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BENJAMIN J. CAYETANO  
Governor of Hawaii



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES

REF: OCEA:RS

P. O. Box 621  
Honolulu, Hawaii 96809

Chairperson  
MICHAEL D. WILSON  
Board of Land and Natural Resources

Deputy Director  
GILBERT COLOMA-AGARAN

- Aquaculture Development
- Aquatic Resources
- Boating and Ocean Recreation
- Bureau of Conveyances
- Conservation and Environmental Affairs
- Conservation and Resources Enforcement
- Forestry and Wildlife
- Historic Preservation
- Land Management
- State Parks
- Water and Land Development

MAY 30 1995

In reply, please refer  
to FILE NO.: OA-276

RECEIVED  
 95 MAY 31 12:18  
 OFFICE OF ENVIRONMENTAL  
 QUALITY CONTROL

MEMORANDUM

TO: Mr. Gary Gill, Director  
Office of Environmental Quality Control

FROM: Michael D. Wilson, Chairperson *Michael D. Coloma-Agaran*  
Board of Land and Natural Resources

SUBJECT: Document for Publication in the OEQC Bulletin, Final  
Environmental Assessment for Conservation District Use  
Application OA-2762 for Conducting Ocean-Bottom Tests of  
Advanced Sonar Utilizing Submerged Lands Offshore Oahu

The above mentioned proposed use requires an environmental  
assessment in accordance with Title 11, Chapter 200 of the  
Environmental Impact Statement Administrative Rules. The  
Department has declared a Negative Declaration based on our review  
of the Final Environmental Assessment.

Please feel free to call me or Roy Schaefer of our Office of  
Conservation and Environmental Affairs, at 587-0377, if you have  
any questions.

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1995-06-08-0A-*FEA- Conducting Ocean-Bottom Tests*  
*of Advanced Sonar Utilizing submerged lands off Oahu*  
*Conservation district use permit*  
JUN 8 1995  
FINAL ENVIRONMENTAL ASSESSMENT

APPLICANT: INTECH Incorporated  
1200 College Walk #203  
Honolulu, HI 96817  
Tel: (808) 531-8330 Fax 531-8374  
Jack Harmon, Manager

26 May 1995

APPROVING AGENCY: DLNR (Departmental Permit Requested)

AGENCIES CONSULTED: DBEDT (CEROS, Marine Resources Branch)  
DLNR (Fish & Wildlife Branch)

DESCRIPTION OF NEED FOR PERMIT: This request for a Departmental Permit is for the temporary burial of metallic objects in submerged sand deposits off Waikiki. The objects will be inserted in sand (to 6 ft.) as "targets" for a sub-bottom sonar system being developed by Alliant Techsystems, Inc. under a CEROS contract; on completion of the tests, in about two weeks after burial, the objects will be removed and the seafloor smoothed to its original appearance.

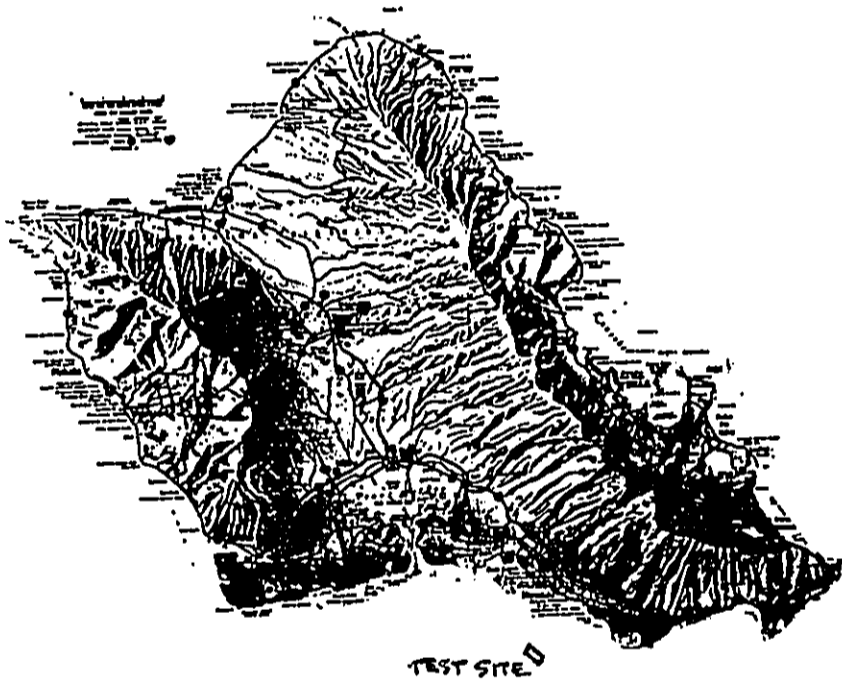
a) Background. A research and development grant was issued in late 1994 by DBEDT's Center of Excellence for Research in Ocean Sciences (CEROS) to Alliant Techsystems, Inc. of Mukilteo, Washington, and their subcontractor for Test Planning, INTECH, Inc. of Honolulu. Under the grant, Alliant is modifying an existing side-looking sonar set at the University of Hawaii Institute of Geophysics (HIG) to incorporate a synthetic-aperture processing capability that will enable it to detect ordnance (bombs and large shell casings) buried in the beaches and the seafloor. There is a major problem around Kahoolawe and numerous other sites off the State's small islands where target practice (over the past 70 years) has left scores of unexploded ordnance to menace future generations of Hawaii's citizens. If the technology can be developed and demonstrated to successfully locate such objects, on or under the seafloor, then the State can call for their removal by the military. The Alliant grant is the start of a multi-sensor capability that can provide the needed detection capability.

b) Test Site Requirements. To demonstrate the capability of the sonar to detect such objects requires a calibrated test site where the depth and locations of the test objects are known. By operating in a calibrated test site, we will know how accurate and how well the sonar system is performing, and can adjust or modify the system to improve its performance. The plan includes placing 18 sealed cannisters (targets) in or under the sandy seafloor at 90-100 ft. depths. Twelve of the targets will be buried (using waterjetting) in the sand at precise depths and locations, as shown in the sketch below; attached rods will facilitate recovery at the completion of testing.



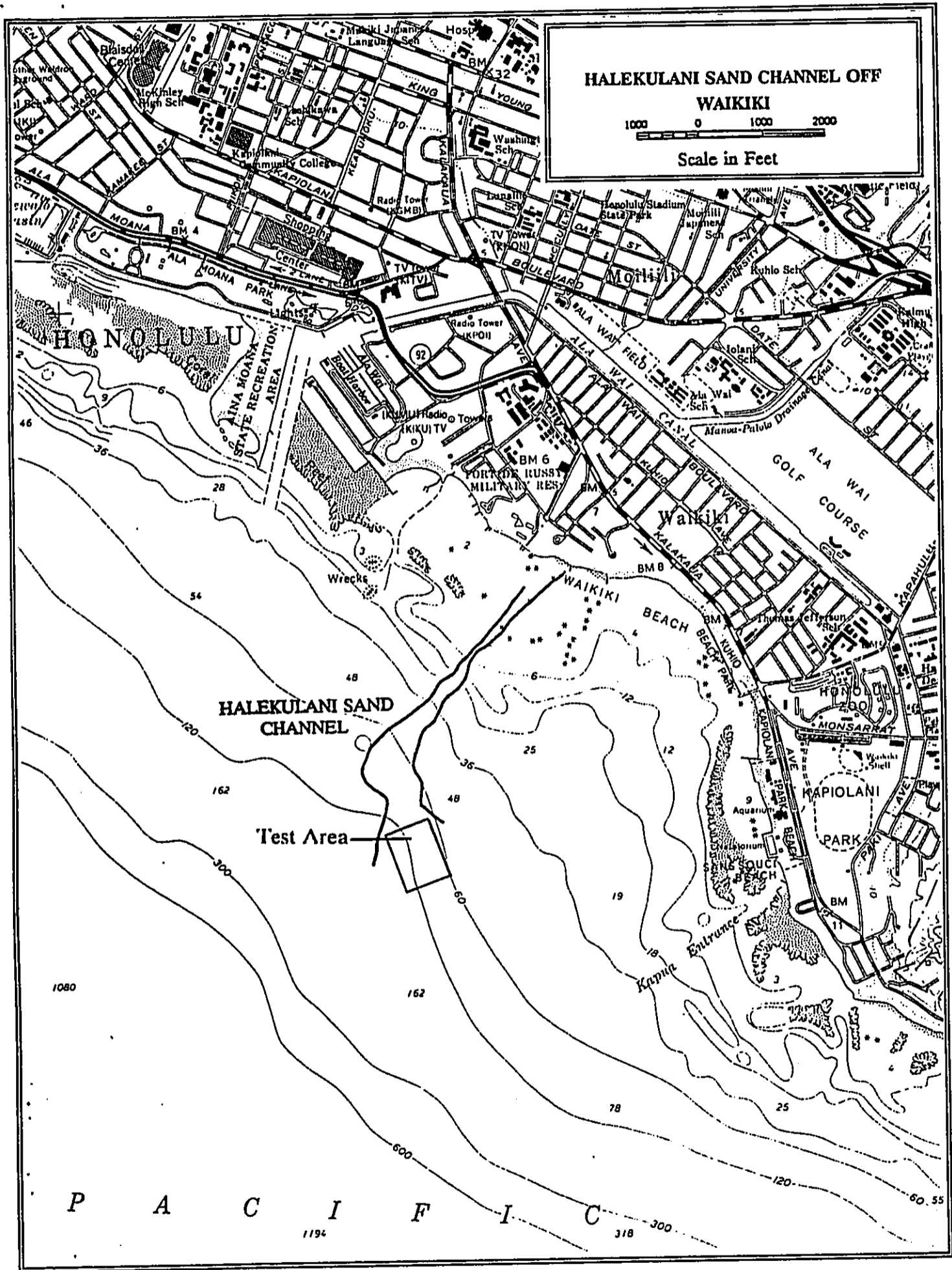
During the sea trials of the sonar system, the sensor will be towed slowly across the test site to determine how accurately it locates targets under varying conditions. After adjustments are made, a second pass over the test site will be made. After the tests are completed, in about two weeks, the targets will be recovered and stored for possible future tests.

c) Test Site Location. The site selected for the tests is in the Halekalani Channel, off Waikiki where numerous sand explorations have been made (Ref. 1). There is reported to be at least 10 feet of sand at 100 ft. depth, which is ideal for diver placement and removal of the targets. The sand deposits have accumulated in an ancient channel cut through the reef. Although the test site is located in a much-traveled zone, our use of the area is so limited that it should pose no interference with other traffic.



d) Period of Testing. The schedule calls for installing the targets on Friday, 30 June 1995 and removing them on Wednesday, 12 July; the sonar tests will be conducted between those dates. While the schedule is subject to change, we will avoid any weekend work when traffic is highest. Inserting the targets will take two to four hours; removal will require two hours, and the sonar tests will require two to four hours each.

**DESCRIPTION OF THE AFFECTED ENVIRONMENT:** The selected site contains sand deposits, the surface of which is continually stirred by bottom currents. This is not an area that is conducive to colonization, and will not be adversely affected by the proposed test site. Since the site has been subjected to many prior sand deposit surveys and jet probes (as potential sand deposits for Waikiki Beach) the area is well documented, making it an ideal locale for conducting our tests with minimal impact environmentally. The locale is detailed in the chart on the following page.



**MAJOR IMPACTS AND ALTERNATIVES CONSIDERED:** Our planned use of the selected site should have no permanent impact on the seafloor because of the depth of sand deposits. No major impact is foreseen.

a) Future Testing. One of the advantages of this site is its potential use for future tests that will aid in developing an effective ordnance detecting capability. The site is close to port, minimizing logistic costs, and its history for sand explorations provides a well-documented locale for conducting this type of test.

b) Alternatives. An assessment was made of other Oahu sites, principally those that had been surveyed and probed for sand deposits, since we need the ability to bury our targets. None of the other sites were found to have sufficient deposits of sand; in fact, many of the surveys were not made to the 100ft. depths we require for this initial set of tests.

c) Positive Impacts. The positive impacts on the environment will result from disturbance of the fine sands during the jetting operation to bury the targets, and again in jetting to remove the targets. The amount of disturbance will be mitigated by the divers who are well-schooled in the technique and can control the jet to keep the resulting plume small and within a few feet of the hole. A line-locating guide will be used to position the targets, to help ensure that targets are put in the proper place on the first attempt to minimize the number of jetting operations.

d) Socio-economic Benefits. A beneficial socio-economic impact of the proposed effort is the encouragement of Hawaii as a favorable locale for research and development. This type of project brings Federal money into the State and often provides opportunities for international cooperation. Certainly, a successful system for detecting and locating unexploded ordnance in waters frequented by swimmers and divers is an international need; if we can help develop such a capability, the State's industries and scientists will benefit.

And, of course, there is a major benefit if we are successful in developing the capability of removing unwanted hazards from our nearshore waters and beaches.

**PROPOSED MITIGATION MEASURES:** The mitigation measures that will be taken are primarily the use of care in burying the targets to minimize the size of plume and limit the disturbance of the seafloor to the location of the targets. Because the site selected is exposed to continual bottom currents, the planned operations will leave no noticeable traces of our tests, once we depart.

Disturbance to other ship and recreation traffic will be minimized by limiting our operations to weekdays.

**DETERMINATION:** It is requested that a negative determination of impact will be made, and that a Departmental Permit will be granted.

Ref. 1. Beach Nourishment Viability Study, by Sea Engineering, Inc., December 1993, prepared for Office of State Planning, Coastal Zone Management Program

## RESPONSES TO CONCERNS RAISED BY THIS APPLICATION

Ten letters were received from various State and City agencies. Most simply stated that they had "no problem" or that the project is "not in their jurisdiction". The letters that raised concerns are attached and listed below with our response.

1. DLNR Division of Land Management, Cecil Santos, May 18, 1995.

Our plans have carefully avoided any areas with coral beds; if we should encounter unforeseen coral beds in the area we plan to work, we will simply move our test site away from the coral.

2. DLNR Division of Land Management, Cecil Santos, Apr 6, 1995.

This letter came in before the Draft Environmental Assessment was distributed. We believe the letter was superseded by the later letter (above) after reviewing the DEA. However, nothing we plan to do in our test effort will have an adverse effect on the submerged lands or the water corridor; we will remove all targets and markers upon completion of the tests; we have contacted the Division of Aquatic Resources for their comments; and, we are seeking a Departmental Permit for the testing simply because this type of short-term installation and removal shouldn't require full Federal, State, and County permits.

3. DLNR Division of Aquatic Resources, Walter Ikehara, Mar 20, 1995

This letter was also received before the DEA was distributed. We provided a copy of the DEA to Mr. Ikehara with our letter of 27 April 1995; no further concerns were raised by this agency.

BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF LAND MANAGEMENT  
P.O. BOX 621  
HONOLULU, HAWAII 96809

R.S.  
AQUACULTURE DEVELOPMENT  
PROGRAM  
AQUATIC RESOURCES  
BOATING AND OCEAN RECREATION  
CONSERVATION AND  
ENVIRONMENTAL AFFAIRS  
CONSERVATION AND  
RESOURCES ENFORCEMENT  
CONVEYANCES  
FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT  
WATER RESOURCE MANAGEMENT

Ref: LM:NV

MEMORANDUM

MAY 18 1995

File No.: OA-2762  
Doc. No.: 5393

TO: Roger C. Evans, Administrator  
Office of Conservation and Environmental Affairs

FROM: *Cecil Santos*  
Cecil Santos, Oahu District Land Agent  
Land Management Division

SUBJECT: Conservation District Use Permit for Intech, Inc. to  
Conduct Ocean Bottom Test of Advanced Sonar, Offshore  
Oahu

We understand that the purpose for the Sonar Test is to evaluate and modify of an existing sonar set, with a synthetic processing capability that will enable the sonar set to detect ordinance buried in the sea floor. Two (2) sites have been selected. One is at Halekalani Channel and an alternate site at Maile Point. Intech, Inc. proposes to install six targets during the two week trial starting in July or August 1995, and that Intech, Inc. will remove the target when tests are completed.

We have no objections to the testing provided the placement of the targets in the sea floor does not damage the coral beds.

Thank you for allowing us the opportunity to review the subject matter. Should you have any questions, please contact Nicholas Vaccaro at 587-0433.

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OCEA

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BENJAMIN J. CAYETANO  
GOVERNOR OF HAWAII



STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
DIVISION OF LAND MANAGEMENT

P.O. BOX 621  
HONOLULU, HAWAII 96809

APR - 6 1995

AQUACULTURE DEVELOPMENT  
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FORESTRY AND WILDLIFE  
HISTORIC PRESERVATION  
LAND MANAGEMENT  
STATE PARKS  
WATER AND LAND DEVELOPMENT  
WATER RESOURCE MANAGEMENT

Ref: LM:JD


MEMORANDUM

File No.: OA-2762  
Doc. No.: 5392

TO: Roger C. Evans, Administrator  
Office of Conservation and Environmental Affairs

FROM: Cecil Santos, Oahu District Land Agent  
Land Management Division

SUBJECT: Conducting ocean-Bottom Tests of Advanced Sonar



The Oahu District Office of Land Management has the following comments:

1. The information this office received gave a rough location identification. We would like the applicant to provide a better site location plan including the approximate distance offshore.
2. The applicant assure mitigative measures to insure there will be no adverse affect to either the submerged lands or the water corridor.
3. The applicant be responsible for the successful removal of all six targets at the project site.
4. That comments be obtained from the Division of Aquatic Resources and those comments be strictly adhered to.
5. The applicant obtain the required Federal, State and County permits prior to initiating the proposed work.

DLNR  
OCEA

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State of Hawaii  
Department of Land and Natural Resources  
DIVISION OF AQUATIC RESOURCES

Date: Mar 29, 1995

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MAR 21 AM 11:40  
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TO: William Devick, Aquatic Resources & Environmental Protection #170  
THROUGH: Richard Sixberry, Aquatic Biologist  
FROM: Walter Ikehara, Aquatic Biologist  
SUBJECT: Comments on CDUA no. OA-2762  
Comment Roger Evans, Office of Conservation Date of Date  
Requested by and Environmental Affairs Request 03/13/95 Rec'd. 03/14/95

Summary of Proposed Project

Title: Conducting Ocean-bottom Tests of Advanced Sonar

Project by: Intech, Inc.

Location: Offshore Oahu .

Brief Description:

The applicant proposes to install temporary test targets offshore of Oahu in 100 ft. depth. The primary proposed site is off Halekalani [sic] Beach, Waikiki, with the secondary site off Maile [sic] Point. Presumably, they mean offshore of Halekulani Hotel and Maili Point, respectively. Various metal objects would be laid under and on the surface of the ocean bottom roughly on a line stretching 60 feet. The contractor would then use these known targets to calibrate a side-scan sonar that would be eventually be used to detect ordnance around Kahoolawe Island. The sea tests are planned for July or August, 1995. After the test, the contractor plans to remove the targets and restore the bottom to its original condition.

Comments:

The information presented in the CDUA is scant and barely describes the site where the contractor intends to place the targets. One wonders if the contractor has examined the proposed sites carefully. The installation and removal of the targets will presumably be done by divers, but this is not specified in the application. Depending on the substrate, the methods used for installation and removal of the

targets could cause more or less damage to the substrate. If the site is composed entirely of open sand, it is likely that the installation and removal of the targets should not cause any significant damage. However, the information presented with the CDUA is inadequate to make this determination.

We recommend that more detailed information on the proposed sites and the methods for installation and removal be provided before final review and approval of the CDUA.

*Sent 4/28/95*

**INTECH, Incorporated**  
1200 College Walk, Suite 203  
Honolulu, Hawaii 96817

Walter Ikehara  
DLNR Division of Aquatic Resources  
Honolulu, Hawaii 96813

27 April 1995

Subject: Ocean-bottom Testing of Advanced Sonar  
Reference: CDUAOA-2762  
Your Memorandum of 3/20/95 to William Devick

From our review of your concerns on our project, I think the enclosed EA will give you a better understanding of the project. I'm sorry that the original application wasn't clearer, but we simply didn't understand the process.

The area we selected is one that has been probed and measured numerous times (because of the vast quantities of sand) for possible Waikiki Beach replenishment. It's of primary interest to us because we need to bury some of our targets up to 6 ft. deep in the sand; and this is the only known deposits in 100 ft. of water, close to Honolulu. Since this area is constantly undergoing change due to tides and currents, our activities will have little or no impact on the environment.

If you still have concerns about the project, call me; I may be able to answer them.

Sincerely  
Integrated Environmental Technologies,

Jack Harmon, Manager

FAX TO: NANCY HEINRICH - DEQC  
FROM: JACK HARMON  
THIS LETTER IS IN MAIL TODAY.

**INTECH, Incorporated**  
1200 College Walk, Suite 203  
Honolulu, Hawaii 96817  
(808)531-8330

Department of Land and Natural Resources  
Division of Land Management  
P. O. Box 621  
Honolulu, Hawaii 96809  
Attn: Cecil Santos,  
Oahu District Land Agent

26 May 1995

Subject: Ocean-Bottom Testing of Advanced Sonar  
Reference: OA-2762, Doc. No. 5392  
Your Memorandum to Roger C. Evans

Aloha,

Your letter requires that our target site not damage the coral beds, and we fully concur with you. This was a major consideration in selecting the site at Halekalanani Channel. It is a known stretch of seafloor that has been probed and measured numerous times, since it has ample sand deposits for possible use on Waikiki Beach. The sand depth ranges from 10 to 20 feet and will enable us to bury some targets as deep as 4 ft with no chance of encountering the bottom. Our plan minimizes the number of buried targets, and those that must be buried will be waterjetted into the sand; this will prevent any accidental damage to the seafloor, since we will not be drilling.

There are no reported corals in the vicinity, but if we should find some in the planned area, we will relocate our range to stay totally clear of them. Since this area is constantly undergoing change due to tides and currents, our activities will have little or no impact on the environment.

If you still have concerns about the project, call me.

Sincerely,  
Integrated Environmental Technologies

  
Jack Harmon, Manager