

## CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200

# Tu 14a



February 24, 1998

Captain Nicholas L. Richards  
Commander, Port Hueneme Division  
Naval Surface Warfare Center  
4363 Missile Way  
Port Hueneme, CA 93043-4307

Re: Radar Studies, U.S. Navy, Surface Warfare Engineering Facility (SWEF)  
Port Hueneme, Ventura County

Dear Capt. Richards:

In preparation for the upcoming workshop on the above-mentioned matter, we have four points on which we seek information and/or clarification, as follows:

1. In a January 27, 1998, Navy letter to the Environmental Defense Center concerning "safe separation distances" prepared as part of the December 1996 radar study at the SWEF (Bldg. 1384), the Navy indicated that the information requested "was discarded" after it was collected. According to The BEACON, safe separation distance calculations are loaded into a computer as part of a computer program, and, therefore, should be retrievable. The BEACON states: "It appears the calculations could easily be regenerated by the Navy without any field work." To support this statement, the BEACON has relied on the 1989 NISE report, which states:

*The theoretical minimum safe separation distances ... for each emitter were calculated utilizing the NAVELEXCEN Charleston radiation hazard (RADHAZ) program. This program calculates the peak electric field intensity and power density in the near and far field regions and assumes [certain assumptions]... Because of the assumptions ..., the theoretical hazard distances are typically considered to be conservative. See appendix A for a detailed list of theoretical hazard distances for each emitter identified on the base.*

If these calculations can be retrieved, we would appreciate your providing them to us. If they cannot, please explain why.

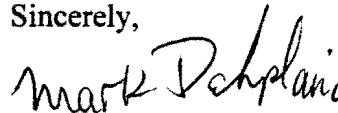
2. We would also appreciate being provided the safe separation distance calculations from the most recent (January 1997) RADHAZ study of the MK74 MOD 6/8/AN/SPG-51C Fire Control System, installed at Bldg. 5186.

3. In a December 12, 1997, letter we asked you to confirm your reliance on a 650 ft. minimum separation distance previously relied on as representing a "worst case" situation for vessels transiting the harbor. Your response of December 19, 1997, indicated that radar hazards to ships will not exceed that tested at a distance of 650 ft. because that is the minimum separation between the radar and the shipping channel. Prior to our exchange of correspondence, we had received a letter dated October 27, 1997, in which The BEACON provided evidence for its contention that a separation distance of 650 ft. from the radar source for vessels is not sufficiently conservative. That evidence consists of graphics showing that a 650 ft. radius drawn around the SWEF takes in more than half of the entrance channel to Port Hueneme (Attachment 1), as well as a statement that "In fact, large vessels commonly enter and leave the harbor in the mid to west half of the channel closest to the SWEF due to local wind and channel conditions." We would appreciate your specific response to these points, and any evidence you have supporting your statement that vessels do maintain a minimum 650 ft. separation from the SWEF.

4. On January 26, 1998, we received from the Navy a January 1997 RADHAZ study for the MK74 MOD 6/8/AN/SPG-51C Fire Control System at Bldg. 5186, which is part of the SWEF complex. The document we have been calling the Navy's "Baseline Document" for the SWEF, dated January 7, 1998, indicates in Table 1 that this system became operational in 1996. The RADHAZ study for this system indicates the height of the radar beam is 42 ft. (rather than the 70-100 ft. height for when this class of emitter was installed at Bldg. 1384). This installation at Bldg. 5186 is closer to publicly accessible areas than Bldg. 1384. Given these changes, and the above questions about safe separation distances and Navy's assumptions about distance to the nearest vessels transiting the harbor, we ask that the Navy submit an after-the-fact consistency determination for the installation of this radar system at Bldg. 5186.

Please call me at (415) 904-5289 if you have any questions about these matters.

Sincerely,



Mark Delaplaine  
Federal Consistency Supervisor

Attachment

cc: Ventura Area Office

## CALIFORNIA COASTAL COMMISSION

145 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
FAX AND TDD (415) 904-5200



Tu 14a

**DATE:** FEBRUARY 19, 1998

**TO:** COASTAL COMMISSIONERS AND INTERESTED PARTIES

**FROM:** PETER DOUGLAS, EXECUTIVE DIRECTOR  
MARK DELAPLAINE, FEDERAL CONSISTENCY SUPERVISOR

**RE:** U.S. NAVY, SURFACE WARFARE ENGINEERING FACILITY (SWEF)  
PORT HUENEME, VENTURA COUNTY

**I. Staff Note.** At the November 1997 Commission meeting, the Commission agreed to hold a public hearing to discuss the status of historic and ongoing federal consistency review of the Surface Warfare Engineering Facility (SWEF) in Port Hueneme at the January 1998 Commission meeting. This matter was postponed to the March 1998 meeting as the Navy submitted additional information just prior to the January Commission meeting.

**II. SWEF History.** In September 1995 the Commission staff expressed concerns over the Navy's 1985 construction of the original SWEF facility. That facility was built after implementation of the federal consistency requirements, and historic documentation available in September 1995 led the staff to conclude that the Navy had been aware prior to its construction that the SWEF facility would affect the coastal zone and would conflict with several policies of the Coastal Act. Because the Commission staff believed the SWEF facility should have undergone federal consistency review prior to its construction, the Commission staff has on several occasions requested that the Navy submit an after-the-fact consistency determination for the facility.

A related concern raised by the absence of consistency review of the original SWEF building is the procedural question of what degree of modification to the existing facility would trigger additional federal consistency review, given that a complete project description and accompanying environmental analysis was never provided to the Commission for that activity.

**III. Issues.** The primary issues which have been and continue to be raised regarding this matter include: (1) whether to conduct an after-the-fact consistency review of the SWEF; and (2) the adequacy and conclusions of several radar studies performed by the Navy to address Navy personnel and public health issues from SWEF radar emissions.

To the extent any public health risks would coincide with coastal resource health issues (e.g., effects on public access and recreation in the immediate project vicinity, such as on the La Janelle park and pier located southwest of the SWEF (Exhibit 2), or effects on coastal shipping), such issues would be considered coastal issues.

**IV. Recent Correspondence.** While the Commission staff has requested the Navy to submit an after-the-fact consistency determination for the SWEF, on May 13, 1997, the Navy requested that the "record be closed" on the staff's request (see Attachment 3). At the same time, on June 12, 1997, the Navy agreed to submit a "baseline document" for the SWEF. The Navy has also previously agreed that future modifications to the SWEF would be coordinated with the Commission for possible federal consistency review (see Attachment 1). The Navy submitted its "baseline document" on January 7, 1998. This intended to describe the historic and current facilities in operation at the SWEF, and it is attached as Appendix A.

For additional background material, also attached are three exhibits showing the location of the SWEF, followed by the following correspondence:

Attachment 1. April 5, 1996, Navy letter to the Commission, including a commitment that all future radar equipment installed will be tested and that future SWEF modifications will be coordinated with the Commission.

Attachment 2. April 21, 1997, letter from the Commission staff to the Navy, reiterating the staff's requests, an including a request that the Navy de-classify the most recent radar study's appendices (which the Navy subsequently agreed to do, for the most part).

Attachment 3. May 13, 1997, Navy letter to the Commission, including a request that the "record be closed" on the staff's request for an after-the-fact consistency determination.

Attachment 4. May 22, 1997, The BEACON letter commenting on the Navy's May 13, 1997, letter and requesting a Commission status review hearing.

Attachment 5. June 12, 1997, letter from the Commission staff commenting on the Navy's May 13, 1997, letter and requesting at least a "baseline document" for the SWEF.

Attachment 6. October 27, 1997, The BEACON letter addressing radar hazards to vessel traffic and contending that the Navy's assumption that vessels will maintain a distance of 650 ft. from the radar source is unrealistic

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Attachment 7. November 5, 1997, The BEACON summary of the history of these matters, which was submitted at the November 1997 Commission meeting when The BEACON requested this status/briefing hearing.

Attachment 8. November 18, 1997, The BEACON letter questioning some of the conclusions in the Navy's (then) most recent radar study (the October 31, 1997, Navy letter it is responding to is attached).

Attachment 9. December 12, 1997, Commission staff letter to the Navy requesting radar information based on the Navy's (then) most recent radar study (and subsequent release of previously "classified" appendices).

Attachment 10. December 19, 1997, Navy letter which indicates (1) that the Navy's will test a recently installed "MK99 Fire Control" radar system, which is similar to the system it replaced (the "MK 74 Fire Control" radar system), and that the test results will be forwarded to the Commission when available; (2) that "we will likewise advise the Commission when significant modifications to the facility are planned in the future"; (3) that radar hazards to ships will not exceed that tested at a distance of 650 ft. because that is the minimum separation between the radar and the shipping channel; and (4) that radar reflecting off tall ships attenuates and is "there is no potential for risk."

Attachment 11. January 23, 1998, Navy letter inviting and encouraging any of the Commission members to tour the SWEF facility at any time.

Attachment 12. January 23, 1998, The BEACON letter (without attachments) asking the Commission to consider obtaining guidance from an impartial independent expert in radio frequency emissions, and include in such review a response to five questions, primarily addressing potential radar hazards to ships transiting the harbor.

Attachment 13. January 27, 1998, Navy letter responding to a Freedom of Information Act (FOIA) request by the Environmental Defense Center (EDC) concerning "safe separation distances," which indicates the information requested "was discarded" after it was collected. This attachment includes the EDC letter requesting the information.

Attachment 14. Executive Summary of the most recently received, January 1997, Navy radar survey of the MK74 Fire Control System radar (received on January 26, 1998). This radar system was relocated from the main SWEF building to nearby "Building 5186."

Attachment 15. February 4, 1998, The BEACON letter responding to the above radar survey and expressing concern over: (1) the Navy's discarding of safe separation distance information; (2) the discrepancy between the Navy's commitment to keep the

Commission informed and an apparent one-year time lag between completion of the January 1997 radar report and its release to the Commission; (3) a previous Navy statement that it was not reviewing the MK 74 system because it had been "permanently removed" and "there are no plans to reinstall it at the SWEF complex," when in fact it was reinstalled at nearby Building 5186, which is part of the SWEF complex [Note: this was the radar subsequently analyzed in the January 1997 radar study]; and (4) the MK 74 system reinstalled onto Building 5186 is only 42 ft. high, rather than the 70-100 ft. heights of radar facilities at the SWEF, which raises the question of whether, given its greater proximity to publicly accessible areas and lowered height, it may cause different impacts on coastal resources. This letter concludes with the following statement:

*The current experience reflects the past two and a half years of Navy non-responsiveness to the Coastal Commission request for an after the fact consistency determination. It clearly points to incomplete, misleading and unreliable Navy compliance and communication. Only a complete consistency determination on the entire SWEF complex and all its operations can protect the coastal resources for which the California Coastal Commission is responsible under the law.*

Attachment 16. February 12, 1998, Surfrider Foundation letter expressing concerns over radar effects on public recreation, including noting the difference between the Navy's practice to provide warnings to the public during radar transmissions at Pt. Mugu and its lack of warnings at Pt. Hueneme.

Attachment 17. February 18, 1998, The BEACON letter elaborating on its "safe separation distance" concerns.

## **V. Attachments.**

- 1. Appendix A: Navy Baseline Document**
- 2. Exhibits 1-3: Site Location Maps**
- 3. Attachments 1-17: Correspondence**



DEPARTMENT OF THE NAVY  
ENGINEERING FIELD ACTIVITY, WEST  
NAVAL FACILITIES ENGINEERING COMMAND  
900 COMMODORE DRIVE  
SAN BRUNO, CALIFORNIA 94066-5006

APPENDIX A

IN REPLY REFER TO:

5090.1B  
Ser 7031BF/EP8-1413  
January 7, 1998

**RECEIVED**

JAN 07 1998

CALIFORNIA  
COASTAL COMMISSION

Mr. Peter Douglas, Executive Director  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Dear Mr. Douglas,

As you requested, we have attached a copy of our Facility Description for the Surface Warfare Engineering Facility (SWEF) at the Naval Surface Warfare Center, Port Hueneme Detachment. The document provides a description of the facility's past and existing systems, equipment and operations. This should be helpful to you when assessing whether future modifications to the facility or operations would cause new or intensified effects on coastal zone resources.

We understand that the SWEF is an agenda topic for the Commission's meeting, January 13, 1998, in San Luis Obispo. We are planning to attend the meeting and give a brief status report on the facility at that time.

If you have any questions, please contact Barry Franklin (650) 244-3018.

Sincerely,

*John H. Kennedy*  
JOHN H. KENNEDY

Head, Environmental Planning Branch

Enclosure (1) Facility Description

EXHIBIT NO.
APPLICATION NO.
APPENDIX A
NAVY, SWEF California Coastal Commission

## **FACILITY DESCRIPTION**

### **I. INTRODUCTION**

#### **BACKGROUND AND DESCRIPTION OF THE FACILITY**

Established in 1963 as the Naval Ship Missile Systems Engineering Station, the Port Hueneme Division, Naval Surface Warfare Center (PHD NSWC) is presently designated as the "In-Service Engineering Agent" (ISEA) for combat systems installed in the U.S. Navy and Coast Guard fleets, and foreign Navy fleets. As the ISEA, NSWC supports these systems before and after they have been installed on ships, hence the word "in-service."

The Surface Warfare Engineering Facility (SWEF) was built in 1985, to help PHD NSWC meet this challenge, to consolidate and integrate activities and operations from several smaller buildings, and to accommodate the installation of additional systems.

The facility, Building 1384, is a five-story, 50,000 square foot laboratory, located on the beach at the entrance to the Port Hueneme Harbor. The building is 173 feet long, 91 feet wide, and 74 feet high and 10 feet above mean sea level. Inside the building are individual laboratories called "bays", which house various systems and equipment, as well as office space, training rooms, computer rooms, and equipment storage areas. Some equipment is installed on the roof of the building, and is used in conjunction with the systems and equipment in the bays. The highest equipment installation is about 107 feet above the ground (33 feet above the fifth floor roof). Access to roof top equipment is through access doors and staircases on the roof. The facility is fully utilized.

Building 1384 is actually part of a small complex of buildings, which are used to accomplish the engineering, administrative and training functions necessary to provide "in-service" support. In addition to the five-story facility, Buildings 5234, 5186 and 1326, built in the 1970s, house additional systems and equipment, used in support of operations at Building 1384. These Buildings have equipment inside, as well as on the roof. The other smaller, single story buildings are used for classroom training, storage, maintenance operations, and serve as conference rooms. (Figure 1, attached, shows the buildings and their locations in the SWEF complex area.)



## PURPOSE AND NEED

The SWEF is a unique facility. No other single asset in the world has the equipment and capability to provide engineering and technical support for such a large number of fleet surface combat systems in one location. The SWEF was constructed to allow ships' combat systems to be tested, evaluated, and changed without requiring installation aboard ships, or equipping a laboratory at sea. PHD NSWC is responsible for ensuring shipboard systems work effectively, safely, and reliably. The SWEF complex gives PHD NSWC the ability to meet this responsibility, from the time the systems are first built until they are no longer used on board ships.

Systems installed at SWEF and on board ships are designed to protect sailors and ships against hostile threats such as aircraft, missiles, and firings from other ships. Hostile threats are continually being improved to make them smaller, faster, and more difficult for Navy systems to locate. As a result, shipboard systems must also be continually improved and updated to counter the threats. SWEF allows the Navy to test systems and make improvements to existing systems to enable ships to protect themselves at sea.

While the existence of SWEF is predicated on maintaining the ability to effectively evaluate and improve as well as develop new systems, the facility also saves the Navy millions of dollars every year. Using the facility instead of Fleet resources to perform engineering, development, and training tasks saves the Navy more than \$13 million annually. In some cases, improvements to equipment undergo months of evaluation and refinements before being installed on ships. This simply is not feasible on board ship because of the months of downtime that would occur.

The facility functions like a "ship on land", making it possible to simulate shipboard and ship system operational problems and investigate engineering solutions. Prior to construction of the facility, problems with systems or equipment required shipboard visits by technical personnel to try to identify the problem. Once a solution was found, other visits were required to test and evaluate them on the actual system. If the ship was unavailable, weeks or months could pass before the system could be tested on board. If it didn't work, the whole process started over again. At SWEF, solutions can be verified immediately, evaluated, refined, and implemented without shipboard visits and long delays. The SWEF gives people who work on ships' systems access to the same systems that are on board ships, thereby affording a cost effective, practical, and safe means of ensuring systems on board ships work better, safer, more cost effectively and longer.

SWEF provides an ideal environment in which to evaluate equipment, equipment improvements, and new systems. The best way to evaluate a system properly is to place it in an environment as close as possible to the environment in which it will operate. The close proximity of the SWEF to the ocean is critical to simulate the shipboard environment at sea. Equipment at SWEF faces the same challenges as equipment at sea, such as salt spray, and radio frequency reflections from land next to the ocean (from the surrounding mountain ranges and Channel Islands offshore). Ocean salt spray causes equipment to corrode much more rapidly than other environments. Systems installed on board ships that are exposed to the ocean environment are evaluated at SWEF so that solutions to minimize and prevent corrosion can be identified, tested, and refined before shipboard implementation.

The facility is also used to test and evaluate system hardware and software upgrades, as well as to train ship systems personnel how to operate and maintain shipboard systems.

## **II. EQUIPMENT AND SYSTEMS INSTALLED**

Currently, there are three primary types of systems and equipment installed at the SWEF complex: combat, satellite communication, and computer systems. These three types of systems and equipment are the same types used during the past twelve years of operations at the facility. A history of the systems installed and operated since the facility was constructed is shown on Table 1. There is no other type of system or equipment in or on the facility. Refer to Figures 1 and 2 and the attached photos for the locations of current systems and equipment. Table 1, figures 1 and 2, and photos are located in Appendix B.)

### **COMBAT SYSTEMS**

Included in the combat systems category are search radar systems, fire control radar systems, and missile launching systems. In some cases, launching systems are stand-alone and not integrated with fire control radar systems. Others are integrated with the fire control system yielding a complete combat system.

Combat systems currently installed include:

1. **Search Radar Systems:** These rotate in a circle like airport radar systems, through 360 degrees looking for airplanes or ships. The systems search for targets and provide target positions to radar operators.
2. **Fire Control Radar Systems:** These systems point in a specific direction and are used to detect and track air or surface targets. Radio Frequency (RF) transmissions can be routed into a dummy load, which is the most common mode of operation. During dummy load operation, no RF is transmitted out the antennae.

3. **Launching Systems:** These systems load and shoot missiles under the control of a fire control system. The missiles used at SWEF, called simulators, are not armed, contain no explosives and cannot be fired from the launching systems. Launching systems at SWEF do not use missiles capable of being fired for testing or any other purpose. Some of these systems are on rooftops; others are on the ground.

#### **SATELLITE COMMUNICATION SYSTEMS**

These systems transmit and receive information from satellites. Satellite communication systems have capabilities of transmitting and/or receiving information from satellites in space (voice and/or video) the same as satellite or "Direct TV."

#### **COMPUTER SYSTEMS**

A computer facility is located within building 1384 for the purpose of computer program development and maintenance. Combat system simulators, combat system emulators, and numerous computers are located within the facility. The facility is used for the development of computer programs for shipboard application, and to investigate potential problems and/or improvements identified by the Navy fleet. Computer programs that control combat systems on board ship are thoroughly tested at the facility before being sent to the ships.

NOTE: A more detailed list of existing systems and equipment and a brief description of their capabilities is located in Appendix A.

### **III. ROUTINE OPERATIONS**

Operations at the facility are the same now as during the past twelve years of operation. As noted, systems and equipment have been added, deleted, and modified, but the operations they perform are constant and generally include modifications and repairs to existing systems as well as developing and testing new systems. The actual shipboard systems installed at SWEF allow testing and evaluation of improvements to combat systems to ensure the system operates safely and effectively aboard ship. A complete list of routine operations and what typically occurs during those operations follows:

#### **INVESTIGATE, VERIFY, AND RESOLVE FLEET REPORTED PROBLEMS**

PHD NSWC responds to problems reported by sailors in the Fleet. Systems installed at SWEF are used by technicians and engineers to investigate, verify and resolve system and equipment problems. The problem could involve questions about operating procedures, systems that are inoperable or not working properly, or suggested modifications. SWEF personnel can develop a solution quickly, using the same equipment the sailor has at sea.

## **MODIFY AND DEVELOP HARDWARE/SOFTWARE TO IMPROVE SYSTEM RELIABILITY, MAINTAINABILITY, PERFORMANCE AND SAFETY**

When equipment is installed and used aboard ship, information is collected about how well systems work, how easy or difficult it is to test or fix the systems, and how safe the equipment is during operation, testing or repair. PHD NSWC uses this information to make changes to the equipment, test/repair procedures, and operating instructions so that systems last longer, work better, and are easy to test and repair if necessary. Again, having the actual systems at SWEF to test improvements saves time, and keeps ships at sea instead of having to be taken out of service and used as a test platform while changes are being evaluated.

## **DEVELOP AND TEST COMPUTER PROGRAMS AND PROGRAM CHANGES**

Systems installed on board ships are controlled by complex computers and computer programs. Computer programs that fail to operate or operate incorrectly jeopardize the mission of the ship and the safety of the crew. Therefore, to ensure correct and safe operations, PHD NSWC generates new programs and modifies existing ones and tests them before being put aboard ships. New and improved programs can be installed and tested in conjunction with equipment and systems located at SWEF.

## **MAINTAIN AND TEST ANTENNAE AND ASSOCIATED EQUIPMENT**

Antennae are a small part of a bigger system, which is used to point where radio frequencies (invisible light) actually go. Antennae are located on rooftops of buildings in the SWEF complex and are connected to other equipment inside the buildings. The equipment inside the building is used to point the antennae in a particular direction. Other equipment inside the buildings produces radio frequencies that are sent to the antennae. The antennae allow the radio frequencies to be transmitted into the air, only in the direction the antennae are pointing. The concept is just like pointing a flashlight; the light from the flashlight goes wherever the flashlight is pointing. The light is focused and doesn't go everywhere. Radio frequencies are very similar to light produced by a flashlight, except the light coming from the antennae is invisible to the eye.

Antennae installed at SWEF are identical to those installed on ships and, like those aboard ships, are exposed to the salt air from the ocean. The salt air causes the metals on the antennae to decompose; if improperly maintained, the antennae will not work very well, nor for very long. Antennae in need of repair are sent to PHD NSWC; the metals are cleaned and repainted. Also, experiments are conducted with new materials that will make the antennae less susceptible to corrosion and malfunction.

Once the antennae are repaired, they are temporarily installed on the roof of the facility (temporarily replacing an existing antenna), connected to the rest of the system, and tested prior to being returned to the ship.

#### **TRAIN PERSONNEL TO OPERATE AND MAINTAIN SYSTEMS**

Sailors are required to be able to safely operate, test and fix combat systems on board ship. The SWEF provides them a "hands on" learning opportunity to use the same systems that will be on board ship. This is a safe, practical, cost-effective way to ensure sailors are expertly trained to operate systems at sea.

#### **0 STANDARD SAFETY POLICIES AND PROCEDURES**

The SWEF facility and all of its systems and equipment have operated safely for twelve years. Studies by experts have repeatedly shown that the controlled and uncontrolled environments around the facility are completely safe.

#### **RADIO FREQUENCY EMISSION CONTROL**

All Department of Defense radar systems and operations, including those at SWEF, follow the same guidelines required for commercial activities that generate radio frequency emissions such as communication systems, airport radar, microwave ovens, and radio stations. The guidelines are based upon a consensus derived voluntary standard, developed by the Institute of Electrical and Electronics Engineers, which is a Non-Governmental Standards Organization. The standard was approved and adopted by the American National Standards Institute (ANSI). The ANSI standard was developed after more than nine years of open, public review by over 120 internationally recognized experts from over 14 different disciplines, including scientists, public health officials, medical doctors, engineers, and technical experts from industry, academia, and government.

Radio frequency emissions occur when search radar or fire control radar is searching/tracking airplanes during system testing. Safety is the primary consideration when emitting radio frequencies at SWEF. Before and after installation of radio frequency emitting systems, an evaluation is completed to ensure no hazards are present to personnel working at SWEF, residents and recreational users of the neighboring community, or wildlife or vegetation in the vicinity. Surveys are performed by the Naval Command, Control, and Ocean Surveillance Center, In-Service Engineering, East Coast Division, (NISE (East)), Charleston, South Carolina. Results of a pre-installation assessment determine where the systems will be installed, and any limitations on the direction the systems will emit radio frequencies.

Following radar system installation, a site survey called a Hazards of Electromagnetic Radiation to Personnel (HERP) is performed to test the radio frequency emission strength and further define in which directions it is acceptable and not acceptable to emit radio frequencies. Surveys concentrate on radio frequency emissions that are transmitted into the sky through the antennae located on the roof, as well as emissions inside the equipment spaces in the building.

When a survey is conducted, the radar is turned on and emissions are measured in places where people could be located. The measurement devices are hand held instruments connected to a small antenna (wand), which captures the radio frequency emissions. When the wand is placed where radio frequency emissions could possibly be located, the wand heats up and produces an electrical signal representative of the strength of radio frequency emissions. The electrical signal produced by the wand is sent to the hand held instrument. The instrument displays the amount of power being measured by the wand and thus the amount of radio frequency power generated at the point where the measurement is collected. All measurements are compared to allowable levels known as permissible exposure levels. Permissible exposure levels are radio frequency power levels which people can safely be exposed to for a specified amount of time. If a survey uncovers hazardous areas, which are accessible, to people, either the radar is not allowed to operate in those areas, or barriers are erected to keep people out of the areas. In conjunction with the barriers, warning signs are placed in strategic areas where hazardous levels of radio frequency emissions could be present.

At the SWEF complex, electromagnetic radiation hazard surveys have been and are conducted in conjunction with all radar system installations. Surveys conducted in 1989, 1994, and two in 1996 concluded that the all radar systems are operating safely.

The antennae installed at SWEF contain switches which stop radio frequencies from being generated, based on the elevation and bearing of the antennae. The switches send an electrical signal to the radio frequency transmitter and stop the transmitter from operating. Emissions from these systems are limited to well defined sectors. For example, fire control radar installed at SWEF do not emit radio frequencies below the horizon. Emissions travel straight out over the water, level with the rooftop. They do not point down toward water or land adjacent to SWEF and emit radio frequencies. As a result, no significant radio frequency emissions are evident at the beaches, buildings, or water near SWEF.

#### V. AGENCIES WITH OPERATIONAL OVERSIGHT RESPONSIBILITIES

In addition to NISE (East) conducting the surveys to ensure safe operations, the National Telecommunications and Information Administration (NTIA), Department of Commerce, controls emissions for systems at SWEF using the local area authority of the NTIA, the Western Area Frequency Coordinator (WAFC) and Frequency Interference Control Center.

The WAFC gathers information such as the amount of power produced by the system, direction of emissions, and frequency of operation. All military radar systems in a 14 state jurisdictional area (including SWEF) cannot produce any radio frequency emissions without concurrence from the WAFC.

## APPENDIX A

### SURFACE WARFARE ENGINEERING FACILITY SYSTEMS AND EQUIPMENT DESCRIPTION

1. DESCRIPTION. Four primary buildings are utilized for equipment installation at the SWEF complex:

- a) Building 1384
- b) Building 5234
- c) Building 5186
- d) Building 1326

In addition, two active rotating launching systems are located adjacent to buildings 1384 and 5234. Equipment is divided into the following categories:

#### EMITTERS - FIRE CONTROL AND SEARCH RADAR SYSTEMS:

MK 57 MOD 3 NATO Seasparrow Surface Missile System  
(NSSMS) - with dual MK 78 MOD 1 directors designated as  
Radars A & B  
MK 92 Combined Antenna System (CAS)  
MK 92 Separate Track Illumination Radar (STIR)  
MK 86 AN/SPQ-9 Surface Search Radar  
MK 86 AN/SPG-60 Air Action Radar  
MK 74 MOD 14 TARTAR SM2/NTU  
MK 74 MOD 6/8 TARTAR Missile Fire Control System (MFCS)  
MK 23 Target Acquisition System (TAS)

#### LAUNCHING SYSTEMS:

MK 13 MOD 4 Guided Missile Launching System (GMLS)  
MK 132 NATO Launching System  
MK 41 Vertical Launching System (VLS)  
Rolling Airframe Missile (RAM) System  
(Two other systems installed, not operational; refer to Table 1.)

#### SATELLITE COMMUNICATIONS:

AN/WSC-3 (SATCOM No.1 and No. 2)  
FCS MK 99 (SATCOM)  
Link 11 with antenna

#### COMPUTER BASED SYSTEMS/OTHER:

MK 612 MOD 4 Standard Missile Test Set  
AEGIS AN/SPY-1A Antenna Array  
Computer Systems  
AN/SWG-1 HARPOON System  
TOMAHAWK System  
AN/SLQ-32 (V)2 Countermeasure Set



## 2. EQUIPMENT CAPABILITIES.

### a. NATO Seasparrow Surface Missile System (NSSMS) MK 57 MOD 3.

The NATO Seasparrow Surface Missile System (NSSMS) is a self defense fire control system used for target detection, acquisition and tracking. It's primary use is for detection of low altitude small radar cross section threats, and has missile guidance capabilities. The NATO Seasparrow transmit chain consists of a MK 78 MOD 1 director (antenna) fed by an J-Band Continuous Wave (CW) transmitter. The transmitter RF output can be routed to either a dummy load or the antenna. Target detection, tracking and CW illumination is accomplished using the same CW transmitter. Two MK 78 MOD 1 NATO directors are installed at SWEF (identified as radars A and B). Each has the capability of interfacing with the MK 132 launcher which is installed on the grounds of the SWEF complex adjacent to building 1384.

### b. Fire Control System (FCS) MK 92 MOD 2 Combined Antenna System (CAS) and Separate Track and Illumination Radar (STIR).

Fire Control System (FCS) MK 92 MOD 2 is a computer controlled system used for air and/or surface target detection, tracking, and missile guidance. The FCS is comprised of two primary systems: 1) Combined Antenna System (CAS) and 2) Separate Tracking and Illumination Radar (STIR). The CAS contains search, track, and missile guidance functions. The STIR functions as a target tracker and contains missile guidance functions. Both CAS and STIR interface with the Guided Missile Launching System (GMLS) MK 13 MOD 4 at SWEF, which is used for missile firing simulations only. On board ship, FCS MK 92 interfaces with both the GMLS MK 13 Mod 4 and MK 75 gun. Both CAS and STIR use I-Band and J-Band RF transmitters to accomplish the functions described above.

### c. Gun Fire Control System (GFCS) MK 86.

The Gun Fire Control System (GFCS) MK 86 is a digitally controlled gun fire control system utilizing two radars: (1) the SPQ-9A surface search radar and (2) the SPG-60 Air track radar. The SPQ-9A surface search radar is used for target detection and track-while-scan. The SPG-60 radar is used for tracking either air or surface targets. During shipboard operation, both systems interface with the 5 inch 54 caliber gun for gun target engagements. At SWEF, simulated engagements are conducted using a gun emulator. As configured at SWEF, the GFCS MK 86 has no missile support functions, and therefore has no CW transmit capability.

### d. Fire Control System (FCS) MK 74 MOD 14 TARTAR SM-2/NTU.

Fire Control System (FCS) MK 74 MOD 14 is a fire control radar used for acquisition, tracking, and illumination of air and/or surface targets. The MK 74 MOD 14 is a dual purpose radar using both G-Band and J-Band transmitters. The G-Band transmitter is used for target tracking functions while an J-Band Continuous Wave Illumination transmitter supports guidance of Standard Missiles.

Both transmitters use separate transmission lines in route to the antenna. A single antenna is used for both tracking and illumination functions. In addition, on board ship the MK 74 system interfaces with a MK 26 launcher. This capability does not exist at SWEF.

e. MK 74 MOD 6/8 TARTAR Missile Fire Control System (MFCS).

MK 74 MOD 6/8 TARTAR MFCS is a fire control radar used for acquisition, tracking, and illumination of air and/or surface targets. The MFCS is a dual purpose radar using both G-Band and J-Band transmitters. The G-Band transmitter is used for target tracking functions while a J-Band CW Illumination transmitter supports guidance of Standard Missiles. The transmitters use separate transmission lines in route to the antenna. A single antenna is used for both tracking and illumination functions.

f. MK 23 Target Acquisition System (TAS).

The MK 23 Target Acquisition System (TAS) is a computer controlled pulse doppler radar with capabilities for target detection, identification, tracking, and threat ranking. The TAS transmit chain consists of a high power D-Band transmitter coupled via transmission line to an antenna with bearing coverage of 360 degrees with high elevation coverage capabilities.

g. Guided Missile Launching System (GMLS) MK 13 MOD 4.

Guided Missile Launching System (GMLS) MK 13 MOD 4 stows, selects, loads, aims and fires missiles in response to orders from the Fire Control System (FCS) MK 92. The purpose of the MK 13 MOD 4 GMLS is to load and fire Standard (surface-to-air) missiles and Harpoon (surface-to-surface) guided missiles. When the launcher is under FCS MK 92 control, the GMLS can initiate a missile firing (simulated only at SWEF). After missile firing the launcher automatically returns to the load position to receive the next missile type selected for loading from the magazine.

h. MK 132 NATO Seasparrow Surface Missile System (NSSMS) Launcher.

The NATO Seasparrow Surface Missile System (NSSMS) is a self defense fire control system used for target detection, acquisition and tracking. It's primary use is for detection low altitude small radar cross section threats, and has missile guidance capabilities. Each of the two MK 78 MOD 1 directors has the capability of interfacing with the MK 132 launcher, which is installed on the grounds of the SWEF complex adjacent to building 1384. The NATO launching system is used to conduct simulated missile firings and test the integrity of the FCS and the launcher interfaces. Only simulated firings can be performed at SWEF.

i. MK 41 Vertical Launching System (VLS).

The Vertical Launching System (VLS) is a below deck missile housing comprised of multiple missile cells. The weapon control systems interface with VLS to select and fire missiles from designated cells. No live ordnance is located or used at SWEF.

j. Rolling Airframe Missile (RAM).

The Rolling Airframe Missile (RAM) system is a missile delivery device. It is a close range, supersonic, 21 round launching system. As installed at SWEF, the RAM launcher is capable of motion only. The RAM system stows, selects, aims and fires missiles in response to orders from the Fire Control System computer. No live ordnance is located or used at SWEF.

k. AN/WSC-3 SATCOM System.

The AN/WSC-3 transmitter/receiver is used to establish satellite communication links for data transfer with other systems. The system at SWEF interfaces with the TOMAHAWK system for data transmissions to/from other systems on a global basis. Low frequency RF is routed from the AN/WSC-3 transmitter/receiver to one of two antennas on the roof for transmission to satellites.

l. AEGIS MK 99 Fire Control System (FCS) SATCOM.

The AEGIS MK 99 Fire Control System (FCS) provides J-band CW RF for target illumination and missile rear-reference signal during the missile terminal guidance phase (reserved for future implementation). Target position is generated in the SPY computer and forwarded, via the Weapons Control System (WCS) computer to the FCS program for target illumination (reserved for future implementation). The antenna (SPG-62) is presently used only for satellite communications development.

m. Link 11 with antenna.

The Link 11 is a satellite communication system which is used as a high speed tactical data link between ships and other sites equipped with NTDS computers (such as SWEF). The system operates in the HF/UHF frequency range and is used to exchange tactical information between participating air and/or surface units. As installed and operated at SWEF, Link-11 is receive only, and is used for test purposes.

n. MK 612 MOD 4 Standard Missile Test Set.

The Guided Missile Test (GMTS), MK 612 MOD 4, is a computer controlled Automated Test Equipment (ATE) used for conducting detailed functional tests of SM-1 and SM-2 missile rounds and their respective sections. The GMTS MK 612 consists of six major groups of equipment; System Control Group, Microwave Control Group, Power Supply Unit, Room Interface Group and two Cell Interface Groups. The GMTS MK 612 is capable of testing in three test areas. Guidance Sections, Autopilot Battery Units, and telemeters are tested in the ROOM area.

Missile rounds, Target Detecting Devices (TDD's), and Steering Control Units are tested in either CELL #1 or CELL #2. All low level RF generated during testing is confined to the test fixture located inside of the building. There is no capability of radiating RF outside the building.

o. AEGIS AN/SPY-1 Antenna Array.

The AN/SPY-1A antenna was attached to the south face of the fourth floor of SWEF building 1384 in November 1997. The antenna will be used as a test antenna to help certify the Portable Planar Near-Field Scanner System (PPNFSS). As a test antenna, the array will not radiate. A SPY-1 transmitter and other equipment was also installed in bays 407A/B and 409B. Current plans are to power only the logic cards for testing purposes. The waveguide connecting the array to the transmitter has not been installed, making the current installation incomplete.

p. Computer Systems.

Various systems as described in the baseline text are housed in the bays in the facility.

q. AN/SWG-1 HARPOON System.

The HARPOON system is a computer based system which provides a capability to detect and intercept ships over-the-horizon. Only the computer and associated display is located at SWEF (HARPOON Control Console and Control Indicator Panel). The HARPOON Control Console provides power, data processing and interface functions for system operation. The Control Indicator Panel provides a visual display for an operator to plan missile trajectories and monitor computer responses. No HARPOON missiles are located or used at SWEF.

r. TOMAHAWK System.

TOMAHAWK is an all-weather submarine or ship-launched land attack system which provides a capability to intercept targets over-the-horizon and extended ranges. Computers and display equipment is located at SWEF and used to support the engagement of targets with the TOMAHAWK missile. No TOMAHAWK missiles are located or used at SWEF; weapon interfaces are verified using missile simulators.

s. AN/SLQ-32 (V)2 Countermeasure Set.

The AN/SLQ-32 Countermeasure Set simultaneously monitors and analyzes the multiple air and surface electromagnetic threat environment surrounding a ship. The Countermeasure Set is passive in that it receives only and has no transmit capability. In monitoring the environment, the set instantaneously detects RF threats and precisely determines frequency and bearing of the emitters. It analyzes these detections and provides emitter classification and identification information.

**APPENDIX B**  
**(Includes Table 1, Figures 1 and 2, and captioned photos.)**

**TABLE 1**  
**History of Planned (per the 1978 Master Plan)**  
**and Actual Systems Installed and Operated at SWEF**

<b>Fire Control and Search Radar</b>					
<b>System</b>	<b>Building</b>	<b>Type</b>	<b>1978 SWEF Master Plan</b>	<b>Operational Date</b>	<b>Removal Date</b>
MK 155 Mod 0 Point Defense	1292	Emitter (Fire Control)	(Pre-existing)	1976	1995
MK 76 AN/SPG-55B	5186	Emitter (Fire Control)	(Pre-existing)	1976	1995
MK 23 TAS	1384-SWEF	Emitter (Search Radar)	Included	1986	NA
MK 86 AN/SPQ-9A AN/SPG-60	1384-SWEF	Emitter (Fire Control) (Search Radar)	Included	1986	NA
MK 74 AN/SPG-51C	1384-SWEF	Emitter (Fire Control)	Included	1986	1997
MK 57 MOD 3 Radar A Radar B	1384-SWEF	Emitter (Fire Control)	Included	1988	NA
MK 92 Mod 2 CAS and STIR	1384-SWEF	Emitter (Fire Control)	Included	1986	NA
MK 74 MOD 14 TARTAR SM-2/NTU	1384-SWEF	Emitter (Fire Control)	Included	1990	NA
MK 74 MOD 6/8	5186	Emitter (Fire Control)	Included	1996	NA

**TABLE 1, continued (page 2)****Fire Control and Search Radar, con't**

<b>System</b>	<b>Building</b>	<b>Type</b>	<b>1978 SWEF Master Plan</b>	<b>Operational Date</b>	<b>Removal Date</b>
CIWS Phalanx	1384-SWEF	Emitter w/gun (Fire Control)	Included	1990	1990
AN/SPS-65		Search Radar	Included	Not installed	NA

**Communication Systems**

<b>System</b>	<b>Building</b>	<b>Type</b>	<b>1978 SWEF Master Plan</b>	<b>Operational Date</b>	<b>Removal Date</b>
UHF WSC-3 SATCOM NO. 1	1384-SWEF	Communications	Included (type)	1988	NA
UHF WSC-3 SATCOM NO. 2	1384-SWEF	Communications	Included (type)	1988	NA
Link 11 w/antenna	1384-SWEF	Communications (Receive Only)	Included (type)	1988	NA
FCS MK 99 SATCOM	1384-SWEF	Passive Antenna (Receive Only)	Included	Partially installed	NA
COMCERTS	1384-SWEF	Communications	Included	Not installed	NA
CAS	1384-SWEF	Communications	Included	Not installed	NA

**TABLE 1, continued (page 3)**

<b>Launching Systems</b>					
<b>System</b>	<b>Building.</b>	<b>Type</b>	<b>1978 SWEF Master Plan</b>	<b>Operational Date</b>	<b>Removal Date</b>
Harpoon Launcher	Ground Level	Canister	Included	Installed prior to 1985 Not operational	NA
MK 155 Mod 0 Point Defense Launcher	1292	Box Launcher	Pre-existing	1975	1995
TERRIER MK 10 Launcher	5186	Rail Launcher	(Pre-existing)	1975	1995
RAM Launcher	Ground Level	Box launcher	Included (type)	1991	NA
NATO MK 132	Ground Level	Box launcher	Included	1988	NA
VLS MK 41	5234	Fixed Vertical Cells	Included	1988 1989	NA
MK 13 Mod 4	5234	Rail Launcher	Included (type)	1992	NA
TOMAHAWK	Ground Level	Box Launcher	Included (type)	Installed 1989 Not operational	NA
<b>Computer Based Systems and Others</b>					
<b>System</b>	<b>Building.</b>	<b>Type</b>	<b>1978 SWEF Master Plan</b>	<b>Operational Date</b>	<b>Removal Date</b>
AN/SPS-40 Antenna	Tower	Passive Antenna	Included (type)	Installed prior to 1988 Not operational	1997
Computer Systems	1384-SWEF	Computer Systems	Not Included	1989	NA



**TABLE 1, continued (page 4)**

<b>Computer Based Systems and Other (cont'd)</b>					
<b>System</b>	<b>Bldg.</b>	<b>Type</b>	<b>1978 SWEF Master Plan</b>	<b>Operational Date</b>	<b>Removal Date</b>
AN/SLQ-32 ECM	1384-SWEF	Passive Antenna (Receive Only)	Not Included	1991	NA
SAR-8 Infrared Tracking System	1384-SWEF	IR Tracking System	Not Included	1990	1995
MK 612 Missile Test Set and Equipment	1384-SWEF	Test Equipment	Not Included	1987 1991	NA
AEGIS SPY-1A Antenna	1384-SWEF	Passive Antenna (Receive Only)	Included	1997	NA
Harpoon Computer System	1326	Computer Weapon System	Included	Prior to 1985	NA
Tomahawk Computer System	1384-SWEF	Computer Weapon System	Included	1985-1989	NA

FIGURE 1: SURFACE WARFARE ENGINEERING FACILITY  
COMPLEX

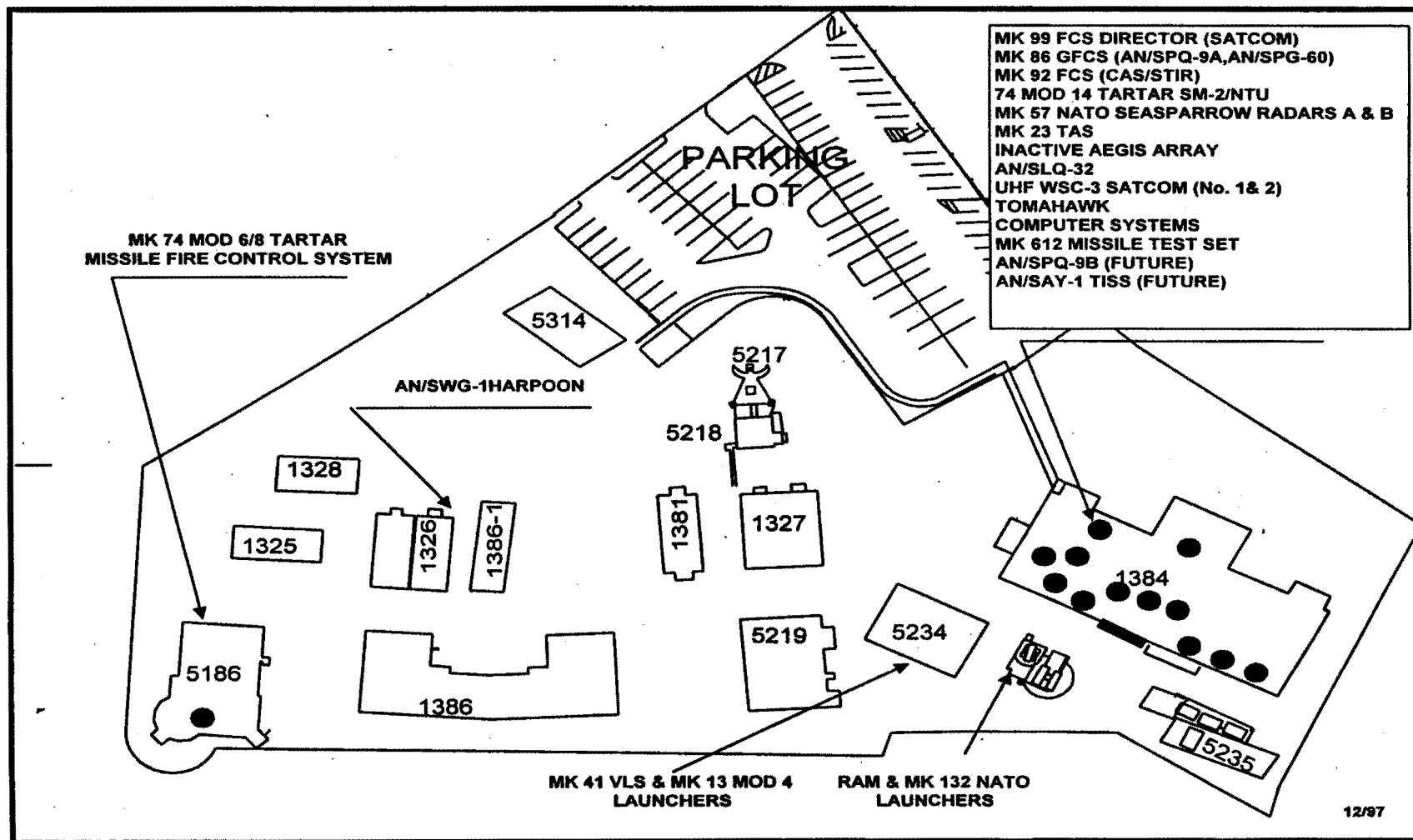
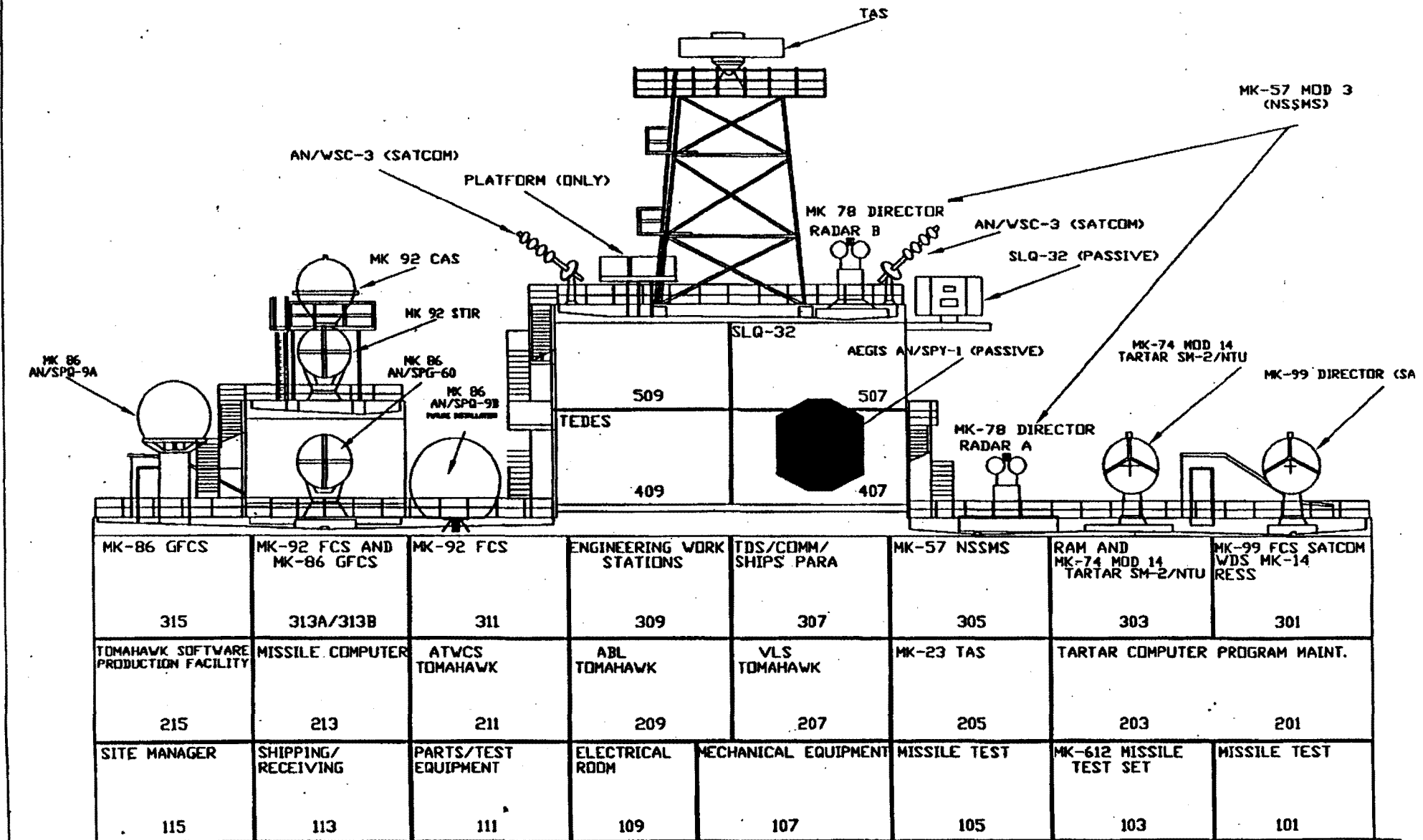
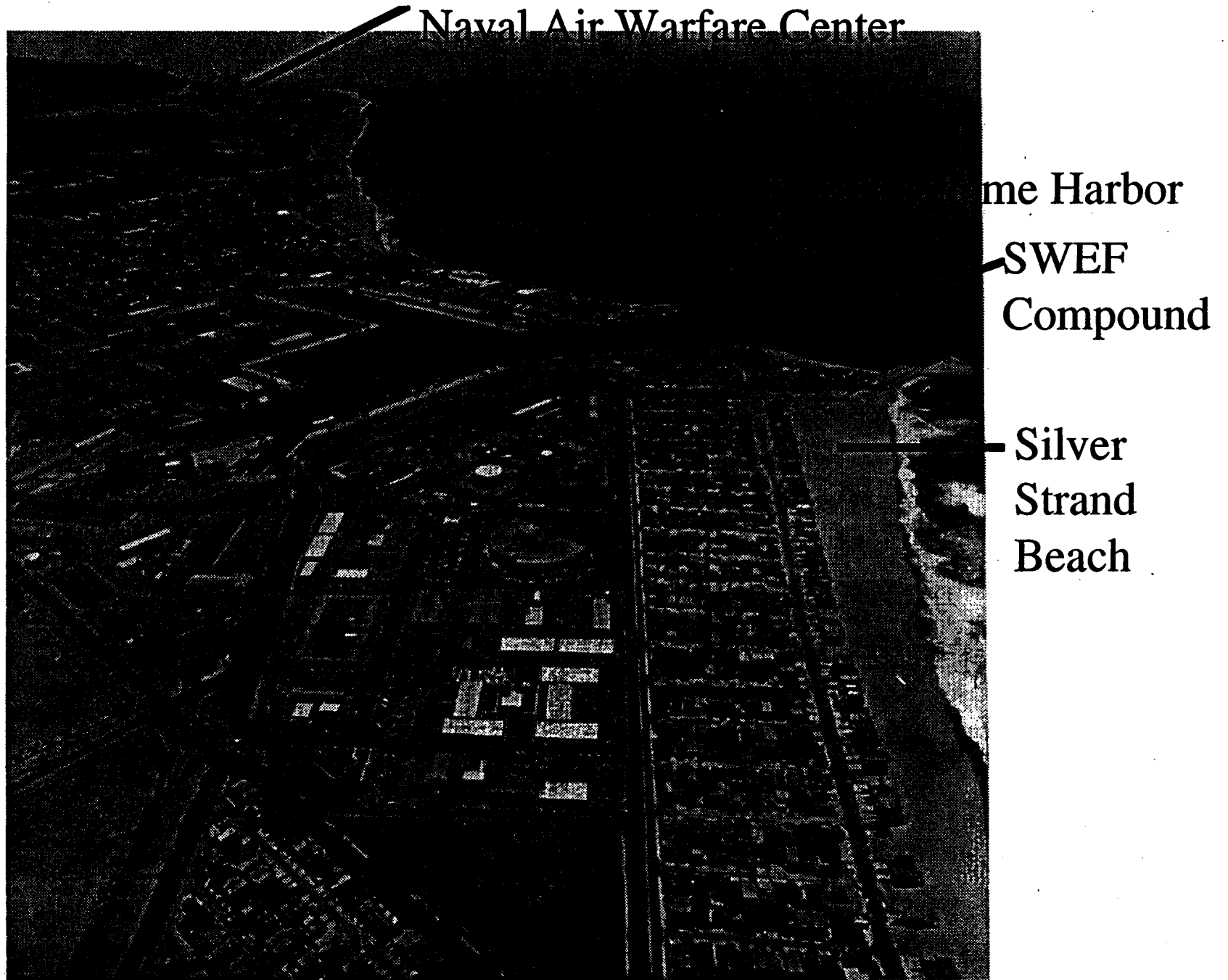


FIGURE 2: NAVAL SURFACE WARFARE ENGINEERING FACILITY (SWEF)  
BUILDING 1384

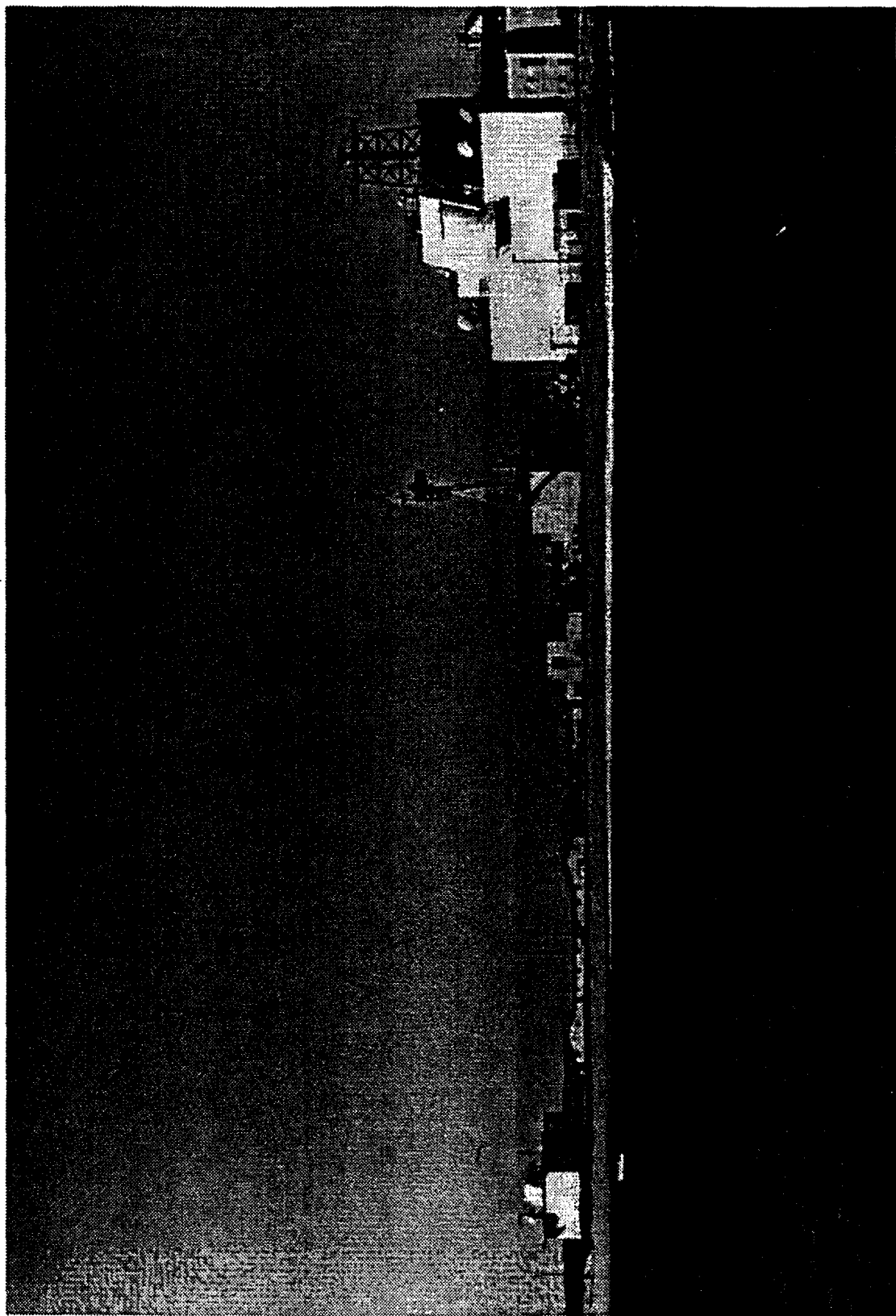




Aerial view PHD NSW and surrounding community



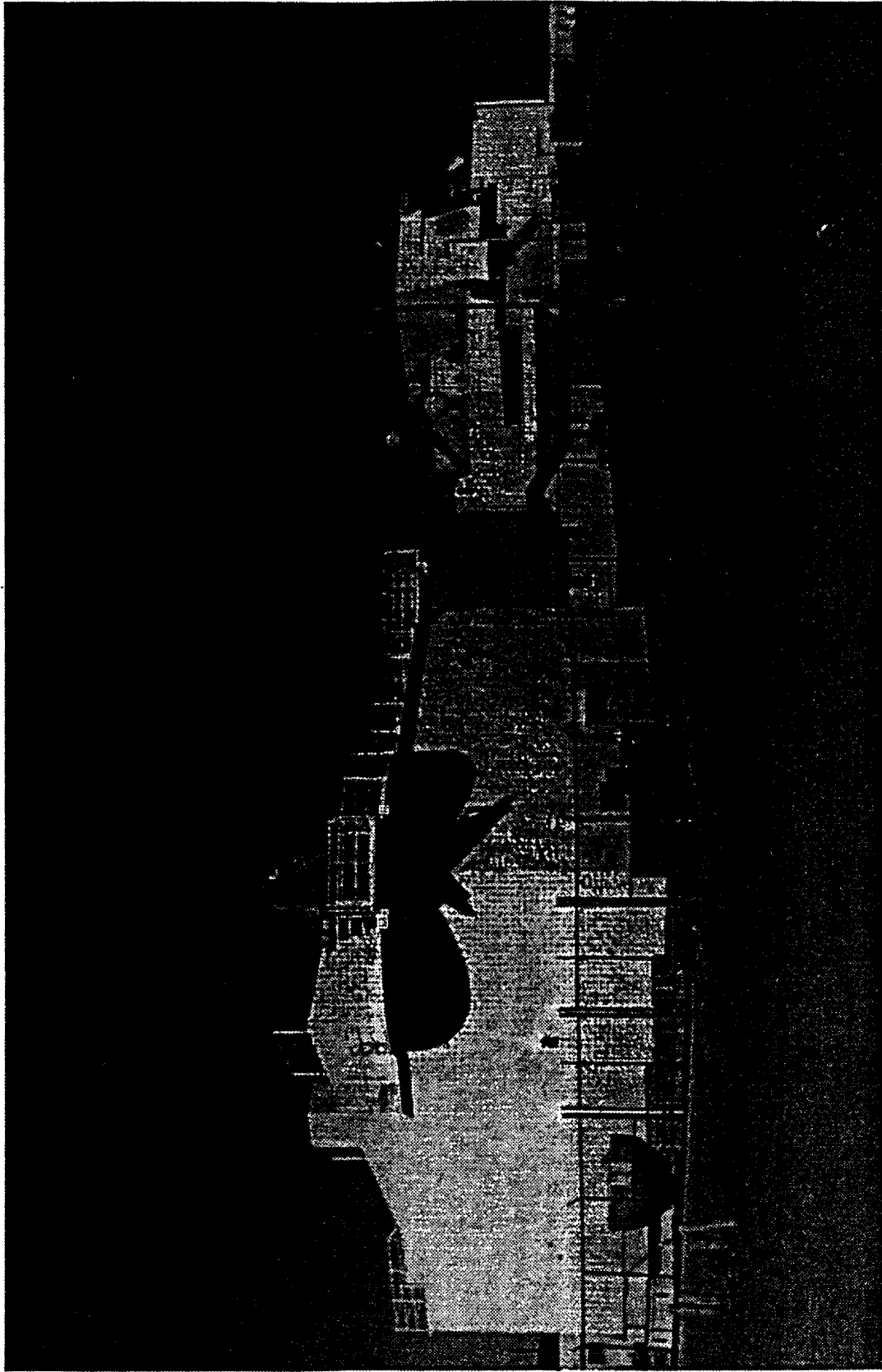
Aerial view of SWEF complex



Harbor entrance view of SWEF complex 1997

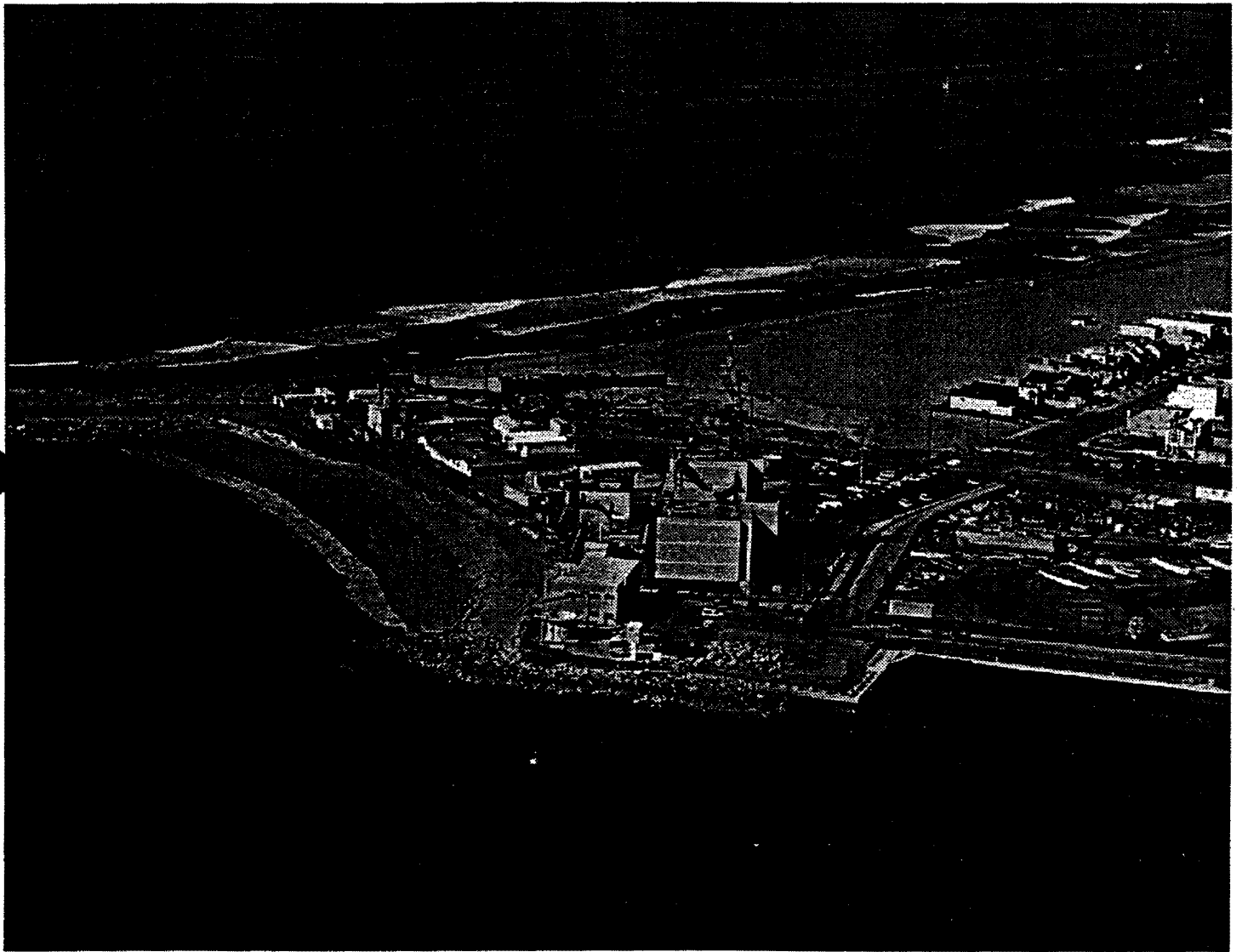


SWEF Complex 1997 (Building 1384)

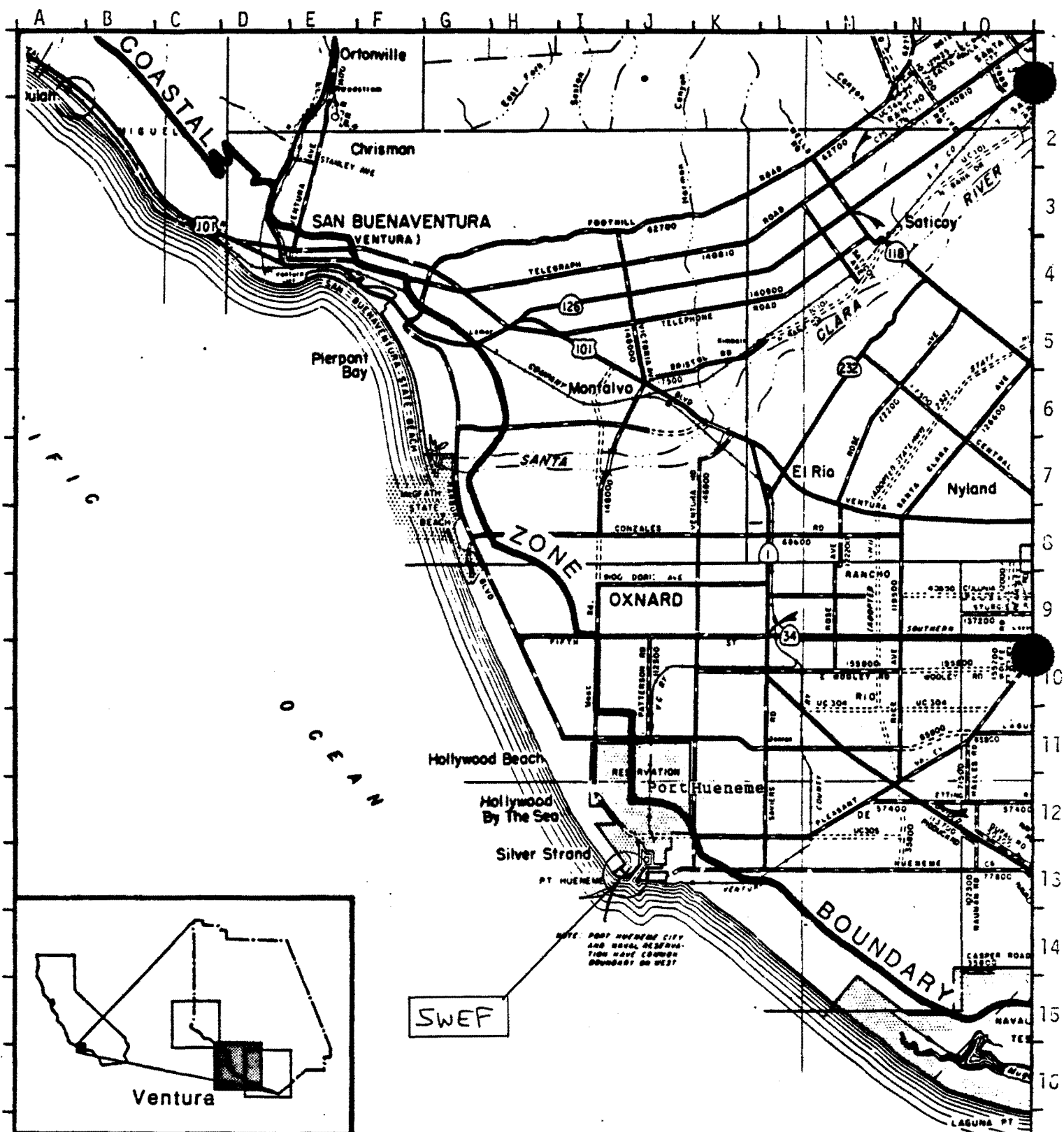


SWEF complex 1997 configuration





SWEF Complex and Silver Strand Beach



California Coastal Commission

LOC.

County of Ventura

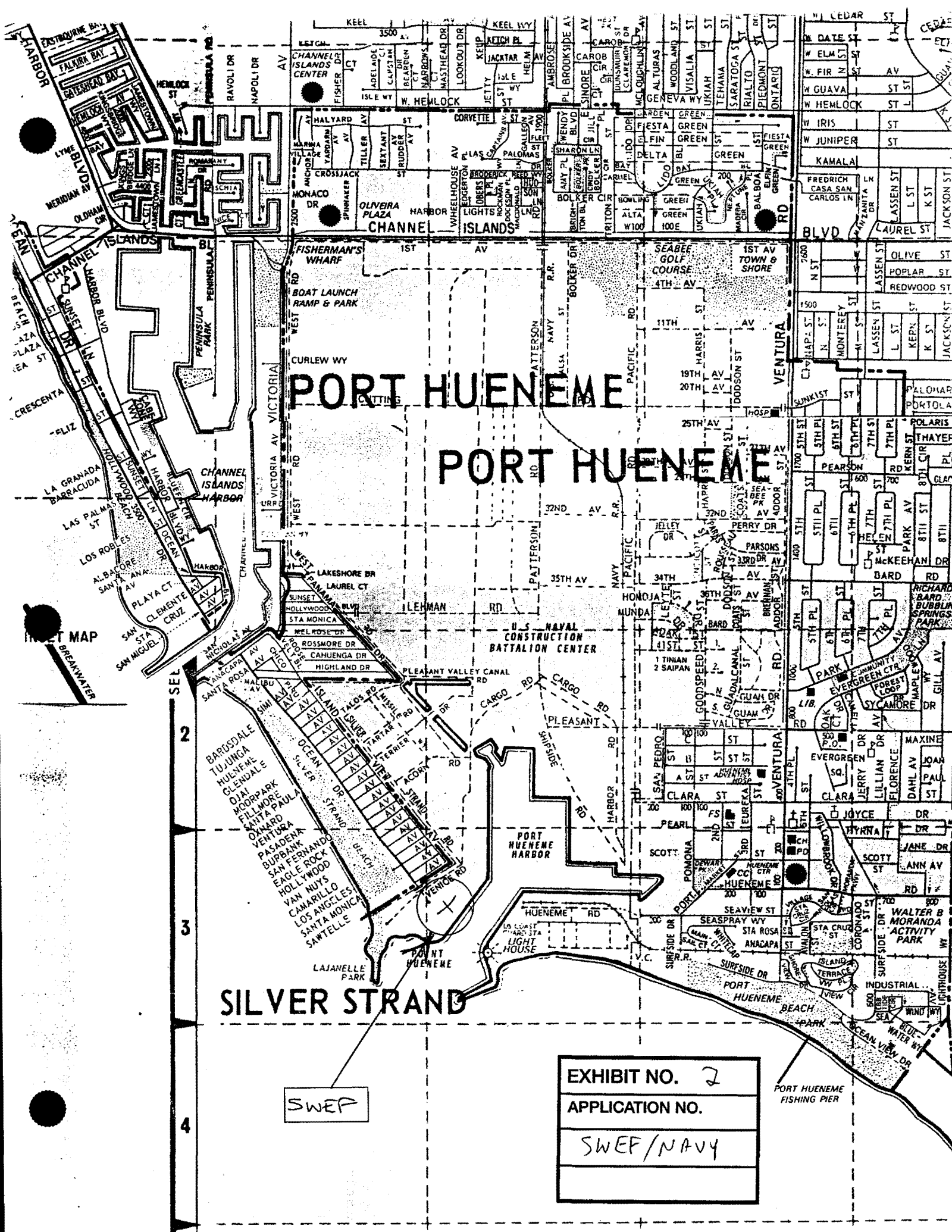
EXHIBIT NO. 1

APPLICATION NO.

SWEF/NAVY



Sheet 2 of 3



PORT HUENEME

PORT HUENEME

SILVER STRAND

SWEF

EXHIBIT NO.	2
APPLICATION NO.	
SWEF/NAVY	

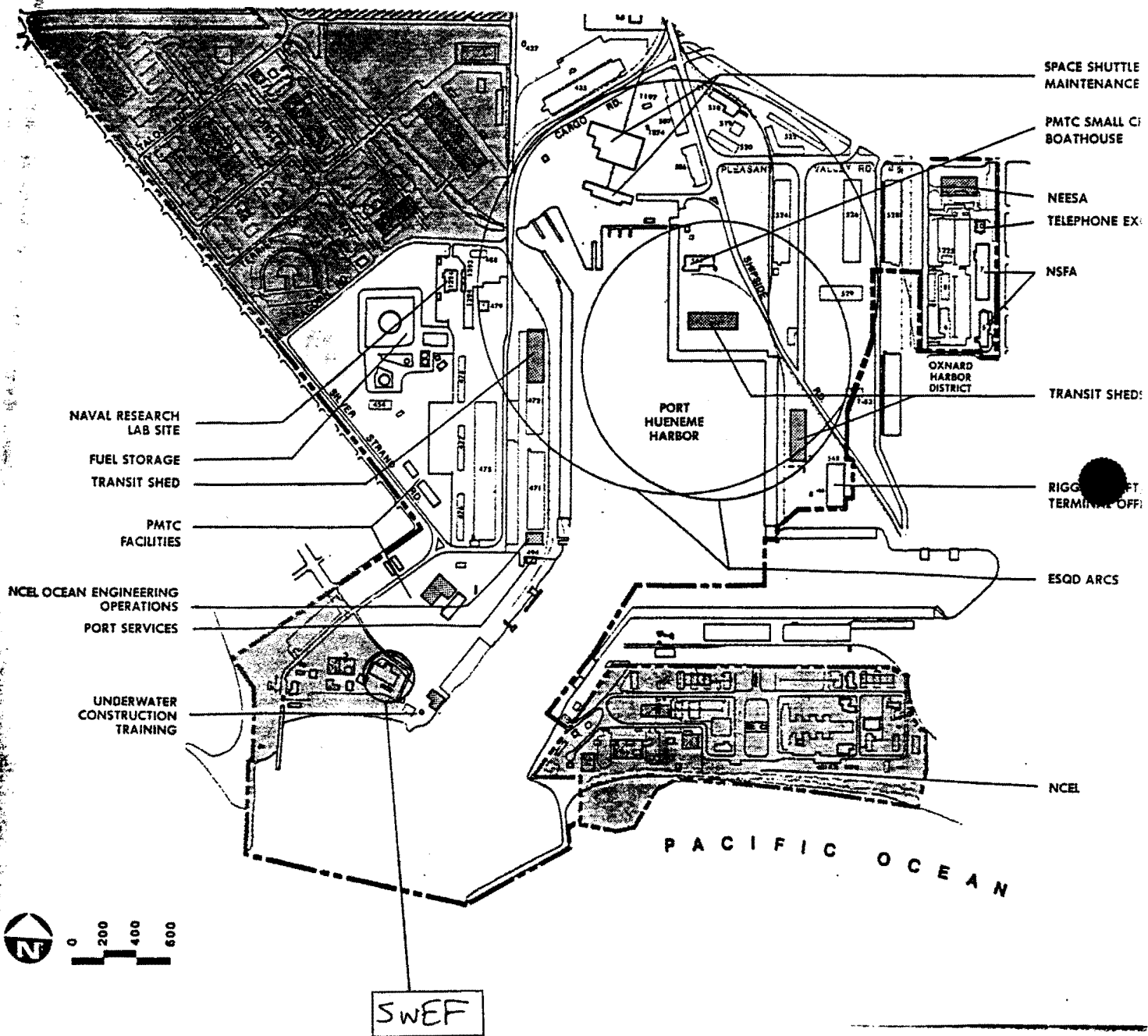


EXHIBIT NO. 3

APPLICATION NO.

SWEF / NAVY



DEPARTMENT OF THE NAVY  
PORT HUENEME DIVISION  
NAVAL SURFACE WARFARE CENTER  
4663 MISSILE WAY  
PORT HUENEME, CALIFORNIA 93043-4307

IN REPLY REFER TO

9400  
Ser 4A20-CLH/05  
5 April 1996

From: Commander, Port Hueneme Division, Naval Surface Warfare Center  
To: Mr. Mark Delaplaine, Federal Consistency Supervisor, California Coastal Commission, 45 Fremont, Suite 2000, San Francisco, CA 94105-2219

Subj: NAVY SPECIAL USE AIRSPACE

Ref: (a) California Coastal Commission ltr of 16 Feb 96

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APR 11 1996  
CALIFORNIA  
COASTAL COMMISSION

1. The Port Hueneme Division, Naval Surface Warfare Center (NAVSURFWARCENDIV) has reviewed your correspondence (reference (a)) concerning two projects, the Navy Surface Warfare Engineering Facility (SWEF) and the Navy Special Use Airspace (SUA). It should be noted that the SUA and SWEF are different, though related projects.

2. Concerning the SWEF project, the Construction Battalion Center (CBC) Master Plan, 1981 along with all other new military construction projects then pending, was the subject of a consistency determination to satisfy CZMA requirements. This Master Plan, including its consistency determination, was provided to Navy headquarters in Washington, DC and also distributed to the state clearinghouse for distribution to agencies such as the Coastal Commission. It is my understanding that the Commission's records are at this time incomplete. NAVSURFWARCENDIV is willing to undertake a study that will provide information including the Commission's concerns on CZMA requirements, impact of potential Radio Frequency Radiation (RFR) hazards, and related issues.

3. Many of the Commission's concerns center around environmental impacts described in a copy of a Navy Master Plan (U.S. Navy Master Plan, Environmental Impact Analysis, Naval Ship Weapon Systems Engineering Station, Port Hueneme, California, October 1, 1978). It should be pointed out that the 1978 document was an information study and an internal work in progress. This administrative draft has no official standing and was not approved or issued. However, a MILCON project (smaller and less obtrusive) (Guided Missile Laboratory, Project P-009, currently referred to as SWEF) was constructed starting in 1983. Additionally, based upon the Coastal Commission questions, the following is provided.

a. Mitigation measures suggested in the Navy Master Plan (U.S. Navy Master Plan, Environmental Impact Analysis, Naval Ship Weapon Systems Engineering Station, Port Hueneme, California, October 1, 1978) were based on a larger more ambitious complex of buildings that were never approved or constructed. However, these same measures were taken into consideration and applied to the GML (P-009) project currently referred to as SWEF. The mitigation measure included items such as building set-backs, arc limits for RFR, coordination of operational periods, water conservation controls, fixtures and landscaping.

Subj: NAVY SPECIAL USE AIRSPACE

b. NAVSURFWARCENDIV historically and currently does not operationally restrict any commercial or recreational use of the existing harbor. NAVSURFWARCENDIV has never considered it reasonable to restrict use of the Port Hueneme harbor or shoreline. NAVSURFWARCENDIV accommodates harbor and adjacent land use by restricting radars that could pose an RFR hazard so that they cannot radiate into the water or land, and by coordinating radar operations so that boats or other vessels in the Port Hueneme harbor area are not radiated.

c. Navy regulations require that after installation, but before operations, that a RFR study be performed and safety issues addressed. Testing is done by the Naval In-Service Engineering (NISE) Eastern Division, Charleston, South Carolina (formerly the Navy Electronics Center (NAVELEXCEN)), who is the controlling activity that performs these studies. In 1989, all radars were tested and operational restrictions were placed on them. In 1994, a newly installed radar was scheduled for test. At this time, we took the opportunity to test all radars that were not in a repair status. The restrictions placed upon existing radars were validated and operational restrictions were placed on the new radar.

d. NAVSURFWARCENDIV will use a combination of existing and new systems for tests in the future. New equipment will be tested as previously discussed.

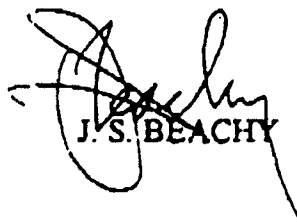
e. Radar surveys/tests are completed for new installations, relocations or modifications. The safety and operational restrictions applied to the previous radar studies and with the radars tested in 1994, remain in effect.

f. Radars that could present RFR hazards outside of the SWEF fenced area are restricted so that they cannot radiate into any adjacent land or ocean areas. The final analysis of the HERP Survey Report (previously provided) is that RFR at SWEF does not impact people recreating in off-shore waters (e.g., surfers).

g. We believe that the information previously provided by our NISE studies adequately addresses the building/radar configurations of today. We are required to do new RFR studies for new installations, relocations, and modifications. In view of the foregoing discussion, no monitoring by additional parties appears to be necessary.

4. With respect to future modifications to SWEF or the SUA, the Coastal Commission will be notified in accordance with existing regulations and policy.

5. Additionally, your request for the Bird Strike Analysis raw data was forwarded to you under separate cover.

  
J. S. BEACHY

**CALIFORNIA COASTAL COMMISSION**

45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200



April 21, 1997

Sam Dennis  
Western Division  
Naval Facilities Engineering Command  
900 Commodore Dr.  
San Bruno, CA 94066-2402

Re: Navy Surface Warfare Engineering Facility (SWEF), Port Hueneme

Dear Mr. Dennis:

Thank you for taking the time to meet with our federal consistency staff last month (March 5, 1997), updating us on the status of past, present and future environmental documentation regarding the above-referenced facility. To characterize the meeting, the discussions that took place focused on the four concerns identified in our July 24, 1996, letter to Capt. Richards (Attachment 3). In response to one of these concerns, you provided us at this meeting with a copy of the Navy's most recent radar study for the SWEF radar facilities. Reflecting on our discussions and upon reviewing the radar study, we have the following requests:

1. It is obvious at this point, as we had previously asserted to the Navy, that no consistency determination, or any Navy NEPA documentation after the 1979 Master Plan, was ever processed for the SWEF. Consequently, our historic request to the Navy that we have maintained over the last 2 years, which has been to request that the Navy submit an after-the-fact consistency determination for the facility, remains valid and we reiterate it here.

2. We ask the Navy to reiterate its previous commitment to inform us and submit a consistency determination when it is proposing any future addition to the SWEF, including (but not limited to) any new radar facilities.

3. At the meeting the Navy submitted a new radar study conducted partially in response to prior Navy commitments to the Commission to resolve discrepancies from earlier radar studies that had been incomplete (not all the equipment had been tested). The conclusion of this new radar study (Attachment 2), which was dated December 1996, included statements that can be briefly summarized as follows:

(1) while potential hazards existed for Navy employees at the building, those hazards have been corrected;


(2) no hazards to the public existed for the adjacent beach area, the adjacent jetties, "any perimeter areas adjacent to Navy property," or any sea test locations; and

(3) the only theoretical hazard to non-Navy personnel would be to someone on a ship, 70 ft. above the water, passing through the adjacent shipping channel, and this person would have to be exposed for a much greater length of time than would be likely for a hazard to exist. The likely scenario would be a 2 second exposure, whereas an exposure level would have to continue to be received for 11 minutes for a hazardous level to occur.

We greatly appreciate the Navy's willingness to conduct and release the conclusions of this radar study. However we are concerned over the Navy's assertion that the raw data (Technical Appendices D and E) were removed and considered "classified" information. While we absolutely respect the Navy's need to classify sensitive information, we are perplexed over this decision to classify these materials because similar appendices containing comparable information were not classified, but were released to the public, when the Navy performed a similar 1994 radar study at the SWEF. If it can be accomplished without threatening military security, we urge the Navy to reconsider its decision to classify this information. If this is not possible, we would appreciate an explanation as to what has changed over the past two years to warrant such classification. Have the classification criteria been modified? Has a new facility that is more "sensitive" than previous facilities been installed at the SWEF facility in the last two years? If the latter, then we would question whether the Navy has complied with its commitment to notify us of SWEF modifications (made in Capt. Beachy's April 5, 1996, letter to the Commission (Attachment 1)).

To conclude, we thank you for your cooperation in continuing to provide us with all available and releasable information in response to our past requests, and we hope for further communication from you regarding: (1) an after-the-fact consistency determination for the SWEF; (2) a renewed commitment concerning federal consistency submittals for future modifications to the SWEF; and (3) a response to the above questions about classified withheld information. If you have any questions about this letter, please feel free to call Mark Delaplaine of my staff (415) 904-5289.

Sincerely,



PETER M. DOUGLAS  
Executive Director

Attachments: (1) Navy letter dated April 5, 1996, Capt. Beachy to CCC  
(2) Executive Summary, Electromagnetic Radiation Hazard Survey, Final Report, SWEF Building 1384, Port Hueneme, December 1996  
(3) Commission letter dated July 24, 1996, CCC to Capt. Richards

cc: Ventura Area Office  
OCRM  
Captain Nicholas L. Richards





DEPARTMENT OF THE NAVY  
ENGINEERING FIELD ACTIVITY, WEST  
NAVAL FACILITIES ENGINEERING COMMAND  
900 COMMODORE DRIVE  
SAN BRUNO, CALIFORNIA 94066-2402

IN REPLY REFER TO:

5090.1B  
Ser 185513/EP7-1244  
May 13, 1997

California Coastal Commission (CCC)  
Attn: Mr. Peter Douglas, Executive Director  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Dear Mr. Douglas,

Thank you for your letter dated April 21, 1997. This letter will respond to both your requests, and the request for information about public involvement in reference to the Port Hueneme Division, Naval Surface Warfare Center's (PHD,NSWC) Surface Warfare Engineering Facility (SWEF). The latter was made during a meeting held March 5, 1997, between Navy Engineering Field Activity West (EFA West) and Port Hueneme representatives, and Mr. Delaplaine and Mr. Raives of your staff. In addition to the requests in your letter, they were interested in information the Navy has provided to the public and whether any responses or comments had been received. Also, the group discussed what, if anything, can be done to minimize the visual impacts of the facility.

I regret it has taken so long to respond since the March 5 meeting. I want to assure you that all of the parties involved, the three different Naval agencies on the Oxnard Plain, our local staff at EFA West, as well as Naval Sea Systems Command Headquarters, remain completely committed to resolution of Commission and community concerns and keeping the lines of communication open.

As noted in your letter and previous CCC correspondence with the Navy, dated July 24, 1996, there are three primary areas of interest:

- (1) the issue of availability of historical environmental documentation (pursuant to the National Environmental Policy Act and Coastal Zone Management Act), specifically the issue of a consistency determination
- (2) a mutual understanding of each other's requirements and procedures, especially as they relate to future facility additions or modifications

RECEIVED

ATTACHMENT 3

- (3) the need for information and data about radio frequency (RF) radiation hazards at the SWEF. This request was made because the potential hazard was of concern to area residents, and because the Commission felt it could affect coastal resources.

With respect to item (1) above and as discussed during the March 5 meeting, it is unfortunate that in spite of a rigorous review of records in multiple locations, as well as interviews with many personnel, no environmental documentation, was found. It is unknown whether the documentation was completed. Rather than do an after-the-fact consistency determination on this unique and mission essential facility, constructed over twelve years ago, the Navy respectfully requests that the record on the facility, as it currently exists and operates, be closed.

With respect to item (2), there was a good exchange of information at the March 5 meeting about requirements and procedures of both the Navy and the Commission. The Navy recognizes it's responsibilities under the law as well as to the community, and remains committed to keeping the Commission and the public informed about future additions or modifications to the facility or it's operations. If and when new projects are proposed, the Navy will provide the necessary level of documentation to the Commission and others as appropriate.

Regarding item (3), there was significant discussion at the March 5 meeting relative to the Electromagnetic Radiation Hazard Survey, completed in October 1996, and released in December 1996. A copy of the report was forwarded to the Commission at that time. (On December 20, 1996, the Environmental Defense Center (EDC), on behalf of it's client BEACON, submitted a FOIA request for a copy of the report.) The report was completed to address community concerns about public safety, as well as Commission concerns about the impacts of radar emissions on coastal resources.

On January 13, 1997, copies of the report (without Appendices D and E which are classified as "Confidential") were distributed to Mr. Brian Miller of Congressman Elton Gallegly's office, Ventura County Supervisor, John Flynn, Mayor Manuel Lopez of the City of Oxnard, Mayor Anthony Volante of the City of Port Hueneme, Mr. Bill Higgins, Acting General Manager of the Channel Islands Beach Community Services District and member, Executive Steering Committee of BEACON, as well as the Los Angeles Times and the Ventura County Star newspapers. The report provides the CCC and the public with information and data which concludes that the Radio Frequency Radiation (RFR) from the SWEF does not pose a threat to public safety or impact coastal resources.

As a result of the distribution of the report, no written comments or responses have been received. However, Mr. Higgins requested a meeting with the Commanding Officer of NSWC, Captain Richards, to discuss the report. A meeting was held February 11; the meeting was attended by Mr. Higgins, members of the Board of Directors of the District, BEACON and other community members, and the Navy.

Captain Richards indicated there was no specific criticism or concern made at the meeting about the report, however a request was made for release of the classified Appendices D and E. (On February 14, 1997, the EDC, on behalf of it's client BEACON, formally requested copies of the classified appendices.)

Although the NSWC, under the command of Captain Richards, does not have the authority to declassify or release the classified appendices, he fully supports their release, and has forwarded the request to Naval Sea Systems Command headquarters in Arlington, Virginia, asking that it be expedited as much as possible. Expectations were that an answer would be received by 30 April; we regret that this date has slipped. The release involves a coordinated review and response from four (4) program offices, and is taking longer than we had hoped.

As noted in your recent letter, it is true that similar appendices from a 1994 Radiation Hazard Survey were released; they were not classified. The information in the 1996 appendices is different. In order to be as thorough as possible in the review and evaluation of radar systems for the report, additional information about specific radar frequencies and operating parameters was included, which resulted in the appendices being classified "Confidential". Please thank the Commission for it's patience with this issue, and it's continued respect for the Navy's need to classify sensitive information. As soon as we have an answer, we will inform the Commission.

To avoid any misperception that the Navy is seeking to delay or avoid the FOIA issue, once an answer about the request is received, NSWC will issue a public notice stating the availability of the report, and invite public comment for a period of 30 days. (A copy of the draft notice is at enclosure (1).) In an effort to keep the public apprised of this facility, the Navy will add to their mailing list the names of those making comments during this 30 day period. The Navy will use the updated mailing list for future communications about the SWEF.

With respect to the CCC's visual impact concerns, the Navy is willing to continue to consult with the Commission to try to resolve this issue. Discussions to date have included painting, planting, and murals as potential methods for reducing and blending visual characteristics of the structure with it's surroundings. The Navy is willing to continue these discussions to bring resolution or acceptance of the structure to the Commission and Staff.

Summarizing, (1) the Navy respectfully requests the issue of the after-the-fact consistency determination be closed; (2) the Navy renews it's commitment to provide the necessary level of documentation for future modifications to the facility; (3) the results of the survey show that the RFR does not pose a threat to public safety or impact coastal resources; (4) classified appendices may be releasable; once a decision is made, a public notice of availability and 30 day comment period will be extended; (5) the Navy will continue to work with the Commission to resolve visual impact concerns.

If you have any further questions, the Navy point of contact for this matter is Barry Franklin, EFA West, at (415) 244-3018.

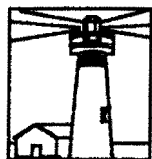
Sincerely,



SAM L. DENNIS

Leader, Operational Bases Group

Enclosure (1) Public Notice of Availability of  
Electromagnetic Radiation Hazard Survey

**BEACON**

Box 352  
3844 Channel Islands Bl  
OXNARD, CA 93035

An Ad Hoc Non-Profit Environmental Organization

RECEIVED  
MAY 27 1997

CALIFORNIA  
COASTAL COMMISSION

May 22, 1997

Mr. Mark Delaplaine  
Federal Consistency Supervisor  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Re: Consistency Determination  
SWEF Facility, Port Hueneme

Dear Mr. Delaplaine:

The May 13, 1997 letter to Director Douglas from Mr. Sam Dennis of The Department of the Navy signals that the Navy has no intention to bring the Surface Warfare Engineering Facility into compliance with Coastal Zone Management Act consistency determination requirements. There are five main points in the letter on which we wish to comment:

1. The Navy Admits No Environmental Documentation Was Ever Submitted On the SWEF. The letter refers to a "rigorous review" that has turned up "no environmental documentation." Incredibly, it took two years to find this out and this conclusion flatly contradicts the Navy claim in its April 5, 1996 letter to the Commission that the SWEF had been subject to a consistency determination. While it is true that no environmental document was ever submitted for CCC or other outside review, it is not true that none was ever created. One environmental document was created and then hidden away. It is the Navy's 1978 Master Plan Environmental Impact Assessment identifying unmitigatable RF radiation, access, visual and other impacts that would violate the Coastal Act. BEACON obtained a copy and provided it to the Commission in August of 1995. That is how the CCC request for an after-the-fact consistency determination got started.

The Navy now admits it made no submission, ignores the existence of the 1978 Master Plan, and then baldly "requests that the record on the facility, as it currently exists and operates, be closed." So, after two years and eight CCC letters asking for a consistency determination, the Navy just says no.

2. The Navy Says the SWEF is "unique." In the same paragraph of the letter that asks the Commission to drop its consistency determination requirement, the Navy describes the SWEF facility as "unique." For this

reason alone, a consistency determination is necessary to establish a baseline for this unique facility in the coastal zone.

3. The Navy Acknowledges Responsibility to Obtain Review of Additions and Modifications to the Facility or its Operations. The May 13th letter gives little more than lip service to self enforcement of this obligation. Since the Navy has never once made a submission for any changes it apparently believes none were sufficient to trigger this responsibility. This despite the many substantive changes that have occurred (Please see our letter of May 18, 1996 ). Navy recognition of this responsibility is meaningless without a baseline environmental document for the facility. Without a baseline there is no objective way to determine whether an addition or modification is significant.

4. The 1996 NISE Study Was Created To Address Community and CCC Concerns Regarding Coastal Zone Impacts. The May 13th letter says the December 1996 NISE report "... was completed to address community concerns about public safety, as well as Commission concerns about the impacts of radar emissions on coastal resources." Although specifically designed for public information, the report conclusions are provided without the supporting data. That data is "classified" and withheld from public disclosure as "confidential." This is despite the practice, acknowledged in the May 13th letter, of releasing such data in prior reports. To create a report especially to satisfy public and CCC impact concerns and then format it in a way that causes the underlying data to be classified is unreasonable and unacceptable.

The May 13th letter asks for "patience" and says the Commanding Officer of the SWEF "supports the release" of the data. BEACON has sought the data under the Freedom of Information Act. As detailed in the enclosed letter of April 25, 1997 to the Navy from our counsel, the Navy has failed to respond within FOIA time requirements.

The CCC should not allow its process to be stalled further while the Navy goes through some internal process to decide whether to disclose the supporting data for its NISE study. In the absense of the data, the conclusion of the NISE study cannot be verified and the analysis of RF impact on coastal zone resources therefore lacks scientific validity. This is one more reason to insist that the after the fact consistency determination go forward now.

5. The Navy Wants To Discuss Visual Impacts of the SWEF With CCC Staff. The May 13th letter notes that "discussions to date have

included painting, planting, and murals as potential methods for reducing and blending visual characteristics...." Visual impact is an on going significant impact of the SWEF facility on the coastal zone. Private discussion and public relations happy talk is no substitute for a consistency determination review that includes this important issue.

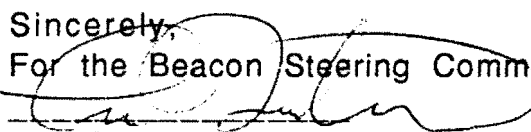
Just like RF hazards, interference with recreation, and interference with ocean use, the adverse visual impacts of the SWEF facility were identified in the 1978 Master Plan. The obstruction of public views was specifically noted as a violation of the Coastal Act (1978 Master Plan page iii). In addition, the 1978 Master Plan described the "visual and aesthetic character" of the Navy areas adjoining Silver Strand beach as "appalling" and commented (page III-49):

*"The area is littered with small unsightly structures, rusting boat hulks, various pieces of unused and decaying equipment, and weeds and trash. The boundary fence is of chain link construction with no planting, buffering, or landscaping of any kind."*

These conditions persist and have become worse. Added recently to the cumulative visual blight is new Navy dumping of solid waste on beach and ocean areas proximate to the SWEF and within view of beach and jetty areas of La Jenelle beach. La Jennelle is a public recreation area deeded to the State Lands Commission in 1979 and it is contiguous to Silver Strand Beach, a County Regional Park.

**We ask the Coastal Commission to take the following action:**

- 1. Set a time certain deadline for Navy submission of a consistency determination and reject the December 1996 NISE report as inadequate absent the "confidential" data that would permit third party verification of its conclusions.**
- 2. Agendize a staff status report and receive public comment at the July meeting in Ventura County.**
- 3. Make a Commission site visit to the Silver Strand Beach community during the July meetings in Ventura County.**

Sincerely,  
For the Beacon Steering Committee  
  
Lee Quaintance





**CALIFORNIA COASTAL COMMISSION**

45, FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200



June 12, 1997

Sam Dennis  
Western Division  
Naval Facilities Engineering Command  
900 Commodore Dr.  
San Bruno, CA 94066-2402

Re: U.S. Navy, Surface Warfare Engineering Facility (SWEF)  
Port Hueneme, Ventura County

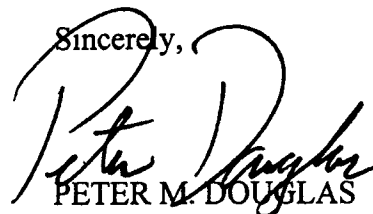
Dear Mr. Dennis:

In your May 13, 1997, letter responding to our request for an after-the-fact consistency determination for the Surface Warfare Engineering Facility (SWEF), you have requested that the "record on this facility ... be closed." At the same time your letter states that you "...remain completely committed to resolution of Commission and community concerns and keeping the lines of communication open." We appreciate this commitment, as well as your continued commitment to "...provide the necessary level of documentation for future modifications to the facility...".

Such a commitment would be more meaningful if we could be apprised of the existing and historic activities occurring at the SWEF. One of the mutual advantages of undergoing an after-the-fact review would have been to establish a consensus between the Commission and the Navy as to what activities would have been authorized at the SWEF had a prior review taken place. Not having the benefit of such a review therefore makes it more difficult to determine what degree of impact from future modifications to the existing facility would trigger the need for additional federal consistency review. We note, parenthetically, that the attached newspaper account, which mentions large Navy contracts for future programs at the SWEF, would appear to imply that future modifications may be forthcoming in the foreseeable future (see May 28, 1997, *Ventura Star* article (copy attached)).

To conclude, while we greatly appreciate the Navy's continued commitment to coordinate with us for future SWEF modifications, we are disappointed that the Navy has not agreed to submit an after-the-fact consistency determination for the SWEF, and we would request that the Navy at least provide us with a complete project **description** of the past and existing facilities at the SWEF, to allow us to assess whether future modifications will cause impacts that are similar to or less than existing SWEF activities, or whether such modifications would cause new or intensified effects on coastal zone resources.

If you have any questions about this letter, please feel free to call Mark Delaplaine of my staff (415) 904-5289.

Sincerely,  
  
PETER M. DOUGLAS  
Executive Director

Attachment

cc: Ventura Area Office  
OCRM  
Captain Nicholas L. Richards

## **PORT HUENEME**

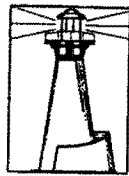
### **-Warfare center awards contract**

The Port Hueneme Division of the Naval Surface Warfare Center has awarded the Integrated Ship Defense contract to Lockheed Martin Services and subcontractors Techmatics, CSC and Santa Barbara Applied Research.

Work under this contract will include a continuation of the engineering and programmatic support the center has been providing under the Lockheed Martin Level IV engineering contract in addition to support to the Ship Self Defense System Program as it transitions from acceptance testing to in-service use.

The contract is the largest services contract ever awarded by the center with a value of more than \$100 million for five years. Techmatics' portion of more than \$12 million will be the largest subcontract for this project.

Oxnard Techmatics employees Kevin Donahue, Ron Roy, Jim Keys, Rick Schuknecht and Robin Willis helped in the technical proposal effort; and Hugh Milligan and Stephanie Koch prepared the cost proposal.



The Beacon

Box 352  
3844 Channel Islands Blvd  
Oxnard, CA 93035

An Ad Hoc Non-Profit Environmental Organization

RECEIVED  
OCT 30 1997

CALIFORNIA  
COASTAL COMMISSION

October 27, 1997

Mr. Mark Delaplaine  
Federal Consistency Supervisor  
California Coastal Commission  
45 Fremont, Suite 2000  
San Francisco, CA 94105-2219

Re: SWEF Facility and the  
Port of Hueneme

Dear Mr. Delaplaine,

Our efforts continue to move the Coastal Commission to act on the on-going non-compliance of SWEF operations with the Coastal Zone Management Act. We are providing here additional information regarding impact on the Port of Hueneme. We know this is a subject of vital interest to the Commission because the Coastal Act (Sec. 30701) designates our commercial ports, specifically including the Port of Hueneme, as "... one of the state's primary economic and coastal resources and ... an essential element of the national maritime industry."

The December 1996 NISE Report on the SWEF identifies a hazard to vessel traffic in the harbor channel of the Port of Hueneme. Readings in excess of the Permissible Exposure Limits (PEL) in the Uncontrolled Environment were obtained in field testing. As pointed out in our submission of August 20, 1997, a tortured analysis is then offered in the Report to explain this hazard away. The hypothesis is given that time averaged exposure limits would not be exceeded despite the hazardous reading if a ship ran at the maximum speed permitted in the harbor channel and if the radar did not "lock" on the vessel. On further review, there appears to be a fundamental error in the data collection that causes the identified potential hazard to be grossly understated.

The hazardous reading reported in the NISE Report was taken (redacted Appendix E, page 3) utilizing a 100 foot high land based collimation tower "located approximately 650 feet from MK74 director...." The tower was specially erected for this test (Report page 2) as a "simulation" of "at sea measurement conditions" in the harbor channel and to "guarantee the highest possible RF measurement level of each of the radars' main beams."

The location of the collimation tower is shown on Figure 3 of the NISE Report. Figure 3 is provided here as Attachment One. We have drawn on Figure 3 a circle to depicting the hazard zone at an approximate 650 foot radius from the SWEF building. The readings taken at the collimation tower are accurate for vessels that come no closer to the SWEF than the outer edge of this circle. This shows that the NISE data assumes vessels entering and leaving the Port utilize only the east side of the harbor channel.

Attachment 6

To the extent vessels actually come in closer proximity to the SWEF than 650 feet they would be illuminated by higher levels of RF emissions from the MK 74 Mod 14 TARTAR SM2/NTU and from other emitters<sup>(1)</sup>. Shortening the distance from the SWEF to the vessel would result in much higher readings because radar intensity increases exponentially as the distance decreases ( $1/D^2$  is the function used in such computations.) **If a vessel passed one hundred feet closer to the SWEF than the chosen fixed distance of 650 feet the RF exposure intensity would increase by nearly 40 percent.**

In fact, large vessels commonly enter and leave the harbor in the mid to west half of the channel closest to the SWEF due to local wind and channel conditions. Attachment Two shows photos that depict the height of high draft vessels relative to the SWEF and give some indication of their proximity to the facility.

The NISE Report embraces the least probable and most favorable scenario to dismiss the risks it found in tower readings that are fundamentally flawed because they understate the exposure. The collimation tower does not simulate the real world environment and readings taken there do not report the highest level of exposure. An acknowledged RF Hazard has been dismissed with an incomplete and misleading risk assessment.

A new development is that the RF hazard to vessels and their personnel is now increasing with the growth in commercial importance of the Port of Hueneme. Attachment Three is an October 8, 1997 article from the Wall Street Journal describing increased vessel traffic and the Port's overcrowded wharf facilities. Not only are more vessels passing by the SWEF emitters but there are additional opportunistic exposures caused by vessels awaiting wharf space at anchorage outside the harbor entrance.

It is not uncommon for one or more vessels to be at anchorage for several days outside the harbor entrance. It is distinctly possible (but unknown because the NISE Report fails to include this data) that some anchorages are within the safe separation distance for the uncontrolled environment. If so, prolonged exposure of persons on these vessels may be occurring and should be a concern.

The increased ship traffic at the Harbor also raises new issues of exposure for other users of the coastal zone. As can be seen in Attachment Two, high draft freighters present a massive metal surface to the SWEF emitters. The ships potentially act as huge radar reflectors that will act as a mirror to bounce emissions in a variety of angles to expose persons fishing on the harbor jettys, using the


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(1) It is noteworthy that no readings were taken for the MK-74 AN/SPG-51C (said on page 1 of the Report to be "non-operational" at the time of the survey). This extremely powerful device is located closest of all emitters to the harbor channel.

public beach or residing in the adjacent residential community. In the "Procedure" section of the NISE Report (page 9) it is expressly recognized that the "... existence of absorbing or scattering objects that are likely to influence the field distribution must be considered." Yet in the Report the obvious issue of scattering by the passage of vessels in front of the SWEF emitters is not analysed or even mentioned.


The inadequacy of the Report treatment of hazards to users of the Port of Hueneme is but one of the Report defects we have urged the Commission to consider. In the absence of a consistency determination, there simply is no baseline for operations of the SWEF. The NISE Report was expressly created (Navy letter to CCC, 5/13/97) "...to address community concerns about public safety, as well as Commission concerns about the impacts of radar emissions on coastal resources." On careful review, the Report only deepen concerns regarding the impact of on-going SWEF operations on the coastal zone. We again ask the Coastal Commission to address this issue and to, at long last, set a deadline for Navy compliance with the Coastal Zone Management Act.

Sincerely yours,  
The Beacon Steering Committee

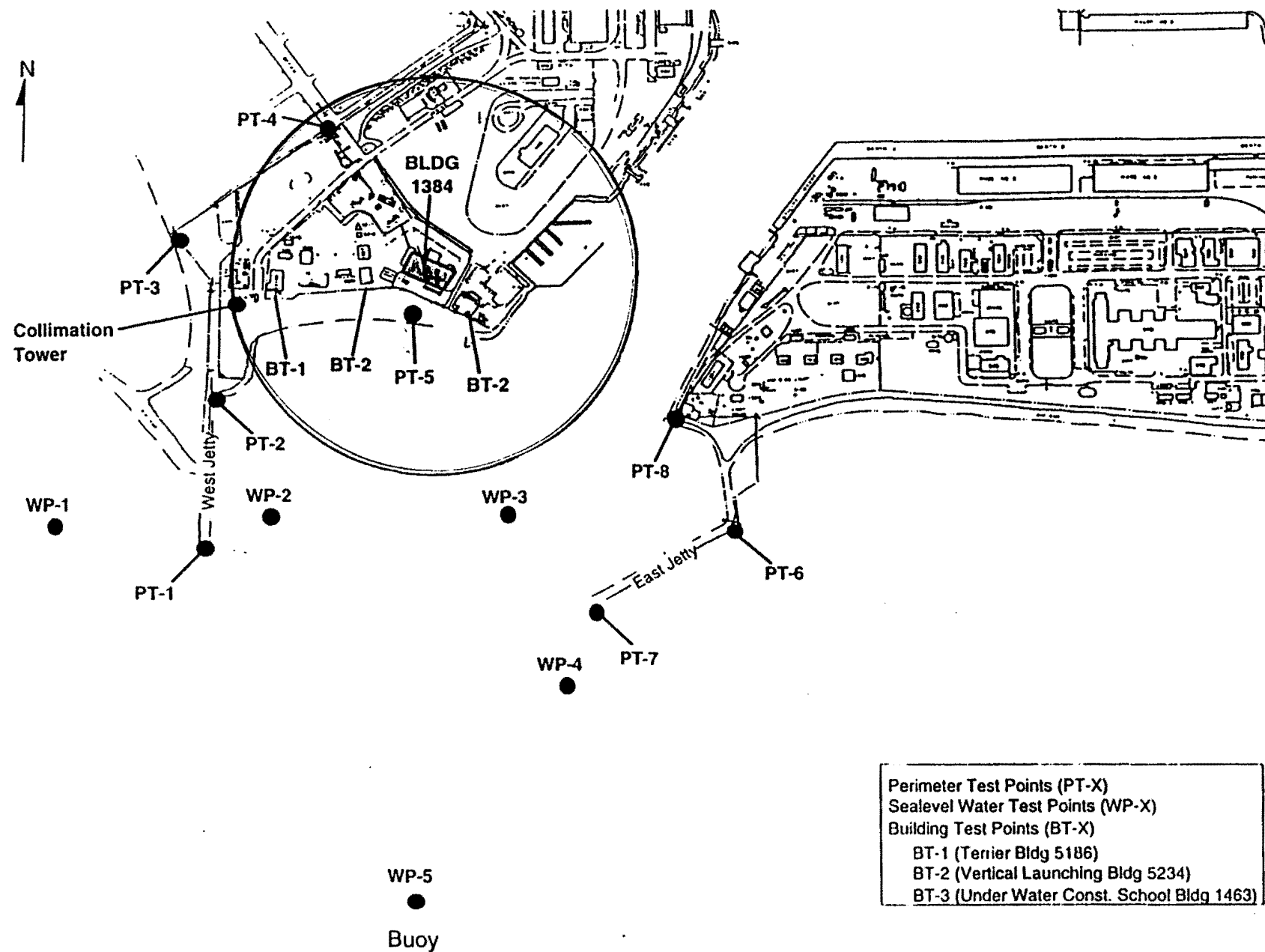
  
Vickie Finan

  
Lee Quaintance

  
Gordon Birr

  
Jean Rountree

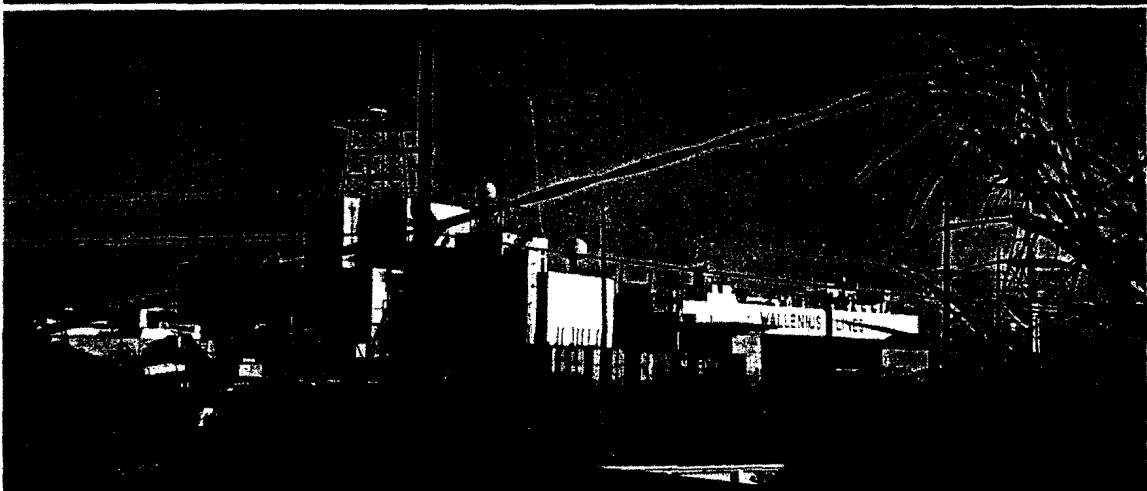
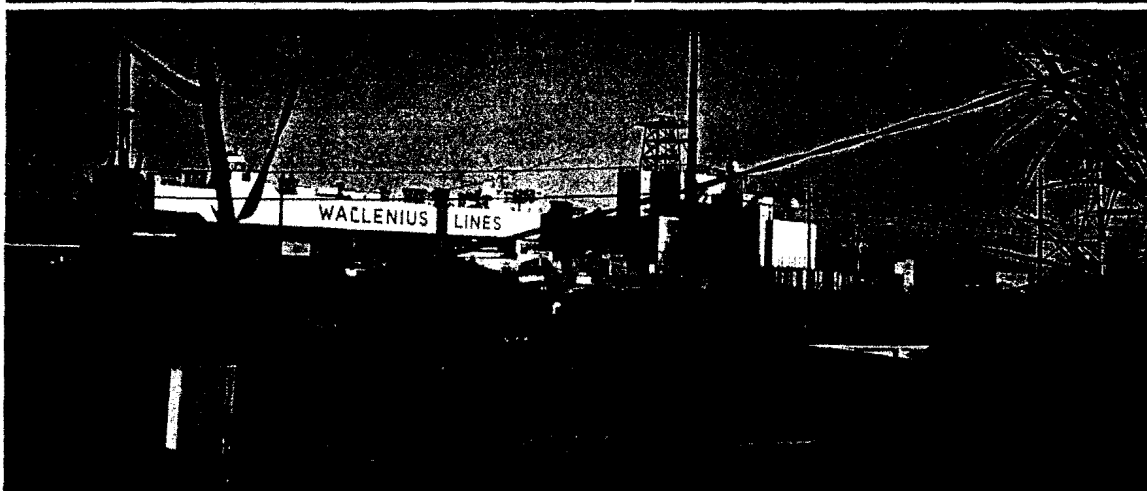
  
Diane Markham



Perimeter, Water and Building  
Measurement Test Point Locations  
Figure 3



Port Hueneme, California









# The Beacon

Box 352 3844 Channel Islands Blvd Oxnard, CA 93035

An Ad Hoc Non-Profit Environmental Organization

Received at Commission  
Meeting

NOV - 6 1997

From: *Quainta*

To: Director Peter Douglas  
California Coastal Commission  
From: The Beacon  
Date : 11/5/97  
Subject: REQUEST TO AGENDA SWEF COMPLIANCE

\* **August 1995:** The Beacon obtained from the Navy and provided to the CCC a 1978 document disclosing that the Surface Warfare Engineering Facility (SWEF) located at the mouth of Port Hueneme Harbor may pose unmitigatable impacts on coastal zone resources.

\* **September 8, 1995:** CCC staff informed the Navy it had no record of a consistency determination or any other environmental submission for the SWEF and first asked for compliance.

\* **April 5, 1996:** The Navy advised it believed the SWEF had been the subject to a consistency determination and that the Commission's records were incomplete.

\* **September 20, 1996:** The Navy promised "every effort" was being made "to locate pertinent documentation."

\* **May 13, 1997:** The Navy finally admitted its "rigorous review" had found "no environmental documentation."

\* **January 1997:** The Navy distributed an in-house Report in response to Commission and community concerns regarding Radio Frequency (RF) emissions. The Report appendices that would permit verification were withheld as "classified".

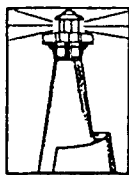
\* **January to July 1997:** The Beacon pursued release of the RF Report appendices under the Freedom of Information Act and the Navy ultimately released redacted versions.

\* **August and September 1997:** The Beacon submitted comments to CCC staff describing inadequacies of the Navy RF Report and why it deepens concern for coastal zone impacts.

\* **September 18, 1997:** The Beacon sent the attached memo to the Navy in response to its Notice requesting comments on its RF Report. There has been no reply.

Now, after nine Coastal Commission letters seeking compliance and more than two years we are where we began. The operations and activities of this facility are altered and grow with no baseline environmental review and no accountability for impacts of present and future operations on the coastal zone. It is the obligation of the Navy and the CCC to accomplish a consistency determination review. No statute of limitations bars this obligation because the issue is not the physical building but rather the impact on coastal zone resources of present and future operations.

WE ASK THE COMMISSION TO PLACE SWEF CONSISTENCY  
DETERMINATION COMPLIANCE ON ITS JAG



The Beacon

Box 352  
3844 Channel Islands Blvd  
Oxnard, CA 93035

*An Ad Hoc Non-Profit Environmental Organization*

September 18, 1997

Commander  
Port Hueneme Division  
Naval Surface Warfare Center  
Public Affairs Office, Code 1H10  
4363 Missile Way  
Port Hueneme, CA 93043-4307

Re: Comment on 1996  
NISE Report

Dear PHDNSWC Commander:

The Beacon is an ad hoc non profit group concerned with the human and natural environment of coastal Ventura County.

Our review of the Report as released leaves us with substantial concerns and unanswered questions regarding RADHAZ safety of SWEF operations.

The Notice published in the Ventura Star August 25, 26, 27, 1997, does not advise whether the Navy will reply to comments received. In answer to a question at a Base Community Council Meeting on August 21, 1997, Commander Benfield, SWEF Chief of Staff, advised the Navy will respond in writing. Our comments are submitted with a request for such a response.

**1. The Notice Misstates the Conclusions of the Report.** The Notice states that "Based on the information collected during the survey, the report concludes that the SWEF does not pose a radiation hazard to the local community." No such conclusion is stated anywhere in the Report. If you contend otherwise, please point us to the place in the Report where a general conclusion of this nature can be found.

The Report contains data only on selected fixed point measurements in the controlled and uncontrolled environment. In the uncontrolled environment measurements were reported for a single fixed elevation at just eight land based and five on-water locations. The Report is careful (page ii and page 11) to limit its conclusions that PEL levels were not exceeded in the specific areas where measurements were taken. It does not state a general conclusion and it would be improper to do so given the few measurement locations. Regretably, even these limited conclusions cannot be independently verified because the underlying data is withheld. A verifiable and a more comprehensive area-wide survey is needed for such a

large radiation pattern by a facility employing a multitude of emitters in a location including substantial civilian use.

**2. One Of The Most Powerful Emitters At The Facility was not Tested and No Restriction Is Indicated on Its Activation.** The MK-74 TARTAR AN/SPG-51C is omitted. The Report says (page 1) it is "inactive" and "partially de-installed" and in a "non-operational condition." Is this status permanent or merely temporary at the time of the Report? When was it last in use? This device was tested during a 1989 NISE Report on the SWEF and readings were obtained greatly in excess of PEL limits in the controlled environment (no readings were taken in the uncontrolled environment). This device is still on the SWEF today. If it is reactivated, exposures in excess of PEL limits would be expected in the controlled environment and may also be expected in the uncontrolled environment.

**3. Report Data was Collected Assuming Errorless Operation of Emitters.** Data sheets in Appendices D and E refer to readings being taken with "All radars energized and simultaneously directed" at the target location. This description of the test protocol is misleading if emitters were "directed" only within their normal set electronic blanking limits on elevation and azimuth. No RF readings were detected at some locations closer to the SWEF than other more distant locations where readings were detected. This suggests that a line of sight from emitter(s) to sensor was only established if achievable within pre-set electrical blanking limit. Were emitters limited only to their "normal" set limits during the tests?

In the real world, electro-mechanical limits do not always work. Indeed, at the SWEF itself, the 1989 NISE Report advised that some of the cut out devices are "unreliable and tend to fail quite often." No assessment of safety is adequate without discussion of limits on the devices tested. The circumstances under which these limits may be intentionally or accidentally overridden and the safety consequences need to be analyzed.

**4. The Report Is Incomplete Because it Lacks Disclosure of Safe Separation Distances for the Controlled and Uncontrolled Environment.** Computation of Safe Separation Distances is part of NISE capabilities. We understand NISE makes these calculations with proprietary software and the results are routinely released without classification. With respect to the SWEF, safe separation distances for the controlled environment were calculated and released regarding five emitters in the 1989 NISE Report. No calculations for the controlled or the uncontrolled environment are included in the 1996 Report as released.

The text of the Report suggests that safe separation calculations were within the scope of work. Our counsel inquired in a letter of July 30, 1997 (provided as Attachment One) whether the safe separation distance calculations had been withheld as classified data. The Navy response of August 18, 1997 (Attachment Two) indicates the data was not withheld as "classified" and that it was not in the Report because "actual PELs were not revealed during the survey and therefore the distances could not be included..." This comment is erroneous at least with regard to the controlled environment where PEL's were revealed and are stated in Appendix D. Furthermore, revealing the PEL is not necessary to make safe distance calculations.


Why were safe separation distances not calculated or not included in the Report as released? If these calculations were made they would disclose that the separation distances extend into public areas of ocean, jetty, and beach access. No meaningful radiation hazard evaluation of the SWEF in its real world environment can be made without this data.


In Summary. We do not understand what the Navy seeks to accomplish via this Notice. Few informed responses can be expected by the dissemination of a redacted technical report to three elected officials and a local government agency. A more complete and objective analysis is needed in the first place, and one that contains the data that would permit peer review and independent verification of conclusions.

The SWEF was never submitted to a consistency determination by the Coastal Commission and has never been subject to any other outside environmental review. The lack of a baseline for the unreviewed and undefined impacts of SWEF operations cannot be solved piecemeal by undertakings such as this opportunity to comment on a flawed and incomplete in house RADHAZ Report.

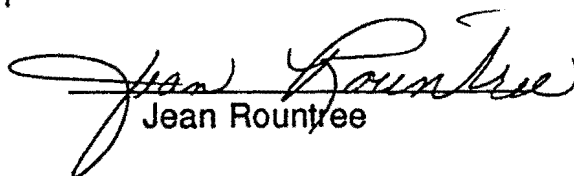
Sincerely yours,

  
Vickie Finan

  
Lee Quaintance

  
Gordon Birr

  
Diane Markham

  
Jean Rountree

Post-It® Fax Note 7671		Date 7.30	# of pages 1
To (cc) J. Zacharias	From - John Buse		
Co./Dept.	Co.		
Phone #	Phone #		
Fax # 985-7595	Fax #		



July 30, 1997

Erma J. Duffy  
FOIA Coordinator  
Office of Counsel  
Naval Surface Warfare Center  
Port Hueneme, CA 93043-4307

RE: FOIA Case Number 97-11

Dear Ms. Duffy:

This letter is to confirm our July 30, 1997 telephone conversation regarding the above-referenced FOIA request. As I indicated, our clients The Beacon are interested in confirming the existence or non-existence of information that was referenced on pages 10 and 11 of the Electromagnetic Radiation Hazard Survey Final Report, released on January 30, 1997 pursuant to our FOIA request. Sections 4.1.1 and 4.2.1 of this report refer to Appendices D and E as providing information such as "the distance at which the PEL [permissible exposure limit] was reached."

As I indicated, NAVSEA released clearly releasable portions of Appendices D and E on June 26, 1997. The Beacon's review of this material, however, indicates that the distances at which PELs were reached were not included in the released portions. In addition, this information does not appear to be in the portion of Appendices D and E that was not released (described as "weapons systems specific frequencies and permissible exposure levels derived from those frequencies"). With this inquiry, the Beacon seeks to confirm whether the "distance to PEL" information exists and, if so, whether it was included in the classified portion of Appendices D and E. Since we believe that this information was subsumed in our original FOIA request, we would appreciate your written response, even if only to confirm the non-existence of this information.

Although I will be away until mid-August, you can leave a phone message which our staff will be able to relay to our clients in my absence. Thank you for your attention to this matter.

Sincerely,

*John Buse*

John T. Buse  
Staff Attorney  
Environmental Defense Center

cc: Jan Zacharias, NAVSEA

ATTACHMENT #1



DEPARTMENT OF THE NAVY

COUNSEL  
OFFICE OF COUNSEL  
PORT HUENEME DIVISION  
NAVAL SURFACE WARFARE CENTER  
PORT HUENEME, CALIFORNIA 93043-4307

IN REPLY REFER TO:  
5800  
Ser-02L/ED/177  
18 Aug 1997

Mr. John T. Buse  
Staff Attorney  
Environmental Defense Center  
844 E. Main Street  
Ventura, CA 93001

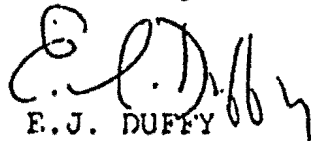
Dear Mr. Buse:

This letter responds to your correspondence of 30 July, 1997, in which you have inquired whether the "distance to PEL" information is included in the classified portion of Appendices D and E.

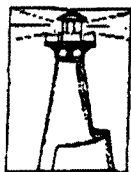
After reviewing the report it became clear that the "distance at which the PELs were reached" was not in the original report. In this case actual PELs were not revealed during the survey and therefore the distances could not be included in the report.

You may contact me at (805) 982-8247 for any additional information.

Sincerely,

  
E.J. DUFFY  
FOIA Coordinator

ATTACHMENT #2

**The Beacon**

Box 352  
3844 Channel Islands Blvd  
Oxnard, CA 93035

*An Ad Hoc Non-Profit Environmental Organization*

November 18, 1997

Mr. Mark Delaplaine  
Federal Consistency Supervisor  
California Coastal Commission  
45 Fremont, Suite 2000  
San Francisco, CA 94105-2219

Re: SWEF Port Hueneme

Dear Mr. Delaplaine,

The Beacon received a Response (Attachment One) dated October 31, 1997 (1) to our September 18, 1997 Comment on a Navy Notice regarding its redacted December 1996 NICE Report on the SWEF. The Response does not resolve the issues.

**1. The Notice Misstates the Conclusions of the Report.** The Notice stated that "Based on information collected during the survey, the Report concludes that the SWEF does not pose a radiation hazard to the local community." The Beacon Comment pointed out that no such general conclusion is to be found in the Report. The Response cites none. Nonetheless, the Navy Response now embellishes further to claim that ".... NISE East and PHD NSWC concluded that all areas in the uncontrolled environment are safe." This sweeping conclusion is not in the Report and cannot be supported by the few fixed point readings taken. The Navy Response also contradicts a Report finding that vessels using the harbor channel are exposed to RF radiation in excess of Personnel Exposure Limits (PEL) for the uncontrolled environment.

**2. One of the Most Powerful Emitters At The Facility was not Tested.** The Response advises this device was permanently removed in April 1997 and "... replaced by Fire Control System (FCS) MK 99 which has similar antenna characteristics...." Prior to use of the new emitter it says a Radhaz survey will be conducted. So, a new emitter has been installed with no consistency determination or even any notice to the Coastal Commission. You learn of it now only because The Beacon got an answer to its question about the device that it replaces.

In an April 21, 1997 letter, Executive Director Douglas asked the Navy:

"... to reiterate its previous commitment to inform us and submit a consistency determination when it proposes any future addition to the SWEF, including (but not limited to) any new radar facilities"

(1) The Navy Response dated October 31, 1997 was first received by The Beacon on November 13th in an envelope postmarked November 12, 1997.



-2-

In its response of May 13, 1997, The Navy states:

"The Navy recognizes its responsibility under the law as well as to the community, and remains committed to keeping the Commission and the public informed about future additions or modifications to the facility or its operations."

The informal "commitment" the Commission staff had from the Navy is not being kept, and, even if it were kept, this cannot substitute for the environmental baseline required by law.

In sum, a major emitter has been replaced by a powerful new device that has never even been disclosed to the Coastal Commission; has not been tested for RADHAZ; and has not been subject to a consistency determination. This situation illustrates the basic problem of SWEF non-conformance with consistency determination requirements of the Coastal Zone Management Act. There is no baseline for SWEF operation and its non-compliance renews itself by on-going and undocumented changes in its operations.

**3. Report Data Was Collected Assuming Errorless Operation of Emitters.**

Our Comment is confirmed in the Response which states that all devices were operated only within pre-set limits on their bearing and elevation. A remarkable SWEF experience is reported that in some twelve years of operation there have been "...zero failures of RF emission cutout circuits...." Past results do not guarantee future performance and assumption of perpetual operation without equipment failure or manual overrides of safety limits is not appropriate in an objective risk assessment.

**4. The Report is Incomplete Because it Lacks Disclosure of Safe Separation Distances for the Controlled and Uncontrolled Environment.**

The Response states that "safe separation distances were calculated by NISE as part of its scope of work for the Report but these calculations were omitted from the Report. Our Comment stated that safe separation distances are not classified and are commonly disclosed in other NISE Reports and the Response does not refute that.

The Response indicates that for the controlled environment the redacted Report includes data "... which allow one to independently calculate the radar's mainbeam safe separation distance...." The 1989 NISE Report (page 2) states that safe separation distances are calculated "utilizing the NAVELEXCEN Charleston radiation hazard (RADHAZ ) program." We have no access to this proprietary computer program and such a computation is beyond normal capabilities without knowledge of the input parameters. Even if it were possible to make the calculations, the raw data in the redacted Report would only be sufficient to compute the safe separation distances for the controlled environment and not for the uncontrolled civilian environment.

-3-

In the 1989 NICE Report safe separation distances for the controlled environment were computed and included for five emitters then at the SWEF. Distances of 1 foot to nearly one mile (5,165.8 feet) were stated. Distances for the uncontrolled environment would be significantly greater because the safe distance standard for persons aware of the emissions, such as persons working in the facility (the "controlled environment") are lower than for persons unaware, such as the public outside the facility (the "uncontrolled environment."). The October 1978 pre-construction Environmental Impact Assessment for the SWEF includes a Figure (provided as Attachment Two) of expected hazardous and safe separation distances for emitters then planned.

The former 1978 and 1989 calculations suggest the recent 1996 NISE calculations, if revealed, would show hazardous separation distances for the controlled and uncontrolled environment extend significantly into public use areas of the coastal zone. Concern that an undisclosed public exposure exists is heightened by the Navy's failure to explain why it omitted the NISE calculations from the Report. The Report is incomplete and unacceptable without this data. This is especially true for a report that was expressly designed "... to address community concerns about public safety, as well as Commission concerns about the impact of radar emissions on coastal resources." (Navy letter of May 13, 1997 to CCC)


## The Beacon Steering Committee

  
Vickie Finan

  
Lee Quaintance

  
Gordon Birr

  
Diane Markham

  
Jean Rountree

**DEPARTMENT OF THE NAVY**

PORT HUENEME DIVISION  
NAVAL SURFACE WARFARE CENTER  
4363 MISSILE WAY  
PORT HUENEME, CALIFORNIA 93043-4307

IN REPLY REFER TO:

5090  
Ser 00/40  
31 Oct 97

The Beacon  
Box 352  
3844 Channel Islands Boulevard  
Oxnard, CA 93035

Members of The BEACON,

In response to your letter of September 18, 1997, concerning the Electromagnetic Radiation Hazard (RADHAZ) Report, dated 26 December 1996, the following information is provided.

**1. Comment, page 1, "The Notice Misstates the Conclusions of the Report."**

The conclusion, "SWEF does not pose a radiation hazard to the local community," is based on the survey results for the uncontrolled environment, located on pages ii, iii, 11, and 12 of the report. The report states that in the uncontrolled environment, that is, locations where exposure may be incurred by individuals who have no knowledge or control of their exposure, no Radio Frequency (RF) levels exceeded the Permissible Exposure Limits (PELs). This means that the specific uncontrolled environment locations tested, namely the beach areas, east and west jetty areas, perimeter public areas adjacent to Navy property, and sea areas are safe.

With respect to the concern about fixed point measurements and resulting data, fixed point sampling is a standard, scientific, industry accepted method of surveying an environment. Data was collected at specific fixed locations with all emitters active and emitting RF toward the measurement location, creating a "worst case" scenario. Based on the resultant electromagnetic profile, NISE East and PHD NSWC concluded that all areas in the uncontrolled environment are safe.

Your reference to a "large radiation pattern" is inaccurate. The emitters at SWEF create narrow beamwidths ("pencil beams"), radiating in very narrow areas or patterns.

**2. Comment, page 2, "One Of The Most Powerful Emitters At The Facility was not Tested and No Restriction is Indicated on its Activation."**

The MK 74 TARTAR AN/SPG-51C was removed permanently in April 1997. It was last used in late 1993, and there are no plans to reinstall it at the SWEF complex. It was replaced by Fire Control System (FCS) MK 99 which has similar antenna characteristics to the AN/SPG-51C antenna. As with all emitter installations, prior to use, a RADHAZ survey will be conducted for the MK99 Fire Control System.

ATTACHMENT #1

**3. Comment, page 2, "Report Data was Collected Assuming Errorless Operation of Emitters."**

The primary objective of the RADHAZ survey was to ensure, based on authorized emission sectors, all emitters were operating safely. During the survey, emitters were limited to specific, authorized radiation sectors. The report shows that as operated, actual RF levels are minimal and well under the PELs. Authorized radiate sectors, established during the survey, have been approved by the Western Area Frequency Coordinator (WAFC). Expertly trained operators use operating procedures at SWEF to confine transmissions to specific sectors in both bearing and elevation.

Multiple safety systems including mechanical, electrical, and software systems, as well as operating procedures ensure safe operations at all times. Transmit sectors are checked during periodic routine maintenance to ensure systems, such as emission cutout circuits, are functioning safely.

The reference in the 1989 NISE East report to failure of cutout limit switches was specific to the AN/SPG-51C system that was recently removed from SWEF. The reference was to the failure of the switch in systems in the fleet. A failure did not occur at SWEF. Since operations began at SWEF, in 1984, there have been zero failures of RF emission cutout circuits on any system installed.

**4. Comment, page 2, "The Report Is Incomplete Because it Lacks Disclosure of Safe Separation Distances for the Controlled and Uncontrolled Environment."**

Results described in section 4.2 of the radiation hazard survey report show that no radiation hazard(s) exist in public areas adjacent to the SWEF complex. Specifically, all adjacent areas where people may be present are well beyond safe separation distances from the emitters.

Safe separation distances were calculated by NISE East prior to the survey and used by NISE East to obtain an overall perspective of the electromagnetic environment at SWEF. All radar parameters used by NISE East to calculate the safe separation distances were included in the report as discussed below.

The report contains technical parameters in appendix D which allow one to independently calculate the radar's mainbeam safe separation distance as referenced to the Controlled environment. Therefore, the NISE East calculations are not required. Information such as antenna gain, transmitter output power, system losses, and PELs are required to make these calculations, all of which are included in appendix D. These mainbeam safe separation distances are elevated anywhere from approximately 70 feet to over 100 feet above the water because of their physical location on top of the building. Therefore, the mainbeam safe separation distances of the radars do not touch ground or sea.

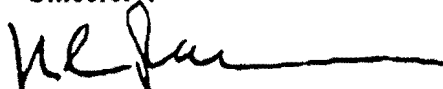
With reference to the Uncontrolled environment, all information required to calculate emitter mainbeam safe separation distances was provided in appendix E except the PELs. PELs were not releasable because they were calculated using the frequency of the radar, which is classified technical information and not releasable to the public. The PELs for the Controlled environment were released because they are fixed to a single value over a broad range of frequencies, thereby not divulging the frequency parameters that are classified in nature.

The phrase used in paragraph 4.1 and 4.2 of the survey, "the distance at which the PELs were reached" is misleading. A more appropriate phrase should have been "the distance at which power density measurements were collected," which reflects the type of data in appendices D and E of the report.

The intent of the Public Notice was to advise the community that the survey had been conducted, the results of the survey, and that the information was available in the offices of local officials elected to represent community interests, for their review if they desired. We continue our efforts to reassure our community that we will do nothing that puts our employees or the community at risk either at work sites or in the community where we also live.

Thank you for taking the time to respond. If further clarification is required, please contact our Public Affairs office.

Sincerely,



N. L. RICHARDS  
Captain, U.S. Navy



**CALIFORNIA COASTAL COMMISSION**

45 FREMONT STREET, SUITE 2000  
SAN FRANCISCO, CA 94105-2219  
VOICE AND TDD (415) 904-5200



December 12, 1997

Captain Nicholas L. Richards  
Commander, Port Hueneme Division  
Naval Surface Warfare Center  
4363 Missile Way  
Port Hueneme, CA 93043-4307

Re: Radar Studies, U.S. Navy, Surface Warfare Engineering Facility (SWEF)  
Port Hueneme, Ventura County

Dear Capt. Richards:

Upon reviewing the December 1996 NISE Report along with public comments and your responses to those comments, we have the following comments/questions:

1. It was our expectation, based on the Navy's April 5, 1996, letter to us, that the Navy had committed to coordinating with us and conducting additional testing, prior to any future radar installations. The Navy's October 31, 1997, response to The BEACON's September 18, 1997, letter states:

*The MK 74 TARTAR AN/SPG-51C was removed permanently in April 1997. It was replaced by Fire Control System (FCS) MK 99 which has similar antenna characteristics to the AN/SPG-51C antenna. As with all emitter installations, prior to use, a RADHAZ survey will be conducted for ... [this new] system.*

The Navy did not coordinate with us prior to installing this new system. We would like to know when it was installed, when it will be tested, when we will receive the test results, and when the Navy expects to commence operating this system. We would also like to know, for future radar installations, at what point in the review/installation/testing process the Navy intends to coordinate with us.

2. The December 1996 NISE report identified a potential hazard reading for a ship transiting through the harbor at a distance of approximately 650 ft. from the radar facility. It is unclear what levels would be received if a ship were nearer than 650 ft. to the radar. In addition, it is also unclear why the Navy seems to be assuming that the possibility does not exist that the radar might "lock" on the ship (or the ship could remain stationary), which could increase the exposure time to a point where hazardous levels could be received. Finally, we believe the Navy can calculate potential scatter effect to surrounding publicly accessible areas from radar bouncing off a tall ship. Based on these points, we have the following questions:

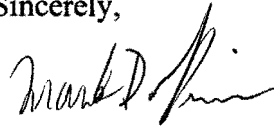
(a) What is the nearest distance a ship could come to the radar, and how would this affect potential "worst case" exposure levels (i.e., does the 650 ft. radius used realistically represent a "worst case" analysis, and/or can one be extrapolated from the results at this distance)?

(b) How can the Navy protect against the possibility of a greater duration or level of exposure for a ship than assumed in this study (e.g., protect against a continuous exposure received at a tall ship)?

(c) What is the "worst case" exposure level that could be received at nearby recreation points (such as the jetty) for radar scattered after being bounced off the side of a tall ship?

Please call me at (415) 904-5289 if you have any questions about these information requests.

Sincerely,



Mark Delaplaine  
Federal Consistency Supervisor

cc: Ventura Area Office  
The Beacon





DEPARTMENT OF THE NAVY

PORT HUENEME DIVISION  
NAVAL SURFACE WARFARE CENTER  
4363 MISSILE WAY  
PORT HUENEME, CALIFORNIA 93043-4307

IN REPLY REFER TO:

5700  
Ser 01-PB/44

19 DEC 1997

RECEIVED  
DEC 29 1997

CALIFORNIA  
COASTAL COMMISSION

Mr. Mark Delaplaine  
Federal Consistency Supervisor  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Dear Mr. Delaplaine,

Thank you for your letter of December 2, 1997. We appreciate the interest of the Coastal Commission in our Surface Warfare Engineering Facility (SWEF) and look forward to continuing our close relationship with the local community. Their support of and interest in command activities is always encouraging to our workforce.

In response to your questions, it is my intent to abide by the commitments made by my predecessor. The MK 99 system in question is still undergoing installation and is included in the Baseline which the Commission will be receiving in the very near future. This system is constant in form, fit, and function to the system it replaced. When installation is complete, testing will be scheduled. The Commission will be advised when the testing schedule is confirmed and will be provided releasable portions of the test results. We will likewise advise the Commission when significant modifications to the facility are planned in the future.

With respect to questions regarding potential hazards to shipping, the shipping channel is approximately 650 feet from the facility, so shipping would never be significantly closer. Radars installed at SWEF have no capability to track ships in close proximity and ships floating in water do not remain stationary. This example was included in the report as a worst case to demonstrate that no hazard to shipping exists.

Since reflected radar energy is much more attenuated than direct, and there is no potential for risk from direct emissions, no hazard would exist from "radar bouncing off a tall ship."

Again, we appreciate your interest. I hope Commission members will find time in their schedules to tour our unique defense facility in the near future.

Sincerely,

N. L. RICHARDS  
Captain, U. S. Navy



DEPARTMENT OF THE NAVY

COMMANDER  
PORT HUENEME DIVISION  
NAVAL SURFACE WARFARE CENTER  
PORT HUENEME, CALIFORNIA 93043-5007

January 20, 1998

RECEIVED  
JAN 23 1998

CALIFORNIA  
COASTAL COMMISSION

Mr. Mark Delaplaine  
Federal Consistency Supervisor  
California Coastal Commission  
45 Fremont Street, Suite 2000  
San Francisco, CA 94105-2219

Dear Mr. Delaplaine,

I understand the status update for the Coastal Commission on our Surface Warfare Engineering Facility (SWEF) is now on the agenda for the March 1998 meeting. We are looking forward to this opportunity to brief the Commission members on the capabilities of this facility and address concerns brought before the Commission. I trust by now you have received the project description requested by the Commission and our response to the Commission's letter of December 12, 1997.

Though my travel schedule may not permit me to attend the March meeting, my Chief of Staff, Commander Paul Benfield, will make the presentation and respond to any Commission questions.

I would again like to extend the invitation to yourself and any of the Commission members to tour our facility at any time. I believe this opportunity to view our facility first hand would be very helpful in understanding the valuable and cost effective contribution to national defense the SWEF provides, as well as responding to future concerns raised by the public. Commander Benfield (805 982-8240) is my point of contact for tour arrangements.

If we at the Port Hueneme Division, Naval Surface Warfare Center can be of further assistance, please do not hesitate to contact us.

*PLEASE BE ASSURED OF  
A VBP WELCOME IF  
YOU HAVE A CHANCE  
TO TOUR US!*

Sincerely,

N. L. RICHARDS  
Captain, U.S. Navy

Attachment 11

January 23, 1998

The Beacon has made detailed submissions to the CCC on potential zone impacts from RF emissions of the SWEF. In preparation for CCC study session, we urge CCC staff to obtain guidance from an impartial expert regarding RF coastal zone impact issues. 11  
only once

If only one SWEF impact can be chosen now for review by a CCC expert, we suggest that it be the potential for hazardous crew exposure on vessels entering and leaving the Port of Hueneme.

This issue lends itself to expert review based on a compact volume of data available from the existing record. This subject speaks to a core area of Commission responsibility - protection of ports, specifically including the Port of Hueneme, identified in the Coastal Act (Sec. 30701) as "... one of the state's primary economic and coastal resources...."

After reviewing those parts of the record set out in the Reference section below, we suggest the CCC expert be asked to include in its comments on RF impacts a response to these questions:

1. Is the RF exposure of persons on vessels entering or leaving the Port of Hueneme potentially hazardous?
2. What is the percent increase in intensity of RF exposure if vessels traversed the entrance channel closer to the emitters by 50, 100 or 150 feet less than the 650 foot transit distance modeled in the 1996 NISE Report?
3. Is the 1996 NISE Report time averaged analysis of ship exposure an appropriate "worst case to demonstrate that no hazard to shipping exists" as claimed in the Navy letter of 19 December 1997? Should an appropriate risk assessment for impacts on unaware persons in the uncontrolled environment (i.e. crew on vessels in the Harbor channel) be a time averaged analysis against PEL limits of the type performed or should factors including maximum power exposure, total exposure, and cumulative exposure be analyzed?

RECEIVED  
JAN 27 1998

4. Comment on the validity of the Navy statement in its letter of 19 December 1997 that "Since reflected radar energy is much more attenuated than direct, and there is no potential for risk from direct emissions, no hazard would exist from 'radar bouncing off a tall ship.'"

5. Does the exposure level to ship crews documented in the 1996 NISE Report suggest a need from a safety viewpoint to close the Harbor channel to vessel traffic during certain SWEF operations as was predicted to be necessary in the 1978 U.S. Navy Master Plan Environmental Impact Analysis?

References to be Reviewed in Rendering Opinion:

1. 1978 U.S. Navy Master Plan Environmental Impact Analysis. portions excerpted in CCC staff Status Report dated January 24, 1996 regarding Navy Special Use Airspace.

2. NISE RADHAZ Report dated December 1996 and its redacted Appendices D & E.

3. Navy letter of 7 January 1998 to CCC and its attached Facility Description.

4. The Beacon submissions to the CCC dated 18 May 1996, 9 August 1997 (transmitted with a 20 August 1997 cover letter), and 27 October 1997.

5. CCC staff Status Briefing report and attachments regarding the SWEF dated ~~13 January 1998~~. 18 DECEMBER 1997

6. CCC letters to the Navy of 16 February 1996 and 24 July 1996.

7. NAVY LETTER TO CCC OF 19 DECEMBER 1997.

FROM : The Beacon

RECEIVED

PHONE NO. : 805 985 9595

FEB. 02 1998 11:32AM



FEB 02 1998

CALIFORNIA  
COASTAL COMMISSION

DEPARTMENT OF THE NAVY

SPACE AND NAVAL WARFARE SYSTEMS CENTER

P.O. BOX 180022

NORTH CHARLESTON, SC 29419-0022

IN REPLY REFER TO:

Post-it Fax Note	7671	Date	2/2/98	# of pages	1
To	MARK DELAPLANGE	From	LEE QUAINANCE		
Co./Dept.	CCC	Co.			
Phone #		Phone #	(85) 985-9595		
Fax #	(415) 904-5400	Fax #	(85) 985-9595		

5720  
Code OA41LE  
Control No 98069  
27 January, 1998

John T. Buse  
Staff Attorney  
Environmental Defense Center  
844 E. Main St.  
Ventura, CA 93001

THIS RESPONSE IS NOT CREDIBLE

Re: Your FOIA request of 20 December 1996 received this office 30 December 1997

Dear Mr. Buse:

We have searched our records and the calculated theoretical safe separation distances for both the Controlled and Uncontrolled environment requested by the subject FOIA request are not retained by this command. The requested data was created at NSWC Port Huemene during the site's radiation hazard survey, but was discarded after the on-site empirical data was collected by actual field measurements.

Sincerely,

*Louise F. Egglertz*

LOUISE F. EGGLERTZ  
FOIA Coordinator

Post-it Fax Note	7671	Date	2/2/98	# of pages	1
To	Lee Quainance	From	John Buse		
Co./Dept.		Co.			
Phone #		Phone #	Not the response		
Fax #	985-9595	Fax #	I expected...		

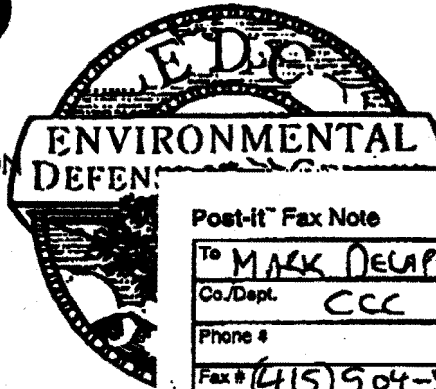
Feb 28  
RECEIVED

Attachment 13

SPACE AND NAVAL WARFARE SYSTEMS CENTER  
CHARLESTON DETACHMENT AT JULIENS CREEK  
BCK 1378

**RECEIVED**

FEB 02 1998

CALIFORNIA  
COASTAL COMMISSION

Post-it Fax Note 7671		Date 2/2/98	# of pages 5
To MARK DELAPLANE		From LEE QUAINANCE	
Co./Dept. CCC		Co.	
Phone #		Phone #	
Fax # (415) 904-5400		Fax # (805) 985-9595	

December 20, 1996

Commanding Officer  
Attn: FOIA Request  
Naval Command, Control and Ocean Surveillance Center  
In-Service Engineering East Coast Division  
P.O. Box 190022  
North Charleston, South Carolina 29419-9022

F.Y.I. — THE FOIA REQUEST LETTER

BY CERTIFIED MAIL

RE: FOIA REQUEST

Dear Commanding Officer/FOIA Coordinator:

This is a request under the Freedom of Information Act (FOIA) (5 U.S.C. § 552, as amended).

On behalf of The Beacon, a Ventura County, California citizens' group, the Environmental Defense Center (EDC) hereby requests a copy of the following records relating to the NISE East Report of December 1996 regarding an Electromagnetic Radiation Hazard Survey of the Naval Surface Warfare Engineering Facility (SWEF), Port Hueneme, California:

1. Safe separation distances for the Controlled environment for each emitter for which such distances were calculated.
2. Safe separation distances for the Uncontrolled environment for each emitter for which such distances were calculated.
3. Any diagrams and/or figures that depict the geographic location and boundaries of the safe separation distances referenced in items 1 and/or 2 above.

The Beacon is in receipt of a letter (attached) dated October 31, 1997 from Captain N.L. Richards, Commanding Officer of the SWEF, regarding the 1996 NISE East Report. The letter indicates NISE *did* calculate the separation distances referenced above and that disclosure of these distances is *not* exempt from FOIA. The letter states that "[s]afe separation distances were calculated by NISE East prior to the survey and used by NISE East to obtain an overall perspective of the electromagnetic environment at SWEF." The safe separation distances are not exempt because, as the letter states, "[t]he report contains technical parameters . . . which allow one to independently calculate the radar's mainbeam safe separation distance . . ." All of the data needed for the Controlled environment calculation is said to be in the publicly-released Report, while the data released for the Uncontrolled environment lacks one variable needed to make the calculation. In addition, The Beacon is informed and believes that safe separation distances are routinely included in NISE reports. This information is neither properly classified (to The Beacon's knowledge) nor could its unauthorized disclosure "reasonably . . . be expected to cause damage to the national security." 32 C.F.R. § 701.23(b). It should therefore be subject to disclosure.

**FOIA REQUEST**

October 22, 1996

Page 2

This request is made pursuant to FOIA, 5 U.S.C. § 552(a)(6)(A)(i), the Department of Defense's FOIA Program, 32 C.F.R. Parts 285-286, and the Navy's FOIA regulations, 32 C.F.R. Part 701, Subparts A-D. FOIA provides that we are entitled to a written response on the merits of our request within 10 working days of the receipt of this request. Failure to respond in a timely manner shall be viewed as a denial of this request and the requesters may immediately file an administrative appeal. The Beacon is requesting these records so that it may better evaluate the potential human health and environmental safety risks associated with the Navy's Surface Warfare Engineering Facility (SWEF) at Port Hueneme, California. Because of the human health concerns related to the SWEF, we note that time is of the essence in this matter.

Should you determine that some portion of the requested documents are exempt from disclosure, please provide the statutory basis for such exemption and your reasons for applying the alleged statutory justification in this instance. You must provide all documents that do not fall within the exemption(s) and release all reasonably segregable portions which are not themselves exempt. Please provide an index of all materials withheld with a detailed description of such documents. In addition, for any such withheld materials, please separately state your reasons for not invoking your discretionary powers to release the requested documents in the public interest.

The Beacon is an unincorporated association established for the environmental protection of coastal Ventura County, California. The Beacon has provided extensive commentary on operations related to the SWEF, including the 1996 Electromagnetic Radiation Hazard Survey report. In addition, The Beacon has endeavored to inform the public regarding the potential health and safety concerns associated with the SWEF. The requested document will help educate the public regarding these areas of concern. The Beacon plans to make the document available to its members and to the public at large through its own written materials and at community meetings and public hearings.

EDC requests that you waive any applicable fees since disclosure meets the statutory standard for waiver of fees in that it is "in the public interest because [disclosure] is likely to contribute significantly to public understanding of the operations and activities of the government and is not primarily in the commercial interest of the requester." 5 U.S.C. § 552(a)(4)(A)(iii). In this regard, The Beacon has no intention of using the information disclosed for commercial purposes or financial gain. If for some reason this fee waiver request is denied, we are willing to pay up to \$20.00 for the costs of duplication, reserving the right to appeal the denial.

We offer to assist your office in any way possible to facilitate the prompt release of the requested documents. If we may redefine or clarify our request, or answer any questions, please let us know immediately. Thank you in advance for your prompt reply.

Sincerely,



John T. Buse  
Staff Attorney  
Environmental Defense Center

Attachment



DEPARTMENT OF THE NAVY  
PORT HUENEME DIVISION  
NAVAL SURFACE WARFARE CENTER  
4363 MISSILE WAY  
PORT HUENEME, CALIFORNIA 93043-4307

5090  
Ser 00/40  
31 Oct 97

The Beacon  
Box 352  
3844 Channel Islands Boulevard  
Oxnard, CA 93035

Members of The BEACON.

In response to your letter of September 18, 1997, concerning the Electromagnetic Radiation Hazard (RADHAZ) Report, dated 26 December 1996, the following information is provided.

1. Comment, page 1, "The Notice Misstates the Conclusions of the Report."

The conclusion, "SWEF does not pose a radiation hazard to the local community," is based on the survey results for the uncontrolled environment, located on pages ii, iii, 11, and 12 of the report. The report states that in the uncontrolled environment, that is, locations where exposure may be incurred by individuals who have no knowledge or control of their exposure, no Radio Frequency (RF) levels exceeded the Permissible Exposure Limits (PELs). This means that the specific uncontrolled environment locations tested, namely the beach areas, east and west jetty areas, perimeter public areas adjacent to Navy property, and sea areas are safe.

With respect to the concern about fixed point measurements and resulting data, fixed point sampling is a standard, scientific, industry accepted method of surveying an environment. Data was collected at specific fixed locations with all emitters active and emitting RF toward the measurement location, creating a "worst case" scenario. Based on the resultant electromagnetic profile, NISE East and PHD NSWC concluded that all areas in the uncontrolled environment are safe.

Your reference to a "large radiation pattern" is inaccurate. The emitters at SWEF create narrow beamwidths ("pencil beams"), radiating in very narrow areas or patterns.

2. Comment, page 2, "One Of The Most Powerful Emitters At The Facility was not Tested and No Restriction is Indicated on its Activation."

The MK 74 TARTAR AN/SPG-51C was removed permanently in April 1997. It was last used in late 1993, and there are no plans to reinstall it at the SWEF complex. It was replaced by Fire Control System (FCS) MK 99 which has similar antenna characteristics to the AN/SPG-51C antenna. As with all emitter installations, prior to use, a RADHAZ survey will be conducted for the MK99 Fire Control System.

ATTACHMENT #1



**3. Comment, page 2, "Report Data was Collected Assuming Errorless Operation of Emitters."**

The primary objective of the RADHAZ survey was to ensure, based on authorized emission sectors, all emitters were operating safely. During the survey, emitters were limited to specific, authorized radiation sectors. The report shows that as operated, actual RF levels are minimal and well under the PELs. Authorized radiate sectors, established during the survey, have been approved by the Western Area Frequency Coordinator (WAFC). Expertly trained operators use operating procedures at SWEF to confine transmissions to specific sectors in both bearing and elevation.

Multiple safety systems including mechanical, electrical, and software systems, as well as operating procedures ensure safe operations at all times. Transmit sectors are checked during periodic routine maintenance to ensure systems, such as emission cutout circuits, are functioning safely.

The reference in the 1989 NISE East report to failure of cutout limit switches was specific to the AN/SPG-51C system that was recently removed from SWEF. The reference was to the failure of the switch in systems in the fleet. A failure did not occur at SWEF. Since operations began at SWEF, in 1984, there have been zero failures of RF emission cutout circuits on any system installed.

**4. Comment, page 2, "The Report Is Incomplete Because It Lacks Disclosure of Safe Separation Distances for the Controlled and Uncontrolled Environment."**

Results described in section 4.2 of the radiation hazard survey report show that no radiation hazard(s) exist in public areas adjacent to the SWEF complex. Specifically, all adjacent areas where people may be present are well beyond safe separation distances from the emitters.

Safe separation distances were calculated by NISE East prior to the survey and used by NISE East to obtain an overall perspective of the electromagnetic environment at SWEF. All radar parameters used by NISE East to calculate the safe separation distances were included in the report as discussed below.

The report contains technical parameters in appendix D which allow one to independently calculate the radar's mainbeam safe separation distance as referenced to the Controlled environment. Therefore, the NISE East calculations are not required. Information such as antenna gain, transmitter output power, system losses, and PELs are required to make these calculations, all of which are included in appendix D. These mainbeam safe separation distances are elevated anywhere from approximately 70 feet to over 100 feet above the water because of their physical location on top of the building. Therefore, the mainbeam safe separation distances of the radars do not touch ground or sea.

With reference to the Uncontrolled environment, all information required to calculate emitter mainbeam safe separation distances was provided in appendix E except the PELs. PELs were not releasable because they were calculated using the frequency of the radar, which is classified technical information and not releasable to the public. The PELs for the Controlled environment were released because they are fixed to a single value over a broad range of frequencies, thereby not divulging the frequency parameters that are classified in nature.

The phrase used in paragraph 4.1 and 4.2 of the survey, "the distance at which the PELs were reached" is misleading. A more appropriate phrase should have been "the distance at which power density measurements were collected," which reflects the type of data in appendices D and E of the report.

The intent of the Public Notice was to advise the community that the survey had been conducted, the results of the survey, and that the information was available in the offices of local officials elected to represent community interests, for their review if they desired. We continue our efforts to reassure our community that we will do nothing that puts our employees or the community at risk either at work sites or in the community where we also live.

Thank you for taking the time to respond. If further clarification is required, please contact our Public Affairs office..

Sincerely,



N. L. RICHARDS  
Captain, U.S. Navy

**UNCLASSIFIED**  
**CONFIDENTIAL**  
**UNCLASSIFIED**

Unclassified upon the removal of Appendix D and Appendix E

NAVAL COMMAND, CONTROL AND OCEAN SURVEILLANCE CENTER  
IN-SERVICE ENGINEERING,  
EAST COAST DIVISION  
(NISE EAST)

CHARLESTON, SOUTH CAROLINA



NAVAL SURFACE WARFARE CENTER, PORT HUENEME DIVISION  
SURFACE WARFARE ENGINEERING FACILITY (SWEF), BUILDING 5186  
MK 74 MOD 6/8/AN/SPG-51C FIRE CONTROL SYSTEM (FCS)  
PORT HUENEME, CALIFORNIA

ELECTROMAGNETIC RADIATION HAZARD SURVEY  
FINAL REPORT

E<sup>3</sup> Task Number E96083  
Report Date: January 1997

Prepared by:

Donald E. Sandusky  
Donald E. Sandusky  
TECHNICAL SPECIALIST

Reviewed by:

Kevin Charlow  
Kevin Charlow

HEAD, ELECTROMAGNETIC ENVIRONMENTAL EFFECTS BRANCH

DISTRIBUTION AUTHORIZED TO DOD AND DOD CONTRACTORS FOR ADMINISTRATIVE AND OPERATIONAL USE ONLY; DATE OF PUBLICATION IS JANUARY 1997 OTHER REQUESTS SHALL BE REFERRED TO NISE EAST CHARLESTON (CODE 323)

**UNCLASSIFIED**  
**CONFIDENTIAL**

Unclassified upon the removal of Appendix D and Appendix E

**UNCLASSIFIED**

## EXECUTIVE SUMMARY

During 16-17 December 1996, Naval Command, Control and Ocean Surveillance Center In-Service Engineering, East Coast Division (NISE East), performed an Electromagnetic Radiation Hazard (RADHAZ) survey for the MK 74 MOD 6/8/AN/SPG-51C Fire Control System (FCS) located at the Naval Surface Warfare Engineering Facility (SWEF), Building (Bldg) 5186, Port Hueneme Division, Naval Surface Warfare Center (NAVSURFWARCENDIV). This task was performed under the Navy's Shore Electromagnetic Environmental Effects (E<sup>3</sup>) program as Task Number E96083. Specific areas of interest were Hazards of Electromagnetic Radiation to Personnel (HERP) and Hazards of Electromagnetic Radiation to Fuel (HERF).

The MK 74 MOD 6/8 pulse Doppler and Continuous Wave Illumination (CWI) radars form the major elements of the Missile and Gun Fire Control System (FCS), MK 74. It is intended mainly for use with the Standard surface-to-air missile systems, for which it fulfills target tracking and missile guidance functions. Operating frequencies are in the C and X-bands.

The MK 74 MOD 6/8 system installed in Bldg 5186 will be used primarily for operation and maintenance training. The scheduled training course will focus on troubleshooting techniques, scheduled maintenance, and operation. Tracking targets will be accomplished primarily with simulated targets while the radar systems are in standby (i.e. not radiating). On occasions where live target tracking is desired, there will be no requirement for CWI. Hence, the RF actually radiated live (out of the antenna) would be C-band only during live tracking. During training, the CWI energy will be confined primarily to a dummy load and will not be transmitted through the antenna.

All instrumented measurements were performed using the Department of Defense (DoD) 6055.11 Radio Frequency (RF) safety standard. The DoD 6055.11 standard establishes the recommended permissible exposure limits (PELs) for personnel. These limits, both RF power density and exposure time, are based on the Institute of Electrical and Electronics Engineers (IEEE)/American National Standards Institute (ANSI) C95.1-1991, which serves as a consensus standard developed by representatives of industry, government agencies, scientific communities and the public. The DoD 6055.11 is a time averaged, two tier standard that provides safety guidance for two types of environments - Controlled and UnControlled. Controlled environments are locations where exposure may be incurred by persons who are aware of the potential for exposure as a concomitant of employment, by other cognizant persons, or as the incidental result of transient passage. UnControlled environments are locations where exposure may be incurred by individuals who have no knowledge or control of their exposure.

During the survey period, RF power density measurements of the MK 74 MOD 6/8 FCS were conducted in the following areas:

- Bldg 5186 MK 74/SPG-51C radar equipment spaces, transmitter cabinets and waveguides
- Bldg 5186 rooftop, radar director testing - backlobe, sidelobe and main beam
- Bldg 5234 (Vertical Launching Bldg) rooftop
- Bldg 1384 main SWEF complex rooftop
- Bldg 1463 (Underwater Construction School) rooftop
- Ground level perimeter testing, east and west jetties, and beach area
- At-sea channel testing (at sea level)
- Testing was conducted to determine what RF levels would be encountered by a ship traversing the shipping channel at a distance of approximately 1000 feet from Bldg 5186 (closest point of approach to the building). Since the MK 74/SPG-51C radar on top of Bldg 5186 is approximately 42 feet above the water and does not radiate below zero degrees, the study was conducted to determine the impact to large ships where personnel could be located 42 feet or greater above the water.

Because of the difficulty in collecting a measurement in the channel 42 feet above the water, a mainbeam power density measurement was collected on land approximately 700 feet from the radar. This empirical data was then extrapolated to predict the power density in the shipping channel at a distance of 1000 feet. This measurement was done using both the MK 74/SPG-51C's C-band pulse radar and X-band CWI radar.

- Retesting of the MK 92 Combined Antenna System (CAS) was also performed to verify corrective actions that were required in an earlier electromagnetic radiation hazards survey performed in October 1996, (Task Number E97002). The report indicated that RF levels were detected that exceeded the current PEL by more than a factor of ten from the CAS system in the direction of Bldg 1384, bay 509. There is no operational requirement to radiate in that direction. The report required that the subject area be sector blanked.

The following are the Controlled environment survey results and required corrective actions. The Navy property is a Controlled environment. The following measurement results are interpreted using the Controlled environment criteria provided in DoD 6055.11.

- A localized radiated and potential shock hazard exists with the MK 74/SPG-51C when the equipment panels are removed exposing the X-Band and C-Band amplifiers and pulse forming networks. These panels are only removed during equipment troubleshooting procedures. During normal operation these panels are installed and no radiated or contact shock hazard exists. Extreme care and caution should be exercised when operating the equipment with these panels removed. No equipment RF levels exceeded the PEL in any other part of the MK 74/SPG-51C equipment spaces.
- No RF levels exceeded the PEL to the rear and to the side of the radar director located on the rooftop of Bldg 5186. As expected, RF levels exceeded the PEL directly in front of and in the main beam of the director. Personnel should not be allowed access to this area when the antenna is radiating. It was noted that the existing RADHAZ warning lights and warning horn on the rooftop of Bldg 5186 were deinstalled. It is recommended that action be taken to reinstall these warning devices to provide a visual and audible warning to site personnel that the MK 74/SPG-51C system is radiating RF energy.
- No RF levels exceeded the PEL on the rooftops of Bldg 5234 (Vertical Launch), Bldg 1384 (Main SWEF complex), and Bldg 1463 (Underwater Construction School). System RADHAZ cutouts prohibit any MK 74/SPG-51C radar energy from illuminating these areas.
- Retesting of the MK 92 CAS verified that appropriate corrective actions have been taken to sector blank the area in the direction of Bldg 1384, bay 509.

The following UnControlled environment survey results are provided. This includes results of the MK 74/SPG-51C radar measurements performed in areas outside of Navy control and where the general public may be present. These areas include beach areas, east and west jetty areas, perimeter areas that are public and adjacent to Navy property, and at-sea areas such as the shipping channel.

- No RF levels from the MK 74/SPG-51C radar exceeded the PEL in any areas on the beach south of Bldg 5186 and Bldg 1384
- No RF levels from the MK 74/SPG-51C radar exceeded the PEL in any areas on the east and west jetties.
- No RF levels from the MK 74/SPG-51C radar exceeded the PEL in any perimeter areas adjacent to Navy property.

- No RF levels from the MK 74/SPG-51C radar exceeded the PEL at any of the at-sea test locations (measured approximately 8 feet above sea level), including the water area directly adjacent to LaJanelle Beach.
- Simulated ship channel testing results show that the MK 74/SPG-51C radar system does not exceed the Controlled PELs at the shipping channel distance (either C-band or X-band). In addition, the C-band tracking radar did not exceed the Uncontrolled PEL at either the 700 foot measurement point or at the 1000 foot shipping channel distance. Measurements extrapolated to the 1000 foot distance for the X-band CWI exceed the PEL for continuous exposure; however, this does not constitute a hazard to shipping for the following reason.

The radio frequency specification allows the PEL for continuous exposure to be exceeded provided that the exposure time is reduced (i.e., not continuous). At the CWI power density extrapolated to 1000 feet, the radio frequency exposure specification allows a whole body exposure time of up to approximately 7 minutes in a window of approximately 9 minutes. Stated differently, a person on the exterior of a passing ship at a distance of 1000 feet from Bldg 5186 and 42 feet above the water can be exposed to the radar's energy for any combination of radar "on/off" times, as long as the sum of the "on" times does not exceed approximately 7 minutes in a time period of slightly less than 9 minutes.

As an example of exposure times under conditions noted above, a person on a ship traversing the channel at 5 knots (maximum speed) would be "in the radar beam" for approximately 2 seconds, where the allowed exposure time is approximately 400 seconds. Moreover, the actual exposure time increases to approximately 4 seconds at 2.5 knots and 8 seconds at 1.25 knots. Thus, the actual exposure time one would incur while traversing the channel would be negligible when compared to the allowable time. Therefore, a radiation hazard to shipping is not evident.

It should be noted that the above example assumes fixed antenna position at zero degrees elevations and pointed directly at the Closest Point of Approach (CPA) for shipping. As previously mentioned, neither the C-band Pulse Doppler Track nor CWI radars are operated in this manner, and at these positions. Radiating through the antenna is primarily done when tracking live air targets which are at higher elevations, and without the X-band CWI radar radiating.

The results of the power density measurements indicate the MK 74/SPG-51C radar's main beam will not illuminate any of the ground areas in the Controlled and UnControlled environments. Based on these results and the criteria provided in NAVSEA OP-3565, "Hazards of Electromagnetic Radiation to Fuel," no possibility exists for accidentally igniting fuel vapors on or off Navy property during fuel handling operations by RF induced arcs.

**FAX****RECEIVED**  
FEB 05 1998  
CALIFORNIA  
COASTAL COMMISSION

**TO :** MARK DELAPLAINE  
Federal Consistency Supervisor  
California Coastal Commission  
(415) 904-5400

Date: 2/4/98

**FROM:** LEE QUAINANCE  
The Beacon  
Ph # & FAX : 805-985-9595

Number of Pages : SIX

**RE:** SWEF -- Port Hueneme -- January 1997 NISE Report

Attached are our comments on the newly released January 1997 NISE Report. Two copies of these comments were also sent to you by Priority Mail.

We assume the Report dated January 1997 is the second "1996" Report referenced in the 7 January 1998 Facility Description. You may wish to confirm this with the Navy in the off chance that there is yet another 1996 report not yet produced.

On another subject, we are amazed by the 27 January 98 response to our Freedom of Information Act request for the safe separation distance calculations from the December 1996 NISE Report. After two FOIA's and many months we finally have confirmation that this data once existed and was "discarded" at some undisclosed point in time. As expected, no claim is made that release of the safe separation data would be barred by national security. It is not released only because it no longer exists. No credible explanation is provided for the destruction of this data and it is simply absurd to link discarding the calculations to on-site empirical measurements. Instrument readings taken at a few specific on site locations have nothing to do with the general mapping of potential hazard zones.

It is incomprehensible that a testing agency would permit calculations underlying its report to be destroyed. One would expect that record disposal policies as well as good scientific practice would foreclose this from happening. The destruction of this data should itself be enough to establish that nothing the Navy can or will produce informally is a substitute for a complete consistency determination.



## The Beacon

Box 352  
3844 Channel Islands Blvd  
Oxnard, CA 93035

*An Ad Hoc Non-Profit Environmental Organization*

Mr. Mark Delaplaine  
Federal Consistency Supervisor  
California Coastal Commission  
45 Fremont, Suite 2000  
San Francisco, CA 94105-2219

February 4, 1998

Re: SWEF Port Hueneme

Dear Mr. Delaplaine,

The NISE Report dated January 1997 discloses new impacts of SWEF operations on coastal zone resources and heightens the need for a full consistency determination.

The SWEF command noted on the title page that this Report was "Declassified" January 16, 1998. In fact, the body of the Report was never "classified" and could have been authorized for released at any time --- it was instead kept under wraps. This was done despite repeated Coastal Commission requests for RF data and Navy assurances (May 13, 1997 letter to the CCC) that:

"The Navy recognizes it's responsibilities under the law as well as to the community, and remains committed to keeping the Commission and the public informed about future additions or modifications to the facility or it's operations."

The year-late release of the January 1997 NISE Report still withheld Appendices D & E as "Confidential." This makes it impossible to verify the Report conclusions. The Appendices are not properly subject to a blanket claim of confidentiality. As the Navy is well aware, parallel Appendices of the December 1996 NISE Report labeled "Confidential" were released in a redacted version after a FOIA request by The Beacon. The following conclusions are supported by the data now available:

**1. A New Source Of RF Impact On The Coastal Zone is Revealed by the January 1997 NISE Report.**

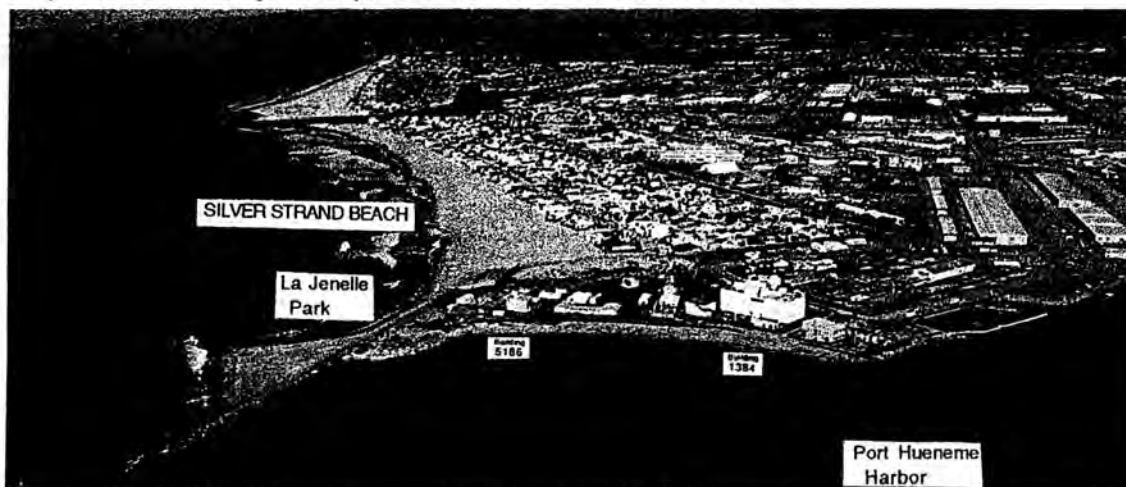
The stated purpose of the January 1997 NISE Report (page i) is to perform:

"... an Electromagnetic Radiation Hazard (RADHAZ) survey for the MK 74 MOD 6/8/AN/SPG-51C Fire Control System (FCS) located at the Naval Surface Warfare Engineering facility (SWEF), Building (Bldg) 5186 ...."



Where is Building 5186?

The January 7, 1998 Navy Facility Description of the SWEF says (page 17) "Four Primary buildings are utilized for equipment installations at the SWEF complex". These include building 1384 (the largest structure) and building 5186. Below is the complex and its adjacent public areas of the coastal zone:



Building 5186 is less than 200 feet from the perimeter fence making it the closest building in the SWEF complex to public lands:



Building 5186 overlooks La Jenelle Beach Park -- a recreational resource held in public trust by the State Lands Commission:



When did the MK 74 MOD 6/8/AN/SPG-51-C become operational on Building 5186?

The January 7, 1998 Facility Description provided to the CCC by the Navy indicates this emitter first became operational on Building 5186 in 1996. This information is provided in Table 1 of the Facility Description reproduced below:

TABLE 1 History of Planned (per the 1978 Master Plan) and Actual Systems Installed and Operated at SWEF					
Fire Control and Search Radar					
System	Building	Type	1978 SWEF Master Plan (Pre-existing)	Operational Date	Removal Date
MK 155 Mod 0 Point Defense	1292	Emitter (Fire Control)	(Pre-existing)	1976	1995
MK 76 AN/SPG-55B	5186	Emitter (Fire Control)	(Pre-existing)	1976	1995
MK 23 TAR	1384-SWEF	Emitter (Search Radar)	Included	1986	NA
MK 86 AN/SPQ-9A AN/SPQ-60	1384-SWEF	Emitter (Fire Control) (Search Radar)	Included	1986	NA
MK 74 AN/SPO-51C	1384-SWEF	Emitter (Fire Control)	Included	1986	1997
MK 57 MOD 3 Radar A Radar B	1384-SWEF	Emitter (Fire Control)	Included	1988	NA
MK 92 Mod 2 CAS and STIR	1384-SWEF	Emitter (Fire Control)	Included	1986	NA
MK 74 MOD 14 TARTAR SM-2/NTU	1384-SWEF	Emitter (Fire Control)	Included	1990	NA
MK 74 MOD 6/8	5186	Emitter (Fire Control)	Included	1996	NA

The system designation in Table 1 for the new building 5186 emitter is incomplete since it does not include the radar associated with that system. As shown in the January 1997 NISE Report its proper full name of this TARTAR system is "MK 74 MOD 6/8/AN/SPG-51C".

What Potential Hazards Result From the New Installation On Building 5186?

The January 1997 NISE Report discloses that The Emitter installed on Building 5186 in 1996 may expose persons on vessels using the entrance channel of the Port of Hueneme to RF levels in excess of the Permissible Exposure Limit (PEL). Because Appendices D and E are not provided we do not have actual exposure readings either for persons on vessels or persons using adjacent public recreational areas. The same dismissive method of analysis used in the December 1996 NISE Report is employed here to explain away any potential hazard from the measured exposure. We have challenged this method of analysis in comments filed with the Commission with regard to the December 1996 NISE Report.

The 1997 NISE Report documents added coastal zone impacts including:

(1) Building 5186 is a new source of RF exposure that only began in 1996. It is the part of the SWEF complex closest to public recreational resources.

(2) The new impact on vessels is additive and cumulative to the potential exposure Building 1384 disclosed in the December 1996 NISE Report.

(3) The new exposure potentially impacts lower profile vessels and not only deep draft freighters. This results from the location of the emitter on Building 5186 at a height of 42 feet rather than the 70 to 100 foot height of emitters on building 1384.

## **2. The Navy Provided Incomplete and Misleading Information Regarding the TARTAR MK 74 AN/SPG-51C Emitter.**

In the year between completion of the January 1997 NISE Report and its tardy disclosure and redacted release, the Navy responded to an inquiry by The Beacon regarding the status of the MK 74 AN/SPG-51C system. The Beacon wrote to the Navy on September 18, 1997 in response to a published Navy invitation for comments on its December 1996 NISE Report on the SWEF.

One of four issues raised in our letter was the status of the MK 74 AN/SPG-51C emitter that was diagramed as installed on building 1384 in the December 1996 NISE Report. This emitter was not tested because it was said in the December 1996 NISE Report (page 1) to be "inactive" and "partially de-installed" and in a "non-operational condition." We noted in our letter to the Navy that when this emitter was last tested in 1989 readings were obtained of potential exposure to persons in the complex greatly in excess of PEL (no readings were taken outside the complex). We inquired whether this emitter's non-functional status was "... permanent or merely temporary at the time of the Report?" In a response dated October 31, 1997 the Navy says of this emitter:

"The MK 74 TARTAR AN/SPG-51C was removed permanently in April 1997.

It was last used in late 1993, and there are no plans to reinstall it at the SWEF complex."

The January 1997 NISE Report reveals the above statement to be incomplete and lacking in openness for at least the following reasons:

(1) Obviously, the reader understands from the above statement that this emitter

need not be tested because it is no longer at the SWEF complex. Actually, the January 1997 NISE Report discloses that at the time the statement was written a MK 74 MOD 6/8/AN/SPG/51C TARTAR system had been operational on building 5186 for at least ten months.

(2) The Building 5186 TARTAR emitter was not only in place within the SWEF complex but it had been tested by NISE and found to potentially illuminate vessels with RF emissions in excess of the Permissible Exposure Limit (PEL).

(3) Even if there are some differences in the new Building 5186 TARTAR installation from the version of this system removed from Building 1384, this cannot excuse an incomplete and misleading response.

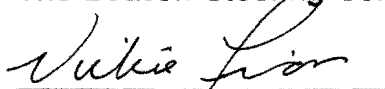
Further, in the same October 31, 1997 letter the Navy seeks to minimize potential RF exposure with the further comment that:

"... mainbeam safe separation distances are elevated anywhere from approximately 70 to 100 feet above the water..."

This comment chose not to provide the information that the TARTAR MK 74 MOD 6/8/AN/APG/51C was installed and operational at an elevation of only 42 feet on one of the SWEF complex buildings.

The current experience reflects the past two and half years of Navy non-responsiveness to the Coastal Commission request for an after the fact consistency determination. It clearly points to incomplete, misleading and unreliable Navy compliance and communication. Only a complete consistency determination on the entire SWEF complex and all its operations can protect the coastal resources for which the California Coastal Commission is responsible under the law.

The Beacon Steering Committee

  
Vickie Finan

  
Gordon Birr

  
Lee Quaintance

  
Diane Markham

  
Jean Rountree

**Surfrider Foundation**

Ventura County Chapter

February 12, 1998

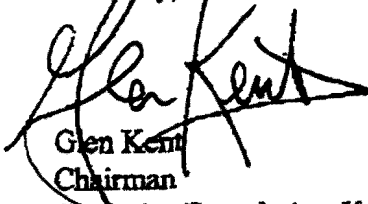
Peter Douglas, Executive Director  
California Coastal Commission  
45 Fremont Street Suite 2000  
San Francisco, CA 94105

Mr. Douglas,

The Surfrider Foundation Ventura County Chapter(SFVCC) is concerned about surfers and other recreational beach users being subjected to radar transmissions in the vicinity of the Navy radar facility (the SWEF facility) at the southern end of Silver Strand Beach in Oxnard. This issue was previously raised in a letter from the Surfrider Foundation to the FAA, Western Pacific Region, on February 6, 1996. The area in question is popular for surfing, diving, fishing, and beach going. We want to reiterate our concern along with community members that recreational beach users have the *potential* to be exposed to radar transmissions unbeknownst to them.

Surfrider Foundation Members have experienced a practice at Point Mugu Naval Air Warfare Center, Oxnard, whereby surfers are removed from the water by Base security personnel during the transmission of radar from Building 761 on the West End of Point Mugu. This is an obvious contrast in practice for warning non-personnel in the vicinity of radar transmissions between two Navy facilities. We question why the SWEF facility does not have a mechanism for warning individuals in the vicinity of their radar transmission, similar to the Point Mugu practice. We share community members' goal in requiring that a consistency determination be conducted on the SWEF facility, providing a baseline on radar transmissions and a safe-separation determination for non-personnel from the different radar systems. Perhaps a warning practice for non-personnel in the vicinity could be implemented.

Sincerely,



Glen Kent  
Chairman

Surfrider Foundation Ventura County Chapter

**Surfrider Foundation**

Ventura County Chapter

**GLEN KENT**  
CHAPTER CHAIRMAN☒ Blue Water Task Force

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Glen Kent

**Beacon**Box 352  
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FEB 18 1996

CALIFORNIA

*An Ad Hoc Non-Profit Environmental Organization*

**TO :** MARK DELAPLAINE  
California Coastal Commission  
(415) 904-5400

Date: 2/18/98

**FROM:** LEE QUAINANCE  
The Beacon  
Ph # & FAX : 805-985-9595

Number of Pages: 4

**RE: SWEF SAFE SEPARATION DISTANCES**

As you know, the Navy response of January 27, 1998 to our FOIA said the safe separation distances had been calculated for the controlled and uncontrolled environment as part of the December 1996 NISE report preparation -- but then "... discarded after the on-site empirical data was collected by actual field measurements." No claim is made of confidentiality.

We hope the CCC will seek an answer as to when this destruction occurred of data sought for so long by The Beacon and by the CCC. The first CCC written reference relevant to the need for safe separation distance data is in the letter to the Navy of July 24, 1996 noting "... we will also seek clarification as to whether any of the past (or future) radar testing has taken (or will take) into account the different standards applicable for 'controlled' and 'uncontrolled' environments." This letter does not expressly mention "safe separation distances" but, as the Navy well knows, calculation of the safe separation distances is an inherent part of consideration of effects on the controlled and uncontrolled environment.

It appears the calculations could easily be regenerated by the Navy without any field work. Attached are pages 2 and 3 of the 1989 NICE Report describing how safe separation distance calculations are made utilizing a proprietary computer program.

Based on the "hazard areas" chart (figure 27 - copy attached) from the 1978 Navy preconstruction Environmental Impact Assessment we know that safe separation distances extend over public areas of the coastal zone. The destroyed calculations, using current standards, would be expected to show safe separation distances extending further over public areas of the uncontrolled environment.

1989 NICE Report PAGE 2

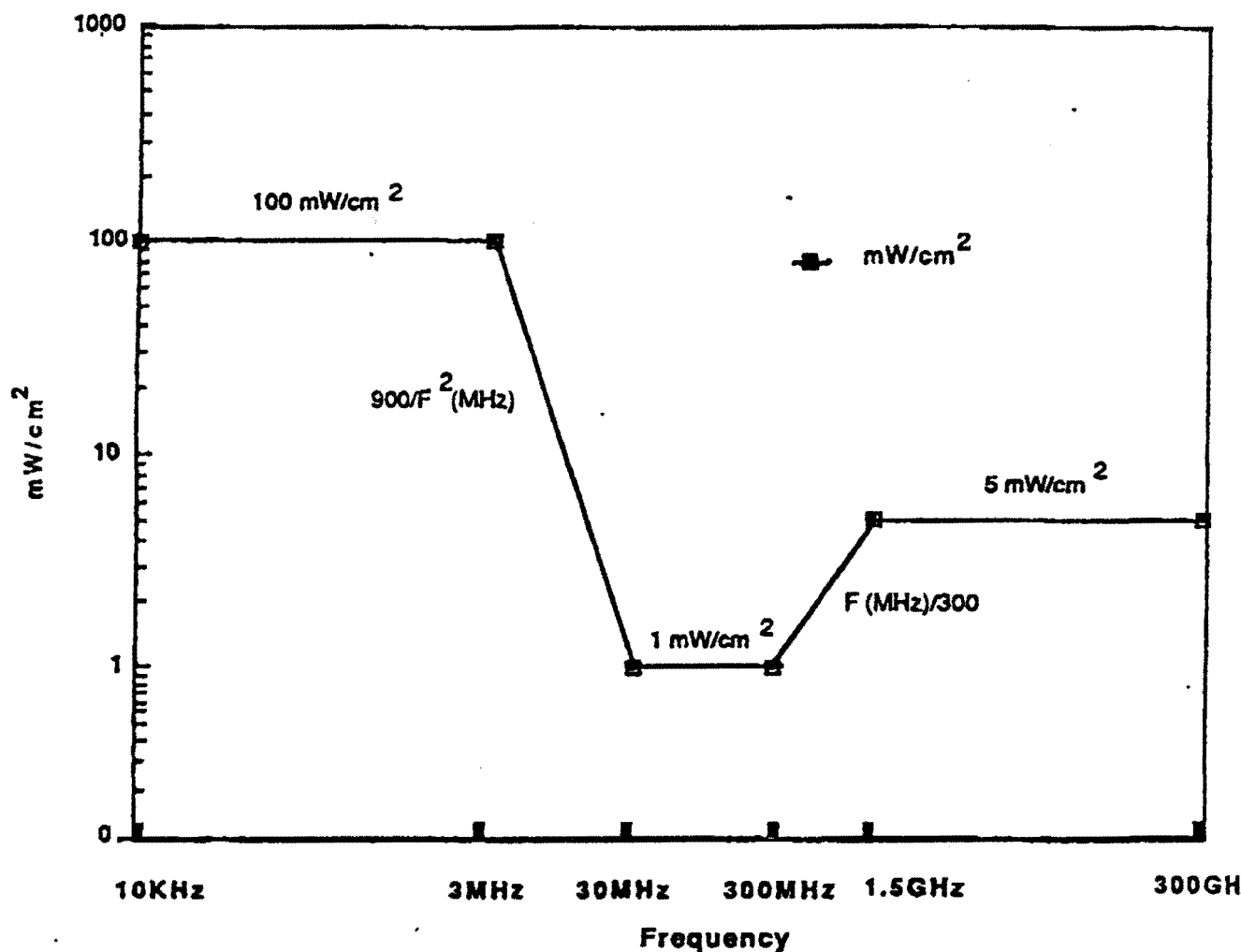


Figure 1: Permissible Exposure Limits (PELs)

\* Based on limits from OPNAV Notice 5100

## 2.2 THEORETICAL ANALYSIS

The theoretical minimum safe separation distances for HERO, HERF, and HERP for each emitter were calculated utilizing the NAVELEXCEN Charleston radiation hazard (RADHAZ) program. This program calculates the peak electric field intensity and power density in the near and far field regions and assumes perfectly matched components, maximum antenna gain, no loss transmission lines, and no atmospheric

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or terrain induced attenuation. Because of the assumptions that the program makes, the theoretical hazard distances are typically considered to be conservative. See appendix A for a detailed list of theoretical hazard distances for each emitter identified on the base.

### 2.3 TEST PROCEDURE

Once the theoretical analysis was completed for each emitter, the data was examined to determine which antennas could radiate potentially hazardous electromagnetic fields that would impinge on ordnance or fuel handling areas. Personnel levels were also taken into account and all transmitting antennas were visually inspected to make sure that they were located as to avoid any potential HERP problems. Test points were then selected to test all emitters for potential HERO, HERF, or HERP problems. The measurements taken at these test points, were then used to help verify the theoretical predictions and to help make recommendations to alleviate any radiation hazards.

All radar systems tested were radiated at maximum power with the lowest elevation used under normal operation. High power transmitter rooms were also tested for leaking waveguides which might cause a hazard to personnel.

#### 2.3.1 TEST LOCATIONS

Below is a list of the test points for the Naval Ship Weapon Systems Engineering Station which were determined during the theoretical analysis.

<u>TEST POINT</u>	<u>LOCATION</u>
TP1	RADAR Tower Roof of Building 5186
TP2	Roof of Building 1384 Behind MK-86
TP3	Roof of Building 1384 Base of TAS Antenna
TP4	Roof of Building 1384 Behind MK-74
TP5	Beach Area Behind Building 1384
TP6	Yard Next to Building 1292

#### 2.3.2 SYSTEMS TESTED

The following is a list of equipment tested at NSWES and what building it is located in. Figure 2 shows the equipment layout on building 1384.

<u>EQUIPMENT</u>	<u>BUILDING</u>
MK-155 MOD 0 Basic Point Defense System	1292
MK-76 AN/SPG-55B, MOD 9 Terrier System	5186



## 1978 ENVIRONMENTAL IMPACT ASSESSMENT

FIGURE 27

