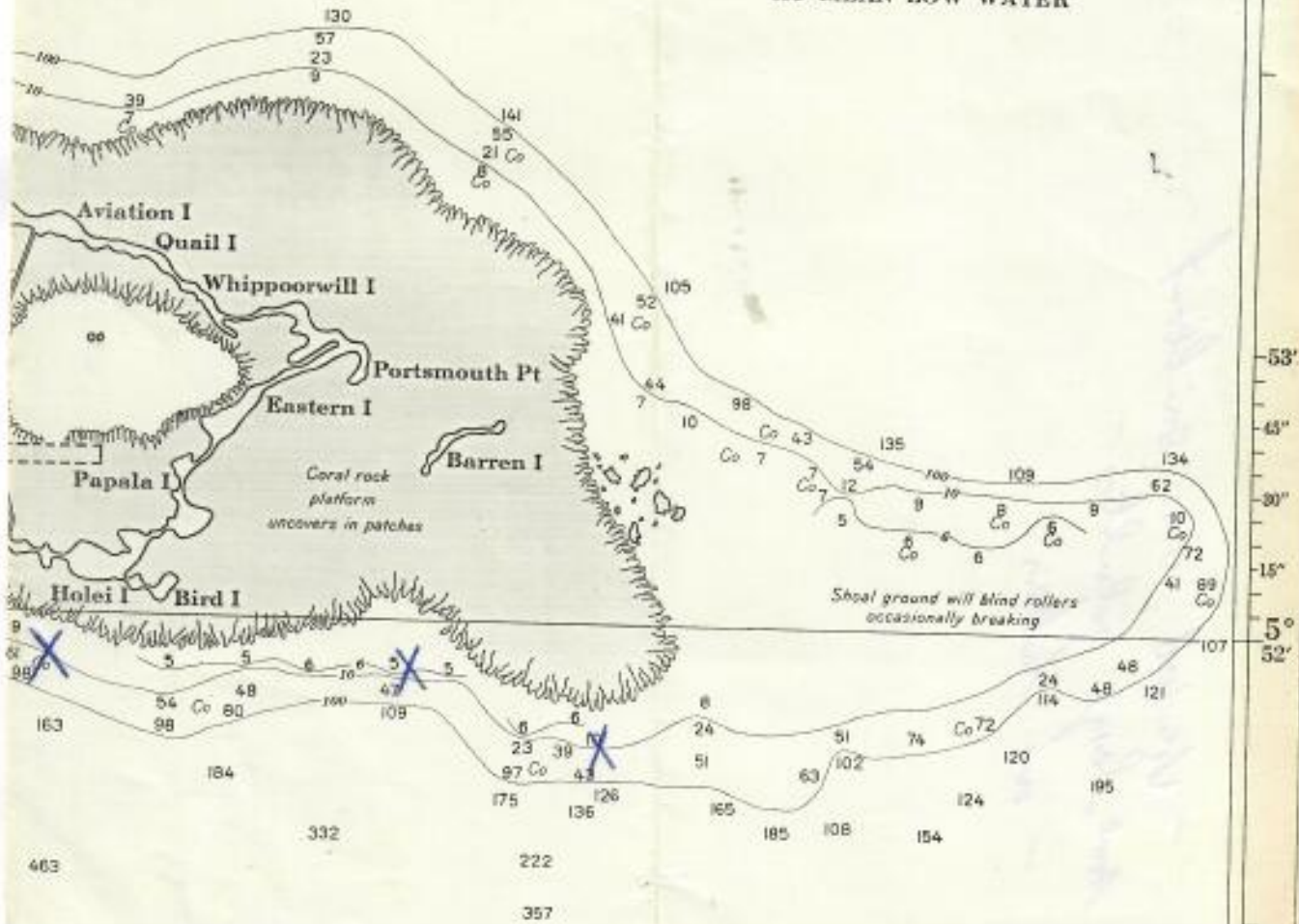
03'

162°

# APPROACHES TO PALMYRA ISLAND

Mercator Projection  
Scale 1:47,750

SOUNDINGS IN FATHOMS  
AT MEAN LOW WATER





## University of Hawaii at Manoa

Hawaii Institute of Marine Biology

P.O. Box 1346 • Coconut Island • Kaneohe, Hawaii 96744

Cable Address: UNIHAW

2/1/78

John Naughton reported  
that he was on  
Palmyra with Helfrich many  
years ago - at one place  
saw 11 large turtles  
feeding - no evidence  
of nesting.

Talked to him on the telephone 3/27/80 - Indicated that turtles occur at eastern end of Palmyra - "turtle hole" - Unknown if nesting takes place - but assumes so.

They also claimed Kingman Reef for the U.S. - but taken by the Government and given to Navy

March 17, 1980

Mr. Leslie Fullard-Leo  
46-090-1325 Puulena  
Kaneohe, Hawaii 96744

UNIVERSITY OF HAWAII  
Hawaii Institute of Marine Biology  
Coconut Island • P. O. Box 1346 • Kaneohe, Hawaii 96741

Dear Mr. Fullard-Leo:

The purpose of this letter is to ask for your assistance in obtaining biological information on the occurrence of sea turtles at Palmyra. Very little is known about the turtles that inhabit this remote area of the Central Pacific. As a researcher of Hawaiian sea turtles for the past several years, I am currently interested in expanding my studies to encompass other locations. The first step would of course be to establish correspondence with individuals who presently reside at Palmyra or have detailed knowledge of the area. I would be most appreciative if you would assist me in this matter by providing me with the names and mailing addresses of appropriate residents at Palmyra, or perhaps even telling me of your own knowledge of sea turtles at Palmyra.

I was very pleased to recently read in the Honolulu Star-Bulletin that storage of nuclear wastes will not be allowed on Pacific islands.

Sincerely,

George H. Balazs  
Assistant Marine Biologist  
and  
Deputy Chairman  
IUCN/SSC Marine Turtle Group

GHB:md

Enclosure

I should contact John Bruden, Manager  
% Mr. Robert Nealson  
Palmyra Plantations  
% Mr. Peter Salvio  
AmFAC Towers  
Bishop Street

# Burying Nuclear Wastes

By Patsy T. Mink

I am in total, unequivocal opposition to any and all present or future plans to store, bury or dispose of nuclear wastes on any Pacific island, owned or controlled or administered by the U.S. government.

The usual annual rider in appropriations and authorizations acts requesting 30 days notice to Congress before issuing a license to store nuclear spent fuel or radioactive wastes is absolutely inadequate protection and in fact could be viewed as tacit congressional approval, after such notice is given.

If all that is required of the president is that he notify Congress, then it could be argued that all other protections and safeguards which currently exist are nullified.

Every effort should be made to assure the people of the Pacific areas that full and complete environmental impact statements will in fact be prepared, and that extensive hearings and review of these documents will be afforded all of us who are deeply concerned that once again the United States is about to embark on another foolhardy and risky adventure.

I FEAR MOST that just as we were all "shocked" to learn of the

*Former Congresswoman Mink says more protection is needed so that Congress can't decide in a panic to dump nuclear matter on some Pacific island.*

government's plans regarding Palmyra, that one day after some terrorist incident, these hastily made plans will be resurrected and within 30 days of Congress' notification, we will see the construction of a "temporary" storage site on Palmyra island.

The Lagomarsino amendment (Dec. 4, 1979, Congressional Record) does not even require congressional approval, although, quite truthfully, I do not even look upon that as offering us any protection. Two-hundred-eighteen congressmen will find it irresistible to vote for disposal or burial of these wastes in some "remote" Pacific island as obviously preferable to any place close to their own backyards.

It seems to me, therefore, that



Patsy T. Mink

unconstitutional units created by Congress, like the Energy Mobilization Board, must be specifically excluded from authority to waive environmental protection rules and regulations which now offer us some degree of comfort that arbitrary actions will not be possible.

Should there be in the future some terrorist incident involving theft of nuclear wastes, you can be sure that Congress will "lay over dead," and allow the executive to do whatever it decides is necessary "in the national interest" arising from the emergency.

Now, while we have all the assurance that Palmyra is not under active consideration for nuclear waste disposal, we need to take the necessary legislative steps to protect against a change of heart.

NO ONE BELIEVED that a storm such as recently devastated Majuro last Nov. 26 could occur. But the point is that it did occur.

Majuro measures 6 feet above sea level and is very similar to Palmyra in that respect. If nuclear wastes were stored on Majuro island, clearly the storm could have destroyed the storage facility and created an international catastrophe of irrevocable proportions.

Yet you heard from one team of scientists who placed environmental hazard as of minimal concern.

For obvious reasons I place no credence in their conclusions.

We have made too many mistakes in the past in the management of our nuclear program. Hundreds, if not thousands, of people are now paying the price of our carelessness.

All we ask, indeed, demand is that in this next move we consider the potential hazards thoroughly before making any decision which we will have to regret.

The containers in which these wastes are stored cannot outlive the half-life of radioactivity. In fact estimates are that the concrete-type containers will begin to seriously degrade after 30 years.

Many as we know, break down sooner and leak as at Hanford, Wash.

SOME ARE HEARD to say that even if the canisters leak it will not cause any great harm because the level of radioactivity is so low.

My answer is that if that is the case, bury the waste near the plants. If the danger is so low, there is no need to bring them to Palmyra!

Our nonproliferation of nuclear weapons policy prompted the offer to store nuclear spent fuel from governments overseas in the belief that taking their spent fuel would discourage them from wanting to reprocess it into plutonium.

Also it was argued that our keeping the spent fuel would mean that it was more secure and that terrorists would not as easily get their hands on it.

If we were really serious about the latter then the storage facility must be located within the heartland of the Mainland United States for security reasons.

An island in the middle of the Pacific offers no security whatsoever.

## 3 in Shipwreck Reject Rescue Plan Want to Be Picked Up by Plane, Not Arizona Yachtsman

HONOLULU (AP)—A father and two daughters shipwrecked and marooned on a South Pacific atoll for three weeks have rebuffed an offer of passage home from an Arizona yachtsman, the U.S. Coast Guard said Wednesday.

"The Harrisons have declined that offer. They want an aircraft to pick them up," said Mark Scire, a Coast Guard spokesman in Honolulu.

"Mr. (John) Harrison said his youngest daughter was so traumatized by the recent sailing trip she doesn't want to get in a sailboat," he said.

Harrison and his daughters, Micki, 20, and Kristen, 13, were caught in a typhoon Dec. 6 aboard their 40-foot trimaran, *Sisyphus*. Buffeted by 40-foot waves and high winds, the boat lost its mast.

The Harrisons' emergency radio beacon was detected by a commercial jet, which relayed the message to the Coast Guard. A C-130 aircraft dropped a radio and fuel to the ship

on Dec. 8, enabling the *Sisyphus* to make the 60 miles to Palmyra Atoll, a tiny coral island 1,100 miles south of Honolulu.

Since then, Harrison, an industrial designer from Vancouver, B.C., and his daughters have survived on canned food salvaged from the trimaran and fish, crabs and coconuts.

Another man whose boat is moored at the privately owned island, Ray Landrum, has helped them contact relatives by short-wave radio.

The Coast Guard rescue center in Honolulu contacted Landrum Tuesday night, informing him that Lawrence Friend of Scottsdale, Ariz., was sailing to Palmyra.

Friend reportedly had volunteered to take the Harrisons to Honolulu in his 33-foot sloop, the *Friendly*.

However, Landrum told Coast Guard radio operators that Harrison declined the offer, Scire said.

"Why should the U.S. govern-

ment spend \$100,000 to send a military plane down there, when he could have got off the island on that boat essentially for free?" Scire said.

### Promise of Payment

Harrison has reportedly offered to pay for passage off the island, but his former wife has said his promise of payment has so far not been sufficient guarantee to the U.S. or Canadian governments or to private operators.

Harrison reportedly put out to sea last fall to avoid collection agents, an unidentified San Francisco sailor who was hired by Harrison to sail the boat to Hawaii told the San Francisco Chronicle.

Harrison owed \$24,000 on the \$85,000 trimaran when he sailed it to San Francisco from British Columbia, said Mike Robers, vice president of consumer services for the Bank of British Columbia.

"The loan is seriously in arrears," he said.



# Stranded Canadians Must Wait for Airlift From Atoll

HONOLULU (UPI)—A Canadian family shipwrecked on a remote South Pacific atoll must wait until today for an airlift back to civilization because legal problems with the island's owners must be settled first, the rescue pilot said Friday.

Charter pilot Fred C. Sorenson scrapped plans to pluck John Harrison, a 39-year old industrial designer from Vancouver, British Columbia, and his two daughters off the island Friday and is still awaiting permission to land on Palmyra Island.

Harrison and daughters Michelle, 20, and Kristen, 13, were stranded on the island when the mast of their 45-foot sailboat broke in a storm. The younger daughter has refused to set foot on another boat.

## Legal Paperwork

"It looks like it's going to be put off until tomorrow morning while we get the releases and legal paperwork straightened out," including "liability, releases, hold-harmless agreements, that sort of thing," Sorenson said.

The island, 1,100 miles southwest of Honolulu, is privately owned by three brothers—Leslie, Dudley, and Ainsley Fullard-Leo of Honolulu.

With both the U.S. and Canadian governments refusing to come to their rescue, the Harrisons have been living on fish, coconuts and

canned and dried foods supplied by the island's lone inhabitant and caretaker, Ray Landrum.

Sorenson estimated the cost of the flight at \$7,000. He said tentative plans to have the mission financed in part by several news media organizations had fallen through, but added he would go ahead with the flight anyway.

## Committed to Plan

"We've got so much into it now we'll go do it and get it done."

Sorenson, of flight Contract Services in Honolulu, said he would use a twin-engine Lockheed Lodestar with electronic gear "which helps to pinpoint the island once the plane is in the vicinity."

"There's no navigation aids on the island, which presents a bit of a problem," he added.

The flight to the tiny atoll is expected to take five hours each way.

The U.S. Coast Guard sent a plane to the vicinity when the Harrison's yacht was first disabled, but it was unable to land on the island's short and overgrown World War II airstrip.

The Coast Guard, saying the family is in no immediate danger, has refused to pursue other means of rescuing.

The Canadian External Affairs Department also contends the family is in no immediate danger and has refused to pay for a rescue effort.

# Castaways rescued; dad ends up in jail

By Robert Hollis  
and Suzanne Tswei  
*Advertiser Staff Writers*

A Honolulu charter pilot flew a Canadian man and his two daughters back to Hawaii yesterday, 27 days after they beached their disabled yacht on a remote Pacific atoll.

"It's good to be back!" shouted John Harrison, 39, as he and his daughters were led into the U.S. Customs at Honolulu International Airport where he was greeted by police and an attorney for a Canadian bank.

The Harrisons' 45-foot trimaran, Sisyphus, was dismasted in a storm in early December. After a Coast Guard plane dropped fuel to them, the trio managed to pilot the disabled vessel to the safety of Palmyra Island, about 1,000 miles southwest of Oahu.

There they sat for nearly four weeks — with both the U.S. and Canadian Coast Guards declining to rescue them — before pilot Fred C.

Sorenson plucked them from the rat- and mosquito-infested island yesterday.

The castaways, who appeared to be in good condition, were spirited away from a gaggle of reporters and photographers minutes after their 6 p.m. arrival in Honolulu.

Honolulu police took Harrison to the downtown police station where he was being held last night on a charge of first-degree theft filed against him by Maui police.

His daughters, Kirsten, 14, and Michelline, 20, were met by their mother, Michelle James, of Redondo Beach, Calif., who, again with the aid of police, moved them to a hotel near the airport.

Reached by phone, James said her daughters were "a little traumatized" by their ordeal but otherwise seemed to be fit.

The charges against Harrison stem from a complaint filed by three crewmembers who were

See Castaways on Page A-4

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ADVERTISER



John Harrison leads his daughters from their rescue plane at Honolulu Airport yesterday.

Advertiser photo by T. Umeda

AI

# Castaways safe

from page one

abruptly deserted by Harrison in Lahaina in November.

Police said the trio lost a quantity of personal gear, money and cameras aboard the yacht when the Canadian fled the harbor to avoid attempts by agents of the Bank of British Columbia to seize the vessel.

Before Harrison left the airport, Honolulu attorney C. George Sphikas served him with court papers that, in effect, allow the Canadian bank to take over the damaged yacht.

Sphikas said yesterday he sent salvage expert Lee Kameakua to Palmyra with another group of attorneys who are preparing to de-

fend two murder suspects in an unrelated case.

Kameakua should reach the atoll as early as tomorrow and begin repairing the boat for its return voyage to Honolulu. Two more salvagers are planning to leave for the island in a week, Sphikas said.

Efforts to bail Harrison out last night were apparently unsuccessful pending a hearing before a Maui judge.

Pilot Sorenson said last night he spent about \$11,500 of his own money to carry out the rescue in his own 1942 Lockheed Lodestar. The pilot, who works for Hawaiian Airlines, went ahead with the flight after several attempts to raise money from Harrison's family failed.

Thus ended a two-month-long

# are met by police

trans-Pacific chase in which Harrison successfully eluded agents of the Bank of British Columbia twice in Hawaii before fleeing south toward the equator.

The sunburned Harrison was held in the Honolulu police cellblock in lieu of \$2,000 bail late last night. KGMB-TV reporter Don Baker offered to post bond in exchange for an interview with Harrison.

When questioned later, police Capt. Ersel Kilburn said he took Baker's offer as a joke. Nevertheless, Harrison was not released at the behest of Maui police. The warrant against him specifically states Harrison must appear before a Maui judge, police said.

When Sorenson and his three-man crew arrived on Palmyra Monday afternoon, the stranded family

was initially nowhere to be found. Sorenson said in an airport interview.

"The family was out trying to get something to eat, some fish. They heard the plane and showed up pretty soon," he said. "They looked pretty tattered."

The Canadians spent their days on the collection of tiny islands surrounding the shallow lagoon and then slept aboard the yacht, which was usually anchored a few yards from shore to avoid rats, he said.

They subsisted on fish, fruit and canned goods given them by Ray Landrum, a 40-year-old American who is the sole resident of the privately owned island.

"It took them a while to accept the fact that we were going" to fly them to Honolulu, Sorenson said.

# Arizona Yachtsman Says He'll Rescue



Associated Press

Kristen, left, and Micki, who are stranded with father, John Harrison, on an atoll in the Pacific.

**Los Angeles Times**

Wednesday, December 30, 1981 / Part I **3**

## Family Stranded on Pacific Atoll

By JULIE LEVY, Times Staff Writer

An Arizona yachtsman has volunteered to sail to the aid of three people stranded on remote Palmyra Atoll in the South Pacific for the last three weeks after their own vessel went aground in a typhoon.

Since the three have not been aided by any government, Lawrence Friend of Scottsdale, Ariz., said Tuesday that he would rescue them in his 33-foot sloop, *Friendly*, now at sea in the vicinity.

According to the U.S. Coast Guard in Honolulu, Friend heard about the trio's plight on a ham radio broadcast. On Tuesday he reportedly was awaiting word from the three that they wanted to hitch a ride to Honolulu with him.

Friend told a ham operator that he planned a four-day layover at Fanning Island before sailing the 150 miles to Palmyra. The trip to Honolulu, 1,000 miles due north of the atoll, takes 10 to 12 days.

Friend normally moors his sloop

in San Diego.

Michelle Colette James, 37, of Redondo Beach had been trying to convince the American and Canadian governments to rescue her daughters, Micki, 20, and Kristen, 13, and her former husband, John Harrison, a 39-year-old industrial engineer from Vancouver, Canada, from Palmyra since they were stranded there on Dec. 8.

Both governments have placed the responsibility with the other.

"It's considered an American matter since the island is in American territory," said Chris David, Canadian consul in San Francisco.

The U.S. Coast Guard, however, will not respond unless a person is in danger, and even if it did, the Guard's C-130 Hercules aircraft would not be able to land on the island's potholed and overgrown World War II-era airstrip, Chief Petty Officer Bob Baeten said in Honolulu.

"This has been kind of a Gilligan's

Island thing," Baeten said about the family's misfortune.

The Harrisons were cruising to Australia when the mast of their \$200,000, 45-foot trimaran *Sisyphus* was downed on Dec. 6 in a typhoon that lashed the vessel with 40-foot waves.

The family send distress signals that were picked up by a commercial airliner passing overhead and relayed to the Coast Guard.

A Coast Guard rescue plane dropped a radio and enough fuel for the disabled craft to reach Palmyra, about 60 miles away.

But the unfortunate crew shipwrecked on a reef before reaching the atoll. Two days later, a squatter on the 6¼-mile-long coral island, Ray Landrum, spotted the marooned craft and rowed a small boat out to take the family in.

The Harrisons are living on their boat, which they refloated the day after the shipwreck.

# Isle owners find paradise lost

By Robert Hollis

Advertiser Staff Writer

Owning a piece of paradise sometimes isn't all it's cracked up to be.

"It's like having an idiot child; you really have to love it," says Leslie Fullard-Leo, who with his brothers Ainsley and Dudley are the sole owners of Palmyra Island, an palm-fringed atoll about 1,000 miles southwest of Honolulu.

"Of course in the case of Palmyra," he said, "it could be a case of idiot-parents," namely the Fullard-Leos, who have maintained a sometimes tenuous control over Palmyra for the past 60 years.

The 300-plus acre collection of islets surrounding a blue-green lagoon is a favorite mid-Pacific refuge for blue-water sailors, known as "yachties."

The atoll is just north of the young nation of Kiribati, which includes the Gilbert Islands, the Phoenix Islands and all of the Line Islands, except Palmyra.

One could probably subsist there indefinitely. With about 150 inches of rainfall a year, there is plenty of fresh water. Coconuts and other fruit grow in abundance and the shallow lagoon teems with reef fish.

It is also the home of about two million terns and other sea birds. Most of the time there are no permanent human residents.

During several months of the year, the yachties make extended

visits to the remote atoll, spending their days fishing and combing through the rusting litter left when the U.S. Navy abandoned its World War II base there in 1947.

Lately, this little hunk of paradise has been much in the news.

A murder trial of a man and woman accused of killing a California woman on Palmyra in 1974 is scheduled to get underway in Honolulu later this year. The woman's husband, who disappeared there too, has never been found.

Last month, a Honolulu charter pilot rescued a Canadian man and his two daughters from the island after they had been stranded there for almost four weeks.

The resulting publicity, however, tends to generate a lot of unwanted interest in the tiny atoll, as far as the Fullard-Leos are concerned.

The island's first western discoverer was probably Capt. Edmond Fanning, whose ship was almost wrecked on its reefs in June, 1798. It was later named for the ship Palmyra, which sought refuge there in 1802.

In 1862, King Kamehameha IV sent a commission to take possession of the atoll in the name of the Hawaiian Kingdom. After the overthrow of the monarchy in 1893 and United States annexation of Hawaii in 1898, Palmyra became a U.S. possession.

The island was purchased, amid rumors of buried treasure there, for

\$600 by the late Honolulu Circuit Judge Henry E. Cooper in 1911. No treasure was ever discovered, however.

Several years later, a South African diamond miner turned building contractor, named Leslie Fullard-Leo, arrived in Hawaii with his wife. He heard about Palmyra and decided it might make a pretty good refuge from the rigors of modern life. They bought it from Cooper in 1922 for \$15,000.

Since then, ownership of the island passed to Fullard-Leo's three surviving sons.

Over the years, the family found that owning Palmyra has its headaches, particularly when the United States government got involved.

"They seem to have the idea that no one has the right to own an island. And that's the way they treat us," says the younger Leslie Fullard-Leo.

The first confrontation between the family and feds took place in 1938 when the U.S. Navy began building a base on Palmyra in anticipation of the coming Pacific war.

In 1939, the U.S. Attorney General began legal action claiming the atoll for the government. Eight years later, the U.S. Supreme Court, in a 5-4 decision, ruled the island was the rightful property of the Fullard-Leos.

While the case was in the courts, the Navy went ahead and built a base that was the home for 6,000



Advertiser file photo

This aerial view of Palmyra shows the harbor and causeways built in the U.S. Navy

servicemen and women during the night of the war.

The navy reshaped the island, dredging three separate deep-water harbors in the lagoon. Some of the dredge spoils were used to build a causeway that links several of the 2 islets. Other material was used to build a 6,000-foot runway.

After the war, the family sued the Navy for damages and won \$100,000 in its \$312,000 complaint. The award wasn't even enough to

cover the legal costs, the Fullard-Leos complained.

In 1979, news stories appeared in Washington revealing that the Carter administration had secretly begun studies of Palmyra and two other Pacific islands as possible sites for storage of radioactive wastes from U.S. and Asian commercial nuclear power plants.

The revelations stirred a storm of protest from scientists, environmentalists and the Fullard-Leos.

Most experts in oceanography and geography suggested Palmyra, because of its fragile ecology, its lack of elevation and its location makes it about the worst place in the ocean to place a nuclear waste dump.

Federal officials backpedaled furiously after the nuclear dumping idea failed to win any U.S. or Pacific island support and the proposal appears to have been quietly deep-sixed. □

# Forum on Waste Disposal Slated

By June Watanabe  
Star-Bulletin Writer

"It's a hot issue all right," said Dr. Charles Hollister, chuckling at the inadvertent pun made by his colleague, Dr. John Kelly.

The topic was the disposal of nuclear waste, whose radioactive "heat" perhaps is exceeded only by its steaming political controversies.

Hollister is a scientist of many hats, serving as dean of graduate studies at the Woods Hole Oceanographic Institution in Massachusetts, as well as the senior scientist for the school's Department of Geology and Geophysics.

He also is the chief scientist for a government-sponsored feasibility study on radioactive waste disposal in deep ocean seabeds. As such, Hollister was invited to be the principal speaker at tonight's forum on nuclear waste disposal issues sponsored by the East-West Center, the League of Women Voters and the Health Physics Society.

KELLEY, A research professor at the University of New Hampshire and a principal investigator for the "Sub Seabed Disposal Program," also will participate in the forum, scheduled for 7:30 p.m. in the Burns Lecture Hall at the East-West Center.

In an interview yesterday, Hollister emphasized that his studies do not involve dumping of low-level nuclear wastes onto the ocean floor.

"For gosh sakes, don't say dumping," he shuddered. "It's critical to differentiate between dumping and implanting. We're not talking about dumping — about kicking the wastes off the fantail and onto the sea floor. This is implanting into the sea floor."

And talk about storing spent fuel and nuclear waste on such Pacific islands as Palmyra, or Japan's proposal to dump wastes north of the Northern Marianas, are entirely separate from his studies, Hollister said.

As Kelly interjected, "The only relation is that we are all talking about spent nuclear waste."

HOLLISTER SAID the sub seabed nuclear waste disposal program, as an alternative, is still very much in the research stage. However, he is "cautiously optimistic" that sea disposal may prove to be an international solution to the problem of burying the used nuclear fuel.

"It's too premature to say how safe sub seabed disposal will be," he said. "The concept really is uncertain in that we do not know how the (ocean floor) sediment will react to penetration by a hot waste canister."

That's even after seven years and roughly \$20 million worth of study funded by the U.S. Department of Energy through Sandia Laboratories. Sandia Laboratories oversees the federal government's program for assessing alternatives to land disposal of nuclear wastes.

(The United States has spent an average of about \$6 million annually on the sub-seabed tests in recent years; that compares to a total yearly expenditure of more than \$400 million for disposal of both civilian and military nuclear wastes, Hollister said.)

STILL TO BE answered are two critical questions: how the ocean sediments will behave and whether holes dug to bury the canisters of spent fuel will close. The answers are not expected to be definite for at least another seven years, Hollister said.

The 1988 date is critical, he said. By then, scientists will have determined whether the concept works or not and if so, a decision will have to be made to pour money into the program or have it "canceled, shut down and forgotten."

The problem facing Hollister and his colleagues is the possibility that the Reagan administration will de-emphasize sub-seabed research in favor of land-based nuclear waste disposal.

Where the Carter administration was willing to spend time and money to study various alternatives, "the new administration seems much more pragmatic," Hollister said. "They're saying, 'let's get on with



Charles Hollister

the job, dig the holes, demonstrate we can do it and not wait. There's a certain amount of urgency that I presently don't feel is justified. I think there's time to do the job right and not go pell mell into making decisions."

WHY IS IT taking so long for the sub seabed disposal program to be investigated?

"Working in deep ocean takes a lot of very good engineers and scientists to design experiments, to verify findings," he said. "There are few people that work in the deep ocean. We're intellectually limited more than anything else."

Although Hollister says scientists are years away from determining the feasibility of sub seabed disposal, he notes the signs are optimistic. One is the presence of "red clay," found covering one-fifth of the planet, but only in the oceans. The clay happens to be more the color and consistency of bittersweet

chocolate — "sticky, soft, gooey clay" — but is called red nonetheless. Hollister said that of all geologic formations, this red clay just happens to have the highest "affinity" for holding on to nuclear wastes.

MOST OF THE Pacific Ocean and Indian Ocean and about one-sixth of the Atlantic Ocean is covered with red clay. With that in mind, Hollister's group has targeted one large general study area about 2,500 miles north-northwest of Hawaii and about 1,800 miles east of Japan in the Pacific. Another study area is in the northeast Atlantic, although an area west of Gibraltar in the Atlantic also has been found to be "very promising," Hollister said.

Kelly emphasized that the areas are only being studied. If the program proves to be feasible, sub seabed disposal will not necessarily take place in the study areas, he said.

Despite the attractive physical qualities of red clay, Hollister doesn't believe in tying himself, or the program, irretractably to sub seabed disposal.

"I think the first repository should be demonstrated on land in a very conservative way. Dry granite also has a high absorberency (for nuclear wastes)," he said.

"BUT I DON'T think any one repository will handle all the different countries' wastes forever. There is no single perfect pet rock and I don't want to say that red clay is the answer. What we're saying is that we need an international solution eventually and sub seabed disposal may be an alternative."

Hollister also said Hawaii residents "should become aware early on that 25 years from now there is a 50-50 chance that seabed disposal operations will be happening (near) here."

"I think the state of Hawaii should develop and become the intellectual center for management of nuclear waste disposal," Hollister said. "It's a natural center. Hawaii ought to take and maintain the leadership role in the whole business of sub seabed disposal."



# Plan to dump nuke waste in ocean hit

WASHINGTON (AP) — Japan's proposal to dump radioactive wastes in the Pacific Ocean could pose "a substantial environmental and health hazard to both Japan and Micronesia," according to an analysis of the plan released on Capitol Hill Saturday.

The report also says a Japanese government study declaring the plan safe is based on "faulty assumptions, inaccurate data, basic ecological errors and omission of critical data.

"These flaws have the collective effect of vastly underestimating the potential health hazard of the radioactive oceanic dumping program not only to the peoples of Micronesia, but also to Japanese fishers and the Japanese people," the analysis says.

In addition, the report says, a hypothetical "worst case scenario" indicates the possibility of suspended radioactive particles being carried north and east by the Japan Current and eventually contaminating sea life along the length of the west coast of North America.

The report says that Japan currently plans to start dumping low-level radioactive wastes in September 1982 at a site 400 miles north of the territorial waters of the Northern Marianas and 600 miles from Guam.

# 2 Indicted in Death on Palmyra Atoll

By Jim McCoy  
Star-Bulletin Writer

A federal grand jury yesterday returned murder indictments against Buck Duane Walker and Stephanie Stearns in the 1974 death of LaVern "Muff" Graham at Palmyra atoll.

The panel charged that Walker, 44, and Stearns, 34, killed Mrs. Graham "during the perpetration of an attempt to perpetrate a burglary or robbery."

At the government's request, federal Magistrate Thomas P. Young issued bench warrants for the arrest of the two. He ordered \$100,000 bail for Stearns and no bail for Walker, who is an escapee from McNeil Island federal prison in Washington state.

Assistant U.S. Attorney Stephen Tom said Stearns is in Southern California and authorities have "very solid leads to her location." She reportedly has been in touch with Honolulu officials through her California attorney since it was determined earlier this week that skeletal remains found last month on Palmyra are those of Mrs. Graham.

The indictment did not mention Mrs. Graham's husband, Malcolm "Mac" Graham, who also is presumed to be dead. Investigators have yet to determine if other re-

mains found along with Mrs. Graham's are those of her husband.

Mrs. Graham's remains were identified Tuesday when the FBI's Washington, D.C., office confirmed that jaw and teeth of a skull found inside an aluminum box on Palmyra matched her dental charts. The box was found by a South African boat-er.

The skull also had a hole in it, but investigators have refused to say what caused it.

The San Diego couple disappeared in August 1974 while boating off the tiny atoll, located 1,250 miles south of Honolulu. Their boat, the Sea Wind, turned up in Honolulu in late October that year, with Walker and Stearns aboard.

Walker and Stearns were charged with stealing the yacht, and prosecutors studied the possibility of bringing murder charges against them at the time.

But only the theft charges were filed, mainly because prosecutors felt that without a body a murder charge probably would not stand up in court.

Both were convicted of the theft charge. In 1976, Stearns was given a two-year prison term; Walker got 10 years. He also was sentenced to three years in prison for a 1973 drug conviction.

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# 'Kamikaze' Labor Used to Clean Nuclear Waste

By P.Y. Chen

TSURUGA, Japan (UPI) — Poor unemployed men were used as "kamikaze" laborers to clean up potentially deadly radioactive waste from the nuclear accidents in the Tsuruga power plant, a local newspaper said today.

"We knew it was dangerous to their health but figured they would not be used twice," the daily Fukui Shimbun quoted one sub-contractor hired to work on Japan's worst nuclear accidents.

The two sub-contractors, who refused to disclose the wages paid for nuclear cleanups in January and March, said they recruited workers in nearby major cities from the lodging houses used by the jobless, homeless and destitute.

The workers were used only when the operation was so dangerous they would be exposed to radiation beyond the government-set safe level of 100 millirems daily per person, or 300 millirems per person over eight consecutive days.

"We usually picked these kamikaze workers from Osaka and housed them in inns near the power plant," one subcontractor said. They were returned to big cities after working for a week to a month in the radioactive environment.

The extent of exposure to the workers is not known, the subcontractor said.

"The records were written in pencil and they could be easily erased," he said.

MEANWHILE today, the company disclosed that six company employees were among those who took part in the cleanup, increasing to 29 the number of persons who were contaminated.

Company spokesman Takahisa Maruyama told reporters six company employees had not originally been included in the radioactive victims' list because of a "clerical error."

The company said that during the cleaning and repair work Jan. 24-28 the six employees received as much as 100 millirems of radiation a day. The amount is equal to the safety level set by the ministry of International Trade and Industry.

"But no one requires medical treatment," Maruyama said.

The highest level of radiation received by 23 workers hired by sub-contractors to clean up the waste was 92 millirem a day.

The Tsuruga plant was closed for repairs in April and a routine government check of sea-bed radiation began the chain of disclosures that revealed the coverup. Japan Nuclear Power Co. disclosed last week that 23 workers were exposed to radiation leaks in January and another 56 in March.

In Tsuruga, a scenic city with 60,000 people facing the Sea of Japan, anger and apprehension prevailed.

"We would have about 20 out-of-towners on a day like this," said bait shop owner Miyoko Shinobuda, a 45-year-old business woman. "Today, I have none." Outside, the April sun shone brightly.

"WE HAVE received nothing but cancellations since April 19," (when the radiation pollution was made public), a fishing boat owner said. "Some would say bluntly they would not want to fish in a polluted bay."

Owners of resort inns and hotels along the pine tree-lined bay fear the nuclear accidents will scare away some half a million visitors who come for sunshine and blue water every summer and one woman innkeeper threatened to sue the company if her business suffers.

A 10-member investigating team from the Ministry of International Trade and Industry was expected to wrap up the initial probe tomorrow. The team's findings on the accidents and their cover-up will be used in any prosecutions of people at Japan Nuclear Power Co.

## Measure asks nuclear waste dumping probe

The Legislature would join a number of Pacific Island governments in calling for a formal probe into a Japanese proposal to dump nuclear waste in the Pacific Ocean, under a resolution passed by the House.

The measure now goes to the Senate for review. It was one in a package of five resolutions dealing with nuclear waste adopted by state representatives this week.

Under the resolution touching on the proposal by Japan to dispose of nuclear waste in the ocean, the Legislature would join such Pacific Island governments as the Commonwealth of the Northern Mariana Is-

lands in asking the Japanese Diet to investigate the suggested dumping.

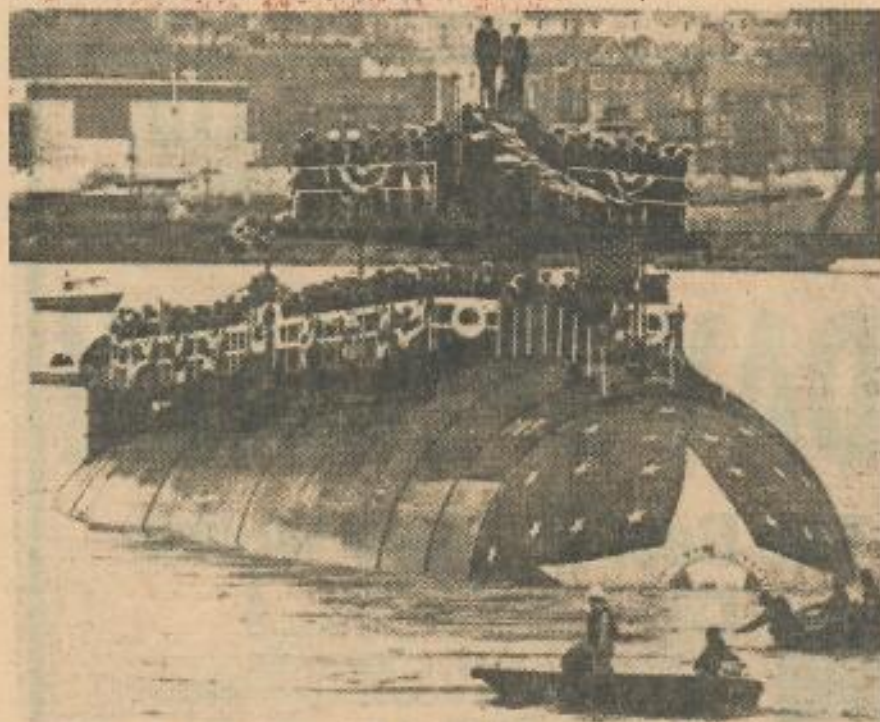
The resolution, introduced by Rep. Byron Baker, states that the "people who live in the Pacific area are concerned that leakage from improperly sealed and deteriorating containers used in the dumping will have devastating consequences on their environment, their culture and their livelihood."

"Hawaii shares a firm belief with the other Pacific area residents that a degradation of any portion of the Pacific Ocean has an adverse effect on all the people of the area and strongly protest plans by the Japa-

nese government to use the Pacific as a disposal site for unwanted nuclear waste and nuclear spent fuel . . .," the resolution says.

A related resolution adopted Tuesday urges a national policy on storage of spent fuel and nuclear waste.

The Senate resolution offered by Sen. Wadsworth Yee states that the United States discontinued deep-sea disposal of nuclear waste in 1970. However, national studies on the use of Palmyra Island for radioactive storage of spent fuel has the Legislature "very concerned," the resolution says.



**IMMERSED**—The USS Corpus Christi, the latest fast-attack submarine launched at the Electric Boat shipyard in Groton, Conn., rides in the Thames River with its naval contingent Saturday. The launching was the scene of a demonstration against the nuclear arms race. —AP Photo.

# Japan Puts Off Dumping Nuclear Waste in Pacific

By Henry Kamm  
© N.Y. Times Service

AGANA, Guam — Governments and anti-nuclear activists in Micronesia believe that they have succeeded in halting, at least for this year, a plan by the Japanese to dump radioactive waste from their 21 nuclear reactors into the Pacific Ocean north of the Mariana Islands.

In a petition being drafted for presentation to the Japanese parliament, the government of the Commonwealth of the Northern Marianas — Guam is the only island in the Mariana chain not a member of the commonwealth, which is under American trusteeship — will ask the Japanese to abandon the dumping program.

Last November, an official delegation from the Japanese Science and Technology Agency visited Guam for two days of talks with Guamanian government officials and a full day of public hearings in the legislature in an effort to convince islanders and their government that a plan to begin experimental dumping of small quantities of low-level waste about 1,000 miles north of here was safe.

Subsequently, under the plan, Japan was to begin dumping all of the waste materials, now being stored in metal drums at the reactor sites, into the sea at the same spot. Following the prescription of the London dumping convention of 1975, the drums would be enclosed in concrete, would be resistant to water pressure and would be sunk to a depth of more than 13,000 feet.

In cooperation with Japanese environmental, anti-nuclear and fishermen's groups, the island governments and activists have presented a united front against the plan. Island officials have toured Japan, speaking at protest rallies and putting their case to government agencies at all levels.

LAST OCTOBER, Mayor Felipe Mendiola of Tinian, the island from which American bombers took off to drop atomic bombs on Japan during

World War II, went so far as to threaten Japanese audiences with demolishing memorials to Japanese war dead on Tinian and throwing them into the sea if dumping took place.

Without public announcement, Japan indicated last month that it had put off its plan to begin experimental dumping this year. In January, disclosing its budget for the coming fiscal year, the Science and Technology Agency said that the bulk of its funds for the dumping program were committed to further surveys of ocean radioactivity and tests of pressure-proof disposal drums.

The only other appropriation was for \$350,000 to finance explanatory films and pamphlets and travel of science agency officials to Micronesia, presumably for further explanations.

"Clearly, the Japanese have a very strong intention of selling their plan this year," said Jeffrey A. Cook, a lawyer and chairman of the Marianas Alliance Against Nuclear Dumping. "They will invite government leaders to Japan and offer economic aid in return for stopping opposition to dumping."

Cook quoted a leading official of STA as having said to the press after the budget announcement: "We will continue to have a plan to dump. We did not give up the plan."

BARELY EXPRESSED but evident behind many angry comments is a feeling by islanders that the United States is letting them down by not taking up the battle for them. In a statement last year, Gov. Paul M. Calvo of Guam, a Republican, accused the "major nuclear powers," without naming the United States, of sharing a Japanese view that Pacific islanders, because there are so few of them, are expendable.

"The only reasonable conclusion is that the risk factor is decreased because the area is sparsely, rather than densely, populated," the governor said. "Restated, if there is an accident, fewer people will be killed or mutilated."

# Palmyra Bones Reopen Yacht Murders Theory

By Jim McCoy  
Star-Bulletin Writer

Federal authorities yesterday began reassessing the possibility of bringing criminal charges in the suspected murder of a San Diego boating couple who disappeared seven years ago at Palmyra atoll.

But the immediate target in connection with the deaths of Malcolm and LaVern Graham is an escaped prisoner who has remained at large for 19 months.

Authorities yesterday said they are "intensifying" their search for Buck Duane Walker, who turned 44 years old today. Walker escaped from a Washington state prison in July 1979 while serving a 10-year prison term for stealing the Grahams' yacht, Sea Wind.

Authorities here also said they know the whereabouts of the woman also convicted of stealing Grahams' yacht, Stephanie Stearns, 34, but declined to say where she was.

**THE NEW ACTION** in the case was spurred by the FBI's announcement yesterday that its Washington,

D.C., lab had determined that the human remains found on Palmyra last month are those of Mrs. Graham. The FBI matched a jawbone and teeth to the dental records of "Muff" Graham, who was 40 when she disappeared in August 1974 with her husband, Mac" Graham, 43.

Her remains were found inside a metal box by a South African boater who was exploring the privately owned atoll 1,250 miles south of Honolulu.

However, the FBI said officials are still trying to learn what caused Mrs. Graham's death, and also whether any of the other bones found in the box are from Mr. Graham.

Officially, the case remains under investigation, which has been its status for the past seven years.

But yesterday's identification signals the first solid piece of evidence that foul play was involved in the disappearance of the wealthy couple, and also contradicts the testimony of the two persons suspected of being

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# Federal Authorities Eye Palmyra Murder Case

Continued from Page One

responsible for the disappearance.

In his 1975 trial here on charges that he stole the Sea Wind, Walker testified that the Grahams disappeared on the night of Aug. 30, 1974 when they went fishing in a small Zodiac dinghy. Walker, in testimony supported by his girlfriend, Stearns, said he found the dinghy overturned on the beach the next morning.

Walker made the same claims in a letter which he sent to Graham's sister, Kit Muncie of Seattle (see accompanying story).

The inference was that the Grahams had drowned in the shark-infested lagoon.

That story doesn't explain how a drowning or shark-attack victim could end up in a metal box, as Mrs. Graham did.

ACTING U.S. Attorney Wallace Weatherwax yesterday said that in light of the new evidence, his office is conducting a review of the case "with the eye toward possible prosecution."

Weatherwax, who wasn't a prosecutor when the case first came to light in 1974, said in response to questioning that it was his understanding that murder charges weren't lodged then because prosecutors were dealing with only a "disappearance."

Murder trials without the body have been conducted, but they are rare, the prosecutor said. And he added that prosecutors worry that an acquittal verdict in cases which lack the physical evidence of murder would keep a defendant from ever being tried again on the charge if a body is found and more evidence comes to light.

The constitutional right not to be tried twice for a crime after being acquitted the first time is called double jeopardy.

For now, authorities are stepping up their search for Walker, who slipped unnoticed from McNeil Island penitentiary in Washington state on July 10, 1979.

A spokesman for the U.S. marshal's office in Seattle yesterday said Walker was in a low-security camp opposite the high-security penitentiary on the island when he apparently fled. He was discovered missing at an evening check, and it was presumed that he swam or waded across the several hundred yards of shallow water separating the island from Washington.

The spokesman said Walker escaped four months after he was first turned down for parole. He was first committed to Terminal Island, a California prison, in January 1975 but was transferred to McNeil in August 1975. Three years later he was



Buck Duane Walker, right, at his 1974 arraignment.

moved from the high-security prison to the low-security camp.

WALKER LIVED on the Big Island in the early 1970s before purchasing a boat, the Iola, and sailing with his girlfriend to Palmyra.

Walker later admitted he took the trip to escape a prison term imposed for his conviction that he and another man sold two pounds of MDA, a hallucinogen similar to LSD, to undercover lawmen on Maui.

He also admitted changing the name of the Sea Wind to Lokahi and repainting it at a shipyard here. But friends of the Grahams immediately recognized the vessel when Walker

and Stearns pulled it into Honolulu Harbor. The couple was arrested later and charged with stealing the yacht.

Walker was convicted of several counts relating to the theft of the Grahams' yacht, but one of the convictions was reversed by the 9th Circuit Court of Appeals two years ago. The reversal, however, didn't affect the 10-year sentence imposed on him by federal Judge Samuel P. King in 1976.

Stearns was also convicted of stealing the yacht and was sentenced to serve two years in prison, which she did.

# Walker Letter Describes

By Jim McCoy

Star-Bulletin Writer

"In retrospect I think we were in a mild state of shock at the loss. It was unbelievable. At first we kept expecting to find them, hoping, but our optimism soon turned to despair. It was terrible to watch Stephanie crying and be unable to comfort her. I don't know how to say this, but Mac and Muff were like models of a pattern that we wanted to learn and follow. I can't say how much we miss them!"

So went a letter written by Buck Duane Walker to Malcolm Graham's sister, Kit Muncie of Seattle, Wash., explaining the 1974 disappearance of "Mac" Graham and his wife, Lavern "Muff" Graham.

Walker wrote the letter from the Honolulu boat yard where he was repairing, repainting and renaming the Grahams' yacht.

Written in October 1974, some two months after the Grahams disappeared at Palmyra atoll, the letter

explained in intelligent, smooth language the "close" relationship which Walker said he and his girlfriend, Stephanie Stearns, developed with the Grahams, and the agony they said they suffered when the Grahams "died in a boating accident."

BUT IT ALSO informed Mrs. Muncie of Walker's and Stearns' intentions to file a salvage claim on her brother's yacht even though they hadn't reported to authorities the circumstances behind the Grahams' disappearance.

The eight-page handwritten letter is a court exhibit that was not introduced at Walker's 1975 trial on charges he stole Graham's yacht. It was discovered yesterday in U.S. District Court files. It's unknown if Mrs. Muncie ever received the letter.

Calling himself Ray Allen, Walker identified Stephanie Stearns as his "wife" in the letter but later wrote that the pair planned to marry.

Ray Allen is Walker's alias. The convicted drug dealer was later convicted of stealing the yacht.

The letter began by telling "Kit" that "we came to care very much for them (the Grahams)" during the two couples' stay on Palmyra. Walker then wrote: "Please prepare yourself for the worst."

He wrote that Muncie's brother and sister-in-law were dead, and launched into a discussion of how it happened, following the courtroom testimony he later delivered that the Grahams went fishing in a Zodiac dinghy and were never seen again. The dinghy was recovered by Walker, he wrote.

MUCH OF THE letter dealt with the relationship Walker said the two couples had, including tidbits of how they shared catches of fresh fish and frequent get-togethers for the four boaters docked off the tiny atoll.

The letter contrasts with statements made by friends of the Grahams who described the two cou-

## 'Despair' at Death of Grahams

ples' relationship on the tiny atoll as cold and unfriendly.

News accounts which ran shortly after the Grahams disappeared were replete with accounts suggesting that Walker and Stearns were desperate for food. The accounts also made a point of mentioning that Grahams' yacht, the Sea Wind, was well-stocked with provisions and was far more seaworthy than the Walker's leaking and oily ketch, the Iola.

A man who maintained radio contact with the Grahams said Mr. Graham described Walker as a rangy individual who was low on food and provisions and used a handgun to shoot fish and birds for food.

BUT WALKER in his letter painted a different picture and lauded the sailor Graham with writings like this:

"To me he was the sailor in command of the search, for it seems to me that all who set out sailing the oceans are on a quest, however individual. I admired his self-sufficiency

and was impressed with his responsibility. Two other qualities that are particularly significant to me were his utter love and regard for Muff... and a sort of lonely cynicism, which I can only say I vaguely sensed. Perhaps this amounted to an intuitive recognition of kind, as I've often considered myself cynical to a fault, but my only real confirmation of this came in having recently read something he'd written, to the effect that he was anxious to get to Palmyra, so he could get over the disappointment he expected to find there."

(Many of Grahams writings were aboard the Sea Wind, including a will which listed Mrs. Muncie.)

LATER, WHEN Walker said he planned to salvage Graham's ship, he wrote:

"We love the Sea Wind and we want, eventually, to continue with her in the voyage around the world that Mac and Muff began. We haven't yet notified anyone about the true circumstances. We feel you should

be the first to know, for one thing, and I plan to post this as soon as the writings finished. Another reason is that we wish to seek legal advice..."

Walker also wrote of how the Iola hit a reef while he was towing it through the channel at Palmyra after they searched unsuccessfully for the Grahams. He described how he had to abandon his own ship.

"I was violently sick and heaving over the side while Stephanie steered. We kept looking back at our boat until she disappeared from view. We had scrapped and saved and worked for her seven days a week for seven months. I had built the mast myself and we had replanked, rebuilt, fiberglassed, painted, outfitted and launched her with champagne. We named her Iola, which in Hawaiian means 'To Life,' our toast."

He told of how he and Stearns registered the Sea Wind under the name Lokahi, meaning "of one mind." Walker said the name "aptly sums up the spirit of our feelings."



# Palmyra Yacht Thief Escaped from Prison

By Lyle Nelson  
Star-Bulletin Writer

Buck Duane Walker, 43, convicted of stealing the yacht of a missing San Diego couple when he was visiting Palmyra Island in 1974, escaped from the federal prison at McNeil's Island, Wash., on July 10, 1979, the U.S. marshal's office here said yesterday.

Details of the escape were not available. The marshal's office here received a warrant for Walker's arrest at the time of his escape but made no public announcement.

No trace has been found of Malcolm and LaVern Graham of San Diego, the missing owners of the yacht Sea Wind. They disappeared at Palmyra in August 1974.

A Canadian visiting Palmyra recently found skeletal remains in a buried box and notified the Coast Guard, which called in the Federal Bureau of Investigation.

The FBI planned a trip to Palmyra Monday, but it was delayed because of trouble arranging transportation to the rarely visited atoll more than a 1,000 miles south of Honolulu.

Walker was a fugitive following his drug conviction at the time he and his girlfriend, Stephanie Stearns, 34, sailed their yacht Iola, considered unseaworthy according to later testimony in federal court, to uninhabited Palmyra shortly before the Grahams vanished.

STEARNS WAS arrested when she tried to flee the Ala Wai Boat Harbor Oct. 29, 1974, after the couple

sailed the Grahams' yacht from Palmyra to Honolulu. Walker escaped but was captured 11 days later in Hawi, Hawaii.

Walker received a 10-year sentence for yacht theft; Stearns received a two-year prison term for being an accomplice.

Testimony in the Walker trial in federal court revealed that he and Stearns sailed the Grahams' yacht to the Dillingham Shipyard here, repaired it and then moved it to the Ala Wai Boat Harbor where veteran yachtsmen immediately recognized it as the Sea Wind in disguise.

Walker and Stearns testified that the Grahams had invited them aboard the Sea Wind for dinner. They said the Grahams later were lost in the shark-infested lagoon when their dinghy overturned.

The pair could not convince a jury that they brought the plush ketch to Honolulu because they said they didn't want to see the elements slowly destroy it.

No trace of the Grahams was uncovered when the FBI made a field trip to the atoll in November 1974.

The Grahams were on a pleasure cruise of the South Pacific at the time of their disappearance and their yacht was well stocked with food.

The Grahams were in radio contact with a friend in Waimea, Hawaii. Their last transmission said Walker and Stearns were nearby, out of food, cutting down coconut trees and shooting birds with a handgun.

## Palmyra Bones Are Those of Mrs. Graham

By Lyle Nelson

Star-Bulletin Writer

The human remains recovered last week on Palmyra atoll are those of Eleanor LaVern Graham of San Diego who, with her husband, Malcolm, vanished there in 1974, the FBI said today.

Dental records led to the positive identification of Mrs. Graham, according to William C. Ervin, special agent in charge of the FBI's Honolulu office.

FBI officers went to Palmyra last week to investigate remains found

by a yachtsman from Natal, South Africa, who was sailing on a yacht registered in Canada.

The remains, including a skull and jawbone, were found in a metal container that had washed ashore and were sent to the FBI laboratory in Washington, D.C.

"Sufficient remains were recovered and subjected to extensive examination by comparing past dental records, which led to the positive identification of Mrs. Graham," Ervin said.

The FBI did not mention Malcolm Graham.

THE GRAHAMS were planning a casual South Pacific cruise on their ketch Sea Wind when they stopped on Palmyra in 1974.

They kept in radio contact with friends in Hawaii and reported that the only other couple at the uninhabited atoll 1,250 miles south of Honolulu were Buck Duane Walker and his girlfriend, Stephanie Stearns, aboard the yacht Iola.

Friends of the Grahams said the Grahams radioed that they didn't like the looks of Walker and Stearns whose yacht was in poor condition and without provisions.

The Grahams disappeared shortly after that radio transmission, but their yacht later was sailed to Oahu by Walker and Stearns and spotted by the Coast Guard and others who recognized it.

Walker and Stearns were arrested and both were convicted of stealing the yacht.

Walker told the court during his trial that he and the Grahams became friends and that when the couple turned up missing after a fishing trip in a small boat Walker preferred to sail the Sea Wind back to Hawaii rather than leave it at Palmyra exposed to the elements.

In 1979 Walker escaped from the federal penitentiary at McNeil's Island in Washington.

The FBI office will continue to investigate the case.

# Human Bones Bro

By Lee Gomes

Star-Bulletin Writer

Burned, broken bones, possibly those of one of a San Diego couple missing and presumed dead for six years, were brought to Hawaii from Palmyra Island yesterday by the FBI.

The cargo of bones was the latest chapter in a bizarre story involving a yacht theft, a prison escape and possibly two murders that started in August 1974, when friends of Mal-

colm and LaVern Graham of San Diego reported the couple had disappeared while their 38-foot ketch was anchored off Palmyra, located about 1,250 miles south-southwest of Oahu.

After friends of the Grahams lost all radio contact with the pair, officials of the FBI and the Coast Guard searched the atoll, looking for some trace of the couple, but found none.

But recently, a Canadian visiting Palmyra came across some human bones. The FBI, hearing of the dis-

# Yacht from Palmyra

covery, dispatched four agents to Palmyra last Wednesday. They returned last night with the remains, contained in a bag like the ones used to hold lawn clippings.

JOHN HOWARD, assistant special agent in charge of the local FBI office, said yesterday that a skull, a jawbone and other bones were found in an open metal container that had washed onto a reef.

The bones appeared to be broken, though Howard did not know if they were broken before or after the person died. They also had burn-marks, he said, raising the possibility that someone had tried to destroy them.

While there was only one skull and one jawbone, Howard said that the several other bones that were included in the discovery made it difficult to tell if the remains were from one body or two.

He also could not tell if the skull was from a man or a woman.

Because the jawbone had dental work that can be traced to dentists' records, Howard said, "We feel we have a very good chance of identifying who they are, or eliminating who they aren't."

The remains, he said, would be sent to the FBI laboratory in Washington, D.C., as soon as possible for identification and forensic work.

A MONTH AFTER the Grahams disappeared, their ketch, the Sea Wind, was sailed into the Ala Wai Harbor by Buck Duane Walker, a convicted drug dealer, and his friend, Stephanie Stearns. The yacht had been painted over, but was nonetheless immediately recognized by harbor regulars and by a Coast Guard official.

Stearns and Walker were charged with theft of the boat. At their trial, they said they had become friends with the Grahams while they were anchored in their own vessel off Palmyra. Because of the friendship, they said, they took the boat when they found it abandoned one day.

But friends of the Grahams disputed that story, saying that in radio communications, the Grahams had described the couple as rag-tag nuisances they wished to be rid of.

Both were convicted. Stearns was sentenced to two years in prison and Walker to 10 years. But Walker escaped from the federal penitentiary at McNeil's Island in Washington state in 1979, and remains on the loose, it was disclosed last week.

ASKED IF THE search for Walker has accelerated since the remains were discovered, Howard said, "it never de-accelerated." He also said that the FBI has had no reason to keep track of the movements of Stearns, who presumably was released from prison after serving her two-year term.

Palmyra is without electricity or running water, and the FBI agents brought with them sleeping bags and other supplies for their stay. They also had scuba gear, metal detectors, cameras and other equipment to help them in their search.

The FBI refuses to acknowledge any link between the Palmyra remains and the missing Grahams, saying that the media, rather than the bureau, is responsible for advancing such speculation.

But Howard, noting the money and time involved in sending four agents to the atoll, said, "We wouldn't have pursued this if we didn't think there was a nexus to a federal crime."

## FBI Agents to View Bones on Palmyra

Two Federal Bureau of Investigation agents have stopped on Christmas Island on their way Palmyra Island to inspect bones buried in a box.

William Ervin, new special agent in charge of the FBI regional office here, said his men will take a private aircraft from Christmas Island to Palmyra and he said it is difficult to say how long their field trip will take.

The bones, discovered by a Canadian on a visit to the uninhabited atoll, may be connected with the disappearance in August 1974 of Mr. and Mrs. Malcolm Graham of San Diego.

The Grahams' yacht Sea Wind showed up in Hawaii two months after they disappeared and Buck Duane Walker later was convicted in federal court of its theft.

It was revealed this week that Walker had escaped from a federal prison near Seattle in 1979.

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Honolulu, November 9, 1980

## Japan's dilemma

That the Japanese government is sending yet another scientific team to the Pacific to try to calm island fears aroused by its proposed nuclear dumping scheme is a sign Tokyo does not fully comprehend its dilemma.

For at its core, the Japanese proposal to dump 10,000 drums filled with supposedly low-level nuclear waste is a "scientific" problem to the Japanese. But it is also a very emotional and political problem for islanders.

With 21 nuclear power reactors already in operation and four more under construction, Japan is going to have a continuing nuclear waste disposal problem. Government officials there would like to increase the dependence on nuclear generated

electricity to cut the country's reliance on imported oil.

But such concerns are of no importance to Pacific island nations. They fear the possible contamination of the ocean, and the precedent the dumping plan would set for other Asian rim nations now building their own plants.

So it seems unlikely the latest Japanese scientific expedition will have any positive effect. Indeed, it is difficult to see how any effort short of canceling the plan will appease island leaders. Even the ostensibly non-political South Pacific Conference recently went on record as being opposed to the dumping scheme.

Scientists with charts and figures aren't going to assuage island fears.

# Pacific Governors Oppose Dumping Atom Wastes

By ROBERT TRUMBULL

Special to The New York Times

HONOLULU, Oct. 4 — The Governors of Hawaii, Guam, American Samoa and the Northern Mariana Islands have issued a joint statement opposing plans by the United States and Japan to dump nuclear wastes in the Pacific Ocean.

The four Governors, meeting here for a progress report on economic projects of the Pacific Basin Development Council, said at a news conference yesterday that the organization "totally opposes the

dumping of radioactive nuclear waste in any part of the Pacific Ocean."

The Pacific Basin Development Council was founded last February at a meeting of the four Governors and several hundred Federal officials, economists, scholars and businessmen at Kuliima, a resort outside Honolulu. The organization, backed by the Federal Government, is trying to promote the economies of American islands in the Pacific.

Gov. George R. Ariyoshi of Hawaii is the president of the council. The other

officers are Gov. Peter Coleman of American Samoa, Gov. Paul Calvo of Guam and Gov. Carlos Comacho of the Mariana Islands. The three territories elect their own governments, as Hawaii does, but they do not have voting representatives in Congress and are subject to oversight by the Interior Department.

## Low-Level Nuclear Wastes

The nuclear issue has been brought to a head by plans announced in Japan earlier this year to deposit low-level nuclear

waste, such as contaminated clothing, in the Pacific north of the Marianas. Japanese officials have said that the radiated items would be placed in thousands of steel containers coated with cement and deposited in deep water some time in 1981.

Japanese fishermen have threatened to use their boats to prevent vessels from dumping nuclear material in the area.

News of the Japanese program has been followed by official protests from many governments in the Pacific area. Some of the most vigorous opposition has been voiced by Fiji and Papua New Guinea, who fear that a leak of radioactive material would endanger fishing,

potentially their most important resource.

The four Governors, who met here Thursday and yesterday, said their protest was also a matter of principle.

Governor Comacho said the Pacific "is our farm, our playground and . . . our future."

They also discussed plans for an economic program including such projects as fisheries, aquatic agriculture, port expansion, ocean energy and a regional development bank. The council has a permanent office in Honolulu with an annual budget of \$300,000 a year.



# Scientist Would Enrich Sea With N-Waste

Hawaii Institute of Geophysics director Dr. George P. Woodland theorized yesterday that nuclear waste could be used to develop rich new deep-sea fishing grounds in Hawaiian waters.

The geophysicist, and oceanographer believes that heat from such waste could be employed to bring nutrient-rich deep waters to the surface. There they face, he noted, the vast

problem that the U.S. is encountering in the disposal of its nuclear waste. He said that the U.S. is encountering the same using artificially heated water to heat the frigid waters so that they would rise.

Woodland would do the dumping would be atop the volcanic peaks which rise from the ocean floor to within some 2,000 feet of the surface. There are many

islands in the Pacific. One way to accomplish the same thing artificially, he said, would be to heat the water in a narrow equatorial belt in a narrow equatorial belt in a narrow equatorial belt.

Woodland said such undersea summits in the vicinity of the islands—especially around the Big Island. When could such a plan be implemented? Said Woodland: "First, some scientists will have to sit down and figure out the precise quantity of heat energy required to upset the thermal equilibrium of a stable column of water at this time."

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# N-Waste Debate Begins Tomorrow

SAN FRANCISCO (AP)—One hundred thousand barrels of nuclear wastes lie off the nation's shores, and scientists and politicians are meeting here to debate whether the debris poses a health threat to fish and the people who eat fish.

On one side is a group that says the barrels are leaking and radioactivity has entered the food chain through contaminated fish.

The other side says that because of the ocean's vastness, the wastes in effect are no "hotter" than a 40-watt lightbulb.

A congressional Subcommittee on Environment, Energy and Natural Resources meets here tomorrow to sort out the two positions.

The biggest dump lies about 150 miles off Delaware. There are some 50 dump sites in all, and one barely 40 miles off the Golden Gate, near the Farallon Islands, has drawn the most attention.

Gov. Edmund G. Brown Jr. has ordered the state Department of Health Services to monitor leaks by testing fish and shellfish. So far, samplings have shown no significant radiation levels.

The dumping, which began in 1946, ended in 1972.

"IT BEGAN as an infrequent, garbage-disposal type of operation," says a 1967 report by the U.S. Atomic Energy Commission, the forerunner of the Nuclear Regulatory Commission. "Drums of low-level, contaminated trash simply were taken out to a convenient location and put overboard."

One of the chief opponents of the dumping is W. Jackson Davis, a biologist and head of psychobiology at the University of California at Santa Cruz.

Davis says federal surveys "furnish compelling evidence that radioactive contamination ... has entered edible fish and now presents a measurable health hazard."

Davis maintains that leaking barrels found by the Environmental Protection Agency off the Farallons several years ago pose an "intense localized source of radiation." Among the substances present are plutonium, cesium and strontium.

The EPA has said, however, there is "no evidence...that there is cause for alarm."

TWO SPECIALISTS in risk assessment, Jerry J. Cohen and Craig F. Smith of the Lawrence Livermore Laboratory, say that "From a radiological standpoint, it would be inconsequential whether the drums leak or not."

The two, replying to one of Davis' studies, say naturally occurring and background radiation makes "the waste trivial in comparison, from either a radioactivity or a hazard viewpoint."

Cohen, a public health specialist, likens it to the heat generated by a 40-watt lightbulb. "It isn't going to heat up the Pacific Ocean very much," he says of the wastes.

"The things that God put there are going to get us before the things that man put there," adds Smith, a nuclear engineer.



# Bonin Islanders take a stand

An obscure, if beautiful, Japanese colonial acquisition in the western Pacific has become an embarrassment to the Tokyo government's controversial plan to deposit "low-level" nuclear waste material, such as contaminated clothing and irradiated water, in the sea north of the Mariana Islands.

The dumping program is being opposed by Pacific island peoples, including some in Hawaii. The protesters have no doubt noted that the scientists, who keep assuring everybody that no harm can possibly come from

themselves to be vulnerable to this type of demonstration. A similar undertaking in Japan proper has already hampered the movements of a Japanese nuclear-powered naval vessel in home waters.

In Japan, the fishing community is a political force; it is the power base, for example, of the new prime minister, Zenko Suzuki.

SO THE GOVERNMENT has postponed the nuclear disposal scheme in response to the Ogasawara protest, but for how long is unknown.

Japan is especially solicitous of the feelings of the few hundred Ogasawara people for historical reasons. For more than a hundred years the original settlers of the islands and their descendants have insisted that they were really Americans, and kept demanding that the isolated archipelago of 27 tiny islands be handed over to the rightful owner, the United States.

And for more than three decades, from the end of World War II until 1968, the islands were under American naval administration. Their prosperity during that period made the residents more pro-American than ever.

Japan's claim to the group dates back to their discovery in 1593 by a seafarer from Kyushu named Ogasawara Sadayori — Ogasawara is the surname, Japanese-style — for whom they are named.

An attempt at colonization failed when it was found that the terrain, mostly steep mountainside, was unsuitable for growing rice. A later visitor claimed the islands for Britain. Another passing navigator, still later, asserted U.S. sovereignty.

Washington ignored the Bonins, as they were called then, but a British consul in Honolulu named Charlton, acting on instructions from London, sent out a colonizing ship commanded by an Italian with British nationality, named Mazzaro. Aboard were two

## on nuclear waste dumping

other Britons, a Dane, about 20 Hawaiians of both sexes and a mariner from Massachusetts named Nathaniel Savory. They landed on Chichi Jima on June 26, 1830, and found the islands deserted.

Mazzaro, story goes, drank himself to death, whereupon Savory took command, hauled down the Union Jack and raised the Stars and Stripes. New settlers drifted in, over the years, from the Philippines, Guam and other Pacific islands.

The American seamen who decided to jump ship at Chichi, reportedly a lively trading post with plenty of booze and willing women in those days, included a black sailor named Washington who left an African stamp on future generations.

JAPAN COOLLY annexed the islands in 1876 and eventually had more than 7,500 farming and fishing colonists installed, but all except the military garrison were evacu-

ated when the Americans began the bombing during World War II.

After the war, with the U.S. Navy in control, only the descendants of the American settlers, numbering fewer than 200, were allowed back.

On a visit in 1968, just before the islands were returned to Japan, the residents were still speaking English with the Down East Yankee accent of the original Nathaniel Savory. The commonest surname on Chichi, next to Savory was Washington.

The Japanese, who by then had become experts in public relations, handled the potential loyalty problem by inviting a representative crowd of the younger people to Tokyo. They came back dazzled by the bright lights of the Ginza, Shibuya and Shinjuku.

The protest against nuclear dumping indicates that the islanders have been integrated into Japanese political life as well.

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'It would mean revolution'

# No Pacific N-dumping,

By Barbara Hastings  
Advertiser Science Writer

Jacques-Yves Cousteau, marine explorer who has, through television, movies and books become the spokesman for the sea and its creatures, flatly stated yesterday that a Pacific island will not be used to store spent nuclear fuel.

"It won't be done. That's the news I have," said Cousteau during a press conference in Waikiki. "This is not going to happen and if it did, it would mean a revolution."

Referring to a recent agreement between the United States and Japan to make a joint study of Pacific islands as a storage site for spent fuel from atomic-power plants, Cousteau said there are always forces trying to start it up again, but the issue is closed. While he couldn't say where his information came from, he was quite firm in his comments.

Jacques-Yves Cousteau is a man of the sea and he is quite firm in all his comments about it.

"Home? I have no home," he said without sadness. For 50 of his 70

years, Jacques Cousteau has made the sea his life, "ever since I cut my umbilical cord to evolve freely as man-fish."

In his evolutionary process, Cousteau has traveled the world's oceans, equipped with the latest in technologies to make man adaptable to the sea, and to bring knowledge of it back to share with the land-world.

He goes armed with cameras and aqualungs so we may learn about the likes of "The Shark: Splendid Savage of the Sea," or "The Whale: Mighty Monarch of the Sea."

Cousteau, surprisingly diminutive for a man of such great stature in the marine world, came to Hawaii to convince the American Bar Association convention that protecting the consequences of improper management of our global resources "will be paid for . . . by future generations."

During his speech and press conference, Cousteau rotated between his lilting rhythmic speech style so familiar from his television programs to categorical clipped statements of a senior statesman as he

made pronouncements on the future of humankind's lifebelt — the sea.

"The oceans have roots, the rivers, deep in the house of the continents," Cousteau said in his heavily French-accented English, "in the bosom of the sea multitudes of creatures were conceived."

Yet, said the captain of the famous "Calypso" exploration ship, the world is developing at such a clip that perhaps as early as 20 years hence, up to a million species of fish will be eradicated, "500,000 to one million species that our children will never see."

We have the answers, he said. "Marine sciences are far ahead of the use we are making of them." His television specials have brought awareness to the people, he said, "but it has not reached the decision-makers. Decision-makers do not look at TV."

Some new decisions need to be made if the planet and its water source is to survive. He is distressed that economy and ecology are often

See Cousteau on Page A-4

& A-4 Wednesday, August 6, 1980 HONOLULU ADVERTISER

## Cousteau predicts



Cousteau addresses the American Bar Association: Improper management of our global resources "will be paid for . . . by future generations."

Advertiser photo by Ron Jett

# Cousteau prediction

from page one

seen as at odds.

He calls it ironic. "Economy and ecology are from the same root — the home," Cousteau said. "The housewife practices economy when she buys fish, ecology when she cleans house." Dinner in a dirty house wouldn't be proper, Cousteau said. Ecology and economy, he added, "are two different aspects of the same care for our life."

The health of the sea can be monitored by satellite, Cousteau said. The know-how exists. We know, too, how to exploit the ocean's resources, its minerals, its energy supplies, without depleting them. What it will take is proper decisions. He called for a world ocean authority to care for the planet's water system.

Through the Jacques Cousteau Society, a series of articles and commandments, a "declaration of rights for future generations," has evolved, which Cousteau would like to see the United Nations adopt. They are simple statements, he said, that would lead to what he calls a "reasonable utopia."

These future generations have a right to an uncontaminated and undamaged earth, he said, and each generation has a duty to act as trustee of the earth for future generations.

But, instead of a reasonable utopia, right now most nations operate on what he called "logical absurdities." These, he explained, are things that seem logical in the short term, but are absurd in the long term.

The marine adventurer talked, too, about the manganese nodules that rest on the oceans' bottom. He said mining companies and developed nations blame the United Nations Law of the Sea Conference's failure to reach a treaty for the lack of deep-sea mining.

He said the conference and the developing nations are a scapegoat being used by the developed world. Nodules are not being dragged up, he said, because it is not yet profitable.

Mining the nodules is environmentally sound, Cousteau said. "It's just scratching the bottom."

"If they're pretreated aboard ship and the waste dumped, that's bad," he added, but if the nodules are brought to land for processing, there's no problem.

"The real reason why they are not exploited is they are not needed. There is an ample supply of minerals on land," he said.

If ocean minerals are mined, it could mean starvation for those nations like Zambia whose revenues rely on land-based mineral development.

# Unionist Battles Pacific

By Nadine W. Scott  
Star-Bulletin Writer

An Australian labor leader says he is "winning considerable support" for his proposal to create a Pacific regional trade union forum to prevent the transport, storage or testing of nuclear material in the Pacific Ocean.

But John Halfpenny, regional secretary of the 50,000-member Amalgamated Metal Workers and Shipwrights Union in the Victoria area admits he has a way to go and that his idea may be "idealistic."

Halfpenny, on vacation in the Islands, said trade unions in Australia and Japan agreed to back his proposal during the May Nuclear Free Pacific Conference here and that he has since put the idea to trade unions in Hawaii, Fiji and New Zealand.

He plans a November organizational meeting in Fiji and to have

the first forum next year, to firm up areas of concern to the working man or woman of Pacific Rim countries.

And he thinks trade unions can not only quash proposals to store nuclear waste on a Pacific island or to dump radioactive garbage in the ocean, but that unions have the responsibility of protecting their workers from exposure to new and "more sinister" working conditions than they encountered in the sweat shops of the old days.

"Sweat shops were easy to identify," he said in an interview, "where people were working under obviously degrading and exploitive conditions. But the sweat shops of yesterday are the cancer shops of today."

HALFPENNY said anybody can produce almost anything and put it in the marketplace without adequate testing.

The Trade Union Forum could supply an information bank to keep

## Nuclear Dumping

Pacific area workers up-to-date on health-related issues, he said. "We could compile a model set of regulations," conduct independent research "to determine how to safely work with and use these new products which can be quite harmful."

Halfpenny said Australian workers recently forced the government to regulate levels of noise in industry and "We just came out of a very long struggle which involved a widespread series of strikes by workers who forced the government to change the laws on workmen's compensation. These things can be done."

The complexity of modern industry requires a "much more sophisti-

cated approach" on the part of trade unions.

He pointed to the ban on asbestos and said workers were once aware of "how uncomfortable" it was to work with, and there was a time when they demanded more compensation. But today, workers refuse to work with the stuff because "they know it's not much good to get another dollar an hour" and ruin their health.

Halfpenny says this change in values is reflected among workers all over the world. Negligence by the manufacturer or by the government creates a "vacuum of concern that has to be filled by somebody, and I think it can be filled by trade unions."



## asia & the pacific

C&I  
31 JULY 80  
ADVERTISER

### Floods maroon 10,000 Indians

NEW DELHI — India officials rushed boat fleets yesterday to rescue some 10,000 people marooned by floods when Himalayan rainwater gushed down the river Ganges, inundating 50 villages.

Flood-triggered landslides and house collapses have claimed 175 lives in Uttar Pradesh, raising the national toll in the current monsoon floods to more than 400, officials said.

### India, Mizo rebels in truce

NEW DELHI — Insurgent Mizo tribesmen have agreed to a truce with the Indian government, thus signaling an end to 14 years of fighting for independence, officials said yesterday.

Federal Home Minister Zail Singh announced in Parliament that Mizo insurgents leader Laldenga "has acknowledged that Mizoram is an integral part of India and that settlement should be within the framework of the Indian constitution."

### Mission for Japan N-experts

TOKYO — Japan will send nuclear experts to Pacific nations and Guam in August in a bid to seek their approval for disposing low-level radioactive waste in the area, officials said yesterday.

"Japan has to find a site to dispose the waste somewhere" and the government has picked the Pacific seabed about 558 miles north of the Mariana Islands at a point 3.72 miles deep, a spokesman for the science and technology agency said.

The agency's scientists believe deep-sea disposal is unharmed and also that it is the only solution to Japan's stockpiling of nuclear wastes, the spokesman said.

## Guam's Delegate Against N-Dumping

WASHINGTON (UPI) — Rep. Antonio Borja Won Pat, D-Guam, yesterday asked the United States to oppose a Japanese proposal to dump radioactive wastes in the Pacific.

In a letter to Secretary of State Edmund Muskie, Won Pat said, "We cannot sit idly by and tolerate" the dumping of nuclear wastes in the Pacific.

"I am concerned by the official U.S. attitude which apparently endorses dumping of waste materials in the ocean," he added.

Citing the presence of U.S. officials at a recent meeting in Tokyo to discuss the storage of spent nuclear fuel, he charged that "the Japanese proposal to dump low-level waste was not even discussed."

Won Pat urged the administration to inform Japanese leaders that the dumping proposal is in no one's best interests.

"It is obvious that the U.S. is the world leader in the nuclear age and I am convinced that our country should also take the lead in calling for safe disposal of radioactive wastes," Won Pat said.

"We who live in the Pacific look to the federal government to protect this area from pollution as strongly as we seek to protect the Alaska wilderness or any other remaining resources for our country," he said.

The Pacific is as important to the United States as it is to Guam or the Japanese, he added. "It is highly important and in our best interests to keep it as unpolluted as we can."

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A-18

Tuesday, July 29, 1980

## Storage of Spent Nuclear Fuel

Storage of spent nuclear fuel in the Pacific is a hot issue in more ways than one. Announcement of an agreement by the United States and Japan to conduct a joint study of the feasibility of such storage can be expected to set off a chorus of boos.

As explained by representatives of the federal departments of Energy and State, agreement to do the study does not mean that spent fuel will in fact be stored on a Pacific island. Indeed, the study is not even supposed to settle on a specific site for storage. That would only come later, if it was decided that Pacific storage was in general a good idea.

The study will examine a wide spectrum of problems — environmental, legal, political, economic. Any decision to go ahead with storage would be made years from now and would have to be approved by Congress under legislation that Sen. Spark Matsunaga initiated.

A hue and cry was raised when it was reported that Palmyra Island south of Hawaii was under consideration as a storage site. But the federal officials say Palmyra was given a preliminary inspection only as an example of the sort of place that might be considered, and that the government was far from making a decision on a site.

Nuclear spent fuel can be stored, or it can be reprocessed for re-use. But the reprocessing produces material that can be used to make nuclear weapons. In order to stop the proliferation of nuclear weapons, the United States is trying to promote storage.

This is a world-wide problem, but the proposal to store fuel in the Pacific is aimed at handling spent fuel from the Far East — mainly Japan, but also South Korea, Taiwan, the Philippines and others.

The assumption is that although the storage of spent fuel presents some degree of danger, the proliferation of nuclear weapons would be far worse. That is almost certainly correct.

The stored fuel is so "hot" close up it is not easily susceptible to hijacking, nor is it explosive.

The question that this study will address is not whether spent fuel should be stored, but where. That seems to us to be a question that deserves serious study, because the problem of nuclear proliferation is serious.

## Palmyra Lessees Foresee Tourism

Partners in a copra plantation on Palmyra have filed papers with a state agency to incorporate their enterprise, and they foresee tourist activity on the tiny, northern tip of the Line Islands.

Robert W. Nielson and John Bryden, who formed Palmyra Plantation last year, have incorporated their business as Palmyra Partners Inc., Nielson said yesterday.

Nielson said he envisions commercial and sport fishing and limited tourism on the atoll and included those activities as purposes of the corporation in papers filed with the state Department of Regulatory Agencies.

Eight natives of Christmas Island are preparing facilities for copra production on the formerly uninhabited atoll, Nielson said. The atoll has been infested with rats, he said, and production won't begin until they are exterminated.

Palmyra Atoll lies about 1,200 miles south of Hawaii. It is just north of the newly formed nation of Kiribati, which includes the Gilbert Islands, the Phoenix Islands and all of the Line Islands except Palmyra.

Palmyra remains a U.S. possession and has been considered as a possible site for storage of nuclear wastes. The island is owned by Leslie Fullard-Leo of Honolulu and two brothers, who have leased its copra and fishing rights to the Neilson-Bryden partnership.

Thursday, June 20, 1980 Honolulu Star-Bulletin

Thursday, December 13, 1979

## N-Waste Burial at Sea Studied

LA JOLLA, Calif. (AP) — It will be at least 10 years more before a safe way can be found to bury high-level nuclear wastes in the ocean, two scientists say.

In the last six years, the United States has spent \$10 million in the Seabed Disposal Program of the Department of Energy. Another \$5.9 million has been budgeted for the program for fiscal 1980.

Land disposal studies are even more expensive with \$100 million appropriated in fiscal 1980 for salt formation studies, \$44 million on basalt and \$20 million for granite.

A SPOT IN THE (central north Pacific) 800 miles north of Hawaii, is being studied by scientists of the Scripps Institution of Oceanography as a possible location for the millions of gallons of high-level nuclear wastes in federal storage sites around the nation.

A three-man team of Scripps scientists has been at the site studying the probable effect on man's ocean food chain.

"We need to know two related things — the effects on man and the effects on the ecosystem," said A. Aristides Yayanos in an interview.

"We need to know all the ways the radioactive wastes might get into the air, water and food chain ... We're just beginning to look at life below 500 or 1,000 meters."

IN ANOTHER INTERVIEW, Scripps biologist Robert R. Hessler, who has been involved in the study since it began in depth in 1973, offered this possible scenario:

In the most geologically stable part of the deep seabed, a logical site is the center of both the huge tectonic plates that form the earth's crust and the great circular currents, or gyres, of the oceans.

In the sunless, near-freezing depths of the mid-plate, midgyre regions, a deep clay sediment covers much of the seafloor.

The high-level wastes might be solidified into a ceramic or glass form and encased in cylinders of ceramic or metal. Then the hot, intensely radioactive cylinders would be implanted deep into the seafloor sediments.

THE CONTAINERS WOULD deteriorate over hundreds of years. But for at least one million years, says Hessler, sediments would prevent the radioactive material from reaching the ocean water and the food chain used by humans.

The technical and environmental studies are being supervised by Sandia Laboratories at Albuquerque, N.M., and several institutions and contractors are studying physical and chemical properties of sediments, biologies and currents of the ocean along with how to design the best container, carry the nuclear waste and bury it.

If the reports look good by 1983, Hessler said engineering feasibility studies would begin then with a demonstration project starting by 1990.

# Nuclear Dump Plans Draw Fresh Protests

UNITED NATIONS (AP) — New protests against plans to dump nuclear waste in the Pacific Ocean were received yesterday by the U.N. Trusteeship Council in the final week of its meetings on the U.S.-administered Trust Territory of the Pacific Islands.

A resolution submitted to the council by the legislature of Yap, one of the Federated States of Micronesia, specifically protested "plans of the government of Japan to dump radioactive wastes in the northwest Pacific Ocean."

It said this plan "demonstrates a callous disregard for the health, safety and welfare of the people and ecology of the northwest Pacific."

A second protest objected to operation of an American-owned research ship studying dumping sites. In a telegram to the council Gov. Carlos S. Camacho of the Northern Mariana Islands identified the ship as the Panama-registered Vema, operated by Columbia University and the U.S. Departments of Energy, State and Interior.

HE DEMANDED information on the Vema's mission and stated:

"The unannounced survey by a 202-foot vessel is an insult to our people and the government which have strongly opposed ICBM nuclear activity in the Pacific."

The Trusteeship Council, which began its session on May 19, resumed meetings after a week's recess to prepare its final report. The five-nation council is scheduled to meet again tomorrow to adopt the report and conclude its 1980 session.

In an earlier speech to the council Camacho had expressed concern that nuclear waste in the Pacific would contaminate fish which form a crucial part of the diet of Pacific islanders.

He demanded that nations which benefit from nuclear activity should use their own territory and waters for waste disposal and assume themselves whatever danger may result from such disposal.

HE ADDED:

"I consider it gravely and morally irresponsible for any nation to fob

such dangers off on distant people who have no recourse to prevent it."

The council officially took note of the new protests and also of a letter from Japanese Ambassador Masahiro Nisibori declaring that any sea dumping of radioactive waste will be handled according to strict international standards.

Nisibori wrote, "The government of Japan will strictly adhere to the standards set by the International Atomic Energy Agency ... Further such sea dumping will be conducted under the supervision of the multilateral consultation and surveillance mechanism established by the Nuclear Energy Agency of the Organization for Economic Cooperation and Development. Only under these strict regulations will the government of Japan conduct sea dumping of low-level radioactive wastes."

A draft of the council's final report mentioned the nuclear issue briefly, noting the concerns expressed by Micronesians but making no recommendations on the matter.

Micronesia, made up of 2,100 islands scattered over three million square miles of the Pacific Ocean, is the last of the 11 original U.N. trust territories supervised by the Trusteeship Council. The others have either achieved independence or attached themselves to neighboring states.

Star-Bulletin

Section

D

Honolulu

Wednesday, June 11, 1980



For High-Level Nuclear Waste

# U.S. Eyes Pacific Seabed Dump

By Frank Quimby  
Gannett News Service

AGANA, Guam — The U.S. government is studying the feasibility of using 3,600 square miles of seabed in the Pacific Ocean for permanent storage of the world's output of high-level nuclear waste, scientists working on the project said.

The 5-year-old study, funded by the Department of Energy, was sparked by the problems encountered in locating safe storage sites for highly radioactive waste in the continental United States.

The scientists, members of an oceanographic survey team on the research vessel Vema, returned here following a month-long study of a prime site for the nuclear graveyard about 1,000 miles northeast of Guam.

Sandia Laboratories, a government research firm based in Albuquerque, N.M., is conducting the study for the Department of Energy.

"THE MAJOR THRUST of seabed sub-seabed nuclear waste disposal project is to locate the safest possible place to store nuclear waste," said John E. Damuth, chief scientist for the Vema's recently completed survey.

A professor at Columbia University's Lamont Geological Observatory, he said the study is based on the premise that the safest way to store the nuclear waste is in corrosion-resistant canisters embedded in seabed sediment.

"And it's pretty certain that a 60-mile-by-60-mile area of seabed could handle all of the high-level nuclear waste material that has been or will be produced by the world," Damuth said.

On its recent survey, the Vema made a triangular sweep of a seabed area known as the Shatsky Rise, tak-

ing core samples of sediment, mapping several possible sites and collecting information on magnetic fields and gravity in the area.

"MOST OF THE studies of nuclear waste storage sites have concentrated on land areas, but we believed that certain areas of the seafloor are geologically more stable than land areas," Damuth said.

The seabed sites selected for the study are areas of low seismic (earthquake) activity away from continental margins and are outside the 200-mile limits of Pacific nations and U.S. territories, according to Damuth.

The seabeds must also have thick layers of sediment, and areas east of Japan have some of the thickest sediments in the Pacific, he said. "The project also studied an area north of Hawaii, but it was decided that the sediments there were not deep enough," he added.

# U.S., Japan reported set for talks on N-waste

TOKYO (UPI) — Japan and the United States are expected to hold talks next month on an American plan to store radioactive waste on a Pacific island, a Japanese newspaper reported today.

The newspaper, Yomiuri Shimbun, said the two nations have begun making arrangements for the negotiations.

The United States has proposed the plan in a bid to place waste containing plutonium under its control to prevent nuclear proliferation.

Wake, Midway and Palmyra, south of the Hawaiian Islands, have been mentioned as possible storage sites, touching off opposition in a number of Pacific locations. Any agreement reached for waste

storage in the Pacific which involves the United States would require congressional approval under legislation introduced by Hawaii Sen. Spark Matsunaga and signed by President Carter last month.

Government sources said the United States wants to use the storage for waste from nuclear power plants not only in Japan but also

other Pacific nations, including South Korea, Taiwan and the Philippines, all of which have increased their dependence on nuclear power generation.

Japanese power companies now ask Britain and France to reprocess radioactive waste from atomic power facilities in operation until the country builds its own facility.

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A-14

Wednesday, May 28, 1980

## Drawing Attention to the Pacific Basin

A resolution urging the federal government to pay more attention to the Pacific Basin was approved by Hawaii Republicans at their recent convention. It will be presented to the platform committee at the national GOP convention.

The resolution emphasizes that with improved technology for deep seabed mining, and with growing shortages of natural resources, "there will be increased necessity to focus attention on the orderly use of the resources of the Pacific Ocean and ocean floor during the next decade."

Consequently the United States needs to understand better the geopolitical changes in the Pacific region. Americans residing in Hawaii and the territories of Guam, American Samoa and the Northern Marianas can help in this process, the resolution says. It urges that residents of these areas be assigned to responsible positions in the formulation and implementation of U.S. policies for the region.

The proposed Pacific Basin Development Council, which would coordinate development in the U.S. Pacific territories and Hawaii, gets a plug. A bill creating the council as a federally supported regional commission has been introduced in Congress by Sen. Daniel Inouye.

Also recommended are elimination of bureaucratic restraints hindering development of U.S. possessions in the Pacific, greater attention to their shipping, air carrier and telecommunications needs, and revision of U.S. fishing policy regarding migratory species such as tuna. Fishing policy is a sore point in U.S. relations with the new Pacific nations because Washington insists that migratory species are exempt from restrictions of national marine economic zones.

In separate resolutions, the Hawaii Republicans opposed storage of spent nuclear fuel on Palmyra or other Pacific islands, and asked France to stop nuclear weapons testing at Mururoa Atoll.

As the largest and most important U.S. possession in the Pacific and the only state, Hawaii must take the lead in bringing the concerns of the region to the attention of national leaders. Such resolutions help perform that function.

# Pacific delegates air gripes against nuclear arms use

By MIKE KELLER  
Advertiser Staff Writer

One speaker dumped on "the collusion of megawatts, megatons and megabucks."

Another likened the U.S. military — and its defense plans based on the use of tactical nuclear weapons — to an octopus spreading to all reaches of the Pacific.

Others advocated a halt to even peaceful uses of nuclear energy. They fear accidents, but they also fear that continued peaceful uses "are inexorably intertwined and will further legitimize" continued military uses.

And continued military uses, several speakers pointed out, could ultimately destroy the world.

In short, about 50 delegates to the Nuclear Free Pacific Conference/1980 — and about the same number of observers — yesterday spent the day being briefed on efforts and arguments for halting nuclear proliferation.

Some of the news was encouraging to the cause. Roman Bedor, of Palau, told how his people last year adopted a constitution that bans nuclear storage in those Micronesian islands.

Elaine Shaw, of New Zealand, told of a "peace squadron" blocking harbors so American nuclear submarines cannot dock there "and we have enough support to show our government that we don't want those ships visiting our country."

Other news illustrated the enormity of the obstacles to reducing a military presence — and therefore a nuclear presence — in the Pacific.

Mark Czaja of Washington told of continuing efforts to prevent Bangor from being turned into the home port for the Navy's newest nuclear submarine class, the Trident.

Czaja said the Trident can carry 408 nuclear warheads which are five times more powerful than the bomb that devastated Hiroshima at the end of World War II. He said 10 Tridents are scheduled for use in the Pacific.

And so it went — from 9 a.m. to 9 p.m. at Camp Kailani in Lanikai.

Yesterday's session was the beginning of a week-long conference among anti-nuclear activists from 14 Pacific countries and territories.

They represent church, labor and community organizations who are determined "to strengthen their grassroots movements and make a strong network of Pacific people determined to free the region of the dangers of radioactivity."

Most of the conference is for delegates only.

But at 7 p.m. Wednesday a panel discussion on nuclear energy issues will be held at Harris United Methodist Church. The public is welcome.

And at 1 p.m. Saturday, a march through Waikiki for a nuclear-free Pacific is scheduled. It begins on the diamondhead side of Ala Moana Park and ends at the Kapiolani Bandstand, where a rally with speakers and music will be held.

A-2 Monday, May 12, 1980 HONOLULU ADVERTISER

# Pacific Isle Nuke Dump Study Due

By David Shapiro  
Gannett News Service

WASHINGTON—The Office of Management and Budget (OMB) is set to approve a \$1.5 million funding request that will allow the U.S. and Japan to study the feasibility of storing radioactive nuclear wastes on Pacific islands.

The last hurdle for the funds was cleared last week when the Interior Department dropped its opposition to the study, which is supported by the State Department as part of U.S. nuclear non-proliferation policies.

Interior had fought the study since October, seeking concessions from State that would give residents of the Pacific islands a greater voice on nuclear storage plans in their region. Interior finally consented after State threatened to take the issue to President Carter for a decision.

The State Department has initiated talks with Japan for joint storage of nuclear wastes under the Nuclear Non-Proliferation Act of 1968, which encourages U.S. action to prevent foreign countries from refining wastes from their nuclear power

Turn to Page A-4, Col. 1

"A purely regional response to the effort to find an international storage site has little chance of success, since the problem of what to do with nuclear waste is a global one," Andrus said.

RESPONDING TO Andrus on Jan. 24, Vance agreed that "no single re-

# nd Study e Dump

gion of the world should be asked to take the sole burden of a responsibility that is global in nature."

"We are pursuing our spent fuel management efforts in a global context," Vance said, citing U.S. involvement in a 22-nation study of other parts of the world. "What we are doing in the Pacific basin is part of the global effort."

Vance said the study will include a thorough review of all health, safety, environmental, social and cultural factors relating to nuclear storage. He said Japan has been asked to suggest its own islands to be studied along with Wake, Palmyra and Midway, but offered no commitment that Japanese islands actually will become part of the study.

Still dissatisfied, Andrus wrote back in February that the tragedies on Bikini and Enewetak have left "a strong negative psychology in the area" on nuclear issues.

"This strong aversion, real and psychological, of the Pacific people cannot be ignored," Andrus said. "(They must be) convinced of not being the only ones making a sacrifice to resolve what is truly a global problem, a problem ... that they do not help to create."

IT WAS AFTER that exchange that State threatened to go to President Carter for a decision that would allow OMB to release the \$1.5 million, which had been held up since October in the dispute between Interior and State. Another \$1.5 million will be paid by Japan.

Gordon Law, Andrus's science adviser, admitted that Andrus finally consented to the study without getting all the concessions he wanted, particularly an agreement that Japanese islands be included.

25 MARCH 1980 S-B

1/15/82 A-9 HSB

# Sub Reactors to Be Dumped off Mendocino?

By George Estrada  
Gannett News Service

OAKLAND — The U.S. Navy is planning for the ocean dumping of as many as 100 decommissioned reactors from outmoded nuclear submarines during the next 20 years, and the leading choice for the disposal site is the Pacific floor off the Cape Mendocino coast, a leading marine environmentalist said yesterday.

The plan is "frightening" because of the high levels of radiation that will be involved, according to Michael Herz, executive vice president of the Oceanic Society, a 75,000-member, nonprofit organization devoted to protection of marine environments.

He said that researchers from Oregon State University have been conducting dump-site feasibility studies in the waters north of the town of Mendocino for the past several years under contract with the Office of Naval Research.

"It'll be easy in Mendocino to find your way home at night because it'll be glowing in the dark," Herz quipped. "Seriously speaking, though, it's quite a frightening thought."

Earlier reports this week, gleaned from congressional sources, said the Navy is preparing a notice of intent to be published in the Federal Register this month, announcing a plan to dispose of these materials off Cape Mendocino.

A SPOKESMAN FOR THE Defense Department said the Navy has not formally adopted such a plan.

"They were just considering the idea," spokesman Capt. Jerry Sexton said. "No plans have been made at all."

The assertion by Herz that the Navy wants to dispose of 100 reactors the next two decades is "kind of farfetched," Sexton added, but he would not elaborate.

The EPA is drafting new regulations that would lift an 11-year moratorium on the dumping of low-level atomic wastes off the Atlantic and Pacific coasts.

Experts are "preparing criteria" for the sea disposal of atomic wastes and the methods to be used, according to Joann Semones, an EPA spokeswoman in the agency's San Francisco office.

The United States dumped about 23,000 containers of "low-level" radioactive waste off American coasts between 1946 and 1970. More than half were dumped 28 miles off the Golden Gate at the Farallon Islands.

SUBSEQUENT STUDIES revealed that many of the steel drums had broken open. In addition, an obscure 1966 document issued by the now-defunct Atomic Energy Commission revealed that the government's estimate of how much "low-level" radiation was being emitted by the wastes "could be off by as much as a factor of 10" or 10 times higher than previously estimated.

There was also a controversy over the possibility that the leaking radiation from the opened drums might have entered the human food chain.

Tests conducted by the Sanitation and Radiation Laboratory in Berkeley showed relatively high beta radiation in samples of eight species of edible fish reportedly caught near the Farallones and the Marin County coast in the mid-1970s.

Government officials and nuclear dumping critics agree, however, that there is no conclusive evidence of a health hazard.

# Nuclear Waste Disposal Requires Vision of Future

By G.G. LaBelle

MARTIN'S COMMENT points up another problem. Some argue against rules that are too specific, fearing they would mean no repository could ever be licensed because there would be no way to show the criteria were being met.

Hendrie said at the meeting last week that he had heard such complaints from "some of the package people who are afraid they will not be able to prove their container will be able to contain all the radionuclides for 1,000 years."

The NRC chairman said he feared "formulating a rule with the best of intentions that then becomes an impossible barrier... a maze from which there is no escape."

Commissioner Bradford said, however, that a lack of tough standards was "almost an invitation to sloppiness," but Ahearn said simply: "Rigorous proof will never be achieved."

Bradford said he was afraid the NRC would construct "a four-lane highway" to a license. "You could drive this far enough so that any hole in the ground is better than no hole in the ground," he said.

Hendrie did not argue for "any hole in the ground," but he did say:

"Putting the stuff in the ground is better than leaving it lying around for a thousand years. I am absolutely convinced that the durable course for mankind is to start tucking this stuff away."

NRC CHAIRMAN Hendrie noted that you could bury the wastes in granite only to have granite become a valuable mineral 1,000 years hence. That might have prospectors of the future inadvertently setting free today's dangerous wastes into tomorrow's unsuspecting societies.

Or cities not even imagined could arise above dump sites chosen for their very remoteness.

"Muttering about population density in 1985 doesn't make any sense when you're talking about where cities will be located in two millennia," Hendrie said.

He concluded: "You're just going to have to live with human intrusion," arguing that standards must be set now for burying the wastes of nuclear plants already running out of storage space and producing more spent fuel each year.

The Union of Concerned Scientists has estimated that using water to reduce to safe levels the commercial atomic wastes produced just through 1979 would require 5,000 years of the annual flow of the Mississippi and Missouri rivers.

The toxic life of the various wastes are from hundreds of years up to what seems almost infinite. It has been estimated, for example, that plutonium 239 will remain toxic to some degree for 245,000 years.

With figures like that, no wonder Hendrie was asking whether there will be "societal memory" and "continuity of human institutions" to even keep track of where the wastes are buried. He suggested "vigorous archiving and monumenting and marking" as the best way.

WASHINGTON (AP) — The Nuclear Regulatory Commission is wrestling with questions that would test the imagination of science fiction writers in an effort to overcome a very real problem: disposal of deadly atomic waste.

In 1,000 years, will today's "remote" dump site still be remote?

Will future prospectors hunger for the now-worthless minerals that contain them, exposing the long-hidden nuclear wastes?

Will society even remember where the atomic junk is stockpiled?

In 50,000 or 100,000 years, could a shift of the Earth, or a trend in the climate fostering erosion, help the wastes escape? How will an unsuspecting and perhaps radically different society cope?

Enter Joseph Hendrie, John Ahearn, Victor Gilinsky and Peter Bradford. The four NRC commissioners — who usually talk in terms of slicing weeks from licensing hearings for nuclear plants — suddenly are speaking of eons and pondering just how long society as we know it will exist.

"We are sitting in a very thin slice of time," Ahearn says uneasily. "We are trying to predict what will happen in tens of thousands of years."

The NRC is trying to set rules to license repositories for the extremely long-lived wastes of a nuclear industry not yet a quarter century old. Their musings last week — at one of a continuing series of meetings on the subject — pointed up anew the notorious dangers of prediction.

OBVIOUSLY, DECIDING the locations of the repositories will be a delicate political problem. Just setting technical design standards is complicated enough.

John B. Martin, head of the NRC's division of waste management, is helping write rules that would have geologists looking 2 million years into the past to insure the stability of sites.

Martin envisions the repositories as being about three square miles each, located 990 feet below the Earth's surface. The first repository might be started in the mid-1980s and sealed 25 years later.

Each repository will have an engineered part — the containers, or perhaps containers within containers within containers, that will hold the wastes themselves. Then there will be the geologic setting — the hole in the ground that will be sealed to prevent leakage.

The standards the NRC is discussing now would have the engineered section containing the waste completely for 1,000 years. The repository would have to be located so that ground water could not carry the wastes to the outside for 1,000 years. Martin says that "after 1,000 years most of the hazard would disappear."

"Theoretically it never disappears completely. It just gets smaller and smaller," he said.

# Japanese Plan Pacific N-Dump

By Cisco Uludong  
Gannett News Service

SAIPAN — The Japanese government plans early next year to dump between 5,000 and 10,000 drums of low-level radioactive waste in the ocean about 800 miles north of Saipan, an uninhabited island at the northern tip of the Mariana archipelago.

The Commonwealth of Northern Mariana

Islands, which includes Saipan, Tinian and Rota, is America's newest territory.

Gov. Carlos Camacho, who was informed by the U.S. Embassy in Tokyo of the Japanese plans, has lodged a strong protest and has asked U.S. Ambassador Mike Mansfield to convey his strong opposition to "any use of the Pacific as a nuclear dumping site" to appropriate Japanese officials.

The dumping operations by Japan's Rad-Waste Management Center will be carried out in March 1981, "if all goes well — after securing the understanding of the Japanese industry and after obtaining approval of the Organization for Economic Cooperation and Development," according to Justin L. Bloom, counselor for scientific and technological affairs at the embassy.

OECD, of which Japan is a member, will supervise the operations which will take place at latitude 30 degrees north, longitude 147 degrees east.

The waste, a form of evaporator concentrate from Tokyo Electric Power Co.'s Fukushima complex, will be mixed with Portland Cement and sealed in concrete-lined steel drums before dumping.

Japan has no high-level or low-level "away from reactor" storage. Because of the country's high population density and unique sensitivity to radiation-related issues, the government has no plans to allow ground burial.

Currently, utilities, research institutes and other entities have accumulated about 190,000 tons of various low-level wastes.

The project, if it goes through, will be the first of the "away from reactor" disposals undertaken by Japan.

THE U.S. government has said it opposes any nuclear waste dumping in the Pacific but has said nothing about the Japanese plans.



William Bodde

## Pacific N-Dump Foes Reassured

By Stu Glauberman  
Star-Bulletin Writer

The State Department's director for Pacific Island affairs yesterday vowed that Washington will take Pacific Islanders' opposition views into account when it studies the feasibility of putting a nuclear-waste storage dump on Palmyra Island.

William Bodde Jr., director of the Office of Pacific Island Affairs, told a luncheon meeting of the Pacific and Asian Affairs Council, that his office will insist that the agreement being worked out with Japanese officials include an assessment of the social and political consequences of storing weapons-grade plutonium on Palmyra.

In response to a question from the audience, Bodde said part of his job is "to ensure that the opposition of Pacific Islanders — including Hawaii and the Hawaiian Legislature — will be heard in Washington.

"Pacific Islanders' reaction, including Hawaii, Guam and American Samoa, has to be plugged into the study at every level," Bodde told the crowd at the Kahala Hilton Hotel event.

An agreement between Washington and Tokyo is reportedly near on what Bodde stressed will be only a feasibility study of the proposed Palmyra site, 1,000 miles south of Honolulu.

Bodde said the purpose of the \$3 million joint study is to determine if the mid-Pacific site is economically and environmentally feasible for storage of radioactive waste from Japan, and perhaps at a future date, from Taiwan and South Korea.

EARLY WORD THAT THE State Department was seeking a Pacific Island dump in cooperation with Japan brought opposition last year from officials in Hawaii, Guam, and other Pacific territories and nations. The U.S. Department of the Interior recently dropped its opposition to the joint-study agreement.

"Before this study is final, these parties will have input into it," said Bodde, a career foreign service officer who became director of the new Pacific affairs office in July 1978.

"The function of my office has been to see that voices of the Islanders are heard," Bodde said. As an aside, he added, "Hawaii's political clout in Washington is considerable and no one can ignore it."

Answering another question, Bodde took issue with remarks Mayor Frank Fasi reportedly made at a Taiwan university Monday. He said he rejected Fasi's analogy that Hawaii, like Taiwan, might someday be considered "expendable" by Washington because it is far away and differs ethnically from the U.S. Mainland.

"There is nothing analogous between Taiwan and Hawaii," Bodde said. "Here we are all Americans, all American citizens and part of the same social institutions."

Bodde also defended normalization of American diplomatic relations with Peking, saying the process has brought more stability and peace to the world and more economic growth to Taiwan.

Wednesday, December 26, 1979

## Heftel Survey Reveals Opposition to N-Storage

Rep. Cecil Heftel today released the results of his recent nuclear issues questionnaire showing that 79 percent of the 18,000 respondents in the Islands are opposed to the storage of spent nuclear fuel on U.S. territory in the Pacific.

Several locations, including Honolulu and Palmyra Island, have been proposed as storage sites. Palmyra is one of a group of small, low, semi-barren islands known as the Line Islands about 825 miles south of Hawaii.

Heftel made his announcement a day before public congressional hearings into the federal administration proposal are scheduled to begin in Honolulu.

The hearings, to be chaired by Heftel and Rep. Phillip Burton, D-Calif., will begin at 4 p.m. tomorrow in Courtroom 4 of the Federal Courthouse, located in the Prince Kuhio Federal Building.

GOV. GEORGE R. Ariyoshi, Trust Territory High Commissioner Adrian Winkel, Gov. Carlos Camacho of the Northern Marianas Islands, Gov. Peter Coleman of American Samoa and Gov. Paul Calvo of

Guam and numerous witnesses from Hawaii are scheduled to testify. Members of the public also are invited to testify.

Heftel said the poll results show the depth of the opposition in Hawaii to the proposal. The administration says the purpose of the storage would be to restrict the spread of radioactive material that could be used to construct nuclear weapons.

Heftel said 92 percent of the respondents favored close involvement by Hawaii's elected leadership in decisions involving Pacific nuclear issues.

On another nuclear issue, Heftel said 73 percent of the respondents do not want ships carrying spent nuclear fuel to call on Honolulu Harbor on their way from Japan to Europe for reprocessing of the fuel.

ON THE FINAL question in the poll, Heftel said 89 percent of the respondents favored the implementation of a nuclear emergency evacuation plan for Hawaii to prepare for both localized and widespread emergencies. He said the presumed storage of nuclear weapons on Oahu makes such a plan desirable.



# Law Restricts N-Storage in Pacific Area

By David Shopiro  
Gannett News Service

WASHINGTON — President Carter has reluctantly signed a bill that will prohibit the U.S. from storing nuclear wastes on Pacific islands without the express approval of Congress.

The language restricting nuclear dumping in the Pacific was added by the Senate as a rider to the Omnibus Territories Act for 1980, which was signed by Carter yesterday.

Though he signed the bill, which deals with federal programs in U.S. territories, Carter objected strongly to the nuclear waste provision, saying it creates "an unnecessary impediment to the orderly conduct of this country's nuclear non-proliferation policies."

Nevertheless, the restrictions became law with his signature. In order to kill the nuclear waste sec-

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## Carter Signs N-Waste Bill

Continued from Page One

tion, Carter would have had to veto the entire Omnibus Territories Act.

THE RESTRICTIONS were inserted by the Senate in response to the State Department's admission last year that it is considering three Pacific islands as possible temporary storage facilities for spent fuel from nuclear power plants in Japan, Taiwan and South Korea.

The U.S. is negotiating with those nations under terms of the Nuclear Non-Proliferation Act of 1968, which encourages U.S. action to prevent foreign countries from refining wastes from their nuclear power plants into bomb-grade plutonium.

The plan has been opposed by public officials in Hawaii and U.S. Pacific territories, who fear nuclear storage in the region could pose severe hazards to island residents.

Opponents have raised the specter of past nuclear tragedies in the Pacific, particularly the U.S. atomic bomb tests on Bikini and Enewetak atolls in the Marshall Islands

ONE OF THE islands now under consideration for nuclear dumping, Palmyra, is only 1,000 miles southwest of Honolulu. Also under consideration are Wake and Midway, islands in the central Pacific that are now under the control of the U.S. military.

Sen. Spark Matsunaga, who introduced the restrictions in the Senate, said the legislation will alleviate "the great risks involved to the health and safety of the people of the Pacific and their precious environment."

"I believe that President Carter has recognized that U.S. citizens and nationals in the (Pacific) territories are entitled to the same protection from the risks posed by nuclear waste storage as their fellow Americans in the 50 states," Matsunaga said.

Under the legislation, the administration will find it difficult to win approval of any plan to store nuclear wastes in the Pacific. The plan would have to be submitted to Congress in the form of a bill and be approved by both houses.

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A:2

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# Isle Hearing Eyes N-Waste Storage

By Harry Whitten  
and Harold Morse  
Star-Bulletin Writers

The U.S. State Department has never considered storage of spent nuclear fuel in any of the islands of the Trust Territory, Northern Marianas, or American Samoa, a State Department official said yesterday.

The official, Richard A. Scribner, gave this assurance following eloquent and emotional statements by Peter T. Coleman, governor of American Samoa, and Carlos S. Camacho, governor, Commonwealth of the Northern Marianas, opposing storage on any Pacific island.

Scribner is special assistant to the undersecretary of state for security assistance, science and technology. He presented the State Depart-

ment's case in testimony before skeptical members of the U.S. House subcommittee on national parks and insular affairs at a public hearing in the Prince Kubio Federal Building.

Martin Vitousek, assistant director, Joint Institute for Marine and Atmospheric Research, University of Hawaii, called for a balanced attitude on possible storage of nuclear fuel in the Pacific, including Palmyra Island.

Any possible disadvantages must be weighed against the danger of proliferation through nuclear waste of atomic arms which might fall into the hands of such frightening leaders as Idi Amin of Uganda or Ayatollah Ruhollah Khomeini of Iran, Vitousek said.

**BUT THOSE WHO TOOK** Vitousek's view were only a handful. Nearly a score of speakers opposed storage of spent nuclear fuel in the Pacific, some opposing with vigor.

Hawaii Rep. Cec Heftel chaired the hearing. Other committee members in attendance were Hawaii's Rep. Daniel K. Akaka, Rep. Philip Burton, D-Calif., and Guam Delegate Antonio Won Pat.

The hearing opened at 1 p.m. and concluded shortly before 7:30 p.m. Heftel said he preferred to finish it last night rather than continue today as originally planned.

Scribner said the only islands being considered as possible sites in

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# Federal Aide Defends Palmyra as N-Site

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and encased in rather heavy duty metal buildings and stored in a concrete container.

"It would be an honest-to-goodness monolith of steel and concrete, about 22 feet tall, with walls three feet thick, and 12 feet around."

Monroe said he feels Palmyra is best suited for such a facility because it is geologically stable and relatively isolated and the marine environment already has been greatly modified by military construction.

"This kind of action by man probably wouldn't disturb it very much at all. It already has been spoiled... as far as a nice island or atoll is concerned."

He said, "The idea, at present at least, is to get spent fuel away from some areas that are geologically, meteorologically, oceanographically or politically vulnerable."

"YOU REALLY wouldn't want a whole pile of this spent fuel lying in the front yard of Japan or Korea," not only because of earthquakes but because of possible terrorist groups, he said.

The State Department has begun negotiations with Asian nations under terms of the Nuclear Non-Proliferation Act, which encourages U.S. action to prevent foreign countries from refining spent fuel from nuclear power plants into bomb-grade plutonium.

The Pacific storage site is viewed as a solution toward that objective, with nations of the Pacific Basin contributing fuel to the facility.

Monroe said Palmyra would be

easy to secure and to protect.  
"First of all, it is very far out of the way of known air and ship travel patterns. It is not your corner 7-Eleven exactly."

Any approaching ship or plane would easily be spotted, he said.

"There would be quite a lot of lead time — early warning, as it were." And the island is near enough to Honolulu that military assistance could be requested if any group tried to take over the facility, he said.

MONROE SAID the spent fuel stored on Palmyra "could be reprocessed or reused at some future time, or destroyed. It depends. The idea is to hold off on doing that because once you destroy it you've got a nuclear waste disposal problem."

He said he suggested the lower part of Palmyra known as the "fighter strip" for the storage buildings.

"Basically, you would have maybe 100 acres with these big concrete things sitting on a concrete pad, spaced about 10 to 20 feet apart."

He said the site is inside a lagoon which is protected by a fringing reef around the atoll.

The area probably would be built in for the containers "so storm-wave action would have three barriers to cross before it got anywhere near the monolith area," he said.

He said a minimal security and maintenance force probably would be stationed on nearby Cooper Island to monitor the facility.

"It has a lot of things going for it," he said. "I would hate to see the idea drown for illogical reasons."

# Island Sites 'Not Considered'

## N-Waste Storage Discussed

Continued from Page One

the Pacific for spent fuel storage are Midway, Palmyra and Wake.

He said the State Department wants to do a full feasibility study at these islands and that no decision will be reached in the near future on whether to build the spent fuel storage facility or where it will be located.

"IT HAS BEEN ASSUMED that once you begin in a feasibility study you cannot turn it off; that is not our concept of a feasibility study and not our approach; many people working in the nuclear non-proliferation area also have environmental, health and safety responsibilities; they are acutely aware of the strong political views associated with anything nuclear," he said.

"If a feasibility study should show, for example, that the environmental risks of locating such a facility somewhere in the Pacific are too great, the program would not go ahead."

He promised that Congress would be kept informed of studies and discussions with other nations.

THE STATE DEPARTMENT came under fire on this very point, with Heftel and Burton both saying they first learned about Pacific islands being considered for a storage facility by reading about it in the Washington Post.

Scribner admitted the department had failed in not communicating with Congress.

Heftel asked both Coleman and Camacho when they first heard about the storage plans and both governors said they learned about it first by reading the newspapers.

Scribner, in his prepared statement, outlined the justification for a spent fuel storage facility.

He said generation of electricity from nuclear power produces substantial amounts of spent fuel, that a reprocessing plant can separate the plutonium from the spent fuel and

that nuclear weapons can be made from plutonium, such as India did.

"Acceptable and economical interim storage approaches would be of major help in reducing the pressure for early reprocessing," he said.

He said the American non-proliferation policy aims at developing an international regime to separate peaceful applications of nuclear energy and potential associated weapons uses.

That is why storage facilities are needed.

He said the United States is approaching the problem in three dimensions, domestic, international and regional, all of which are complementary to one another.

IN THE DOMESTIC area, the administration proposes creation of away-from-reactor (AFR) storage facilities within the continental United States. Limited quantities of foreign spent fuel might be accepted there.

In the international area discussions are being held with many countries on spent fuel management.

In the regional area, the United States has placed attention on the Pacific Basin area.

Scribner was questioned closely by Heftel and Burton on cost and justification of Pacific storage. After some figuring, he said a facility for a Pacific island would cost about \$2 billion to build and maintain, which is about the cost of a nuclear power plant, he said.

Referring to the small amount of spent fuel that such a facility would store, Heftel asked, "Does it make economic sense?"

Burton said the United States and other nations launched themselves into nuclear development without fully understanding where it would lead.

## Palmyra N-Site Defended

By Helen Altonn  
Star-Bulletin Writer

Frederick Monroe, a U.S. State Department official who set off a local furor by recommending Palmyra Island for a storage facility for spent nuclear fuel from nations around the Pacific rim, says the project is "strictly up in the air" for now.

However, he said in a telephone interview from Washington, he still feels Palmyra would be the best location for such a facility. He said he believes much of the antagonism and fear of the project is due to misinformation and ignorance.

"If we leave nuclear fuel elements intact and store them in a properly protected place, it would be a way of decreasing the nuclear proliferation going on in the world," he said.

Monroe is chief of the Marine Boundary and Resource Division in the State Department's Office of the Geographer.

He was asked to determine which would be the best location for a spent nuclear fuel storage facility — Palmyra, Wake or Midway Island.

He said he did not have an opportunity to look carefully at Wake or

powder, as with nuclear waste. Unfortunately, quite a bit of that has been dropped into the ocean indiscriminately.

"A 55-gallon drum doesn't last long in sea water, whereas this stuff wouldn't be immersed in water at all."

He said it would be "solid and dry

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H-12 Honolulu Star-Bulletin Thursday, September 13, 1979

# Heftel Bill Would Ban N-Storage

WASHINGTON — U.S. Rep. Cecil Heftel yesterday co-sponsored a bill that would make it illegal for the United States to store atomic waste material on U.S. territories or possessions in the Pacific without congressional approval.

With Heftel in the move is the delegate from Guam, Antonio Won Pat. An identical measure already passed in the Senate, sponsored by Sen. Spark M. Matsunaga.

The measure would require the secretary of the Interior to report to Congress any plans for such storage, which could not be implemented without congressional approval.

Heftel and the other members of the Hawaii delegation have objected to a proposal to store radioactive waste on Palmyra, an island 1,000 miles south of Hawaii.

Heftel sent a telegram to President Carter Aug. 20 protesting that idea and asking for a discussion on the matter.

SB 12-17-79

# Hearings Slated on N-Storage in Pacific Area

The federal proposal to store spent nuclear fuel in the Pacific will be addressed at public hearings here Dec. 27 and 28 in Courtroom 4 of the Prince Kuhio Federal Building.

A spokesman for Rep. Cecil Heftel said the hearing is believed to be the first on this topic in the Pacific, which would be directly affected by the planned nuclear storage.

Heftel and Rep. Phillip Burton, D-Calif., will chair the hearings.

Burton is a member of the House Interior and Insular Affairs Committee, which is to consider the proposal.

The public hearings begin at 1 p.m. Dec. 27 and will continue into the evening. They will resume the following day at 9 a.m.

Among the officials expected to attend the hearings are Gov. George Ariyoshi; Peter Coleman, governor of American Samoa; Paul Calvo, governor of Guam; Adrian P. Winkel, high commissioner of the Trust Territories of the Pacific; Carlos S. Camacho, governor of the Northern Marianas; and Thomas Pickering, assistant secretary of state for oceans and international, environmental and scientific affairs.

# N-Waste Ships Will Skip Isles on Trip from Japan

Honolulu will not be a refueling stop on the next two Japan-Europe voyages of nuclear waste-carrying ships, Rep. Cecil Heftel's office said yesterday.

But, Heftel said, there is no guarantee Honolulu won't be used on future voyages of the Pacific Fisher and the Pacific Swan.

The ships are owned by a British company which uses them to haul spent fuel rods from nuclear power plants in Japan to reprocessing plants in Europe.

Amid widespread public discussion of the role the state should play in the nuclear power industry, the Fisher stopped here in early June and took on fuel and supplies at Pearl Harbor.

Gov. George R. Ariyoshi had said he would not allow the vessel into Honolulu Harbor, but later admitted he had no firm legal grounds to prevent its entry.

HEFTEL SAID yesterday that the British Embassy in Washington told his office the ships would not call here—as they had done for almost a

decade—when they sail in late October and late November.

The reason given by the embassy for the rerouting was to prevent the ships from "being caught up in further legal complications."

Heftel said there was no word on what routes the ships would take on voyages next year.

"I'm not at all satisfied that we can relax in the belief that the ships won't come here again," he said.

"We should all be aware of the very real possibility that the Pacific Fisher and the Pacific Swan may again put into Honolulu Harbor, and that such a development may not be in the best interests of our state and her people," Heftel said.

Earlier this year, Federal Judge Samuel P. King rejected a suit by environmentalists asking that the Pacific Fisher be kept out of Hawaiian waters, as did the federal appeals court only minutes before the ship was due to enter Pearl Harbor.

The U.S. attorney's office has asked that the lawsuit be dismissed saying it is moot.

## U.S., Japan Agree to Study on Disposal of Nuclear Fuel

The United States and Japan have agreed to begin a feasibility study to find a way—and a place—to store spent nuclear fuels in the Pacific Basin.

Thomas R. Pickering, assistant secretary of state, said yesterday that Japanese and U.S. government officials expect to begin the year-long study within six months.

Returning from Tokyo after high-level discussions at the Ministry of Foreign Affairs, Pickering said such a facility, if built, would be of particular importance for President Carter's nuclear non-proliferation policy and would serve the cause of world peace.

At the conclusion of the general feasibility tests, the governments will decide whether to go ahead with their proposal to build a facility capable of storing 10,000 tons of foreign nuclear waste for an interim period of up to 30 years.

ACCORDING TO U.S. Department of Energy officials, the facility being considered is a 22-foot-high silo, 12 feet in diameter with concrete walls 4 to 6 feet thick with reinforcement steel built in. The container would be completely enclosed and totally bombproof, and according to the State Department, could satisfy international environmental requirements.

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Wednesday, September 26, 1979

## Storing Nuclear Waste

By committing themselves to a joint study of the problem of storing the wastes from nuclear fuel used in the Pacific basin, the U.S. and Japanese governments can defuse — for the present, at least — the controversy over using Palmyra as a storage site.

The tentatively-agreed-to study won't be complete before 1981 at the earliest and no decisions need be made before then.

The total volume of nuclear waste is so small, it may seem surprising the controversy over storing it is so big. The whole world supply for the next 20 years would fit in a single big warehouse — except warehouses aren't where you put stuff from which atomic bombs could be made.

The U.S. government obviously wants to control the "where" in order to keep the material out of the wrong hands. Having deliberately helped spread nuclear power technology abroad in order to have a voice in controlling it, the United States now wants to see that wastes from abroad don't get into some arms production line or into terrorist hands.

The United States has the further objective of wanting to keep the waste available for potential future reprocessing, officials explain. In that sense it is too valuable to treat as garbage. This nixes such proposals as burying it in the deep sea, rocketing it out into space, or burying it in an inaccessible hole somewhere.

We continue to regard Palmyra as a preposterous storage site — even for the tiny 3 percent of world nuclear fuel waste that the Pacific is expected to generate. Somewhere in the Rockies or at Los Alamos would seem better. But that is a lay judgment. We will hope the U.S.-Japan study goes forward and await with interest its recommendations.



# Palmyra: pushed

*Remote Palmyra Atoll has been in the news since being named a possible site for storage of nuclear wastes. So little is known about the island that The Advertiser sent columnist Bob Krauss on a chartered flight to Palmyra. Here is his first eyewitness report.*

First article of a series  
© 1979 The Honolulu Advertiser

**PALMYRA ATOLL** — There is no island in the Pacific more beautiful than this tiny atoll which has been named a possible storage dump for international nuclear wastes.

Palmyra is a Hollywood movie set of the South Seas.

From the sea, the island is a shaggy coconut grove floating on the ocean. From the air, Palmyra is a limpid lagoon with a dainty necklace of green.

The atoll teems with life; on the land, in the air, under the water.

One reason is the unusual amount of rain which falls on the island — 160 inches a year. All this fresh water encourages lush, tropical vegetation that smothers the land.

Coconut palms here sprout like weeds.

The naupaka (*scaevola*) along the beach towers 15 feet into the air. Beach heliotrope grows even higher. There are ironwood, kamani, a few hala (*pandanus*) trees but no banana



**bob  
krauss**

*Advertiser columnist*

or flowering trees.

John Bryden, manager of Palmyra's copra plantation, explained that this growth was killed in 1957 when giant waves washed over much of the atoll.

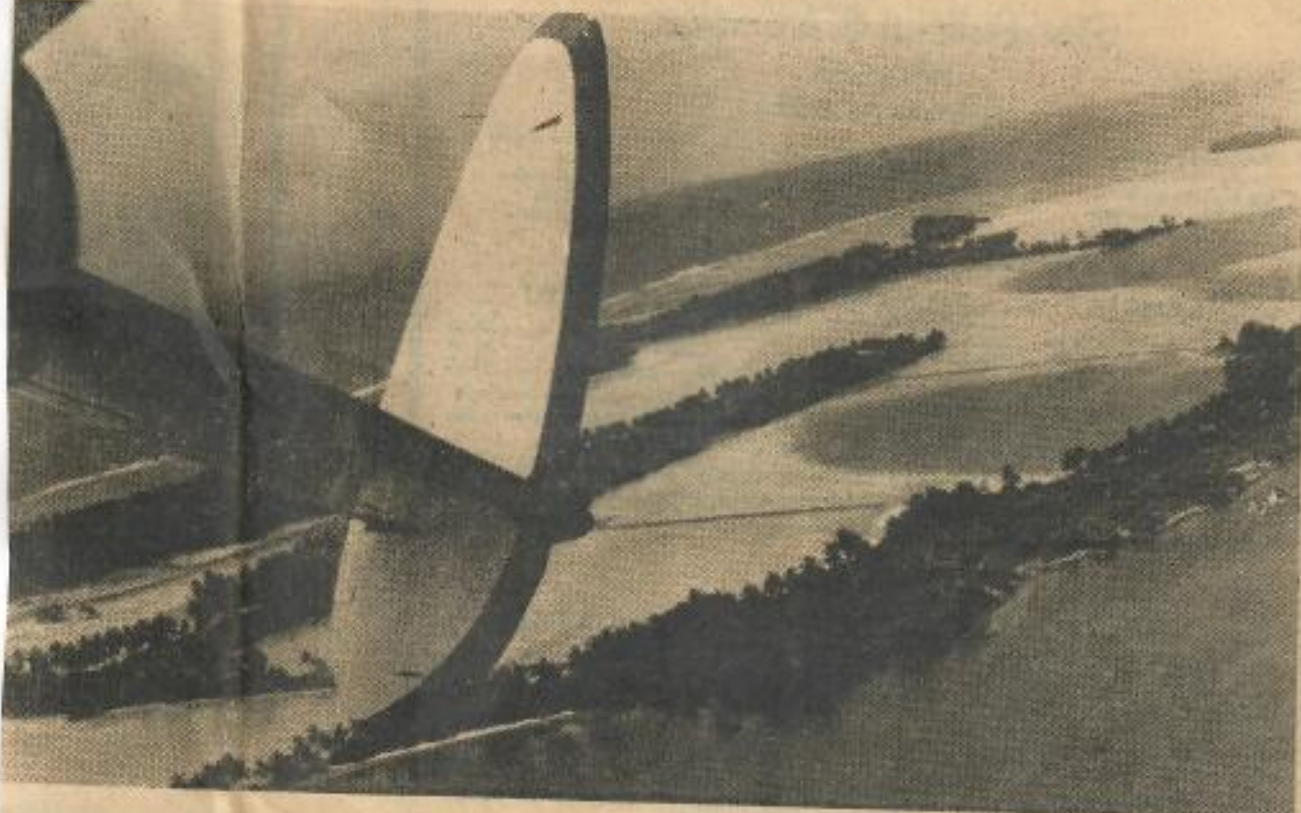
The waves uprooted cement machine gun nests and concrete bunkers and tossed them about like tinker toys. Since then, waves have eaten away portions of the island and are filling in others.

Today, cement gun emplacements which were built high and dry on the land are out in the ocean. The same thing could probably happen to

See PALMYRA on Page A-6



# into nuclear age



**Palmrya from the air: Lagoon in foreground is the proposed dump site for international nuclear wastes.**

Advertiser photo by Bob Kraus

# Palmyra: teeming, changing

From Page 1

stored nuclear wastes.

"I would say the atoll is constantly in motion," said Bryden.

This is because the island is as much in the ocean as on it. No part of it rises naturally more than a few feet above sea level, although bunkers have been built up to about 20 feet. Dig down three or four feet and you strike water.

A major problem here has always been corrosion. During World War II, equipment rusted so rapidly that mechanics sprayed the underside of engines with a film of oil every day to keep them operating.

A map of ocean currents shows that Palmyra is in the northern equatorial current and on the fringe of the counter-equatorial current.

This means that any leakage of radioactive nuclear waste would be swept by the equatorial current toward the west, then north past Japan, east again along the Alaskan coastline, then down past Canada and California before swinging west across the Pacific once more.

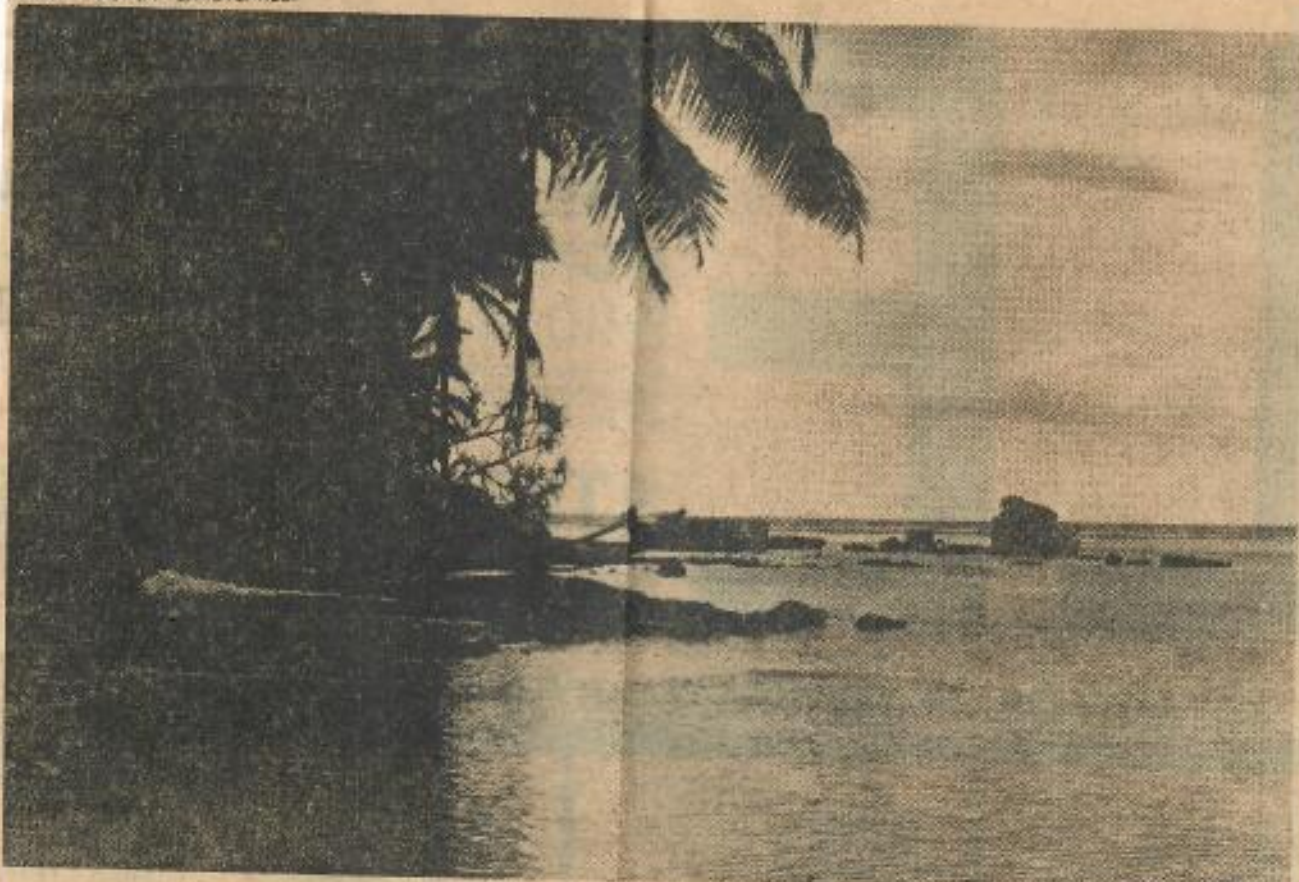
The counter-equatorial current goes the other way, and could spew radioactive waste from Palmyra into the South Pacific ocean current system, which flows north along South America in the east and south along Australia and the fringe of Southeast Asia in the west.

This is the paradox of Palmyra. Nine hundred miles south of Hawaii, the atoll is remote from population centers but very much part of our space-age world.

It took us five hours to fly here from Honolulu in a vintage World War II Lockheed Lodestar, which has the range to fly this far and the capability of landing on a 3,500-foot-long landing air strip. We brought a tractor tire, some baby chicks, cigarettes and the first mail which has been delivered on Palmyra in two months.

No airlines fly to Palmyra. The island is on no shipping line.

Yet, we found graffiti on the walls of old buildings which provide a picturesque record of frequent visits by



Advertiser photo by Bob Kraus

Concrete machine gun nests are "washed" into the ocean as the atoll's shoreline is constantly changed by the effects of the ocean's waves.

pleasure yachts on their way up from or sailing down to Tahiti from Honolulu.

One crew left a reminder of the July 4, 1977 hermit crab races. The *Camille* from New Zealand arrived on July 29, 1978. The *Ishmael* was here from August to October 1978.

I was walking down the airstrip on my way to the beach when an airplane motor sounded in the lonely, boundless sky.

A little twin-engined Cessna, up from Fiji to scout a sunken ship at nearby Washington Atoll for salvage, banked and landed as casually as if the pilot were going to the bathroom.

All this means that Palmyra would be about as secure a storage depot for nuclear wastes as a barge anchored in the ocean.

Ainsley Fullard-Leo, one of three brothers from Hawaii who own the atoll, showed us where, he was told by a government official, a shallow lagoon would be filled in and built up to house a concrete-lined dump where the waste would be stored in steel containers encased in concrete.

Fullard-Leo said he understood the dump would be open at the top.

Canadian oil man N. P. Urichuk, who arrived on the twin-engine Cessna, said he's afraid the dump would be an open invitation to any revolutionary, with a small ship or plane, to lob a conventional bomb and turn the whole Pacific into a nuclear sewer.

So Palmyra is where the centuries-old life-style of the Pacific Islander is in direct confrontation with the nuclear age.

There is no telephone on the atoll. Yet, the manager of the plantation is in daily radio contact with the University of Hawaii in Honolulu.

The Gilbertese plantation workers here have never heard of nuclear waste.

And they had never watched television until they saw themselves night before last via videotape shot by developer Mike Shay who took movies of the island to show potential investors the potential of a fishing resort on Palmyra.

He brought along a portable, battery-powered TV set to entertain the inhabitants.

The plan was to show them "Jaws" as their introduction to the wonderful world of television. But

something went wrong and the fearsome footage of a man-eating shark ended up as meaningless blips and a sound track that sounded like Donald Duck.

"This is about the last Pacific paradise that's left," said Bob Nielson, one of the lessees for the copra and fishing rights on the island. "It would be terrible to use it as a nuclear dump."

His partner, Bryden, said he feels there must be a safer way to store nuclear waste than on a vulnerable Pacific atoll.

Fullard-Leo said he and his brothers have received letters and phone calls from concerned people around the world who have read that the U.S. government may attempt to store nuclear wastes on Palmyra.

"We have no intention for selling the island for that purpose," he said. He said that since World War II they have received offers from people who wanted to use the island for a nudist colony, a religious retreat, a Swiss watch assembly plant and a gambling center.

**TOMORROW** in The Advertiser: A day in the life of a copra plantation.

## State Dept. Lists Palmyra, Wake, *a Pacific Site Still*

By David Shapiro  
Gannett News Service

WASHINGTON — A new flurry of congressional objections has not stopped State Department efforts to locate a Pacific island for possible short-term storage of radioactive wastes from nuclear power plants in Japan and other Asian countries.

Richard Scribner, a State Department spokesman for the project, said investigators are still looking at

Palmyra, Wake and Midway islands as possible sites.

However, Scribner objected to recent speculation that the State Department is near a decision on the issue and has targeted Palmyra, a small island 1,000 miles southwest of Honolulu, as the site.

"As we said over two months ago, what we have done so far are preliminary studies," he said. "Nothing has happened since then except continuation of the studies. No site has

Midway

## Sought for N-Waste

been selected and no decision to even build a facility has been made."

THE STATE Department has initiated negotiations with Asian nations under terms of the Nuclear Non-Proliferation Act, which encourages U.S. action to prevent foreign countries from refining spent fuel from nuclear power plants into bomb-grade plutonium. Waste storage at a U.S.-owned site is seen as a means of meeting that goal.

The negotiations have generated heavy criticism among legislators from Hawaii and the Pacific territories, who fear potential safety hazards from the storage and transportation of the wastes.

The plan was sharply criticized by the Senate Energy Committee during one briefing in June, and there is support for a bill introduced by Sen. Spark Matsunaga, D-Hawaii, to ban Pacific storage without congressional approval.

However, the House Foreign Affairs Committee has indicated support for the foreign policy goals of the preliminary studies.

THE DISPUTE was touched off again this week when the Fullard-Leo family of Honolulu, owners of Palmyra, attacked the State Department studies. Family members claim they intend to start a copra plantation on Palmyra and have no interest in selling it to the government.

After the Fullard-Leos issued their statement, Rep. Cecil Heftel, D-Hawaii, a long-standing opponent of the project, demanded that the State Department give up plans to store nuclear wastes on Palmyra.

And Rep. A.B. Won Pat, D-Guam, has now urged that the entire Pacific region be dropped from consideration as a storage site for spent nuclear fuel.

"THE NUCLEAR wastes you propose to store in the Pacific are not of our making," said Won Pat in a letter to the State Department. "I question why residents of the Pacific should assume the awesome risks of living with deadly nuclear wastes that rightfully belong to others."

Scribner said the State Department has reached no formal agreement with Asian leaders on nuclear

waste storage in the Pacific and has not sought to buy Palmyra from the Fullard-Leos.

"As far as I know, the U.S. government has had no negotiations with the Fullard-Leo family and has made no offers for Palmyra," he said. "That would be very premature on our part."

# U.S. Considers \$20 Million Bid to Buy Palmyra

By Richard Burt

© N.Y. Times Service

WASHINGTON — The Carter administration is considering paying a Honolulu family some \$20 million for Palmyra Island in the South Pacific for storage of nuclear waste from Asian reactors, government officials say.

Officials said that administration nuclear experts were examining whether Palmyra, in the Line Islands and 1,110 southwest of Hawaii, would be a good place to store waste produced by nuclear reactors in Japan and other Asian countries. Officials estimate that the 500-acre island, under the jurisdiction of the City and County of Honolulu but privately owned by the Fullard-Leo family of Honolulu, could be bought for \$20 million or less.

WHAT TO DO with nuclear wastes has presented the United States and other nations with a difficult problem, and although several options are under study, officials said that uninhabited islands appeared to be one of the least controversial of possible disposal sites.

Officials said that the principal reason for helping Asian nations find a nuclear storage site was the administration's desire to curb the spread of technology that could enable more countries to build nuclear weapons.

Without a storage site, many officials fear, Japan and other countries such as South Korea or Taiwan might move ahead on projects to reprocess nuclear fuel from reactor wastes. The administration is opposed to reprocessing because it creates weapons-grade plutonium.

OFFICIALS HOPE that if Asian countries are able to store their wastes at sites such as Palmyra, the

incentives for governments to invest in reprocessing technology will significantly decline.

At the same time, officials acknowledged that the creation of a nuclear storage site in the Pacific was likely to arouse opposition in the area. Officials said that members of Congress, in hearings last month, had already voiced concern over the proposal. The waste would be stored in steel containers coated with concrete.

Officials said that tentative plans called for the containers to be stored on the island for about 30 years, when they would be moved to a location to be determined later.

# U.S. Says Pacific N-Storage

By David Shapiro  
Gannett News Service

WASHINGTON — A proposed Pacific storage site for foreign nuclear waste would be but one of several international facilities to control the spread of nuclear weapons, a State Department spokesman said today.

Richard Scribner, a special assistant for science and technology, told

the House Pacific Affairs Subcommittee that a Pacific storage facility would be designed to hold about 10,000 tons of spent nuclear fuel, a fraction of the 300,000 tons expected to be generated by nuclear power plants throughout the world in the next 20 years.

"This is a problem that's going to have to be solved in Europe, the Middle East and the U.S., as well as the Western Pacific basin," Scribner

said. "The Pacific is not the only potential storage area."

The State Department is studying Palmyra, Wake and Midway islands as possible storage sites for spent fuels from nuclear power plants in Japan, Taiwan and South Korea.

THE GOVERNMENT has initiated negotiations with Asian officials under terms of the Nuclear Non-Proliferation Act, which encourages U.S. action to prevent foreign na-

Friday, June 22, 1979 Honolulu Star-Bulletin A-13

## Site Would Be One of Many

tions from refining spent fuel from their power plants into bomb-grade plutonium.

However, the move has generated much criticism among legislators from Hawaii and Pacific territories, who fear potential safety hazards. Several bills have been introduced in Congress to prevent the State Department from making international storage agreements without congressional approval.

Scribner said the problem of nuclear waste disposal is becoming critical, since spent fuel expected to be generated by the year 2000 will be enough to make 2 million kilograms of plutonium. Atomic bombs can be produced with as little as 5 kilograms of plutonium, he said.

Scribner stressed that studies of the three Pacific islands are in the preliminary stages, with any firm decisions still several years off. He

also insisted that only temporary storage for a maximum of 30 years is being considered in the Pacific.

IN TEMPORARY storage, spent fuels would be housed in sealed, above-ground concrete containers guarded by a force of up to 70 men, Scribner said. The containers would be built so that no detectable radiation is felt outside the storage casks, he said.

## U.S. Is Seeking N-Waste Island

WASHINGTON (UPI) — A coalition of government agencies that wants to stem the spread of nuclear arms is scouring a group of uninhabited Pacific islands for an international nuclear waste depository site, officials said.

"The State Department is very interested in the question of nonproliferation of nuclear weapons," a spokesman said. "One of the principal questions in the nuclear cycle is what to do with the wastes."

"We see the long-term storage of spent fuel as a way of reducing the pressure on countries to reprocess" spent fuel, creating waste which could be used for nuclear explosives.

The spokesman said the State Department is working with the Department of Energy and the Interior Department to develop an uninhabited Pacific island as a depository for spent nuclear fuel.

HE SAID THE department "has contacted a number of countries around the Pacific basin about our thinking on the subject." Japan was one of these nations, he said.

A site has not yet been selected, the official said. But an Interior Department spokesman said only a few U.S. territories would be eligible — such islands as Wake and Midway.

The Marshall Islands are under trusteeship, and treaties protect them from being used as nuclear dumps. Ownership of many other Pacific islands is either joint or disputed.

## Colony of Gigantic Sea Worms Found

*London Daily Telegraph*

A colony of giant worms up to 10 feet long, living inside long tubes created by their own secretions, has been found by explorers 8,000 feet down in the Pacific, a Smithsonian spokesman has revealed.

These strange creatures have no mouth, intestines or eyes. Nothing like them has ever been found before.

According to Dr. Meredith Jones, a curator of the division of worms at the Smithsonian Institution, the worms are "without precedent in the whole animal kingdom."

In their submarine colony among hot springs in sea-floor canyons, they grow close-fitting tubes, or sheaths, in which to live. This casing is so tough that it "dulls a razor blade," Jones said.

The explorers in the scientific submarine *Alvin*, from the Woods Hole Oceanographic Institute in Massachusetts, found the colony about 200 miles northwest of the Galapagos Islands and about 500 miles west of Ecuador.



# Akaka Questions N-Dumps in Pacific

By Nadine W. Scott  
Star-Bulletin Writer

Government officials seriously are considering storing the spent fuel from nuclear reactors in the Pacific basin for at least 25 or 30 years, Rep. Daniel K. Akaka said today.

Akaka was briefed yesterday and today by Marvin Moss, head of an interagency task force who is with the Department of Energy, and Richard Scribner, special assistant with the Department of State.

In a telephone interview, the spokesman said Akaka is "not at liberty to reveal" the precise location the task force is considering as a nuclear dump site in the Pacific.

But he quoted Akaka as saying the sites receiving serious consideration are undisputed U.S. territories, either uninhabited or having no indigenous population. The islands of the Trust Territory of the Pacific are not being considered as possible sites, he said.

AKAKA SAID THE interim site chosen cannot lie in a geographical fault area or have appreciable seismic activity. Atolls, or coral islands, would not be used for waste storage, he said. Environmental factors, such as weather patterns, also are being considered, the congressman said.

Akaka today urged Moss and Scribner "to continue their homework on this whole thing. The study has only been going on for eight months, and the congressman is very concerned about the risks involved," his spokesman said.

The Pacific Basin nuclear dump site cannot be a final solution to the problem of disposal of radioactive waste, the spokesman continued, because the waste only can be stored permanently in salt or granite. "That eliminates anything in the Pacific area," she said.

The interagency task force has been meeting with a number of countries around the Pacific Basin, including Japan, to explore possible locations for the interim storage facility.

AFTER HIS BRIEFING yesterday, Akaka said, "Under no circumstances should an international spent fuel storage facility be built or even considered for construction in the Pacific Basin. The potential risks are staggering. There are still too many unanswered questions concerning the safety of this project."

Earlier this month, Sen. Spark Matsunaga introduced a bill to prohibit dumping the nuclear waste in any U.S. island territories or possessions without congressional approval.

Sen. Henry Jackson, D.Wash., a co-sponsor of the bill and chairman of the Energy and Natural Resources Committee, has scheduled a June 5 hearing on the bill.

That hearing, according to a spokesman in Matsunaga's office, will be held in executive session and closed to the press.

"The Department of State has asked for a closed hearing because classified information is involved," the spokesman said today.

"WE DON'T KNOW what information is classified or what the State Department is protecting.

"Senator Matsunaga is in accord with the thrust of the State Department's purpose...to obtain an international site" where nuclear waste from reactors can be stored, "but putting it right in our backyard...We just have to explore all the probabilities," the spokesman said.

He also said that Matsunaga, with Sen. James A. McClure (R-Idaho), earlier this week introduced an amendment requiring the Department of Energy to notify the Senate Energy and Natural Resources Committee and Congress of any intergovernmental discussion or proposals for building facilities to store nuclear wastes.

# Hawaii Not Target for N-Storage

By David Shapiro  
Gannett News Service

WASHINGTON—State Department officials told a closed session of the Senate Energy Committee today that Hawaii, Guam and American Samoa are not among the areas in the Pacific being considered for storage of spent nuclear fuels.

However, officials confirmed to the committee that three other American-owned islands in the Pacific are being studied as possible interim storage sites for nuclear wastes generated by power plants in Japan, Taiwan and the Philippines.

Department spokesmen refused to release the names of the islands or give any clues about their location, but said they will be publicly identified within five to 10 days, after some problems of diplomatic courtesy are cleared.

The closed meeting was called by the committee to gather information for Sens. Henry Jackson, D-Wash., and James McClure, R-Idaho, who are proposing a bill to forbid the government from establishing any nuclear storage facilities in the

Turn to Page A-4, Col. 1

# Hawaii Isn't Storage Area

Continued from Page One

Pacific without the advance consent of Congress.

THE STATE DEPARTMENT has initiated talks with Japan and other Asian nations on the possibility of storing their nuclear wastes on an American-owned island under the terms of the Nuclear Non-Proliferation Act of 1968. This act encourages U.S. action to prevent foreign countries from refining wastes from their nuclear power plants into bomb-grade plutonium.

The negotiations have brought a chorus of objections from Pacific legislators, who fear storage of nuclear wastes would pose new hazards similar to those resulting from atomic bomb tests on Bikini and Enewetok during the 1940s and 1950s.

Hawaii Sen. Spark Matsunaga, a member of the Energy Committee, said officials assured the committee that the negotiations are only in a preliminary stage, with no firm plans for actual construction of storage facilities in the Pacific.

"This is what they said, but I still got the impression that they seem pretty much determined to go ahead," Matsunaga said. "Despite their assurances about safety, many of us were not convinced that it should be permitted."

Matsunaga said the "interim" storage being considered by the State Department could last up to 30 years.

# Senate Committee Passes Bill to Thwart Pacific N-Waste Site

By David Shapiro  
Gannett News Service

WASHINGTON—The Senate Energy Committee has moved quickly to head off State Department plans to use a Pacific island as a storage site for radioactive nuclear wastes from Japan and other Asian nations.

Less than a week after being briefed on the plan by State Department officials, the committee approved a bill which would ban any storage of nuclear waste in the Pacific without the advance approval of Congress.

The bill was sponsored by Sen. Henry Jackson, D-Wash., chairman of the Energy Committee, Sen. James McClure, R-Idaho, and Sen. Spark Matsunaga, D-Hawaii.

A Matsunaga amendment approved by the committee also would ban transportation of spent nuclear fuel to any U.S. territory or possession in the Pacific without congressional approval.

A major controversy has developed in Honolulu about the planned refueling stop of the Pacific Fisher, a British ship laden with nuclear wastes from Japan.

The State Department wants to establish a temporary storage facility in the Pacific for spent fuel from nuclear power

plants in Japan, South Korea, and Taiwan.

U.S. OFFICIALS have begun negotiations with the Asian nations under terms of the Nuclear Non-Proliferation Act of 1968. That law encourages U.S. action to prevent foreign countries from refining wastes from the nuclear power plants into bomb-grade plutonium.

The State Department assured the Energy Committee earlier this week that neither Hawaii nor the U.S. territories of Guam and American Samoa are involved in the negotiations, but the department has refused to publicly identify three islands said to be under consideration.

Much speculation has centered on Palmyra, a small privately-owned island located about 1,000 miles south of Hawaii. That island is believed to be safe from storms, tidal waves, earthquakes and volcanic eruptions that could threaten the safety of a nuclear storage site in the Pacific.

The nuclear storage site would be a temporary facility that would be used for a maximum of 30 years, according to the State Department. The spent nuclear fuel would be stored in containers designed to last at least 50 years.

MATSUNAGA SAID the bill, which was

strengthened from an earlier version, was passed by voice vote without dissent by the Energy Committee. He predicted that the bill will win early approval by the full Senate, then go to the House for action.

In the House, Rep. Cecil Heftel, D-Hawaii, has proposed a tougher bill that would bar the government from even planning a nuclear storage site in the Pacific until nationwide safety criteria for nuclear storage are developed, something that is not expected to happen until the mid-1980s.

## Bill to Control N-Waste Sites Clears Senate

The U.S. Senate yesterday by voice vote passed a bill that would require congressional approval of any plan to store spent nuclear fuel in the Pacific, according to Sen. Spark M. Matsunaga.

Matsunaga, who was floor manager of the bill, said the measure would require the secretary of the interior to report to Congress on any plan to transport spent nuclear fuel to U.S. Pacific island territories and possessions, or to establish storage facilities there.

The bill now goes to the House of Representatives.

Earlier this year the State Department announced a proposal to establish an international storage facility for spent nuclear fuel in the Pacific. The islands of Palmyra, Midway and Wake were named as possible sites.

Last month, the 12-nation South Pacific Forum, meeting in the Solomon Islands, demanded that the United States drop the proposal.

Matsunaga said the bill passed yesterday is designed "to assure the people of the Pacific area that the United States will not sanction or approve any proposal for island storage of spent nuclear fuel without full public disclosure of the site, open consideration and formal approval by the U.S. Congress."

S-B 14 June 79 A1

# 3 Pacific Isles on U.S. List for N-Storage

By David Shapiro  
Gannett News Service

WASHINGTON—The U.S. State Department today named Palmyra, Wake and Midway as the three American-owned Pacific islands under consideration as possible storage sites for radioactive nuclear waste.

Palmyra is 1,107 miles south of Honolulu, Midway is 1,322 miles northwest and Wake is 2,306 miles west.

The State Department said a preliminary assessment of Palmyra has already been made, with similar studies of Midway and Wake to be conducted in the future.

Palmyra is privately owned by a Honolulu family; Midway and Wake are government owned. Leslie Fullard-Leo, one of four brothers who own Palmyra, told the Star-Bulletin earlier this week that no one in government has contacted them about the possibility of using the island.

Fullard-Leo was outraged today at "the discourtesy of the government. They haven't even contacted us," he said in a telephone interview.

"The island is occupied," he said. "My brother Ainsley is down there now developing the coconut plantations and a base for commercial fishing."

Fullard-Leo said the family has owned the island since 1922.

A Hawaii official this week told the Star-Bulletin that security at Midway has been tightened because of a classified operation there but access of the island to state-sponsored fishermen has not been restricted.

clear power plants into bomb-grade plutonium.

The disposal site would also hold wastes from U.S. nuclear facilities in the region.

THE PROPOSAL has raised strong objections from three members of Hawaii's congressional delegation, who claim storage of spent nuclear fuels in the Pacific could pose radiation hazards similar to the atomic bomb tests on Bikini and Eniwetok during World War II.

The Senate Energy Committee has already approved a bill, cosponsored

Home  
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Stocks

by Sen. Spark Matsunaga, which would prevent the U.S. from establishing any nuclear storage facilities in the Pacific without advance approval of Congress.

The plan has also been attacked by Reps. Daniel Akaka and Cecil Hefel in the House.

Hefel has introduced a bill that would ban the government from any further planning until acceptable safety criteria for nuclear storage

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## Bulletin

"AT THIS TIME, it is not clear whether any of the sites will prove feasible," a State Department spokesman said today.

"No decision has been reached or will be reached in the immediate future regarding either the selection of a site or whether to construct such a facility," he said.

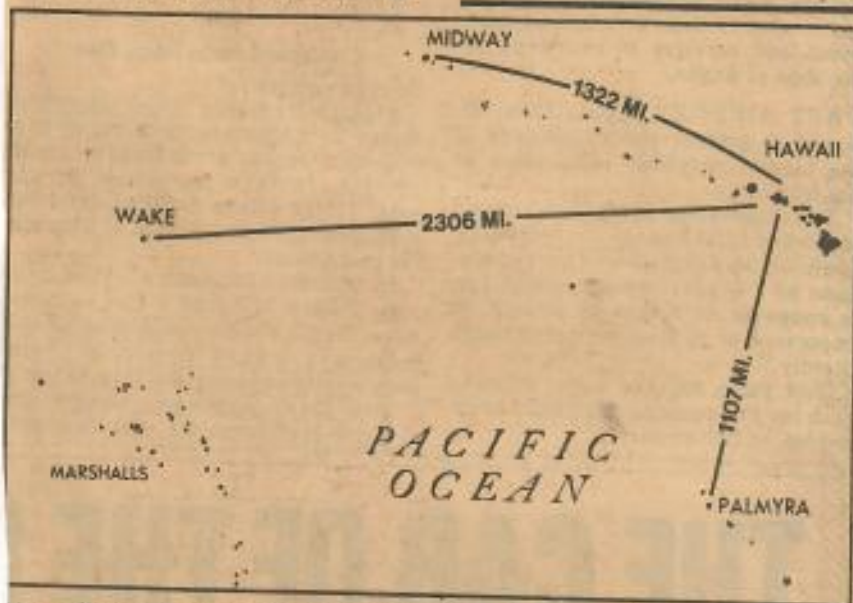
The State Department has initiated talks with Japan and other Asian nations on the possibility of storing their nuclear wastes on a U.S.-owned island in the Pacific under terms of the Nuclear Nonproliferation Act of 1968. That law encourages U.S. action to prevent foreign countries from refining wastes from their nu-

NEW YORK (AP) — A four-alarm fire raged out of control today in Macy's, the "world's biggest department store," sending thousands of shoppers running into the streets under gray clouds of heavy smoke.

People were still being evacuated 40 minutes after the blaze was reported to authorities.

The fire centered on the fifth floor, apparently beginning in the sporting goods section. The cause was not immediately known.

The spokesman said there were no reports of injuries or trapped persons.



Map shows distances between Hawaii and proposed storage areas.

# Palmyra One of Choices for Nuclear-Waste Site

Continued from Page One

are developed, which is not expected before the mid-1980s.

The State Department insists that health, safety and environmental factors will be considered before any decision to build such a nuclear storage facility is made.

FULLARD-LEO SAID this is not the first time his family has had problems with the government over Palmyra.

He said the family agreed to let the U.S. military establish a base on the island during the war. "They moved in in 1938 and stayed until 1947," he said.

"We sued" for possession of the

Island, he said. And although the government contended the family didn't own it, "we won in all five federal courts, including the Supreme Court of the United States.

"It was rather wearing, since all the court cases were at our own expense. And they never paid us for the period they had 5,000 or 6,000 troops there."

Fullard-Leo said he cannot understand why the government would consider taking over private property "when they already own so much land."

"They forget they are appointed by the people to aid us and work for us and they are paid by us," he said.

"This is one of the most beautiful Islands in the Pacific."

12 JUNE 79

HSB

# Owner Is Unaware of Plans for Palmyra

Although the federal government reportedly is considering establishing an international site for used nuclear fuel on Palmyra Island, Leslie Fullard-Leo, who owns the Island with his three brothers, says the family has not been notified of any such plan.

The Hawaii family was "never approached," he said.

Storing spent nuclear fuel anywhere in the Pacific is a "very dangerous and hazardous thing to do as far as I'm concerned," Fullard-Leo said.

Palmyra is one of the Line Islands about 1,000 miles south of Honolulu.

An item in Editorial Research Reports from Washington, D.C., indicated a measure is in the "advanced" planning stage to set up an international spent-fuel storage site on Palmyra.

"THE FACILITY would receive waste fuel from Japan, South Korea, Taiwan and other Pacific basin nations," the ERR item said.

"The Department of Energy reportedly has sent to Congress a classified study describing the benefits of the Palmyra Island plan. But the proposal has met with a good deal of initial skepticism," ERR said.

Contamination of Bikini because of nuclear testing there has made some officials fearful of further introduction of nuclear materials in the Pacific, ERR said.

Fullard-Leo disputed a claim in the ERR item that Palmyra is "uninhabited."

There is a coconut plantation on the Island, and the Island is in the middle of a fishing area, Fullard-Leo said.



# U.S. Wants to Buy Island to Store Nuclear Wastes

By Henry S. Bradsher  
Washington Star Staff Writer

The government is exploring the possibility of buying an almost-deserted Pacific island to help solve a major problem of producing energy in nuclear power plants: what to do with radioactive wastes.

A preliminary assessment has been made on using Palmyra atoll to store for up to 30 years spent fuel from commercial nuclear power reactors, the State Department has announced. It has been working with the Energy and Defense departments on the project.

Two larger islands, Midway and Wake, also are being considered as dumping sites for wastes from countries ringing the Pacific Ocean.

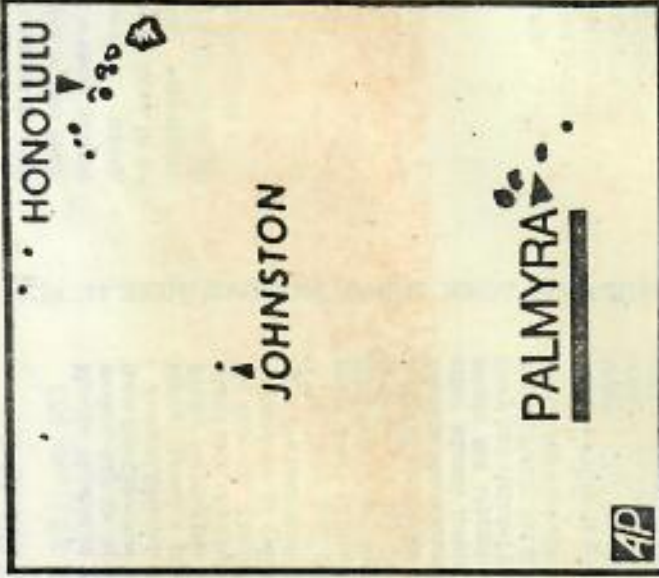
Some Pacific nations that are building nuclear power plants are reluctant to store the dangerous wastes on their own territory. With the sharp rise in oil prices pushing more countries toward nuclear-generated energy despite the Three Mile Island accident, the problem is going to worsen.

JAPAN, SOUTH KOREA, Taiwan and the Philippines already have sizable nuclear power programs. Wastes are beginning to accumulate. These and other Pacific countries have been informed of the U.S. study.

The Carter administration has been worried that countries that need peaceful nuclear power will be tempted to solve the waste problem by reprocessing the spent fuel.

"In our view," the State Department said yesterday, "the movement toward reprocessing should not be driven by the pressure to handle spent fuel because reprocessing separates plutonium which can be used in nuclear explosives."

The idea of using an American island in the Pacific as a regional waste disposal point under international supervision is regarded by U.S. officials as only an interim answer to the long-term question of waste disposal.



HONOLULU

JOHNSTON

PALMYRA

AP

## Pesticide Spill in Maine Lake Brings Alert for Canoeists

AUGUSTA, Me., June 15 (AP) — State health officials warned canoeists today not to fish or drink the water in a lake along the Allagash Wilderness Waterway because of a pesticide spill.

Donald Hoxie, director of the state division of Health Engineering, recommended "that no one drink Big Eagle Lake water, eat fish from the lake or swim in the immediate vicinity of Farm Island" for at least a week.

The remote lake is about 15 miles long and near the southern end of the 92-mile-long Allagash national waterway, one of the most prized canoeing areas in the East.

A top Governor's aide confirmed that about 100 gallons of the 800 gallon cargo of the pesticide Sevin was lost when a cockpit fire in a four-engine plane involved in the state's month-long spruce budworm spraying program was forced to make an emergency landing in the lake. The project is scheduled for completion Tuesday.

The label on Sevin, a common garden insecticide, warns that it should be kept out of lakes and streams.

THE WASHINGTON POST

Monday, June 18, 1979

## Whale Stops Effort To Cross Atlantic

HALIFAX, Nova Scotia, June 17 (UPI)—A 30-year-old sailor attempting the first trans-Atlantic crossing by rubber raft was plucked from the sea east of Halifax by a fishing boat early today after a whale crippled his tiny craft.

Canadian Coast Guard officials said Paul Parsons had been picked up by the private fishing boat Cape Picton shortly after 1:00 a.m. The Coast Guard vessel Daring was dispatched to take Parsons into shore.

Parsons, 30, who once worked as a baggage handler for Air Canada at London's Heathrow Airport, had radioed the Coast Guard that a whale smashed the floorboards of his 17-foot inflatable dinghy.



# Tiny Pacific Isle of Palmyra Targeted as Nuclear Dump

By George C. Wilson  
Washington Post Staff Writer

The Carter administration has targeted the tiny island of Palmyra, 1,000 miles southwest of Hawaii, as the Pacific's first dumping ground for radioactive wastes.

The island's selection and the uproar it is expected to cause through much of the Pacific illustrate the cruel dilemma in which President Carter finds himself as he champions nuclear power.

Before he can sell the United States and other countries on getting more electricity from the atom to lessen the demand for oil, the president must find a way to dispose of the poisonous wastes civilian nuclear reactors produce.

Although some countries reprocess these radioactive wastes into fuel that can be used again, Carter opposes this option because it frees plutonium, which can be used to make atomic bombs. India, it is widely believed, made its bomb from the plutonium waste of its Canadian-supplied nuclear reactor, which produces electricity.

Rather than see the Indian example repeated all around the world, thus putting the bomb in the hands of some reckless leaders, Carter has opted for storing the radioactive waste in a safe place, if his experts can find one.

While the United States considers everything from salt domes to granite caves for storing its radioactive wastes, it is trying to prod Pacific countries into storage rather than reprocessing by offering to supply the dump.

## Enter Palmyra.

After highly secret explorations, the administration has tentatively decided that the uninhabited 500-acre atoll would make the best Pacific dump.

State Department officials note that the atoll, rising 6 to 10 feet above sea level, has a good harbor, enough land for airstrips and buildings, no severe weather and "long-term geologic stability."

Once part of the kingdom of Hawaii, it is now privately owned by the Fullerd-Leo family of Honolulu. The government could buy it for \$16 million to \$18 million, officials estimate.

Thomas R. Pickering, assistant secretary of state in the bureau of ocean and international environmental and scientific affairs, stressed at a secret Senate hearing that although Palmyra's selection is not final, it would be much better than Midway Island or Wake Island, which were also studied.

If present plans go forward, said Pickering, Palmyra could become the



The Washington Post

Pacific's first radioactive dump as early as "mid-1986."

A recently cleared transcript of the June 5 closed hearing by the Senate Energy and Natural Resources Committee show that several senators expect a tidal wave of protests, especially if past secrecy about such radioactive storage continues.

Pickering agreed that "there is a great sensitivity among many island nations in the Pacific basin, as well as around the world, regarding any possible contamination, no matter how small the risk, of a part of the Pacific with radioactive material.

However, Pickering said, in making the administration's case for a dumping site, "We have a serious concern about the pileup of spent fuel in the Pacific area. If this spent fuel forces reprocessing as an answer to the question of waste management, it will provide a lot of plutonium to a lot of countries that don't have a need for it. It opens the question of the proliferation of nuclear weapons in a serious way."

Radioactive wastes would be stored on Palmyra for only 30 years, and then moved to some other undetermined dump for fear the concrete-covered canisters would not stay impregnable on the island much longer than that.

Under the current plan, Japan, which sends its radioactive wastes to Britain and France for reprocessing, would ship some of them to Palmyra.

The smaller amounts to be produced by South Korea, Taiwan and the Philippines would be stored on Palmyra. The United States eventually might store some of its nuclear wastes on Palmyra, too, Pickering said.

At the moment, State and the Energy Department envision using only 100 of Palmyra's 500 acres as the dump. From 100 tons to 300 tons of radioactive wastes could be stored on each of the 100 acres, for a total load of between 10,000 and 30,000 tons.

The wastes would be sealed in steel containers coated with concrete. The canisters would be sent to Palmyra by ships and stored in other concrete containers constructed on the island.

"The major purpose, said Pickering of the Palmyra plan, "is to reduce pressure for additional reprocessing."

Sensors listening to the testimony, the cleared transcript shows, expressed the kinds of fears about the plan that are expected from concerned groups in the Pacific.

"What happens," asked Sen. J. Bennett Johnston (D-La.) "if a ship sinks carrying spent fuel to the island?"

"The same thing, I would imagine," responded Pickering, "that would happen if ships sink carrying spent fuel from Japan to the United Kingdom or France, as is currently done . . ."

"The fuel would be lost and would be subject to whatever protection the cask provides, which I understand is very considerable," he said.

Marvin Moss, associate director of energy research for the Energy Department, said that if the casks were not recovered from the ocean bottom, "I think one would have the makings of certainly a severe accident there."

"What is a severe accident?" Johnston persisted.

"Large quantities of radioactivity released into the floors of the ocean," Moss replied.

## THE NEW YORK TIMES

SUNDAY, AUGUST 19, 1979

### Commerce Dept. Reports Slaying Of 26,000 Young Seals for Quota

WASHINGTON, Aug. 18 (UPI) — Twenty-six thousand northern fur seals were bludgeoned and stabbed to death under Commerce Department supervision last month in an annual slaughter, according to the department.

The Government agency has defended the five-week summer seal hunt in the United States-owned Pribilof Islands, off Alaska in the Bering Sea, on the ground that a certain quota of adolescent male seals must be killed each year to preserve the rest of the species.

Dr. William Aron, director of the Office of Marine Mammals and Endangered Species, a branch of the department's National Oceanic and Atmospheric Administration, said that the once-threatened breeding population had stabilized at about 1.4 million under the current practice of culling only adolescent males under a strict annual quota.

# Plan for Storing Nuclear Wastes On Pacific Atoll Strongly Protested

By George C. Wilson  
Washington Post Staff Writers

The Carter administration's idea of dumping nuclear wastes on the Pacific island of Palmyra has drawn strong protests from Hawaiian politicians as well as from the owners of the atoll.

Rep. Cecil Heftel (D-Hawaii), in a telegram sent to President Carter, demanded "a greater dialogue" with the people of the Pacific in mapping plans to store nuclear wastes in the area.

Heftel complained that both he and owners of Palmyra learned about plans to use the island for a nuclear dump from newspaper stories, not government consultation.

"It appears," said the congressman in his telegram sent to the White House Monday, "that the decision-making process" had been conducted "in an atmosphere of noncommunication with those who have the highest stake in the issue; namely, the people of the Pacific."

"I remain personally opposed to storage anywhere in the Pacific" of nuclear wastes, continued Heftel, "and I urgently request that the Department of Energy and the Department of Interior open a dialogue with concerned parties on the issue."

The administration, after studying a number of possible Pacific sites, concluded that the island of Palmyra, 1,000 miles southwest of Hawaii, looked like the most suitable place to store spent fuel from nuclear reactors.

The radioactive waste material would be encased in concrete towers on the island for 30 years and then moved, under administration plans, to another location not yet decided upon.

The idea is to provide Pacific countries with an alternative to reprocessing spent fuel, a procedure

which provides plutonium. Nuclear bombs can be made out of plutonium, thus increasing the risk of proliferation.

Although administration officials have stressed that their plans for Palmyra are far from firm, the owners of the Pacific atoll said they will not sell it for a nuclear dump "at any price."

At a closed hearing of the Senate Energy and Natural Resources Committee June 5, Carter administration witnesses estimated that Palmyra could be purchased for between \$16 million and \$18 million.

"We do not feel we are being unpatriotic or un-American," said Ainsley Fullard-Leo, whose family owns Palmyra, but "we think Palmyra is the wrong place for storing nuclear wastes, and we don't want to have it used for this purpose."

"In fact, we don't think any of the Pacific islands with their fragile environment should be used to store nuclear wastes," he continued.

Fullard-Leo acknowledged that the U.S. government might try to condemn Palmyra to obtain it for nuclear storage. "But we don't think Washington wants to go this route" because of the opposition to the idea.

At the State Department, an official involved with the search for a Pacific storage site said that plans for Palmyra are still too tentative to consider the question of condemning the island to gain title to it.

Japan, which reprocesses spent nuclear fuel in plants in Britain and France is cooperating with the United States in looking for a Pacific storage site.

Although the State Department envisions Japan storing some of its wastes on Palmyra, if it is turned into a nuclear dump, the immediate users would be South Korea, Taiwan and the Philippines to deter those nations from going into reprocessing.

Thursday, August 23, 1979

THE WASHINGTON POST

## Pacific Atoll Owners Bar Nuclear Wastes Site Idea

HONOLULU, Aug. 22 (UPI) — The family owners of the lush South Pacific atoll of Palmyra that the Federal Government wants to use as a dumping ground for nuclear wastes say that they would not sell the land at any price and promised public opposition if the Government tried to take the island.

"We do not feel we are being unpatriotic or un-American," said Ainsley Fullard-Leo, who with two brothers owns the 1,400-acre atoll situated about half way between Hawaii and American Samoa.

Reports from Washington have indicated that the Government had set \$20 million as a "fair price" for Palmyra, which the parents of the three brothers

purchased in 1922 for \$15,000.

Carter Administration officials in Washington have confirmed that a nuclear survey team that secretly visited Palmyra earlier this year had concluded that the atoll, 1,100 miles southwest of Hawaii, would be an excellent storage location for nuclear wastes, particularly the spent rods from Asian nuclear reactors.

### Disclosure Made in Newspaper

Mr. Fullard-Leo said that the Federal officials had approached the brothers at their Honolulu home and asked permission to make a secret survey on Palmyra.

"We assumed they wanted to investigate the possibilities of using Palmyra for an aquaculture project or some sort of a weather station or research project," he said. He added that one member of the Government party said that the family would "laugh" when the Administration's plans were publicly announced.

"The laugh was a bitter one for us when we read in the papers that the Government wanted to buy Palmyra and turn it into a nuclear dump," he said. "But all we know is what we read in the papers."

He said that the Government had not gotten in touch with the family directly or made an offer for the atoll. He added, "We have all agreed that no matter what the price, we will never sell Palmyra to anyone wanting to store nuclear wastes there."

### GUINDON



"Sure, everyone wants to save the whales but not one voice is raised on behalf of the plankton."

THE NEW YORK TIMES,

THURSDAY, AUGUST 23, 1979



# Conservation

By William Hilts

## Bonn Treaty Threat?

**W**ILL foreign nations ultimately control the management of wildlife in this country?

That grim spectre loomed on the outdoor horizon last spring when the U.S. participated in an international meeting held in Bonn, Germany, at which a treaty, dealing with "migratory" wildlife was presented for consideration by some 200 delegates from 76 nations.

Any country which signed the treaty, is subject to international controls over all "migratory" wildlife living within its borders. Debate over the merits of the proposed treaty and the word "migratory," revealed that the term could be applied to any wildlife which might wander, or be forced, to cross an international boundary, like a herd of deer moving into Mexico, or elk into Canada.

Technically, the treaty could apply to all of that particular species located in the U.S. and their destinies governed by an international authority. In short, the world's premier system of wildlife conservation could end up being controlled by nations whose own wildlife programs are still in the Dark Ages. Participants in the conference included such nations as Peru, Ghana, Nepal, Niger, etc.

U.S. participation in the Bonn Treaty was opposed by many professional wildlife groups such as the Wildlife Society, the International Association of Fish and Wildlife Agencies, the Wildlife Management Institute, the National Wildlife Federation and others. Generally in favor of the treaty, were various national and international wildlife protectionist organizations, some of which visualize the treaty as another step in their plan to effectively curtail hunting.

The U.S. did not sign the treaty at the June conference! Neither did Canada, U.S.S.R., Japan or Mexico. But, some 22 nations did sign, all but three of which are from Europe and Africa, for the most part representing those with wildlife programs which would benefit.

The U.S. conservation community collectively heaved a sigh of relief when the outcome was announced. However, there was a "joker" in the deck and that was a subtle provision that the Bonn document would remain open for signing until mid-1980 and any countries wishing to come into the fold, would be free to make the move until that time.

Even though the U.S. delegation, led by diplomat W. Alston Hayne, refused to sign the treaty on the grounds that if adopted, "it would infringe on federal and state wildlife authorities," there are many who still feel this nation should become a part of the agreement. There was also concern voiced that it might adversely affect already existing international agreements, such as the highly effective Migratory Waterfowl Treaty.

## Scientist Urges U.S. to Plan To Ship N-Waste to Space

By Cristine Russell  
Washington Star Staff Writer

**SAN FRANCISCO** — In addition to looking for earthbound means of managing nuclear wastes, the United States should develop the capability for sending radioactive residues to outer space, says a Los Angeles satellite expert.

"Space disposal of certain long-lived nuclear wastes provides a feasible back-up to terrestrial disposal alternatives, and offers to substantially reduce long-term risks on earth," says Stanley G. Rosen, a test manager with the U.S. Air Force Defense Satellite Communication System.

In a paper prepared for a "macro-engineering" session at the American Association for the Advancement of Science meeting here, he said it now appears to be technically feasible to send nuclear waste into space.

But, he added, it might be a "more prudent approach" to wait until the turn of the century to implement such a program, after the "economic, political, legal and technological" issues have been ironed out.

Rosen urged nuclear planners to begin developing the capability now to make it an "option to citizens of the 21st century and suggested it might be a cooperative effort among several countries under United Nations sponsorship."

The Air Force captain admitted that the project would be an "enormously complicated systems engineering task." But he said it would be worth the effort because "there is a pressing need for the safe management of wastes that are being generated by defense and commercial nu-

clear power programs throughout the world."

It seemed too good to believe that the protectionist groups in this country would let a golden opportunity like this go by unchallenged. There are now ominous murmurings coming out of Washington, D.C. that certain anti-organizations are exerting continuing pressures on government officials, including key members of Congress, to take action and sign the treaty prior to the mid-1980 cutoff date.

This must not happen! It behooves every responsible sportsman to fire off as many missives as possible to their elected officials in Washington, U.S. Secretary of Interior Cecil Andrus and Fish and Wildlife Service Director Lynn Greenwalt, informing them that the Bonn Treaty must remain buried and the U.S. must not reverse its initial decision not to participate. Do it now, before you forget, or tomorrow it may be too late!

clear power programs throughout the world."

The radioactive half-lives of nuclear wastes vary — some will still be "extremely toxic after hundreds of thousands of years of storage," he said. Getting rid of them once they are generated has been a nagging international problem that has yet to be solved on a long-term basis. Even temporary storage sites around the country have recently been dwindling.

Rosen noted that "the problem of nuclear waste management . . . is not one that would vanish if the United States were to curtail further civilian reactor development and use. On the contrary, significant quantities of nuclear waste materials have already been generated from many commercial power reactors, both in this country and abroad.

"Furthermore, defense nuclear programs have also resulted in relatively large quantities of nuclear waste, which must be managed in the long term."

Rosen contended that the option of removing radioactive wastes from the earth itself and disposing of them extraterrestrially would have a "short-term risk" associated with launch and injection, but "zero risk" thereafter.

He said studies already performed for the National Aeronautics and Space Administration and the Department of Energy indicate that "safe, reliable disposal of nuclear waste in space may indeed be feasible."

## N-Waste Ocean Dumping Study

SAN FRANCISCO (UPD) — A congressional subcommittee has been told there is no evidence that thousands of barrels of radioactive waste dumped off the Atlantic and Pacific coasts pose a serious health hazard.

According to the EPA, the United States has about 15 major nuclear waste dump sites off the East and West coasts, and one 20 miles northeast of Honolulu.

There were no new revelations in the controversy about dumping of nuclear waste in the oceans by the United States from 1946 to 1970 during a day-long hearing yesterday, which drew about 100 spectators, many of them representing anti-nuclear groups.

There was criticism, however, over the lack of government documentation of the dump sites, one of which is the Farallon Islands 50 miles west of San Francisco where about 47,500 55-gallon drums of radioactive waste were dumped.

**BUT EVEN A GROUP** of scientists opposed to such dumping said there was no evidence radioactivity from the sites had caused any significant environmental damage.

The group, a committee of five scientists of the Oceanic Society, concluded in its report to the House Subcommittee on Environment, Energy and Natural Resources that studies "indicate the presence of radioactivity above natural background and fallout.

"However," the report said, "we conclude that these studies contain no convincing evidence of a serious present or future threat to aquatic or human health..."

Thirty-nine barrels of nuclear wastes were dumped at the Hawaii site in waters 3,500 meters deep. In addition, at a site 300 miles north of Midway Island, seven containers were dumped in waters 5,490 meters deep.

2-25-65 THA

# Scientist Would Enrich Sea

Hawaii Institute of Oceanography and Geology Director Dr. George Woodlark theorized yesterday that nuclear waste could be used to develop rich new deep-sea fishing grounds in Hawaiian waters.

The geophysicist and oceanographer believes that heat from such waste could be employed in being industrial-filled deep mines in the surface. There they

could be used to develop rich new deep-sea fishing grounds in Hawaiian waters.

# With N-Waste

and dumping them at sea, such underwater currents in the vicinity of the Islands—especially around the Big Island.

When could such a plan be implemented? Staff Woodlark replied, "It is in a preliminary stage. It will have to go through a number of layers to the top."

He said nobody is aware of the problem in the present state of this time.

# HONOLULU ADVERTISER

Thursday, Feb. 25, 1965 A-4

count and push the desired waters towards the surface.

"The problem is analysis in calculating how much heat would need to be applied to the demand, cold water at the bottom of the ocean to cause it to rise through the lighter layers to the top."

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# Congress can't agree on

By Andy Plattner  
*Congressional Quarterly*

WASHINGTON — The growing dilemma of nuclear garbage disposal has citizens and public officials in many states mobilizing to prevent nuclear wastes from being stored in their region or even trucked through on public roads.

The three states with commercial burial grounds for low-level radioactive trash are considering closing them or limiting what they will take. California officials nervously are examining the effects of radiation leaking from thousands of barrels of radioactive wastes dumped off the San Francisco coast in the 1950s and 1960s.

At the same time, the nuclear power industry and utilities are running out of room to store burned nuclear fuel and are bringing pressure on the federal government to store it for them.

DESPITE THIS growing public concern over disposal of radioactive wastes, Congress has never enacted a national nuclear waste plan and it is unlikely that Congress will pass a bill in its post-election, lame-duck session.

But the Nov. 4 election may have pushed the problem closer to the front of the line of those decisions the 97th Congress must face next year. Voters in several states made it clear they don't want radioactive wastes in their back yards.

The most immediate problem is the burial of "low-level" nuclear wastes, which are generated in

every community in the United States. There are only three dumps for this type of waste in the nation. Washington voters decided Nov. 4 to close that state's dump next summer. The governor of Nevada has pledged to close his state's burial grounds and South Carolina has cut in half the amount of waste its dump will take.

LOW-LEVEL wastes, which can be very radioactive and quite dangerous to living creatures, include contaminated paper, plastics, construction materials, tools, protective clothing, industrial wastes and contaminated trash produced by nuclear medicine.

Of the 100,000 cubic meters of low-level wastes annually buried in the three commercial dumps in the United States, about 43 percent comes from nuclear power plants, 25 percent from hospitals, 24 percent from industry and 8 percent from the federal government.

The Energy Department also buries about 50,000 cubic meters of this waste each year in its own dumps.

Three other low-level commercial dumps have been closed. One, at Sheffield, Ill., was closed after it was filled in 1978. Two others, at West Valley, N.Y., and Morehead, Ky., were closed in 1975 and 1977 because of water contamination problems.

FOR 25 YEARS, until 1970, a great deal of low-level waste was put in metal barrels and dumped at 50 sites in the ocean. Officials of the En-

vironmental Protection Agency say one-quarter of those barrels now are leaking. Experts disagree on the environmental effect of the leaks but recent publicity has aroused the public in several states, particularly in California.

Low-level wastes currently are buried in dirt-covered trenches at the three dumps. On the East Coast, where most nuclear power plants are located, there is only one dump, at Barnwell, S.C. Because that facility can't accept liquid wastes, trucks must carry this garbage to Hanford, Wash., from as far away as New England.

Claiming that federal regulations concerning the packaging and transportation of these wastes were being ignored, the states of Nevada and Washington in 1979 ordered their dumping grounds closed for several weeks. This closure awakened other states to the impending crisis.

The National Governors' Association and other organizations of state and local officials say the disposal of low-level wastes should be a state responsibility. But, they say legislation is needed from Congress stating this and giving states the authority to enter into regional compacts to handle radioactive trash.

WHILE THE STATES face the low-level waste problem, the federal government must decide what to do with high-level wastes generated in nuclear reactors and in producing nuclear weapons. Some of these wastes remain radioactively hazardous for hundreds of thousands of years.

## Storage

WASHINGTON — A national decision must be made soon on what to do with growing quantities of used nuclear reactor fuel at power plants throughout the country.

The nuclear industry, nuclear utilities and the Carter administration say the solution is for the federal government to take the responsibility for this fuel and store it until permanent radioactive waste repositories are built toward the end of the century.

Environmental groups, however, call away-from-reactor (AFR) storage by the government an unwarranted taxpayer bailout of the utilities. They say spent fuel storage should remain the responsibility of the nuclear power industry.

PRESIDENT-ELECT Ronald Reagan did not take a position on this issue during the campaign, but is ex-

Storage Sites for Commercial Nuclear Waste  
(Existing and Potential)



• 130 commercial nuclear reactors already operating or expected to be in operation by 1985. Spent fuel is stored at sites.

★ Potential away-from-reactor regional storage sites, under consideration by Department of Energy (Morris, Ill.; West Valley, N.Y.; Barnwell, S.C.)

● Existing commercial low-level waste sites (Boatly, Nev.; Hanford, Wash.; Barnwell, S.C.). In addition, there are 7 major and 7 minor low-level waste sites used by federal government.

□ 23 states being considered for high-level nuclear waste storage in geological formations.

SOURCE: U.S. Department of Energy

# N-waste

President Carter announced in February the government would take a safety-first approach to finding permanent repositories in underground geologic formations. The Energy Department is considering repository sites in 23 states, much to the displeasure of residents in those states.

Congress has not yet agreed to Carter's policy. Instead, the Senate voted this summer for a relatively quick solution — high-level wastes would be put in specially made vaults, where they could be monitored. Three House committees have written five different solutions, ranging from a demonstration project to what the president proposed.

However, the committees' inability to compromise has kept the bills from being put before the full House and no solution seems likely this year.

Nuclear industry and utility lobbyists say a bill is needed soon and are working to get waste legislation this year.

ENVIRONMENTAL lobbyists say they want good legislation but are opposing House action this year. They say they would get a better bill from the next Congress than whatever could be rushed through the remainder of this one.

The most politically contentious questions Congress and an incoming Reagan administration must answer include what rights the states should have in fighting a nuclear waste site and whether the federal government should be responsible for the spent fuel being burnt by nuclear utilities.



Illustration by Dick Adair

SOON TO BE RELEASED!

## problem getting critical

pected to support federal away-from-reactor storage.

The Senate passed a bill in July that would establish federal storage of commercial spent reactor fuel. The full House has not voted on the issue but three House committees have rejected the idea.

Commercial nuclear reactors are fueled with enriched uranium, contained in long metal rods. The fission reaction produces several radioactive substances, including some that are dangerous for hundreds of thousands of years.

When commercial nuclear power was first promoted by the federal government, it was assumed that the burned fuel from reactors would be reprocessed into additional fuel and relatively short-lived wastes that would be radioactive for 300 to 600 years.

However, reprocessing never be-

came a commercial success and was banned by Presidents Ford and Carter. They argued the plutonium produced in reprocessing could lead to the proliferation of nuclear weapons. The Energy Department does reprocess spent fuel from military reactors to make atomic weapons for the Defense Department.

NUCLEAR REACTORS periodically replace a portion of their fuel core with fresh uranium fuel. The spent fuel is stored in pools of water at the reactor sites. The water cools the fuel and serves as a barrier preventing the escape of radioactivity.

Most nuclear power plants were built with the idea they would store spent fuel for a year or so, then ship it to a reprocessing plant. Their storage pools are filling up.

The Energy Department has reported 27 nuclear power plants will require AFR storage before 1985, al-

though these estimates have been widely criticized for giving industry too much benefit.

The Carter administration took the position that no commercial reactor should be required to shut down because of the lack of available space for storing spent nuclear reactor fuel.

The Energy Department is exploring three sites where federal storage sites could quickly be established:

- The Barnwell Nuclear Fuel Plant, Barnwell, S.C. This plant, owned by Allied General Nuclear Service, was intended as a reprocessing facility but was caught in the reprocessing ban and never has been used.

- The Morris Operation, Morris, Ill.

- The Western New York Nuclear Service Center, West Valley, N.Y. — Andy Platner

## Opposition to nuclear dump

Opposition is growing in Pacific Island countries to a Japanese plan to dump low-level nuclear waste in the Pacific. Here BILL GASSON in Wellington and MICHAEL PRAIN in Port Moresby report on the situation.

Over the next two years or so Japan plans to dump up to 10 000 200-litre drums of low-level nuclear waste into international Pacific waters south-east of its own marine boundaries. The operation is described as 'experimental' and it could lead to the dumping of even greater quantities of waste in subsequent years.

Conscious of the sensitivity of the plan among Pacific countries and islands, a four-man scientific team from Japan's Science and Technology Agency has toured the South Pacific on a public relations trip to explain Japan's plans and to give assurances that all will be well.

In Guam they ran into some blunt questioning from Micronesian leaders who had gathered there for their Pacific Basin summit conference. These island nations that rely on the sea for their riches wanted no part of any dumping scheme and said so. 'We couldn't conquer the emotional approach,' said Horishi Goto, the deputy Director General of the Agency who led the mission. He was speaking in Wellington when the mission arrived in New Zealand.

In Wellington however the Japanese believed they had succeeded in their objective to explain and to reassure. They based this view on comments by Prime Minister Robert Muldoon who opposed indiscriminate and uncontrolled dumping of nuclear waste.

However Mr Muldoon then added that the Japanese had given an assurance that their dumping programme would be carried out strictly in compliance with all applicable international agreements. 'We welcome that assurance,' he said. The Japanese delegation took this to mean approval, or

at least understanding of their proposal. Mr Muldoon also made the point that the Japanese had emphasised that their experimental programme would be monitored for safety for two to three years before full scale dumping proceeded.

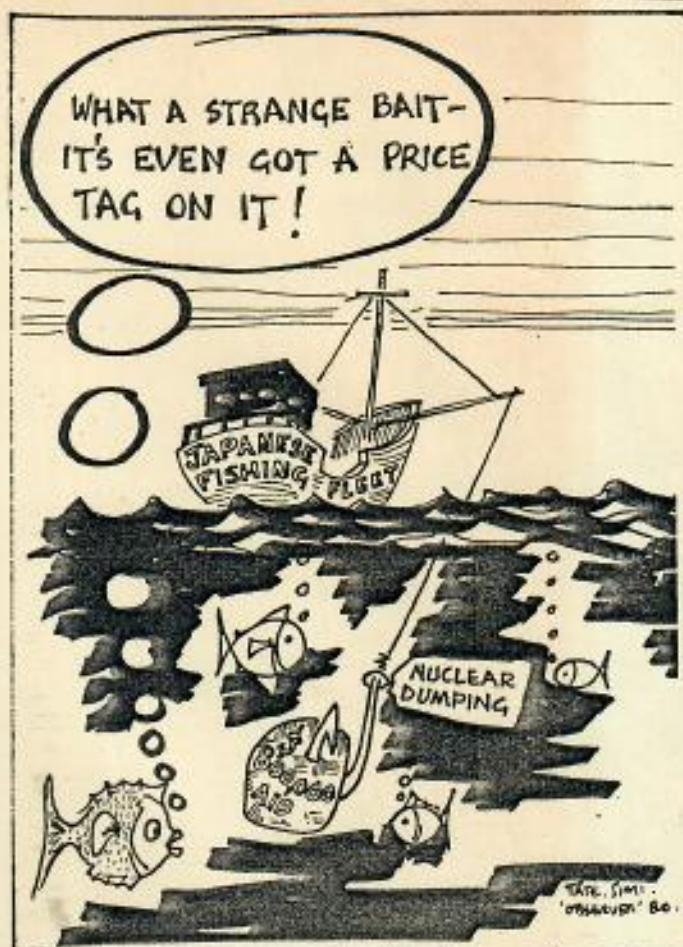
The site for the dumping ground is about 900 km southwest of Tokyo and 1100 km north of the Mariana Islands in water 600 m deep.

Armed with colourful brochures that carefully explained the exceeding low limits of radiation expected to escape from the cement-filled stainless steel drums, the Japanese explained the trouble they went to in selecting the right spot that was free from volcanic disturbances and lacked seabed resources. The Japanese said they had detected manganese nodules there but the depth was too great for recovery and the manganese could not be considered a resource.

The Japanese said that if any governments sought the progressive results of monitoring the experimental dumping programme, the information would be freely provided.

Despite the repeated assurances that Japan believed it had the experience to guarantee the safety of the operation and to avoid uncontrollable pollution of the sea, the scientists admitted to some areas of doubt. These included projections on how far radiation might spread throughout the Pacific from the drums and how many drums of waste Japan expected to be dumping in the sea by 1990 when it would have trebled its nuclear power generation capacity. At present Japan generates 12% of national electric power from its 21 reactors.

Questioned about the discovery of marine mutations near the United States former dumping area in the Pacific, the



Japanese said that the Americans had used a different type of radioactive material and had simply pushed it into drums that had not been able to resist pressures in deep water.

For those still unconvinced by Japan's reassurances that no harm could come from dumping radioactive waste in the sea, the Japanese emphasised that maximum radiation from the drums would be only 1% of the concentration permitted by the 1972 London Dumping Convention as set out by the International Atomic Energy Agency.

Japan plans to become a signatory to the convention later this year and then to start its experimental dumping in July next year.

In Port Moresby, the Papua New Guinea government made a request to Japan to discontinue its plans to dump nuclear waste in the Pacific. The request was issued soon after the four-man delegation arrived to explain the dumping operation and to give reasons why it would not be harmful.

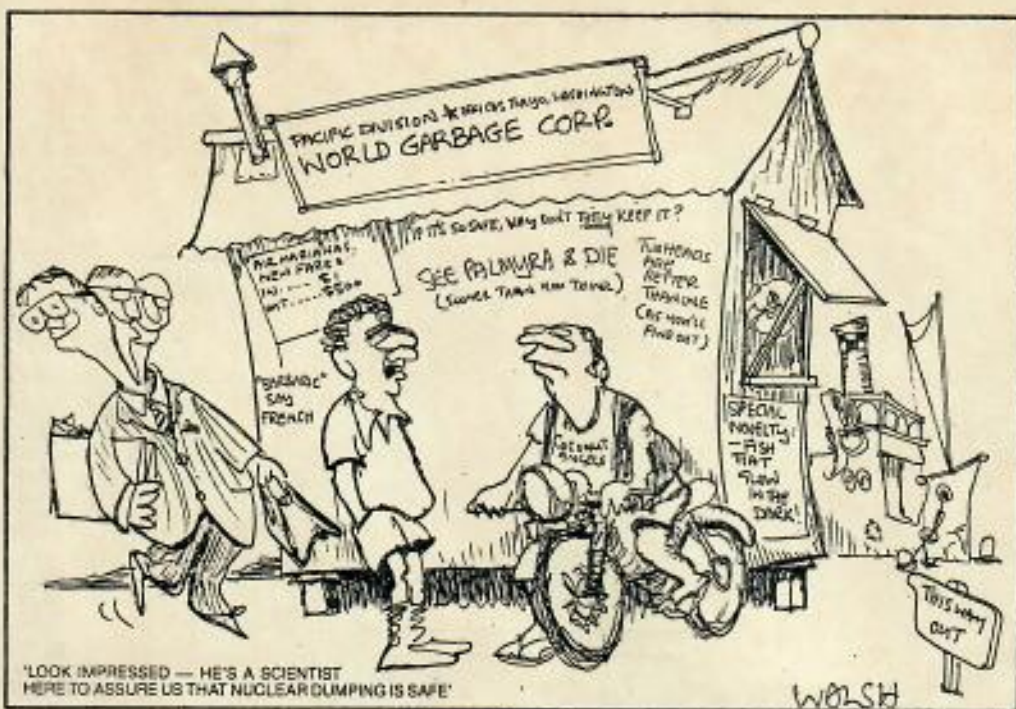
Tate Simiti, in *The Observer* (Western Samoa), looks at Japanese aid to Pacific fishing projects and queries the effective price tag.

The PNG Foreign Minister, Mr Noel Levi, said so much amount of scientific evidence could convince his government to change its policy on a nuclear-free Pacific. The Pacific was one of the world's last unspoiled environmental areas and the PNG government would never agree to its being used as a nuclear testing or dumping ground, he said.

Mr Levi said the environmental effects of nuclear waste dumping would not be known for many decades. The Japanese had said the dumping of the radioactive waste was experimental, a test to determine whether the system was safe and proper for future use. 'The government would greatly prefer that Japan indicate its confidence in the success of these tests by conducting the tests within its own 200-mile limit,' he said.

Mr Levi said all countries in





'LOOK IMPRESSED — HE'S A SCIENTIST  
HERE TO ASSURE US THAT NUCLEAR DUMPING IS SAFE'

the region had openly expressed opposition to the tests. 'In the face of such total opposition, the Japanese should abandon their plans,' he said.

The Japanese dumping plans have also raised high emotions among PNG university students. A group of placard-waving students staged a demonstration outside the Japanese embassy in Port Moresby where they handed a protest letter to a Japanese diplomat who assured them it would be conveyed to his government.

From Saipan a recent report indicates that the Yap legislature has adopted a formal motion of protest against the Japanese intentions and the Truk legislature has reinforced an earlier protest. The two legislatures are requesting the Federated States of Micronesia to boycott Japanese goods. They are also appealing for similar action from countries throughout the Pacific.

## Talks oppose nuclear power

Members of private delegations from five Pacific Island countries have appealed to Australia to end all alignments with nuclear-orientated powers in a bid to keep the Pacific nuclear-free.

The decision was taken at a Sydney conference late in September. The conference, named the nuclear-free Pacific forum for independence and peace, was sponsored by the Association for International Co-operation and Disarmament. The five Pacific Island areas from which delegates came were Micronesia, Papua New Guinea, Fiji, Vanuatu and Hawaii. Australia and Japan also had representatives. Delegates from New Caledonia and French Polynesia had been invited but did not attend. They were to have been Marc Pomare from French Polynesia who said that his passport and visa application disappeared in the mail, and Jan Uregi from New Caledonia who had insufficient time to make arrangements.

The conference followed similar anti-nuclear talks held in Hawaii in May, but it also took in wider discussions which the organisers described as 'helping to develop awareness and support in Australia for Pacific people's movements for independence and peace'. This aspect of the talks created some criticism from hard-core anti-nuclear activists who claimed that discussions had been too far-reaching and vague and had watered down the central purpose.

**Rob Walsh, looking across the Pacific from Sydney, suggests that three heads are not always better than one.**

The anti-colonial aspect of the talks was a direct sequel to a series of meetings with Pacific liberation groups held in Vanuatu during independence week late in July.

The Sydney conference drew up working policies for future anti-nuclear activities. It also made plans to provide information networks and the greatest possible publicity for what the delegates described as liberation movements in French Polynesia, New Caledonia, West Irian, Okinawa and the Southern Philippines (the Moro movement).

The forum called for the immediate release of Tahitians in gaol in France. It was requested that direct material aid be sent to Vanuatu because of the enormous cost of ending the Santo rebellion. At the forum \$700 was collected for the Vanuatu delegate, Hilda Lini, to take back with her to Port-Vila.

The Japanese delegation of 20 included a survivor of Hiroshima and a spokesman for the little-known Okinawa Liberation Front. The Japanese offered their expertise in the study of waste disposal and in

the provision of medical treatments.

The forum called for a non-aligned Australia with a reformulated foreign policy advocating a halt to further testing and stock-piling of nuclear weapons and dumping of nuclear waste. It also called for a decrease in nuclear submarine activity, the independence of French colonies and the withdrawal of support for U.S. bases in the area. Speakers stressed that there can be no technical distinction between nuclear power programmes for peaceful purposes and for weapons production.

The conference endorsed plans for a New Zealand peace ship to go to Bangor in Washington State when USA launches its next Trident nuclear submarine there in August 1981, and for an invitation for the peace ship *Fri* to return to the South Pacific.

Support was also expressed at the forum for the General Workers Union strike in Kiribati.

Many motions put to the forum were idealistic and naive having little to do with a nuclear-free Pacific. For the visiting delegates, the forum acted mainly as a platform to air their views and frustrations to the political left in Australia. Very little was communicated to the Australian public because of poor media coverage.

— Tony Cole

## THE DARK SIDE OF PARADISE

Hawaii in a Nuclear World



Publicity was given at the Sydney forum to a newly-published book from catholic Action of Hawaii, warning of nuclear dangers in Hawaii.

# Crowd opposes Pacific storage of nuclear waste

By ROBERT W. BONE  
*Advertiser Staff Writer*

A U.S. State Department representative said here yesterday that concern over possible nuclear waste storage on Palmyra Island was a tempest in a teapot, but scores of others strongly disagreed.

Among the doubters was Rep. Cecil Heftel, who chaired a six-hour hearing of the House Subcommittee on National Parks and Insular Affairs at the Honolulu Federal Building.

More than 150 attended the opening session of the occasionally emotional hearing, but only about 25 were present at the end of it. Besides Heftel, others on the panel were Reps. Daniel Akaka and Phillip Burton, D-Calif., and Guam's delegate to Congress Antonio B. Won Pat. All four were strongly skeptical of the federal government and its proposals to establish storage areas for used, highly radioactive material from the world's nuclear power plants, possibly here in the Pacific.

Introducing the hearing, Heftel said that concern over nuclear storage in the Pacific came about after a "shocking" March 28 story in the Washington Post alleging that the State Department is considering storing spent nuclear fuel on Palmyra Island, 1,000 miles south of Honolulu.

The principal witness was Richard Scribner, the State Department's special assistant to the undersec-

tary for security assistance, science and technology.

Scribner testified in strong terms that although the United States must find nuclear waste storage sites away from atomic power plants, there are "no current plans" to establish such a dump on Palmyra and that the government does not want to buy that island.

He did say, however, that the administration has "made preliminary environmental evaluations of Midway, Palmyra and Wake islands as possible sites," but that no proposal would be made without considerably more study and consultation with Congress and others concerned with the areas.

He also said during the hearing that the government was not even thinking of any site in Micronesia or Samoa. "A primary consideration in reaching a decision will be assurance that such activity on any site does not present health, safety or environmental hazards," Scribner said. "In addition, the social and political aspects must be evaluated before a decision can be made."

He added that there would be many feasibility and environmental studies before action could be taken.

But all the congressmen and many in the audience, whether they testified or not, clearly did not trust the statements from Scribner, who was

*See U.S. on Page A-3*

# U.S. storage of N-waste

From Page 1

called upon again and again to restate and clarify the administration's point of view.

At one point, Heftel and Burton began calculating the cost of the entire future of U.S. nuclear waste storage out loud on the basis of figures supplied by Scribner and came up with a grand total of \$2 trillion.

The congressmen then questioned not only whether such a program would be morally right but whether, in Heftel's words, it even made "economic sense."

Some of the most emotional testimony came from Joseph Ada, the lieutenant governor of Guam. Like many others, he recalled the U.S. government's history of assuring Pacific peoples they would not be harmed by U.S. nuclear activities, then finding this was far from true on Bikini and elsewhere where natives had died following atomic weapons tests.

"The State Department has had a history, specifically in Guam, of becoming very nonchalant — of not caring about the Pacific and its peoples," he said. "It seems they do not care about the lives of the people of the Pacific because we do not have any votes in Congress . . ."

"Whenever there is a problem, why is it in the Pacific — our back yard. Why can't it be in their back yard?" he asked rhetorically.

"The only time the State Department is interested in the Pacific is when they want to dump their dirt!" Ada said, with obvious emotion.

Similar sentiments were echoed by many others, including Peter Coleman, the governor of American Samoa, who said the United States would do "irrevocable damage to our international credibility if this matter of nuclear waste storage is not handled with sensitivity and foresight."

Carlos Comacho, governor of the Commonwealth of the Northern Mariana Islands, said the Pacific was only being considered as an atomic dump because it seems far away to the vast majority of the American population.

"The track record of scientists assessing radiological safety is deplorable," he said. "No responsible government . . . can continue to accept their assurances without grave concern."

"Fobbing off the risk onto distant people . . . is immoral and barbaric, and is out of place in a government that prides itself on the observance

of human rights," Comacho said, going on to say that a future nuclear leak would adversely affect tourism and fishing, two important industries in the area.

Representing Gov. George Ariyoshi, George Yuen, director of the state Department of Health, said there would be too great a security risk in storing nuclear waste on an island like Palmyra.

Lt. Gov. Jean King, who said she was speaking for herself, said the issue "should not be 'Where can we store nuclear wastes?' until the issue of 'How well can we store nuclear waste?' has survived public and scientific scrutiny."

Leslie Fullard-Leo, one of three brothers who own Palmyra Island, told the subcommittee that prospective lessees for sport fishing and other industries on the island had pulled out of negotiations since the nuclear storage flap began a few months ago. He also complained the government has ignored their ownership of the island until a year ago when it conducted the original scientific survey, telling the family the purpose of the survey was "classified."

The subcommittee also heard from a panel of four University of Hawaii scientists who made the survey, but who said that it was not classified, since the university is prohibited from taking part in classified work.

The four agreed that according to information gathered so far, there was nothing that would cause them to recommend against Palmyra as a nuclear waste storage site, although some said that picture could change if more information is available later.

One of the group, Dr. Martin Vitousek, made the point that the dangers of nuclear proliferation by the ready availability of nuclear waste to "the Idi Amins or the ayatollahs of the world to make nuclear weapons" must be balanced against the dangers of possible nuclear accidents.

Others who testified included Advertiser columnist Bob Krauss, who had been to Palmyra. He said that "from the standpoint of aesthetics, it would make as much sense to store nuclear waste in Yosemite National Park."

Keith Krueger, of Greenpeace Hawaii, said he could not believe "the glib assurances made by the United States government concerning nuclear power . . . If Japan wants nuclear power, let them bury it (waste) under Shinjuku Station (in Tokyo). If New York wants nuclear power, let

## in Pacific opposed

them bury it under Times Square," he said.

Wallace Inglis, representing Catholic Action, said his group and others have a civil suit before the Ninth Circuit Court of Appeals in San Francisco challenging the stor-

age of nuclear devices at Pearl Harbor and on the Leeward Coast.

"If the State Department is not allowed to dump wastes in Hawaii, then the Defense Department should not be allowed to turn Hawaii into a nuclear weapons dump," he said.

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A-12

Wednesday, March 19, 1980

## Pacific Storage of Spent Nuclear Fuel

Sen. Spark Matsunaga has reason to be pleased with the success of his efforts to require congressional approval for the establishment of any federal nuclear waste storage facility in the Pacific. President Carter has signed this provision into law as an amendment to a bill authorizing funds for U.S. territories.

Federal interest in Palmyra Island as a possible site for a storage facility aroused concern in Hawaii last year.

The new law would make it more difficult, but not impossible, to establish a storage facility. The president signed the measure reluctantly, calling it an "unnecessary impediment to the orderly conduct of this country's nuclear nonproliferation policies."

Carter was referring to the administration policy of using storage of spent nuclear fuel as an alternative to reprocessing of plutonium, which can produce material usable in nuclear weapons.

At a congressional hearing in Honolulu last December, a State Department official testified that the department wanted to do a feasibility study of nuclear storage on Palmyra, Midway and Wake islands. He emphasized that any decision on storage facilities would take environmental factors into full consideration, and that if the risks were found to be unacceptable the project would be dropped.

These assurances did not satisfy the congressmen and other Pacific leaders at the hearing in view of the tragic mistakes made in nuclear weapons testing in the Pacific in the 1950s.

With opposition so strong, congressional review of any Pacific nuclear storage plans seems most desirable even though it may be an additional headache for the nonproliferation program.

The federal government would have to persuade Congress that such projects did not present real dangers. This would serve two purposes. It would provide an independent check against any tendency to minimize potential problems, and it would make any approved project better able to surmount the opposition it would almost certainly encounter.

With our need to reduce dependence on oil, increased use of nuclear power seems unavoidable. But if we accept the argument that storage facilities for spent fuel must be provided as a means of reducing nuclear weapons proliferation, then we must agree to provide those facilities somewhere.

The location of those facilities and the safety precautions to be taken are technical questions, but they are questions of deep concern to people fearful of being harmed.

These people have the right to the fullest assurances of safety. The best way to provide those assurances seems to be to require that any storage proposal — in the Pacific or anywhere else — be defended before our elected representatives in Congress before action is taken.

# The Sunday Advertiser

Established July 2, 1856

THURSTON TWIGG SMITH *President & Publisher*  
GEORGE CHAPLIN *Editor-in-Chief*  
BUCK BUCHWACH *Executive Editor*  
JOHN GRIFFIN *Editorial Page Editor*  
MIKE MIDDLESWORTH *Managing Editor*

Honolulu, May 18, 1980

## Nuclear storage: No

It's continuing bad news that the United States and Japan are still planning a study of the feasibility of storing spent nuclear fuel on a Pacific Island, with Palmyra south of here as the leading candidate.

Ecologically, there must be much more safe and stable sites elsewhere, including in Japan (where most of the material would come from) and on the U.S. Mainland.

Politically, the idea is a Pacific policy disaster. Not only have there been strong protests here and in the American island area north of the equator, the independent nations of the South Pacific Forum have also protested vigorously.

**THIS COMES** at a time when Washington is proclaiming a new policy of greater interest in the Pacific Island region — and indeed demonstrating it in various ways. To say the least, the nuclear storage idea is counter-productive to that policy.

In fact, the only thing it seems to have going for it from the Carter administration's standpoint is that it avoids more nuclear storage problems on the Mainland by putting them in an ocean area of relatively small population.

If that may be politically "understandable," it also comes across as callous, and perhaps potentially dangerous to many people of the Pacific Island region.

In short, the U.S. and Japan can't win on this one: If the storage is so safe, let them do it at home. If it isn't, why endanger polluting the Pacific?

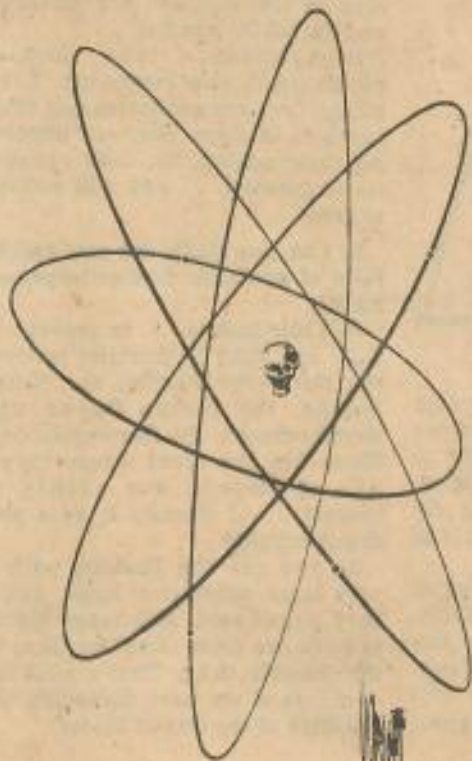
**THE BETTER NEWS** in all this was expressed in a talk here last week by the director of the State Department's Office of Pacific Island

Affairs, William Bodde.

He noted that political objections to the nuclear storage proposal from Hawaii and other island areas was being "plugged into the study at every level."

As we have said, those objections should be commanding. To help make that so there should be continuing reaffirmations from our local and congressional leaders of their objections, and Hawaii should join with other island areas and organizations in making the point.

Moreover, the message should go equally to Tokyo and Washington. It is surprising as well as unfortunate that the Japanese would be a party to such a proposal.



## In Continuing Search for a Home

# Palmyra Inspected by Bikinians

By Murry Engle  
Star-Bulletin Writer

A delegation of Bikini islanders, who were displaced 34 years ago next month because of U.S. nuclear testing, inspected Palmyra Island this week as a place to settle, but came away with mixed feelings.

"No conclusions were reached," said Scott H. Stege, a Trust Territory representative from Kwajalein, who accompanied the group that circled a number of times over Palmyra Tuesday in a noisy transport plane.

He said the group stopped in Honolulu this week en route back to Kili Island, by way of Kwajalein and Majuro, where some of its people now live.

The Bikini people have been evacuated from their own atoll twice.

The first time was in 1946 to Rongerik Atoll, also in the Marshall chain, 128 miles away because of a series of U.S. nuclear tests — 23 altogether. The worst radiation resulted from a 1954 15-mega-

ton hydrogen bomb blast off Nanu, a tiny island at the northwest corner of Bikini atoll.

THE SECOND TIME was in 1974. The Bikinians had returned four years previously when Bikini was declared safe for habitation, but it was discovered that it might be another 60 years before that became a reality.

When the Bikinians first left their atoll, they numbered about 165. Despite the fact that their wanderings took them to islands (Rongerik, Kwajalein and Kili) unsuitable to their lifestyle and with inadequate food supplies, their population has exploded to between 800 and 900.

Whether Palmyra can support that many people, "only the Bikinians are qualified to say," said Peter B. Savio of Savio Realty. He represents Palmyra's owners, the Fullard-Leo family, which leases the island to a copra plantation company.

Savio accompanied the Bikinians and Stege as the transport plane circled the island several times from the air, but

did not land on the airstrip, which was built during World War II.

PALMYRA, SAVIO said, is in a rich fishing area. The 1,400-acre horseshoe-shaped atoll has two lagoons of crystal clear water and the harbor is bigger and deeper than Honolulu Harbor, he said.

"The heavy rainfall, similar to Hilo's, makes it one of the wettest and lushest islands in the world," he said.

But Palmyra is isolated. The nearest shipping link is by way of Christmas Island, 300 miles away. Its only inhabitants are 21 Gilbertese copra workers on contract.

"Some adjustment would also have to be made if the Bikinian people decided they want Palmyra," Savio said. "That would involve purchasing out the existing tenants or making arrangements to work with them," Savio said.

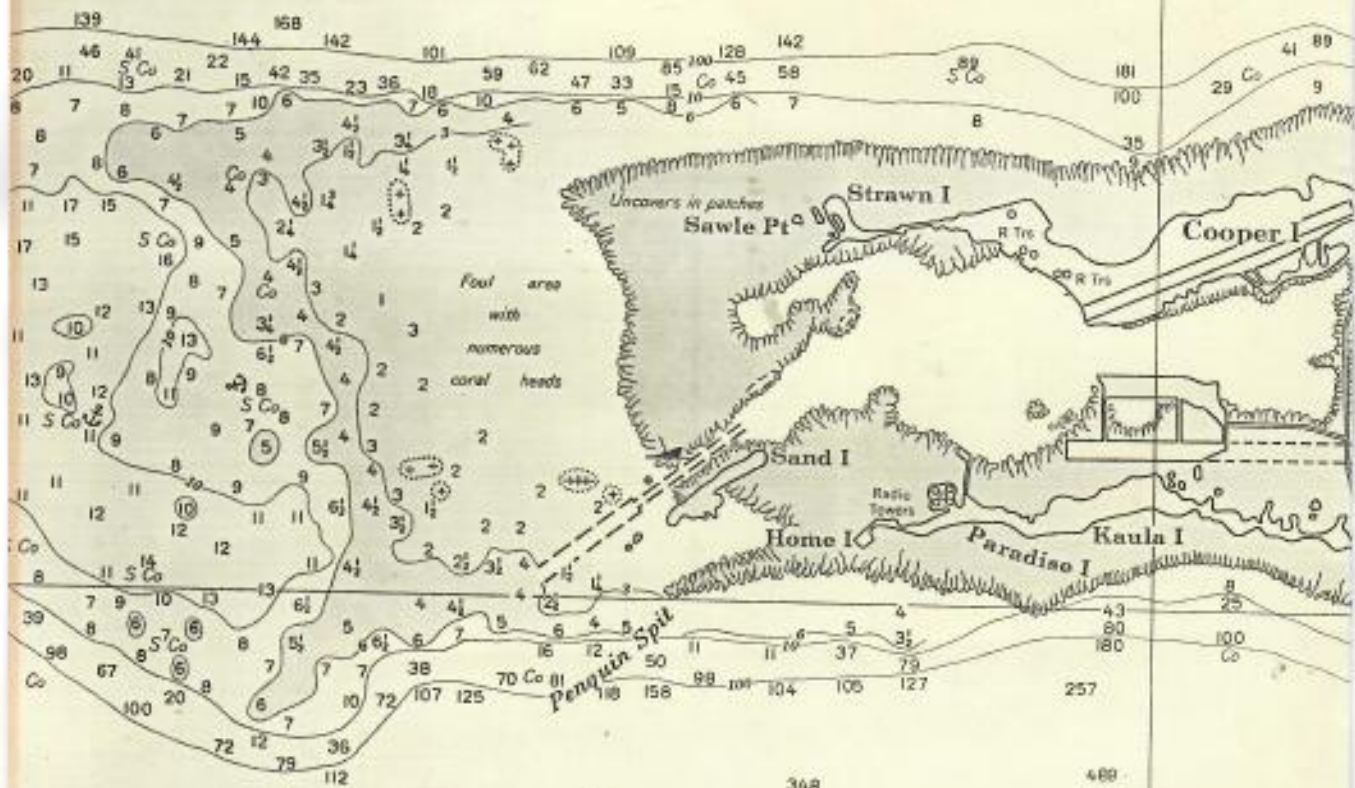
"This is only one of several atolls they are looking at," Savio said. "They do need to find a place, though, because Kili just isn't suitable."

07' 45" 30" 15" 00'

05'

420

313



435

420

Nautical Miles

411

348

488





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Managing Editor

Honolulu, December 25, 1978

## Logic & symbolism

# Nuclear storage, again

It is a good thing that a concerned congressional group will hold hearings here this week on the prospects for storing spent nuclear fuel in the Pacific.

Federal officials have said it would be a long process of studies and hearings before any storage area could be selected, and that it would be 1987 before anything could be stored.

But timetables and priorities can change, and suspicion lingers that Palmyra Atoll, 1,000 miles south of Hawaii, is Washington's prime candidate.

**THE HEARINGS** this Thursday and Friday will be conducted by Hawaii's Representative Cecil Hefelt and Representative Philip Burton of California. Burton is a member of the House Interior and Insular Affairs Committee which is considering the question.

This is said to be the first such hearing in the Pacific, and governors and other leaders from Guam, the Trust Territory and American Samoa are expected.

nuclear explosions and accidents, and where there is a strong nuclear aversion?

It may make sense politically in that no U.S. state (including Hawaii) wants to store such material, even though the experts assure us that it would be safe from leakage or sabotage.

But in the larger politics of foreign policy and the new stress on U.S. Pacific relations, it makes no sense to thrust another of our problems, potential or perceived, into an island area.

The 10 nations of the South Pacific Forum, which range from small islands to Australia and New Zealand, have already denounced the idea of using Palmyra or other such islands. That should have more weight than it seems to have gotten in Washington.

Whatever the logic of spent fuel storage and the arguments about how safe it would be, doing so on a Pacific Island would be a symbolic disaster for the U.S., as well as for Japan, which would be the source of most of the material.

Hawaii should also get its views on the record, even though Governor Ariyoshi did express opposition to the Pacific storage idea in a September meeting with a State Department official.

**WHILE ONE CAN'T** prejudice what comes out at the hearings here and elsewhere, the proposal to store spent nuclear fuel in the Pacific is either controversial or just a bad idea in several ways:

For one, there are those who challenge the idea of simply storing used fuel rods. They favor reprocessing the material to take out useful non-radioactive products.

For another, just moving such material around the world can be controversial. Note the furor raised here earlier in the year over the visits of British ships carrying spent nuclear fuel from Japan to Europe for reprocessing.

**MOST IMPORTANT** is the question: Why make a nuclear storage or dumping ground in a Pacific island area that has seen the ravages of

## UNKNOWN EFFECTS OF ALL RADIATION



Nuclear-age cloud

# Museum Official Hits Palmyra N-Stor

By Nadine W. Scott  
Star-Bulletin Writer

E.H. Bryan Jr., chief of the Pacific Scientific Information Center at Bishop Museum, is "absolutely diametrically opposed" to the proposed storage of nuclear waste on Palmyra Island.

He said he was appalled when he learned the U.S. Department of State is considering making Palmyra (possibly along with Wake and Midway) "temporary" storage sites for spent nuclear fuel from the United States, Japan, Taiwan, South Korea and the Philippines.

"Scarcely six feet of all of Palmyra is above high tide. It's all sand and mud."

"If you store anything there it will be out in the sea in no time flat," he said in an interview.

BRYAN IS AN astronomer, map-maker, botanist, entomologist, geographer and historian, the author of "Bryan's Sectional Maps of Honolulu" and "Stars Over Hawaii."

Bryan said storing the spent nuclear fuel rods on Palmyra would create a "monster," and would make a "swill house" of the island and its environs.

"You couldn't leave the waste out in the open and you couldn't bury it," he said.

"Dumping the stuff on one of those

low islands would be exactly like dumping it into the ocean," he said.

Lee Mottelet, a geographer at Bishop's information center, concurred. Palmyra is located in about the middle of the Equatorial Countercurrent. Wake is on one side of the North Equatorial Current and Midway the other.

ANY SEEPAGE of radioactive materials would be picked up by the ocean currents and carried around the Pacific Basin to Alaska and California. Eventually it would drift down to the Peru Current along South America.

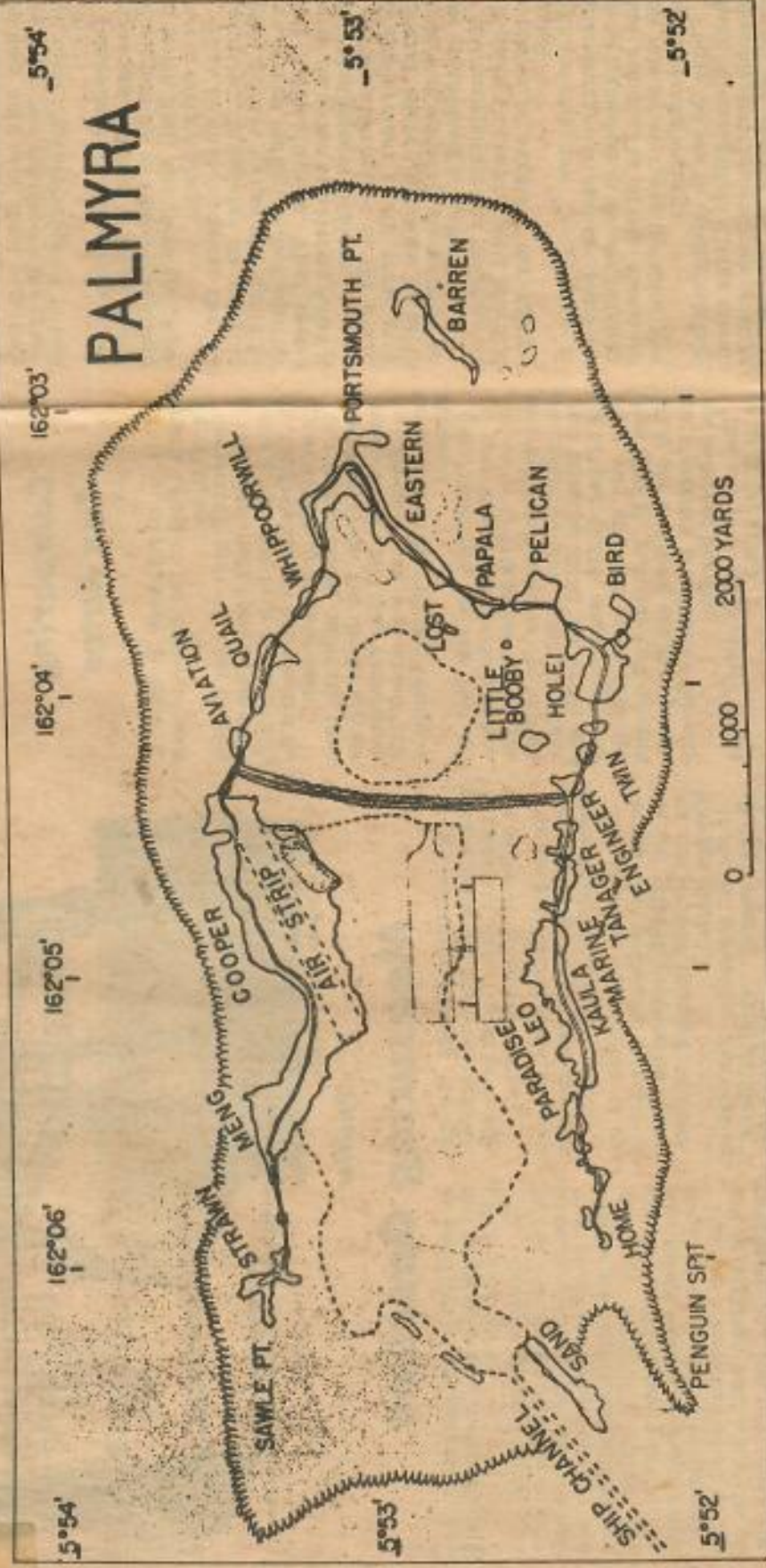
"We would eventually kill the ocean," Bryan said.

"If the ocean dies, we can kiss off the world. This is a water planet. Our weather is largely determined by the ocean. Condensation from sea water forms much of the clouds which cause precipitation around the world."

"If that's contaminated...."

Bryan pointed out Palmyra gets about 100 inches of rain a year and the island is "lush and beautiful." It is also an important fishing spot, incredibly rich in nutrients on which a great variety of organisms feed, so these equatorial waters are rich in animal life.

He said the Pacific covers about 63.8 million square miles and con-



**NUCLEAR DUMP?**—The islets of Palmyra, an area of less than 300 acres, are joined together by causeways. Elevation is scarcely more than 6 feet at high tide. Shaded area outside the islets is a mud and sand flat. —Map by E.H. Bryan Jr.

# age Plan

tains about 170 million cubic miles of water, more than half of all the free water on the surface of our planet.

**BRYAN WARNED**, "We've got to look at the writing on the wall.

"We should see the danger of the situation and consider closing down nuclear power plants before the waste they generate causes more of a problem."

He said any seepage of radioactive waste "would be spread around the Pacific very rapidly," particularly since the sand on coral atolls and islands with such low elevation "is extremely porous."

And he said although Palmyra is not in the hurricane belt, "high winds and waves could wash over the entire chain of islands".

In 1940, Bryan, after a study trip to Palmyra, wrote:

"Palmyra Island is the most typical, luxuriant and picturesque atoll under the American flag.

"The atoll consists of a platform of hard sand and coral reef, upon which is strewn a horseshoe curve of little islets, covered with a dense growth of trees, shrubs, and coconut palms.

"At low tide one can walk from islet to islet, with only an occasional channel more than ankle deep."

**SHORTLY AFTER** Bryan wrote his descriptive article, the Navy began construction of an airstrip on Palmyra, dredging out a lagoon for fill material. The airstrip is the highest point on the island. The original 52 islets and atolls were joined together by causeways constructed by the Navy.

Bryan pointed out the government has spent a great deal of money on Palmyra, Wake and Midway, dredging and developing the islands for various purposes. "Why waste all this?" he said.

Meanwhile in Washington, D.C., Sen. Spark M. Matsunaga warned that Palmyra's maximum storage capacity will not meet the needs of the Pacific nations for a nuclear storage facility for even 30 years.

"Today, 70 nuclear power plants in the United States excrete 2,100 tons



E. H. Bryan Jr.

of spent nuclear fuel every year," Matsunaga said.

"**THE OTHER** four nations of Japan, South Korea, Taiwan and the Philippines will accumulate an estimated 10,700 tons of nuclear spent fuel within the next 16 years.

"Palmyra, which is the most likely of the three islands named by the State Department, has a storage capacity of only 10,000 tons," Matsunaga said.

Palmyra is private property. It is owned by the Leslie Fullard-Leo family of Honolulu. The family has received no official information about a takeover of the island by the government.



Palmyra from the air: Photo shows dredged channels and lagoon; causeways are built from dredged material.

# Deepening mystery of tests on Palmyra

By DARYL HUFF  
Advertiser Staff Writer

The State Department, the University of Hawaii and the Navy Research Office sponsored a research trip to Palmyra Island in January without informing the island's owner that the researchers were looking into Palmyra as a possible site for the storage of spent nuclear fuel.

Leslie Fullard-Leo, the Honolulu man who owns the island along with his two brothers, said he would not have allowed the researchers on the island if he had known they were investigating it as a site for such storage.

According to the university, the team included Tad Monroe, a State Department geographer; a member of the Army Corps of Engineers looking at available harbor facilities; a representative of the Navy facilities and engineering division; James Marigos of the Hawaii Corps of Engineers; Dr. Martin Vitousek, a university researcher and pilot of the plane; and university geologist Seymour Schlanger, who acted as co-pilot.

The State Department said the team spent 2½ days doing tests on the island.

Fullard-Leo said he sent along a man employed by one of the companies developing the island to watch the experiments. That man is on Palmyra and could not be reached. Fullard-Leo said he was informed that because of plane trouble, the group spent most of its time on nearby Fanning Island and only was on Palmyra for three hours.

It is still not clear to the university officials and researchers involved



Leslie Fullard-Leo  
In 1962 file photo

whether the purpose of the trip was secret or not.

Vitousek, who flew the university-owned PBY seaplane to the island, said he was told the operation was classified, and would be until the State Department report was published. Vitousek said that only the purpose of the research was secret; the experiments and their results were not classified.

He confirmed that there had been some problem with the plane's navigation system, but said the research team spent almost three days on the island.

Fullard-Leo said Navy Comdr.

D.B. Miller told him the purpose of the trip was secret and said Vitousek told him, "If I told you what it was, you'd laugh."

But Dr. E. Allison Kay, acting dean of the university research division, said yesterday that as far as she knew, the mission and activities of the Palmyra team were not secret at all. She echoed an earlier statement by a university spokesman who said the researchers and the university research administration "did know the purpose of the trip was to inspect Palmyra as a possible place for the storage of nuclear waste."

Sen. Spark Matsunaga said senators on the Energy and Natural Resources Committee were only told of the expedition behind closed doors in a meeting June 5 with officials of the U.S. State and Energy Departments and the Department of the Interior. He said they were told the operation was classified and told they could only reveal what was said at the meeting after the State Department made its report public.

The report was made public last week. It said Palmyra was among three sites under consideration by the State Department for nuclear waste storage. Fullard-Leo complained that his family was never notified of the government's interest in the island.

The university has a strict policy stating that it does not do confidential research or allow its researchers to do classified research for anyone. Some university researchers have government security classifications which allow them access to sensitive information for the purposes of their research.

Kingman Reef  
from Bryan (Paralaian Memoirs)

page 171 " .. dreary coral dot atop  
Kingman Reef.

## Fullard-Leos clashed with government before

# A long history of conflict

The recent flap between the Fullard-Leo family and the government is not the first, nor is it the first involving the issue of nuclear energy.

In 1967, when the British government planned tests of its own hydrogen bomb on near-by Christmas Island, Leslie Fullard-Leo, who still acts as family spokesman regarding the island, protested the test and said he would hold the British government accountable for any damage to his island caused by the test.

The test was moved to an atoll further from Palmyra.

The Fullard-Leos spent nine years fighting Uncle Sam for possession of the island, from 1938 to 1947.

In 1938, the Navy began to move onto the atoll and started building a base for the imminent Pacific war. The U.S. attorney general started legal action to claim the 52 islets for the government in December 1939.

The case went all the way to the Supreme Court, with the government appealing four losses in lower courts. It finally ended May 24, 1947, when the court voted 5-4 that the island was rightfully the possession of the Fullard-Leos.

While the case dragged on, the Navy turned the island into a major base that held 5,000 Navy personnel at its busiest.

The Navy rebuilt the island. It dredged the

three separate ponds, surrounded by the islets, into a single large lagoon. The dredged material was used to form a causeway between the islets, uniting them as they are today.

Three of the larger islets were attached so a 6,000-foot airstrip could be built.

The Navy hired Hawaiian skin divers to drill holes for dynamite charges that were used to blast a five-mile channel into the lagoon.

The family sued the Navy for damages after the war, and won \$100,000 of a \$312,494 claim. The settlement wasn't even enough to pay the family's legal costs, although it was the government that had started "the dance through the courts," as Leslie Fullard-Leo put it last week.

As soon as the island was declared property of the family, the clamor for the last untouched Pacific paradise began. A young actor, Leslie Vincent (who just happened to be the eldest son of the island's owners), drummed up a group of Hollywood notables who were interested in purchasing the island as a hideaway. They included Tyrone Power, Van Johnson, Dana Andrews, Maria Montez, Errol Flynn, Cesar Romero and Maureen O'Hara. But until the Navy made clear whether it intended to condemn or lease the island, he wouldn't sell to the stars.

But the romance of Palmyra did not begin

with the war and the movies, and disputes over its ownership did not begin with the Fullard-Leos.

The islands were "discovered" several times. The first reported discovery was by English Capt. Edward Fanning on June 13, 1798, when his ship was nearly wrecked on the atoll's reef.

In 1802, a Capt. Saule sought shelter in the atoll and named the string of 54 islets for his ship. Some say this was the real discovery of the island.

In 1859, a representative of a Honolulu company sailed down to Palmyra to claim it for his company. To solve the resulting disputes, King Kamehameha IV sent two seamen, Capt. Zenas Bent and Johnson B. Wilkinson, to claim ownership for themselves and sovereignty for the Hawaiian Kingdom.

In 1889, the British ship *Cormorant* came across the uninhabited islands and claimed them for Britain. When the British heard of Hawaii's claim, however, they did not press the issue.

In 1911, amid rumors of Inca treasure buried on the atoll, Hawaii Circuit Judge Henry E. Cooper bought the island for \$600. Two years later he sailed as owner/skipper of the schooner *Luca* on his first expedition to his island. The ship carried plants and seeds for the seeding of Palmyra and other South Pacific islands, as well as 40 empty



# and confusion

barrels. Some said the barrels were to be filled with the "golden treasure." Cooper hoped to find.

Cooper never found any treasure, but that didn't stop the rumors. News reports of the 1940s, more numerous during the Fullard-Leo family's fight for the island, occasionally mentioned the treasure. Details were changed, often reflecting the imaginations of the authors.

Cooper sold the islands to Mr. and Mrs. Fullard-Leo, a couple that had come recently from the diamond fields of South Africa, for \$15,000. The Fullard-Leos said they planned to develop the islands as a coconut plantation and base for commercial and sports fishing.

The copra company failed badly, and offers for the islands ran to the bizarre.

After one of the court victories, Mrs. Fullard-Leo reported she received an offer from a group she said wanted to use the island "as a nudist and free-love colony." She said the offer was rejected.

In the late 1960s, an international lottery was proposed, with the winners to be picked on the island, along with plans for major resort development. The federal government fought the gambling plan, and two California men were found guilty of trying to establish the lottery on land under the federal government's legal jurisdiction.

The island had been part of the Hawaii Territory as statehood approached, but was excluded specifically from the statehood act to appease congressmen who were angered over the Navy's failure to acquire the island after the war.

Interest in the island jumped drastically again in 1976, when Leslie Fullard-Leo (having changed his name back from the stage name Leslie Vincent) said he got six offers in one week for the island. The asking price was between \$7 million and \$8 million, and interested parties included the state of Hawaii.

John Ushijima, then Senate president, suggested the state look into the purchase of the island because of purchase overtures supposedly received from a Japanese company. Ushijima said even if the state decided not to buy the island it should at least secure "first refusal" rights over any suggested purchase. After some study, Gov. George Ariyoshi finally rejected the idea as too expensive a proposition.

That lonely island still was the source of adventure and intrigue in recent years.

In 1968, a couple spent 20 days marooned on Palmyra after their boat ran aground during a rainstorm. The boat stayed conveniently high and dry on the reef during their stay, so the couple lived off its provisions.

— By Daryl Huff

# Owners of Palmyra Vow Not to Sell

By Harold Morse  
Star-Bulletin Writer

A member of the Hawaii family that owns Palmyra Island said last night that the family opposes a U.S. proposal to store or dump radioactive waste from nuclear reactors on the island and that Palmyra is not for sale to the government for such use.

"Palmyra is not for sale," said Ainsley K. Fullard-Leo. "We are against nuclear dumping on Palmyra or anywhere in the Pacific Basin."

The Carter administration reportedly is considering buying Palmyra for some \$20 million to use as a repository for nuclear waste.

"We already turned down offers in the area of \$20 million for commercial development," Fullard-Leo said.

"We've never been approached by any agency of the government as to nuclear storage there."

FULLARD-LEO, 47, was asked to comment after questions were raised by the audience at an energy town meeting held by Rep. Daniel K. Akaka at Enchanted Lake Elementary School.

Earlier, Fullard-Leo's brother, Dudley, 50, said in an interview in a major Australian newspaper, the Sydney Morning Herald, that "Palmyra is totally unsuited to the disposal or storage of nuclear material."

"We are opposed to the proposal because of the environmental risks it would pose to the Pacific area," he said.

"It is an extremely high rainfall area with heat, humidity and corrosive, salt-laden winds. We have trouble storing anything there. Palmyra's waters feed three equatorial currents, two of which are known to flow west and the other flows east. They are rich in tuna and every

other kind of edible migratory fish." He said Palmyra is "everybody's idea of a South Seas tropical island... a true tropical paradise of tall waving palm trees, coral reefs and white sandy beaches."

HE TOLD THE Australian paper that two approaches had been made to the three Fullard-Leo brothers — the third is Leslie, 69 — to sell the island for use as a nuclear dump.

"A cablegram was sent to President Carter on June 12, setting out our position and stating our objections on environmental grounds. No reply has been received," he said.

The U.S. proposal was condemned in a resolution passed by 12 South Pacific nations at the July meeting of the South Pacific Forum.

Akaka told the Enchanted Lake meeting that Congress has no official information in connection with the reports that the Carter administration wants to buy Palmyra.

"If a purchase like that is going to be made of these islands, it will have to come to Congress," Akaka said.

All relevant details would come to light then, Akaka assured the some 100 persons present.

Palmyra is in the Line Islands in the South Pacific, about 1,100 south-west of Hawaii.

LAST NIGHT'S town meeting was

the first of four to be held in Hawaii this week.

Gasoline shortages, alternate energy sources and nuclear waste controversies are among topics under discussion.

David Wharton, chief counsel of the U.S. Department of Energy, Region IX, headquartered in San Francisco, is serving as a resource person for the meetings.

Development of synthetic fuels and alternate energy sources ultimately are likely to help ease the energy shortage, but until they do, the in-between time, perhaps during the next 10 years, may be critical, Wharton said.

He was asked if there really is a shortage of energy.

"My comment is two-fold," Wharton replied.

"First of all, there's no energy shortage until you can't get what you want. From my point of view, what I've witnessed, there is an energy shortage, and the question is are we going to let it get worse."

The next energy town meeting will be at 7 p.m. tomorrow at Wailuku County Council Chambers, Wailuku, Maui.

The other two, both at 7 p.m., will be Thursday at County Council Chambers, 23 Aupuni Street, Hilo, Hawaii, and Friday at Lihue Public Library, 4344 Hardy St., Lihue, Kauai.

# Federal Agents Discuss Nuclear Storage Study

By Beverly Futa  
Star-Bulletin Writer

Representatives from two federal agencies are in Hawaii trying to win support for a two-year joint study by the United States and Japan to determine the feasibility of storing highly radioactive nuclear spent fuel on a Pacific island.

No specific area or island has been singled out for the study by the U.S. and Japanese governments, although some evaluation of potential storage sites will be made, said Marvin Moss of the Department of Energy and Richard Scribner of the State Department.

The federal agents had attended meetings in Tokyo between the Japanese and U.S. government last week at which time the formal agreement to conduct the study was reached. No price tag for the study was given, but earlier reports have estimated its cost at \$3 million.

THE PROPOSED dumping of nuclear material in the Pacific has sparked strong opposition from officials in Hawaii, Guam and other Pacific territories and nations since cooperation between the U.S. and Japan to find a storage site in the region was first made known last year.

The Congress must be notified in the event the American government decides to use any Pacific area for nuclear storage, whether or not the area is an American territory or possession. Both Sen. Spark M. Matsunaga and Rep. Cecil Heftel have come out in opposition to the idea.

Gov. George Ariyoshi has also said he is against the ocean becoming a dumping ground for nuclear wastes.

Opposition in other Pacific countries is surfacing as well. Last month, a group of anti-nuclear activists from many countries and territories in the area gathered on Oahu for a Conference on a Nuclear Free Pacific. They vowed to work together to keep both nuclear weapons and nuclear waste matter completely out of the Pacific.

SCRIBNER SAID the study will focus on economic, technological, environmental, health and legal aspects of an interim storage facility that would hold spent fuel generated from nuclear power plants in Japan, and possibly other western Pacific nations, on a long-term basis.

Because of a projected increase in the use of nuclear power for energy in Asia and the Pacific, there is a need to provide such a facility in the region to store spent fuel generated



Marvin Moss

Richard Scribner

during the production of electricity, he said.

Moss said Japan, Taiwan, Korea, the Philippines and Indonesia either have or are acquiring nuclear reactors. Most of Japan's spent fuel is shipped to Europe, where it is reprocessed into plutonium, which is used in the production of nuclear weapons, he said.

Scribner said an interim storage facility would provide an alternative to reprocessing and lessen the risk of widespread acquisition of weapons-usable nuclear material by other nations.

HE SAID THAT in light of technical advances after a projected 20- to 30-year storage period, a decision will be made either to reclaim the spent fuel to obtain uranium and plutonium or to permanently dispose of it, probably in deep mines on continental land masses.

Scribner emphasized that the study will not commit the U.S. to build a storage facility. Also, the facility would not be intended for storing spent fuel produced by U.S. nuclear power plants.

He said Pacific island nations and other interested parties will be kept informed of the progress of the study and that their comments will be included in a final report.

BY BURL BURLINGAME

Star-Bulletin

**S**HARON and Bob Jordan of South Africa had an interest in buried treasure, or at least in salvage. When they sailed into Palmyra's sheltered atoll in late 1980 aboard their sailboat Moya, it seemed like something out of a pirate movie — lush palms, sparkling waters, hidden depths.

They spotted a sunken Air Force rescue boat on the bottom of the lagoon and enthusiastically spent several days refloating it. But the boat was badly damaged, and was missing two aluminum flotation chambers. So they let it sink once again, and Bob Jordan was content to lie in Moya's hammock and read paperback thrillers, while Sharon wandered Palmyra's beaches, looking for Japanese floats.

On Jan. 4, 1981, she spotted a gleam of gold in the sand. She brushed it off. It was a gold tooth. Attached to a scrap of bone that later turned out to be part of a human jaw. Forensic testimony later revealed that the teeth belonged to Eleanor "Muff" Graham, who had been missing with husband Malcolm "Mac" Graham on Palmyra since the fall of 1974.

The teeth, a skull and several shattered bones were splayed across the sand, spewed from an empty flotation chamber — one of those missing from the sunken rescue boat. And forensic experts discovered that Muff Graham had not simply died. She had been murdered, and her body then pulverized "by sledgehammers or large rocks" and then jackknifed into the container, burned and pitched into the water. A brutal, lonely death amid the picturesque palms and blue lagoons.

Sharon Jordan's discovery set in motion another act in the continuing mystery of Palmyra's deepest secret, the disappearance of the Grahams and the involvement of drifters Buck Walker and Stephanie Stearns. This month's announced sale of the atoll to a New York investment firm revives the tale.

The sale, by owners the Fullard-Leo family to KVR Inc., is complicated by counterclaims by descendants of the family the Fullard-Leos bought the atoll from, plus a freebooting treasure hunter from Florida who claims the reef is ringed with gold from a Spanish treasure ship.

So far, the only gold found on Palmyra is Muff's tooth.

Palmyra, a thousand miles south-southwest of Hawaii and composed of only 12 square kilometers, is

an atoll, a ringed ripple of dry land on the vast ocean that marks the after image of a volcanic peak. Maximum elevation is five feet. It has zero arable land, zero crops, zero meadows or pastures, zero irrigation, government, defense or shopping malls. There is no indication that it was ever inhabited. By anyone. During World War II, a runway was bulldozed on the largest islet, and it became a handy place to gas up while island-hopping.

Palmyra does have an abundance of rainfall, the main attraction to gentlemen sailors who occasionally put in at the island for a week of R 'n' R in the windless lee of the lagoon.

In the summer of 1974, two boats put in at Palmyra. One, Sea Wind, was manned by the Grahams. By all accounts, Sea Wind was a graceful, beautiful craft filled with top-notch provisions and decorated with expensive heirlooms. The other, Iola, was crewed by Walker and Stearns. Iola was patchwork covered with resin and Fiberglas mat; no matter what Walkers and Stearns did, the boat leaked badly and sailed

worse. Witnesses say it was a miracle the craft even got to Palmyra.

The two tiny crews tried to co-exist, but it wasn't easy. Mac Graham was a careful, methodical sort who defined the term "ship-shape." Walker, on the other hand, harvested coconuts with a chain saw and fished with a .22 pistol. Other visitors and radio hams who talked regularly with the Grahams reported that things were tense between the couples.

Then Walker and Stearns slipped into Honolulu aboard Sea Wind, which had been crudely disguised. Their explanation went beyond lame — the Grahams had told them to "make themselves at home" and then had rowed away forever. A jury didn't buy it, and the two were sentenced to jail time for theft.

Stearns served seven months of a two-year sentence. Walker escaped from McNeil Island Penitentiary in Tacoma, Wash., after serving 42 months. A short time later, Sharon Jordan discovered Muff Graham's butchered remains.

To this point, the case had been reported in the local newspapers in bits and pieces. Star-Bulletin reporter Steve Spence acquired a transcript of the boat-theft case. He wrote a two-part examination of the case. "Murder on Palmyra" focussed on the personality conflicts between the two couples. Suddenly



Buck Walker



Stephanie Stearns

FEBRUARY 26, 1996

MONDAY AFTERNOON



*The*  
**Sea Wind**  
*and the Lola*

In the summer of 1974, two boats put  
in on Palmyra Atoll's picturesque beaches.

The sale of the island revives the tale  
of the mysterious disappearances of

Muff and Mac Graham



*Mac Graham has never been found. Muff Graham's remains were found in a floatation chamber on Palmyra Atoll.*

the case, and the personalities of those involved, were made vivid.

Walker was arrested in an Arizona drug sting and locked up in the high-security federal penitentiary in Marion, Ill., while Stearns remained free on \$100,000 bail. Her primary attorney was Leonard Weinglass of Los Angeles, famous for helping defend the "Chicago 7"; Walker's primary attorneys were Earle Partington and Ray Findlay of Honolulu, both court-appointed.

Los Angeles-based authors Vincent Bugliosi ("Helter Skelter") and Joseph Wambaugh ("The Onion Field") pressed for exclusive rights to Stearns' story. Bugliosi, an attorney, won, on the condition that he help defend her. Due in part to the intense media interest, the trials of Stearns and Walker were separated and moved to the mainland.

"All my books have lots of law in them, and trial lawyers write me all the time praising how I helped them with techniques and tactics," said Bugliosi, who still maintains a law-office answering service in Beverly Hills. "There was a tremendous amount of coverage of the case, and we figured maybe 95 percent of the public were convinced that Walker killed the Grahams. So we concentrated on convincing the jury that Stephanie was out of it."

By the time Bugliosi entered the scene, he said, both prosecution and defense teams had already visited the atoll. "I would have liked to have visited Palmyra — it look beautiful from afar, like a postcard paradise with a dangerous heart — but there was plenty of still pictures and videotape to look at. Instead, I worked on clearing Stephanie."

Partington has a different view of Bugliosi's partic-

**PLEASE SEE PALMYRA, B-3**

## PALMYRA: Mystery revisited

FROM B-1

ipation. "He's a first-class self-promoter and a lousy lawyer," Partington said. "Len Weinglass' contributions were slighted. In fact ... Bugliosi almost lost the case in the closing arguments because he was so inept. Weinglass was furious."

Weinglass' office in Los Angeles has not commented on the case.

After two and a half days of deadlock, Stearns was acquitted in 1986. She now lives under a different name in Los Angeles, Bugliosi said, and works in the telecommunications industry.

Prosecuted by federal attorney Elliott Enoki, Walker was decisively convicted in 1985 of Muff Graham's murder. Without a dream team and unlimited funds, Walker was found guilty the old-fashioned way — motive, means, opportunity and evidence.

Mac Graham's bones have never been found, nor has the missing flotation chamber. "There's no statute of limitations on murder, so technically the case could re-open at any time if something turns up," Bugliosi said.

"There are no pending charges," Enoki confirmed. "From time to time, reports of bones come in from Palmyra, and I can't comment on that. But nothing that has turned up so far has been sufficient to reintroduce charges against Mr. Walker. You can draw your own conclusions from that."

Bugliosi's inevitable book on the case was called "And the Sea Will Tell." It and the equally inevitable television mini-series were released in 1991.

Partington was furious at the way he was portrayed as a bumbler in both works. "That book was pure fiction!" he stews. "Bugliosi's track record is of marching in somewhere and making himself look good. He fabricated a nonexistent role for himself and depreciated Lenny Weinglass."

Partington sued Bugliosi and CBS television, citing defamation of character. Last summer the suit died when judges decided that Bugliosi's statements were opinions, not facts.

Lawyerly sour grapes aside, "Sea" is still available in paperback," Bugliosi said hopefully, "But it's sort of in the back of the

stores these days."

As for Buck Duane Walker, he is supposedly serving hard time in the maximum security center in Lompoc, Calif. Penitentiary officials, however, said they have no inmate by that name, or by any similar name. It's possible that he may be interned under a different birth name — which none of the lawyers in the case can remember, nor Bugliosi's book can reveal — even though Walker served federal time for the Sea Wind theft under "Duane Buck Walker."

And as for Stearns, Bugliosi is satisfied she is innocent even though he was deluged with letters from irate women when the trial ended. Most said that Stephanie "was the brains behind the killings ... that she pulled the wool over my eyes. They said I didn't understand what women are capable of."

He has tenuous contact with his former client. "She sends me a Christmas card every year, and it says Merry Christmas, and that's it," Bugliosi said. "I don't know what she's thinking."

# Sunday Home

The Sunday Star-Bulletin & Advertiser

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## Palmyra Island Is For Sale

By Jerry Tune  
Star-Bulletin Writer

**P**ALMYRA, a strategic island 960 miles south of Hawaii owned by the Fullard-Leo family for more than 60 years, is on the market. No sale price was disclosed. The listing will be through Peter Savio at Savio Realty at an "undisclosed figure."

It is the first time that the Fullard-Leo family has decided to go public with sale attempts. In the past, the family has privately and quietly let it be known that it might be willing to sell, but potential buyers had to contact them.

"The time is right," said Leslie Fullard-Leo, one of the three brothers who retain ownership. The Fullard-Leos, a kamaaina family in Hawaii, has not discussed Palmyra in a full interview with the media in the past. However, in an exclusive to the Sunday Home Section, the brothers agreed to talk about the economic viability of the island.

"We have had so many media reports of this happening or that happening at Palmyra," said Leslie Fullard-Leo. "There has been so much misinformation put out."

Added Ainslie Fullard-Leo, "Each year about this time, we get a lot of calls from people with this idea or that idea. We call this the Palmyra 'silly season.'"

IDEAS HAVE ranged from an independent entity with its own international banking system, a tourist center, a place for movie

fish could even be processed in that location and sent out for export.

ONE OF THE reasons that the Fullard-Leo family believes the time is right for the sale of the island is the trend of Japanese to invest in Hawaii. However, they say that they have not been approached by any Japanese interests at this time.

The U.S. government, which battled the Fullard-Leo family for years in court on ownership, is another possible buyer. However, this was not mentioned by the Fullard-Leo family during the interview.

The legal battle to retain ownership of Palmyra was expensive for the family, and the lease revenues in the past have not been lucrative. The Air Force leased it during World War II, a lease for monitoring by the Air Force was done in about 1959-60, and an international geophysical meeting was held at Palmyra in 1968. The island also was used as a movie location during the 1940s and 1950s.

OTHER LEASING arrangements either never proved fruitful or never were made. For example, the Japanese wanted to lease the island for \$40,000 a year in 1937 for fishing operations but the U.S. government did not approve of lease to an alien.

In 1979, an attempt was made to start a copra plantation. For nearly a year and a half, 22 workers from the Gilbert Islands cut coconuts and cleared roadways. The Fullard-Leo family was eager to see that kind of



*Aerial photographs and ground-level views of the vegetation on Palmyra were taken as recently as last year, by the Fullard-Leo family and Roger Coryell.*

day, however, the Fullard-Leo family says it has never been approached by the government with this idea.

Leslie Fullard-Leo said the family would prefer that Palmyra be used for something "in keeping with the ecology," but acknowledged that once it was sold, any restrictions on the land are difficult to enforce.

A big part of Palmyra's value is its location.

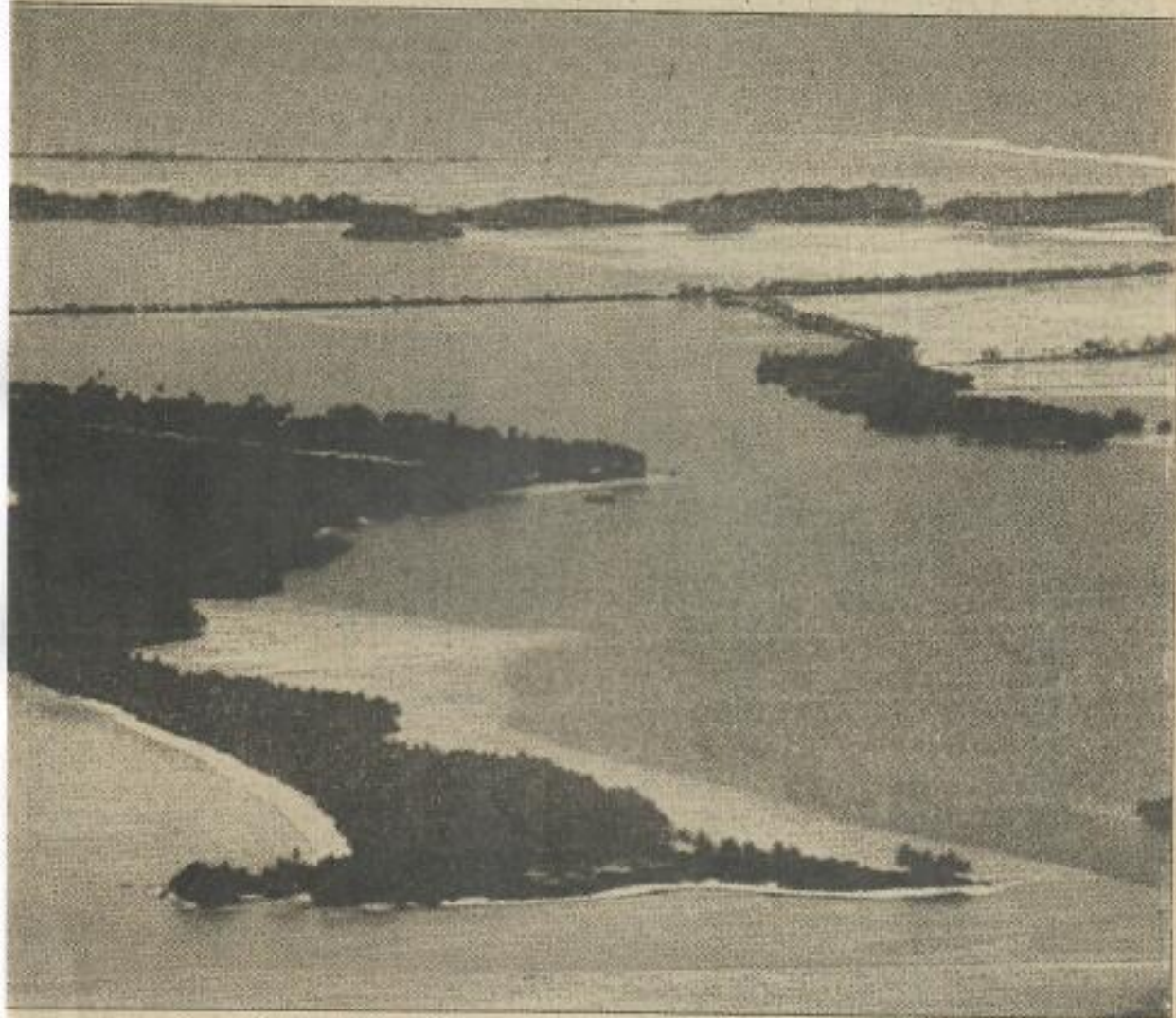
"It's on a direct line from Manila to the Panama Canal," said Leslie Fullard-Leo. "It is out of the hurricane belt. Winds seldom get more than 45 miles per hour. It is about half way between Hawaii and American



# Classified section D

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Prepared by the staff of the Honolulu Star-Bulletin January 11, 1987



locations, a rocket launching area, a nudist colony, a religious retreat, sport fishing center, a place to mine manganese nodules, aquaculture, and gambling.

The Fullard-Leo family believes the most viable idea is to use Palmyra for a commercial fishing refueling stop.

Palmyra, which is really a collection of small islets that surround a large and very deep harbor, was used by the Air Force during World War II and has two 17,500-barrel fuel tanks and two 13,500-barrel fuel tanks.

The harbor is as big as Honolulu Harbor but much deeper. Maps show the depths down to 175 feet in some places.

The large "mother" ships used by commercial fishing operations could use Palmyra, and

ecological use of the island continue, but it did not prove viable.

In 1965, there was a tentative lease to Tidewater Development of Los Angeles. There was a sublease for the island — which the Fullard-Leo family did not know about — that was to involve a gambling operation with 25 percent of the money to be given to cancer research. Tidewater had subleased the land, if subsequent research proved a lottery would be legal. However, the Interior Department, which has jurisdiction over the island, said no.

THERE WAS also a report in the media that the island was being considered for use as a nuclear waste dump. To this

between the island and the island Samoa."

The island also is in a good position for satellite communications, and an oceanic research center for weather purposes. "It is just about at the edge of the tropical front where weather (changes) are created," said Leslie Fullard-Leo.

PALMYRA HAS impressive physical characteristics. At about "600 acres, plus or minus," it is about the size of Waikiki. It is a 14-mile walk around the island. During World War II, when there were 6,000 GI's living there, the government spent millions on improvements.

"I heard the figure \$83 million, but its probably more than that," said Leslie Fullard-Leo.

These improvements include the fuel tanks, a 6,000-foot-long runway and seaplane ramp, 300-foot steel-faced dock and the small boat harbor.

Most of the concrete buildings are in bad shape, but there is 140- or 150-bed hospital building that remains. There also is 100,000-gallon water catchment system.

The island has a dense tropical growth of trees, including an estimated 40,000 to 50,000 coconut trees and one Spanish American variety — somewhat like a balsa — which has reached heights of more than 100 feet.

The Fullard-Leo family purchased Palmyra in 1922 from Hawaii Circuit Judge Henry Cooper, who retained a two-thirds portion for his recreational



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# Sunday Today

features, et

The Sunday Star-Bulletin & Advertiser

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## Part One

By Steve Spence  
Star-Bulletin Writer

**N**O one ever expected a corpse to turn up. But whoever murdered Muff Graham and her husband, Mac, on an isolated island in the middle of the Pacific Ocean 6½ years ago made the incredible blunder of dumping at least one of the bodies—Muff's—in a lagoon in the center of Palmyra Island.

If the killers had dumped the bodies of the Grahams overboard in the open sea outside the island, out beyond the reef that surrounds the 39 little islets that form Palmyra Island, out where the big sharks swarm, the murders would have remained in the FBI's unsolved file.

But one day last month, 72 months and three days after the Grahams vanished, there arrived a single moment in time—maybe an hour, maybe two hours before the tide came in—when Muff Graham's remains rose up from the lagoon and begged to be discovered. But who would respond on an island that is inhabited by thousands of birds, spiny land crabs, rats and the occasional family on a sailboat—deepwater sailors, they're called—wanting to put their feet on solid ground for a few days?

It might have tried Alfred Hitchcock's imagination, but someone was there at that precise moment on this tiny atoll, walking along the lagoon's shoreline as the sun began to set on the first Wednesday in February. It was a couple who had arrived on a sailboat registered in Canada; they had navigated through a tricky channel leading into the lagoon, where they moored their boat. On this evening as they walked along the lagoon's beach, enjoying the sunset, they noticed something poking up out of the water close to the shore. It was the lid of a trunk-sized aluminum container, which rested, overturned, on a coral shelf during low tide.

There were a few bones laying inside the lid, and next to it, a human skull. Farther out, the couple saw what they thought were a few larger bones poking out of the water, tangled in either seaweed or algae, but when they returned later for them, the tide had retaken them.

The couple contacted the Coast



Murder  
**PALMYRA**

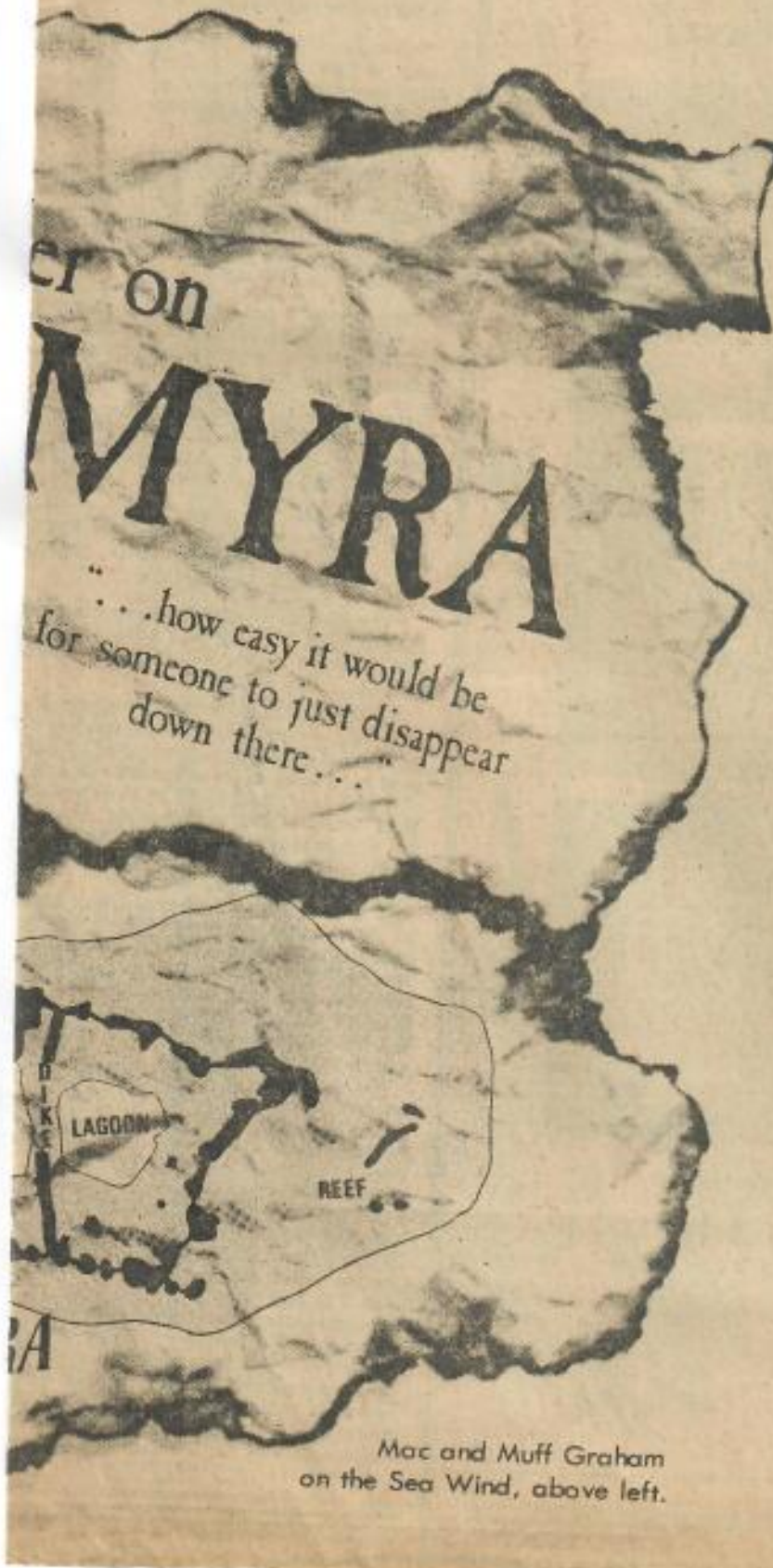
REEF

AIR STRIP

LAGOON

SHIP CHANNEL

**PALMYRA**



more cops emerged from nowhere, trained their guns on Gilbert and shouted, "Police!" Gilbert whirled around, attempted to draw the .22 from its holster, then quickly changed his mind and surrendered.

In all, eight persons were arrested, including the California supplier and Stephanie Stearns. When police arrived to search the shack, they were greeted by 24 booby traps set around the perimeter—cocked rat traps, some loaded with live rounds, some not. Inside, they found 246 pounds of marijuana that police believed was intended for a hashish-oil operation, a dozen Army books—"Unconventional Warfare & Incendiaries," "Booby Traps," "Patrolling & Tracking"—a book called "Silencers, Snipers & Assassins: An Overview of Death." Gilbert also had a Honolulu bank account registered to "Rev. and Mrs. Keith Gilbert, The Restored Church of Jesus Christ."

Six days later, on June 18, a grand jury charged Walker with 11 criminal acts, from selling drugs to carrying a firearm during the commission of a felony. Walker got a lawyer, pleaded innocent and, amazingly, although he had a long criminal record and was still on parole, was released on just \$1,000 bail. As is typical in many drug cases, 10 months elapsed in pre-trial negotiations before Walker was permitted in mid-April of 1974 to plead guilty to just one count—selling two pounds of MDA. Sentencing was set for the summer of 1974, but Buck Walker had no intention of going back to prison.

Four months after his bust, he acquired identification cards of a man called Roy Allen, and, disregarding his probation, slipped out of Mountain View with Stephanie and moved to Maui. Although he had no experience with sailboats, Walker paid about \$2,200 for the hull of what used to be a 27-foot sailboat, and began to rebuild it at the Maalaea boat harbor, planning, as he later said in court, to "sail the Seven Seas." Stephanie, in the meantime, worked in a Lahaina bar.

As the boat neared completion, he also acquired a passport using Allen's ID, a felony, and in the photograph he submitted to a clerk at the Wailuku Post Office, Buck was shown dressed in a priest's habit. He then transferred ownership from Buck Duane Walker to Roy Allen. He and Stephanie

Mac and Muff Graham on the Sea Wind, above left.

guard by radio, and a week later the FBI arrived and retrieved the remains. It is remarkable that in 6½ years the corrosive action of the sea had managed to pry open this watery grave—even though the container had been closed, then wrapped and weighted with heavy metal wire—but the sea hadn't eaten up the skeletal remains. Enough of the jawbone remained for a pathologist in California, using dental records, to identify the skull as Muff Graham's.

The pathologist noted that a portion of Muff Graham's skull had burn marks. And the skull had a hole in it.

**T**HE last persons to see the Grahams alive in August 1974 were their only neighbors on Palmyra at the time, Buck Walker and his girlfriend, Stephanie Stearns, whose boat was docked in the lagoon a hundred yards away. At the time, they were using aliases, and introduced themselves as Roy and Stephanie Allen. The last sailboat-ers to pass through Palmyra, which is about 1,000 miles southwest of Hawaii, said the relationship between the two couples was "very, very bad."

It figured. Although Mac Graham, at 43, was only six years older than Buck Walker, their personalities and backgrounds were planets apart.

Reared in a conservative Eastern family, Graham was educated (a mechanical engineering degree from Michigan), independent (he reportedly inherited from an uncle about \$100,000 while still in his 20s and a similar sum later on the death of his father) and an old-fashioned individualist (he was conservative, he loathed the welfare system, the tax system, was vehemently opposed to gun control and didn't like being told what to do). The only quirk in his well-ordered life seemed to be what he *didn't* want—a tedious career at a 40-hour-a-week engineering job, a ranch-style home in the San Diego suburbs, a picture-postcard family. He had decided in college that he wanted to be a sailor—not one of those weekend runabouts, but a real, "blue-water" sailor, a man who could match his skills against the open sea.

Walker, who was 37 that summer of 1974, was the son of a plywood mill electrician in Oregon, a man who was a rigid disciplinarian, and who died at age 56, and an overly protective mother, neither of whom was able to control the eldest of their four children. Buck was first arrested at 12, reportedly for bicycle and car theft, and he wound up in reform school. At 14, after a burglary that involved guns and ammunition, he was transferred to Napa State Hospital. He admitted stealing five cars during his 15th year, but was put on probation. At 16, he participated in an armed robbery and this time was sent to a Sacramento reformatory, then paroled after a year. He was still 17 when he got three years probation

for another burglary just a week after he had married his 16-year-old girlfriend in Tijuana (the marriage was annulled by her family). Before Buck's 19th birthday, he was doing five years in San Quentin Penitentiary for robbing a service station with a sawed-off .22 rifle. The loot amounted to \$30 for his effort and he was arrested after a high-speed chase in which his stolen car plunged into a second car.

**W**HILE Buck was getting a jailhouse education, Mac Graham had inherited enough money before he was 30 to realize his dream. With his inheritance, Graham began a long search for the perfect boat in marinas and docks along the West Coast. A methodical, mechanically minded man who found machinery fascinating, Graham knew precisely what he wanted in the way of a boat. He found it in a pristine, wooden, 38-foot, two-mast ketch called the Sea Wind, a boat that later would attract attention everywhere he sailed.

While he learned to sail, he dock-

ed the boat in San Diego, working occasionally on free-lance engineering jobs. One night coming out of a bar, he and a friend came upon a car stalled in traffic. The driver was LaVerne Eddington, single, a secretary and a year younger than Mac. She had pin-up good looks, and Graham, who was 5-feet-10, darkly handsome and something of a lady's man, got her car running again and invited her back to the bar for a drink.

A long-term relationship began that night, and although in the years ahead "Muff"—his nickname for her—may privately have hoped for that ranch-style home, she soon shared his enthusiasm for sailing. She learned navigation and seamanship, and sailed on short trips with Mac down to Ensenada.

Graham had planned to circumvent the globe with two or three other men, but instead he married Muff in La Paz, Baja California, in August, 1964. He was 33, Muff was 32. The following year, after months of preparation (every can of food and every piece of equipment was itemized and checked off on pages and pages of preparation), he and Muff set out to sail around



## The Many Faces of Buck Walker

Buck Walker is shown left on the Big Island. For an illegal pass, hair and wore a p next photo was taken at arrest in late 1974. how he looked during December 1974 theft.

the world. It took them almost six years.

Buck Walker spent a good portion of the '60s in San Quentin and Atascadero State Hospital, where he was sent after pleading not guilty by reason of insanity to a charge of armed robbery of a motel in Los Gatos, Calif. When his partner later changed his story in court and said Buck had nothing to do with the holdup, Walker was exonerated. But he had numerous parole violations, including possession of firearms, and he was in and out of prison. He also married a 35-year-old woman in 1966 and fathered a daughter. The wife, however, was said to have had a long history of psychiatric problems, and during a fight one night, police arrived and found that Walker had an 11-inch knife concealed in his boot, yet another violation of parole and a ticket back to prison.

In the spring of 1972—not too long after Mac and Muff Graham returned from their sailing trip—Buck Walker had had enough, and left California for the Big Island of Hawaii. His terms of parole were transferred with him, although he began almost immediately to ignore them.

**A**T some point, Walker met Stephanie Stearns and they apparently lived with three or four other persons in a crude dwelling in Mountain View above Hilo. Almost immediately, Walker began selling dope—MDA (methylene dimethoxy amphetamine), a wicked combination of speed and an LSD-like hallucinogen, which was shipped to him by a connection in California. Unfortunately for Buck, he unwittingly sold nearly \$10,000 worth to undercover cops from Honolulu, who eventually set up the lanky, long-haired Walker for a two-pound sale worth \$7,000 in mid-June.

The big sale was arranged for the parking lot of the Penney's department store in Hilo. For the occasion, Walker packed a P-38 9mm pistol in his waistband and stationed a cohort, Keith Gilbert, about 50 yards away in a roadster to monitor the transaction. Gilbert watched through binoculars, with a .22-caliber automatic pistol beside him. The moment the sale was concluded, the undercover cops drew their weapons and quickly spread-eagled Walker, grabbed his gun and handcuffed him.

Just as Gilbert realized what he was seeing through the binocs, two

named it the "loia," which means "to life."

They read books on seamanship and sailing. That year, they sailed on another boat with friends between Maui and the Big Island. And that was the scope of their seagoing experience.

**I**N San Diego that spring, Muff Graham was getting very bad vibes about the cruise she and her husband were planning on the Sea Wind. "She couldn't explain it," says Mac's sister, Kit McIntosh, who now lives near Seattle. "She just felt something bad was going to happen. She didn't have a definite idea of what, she just had a premonition that she and Mac shouldn't go." Muff mentioned her fears to a number of their friends.

Certainly, her premonition had nothing to do with her husband's sea-going abilities. Mac insisted on meticulous organization, and they had spent the last two years shopping for cases of canned and unperishable food on sale, acquiring equipment and outfitting the Sea Wind for another blue-water cruise. Mac felt that "once we got going, once we set out, she'd be OK."

After their world cruise, the couple had moved off the Sea Wind and into a home, making only short trips on the boat to Mexico. Mac, who grumbled about smog and traffic and the mess of society, was anxious to embark on a long cruise

They sailed into Hilo Bay about June 1, and moored next to a boater named Curtis Shoemaker, who lived at Waimea. They became friends, and Shoemaker learned the Grahams were headed south to Palmyra, where they planned to stay a long time. Since Mac had a radio unit on the Sea Wind, and Shoemaker had an amateur ham station at his Waimea home, Shoemaker offered to relay letters from the Grahams' friends and relatives via his ham radio to Palmyra. "I told Mac he could get into trouble, and it might be a good idea to keep regular contact with me."

Graham and Shoemaker would later set up a regular schedule to talk on the radio—every Monday and Wednesday evenings at 7 o'clock. The Grahams set sail for Palmyra on June 24. Ten weeks later, Muff Graham's premonition would be realized.

On his last night on Palmyra, an edgy Tom Wolfe warned Mac Graham to be careful, that it would be very easy for someone to just disappear on the isolated island. Graham, who had a 30.06 rifle and a .38 magnum pistol on his boat, laughed it off. "If he tries to get me, I'll get him first."

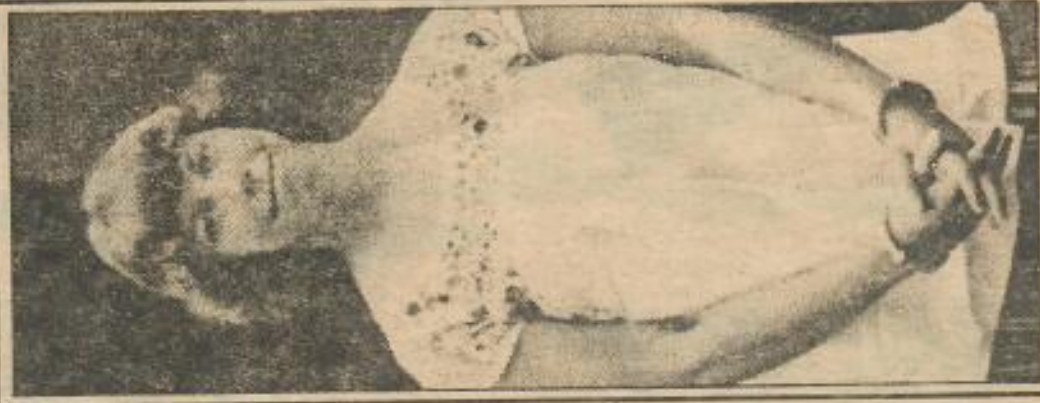
Part 2 of the Palmyra story will appear in tomorrow's Star-Bulletin Today section.



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Stephanie Stearns



Stephanie Stearns

## The Many Faces of Buck Walker

Buck Walker is shown shirtless at left on the Big Island, about 1973. For an illegal passport, he cut his hair and wore a priest's habit. The next photo was taken after his arrest in late 1974, and finally, how he looked during his December 1974 trial for boat theft.



# Part Two

By Steve Spence  
Star-Bulletin Writer

**F**OR someone who had never built a boat before, Buck Walker's homemade lola wasn't half bad. He had only a hull to work with because the boat had fallen onto bad times before he bought it, and its last residence was at the bottom of Maalaea harbor on Maui.

When it eventually was hauled up, someone—Walker said it wasn't him—"fixed it" by giving the boat a new skin. This skin was created by simply applying 220 gallons of resin over thousands of yards of fiberglass. OK for a weekend spin, but the resin would upset the hydrodynamics of the vessel, making it definitely not recommended for long-distance sailing.

Nonetheless, Walker put up a mast and boom and the rigging. When he launched the lola in March 1974, it leaked. It leaked on a shakedown trip to Oahu that took 26 hours, it leaked two weeks later on a trip to Kauai, and it was still leaking when Buck and Stephanie Stearns set sail June 1 for Palmyra.

Also, every time a wave bashed over the bow, the lola took on water through a faulty front hatch. Compounding the problem, Buck had only a hand pump to remove the water.

There was a shortwave radio aboard, but it didn't work. There was an outboard engine, needed by sailors to guide their ships through dangerous channels, or to power them when there was no wind or when the wind was coming from the wrong direction, but Buck's outboard was frozen, worthless.

Star-Bulletin

## Today

Features  
Entertainment

Section

B

Honolulu

Monday, March 16, 1981 ★



REEF

LAGOON

AIR STRIP

WIKI

et on  
**MYRA**

"...how easy it would be  
for someone to just disappear  
down there..."

LAGOON

**O**N July 2, two more boats arrived in Palmyra's lagoon. The first was the sleek Sea Wind with Mac and Muff Graham aboard. The Grahams, disappointed to find anyone on the island that they had hoped to be alone on, motored past Buck, who had gone out in a dinghy to offer assistance that the Grahams coolly declined, and perhaps to establish a friendship that might lead to some edible trade-offs.

Mac Graham knew the island, and moved to a cove away from the other two boats, and carefully backed in. Graham's methodical, mechanical character was evidenced by the way he moored: there were two stern lines, two side lines and a forward anchor line, and then he set up a series of awnings, serviced his engines, put out two dinghys and hooked up the boat's power source.

Within an hour, the Tempest arrived, a sailboat owned by Ed and Marian Pollock. Both boats had arrived late the previous evening, and both anchored outside the lagoon that night, waiting until the next morning to take on the channel. The Pollocks made the trip from Hawaii in six days; the Grahams took eight. Both vessels used engine power part of the way down.

The Pollocks and the Grahams became good friends. Sharon Wheeler, before her ship departed on July 6, said the couples were together every night on one boat or the other.

Everyone seemed somewhat dazzled by the Sea Wind, and the thorough manner in which the Grahams had outfitted it. This is how Marian Pollock described 'dinner one night aboard the Sea Wind:

"She (Muff) had a freezer, which was something as I had no refrigeration on my boat at that time, and so she had meat, which is a luxury item, so she fixed a roast and we had a very special dinner, like a captain's dinner. She put out her

And neither of them had ever navigated in open sea. In fact, Stephanie's mother was said to have alerted the Coast Guard to keep an eye on the *lola* because neither of them, she advised, knew what they were doing.

Buck later claimed in court that they had four months' food supply, but much less for the three dogs they brought along—Stephanie's small dog, and Buck's two big Labradors.

The *lola* was less than 10 yards long, and one imagines that after 21 days in an open sea, moving at a turtle's pace, they were relieved when Stephanie, who had learned to use the sextant, announced that Palmyra would appear on the horizon at 2 o'clock that day. Her reading had to be accurate since the 39 tiny islets of Palmyra can only be seen from within eight miles, making it easy for amateurs to miss it completely.

With the island in view, Walker had two serious problems: locating the man-made channel that cut through the reef and was difficult to see in the shimmering waters, and navigating it without the benefit of engine power. The channel led to the peaceful lagoon where they could dock, but using sails made the task tricky. As he searched for the channel, he also feared the reef, and sailed farther out... and then lost sight of the island completely—lost it for two days and nights. On the third day it reappeared, and Buck and Stephanie spent another day locating the channel. Still, the winds were wrong, so they anchored outside, waiting. Another day passed.

It must have been with some degree of envy as they watched another ship, the charter *Caroline*, pass by with its crew waving, lower its sails and power up the channel into the lagoon's peaceful water.

On June 27 at midday, Walker made his move up the channel. About half way in, the *lola* came to a grinding halt. It was stuck on the reef.



**W**ALKER went over the side to survey the damage, but when he saw the sharks, he quickly climbed back on board. The lagoon, which is larger than Honolulu Harbor, swarms with black-tipped sharks, although most average 2 to 3 feet in length, and while they command respect, they are not considered dangerous.

There were two boats moored to pilings inside the lagoon. The 48-foot *Poseidon* was skippered by Jack Wheeler, who had once spent 15 months on Palmyra and was known as the island's "unofficial mayor" and representative of the owners, the Fullard-Leo family of Hawaii. His family and one passenger were aboard. The other boat was the chartered *Caroline*, carrying three ham-radio operators who wanted to be the first persons to broadcast from Kingman Reef, about 35 miles away.

Some men on the island went out in two outboard-powered dinghys and pulled the *lola* off the coral-head, then towed it to the pilings. James Rafferty, one of the ham-radio crew who had little sailing experience, said later: "We were very shocked because we had been to sea just five days (the *Caroline's* time from Hawaii) and we were sort of physical wrecks at the time, and here these poor people had been out 30 days!"

Buck and Stephanie introduced themselves as Roy and Stephanie Allen, but they came to be known by the other sailors as "the hippie couple." That description had less to do with Buck's shoulder-length hair, bushy red beard, and habit of



*The Seawind*, with its name and number, was towed to the pier by the Coast Guard.—Photo by



not wearing his false front teeth, than it did about the ragged condition of the *Iola*, the couple's naive notion they could just live off the land indefinitely, their haphazard and limited food supply, and later the uneasiness they created among these well-prepared sailors by what was viewed as their "mooching."



...umber missing, is seized by the Coast  
George E. Cabral Jr.

even though Buck always offered to trade gear for food. More to the point, they were probably seen as mindless amateurs who could only cause problems among this fraternity of rugged, independent deep-water sailors.

The *Caroline* left in a day or two, and before the *Poscidon* left on July 6, the Wheelers showed Buck where to fish, how to tell which fish inside the lagoon were poisonous, where to locate fetus-less bird eggs, and how to split open coconut seedlings. But the Wheelers were irritated when Stephanie was found washing clothes in a water-storage tank, and then furious on June 30 when one of Buck's dogs attacked and bit 15-year-old Steve Wheeler. In the middle of nowhere, a dog bite is a dangerous injury.

"It was a bad bite," recalls Steve's older sister Sharon. Buck was asked to explain what he intended to do about the dogs, "and Stephanie said (about Steve), 'He'll live.' She was very nonchalant. I don't think Buck—we knew him as Roy, though Stephanie sometimes called him Buck—said anything. He was unfriendly, kind of ominous. Once I brought them a fish that Steve caught, and I went aboard their boat to give it to them, and when Roy saw me, he gave Stephanie this angry look, like he didn't want anybody aboard. He talked with his eyes—like, his eyes would tell Stephanie to stop talking too much."

very, very best dishes with her Tiffany silver and her crystal and it was very elegant and we all got dressed up...and we were with them probably from 6 until midnight.

"The boat is very luxurious inside. They had a lot of heirlooms, silver, crystal, dishes and so on. They enjoyed nice living...They had a great quantity of food, good food...they were going to continue on for about a year...."

If the Grahams, in the weeks that followed, were sipping Scotch over real ice after hot days of exploring the island in 90 percent humidity, it was not so glamorous for Buck and Stephanie. Seeds they tried to plant in hopes of growing food were quickly eaten by land crabs and rats (they tried growing marijuana and that, too, failed). The boat still leaked and had to be hand-pumped. Although fish were plentiful and easy to catch, Buck had resorted to trying to shoot fish with a .22-caliber pistol, then spear them as they floundered about. He was not too successful at that. And there were the dogs to feed.

And their relationship with the Grahams didn't improve when Buck decided that the easiest way to get coconuts was to cut down the trees with his chain-saw, an act that infuriated Graham and perhaps closed the door on any chance of a friendship.

For the couples and families arriving on Palmyra, the main activities were exploring, fishing and collecting memorabilia left behind by the Army after World War II. There were a few small dilapidated Army storehouses, and Mac set up a workshop in one. (In a neighborly gesture, he examined Buck's boat engine and confirmed that it was frozen-up and unrepairable.)

The Pollocks departed about July 16, and six days later the 36-foot ketch *Shearwater* arrived, skippered by an engineer from Portland.

Turn to Page B-2





*The Seawind, with its name and number missing, is seized by the Coast Guard.—Photo by George E. Cabral Jr.*

# PALMYRA

Continued from Page B-2

whale-sized swordfish that rammed the ketch and repainted the boat with a new color scheme.

A couple of Buck's friends asked how he had acquired such a fine sailboat. He said he won it in a series of chess games on Palmyra with a "carefree millionaire." The millionaire, he added, was now sailing the lola. He won a thousand dollars, too.

With the old Sea Wind repaired, repainted and renamed the Lokahi ("of one mind"), they anchored at Ala Wai Boat Harbor, where some veteran sailors immediately recognized the boat. The next afternoon, Buck was walking along a dock at the harbor when he saw a Coast Guard boat pull up to the Sea Wind. In a moment, Stephanie was arrested and taken away. Buck jumped into the water and hid, shivering, for three hours in the darkness underneath a pier. When he came out, he went to a clothing store, bought a touristy "aloha-wear" outfit and checked into a Waikiki hotel, where he shaved off his beard and cut his hair. Then he called a friend and asked him to find out what Stephanie was being charged with. That night, he watched the TV news report of Stephanie's arrest.

The next day, he bought a plane ticket to the Big Island under the name of J. Evans, and about five days later, he went to the tiny town of Hawi on the northernmost point of Hawaii and checked into a hotel under the name of Joe Evans.

A few days later, as Buck was walking out of a restaurant, he saw two "policeman of some kind" sitting at a table near the door. He quickly left, started to "take off running," but halfway down the street he stopped, turned around and went to a park across the street from the restaurant, sat down at a park table and spread a newspaper out in front of him, putting his hands on top of the table so they would see he didn't have a

gun. And then he waited for them to come.

"I waited there and I kept wondering what was taking them so long," he said later, "and I guess it took them enough time to get me surrounded, you know, and they ran up with all their guns out and I kept my hands on the table. I didn't want them to think I had a weapon or anything."

Buck made the 1½-hour trip to Hilo in a police car with his wrists handcuffed under his legs.

**I**N June of 1975, a jury in Honolulu convicted Stephanie of boat theft and transporting stolen property. In December, another jury convicted Buck Walker of those two charges and falsifying a passport. The prosecution had no bodies, so neither was charged with murder.

Buck and Stephanie maintained their innocence at both trials. They claimed they were very close to the Grahams—to the point that they had planned to pattern their lives after the independent, ocean-going Grahams. Buck painted a picture of him and Mac as great pals who played chess twice a week. The reason he fished with a gun, he said, was that Mac made a sporting challenge: "Let's see you catch fish with a gun," he quoted Mac as saying.

They testified that at the end of August, they were going to sail a few hundred miles south to Fanning Island, where they would revise the lola. Walker said the Grahams planned a farewell party for Buck and Stephanie for the night of Aug. 28. On that day, he said, the Grahams went fishing in the lagoon in their Zodiac dinghy. Walker said the Grahams told Buck and Stephanie that if they weren't back by nightfall to go aboard the Sea Wind and fix themselves a drink.

"We walked over to their camp area about 6 p.m.," Buck and Stephanie wrote in a letter to Mac's sister, "and finding them away, sat

to watch the sunset and wait for them. When it grew dark, we went aboard to wait for them and to get away from the mosquitoes. The later it became, the more we worried. We kept going topside to look out for them, and finally Stephanie had the sense to turn on the mast lights to help guide them in."

The next morning, Walker said they went in the other Graham dinghy to search the lagoon. About a half-mile west, they said, they found the Grahams' Zodiac dinghy overturned, outboard engine and all, on the shoreline and no trace of the Grahams. They searched for

days, they said, then left aboard the Sea Wind with the Iola in tow. Once again, Buck said, the Iola got caught on the reef, and Walker later set it free outside Palmyra with a note that read, "Finders Keepers." Walker told the court he was going back to Hawaii to face the music on his drug charge, which meant another five years in prison, and only removed the Sea Wind's name plaque because he was a fugitive and wanted to arrange the terms of his arrest. He hadn't figured that out, he said, when Stephanie was arrested.

Well, had the Grahams been eaten alive by 2-foot sharks? How

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could they drown in water that wasn't even knee deep? How could the meticulous Mac Graham overturn a Zodiac in a lagoon when two experts from McWayne Marine Supply testified at Buck's trial that they couldn't overturn one in heavy surf with four people aboard? Why hadn't anyone seen Mac and Buck chumming around on Palmyra?

Stephanie Stearns was sent to prison in Southern California and was paroled in less than a year. Buck Walker was sent to McNeil Federal Penitentiary on an island in Washington State's Puget Sound.

After Muff Graham's remains turned up and the grand jury in-

dicted her and Buck for murder, she surrendered in Los Angeles and will appear in court there Thursday to hear the indictment charging her with the murder of Muff Graham.

But before that, when the bones turned up last month, newspaper reporters curious to know when Buck Walker would be returned called prison officials in Washington. That's when they learned that Buck Walker's good behavior had earned him a place in a minimum security facility outside the main prison, and that on July 10, 1979, Buck Walker either walked, waded, swam or boated across Puget Sound to freedom.

SEA TURTLES - PALMYRA - KINGMAN  
REEF