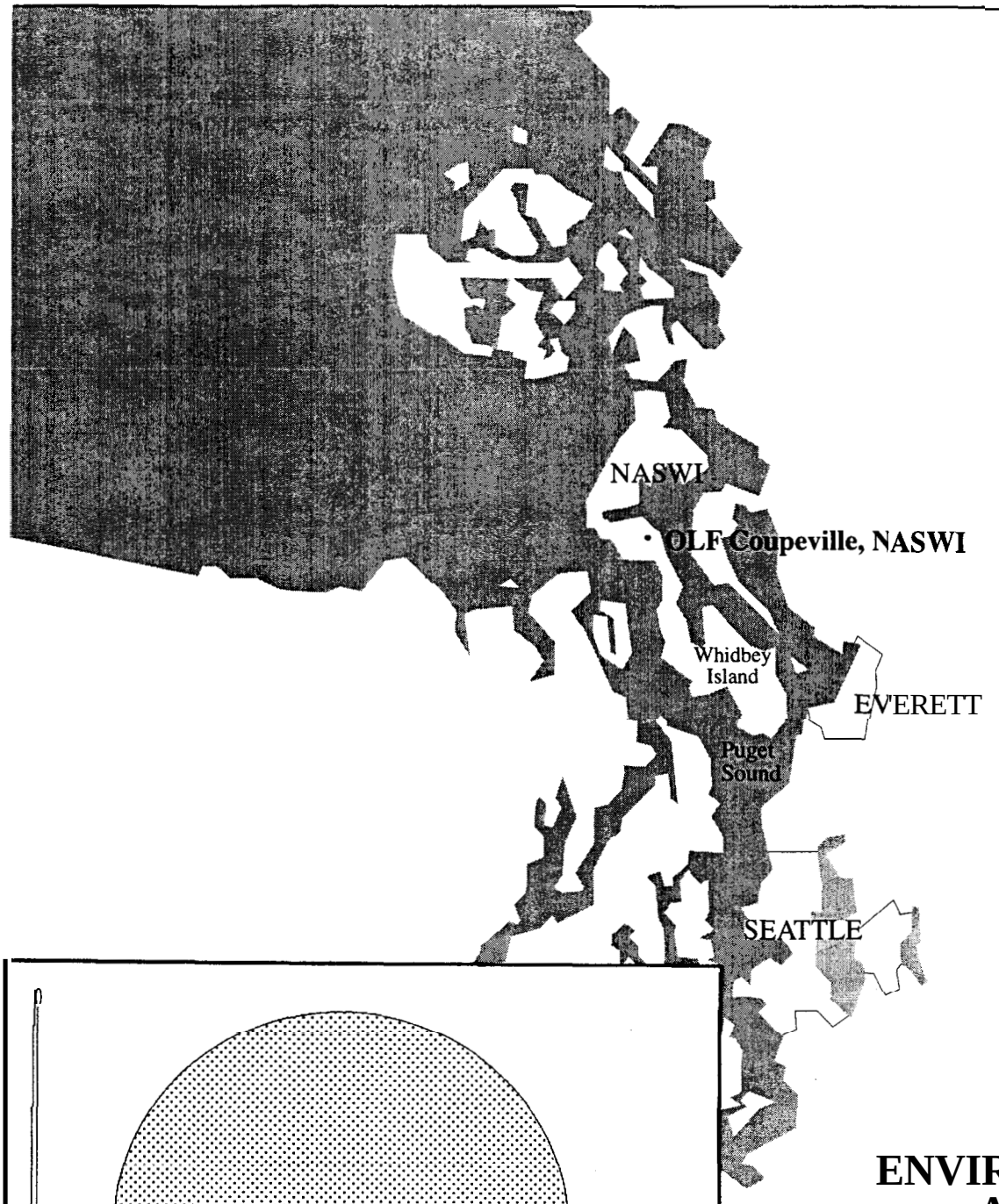
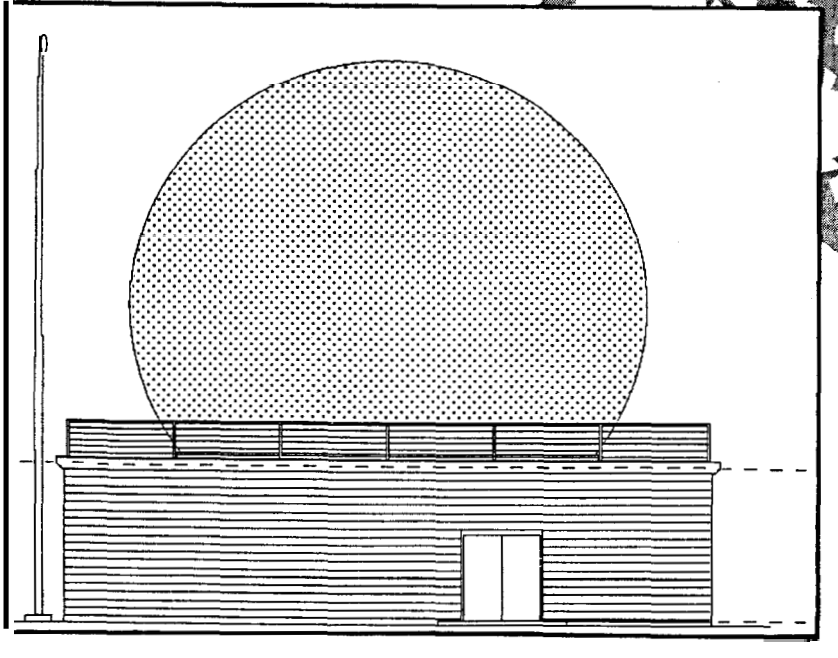
Naval Air Station, Whidbey Island
Oak Harbor, Washington





ENVIRONMENTAL ASSESSMENT

for Electronic Combat Training Facility at OLF Coupeville, NASWI

March *1997*

Environmental Assessment

ELECTRONIC COMBAT TRAINING FACILITY
NAVAL AIR STATION, WHIDBEY ISLAND, WA

DEPARTMENT OF THE NAVY

Point of Contact: (b) (6)

Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 7th Avenue Northeast
Poulsbo, Washington 98370-7570

(360) 396-0920
FAX (360) 396-0854

24 March 1997

ABSTRACT

The Department of the Navy (Navy) has prepared this Environmental Assessment (EA) to evaluate the potential environmental impacts associated with constructing and operating an additional Electronic Combat Training (ECT) facility at Naval Air Station Whidbey Island (NASWI), Island County, Washington. The proposed ECT facility includes a single-story structure with a round dome, or radome, mounted on top of the structure. The total height of the proposed facility is 45 feet, with an adjacent telescoping antenna of up to 45 feet. The Navy may ultimately locate the antenna inside the radome resulting in a 5-foot increase in the height of the facility, but no outside antenna. In either case, the building would be surrounded by a security fence with a gravel parking lot accessed by a gravel driveway from Keystone Road. The proposed ECT facility would house an electronic device called a threat signal generator or Device AN/FSQ-T22. The device does not use radar. Current Navy training practices involving electronic warfare aircraft (EA-6B and P-3/EP-3) at NASWI require the sending of controlled electronic signals to enable aircrews to practice rapid identification, location, and reaction to simulated threat signals from multiple ground sources. A single existing ECT facility (Device 15E34A) currently operates at NASWI, Seaplane Base. To satisfy current training requirements and improve aircrew training capability, a second threat signal source from another ECT facility is needed. This additional capability is required to support current and follow-on EA-6B hardware/software improvements and to maximize in-flight aircrew training in the Pacific Northwest. Continued lack of this type of training facility would affect aircrew training requirements and ultimately combat readiness.

The Navy conducted an assessment of 14 alternative locations for the proposed ECT facility in northwest Washington and Oregon (See Appendices A and B). Based on physical and operational exclusionary and evaluative criteria, only one Naval installation was acceptable: Outlying Field (OLF) Coupeville at NASWI.

The proposed site for the ECT facility is in central Whidbey Island about 2.5 miles southeast of the town of Coupeville, Washington. The Navy currently uses OLF Coupeville as a training or bounce runway for simulated night-time carrier landings by Navy aircraft. Existing Navy development at OLF Coupeville is relatively minor and includes a lighted single runway, small tower and operations building, fire station, water storage tank, caretaker residence, and other buildings. Approximately 72 percent of OLF Coupeville is in outleased agricultural use as airfield buffer, primarily non-irrigated hay grass.

This assessment considered the detailed physical siting requirements, operational considerations, and electronic requirements of the operator, the Electronic Combat Wing, U.S. Pacific Fleet, NASWI. This Navy organization would operate and maintain both the existing and the proposed ECT facility. Within OLF Coupeville, two potential sites were identified by the Navy: Site #1, located to the southwest and Site #2, located to the northeast. The preferred site is in the southwest comer between the runway and Keystone

Road. Construction and operation of the proposed ECT facility would not affect current or planned air operations at the airfield.

OLF Coupeville is adjacent to the southeastern boundary of the 17,400-acre Central Whidbey Island Historical District (CWIHD, or the District) and Ebey's Landing National Historical Reserve (ELNHR, or the Reserve). The CWIHD and ELNHR have a contiguous boundary and the CWIHD has been placed on the National Register of Historic Places (NRHP, or the National Register). The preferred site for the proposed ECT facility is approximately 300 feet outside of and east of the District/Reserve boundary, which parallels Keystone Road.

This EA addresses potential impacts of construction and land-based operation of the proposed ECT facility at the preferred site at OLF Coupeville. In addition, the No Action Alternative (as required by the National Environmental Policy Act) is addressed. This EA does not address aircraft operations at NASWI or OLF Coupeville. Aircraft in contact with the proposed ECT facility would be flying within the Darrington Airspace and Olympic Military Operating Area (MOA) in Washington State. Aircraft operations at NASWI are currently being evaluated in a separate ongoing Environmental Impact Statement (EIS) being prepared by the Navy.

Principal areas of concern addressed in this EA include the potential impacts of the proposed ECT facility on the electromagnetic environment, cultural resources, and aesthetics/visual quality. Potential electromagnetic impacts, such as equipment interference, were addressed as part of the Navy's Site Approval process. The Navy would comply with all applicable Institute of Electrical and Electronic Engineers (IEEE) standards.

To evaluate cultural resources, the Navy held several meetings with members of the Trust Board of ELNHR to discuss their concerns regarding potential visual impacts to the nearby Reserve. Input from these meetings led the Navy to include several project enhancements as part of the Proposed Action specifically designed to respond to potential visual concerns and to avoid any project-related impacts to the cultural resources in the area. The Trust Board would prefer that the ECT facility be located at a site that is not visible from the Reserve. As detailed in the Alternatives Analysis (see Appendix B), however, no other site meets the Navy's unique ECT facility requirements. Therefore, no other site is suitable for the Proposed Action.

Aesthetics/visual quality is particularly important in determining the impact of the proposed project on the ELNHR. The site of the proposed ECT facility was selected to minimize the visual impact within the viewshed of Smith Prairie. Due to operational and engineering requirements, the proposed ECT facility height cannot be lowered further or redesigned to appear as an agricultural structure. Based on visual simulations, the general public would be able to view the proposed ECT facility along public roadways. However, the majority of public viewing occurs along State Route (SR) 20 and Patmore Road north of OLF Coupeville, approximately one mile from the proposed site.

Furthermore, most public viewing opportunities from the CWIHDELNHR would not be significantly compromised because the proposed ECT facility would be sited near forest land in the southwest corner of OLF Coupeville, which serves as a visual backdrop. Project enhancements included in the Proposed Action, such as vegetative screening and coloration of the radome atop the proposed structure, further avoid or minimize impacts to the Reserve.

On February 5, 1997, the Navy forwarded all pertinent project information to the Washington State Office of Archaeology and Historic Preservation (OAHP) for review following the guidelines of 36 CFR 800.5(b). The Navy requested OAHP review and concurrence on a "no effect" determination under Section 106 the National Historic Preservation Act of 1966 (16 USC § 470), as amended. Following review, the OAHP responded in a letter dated March 6, 1997, stating that it has determined that the proposed project would have "no adverse effect" on the adjacent ELNHR, rather than "no effect." The Navy has considered OAHP's recent review and determination and agrees with the determination of "no adverse effect.''

Based on the analysis in this EA and the results of an Alternatives Analysis (see Appendix B), a Finding of No Significant Impact (FONSI) is recommended and the preparation of an EIS is not required.

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ACRONYMS AND ABBREVIATIONS

15E34A	Existing ECT Facility at NASWI
AFB	Air Force Base
AICUZ	Air Installation Compatible Use Zone
APZ	Accident Potential Zone
BMPs	Best Management Practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CW	Continuous Wave
CWIHD	Central Whidbey Island Historic District, or the District
CZMP	Coastal Zone Management Plan, State of Washington
dB	decibel
dBA	decibels-A weighted
DOA	Direction of Arrival (of electronic signals)
DoD	Department of Defense
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
ECT	Electronic Combat Training
EDNA	Environmental Designation for Noise Abatement
EIS	Environmental Impact Statement
ELNHR	Ebey's Landing National Historical Reserve, or Reserve
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESQD	Explosives Safety Quantity Distance
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FCLP	Fleet Carrier Landing Practice
FISC	Fleet and Industrial Supply Center
FM	Forest Management
FONSI	Finding of No Significant Impact
FR	Federal Register
GHz	gigahertz
gpm	gallons per minute
HERF	Hazards of Electromagnetic Radiation to Fuel
HERO	Hazards of Electromagnetic Radiation to Ordnance
HERP	Hazards of Electromagnetic Radiation to Personnel
ICGWMP	Island County Ground Water Management Program
IEEE	Institute of Electrical and Electronic Engineers
kW	kilowatt
Ldn	Day-night sound level

ACRONYMS AND ABBREVIATIONS (continued)

Leq	Equivalent sound level
LOS	Level of service- roadways
L-O-S	Line of Sight (straight line)
MHz	megahertz
MOA	Military Operating Area
MPE	Maximum Permissible Exposure
mph	miles per hour
msl	mean sea level
MTMC	Military Traffic Management Command
mW	milliwatt
NAAQS	National Ambient Air Quality Standards
NASWI	Naval Air Station Whidbey Island
NAVSTA	Naval Station
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	nitrogen oxide
NPS	National Park Service
NRCS	Natural Resources Conservation Service, USDA (formerly SCS)
NRHP	National Register of Historic Places, or National Register
NUWCD	Naval Undersea Warfare Center Detachment
NWAPA	Northwest Air Pollution Authority
NWI	National Wetland Inventory
NWSTF	Naval Weapons System Training Facility
O_3	ozone
OAHP	Office of Archaeology and Historic Preservation, State of Washington
OLF	Outlying Field
Pb	lead
PEL	Permissible Exposure Limits
PHS	Priority Habitat Species
PL	Public Law
PM_{10}	particulate matter less than 10 microns in diameter
ppm	parts per million
PSAPCA	Puget Sound Air Pollution Control Agency
pW	picoWatt
RADHAZ	Radiation Hazard
RF	radio frequency
RR	Rural Residential
SAR	specific absorption rate
SCS	Soil Conservation Service, USDA
SHPO	State Historic Preservation Officer
SO_2	sulfur dioxide
SR	State Route
SUBASE	Submarine Base

ACRONYMS AND ABBREVIATIONS (continued)

TSP	total suspended particulates
$\mu g/m^3$	micrograms per cubic meter
USC	U.S. Code
USFWS	U. S. Fish and Wildlife Service
USGS	U.S. Geological Survey
V/m	Volts/meter
W	Watt
W/kg	Watts/kilogram
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WSDOT	Washington State Department of Transportation

1.0 INTRODUCTION

The Department of the Navy (Navy) has prepared this Environmental Assessment (EA) to evaluate potential environmental impacts associated with constructing and operating an Electronic Combat Training (ECT) facility at Naval Air Station, Whidbey Island (NASWI), Island County, Washington. The proposed site at NASWI is Outlying Field (OLF) Coupeville in central Whidbey Island. This EA addresses potential impacts pursuant to the requirements of the National Environmental Policy Act (NEPA) and subsequent implementing regulations issued by the Council on Environmental Quality (CEQ) (40 CFR 1500).

1.1 AUTHORITY AND JURISDICTION

This EA was prepared in compliance with the statutory requirements of NEPA, as amended by Public Law (PL) 91-190, 42 USC 4347. Conformance with this law is being carried out under the provisions of the Navy's *Environmental and Natural Resources Program Manual* (OPNAVINST - 5090.1B, Nov. 1, 1994). As stated in OPNAVINST - 5090.1B - Chapter 2-4.3.1:

> "An EA is an analysis of the potential environmental impact of a proposed action. When the military does not know before-hand whether or not the proposed action will significantly affect the human environment or be controversial with respect to environmental effects, an EA is prepared. If on the basis of the EA, it is determined that the proposed action will not significantly impact the environment, a Finding of No Significant Impact (FONSI) will be prepared. Otherwise an Environmental Impact Statement (EIS) will be prepared."

The Navy must evaluate the Proposed Action (see Section 2.1) to determine the significance of potential impacts and the adequacy of proposed mitigation measures. Based on this evaluation, the Navy will decide whether a FONSI is appropriate or whether the Proposed Action would generate significant impacts, thus requiring preparation of an EIS. If the Navy's Proposed Action would not cause significant impacts to the environment, the Navy will prepare a FONSI for local public notification. Public notification will consist of: (1) newspaper publication of a summary of the FONSI; and (2) direct mailing of the full FONSI and the completed EA to interested parties such as regulatory/resource agencies, libraries, elected officials, and others identified during preparation of the EA. The FONSI news publication shall run for three consecutive issues in the "Public Notices" section of the *Whidbey News-Times* and *South Whidbey Record,* local newspapers with distribution in the area of the Proposed Action. If the Proposed Action does not result in a FONSI, the Navy would prepare an EIS.

1.2 PURPOSE AND NEED

As U.S. and foreign electronics technology has improved over the years, the Navy has sought to improve the training of its aircrews in the identification, location, and reaction to simulated threat electronic signals from multiple ground sources at one time. The mission of aircrews flying Navy electronic warfare aircraft is to detect and respond to ground threat signals. At the current time, only ground threat signals from Seaplane Base, NASWI, can be sent to aircrews training within the Darrington Airspace and Olympic Military Operating Area (MOA) in the Pacific Northwest. These two areas are located northeast and southwest of NASWI. Signals from multiple ground locations are deemed necessary to adequately train Navy aircrews.

The purpose of the proposed ECT facility analyzed in this EA is to provide the Navy with additional capability to support current and follow-on electronic warfare aircraft (designated EA-6B and P-3/EP-3) mission training requirements, make needed training hardware and software improvements, and to maximize in-flight Navy aircrew training in the Pacific Northwest. Continued lack of this type of training facility will affect aircrew training requirements and ultimately combat readiness. The proposed ECT facility houses an electronic device called a ground threat signal generator or Device AN/FSQ-T22. Current Navy training practices involving EA-6B and P-3/EP-3 aircraft at NASWI require the sending of controlled electronic signals to enable aircrews to practice rapid identification, location, and reaction to simulated threat signals from multiple ground sources. An existing ECT facility (Device 15E34A) at Seaplane Base, NASWI has been operating safely and effectively for several years. However, a single ECT facility cannot simulate multiple threat locations and Device 15E34A cannot be retrofitted to meet all of the Navy's needs. To satisfy current training requirements and improve aircrew training capability, a second ground threat signal source from another ECT facility is needed. The second ECT facility, along with the current ECT facility, would also allow simultaneous aircraft training within the Olympic MOA and Darrington Airspace, or two aircraft at different altitudes within the same MOA or airspace. Because of this need, the Navy proposes to construct and operate a second ECT facility at OLF Coupeville.

Three new ECT facilities were originally slated for installation in the Pacific Northwest in addition to the existing ECT facility at Seaplane Base, NASWI. The Navy examined multiple training scenarios, which included training both aircrews and shipcrews off the Washington coast. Joint Navy and Air Force training was also examined. Federal funding for three new ECT facilities, however, is unavailable. The Navy is limited to the building and operation of only one additional ECT facility. The training device has been acquired from the Air Force in conjunction with the retirement of the EF-111 aircraft. The device slated for installation at the proposed OLF Coupeville site has been in use by the Air Force at Cannon Air Force Base (AFB) in New Mexico since 1991. The structure and radome would be new facilities.

2.0 PROPOSED ACTION AND ALTERNATIVES

The following section describes the Navy's Proposed Action and alternatives evaluated in this EA. NEPA requires that the effects of a Proposed Action be evaluated for a reasonable range of alternatives and that these "action" alternatives be measured against an "existing conditions" or No Action Alternative.

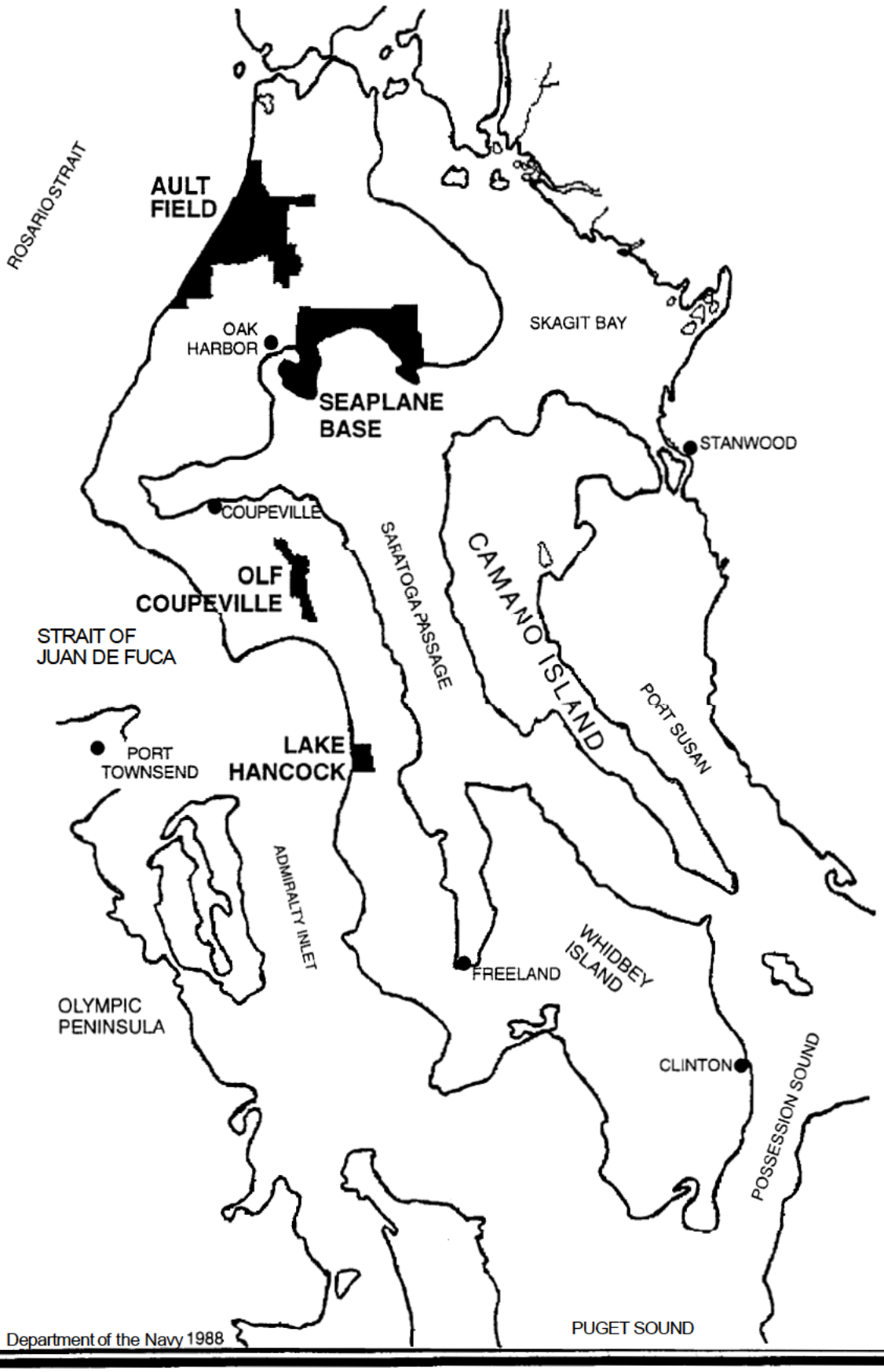
2.1 PROPOSED ACTION

The Navy proposes to construct and operate an ECT facility capable of providing needed electronic training for aircraft stationed and/or training at NASWI. The proposed ECT facility contains an electronic device called a ground threat signal generator or Device AN/FSQ-T22. This device does not generate radar signals. Current Navy training practices involving electronic warfare aircraft at NASWI require the sending of narrow beam controlled electronic signals directly to aircraft from the ground to enable aircrews to practice rapid identification, location, and reaction to simulated threat signals. One existing ECT facility is currently in operation at NASWI, Seaplane Base (Figures 2.1-1 and 2.1-2). Adequate training requires signals reaching the aircraft from at least two ground sources. Because of this need, the Navy proposes to construct and operate a second ECT facility.

Unlike conventional electronic tracking or surveillance systems, which typically radiate power in the higher megawatt range with long-duty cycles (the ratio of the time the system transmits an energy pulse to the time it listens for a return or echo), the Navy's ECT facilities are low-power systems (200 watts [W] to 5 kilowatts [kW] with a duty cycle of 2 to 4 percent). This means that the simulated signal emission would occur no more than 4 percent of the time. Both ECT facilities are tracking-type signal generation systems which use Federal Aviation Administration (FAA) standard aircraft-generated low power identification signals rather than reflected energy for tracking targets, allowing the utilization of lower power transmissions during normal operations.

The ECT electronic systems function with signal sensitivity levels greater than -100 dBm. Typical aircraft jammer power levels are attenuated by distance, atmospherics, and environmental effect, reaching the targeted systems at power levels of approximately 158 picowatts (pW) (158×10^{-12} W). This compares to a typical cell phone utilizing 600 milliwatts (mW) (600×10^{-3} W) of power where the user receives approximately 211 mW (211×10^{-3} W) of power. In comparison, the energy received on the ground from a jamming aircraft is a billion times smaller than that received by an average cell phone user.

The proposed ECT facility would consist of a radome resting on top of a single-story, 50 square foot building. The radome would house an AN/FSQ-T22 threat signal training device. The total height of the structure would be about 40 feet (Figure 2.1-3).



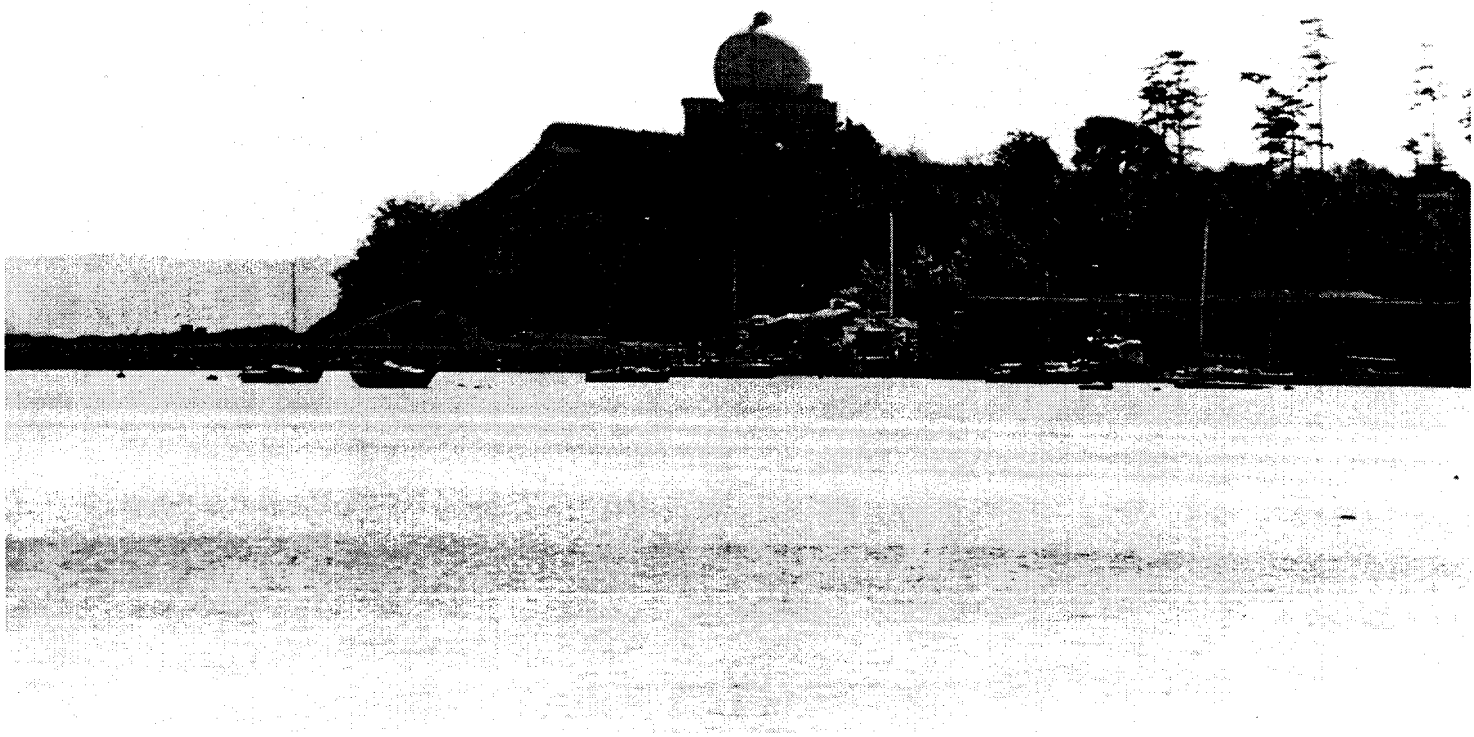
Source: Department of the Navy 1988

Not to Scale

Environmental Assessment
for Electronic Combat Training Facility,
OLF Coupeville, NASWI

NASWI Facilities

Figure 2.1-1



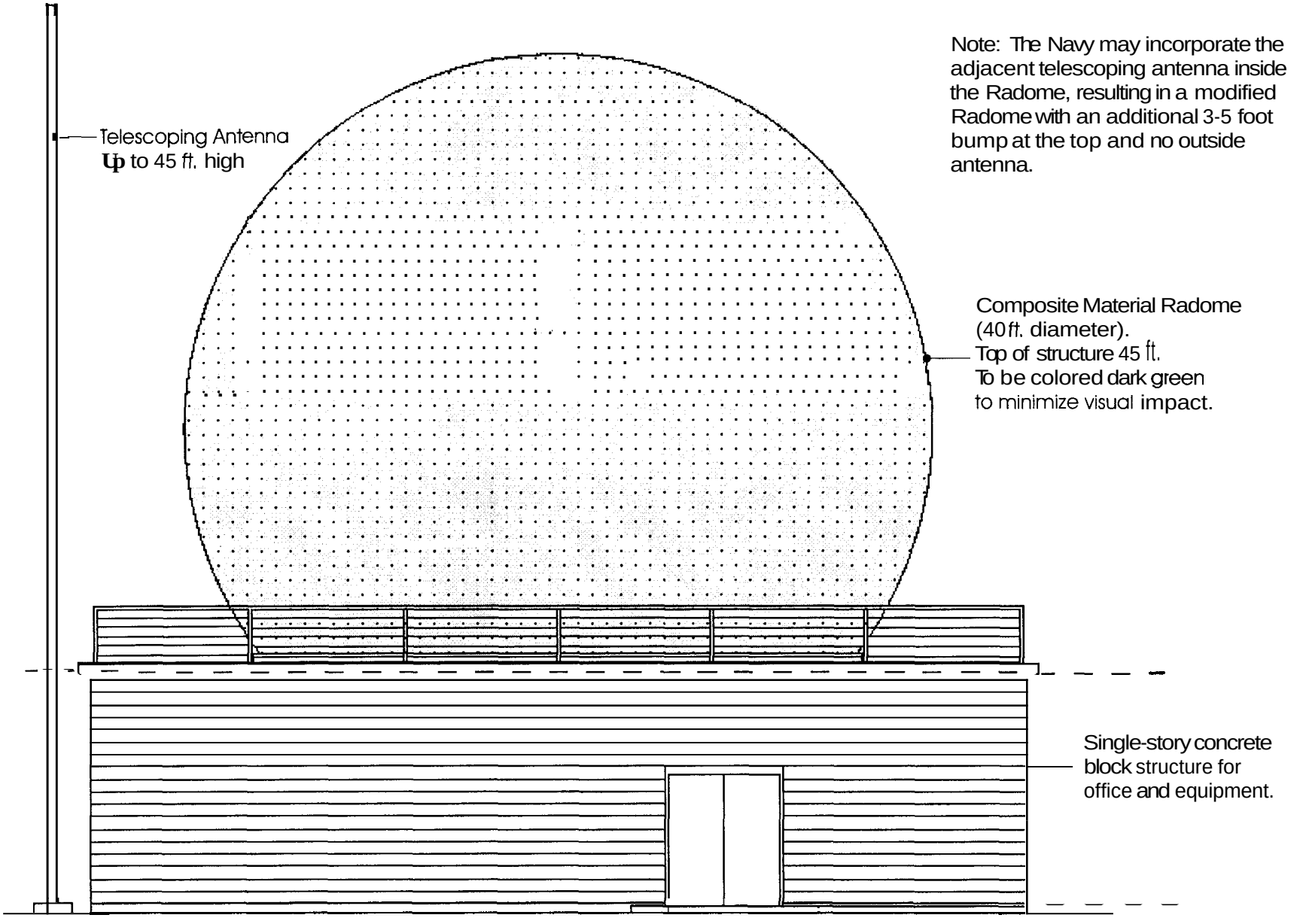
View to south of the existing ECT facility at Seaplane Base, NASWI.

Provided by EDAW, Inc. **1996**

Environmental Assessment
for Electronic Combat Training Facility,
OLF Coupeville, NASWI

Existing ECT Facility at Seaplane Base, NASWI

Figure 2.1-2



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Environmental Assessment
for Electronic Combat Training Facility,
OLF Coupeville, NASWI

Electronic Combat Training Facility Elevation
Preliminary Design

Figure 2.1-3

In addition, the facility would have an approximately 45-foot high free-standing telescoping antenna with sail and aircraft beacon as well as a parking area and security zone within a chain link fence. The Proposed Action would require an approximately 2.5 to 5 acre site.

2.2 ALTERNATIVE LOCATIONS CONSIDERED

2.2.1 Initial Locations Considered

The construction and operation of multiple ECT facilities in the Pacific Northwest has been a training goal of the Navy for many years. The study area has evolved over time with training program requirement changes and military project funding availability. Several potential Washington State sites were identified early on in the Navy's site selection process including sites at Port Angeles, Omak, Moses Lake, and Pacific Beach, Washington. These sites were initially considered when training activities were to be jointly conducted with the Air Force in eastern Washington, and when the Navy fleet in the Pacific Ocean was included in the training program. The Navy's training program, however, has now evolved to include Navy aircraft only flying out of NASWI. These Navy aircraft use two training airspaces over Washington State called the Darrington Airspace east of NASWI (primary area used) and the Olympic MOA west of NASWI. This MOA includes two sections: A and B. The location of the existing ECT facility at NASWI and the location and configuration of the two training airspaces are critical to the study area for a second ECT facility. For effective training of aircraft, the new ECT facility must be located sufficiently distant from the existing ECT facility to allow adequate signal separation. Moreover, the new ECT facility must be located in an area that does not have major obstructions, either natural or manmade, that would prevent the signal emissions from reaching aircraft training in the Darrington Airspace and the Olympic MOA. The initial set of candidate sites at Port Angeles, Omak, and Moses Lake did not meet all the requirements of the aircrew training program using these two airspace areas. Preliminary site investigations at Pacific Beach indicated that soils, wetlands, and erosional bluff hazards made this site potentially unacceptable for construction (see Appendix A). More information regarding the initial locations considered is available in Appendix B.

2.2.2 Identification of Candidate Locations

Following a review of the above sites, the Navy considered a range of other potential locations for a new ECT facility in an Alternatives Analysis (See Appendix B). Several Navy properties larger than 2 to 5 acres in size, primarily in the Puget Sound area, were considered and 14 candidate sites were identified including:

1. OLF Coupeville, NASWI Site #1 Southwest
2. OLF Coupeville, NASWI Site #2 Northeast

3. Lake Hancock, NASWI
4. Ault Field, NASWI
5. Seaplane Base, NASWI
6. Naval Station Pacific Beach
7. Naval Radio Station (T) Jim Creek
8. Submarine Base (SUBASE) Bangor
9. Puget Sound Naval Shipyard in Bremerton
10. Naval Station (NAVSTA) Everett
11. Naval Weapons Station, Detachment Port Hadlock (Indian Island)
12. Naval Undersea Warfare Center Detachment (NUWCD) Keyport
13. Fleet and Industrial Supply Center (FISC) Manchester
14. Naval Weapons System Training Facility (NWSTF) Boardman, Oregon

Locations in the Puget Sound area are illustrated in Figure 2.2-1.

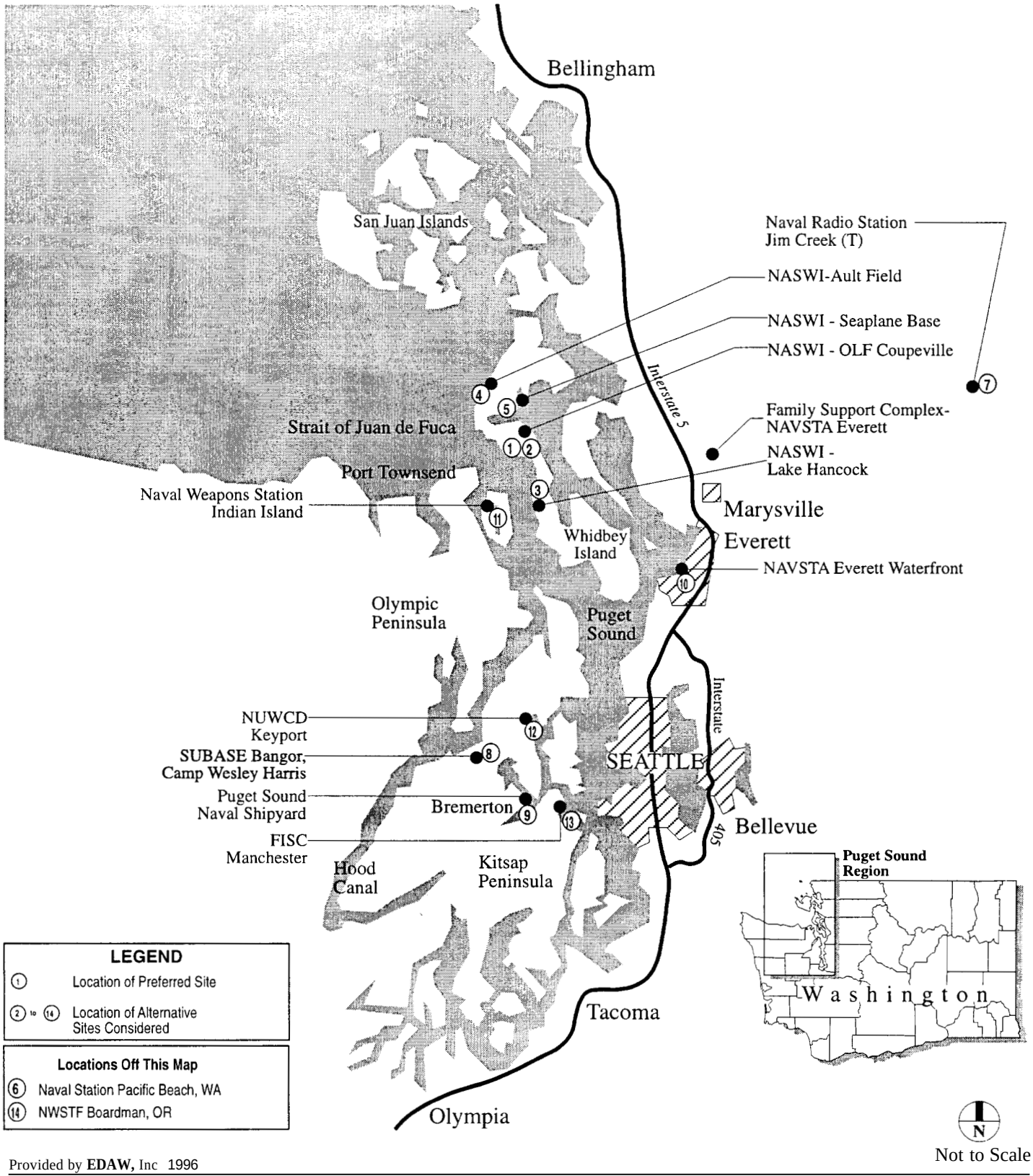
These 14 potential locations were evaluated according to a set of criteria. The Navy developed five exclusionary criteria, all of which must be met for a site to be considered. In addition, the Navy identified one evaluative criterion that could serve to distinguish the desirability between sites in the event that multiple sites met the exclusionary criteria.

The five exclusionary criteria are:

- Line of Sight (L-O-S) and Terrain Considerations – The signal used to track aircraft and radio communications as well as signals emitted for training do not "bend" in the atmosphere. Their physical properties require an AN/FSQ-T22 device to be positioned in a location from which the aircraft being tracked can maintain straight line, or L-O-S, between the ECT facility and the aircraft during a training flight (Figure 2.2-2).

- Loiter Airspace Reauirements – The area surrounding the AN/FSQ-T22 device must have sufficient airspace in which aircraft can loiter for a required time while conducting surveillance training. The primary loiter airspace for the conduct of this form of training is the Darrington Airspace. The secondary or lesser-used loiter airspace is the Olympic MOA (Figure 2.2-3, which shows the existing ECT facility and the proposed facility for reference).

- Distance From the AN/FSQ-T22 Device to the Militarv Operating Area and Airspace – Routine operations involve aircraft tracking in the range of 30 to 100 miles, with a minimum allowable range of near overhead and a maximum noted tracking range of approximately 125 miles. Beyond 100 miles from the AN/FSQ-T22 device, reception of the signals is severely degraded.



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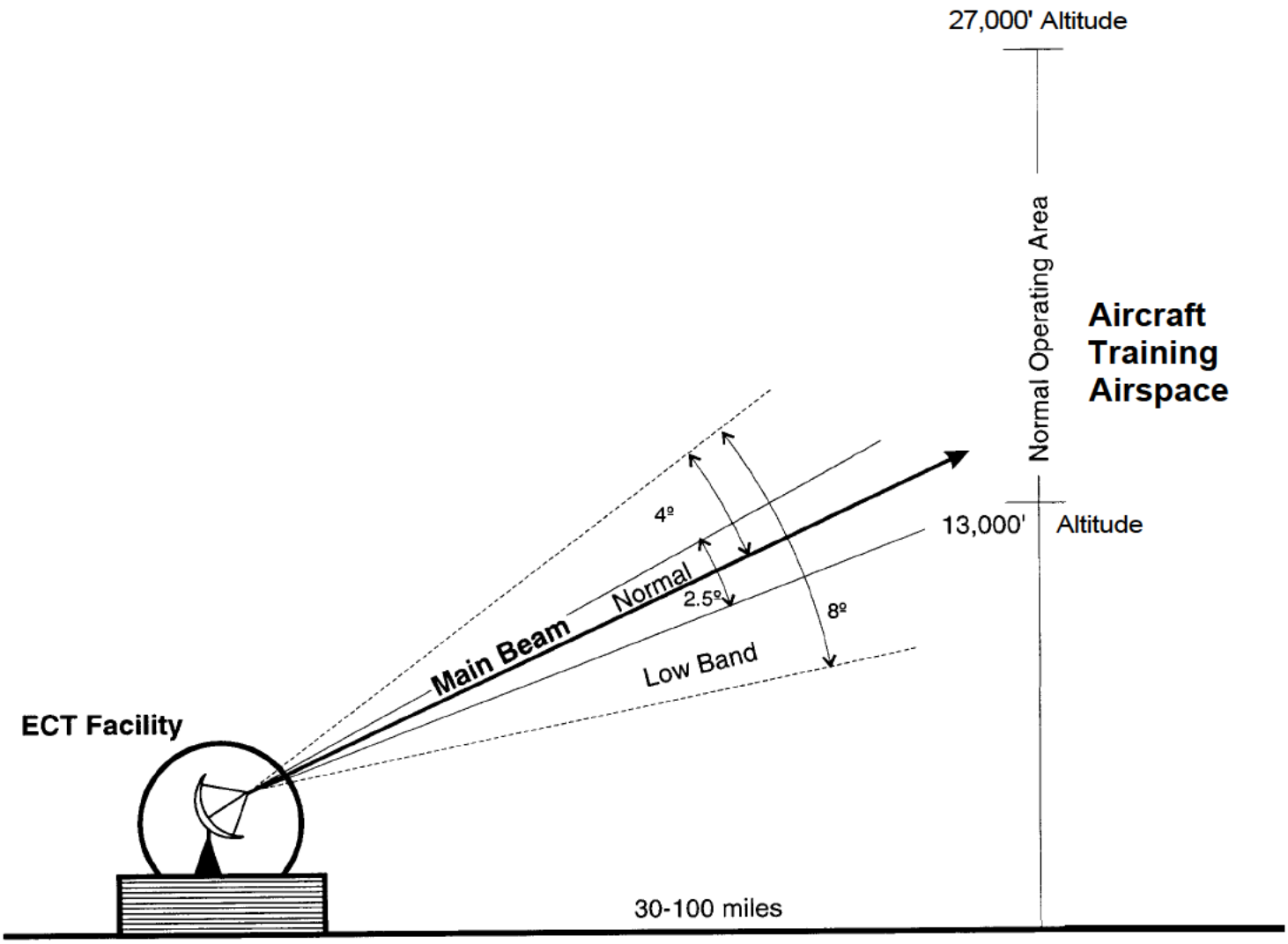
Alternative Locations for the ECT Facility in the Puget Sound Region

Figure 2.2-1



Source: **NASWI** 1996

Not to scale

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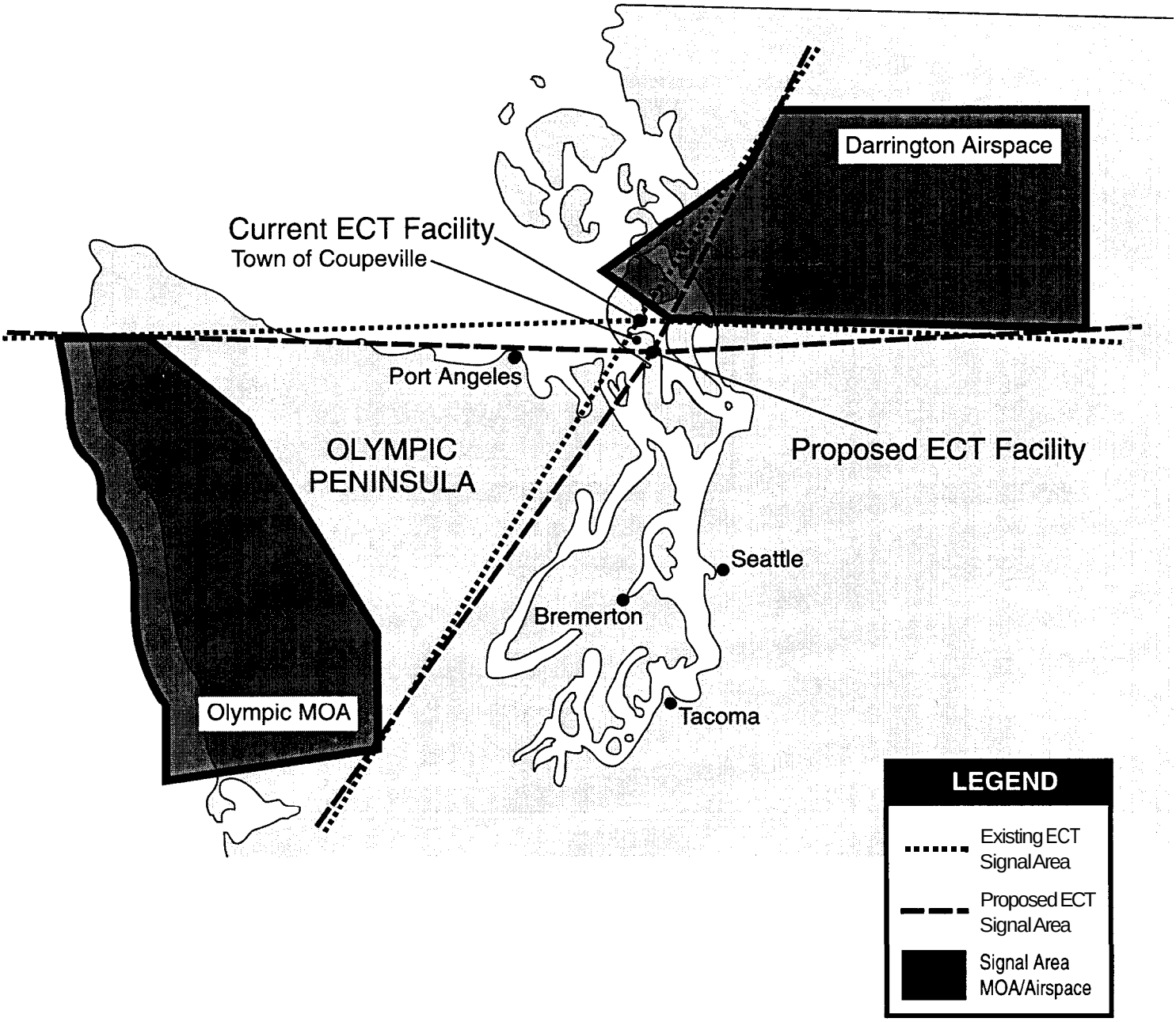
OLF Coupeville, **NASWI**

ECT Facility Norma Operating Area

Figure 2.2-2



Source: NASWI 1996

Not to **scale**

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OLF Coupeville, **NASWI**

Darrington Airspace and Olympic MOA in Relationship to the ECT Facilities

Figure 2.2-3

- Signal Direction of Arrival (DOA) SeDaration – EA-6B aircrews require the ability to routinely practice the rapid identification and location of simulated threat signals generated from multiple sites on the ground in coherent scenarios that arrive at the aircraft from diverse directions. A DOA separation of more than two degrees is required. This requirement translates to approximately 6 miles (minimum) required between the existing ECT facility at Seaplane Base, NASWI, and a potential site for a new ECT facility.

- Navy Construction Site Availability – A new site must have the physical space available for construction of the ECT facility housing the AN/FSQ-T22 device, a parking and security zone, site access, utilities, and sufficient clearance around the building site such that surrounding structures do not obstruct or prevent reception of the generated threat signal by aircrews. Potential sites must be on existing Navy property because funds are not available to acquire non-Navy property.

For sites meeting the above criteria, an additional evaluation factor was:

- Site Operation Coordination and Mission Interface – Extensive coordination between site operators at the existing ECT facility at Seaplane Base, NASWI, and a new ECT facility is necessary to support the requirement for training scenario development and conduct. Therefore, proximity between the new ECT facility and the existing ECT facility at Seaplane Base, NASWI, is preferred.

The results of the alternative site analysis are summarized in Table 2.2-1. Only Site #1 at OLF Coupeville met the criteria necessary for the siting of the proposed ECT facility. All other locations did not meet at least one exclusionary criterion and were therefore eliminated from further consideration. More explanation of candidate sites, the evaluation criteria and methodology, and the results of the Alternatives Analysis is available in Appendix B.

2.2.3 Evaluation of Alternative Sites at OLF Coupeville

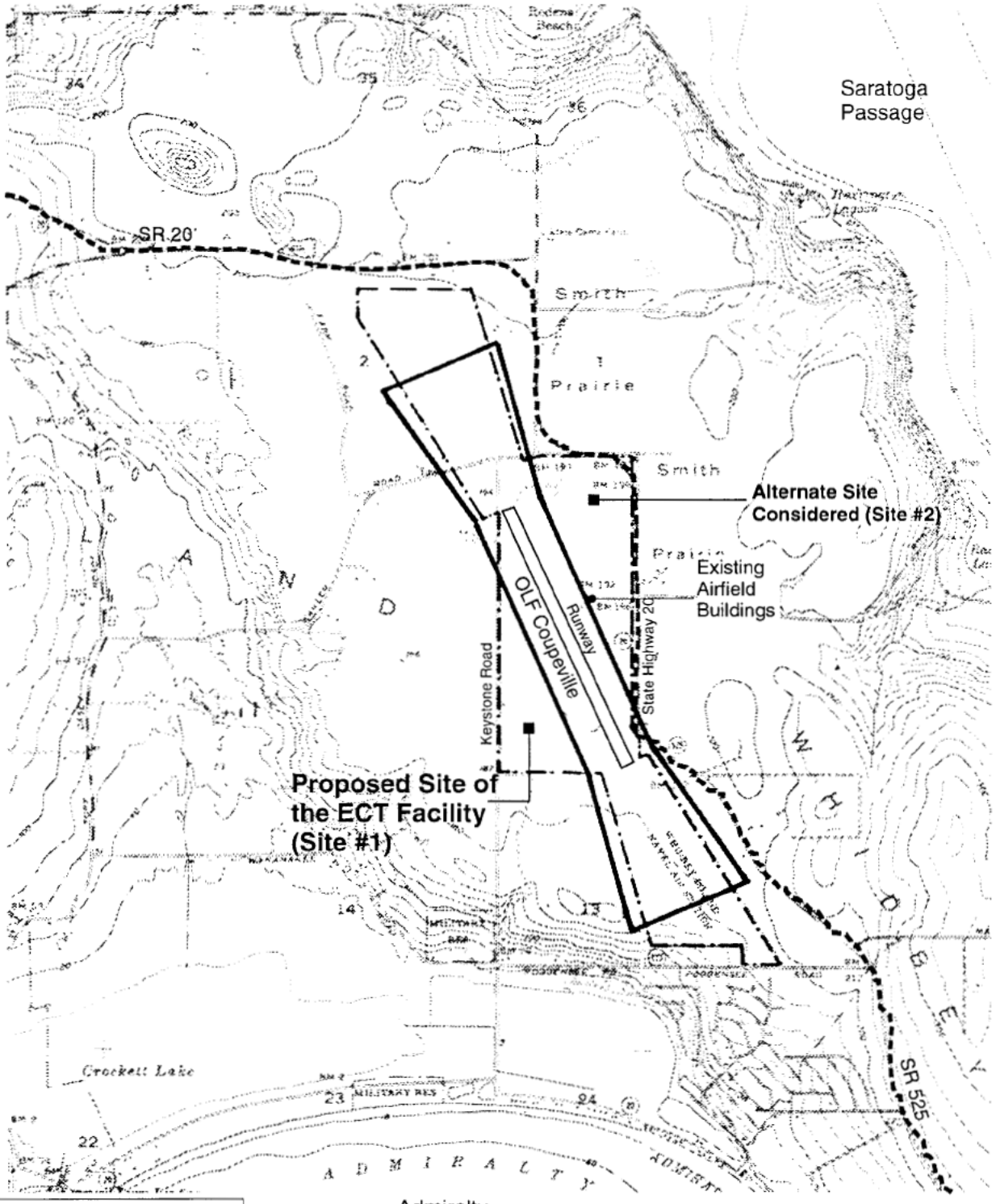
Two candidate sites were initially identified at OLF Coupeville, NASWI (Figure 2.2-4). Site #1 is situated in the southwest corner of the Navy airfield, and Site #2 is situated in the northeast corner. Site #1 was selected as the preferred site due to the following factors:

- Site #1 Southwest – This site (Figure 2.2-5) is located: (1) outside the airfield Primary Surface and Transition Zone boundaries parallel to the runway that restrict new construction; (2) away from public viewpoints, self-guided tour routes, and a future proposed interpretive wayside associated with the Ebey's Landing National Historical Reserve (ELNHR); (3) away from any highway, which could foster public access and cause security concerns; and (4) near a Douglas-fir forest, such that when properly colored, the proposed facility would blend into the nearby tree cover and the top of the radome would be below the treeline. Two private residences are approximately 630

Table 2.2-1. Evaluation of Alternative Locations for a Second NASWI Electronic Combat Training Facility.

Potential ECT Facility Site Locations and Installations Considered in This Analysis	Exclusionary Criterion 1: Line of Sight and Terrain Blockage From Potential Site	Exclusionary Criterion 2: Loiter Air Space Requirements Met in Airspace/MOA	Exclusionary Criterion 3: Distance From the Device to the Operating Area	Exclusionary Criterion 4: DOA (Angle) Separation from the Existing ECT Facility	Exclusionary Criterion 5: Potential Site Available and Feasible	Criterion 1: Coordination and Efficiency Between the 2 ECT Facil. Sites
1. NASWI OLF Coupeville, WA Site #1 - Southwest	Yes (Good)	Yes	Yes	Yes (Fair)	Yes	Good
2. NASWI OLF Coupeville, WA Site #2 - Northeast	Yes (Good)	Yes	Yes	Yes (Fair)	No	NA (Good)
3. NASWI Lake Hancock, WA	Yes (Good)	Yes	Yes	Yes (Good)	No	N/A (Good)
4. NASWI Ault Field, WA	Yes (Good)	Yes	Yes	No (Poor)	Yes	N/A (Good)
5. NASWI Seaplane Base, WA	Yes (Good)	Yes	Yes	No (Poor)	Yes	N/A (Good)
6. Naval Station Pacific Beach. WA	No (Poor)	No	No	No (Poor)	No	N/A (Poor)
7. Naval Radio Station Jim Creek (T), WA	Yes (Good)	Yes	Yes	Yes (Good)	No	N/A (Poor)
8. SUBASE Bangor, Camp Wesley Harris, WA	Yes (Fair)	No	Yes	Yes (Good)	Yes	N/A (Poor)
9. Puget Sound Naval Shipyard. WA	Yes (Fair)	No	No	Yes (Good)	No	N/A (Poor)
10. NAVSTA Everett, WA	Yes (Good)	Yes	Yes	Yes (Good)	No	N/A (Fair)
11. Naval Weapons Station (Indian Island). WA	Yes (Fair)	No	Yes	Yes (Fair)	No	N/A (Poor)
12. NUWCD Keyport, WA	Yes (Fair)	No	Yes	Yes (Good)	No	N/A (Poor)
13. FISC Manchester, WA	Yes (Fair)	No	Yes	Yes (Good)	No	N/A (Poor)
14. NWSTF Boardman. OR	No (Poor)	No	No	No (Poor)	Yes	N/A (Poor)

N/A = Not applicable due to application of exclusionary criteria before evaluative criterion.
Yes = Alternative site meets intent of criterion; **No** = Site does not meet criterion's intent.
Source: Alternatives Analysis (Appendix B)



LEGEND

Navy Property Boundary

StateRoute 20/525

Source: Department of the Navy 1988

Not to Scale

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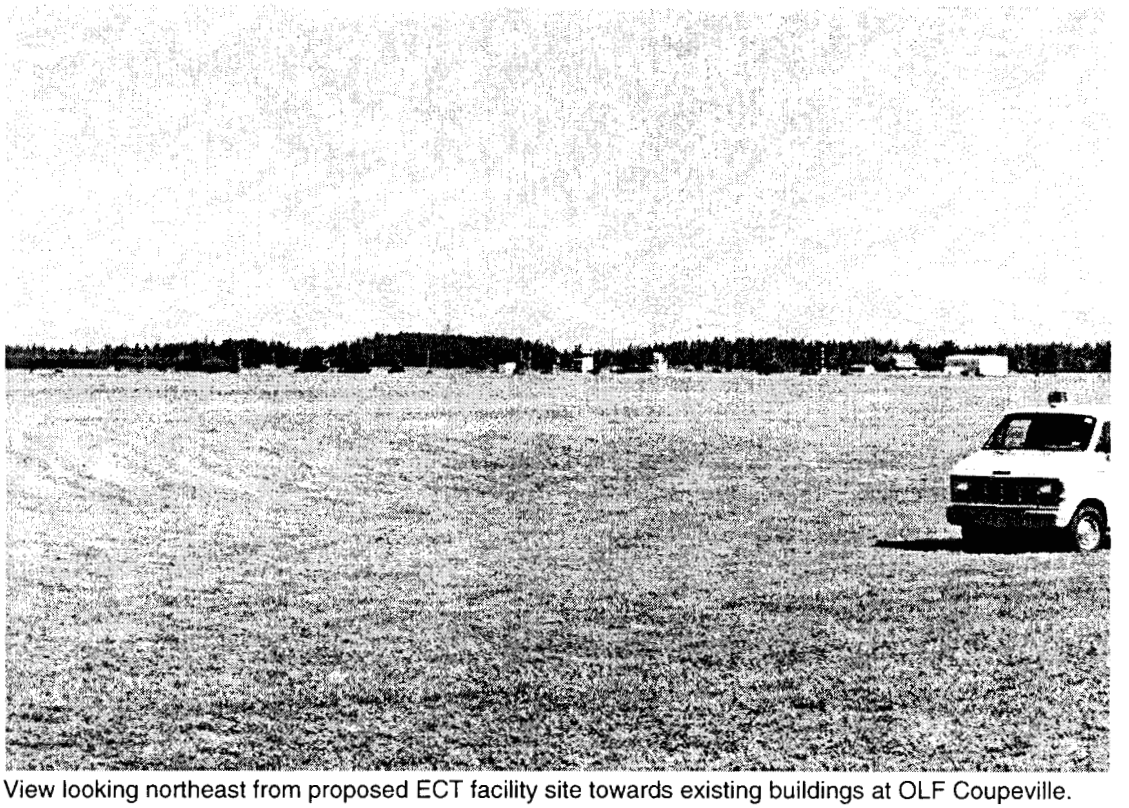
OLF Coupeville, NASWI

Figure 2.2-4

View looking south along Keystone Road at proposed ECT facility site which is located behind the low tree cover in the foreground.



View looking northeast from proposed ECT facility site towards existing buildings at OLF Coupeville.

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OLF Coupeville Site #1 - Southwest

Figure 2.2-5

feet to the northwest and approximately 840 feet to the southwest. One additional new home was recently constructed farther to the northwest. Keystone Road is approximately 300 feet west of the site and parallels the boundary of OLF Coupeville.

- Site #2 Northeast – This site is located: (1) outside of the boundaries of the Primary Surface and Transition Zone; (2) relatively close to a future proposed ELNHR interpretive wayside and self-guided bicycle and driving tour route; (3) close to State Route (SR 20), which could foster public access and cause security concerns; and (4) in an open location that is much more visible to the viewing public where the radome would extend above the treeline from most viewpoints, making adequate visual screening difficult. Adequate mitigation of cultural, visual, and aesthetic impacts on the Reserve would not be possible because the site is too close to the Reserve's self-guided tour route, the radome would extend above the treeline, and a planned Reserve wayside is sited nearby. Because of these reasons, Site #2 was not considered further in this EA.

2.3 DESCRIPTION OF ALTERNATIVES IN THE EA

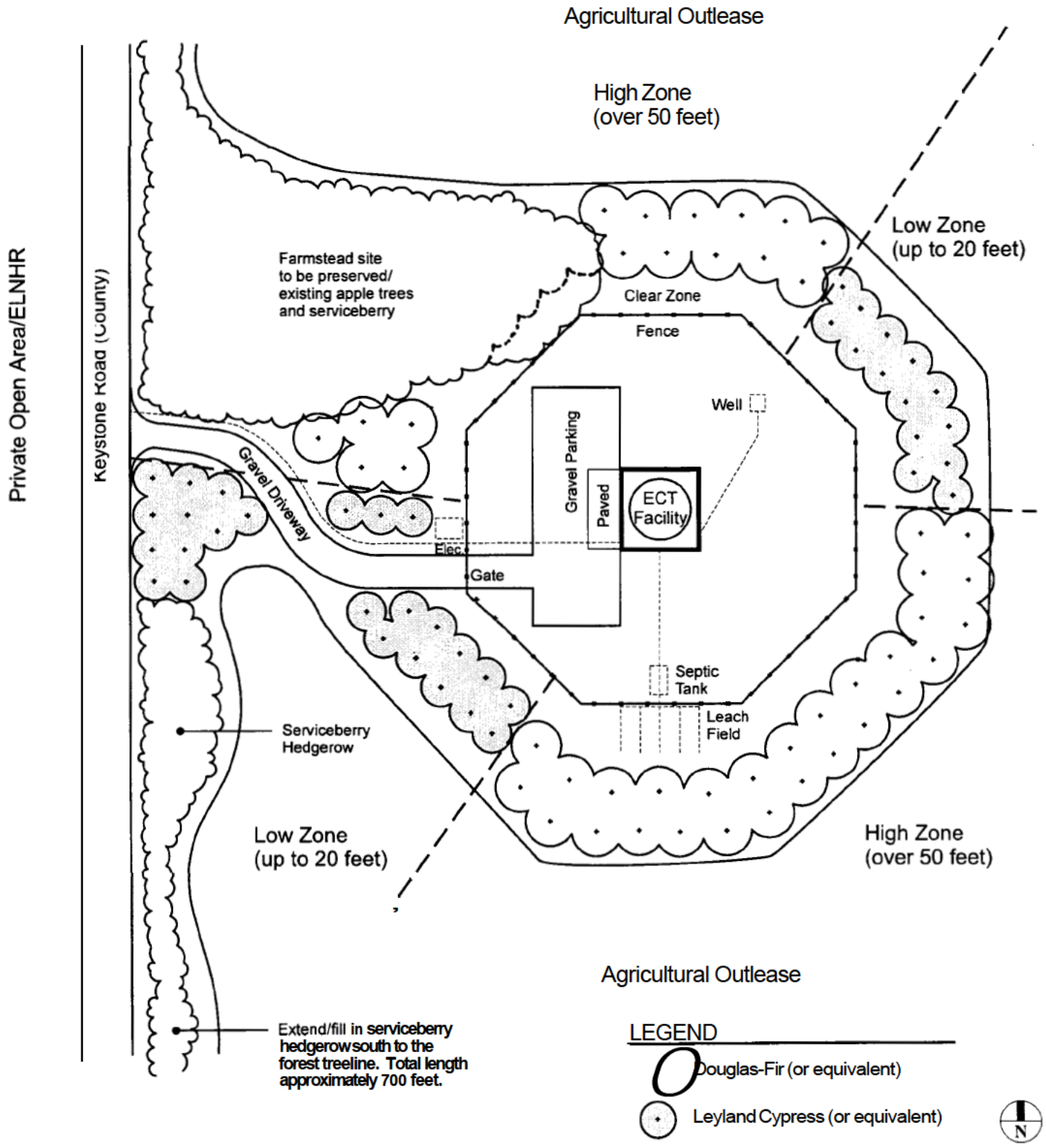
This EA evaluates a Proposed Action, as well as a No Action Alternative as required by NEPA. These two EA alternatives and the alternative locations are discussed in the following sections.

2.3.1 Proposed Action

The Proposed Action is to construct and operate a new ECT facility in the southwestern portion of OLF Coupeville, NASWI. Based on an evaluation of alternative locations in Appendix B, this site was the only acceptable location to implement the Proposed Action.

The site for the Proposed Action at OLF Coupeville is adjacent to the Central Whidbey Island Historic District (CWIHD, or the District) and Ebey's Landing National Historic Reserve (ELNHR, or Reserve). The Reserve is managed by the Trust Board of ELNHR. The District/Reserve has a contiguous boundary that parallels Keystone Road immediately west of OLF Coupeville. The proposed ECT facility would be sited approximately 300 feet east of the District/Reserve boundary on Navy property. The District/Reserve consists of 17,400 acres in the central portion of Whidbey Island, and the District is listed in the National Register of Historic Places (NRHP, or National Register). The Reserve was created to preserve and interpret historic buildings and the unique cultural landscape of the area that are reminiscent of the 19th century agricultural era. The site for the Proposed Action is located outside the District/Reserve boundary in an area known as Smith Prairie.

The proposed ECT facility at the preferred site would consist of the following components (Figure 2.3-1):



Provided by NASWI and EDAW, Inc. 1996

1" = 80'-0"

Environmental Assessment
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Proposed ECT Facility Preliminary Site Plan

Figure 2.3-1

- An AN/FSQ-T22 threat signal training device housed within the new structure.

- A single-story concrete block building approximately 13 feet high and 50 feet square.

- A new composite-material radome (32 feet high by 40 feet in diameter) mounted on the roof of the new building colored to minimize visual contrast with adjacent forest vegetation. The proposed ECT facility radome would be painted or impregnated with a non-reflective color or colors in a mottled/weathered appearance to reduce the visibility of the facility from the nearby historic areas. The radome would have a lighted beacon on top.

- A curving gravel access driveway off of Keystone Road approximately 24 feet wide and 250 feet long. The Navy would acquire a County road access easement to construct this gravel driveway.

- A gravel parking area for approximately five vehicles with a paved pad for handicapped accessible parking near the main entrance.

- A fenced security zone surrounding the new building and parking lot.

- A free-standing telescoping antenna with sail and aircraft beacon that will extend to approximately 45 feet in height. The Navy may instead incorporate this exterior antenna into the radome, resulting in a 3 to 5 foot bump at the top with no outside antenna.

- Necessary utilities, including underground electrical lines and a transformer box, water well and pump house, underground telephone and communications cables, and septic holding tank and leach field. The Navy would consult with the Island County Department of Health and secure an Island County well permit prior to drilling and using a new water well. The source of water would be approved by Island County based on tests conducted by the Navy. The Navy would comply with Island County Department of Health regulations regarding septic system site registration and final septic system design. No septic system permit would be required by the Navy.

- A hedgerow of serviceberry along the west border of OLF Coupeville from the proposed driveway of the ECT facility south to the existing treeline along Keystone Road, a distance of approximately 700 feet. This hedgerow would provide some vegetative screening of the proposed facility and its parking area/fence and would recreate the traditional landscape characteristics of Smith Prairie. The height of the hedgerow would be sufficient to screen views from Keystone Road. Larger plant stock would be planted to ensure that it can compete with existing vegetation. The Navy would adequately water and maintain the new plantings until they became fully established.

- An evergreen vegetative buffer in two height zones (High Zone over 50 feet and Low Zone up to 20 feet) surrounding the proposed building and security fence of the ECT

facility. This screening would include approximately 44 Douglas-fir trees in a High Zone and approximately 39 Leyland cypress in a Low Zone around the facility. The Navy would adequately water and maintain the new plantings until they become fully established.

- Radio frequency hazard warning signs posted in the vicinity of the radome/antenna, especially in areas that technicians/visitors would normally use to transit to and from the proposed facility (parking lot and access driveway).

The proposed ECT facility would be visually different in color and mass than the existing ECT facility at Seaplane Base, NASWI. The existing ECT facility is on a prominent point of land and has a two-story office/equipment structure (formerly the Seaplane Base control tower) and a taller and wider white-colored radome atop the structure (Figure 2.1-2). The new ECT facility at OLF Coupeville would be one story high (13 feet), and the radome would be either painted or impregnated with a darker color to blend with the adjoining Douglas-fir forest. Next to the proposed new building would be the single telescoping antenna approximately 45 feet high when fully extended. The antenna would be lowered when not in use. As an option, the antenna may be relocated inside the radome. A red aircraft beacon would be located atop the antenna structure and would be activated as required by the FAA. To be compatible with the existing training missions of OLF Coupeville, the proposed ECT facility would not use any other outdoor lighting during night-time training exercises. The proposed ECT facility would be surrounded by a security fence and clear zone. Inside the fenceline would be a small gravel parking lot with a paved area near the entrance. Site access would be provided by a 24-foot wide gravel driveway from Keystone Road, a County road. The Navy would comply with all Island County Engineering Design and Development Standards and the Island County Fire Code related to adequate site access and safety sight distances (500 feet for a 50 mile per hour [mph] road). An electronic security gate at the entrance to the site would control access to the facility.

The site location and antenna array height are critical to the operation of the ECT facility. Placing the antenna array at ground level, for example, would distort the beam pattern radiated to the aircraft due to ground effect. From a safety standpoint, if the antenna pedestal were placed at ground level, the safety zone required to provide an adequate distance to meet all requirements would call for a much greater fenced area and an impractical working environment. By elevating the antenna pedestal the height of the one-story support building (approximately 15 feet), the antenna beam pattern, with its depression angle limited at 5 degrees, is propagated above the building height and its energy is dissipated in a manner which meets all safety standards at a much shorter distance. The antenna array must also be located away from tall trees, hills or mountains, and tall man-made structures such as water tanks and antenna that may block the signal. The Navy has filed an application with the FAA for Proposed Construction (FAA Form 7460-1). This form addresses frequency and power transmissions. From the information submitted by the Navy, the FAA will determine if there are any impacts to aircraft that

may require restrictions on usage or direction. This information will also be provided to the Federal Communications Commission (FCC) for review.

Furthermore, the Navy would comply with all applicable Institute of Electrical and Electronic Engineers (IEEE) standards and all recommendations of the Site Approval for the Proposed Action. Also, the Navy would submit a request for frequency assignment to operate the proposed ECT facility to be forwarded to the Navy Area Frequency Coordinator and the Joint Frequency Panel of the United States Military Communications-Electronics Board. The Navy would retain but reconfigure the agricultural outlease area to continue to maintain an agricultural appearance along Keystone Road, which is important to the character of the area. The Navy would design and construct the project to minimize the amount of land converted from agricultural use and would avoid any impacts to the nearby forested areas. Landscaping of the ECT facility and buffer would be consistent with vegetation in the area and would help visually screen the new structures and parking lot. The Navy would also design and construct the project to minimize the acreage of vegetation loss/alteration and would avoid disturbing nearby forested habitats. The proposed planting of a serviceberry hedgerow along Keystone Road and a Douglas-fir and Leyland cypress buffer surrounding the ECT facility would provide additional wildlife cover and screening.

The Navy would retain standing timber on Navy property at the south end of OLF Coupeville in the vicinity of the proposed ECT facility as a visual backdrop. The Navy would also retain existing vegetation along SR 20 to help screen views of the ECT facility; however, additional plantings would not be installed along SR 20 because of the proximity to the runway (NAVFAC Publ. P-80.3).

The Navy would remove the upper radome portion of the proposed ECT facility within 180 days after the Navy determines that the facility is no longer needed for its original intended use as an ECT facility (in approximately 25 years). The Navy would notify the State Historic Preservation Officer (SHPO) in writing upon such determination. The remaining concrete block structure located below the upper radome may be reused by the Navy.

The proposed ECT facility would be staffed and operated up to five days a week, 52 weeks a year. Two shifts of two contractor technicians each would operate the proposed facility from inside the building. During operations, threat signals would be sent to Navy aircraft training in the Darrington Airspace and Olympic MOA. The proposed facility would operate independently of Navy aircraft carrier landing practices or bounces at OLF Coupeville. The proposed ECT facility would undergo periodic maintenance by Navy personnel. The Navy would coordinate with the Island County Fire District No. 5 regarding on-call volunteer fire protection services that may be required for the proposed ECT project when OLF Coupeville is not staffed by Navy fire fighters.

Construction of the proposed ECT facility is expected to begin in late 1997 and extend through the summer of 1998, dependent on available Federal funding. The Navy would

utilize Best Management Practices (BMPs) as defined by the Washington State Department of Ecology (Ecology) and Island County to minimize impacts associated with stormwater runoff. To minimize the risk of groundwater contamination during construction, fueling and equipment maintenance would be restricted to a designated staging area that would have an impermeable liner and a spill containment and clean-up kit. The Navy would develop and implement appropriate fugitive dust control measures during the construction period. These dust control measures would reduce the emission of particulates, including during non-working periods. These measures would include the use of dust suppressants (e.g., site watering during dry periods), street sweeping, and reducing vehicle travel speeds over exposed surfaces. These measures could likely reduce on-site particulate emissions by up to 50 percent and would ensure compliance with Section 550 of the Northwest Air Pollution Authority (NWAPA) regulations.

During construction, the Navy would use flaggers as needed to safely control construction traffic on Keystone Road and to guide large construction vehicles into and out of the proposed site. The Navy would minimize noise emissions during construction in compliance with the Navy Environmental and Natural Resources Manual (OPNAVINST 5090.lB) that requires maximum use of low noise emission products, as certified by the **U.S.** Environmental Protection Agency (EPA), for all Navy-related operations, as well as compliance with other Federal, State, and local regulations pertaining to construction-related noise generation. Measures to reduce construction noise would include the following: (1) limiting construction activities to normal daytime periods between 7 a.m. and 7 p.m. Monday through Saturday, **(2)** using equipment with proper mufflers or noise control devices, and (3) situating noise-generating equipment as far as possible from residences along Keystone Road. If an unanticipated discovery of archeological resources occurs during construction, the Navy will halt construction and consult with the SHPO to determine the potential significance of the resources and identify appropriate mitigation measures. The new facility would be ready for testing in late summer of 1998 with initial operating capability in late 1998. Construction would require five to 15 workers per day during a six-month construction period.

On February ***5,*** 1997, the Navy forwarded all pertinent project information to the Washington State Office of Archaeology and Historic Preservation (OAHP) for review following the guidelines of 36 CFR *800.5* (b). The Navy requested OAHP review and concurrence on a "no effect" determination under Section 106 the National Historic Preservation Act of 1966 (16 **USC** § 470), as amended. Following review, the OAHP responded in a letter dated March 6, 1997, stating that it has determined that the proposed project would have "no adverse effect" on the adjacent ELNHR, rather than "no effect." The Navy has considered OAHP's recent review and determination and agrees with the determination of "no adverse effect."

The Navy has worked with local groups and individuals to design the Proposed Action. The Navy would continue to keep such groups and individuals informed of the progress of the project, including the Trust Board of ELNHR as well as the Swinomish and Samish Tribes. If any other groups or organizations, including minority or ethnic groups, should

request information and/or copies of this EA, such requests would be met in a timely manner by the Navy.

The Proposed Action does not impact the nature of or modify aircraft operations at NASWI, including OLF Coupeville. NASWI aircraft operations and aircraft noise are being addressed in a separate Draft EIS currently being prepared by the Navy.

2.3.2 No Action Alternative

As required by NEPA, the No Action Alternative is considered in this EA. The No Action Alternative would not implement the Proposed Action at any site and would not satisfy the Navy's need for a second ECT facility for use in training Navy aircrews in the Pacific Northwest. The No Action Alternative would not allow the Navy to meet its aircrew training requirements and ultimately result in a potential loss of combat readiness. Any potential environmental impacts identified in this EA would not occur under the No Action Alternative. The proposed site at OLF Coupeville would remain undeveloped and would continue to be used for agriculture and annual recreational hunting for pheasant as part of the Washington Department of Fish and Wildlife's (WDFW) pheasant release program. Like the Proposed Action, aircraft operations at OLF Coupeville would be unaffected by the No Action Alternative.

2.4 SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Neither the Proposed Action nor the No Action Alternative is anticipated to cause environmental impacts. Therefore, no mitigation measures have been identified. Table **2.4-1** summarizes the findings of the environmental analysis.

2.5 FONSI OR EIS RECOMMENDATION

A Finding of No Significant Impact (FONSI) is recommended for the Proposed Action. An Environmental Impact Statement (EIS) is not recommended. Maintaining a FONSI determination under NEPA requires full implementation of the Proposed Action as described in Section 2.1.

Table 2.4-1. Summary of Environmental Impacts for the Proposed Action and the No Action Alternative.

AFFECTED ENVIRONMENT	PROPOSED ACTION	NO ACTION ALTERNATIVE
Wetlands		
Environmental Impacts	No impacts. Wetlands not present on site.	No impacts. Wetlands not present on site.
Mitigation Measures	None required.	None required.
Recreation		
Environmental Impacts	No adverse impacts are anticipated. Pheasant hunting would be excluded from the area of the proposed site but would continue elsewhere at OLF Coupeville. The proposed facility would not impact ELNHR, Rhododendron Park, or other recreation resources in the vicinity. The Navy would assist the Trust Board of ELNHR with a proposed interpretive wayside near OLF Coupeville.	No impacts. Pheasant hunting would continue to occur at OLF Coupeville. The Navy would not assist the Trust Board of ELNHR with the planned wayside.
Mitigation Measures	None required.	None required.
Socioeconomics and Housing		
Environmental Impacts	Impacts would be positive. Facility construction would provide temporary construction jobs and full-time technician jobs. No outlease farming jobs would be lost. Technicians would likely live in Oak Harbor where housing is available.	The beneficial effects of providing construction and operations jobs would not be realized under the No Action Alternative.
Mitigation Measures	None required.	None required.
Schools		
Environmental Impacts	No impacts.	No impacts.
Mitigation Measures	None required.	None required.

Table 2.4-1. Summary of Environmental Impacts for the Proposed Action and the No Action Alternative (continued).

AFFECTED ENVIRONMENT	PROPOSED ACTION	NO ACTION ALTERNATIVE
Cultural Resources		
Environmental Impacts	No adverse effects are anticipated from Proposed Action. There are no known archeological resources on site. No adverse effects to historic resources would occur. Historic structures are located away from the proposed site. No adverse effects to ELNHR historic viewshed are anticipated. Vegetative screening and coloration of the proposed structure is planned. Nearby forest vegetation would not be impacted.	No impact would occur; however, historic roadside landscaping (serviceberry hedgerow) would not be implemented. The Navy would not assist the Trust Board with the proposed wayside.
Mitigation Measures	None required.	None required.
Land and Shoreline Use		
Environmental Impacts	No impacts. Air Installation Compatible Use Zone (AICUZ) requirements would be met. The proposed use would be compatible with existing OLF Coupeville land use at the airfield. Approximately 2.8 acres of agricultural land would be converted to developed land, but this represents less than 0.5% of the existing agricultural land at OLF Coupeville. Visual screening would minimize off-site impacts. No lights would be illuminated during airfield practices to impact training, except one beacon.	No impacts.
Mitigation Measures	None required.	None required.
Utilities		
Environmental Impacts	No impacts are anticipated. The Navy would obtain a County permit for a small well to supply 300 gal. per day and comply with County septic system regulations. Puget Power would extend an underground electrical line to the site.	No impacts.
Mitigation Measures	None required.	None required.

Table 2.4-1. Summary of Environmental Impacts for the Proposed Action and the No Action Alternative (continued).

AFFECTED ENVIRONMENT	PROPOSED ACTION	NO ACTION ALTERNATIVE
AestheticsNisual Quality		
Environmental Impacts	No adverse effects are anticipated. The viewshed would vary depending upon the viewpoint and proximity. The two most prominent viewpoints from ELNHR resources/tour routes are almost 1 mile away. Simulations show that the proposed ECT facility would blend into the forest backdrop and historic views would not be adversely affected. Other OLF Coupeville industrial facilities are already in the viewshed such as the airfield tower. Visual screening and coloration of the radome are incorporated into the project.	No impacts.
Mitigation Measures	None required.	None required.
Electromagnetic Environ rent		
Environmental Impacts	No impacts are anticipated. All applicable IEEE standards would me met. Navy Site Approval for the proposed ECT facility has been granted. Emitter safe separation distances have been assessed and the proposed ECT facility can be safely operated in the intended electromagnetic environment without electromagnetic interference (EMI) or radiation hazard (RADHAZ) impacts. Some on-site personnel restrictions would be followed. Proposed frequencies would be coordinated and approved.	No impacts.
Mitigation Measures	None required.	None required.
Climate and Air Quality		
Environmental Impacts	No significant impacts. Some small increase in emissions caused by construction vehicles is anticipated. Dust control measures would be implemented during construction.	No significant impacts. Small impact from the continued use of farming equipment and from the generation of dust during plowing and harvesting.
Mitigation Measures	None required.	None required.

Table 2.4-1. Summary of Environmental Impacts for the Proposed Action and the No Action Alternative (continued).

AFFECTED ENVIRONMENT	PROPOSED ACTION	NO ACTION ALTERNATIVE
Traffic and Circulation		
Environmental Impacts	No significant impacts are anticipated. Some construction traffic would occur on Keystone Road as vehicles enter and exit the proposed site.	No significant impacts are anticipated from continued farming activities.
Mitigation Measures	None required.	None required.
Vegetation		
Environmental Impacts	No significant impacts, but some land would be converted from agricultural use to industrial use.	No significant impacts.
Mitigation Measures	None required.	None required.
Wildlife and Fisherv Resources		
Environmental Impacts	No significant impacts. There would be no impact to fisheries. Nearby forested areas would not be impacted and wildlife habitat would be enhanced by the planned screening landscaping.	No significant impacts.
Mitigation Measures	None required.	None required.
Geology, Soils, and Topo ɡraphy		
Environmental Impacts	No significant impacts, but slight increase in soil erosion potential and surface runoff rates would occur during construction. Erosion and stormwater control practices will be implemented during construction. Slight increase in impervious surface area following construction.	Impacts would generally be precluded; however, continued farming of the site would cause some minor impacts.
Mitigation Measures	None required.	None required.

Table 2.4-1. Summary of Environmental Impacts for the Proposed Action and the No Action Alternative (continued).

AFFECTED ENVIRONMENT	PROPOSED ACTION	NO ACTION ALTERNATIVE
Hydrology		
Environmental Impacts	No significant impacts, but small increase in potential for surface water pollution from sediments, oils, fuels, solvents, etc. would occur during construction. Erosion and stormwater control practices will be implemented during construction. A new well providing only 300 gal./day would supply potable water to the site. Thus, there would be no significant groundwater impacts.	Impacts would generally be precluded; however, continued farming of the site would cause some impacts.
Mitigation Measures	None required.	None required.
Public Services		
Environmental Impacts	No significant impacts are expected. The Navy would coordinate with Island County Fire District No. 5 regarding fire protection and emergency medical services for the proposed facility when Navy services are not available.	No impacts.
Mitigation Measures	None required.	None required.
Noise and Vibration		
Environmental Impacts	No significant impacts. Minor increase in noise levels would occur during construction from construction equipment. Operational noise would be insignificant.	No significant impacts. Occasional noise impacts would occur from farming equipment and pheasant hunting on site.
Mitigation Measures	None required.	None required.
Environmental Justice		
Environmental Impacts	No impacts to minority/low income groups are expected.	No impacts.
Mitigation Measures	None required.	None required.

3.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

Section 3.0 discusses the affected environment, environmental consequences, and proposed mitigation measures for impacts associated with the Proposed Action, by resource area. Potential impacts were analyzed for both the Proposed Action (i.e., Site #1 at OLF Coupeville) and the No Action Alternative. Each resource topic is discussed separately below. Environmental resource topics not considered to be of concern for the Proposed Action are discussed first in Section 3.1. Following Section 3.1, a more detailed discussion is provided for each of the resource topics considered to be of concern for the Proposed Action.

3.1 MINOR ENVIRONMENTAL RESOURCE TOPICS CONSIDERED

Five resource topics related to the Proposed Action considered to be of minor concern are discussed below. These include wetlands, recreation, socioeconomics, housing, and schools.

3.1.1 Wetlands

The Natural Resources Conservation Service (NRCS), formerly known as the Soil Conservation Service (SCS), reported that there are no wetlands on OLF Coupeville (Department of the Navy 1989), although there may be a small drainage ditch with cattails (*Typha latifolia*) in the northern section of the installation (pers. comm., Harper, 1996). There are no wetlands near the proposed site. The nearest wetlands identified on National Wetland Inventory (NWI) maps are located in the northwest corner of Township 31N Range 10E Section 18, one mile to the southeast; a wetland that borders Crockett Lake, 1.1 miles to the southwest; and wetlands associated with Race Lagoon, 1.7 miles northeast from the site.

The Proposed Action would not affect wetland resources. The potential for off-site impacts would be minimized by the use of BMPs for stormwater runoff and restricting construction, fueling, and equipment maintenance to a designated staging area with an impermeable liner and spill containment and clean-up kit, as discussed in Section 2.3.1.

The No Action Alternative would not affect wetland resources at OLF Coupeville.

As no wetlands occur on or near the proposed site, no impacts to wetland resources would occur and no mitigation measures are required for the Proposed Action.

3.1.2 Recreation

There are no recreational facilities at OLF Coupeville for use by Navy personnel assigned to the proposed ECT facility. OLF is used by the public annually to hunt ring-necked pheasants released at OLF Coupeville as part of the WDFW's pheasant release program. Some hunters currently park near the proposed driveway off Keystone Road.

Nearby recreational facilities include: (1) Rhododendron State Park located 1.3 miles to the northwest, which is administeredjointly by the State and Island County; (2) a County-owned complex of athletic ballfields used by the Central Whidbey Youth Athletic Association, 1.3 miles to the northwest; and (3) Fort Casey State Park, 1.2 miles to the south. Over 584,000 people visited Fort Casey State Park in 1995 (pers. comm., Hageman, 1996). Most of the visitors to these parks are there for day use only.

The Island County Comprehensive Plan (Island County 1977) indicates that there is demand for neighborhood, community, and regional parks on Whidbey Island. Because the population is more dense in the northern portion of Whidbey Island near *Oak* Harbor, most of the recreational demand is in that area.

The proposed ECT facility site also borders the ELNHR, which attracts numerous visitors each year. Near the proposed site, visitors access ELNHR by SR 20 or one of five roads that intersect SR 20. Many of the roads within the Reserve have recreational and interpretative waysides that are part of a self-guided tour program established by the Trust Board of ELNHR. Keystone Road does not have a wayside. A new ELNHR wayside is planned for the intersection of SR 20 and Patmore Road near the north boundary of OLF Coupeville and 1.2 miles north of the proposed site. A 40-mile self-guided automobile/bicycle touring route runs through the ELNHR, including a route that extends north of OLF Coupeville. None of these routes, however, occur along Keystone Road.

Due to the distance of the proposed site from existing recreational sites and the small number of Navy personnel that would be operating the proposed ECT facility, construction and operation would not cause any significant impact to recreation resources in the area. For safety and security reasons, the Navy would prohibit pheasant hunting in the immediate vicinity (500 feet) of the proposed project, but hunting could still occur in other portions of OLF Coupeville. Use of the current driveway for parking during pheasant hunting would be prohibited. Other existing parking areas would continue to be used.

The No Action Alternative would not affect recreation resources. Existing pheasant hunting would continue to be allowed on the proposed site.

No impacts are anticipated and no mitigation measures are required for the Proposed Action.

3.1.3 Socioeconomics

The population in the vicinity of the proposed site is sparse and growing relatively slowly, compared to other areas of Whidbey Island. In 1992, the population of the central Whidbey Island planning unit, in which the project site is located, was 8,919 persons and was expected to grow by 1,738 (an annual average rate of 1.9 percent) by the year 2003 (Island County 1994). Since 1992, economical growth in the Puget Sound region has slowed, flattened, and then increased again. This condition reflects the lag in the region's economical recovery compared to other regions in the nation (PSRC 1994).

In 1992, there were 1,855 employment opportunities in the central Whidbey Island planning unit. Employment in this region was forecasted to grow to 2,390 jobs by the year 2003 (Island County 1994). Within central Whidbey Island, most jobs are associated with government, military, retail, or service sectors, with most occurring near the town of Coupeville, 2.5 miles northwest of the project site.

The Proposed Action would result in a short-term increase in construction jobs as well as the addition of at least four permanent contractor technician jobs. These impacts are viewed as positive to the local economy. There would be a minor decrease in hay or other farming revenue to the Navy's lease due to a reduction in acreage at the proposed site. No agricultural jobs would be lost under either alternative.

The No Action Alternative would forego any increase in jobs related to the new construction and permanent contractor technician positions assumed under the Proposed Action.

As any potential socioeconomic impacts are expected to be beneficial, no mitigation measures are required relative to the Proposed Action.

3.1.4 Housing

The only current military housing at OLF Coupeville is a caretaker's house on the east side of the runway. Operation of the ECT facility would not require additional military housing for the four private contractors (e.g., the four technicians who would operate the proposed ECT facility). These contractors would most likely commute from the Oak Harbor area where there are housing opportunities and other Navy facilities.

A large residential development is located 0.5 mile to the southeast; however, there are three private single-family residences near the proposed site along the west side of Keystone Road. The closest residence is 630 feet from the proposed site. Construction and operation of the proposed ECT facility would have no direct or indirect impact on the large residential development or these three homes. The Navy's caretaker residence, on the other side of the runway, would also be unaffected.

The No Action Alternative would not affect the housing in the area.

No impacts are anticipated and no mitigation measures are required for the Proposed Action.

3.1.5 Schools

OLF Coupeville is part of the Coupeville School District. The Coupeville Elementary School is located at intersection of SR 20 and S. Main Street, while the middle and high schools are located at the intersection of S. Main Street and Terry Road in Coupeville. These schools are 3.6 and 3.3 miles from the proposed ECT facility, respectively. Because only four personnel would be assigned to the proposed ECT facility, the Proposed Action would not significantly affect enrollment in the Coupeville or other Island County Schools.

The No Action Alternative would not affect schools.

As no impacts to schools are anticipated, no mitigation measures are required for the Proposed Action.

3.2 CULTURAL RESOURCES

This section discusses potential adverse effects and impacts to cultural resources from the Proposed Action and the No Action Alternative.

On February 5, 1997, the Navy forwarded all pertinent project information to the Washington State Office of Archaeology and Historic Preservation (OAHP) for review following the guidelines of 36 CFR 800.5 (b). The Navy requested OAHP review and concurrence on a "no effect" determination under Section 106 the National Historic Preservation Act of 1966 (16 USC § 470), as amended. Following review, the OAHP responded in a letter dated March 6, 1997, stating that it has determined that the proposed project would have "no adverse effect" on the adjacent ELNHR, rather than "no effect." The Navy has considered OAHP's recent review and determination and agrees with the determination of "no adverse effect."

3.2.1 Affected Environment

Two types of cultural resources potentially occur at the OLF Coupeville site: (1) archeological resources, which may include districts, sites, or objects that have yielded or are likely to yield information important in prehistory or history; and (2) historic resources, which may include districts, sites, buildings, structures, or objects that relate or convey some aspect of American history, architecture, engineering, archeology, and/or culture. Activities that affect cultural resources are regulated by Federal, State, and local laws. The primary law affecting cultural resources is the National Historic Preservation Act (NHPA) of 1966 (16 USC § 470), as amended. NHPA requires project proponents to

identify any effects or impacts its actions may have on cultural resources listed in or eligible for listing in the National Register of Historic Places.

Records at the Washington State Office of Archaeology and Historic Preservation (OAHP) indicate that no archeological resources have been identified at or near the proposed project site. Furthermore, a survey of OLF Coupeville conducted in 1989 by a cultural resources specialist from the SCS (now the NRCS), on behalf of the Navy found no archeological resources at OLF Coupeville (Department of the Navy 1989).

The proposed site for the ECT Facility is undeveloped, with no Navy buildings or structures within the site. The area surrounding this portion of OLF Coupeville has been altered by the recent construction of a new home, the installation of two mobile homes, and a privately owned grass airstrip. The proposed site is located 300 feet from the eastern boundary of the Central Whidbey Island Historic District (CWIHD, or District). Keystone Road forms the boundary of this portion of the CWIHD. The CWIHD was first identified and surveyed in the early 1970s; the focus of this effort was to document the history of the area and to identify the remaining historic buildings and structures that retained their integrity. In 1972, the Town of Coupeville and Island County passed ordinances to recognize the CWIHD and the SHPO nominated the CWIHD to the NRHP. The CWIHD was officially listed on the NRHP in 1973 (McKinley 1993).

The CWIHD consists of 17,400 acres in the central portion of Whidbey Island, including the Town of Coupeville. The CWIHD NRHP nomination form (Cook 1972) identifies 72 individual contributing historical buildings and structures. The nomination form also notes the importance of the overall landscape to the CWIHD, but does not note specific contributing landscape elements in detail (Cook 1972).

The only contributing historical building near the proposed site is the John Kinneth, Jr. Home, approximately 1.5 miles to the northeast. The John Kinneth, Jr. Home is a vernacular, two-story, wood-frame farmhouse built c. 1897 exhibiting elements of Victorian style detailing. The property includes nine associated outbuildings. This resource is significant as representing a period of growth and stability in the community and as an example of the growing use of architectural details and ornamentation in private residences of the period. The building is in fair condition and retains its integrity of design, materials, workmanship, and location and is listed in the NRHP as a contributing resource to the CWIHD (NPS 1983).

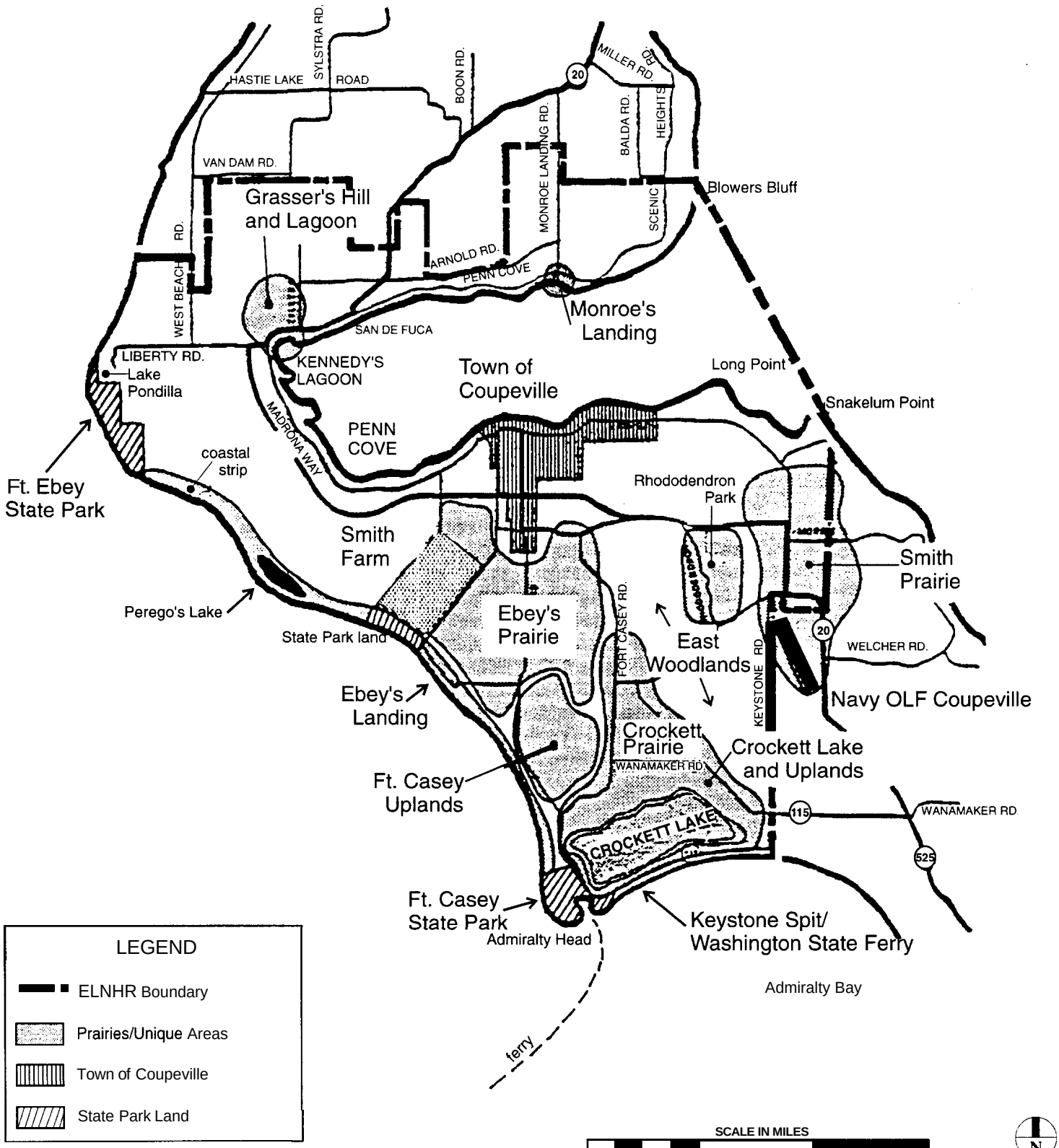
After the CWIHD was listed in the NRHP, those interested in protecting the historical character of the CWIHD advocated a more active protection and management strategy while retaining private ownership and traditional uses, primarily agriculture. As a result, Section 508 of the Parks and Recreation Act of 1978 (Public Law 95-625) created the Ebey's Landing National Historical Reserve (ELNHR, or the Reserve) (McKinley 1993). The boundaries of the ELNHR are contiguous with those of the CWIHD. The creation of the ELNHR identified landscape features such as land use patterns, hedgerows, small-scale elements, and numerous other features as part of the historical characteristics of the

area. The new legislation also created the Trust Board of ELNHR, a multi-agency member and public board established to manage the Reserve. The legislation required local governments to complete a Comprehensive Plan for the ELNHR that would identify steps to protect the area's historical character, such as zoning and other land use policies. In addition, the National Park Service (NPS) was authorized to purchase a small amount of land and/or development rights or scenic easements in the most critical areas of the ELNHR with the consent of the owner. The NPS also provides technical assistance to local governments and private property owners, and supports or sponsors public interpretive programs (McKinley 1993).

The ELNHR has been documented as a cultural landscape, a designation that notes the significance of both individual buildings and structures and landscape features such as land use, specific types of vegetation, settlement patterns, and other features (Gilbert 1985). While the entire ELNHR constitutes a single, cohesive landscape, ten distinct character areas have been identified with different uses, topography, vegetation, and other features. Each landscape character area has a set of preservation principles tailored to the specific characteristics of the area (Gilbert 1985). Furthermore, the ELNHR Comprehensive Plan establishes preservation priorities (ELNHR 1980). The three landscape character areas closest to the proposed site—the East Woodlands, Smith Prairie, and Crockett Prairie (Figure 3.2-1)—and their preservation priority are described below.

The East Woodlands area is a densely wooded area located along a ridge line at the east edge of the ELNHR. This landscape character area is located 1,200 feet west of OLF Coupeville and the proposed site. The preservation principles for the East Woodlands focus on protecting the natural resources of the area and include retaining the forest land use, discouraging large-scale residential developments and using vegetative screening and density clustering to minimize potential impacts on natural resources, and preserving wooded edges of the area as a visual buffer (Gilbert 1985). Out of 18 preservation priority areas outlined in the Comprehensive Plan, the East Woodlands is ranked at number 13 (ELNHR 1980).

Smith Prairie is a 600-acre open area surrounded by forest lands at the northeast edge of the ELNHR. Only a portion of Smith Prairie lies within the ELNHR, with the majority outside the boundary. Much of OLF Coupeville, including the proposed site, lies in the southwestern corner of Smith Prairie. The preservation principles for the ELNHR portions of Smith Prairie concentrate on protecting the open and rural character of the area, including maintaining the agricultural land uses and the existing historic structures, locating new structures along the edges of the prairie, and encouraging the use of hedgerows instead of fences to maintain the traditional landscape (Gilbert 1985). Out of 18 preservation priority areas outlined in the Comprehensive Plan, Smith Prairie is ranked at number 18 (ELNHR 1980).



Provided by Ebey's Landing National Historical Reserve 1980

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for Electronic Combat Training Facility,
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Ebey's Landing National Historical Reserve

Figure 3.2-1

Crockett Prairie is a large, natural prairie in the southeast comer of the ELNHR and contains a variety of natural and cultural resources. The preservation principles for Crockett Prairie focus on protecting significant natural and cultural resources and the significant historic landscape pattern, including maintaining the agricultural land uses, siting new structures along the edges of the prairie or within existing subdivisions, and retaining small-scale elements such as fencelines and hedgerows (Gilbert 1985). Out of **18** preservation priority areas outlined in the Comprehensive Plan, Crockett Prairie is ranked at number *6* (ELNHR 1980).

In addition to the broad landscape character areas, the ELNHR seeks to preserve other features that contribute to the character of the area. Several buildings, structures, and other features that do not meet the strict criteria for inclusion in the NRHP and are not considered contributing resources to the CWIHD are noted as important to the Reserve's historical character. The ELNHR includes 91 separate contributing historical buildings and structures, as well as numerous landscape elements and small-scale features (ELNHR 1980). In addition to the John Kinneth, Jr. Home discussed above, the ELNHR also recognizes the Harp Place as an important element of the overall landscape of the ELNHR (ELNHR 1980). The Harp Place is located approximately 500 yards northwest of the proposed site.

The Harp Place is a one and one-half story, wood-frame, "Saltbox"-style residence. Little is known about the history of the building, although it was most likely constructed around the World War I era. One outbuilding is associated with this resource. Although the building lies within the CWIHD, it is not considered a contributing resource and is not listed on the NRHP (NPS 1983).

Other resources of historical age are located several hundred feet to the east of the proposed site and have been evaluated for historical significance. These resources, located within Navy property, consist of an airstrip, an air traffic control tower, residential buildings, and small garages/storage sheds. In 1993, these buildings were surveyed and recorded on Washington Historic Property Inventory Forms that were forwarded to OAHP, which serves as the SHPO for Washington. These buildings were determined to be not eligible for inclusion in the NRHP (Department of the Navy 1994).

Immediately north of the proposed site and its driveway, on Navy property, is the site of a former farm. Only the foundation, the depression of the cellar, hedgerow, and some trees remain at the site. The 1989 SCS survey concluded that the farmstead does not appear to hold sufficient significance or integrity to be considered eligible for the NRHP (Department of the Navy 1989).

3.2.2 Environmental Consequences

Ground-disturbing activities associated with the Proposed Action have the potential to damage or disturb archeological resources found deep within the soil layers. The proposed site is located within an existing agricultural field that has been surveyed with

no archeological resources identified. Therefore, construction of the proposed ECT facility is not anticipated to adversely affect any archeological resources. In the event of an unanticipated discovery, all work would cease and the SHPO would be notified. Therefore, no impacts to archeological resources are expected to occur.

Under the No Action Alternative, no impacts to archeological resources would occur.

No historical resources are present at or adjacent to the proposed site. Therefore, the Proposed Action would not demolish, alter, or damage any historical resources. The former farmstead site immediately north of the proposed driveway to the ECT facility would not be impacted during construction. A small portion of the existing vegetation would need to be trimmed back within the clear zone of the proposed fenceline. Under the No Action Alternative, no direct impacts to historical resources would occur. The Proposed Action would introduce an additional visual element to the area's current viewshed. The potential adverse effects or impacts resulting from this additional visual element are discussed below.

Central Whidbey Island Historic District/Ebey's Landing National Historical Reserve

The proposed ECT facility would be constructed adjacent (within **300** feet), but outside of, the boundary of the CWIHDELNHR. The introduction of an additional visual element would not adversely affect the entire area of the CWIHDELNHR or its most sensitive resources. The most sensitive areas of the CWIHDELNHR, such as Ebey's Landing and Ebey's Prairie, are removed from the proposed site and would not be affected. The Proposed Action, however, would introduce an additional visual element adjacent to those areas near the proposed site. Potential adverse effects or impacts to these landscape areas are discussed below.

East Woodlands

The East Woodlands begin approximately 1,200 feet west of the proposed site at the existing treeline. The historical significance of the East Woodlands lies in the relationship between this wooded, hilly area and the surrounding flat prairies. The terrain and forests of the East Woodlands channeled early settlement to the open prairies, including Smith Prairie, Crockett Prairie, and Ebey's Prairie (Gilbert 1985). The Proposed Action, which includes vegetative screening, appropriate colors, and other components designed to reduce visual impacts, would not adversely affect the character of this historical relationship. Views between the East Woodlands and Smith Prairies would remain intact.

The historical character in this area has already been altered by the recent construction of a new home, the installation of two mobile homes, a privately owned grass airstrip, and a large clearcut in the East Woodlands. The viewshed also includes other existing OLF

Coupeville structures such as the red and white airfield tower and several other structures. Therefore, the additional presence of the proposed ECT facility would not adversely affect the view from the East Woodlands looking toward OLF Coupeville. The planned use of landscaping in the Proposed Action would further reduce the impact on this view. Views to the west into the East Woodlands from SR 20 include existing airfield structures already present in this viewshed. While the construction of the proposed ECT facility would add an additional structure in this viewshed, the proposed ECT facility would be below the treeline and the planned use of landscaping and appropriate color and materials in construction would further reduce any potential visual impact. Therefore, the historical character of the East Woodlands as a forest area adjacent to an open prairie would not be altered by the proposed ECT Facility.

Moreover, the East Woodlands area has a lower preservation priority (13th out of 18) than many other areas of the CWIHDELNHR, and the preservation principles for the East Woodlands focus on the preservation of the forest character of the area, which is unaffected by the Proposed Action. Therefore, no additional impacts on the East Woodlands historical character are anticipated due to the Proposed Action.

The No Action Alternative would have no impact on the East Woodlands.

Smith Prairie

The proposed ECT facility would be located at the extreme southern edge of Smith Prairie, far away from the predominant ELNHR public viewing locations and self-guided tour routes along SR 20 to the east (2,300 feet away) and north (5,300 feet away), and a planned future ELNHR wayside located north of OLF Coupeville (5,100 feet away). The proposed ECT facility may be visible from some areas, but it would not create an adverse effect on this area because the top of the proposed structure would be below the treeline. In addition, the potential for adverse effect on the viewshed would be reduced by the use of planned landscaping and an appropriate radome color (dark green to match adjacent tree cover) and building construction materials. This coloration would be the same as the recently constructed FAA facility located within the northern boundary of ELNHR. The nearest public view of the proposed ECT facility would occur along portions of Keystone Road by visitors traveling adjacent to or near the proposed ECT facility. However, this route is seldom used by ELNHR visitors and is not **a** route along the self-guided tour of ELNHR. Views along Keystone Road would be buffered by the continuation of an existing serviceberry hedgerow along the roadway. The planned gravel entrance driveway would be curved to minimize direct views toward the ECT facility. The Navy would also remove the radome portion of the ECT facility when the facility is no longer needed (approximately 25 years). As a result, no adverse effect on the historical character of Smith Prairie as an open, flat agricultural region would occur.

The No Action Alternative would have no impact on Smith Prairie.

Crockett Prairie

The proposed ECT facility would not be visible from Crockett Prairie. Therefore, no adverse effect on the historical character of this area would occur.

The No Action Alternative would have no impact on Crockett Prairie.

The John Kinneth. Jr. House

The proposed ECT facility would not be visible from the John Kinneth, Jr. House. Therefore no impacts to this resource are anticipated under the Proposed Action or the No Action Alternative.

The Harp Place

The proposed ECT facility's dome would be visible from the Harp Place. This building's setting has already been impacted by other development within the ELNHR, such as the installation of mobile homes, as well as alterations outside of the ELNHR, such as the aircraft control tower at OLF Coupeville. The Harp Place, however, is not a contributing building in the CWIHD and is not listed in the NRHP. Moreover, the Proposed Action, as currently defined, would not impact the HARP Place's historical setting.

The No Action alternative would not impact the HARP Place.

3.2.3 Mitigation Measures

No adverse effect on cultural resources is anticipated. Therefore, no mitigation measures are recommended.

3.3 LAND AND SHORELINE USE

This section discusses potential impacts to land and shoreline use from the Proposed Action and the No Action Alternative.

3.3.1 Affected Environment

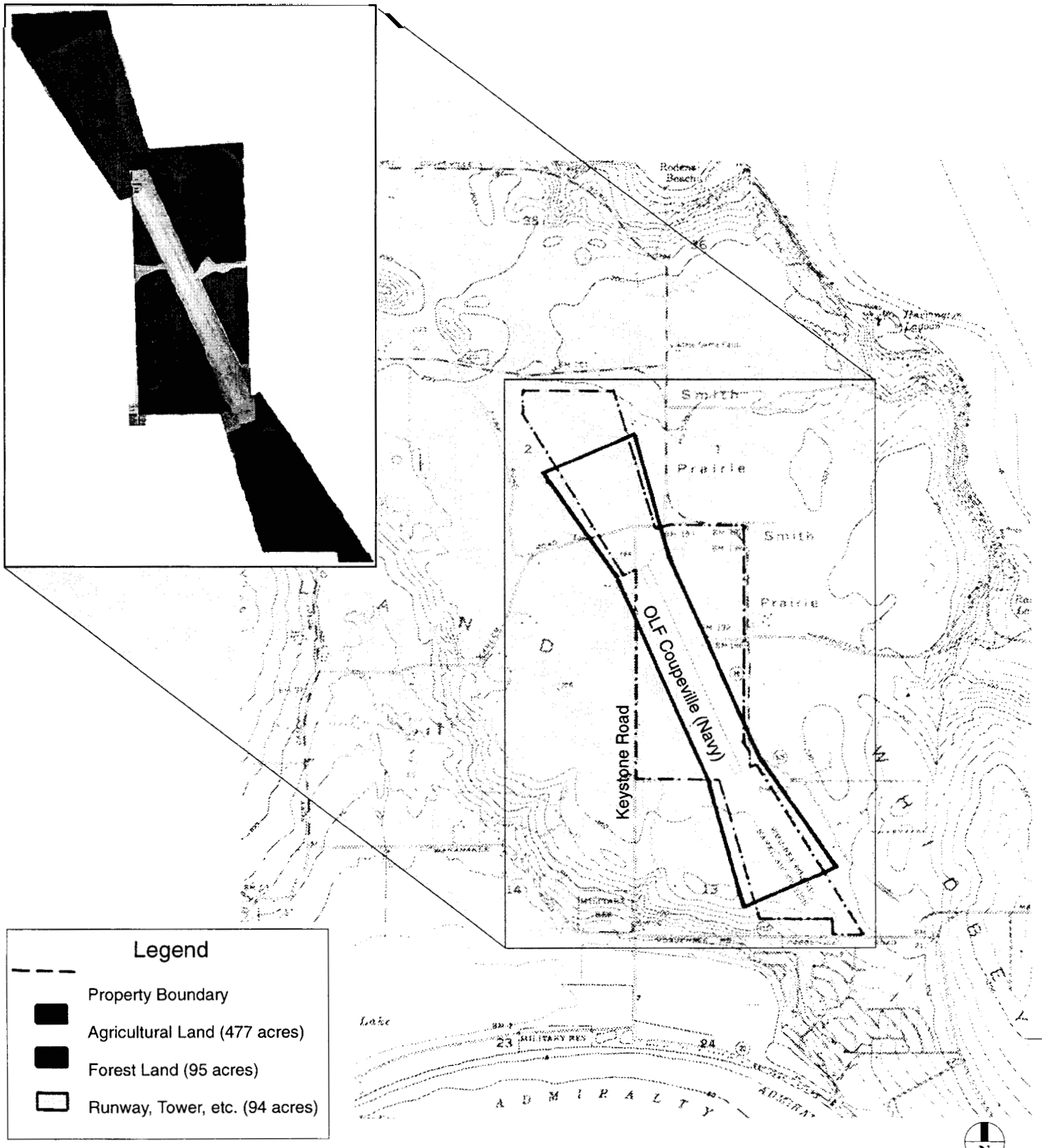
OLF Coupeville is an important air operations facility at NASWI. OLF Coupeville is located approximately 10 nautical miles south-southeast from Ault Field, NASWI. This facility, which is used by fleet aircraft for Field Carrier Landing Practice (FCLP), has a single concrete runway that is 200 feet wide by 5,400 feet long. Elevation of the field is 194 feet mean sea level (msl).

The proposed site lies within Township 31N, Range 1E, Section 12, Willamette Baseline and Meridian. OLF Coupeville is a 666-acre Navy-owned facility that serves as a training runway for simulated carrier landings. The Navy has no plans to surplus this installation. Only a portion of the total land area is dedicated specifically to this purpose. Approximately 94 acres of OLF Coupeville are used for runways and supporting uses, such as access roads and an aircraft control tower. The remaining land is used as buffer for the airfield and is in either agricultural use (477 acres) or forest use (95 acres). The agricultural land is outleased to local farmers while the forest lands are managed by the Navy (Department of the Navy 1989).

The proposed site lies within the Navy's Parcel 4C04 in Field No. **3** (Department of the Navy 1979). The 17-acre Parcel 4C04 comprises the western half of the flat open space bounded by the airfield on the east, Keystone Road to the west, and the runway end zones on the north and south (Figure 3.3-1). The outlease parcel is available only for the cultivation of locally adapted dryland crops, historically being alfalfa, barley, oats, and grass-legume hay. Removal of timber is prohibited. Specific requirements of the lessee also include detailed coordination with the Navy and the use of agricultural and conservation practices and measures (Department of the Navy 1979).

Land uses at OLF Coupeville are subject to Navy regulations regarding Air Installation Compatible Use Zones (AICUZ). AICUZs are established according to a combination of noise and safety concerns surrounding aircraft operations. Both agriculture and forestry are appropriate uses for the lands within OLF Coupeville according to the established AICUZ (Department of the Navy 1988). In addition to establishing compatible and incompatible land use classifications in areas near active landing strips, AICUZ regulations establish an area in which structures or other improvements (i.e., landscaping) are not permitted because of safety concerns. At OLF Coupeville, this no-build area has two components: (1) a 750-foot setback from the airfield runway, plus a transition zone with height limitations located on either side of the runway for the runway's entire length, in accordance with *Facilities Planning Factor Criteria for Navy and Marine Corps Shore Installations* (Department of the Navy, undated); and (2) two Clear Zones, which are rectangular areas extending 3,000 feet beyond each end of the runway (Department of the Navy 1988) (Figure 3.3-2). In addition, OLF Coupeville has an identified Accident Potential Zone (APZ) that follows the common flight paths of training exercises in a "figure 8" pattern. The proposed site, however, is outside the 750-foot no build area and its parallel transition zone, Clear Zones, and the APZs. The proposed ECT facility siting is not within the APZ for the airfield facility. The proposed structure is below the 150 foot AGL level of the "inner plane" that is used to identify potential obstructions to air navigation at military airfields.

The Master Plan for NASWI (Department of the Navy 1988) notes that the value of OLF Coupeville as a training facility is its ability to simulate aircraft carrier landing conditions, particularly at night. Nearby lighting at night, if not properly designed, could impact these simulation conditions. For these reasons, the Master Plan suggests that, with no pressing need for additional facilities, construction at OLF Coupeville should be



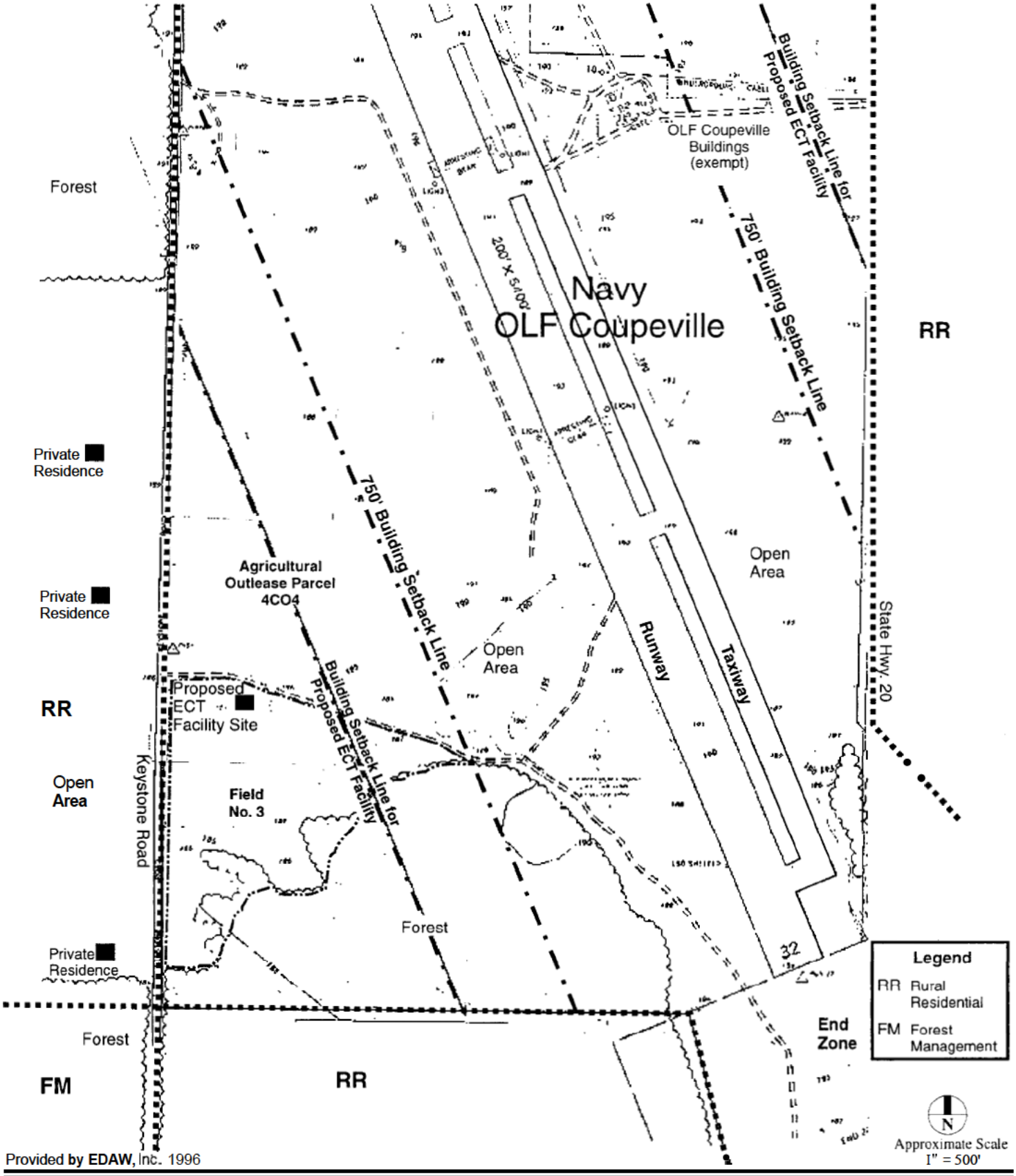
Source: Department of the Navy 1989

Not to Scale

Environmental Assessment
for Electronic Combat Training Facility,
OLF Coupeville, NASWI

OLF Coupeville Land Use

Figure 3.3-1



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Proposed ECT Facility Site and Adjacent Land Uses/AICUZ

Figure 3.3-2

discouraged. The proposed ECT facility location, size, coloration, and lighting design would have no impact on the training operations.

Navy-owned property is exempt from most local land use regulations. Island County establishes land use regulations for the lands surrounding OLF Coupeville. Private lands to the west and south of the proposed site are designated Rural Residential (RR) by Island County (Figure 3.3-2). Private land to the southwest is designated Forest Management (FM). RR lands have a maximum development density of one single-family detached house per 5 acres. Three single-family residences are located near the proposed site. One of these homes, a double-wide mobile home, was constructed within the last few months. FM lands are lands under intensive forest management serving to enhance the County's natural resource base. Appropriate activities for these lands include timber stand management, sustained yield harvesting, reforestation, and related operations (Island County 1977).

Island County is within the State of Washington's Coastal Zone, as defined by the state's Coastal Zone Management Plan (CZMP). Although Federal actions within the Coastal Zone are exempt from CZMP regulations, they are required to undergo consistency review with the state CZMP if the action is planned for within 200 feet of the ordinary high water mark at the coast, or is expected to affect water quality under the provisions of the Clean Water Act.

The nearest shoreline to the proposed site is along Admiralty Bay, approximately one mile south of the site. Under the Island County Shoreline Management Master Program, this shoreline is designated as Natural Environment. Natural Environment is defined as an area relatively free of human influence, chiefly valued for its undisturbed natural features or processes. Development policies for these areas focus on preserving the areas' natural environmental qualities (Island County 1992).

3.3.2 Environmental Consequences

The Proposed Action would convert approximately 2.8 acres of land for the development of the proposed ECT facility, an access driveway and parking lot, creation of an evergreen tree buffer, and a security area surrounding the facility. The Proposed Action would also involve the conversion of approximately 2.8 acres of open field agricultural land to a developed use surrounded by vegetative buffer. The existing agricultural lease for Parcel 4C04 would be amended. However, the agricultural lease would continue to maintain the agricultural appearance along Keystone Road, consistent with the character of the area and ELNHR. This conversion would represent a loss of less than one half of one percent of the total existing agricultural land available at OLF Coupeville. Such a minor change would not constitute a significant impact.

The proposed ECT facility would be sited outside of the no-build area of OLF Coupeville as defined by the 750-foot setback from the runway. Furthermore, the proposed ECT facility that would be 45 feet high (50 feet high if a telescoping antenna is located inside

the radome) is well below the height limitation established by requirements for the transition zone (7:1 distance to height ratio) extending outward from the 750-foot building setback line. The Accident Potential Zones (APZs) or Clear Zones of the airfield are located away from the proposed site. Moreover, the proposed ECT facility would be considered an appropriate land use under the AICUZ policies.

During simulated nighttime carrier landing training exercises, no lights associated with the proposed ECT facility, other than the red beacon required by the FAA, would be illuminated. Since the proposed ECT facility would operate independently of the Navy aircraft carrier landing practices or bounces and not interfere with these training exercises, it would be consistent with the existing training activities at OLF Coupeville and with the NASWI Master Plan (Department of the Navy 1988).

The proposed ECT facility would extend the existing industrial land uses over a larger portion of the OLF Coupeville site. While industrial uses are not considered compatible with residential uses, the low level of noise, lighting, and activity at the proposed ECT facility; the distance between the uses; and the planned screening would minimize any potential land use conflicts. Potential visual impacts are addressed in Section 3.5 of this EA.

The proposed site is approximately 1.1 miles (over 200 feet horizontal distance as specified in CZMP requirements) from the ordinary high water mark and would not affect water quality. Therefore, no CZMP consistency determination is required. Furthermore, the Proposed Action would not be visible from the shoreline of Admiralty Bay. Therefore, the Proposed Action would not impact the designated Natural Environment designation of this shoreline.

The No Action Alternative would not impact the land use of the area or the coastal zone because the status quo would continue.

3.3.3 Mitigation Measures

No significant impacts to land or shoreline use are anticipated from the Proposed Action. Therefore, no mitigation measures are recommended.

3.4 UTILITIES

Utilities at the proposed ECT facility would include potable water, septic, energy/ communications, and stormwater conveyance.

3.4.1 Affected Environment

Utility services would be provided to the proposed site by Puget Sound Power and Light Company (Puget Power) and GTE Telephone. Other on-site utilities would be installed by the Navy. All of these utilities are described below.

Water

Groundwater is the primary source of drinking water in central Whidbey Island and is the only potential source of water for the proposed site. A well that supplies water to the Town of Coupeville is located approximately **0.6** mile southwest of the proposed site. Groundwater resources are described in Section 3.12 (Hydrology) of this EA.

Septic Svstem

Individual septic systems are the only manner of treating sewage waste in central Whidbey Island. The Island County Department of Health is responsible for approving proposed septic system sites and design plans prior to issuing building permits.

Energy/Communications

Puget Power provides electrical power to central Whidbey Island and OLF Coupeville and has existing distribution feed and transmission lines along the rights-of-way of SR **20** to the south and Patmore Road to the north. Both lines are 3-phase primaries. According to Puget Power, capacities are sufficient to serve the proposed site. Puget Power has not determined which line would be used to provide power to the proposed site. Whichever source is selected, an underground line would be installed by Puget Power from the north or south along Keystone Road (pers. comm., Lusky, 1996). Puget Power would also install a transformer next to the proposed ECT facility. No natural gas service pipelines exist in the area and no service will be required at the project site.

GTE telephone service is available at the proposed site. Existing cables are present along Keystone Road (pers. comm., Lusky, 1996).

Stormwater Convevance

The proposed site slopes gently from north to south at less than one percent grade. The low gradient combined with the somewhat excessively drained soils essentially eliminate significant runoff from the proposed site. The nearest surface watercourse that transports runoff from the site is approximately 1 mile from the site. Further discussion is provided in Section 3.12 (Hydrology). On-site drainage is sheetflow. There are no existing drainage facilities.

3.4.2 Environmental Consequences

Environmental consequences of the Proposed Action and the No Action Alternative are described below by utility type.

Water

Since no nearby potable water line or source exists, the Navy would install a new water well near the proposed ECT facility. The Proposed Action would increase long-term water consumption in the area by up to 300 gallons per day when the ECT facility is occupied (pers. comm., Bruce, 1996). This small amount of water is not considered significant and is less than a typical residence. The proposed ECT facility would include a toilet and lunch counter facilities, but no overnight accommodations would be provided. The Navy would consult with the Island County Health Department and secure a County well permit. The source of water would be approved by Island County based on tests conducted by the Navy. The Proposed Action would also increase water use by short-term watering of the landscape vegetation including the evergreen trees and serviceberry hedgerow. Watering would occur only during the dry season and until the vegetation is fully established (approximately 3 years). The Navy would transport the water to the site by vehicle, either from OLF Coupeville, Seaplane Base, or Ault Field. The use of native species of evergreen trees will minimize long-term water consumption once the plants are established. The No Action Alternative would not impact water resources, including groundwater.

Septic Svstem

The daily operation of the proposed ECT facility by four technicians would result in a small increase in sewage waste generated at OLF Coupeville due to the Proposed Action. The Navy proposes to install a sanitary holding tank and leach field septic system on site to dispose of sewage generated by the proposed ECT facility. The Navy would comply with Island County Department of Health regulations regarding septic system site registration and final septic system design. No septic system permit is required by the Navy. The No Action Alternative would not involve a septic system.

Energy/Communications

The Proposed Action would increase demand for electricity and communication utilities. Puget Power electrical capacities are adequate to supply the proposed ECT facility. Puget Power would extend service to the proposed site by an underground line along Keystone Road. Service could be provided from the north or from the south; the precise location or route has not yet been determined. No electrical utility mitigation measures are required. Existing telephone service from GTE is adequate to serve the proposed site. As no impacts associated with telephone utilities would occur as a result of the Proposed

Action, no mitigation measures are required. The No Action Alternative would not affect electrical service and communications.

Stormwater Convevance

The Proposed Action would not significantly affect stormwater runoff. The site has flat topography and is not near any surface watercourses. The site plan would incorporate on-site grading to contain surface runoff and direct it to the surrounding evergreen trees. The Navy would utilize BMPs as defined by Ecology and Island County to minimize impacts from stormwater runoff. The site plan would be developed to meet Navy regulations. Section 3.12 (Hydrology) provides additional detail.

In general, construction activities have the potential to generate a variety of pollutants such as sediment, diesel fuel, motor oil, paints, solvents, and cement. Water quality problems can arise if these pollutants are released to the environment and transported to water bodies via stormwater runoff. Construction of the proposed facility is not likely to affect surface waters since there are no waterbodies on or near the proposed site. However, erosion and sediment control measures during construction are needed to minimize the potential for off-site degradation. To minimize the risk of groundwater contamination during construction, fueling and equipment maintenance would be restricted to a designated staging area that would have an impermeable liner and a spill containment and clean-up kit. The operation of the facility would have no effect on surface water. On-site runoff would be contained and directed to the surrounding evergreen trees.

The No Action Alternative would not impact stormwater conveyance.

3.4.3 Mitigation Measures

No significant impacts to utilities are anticipated from the Proposed Action. Therefore, no mitigation measures are necessary.

3.5 AESTHETICS/VISUAL QUALITY

This section provides an overview of the existing aesthetics/visual resource conditions and the potential adverse effects or impacts of the Proposed Action and the No Action Alternative. To determine the level of visual impact the Proposed Action would have on the surrounding environment, photo simulations were prepared. Photo simulation is a tool by which future conditions can be accurately and realistically illustrated.

3.5.1 Affected Environment

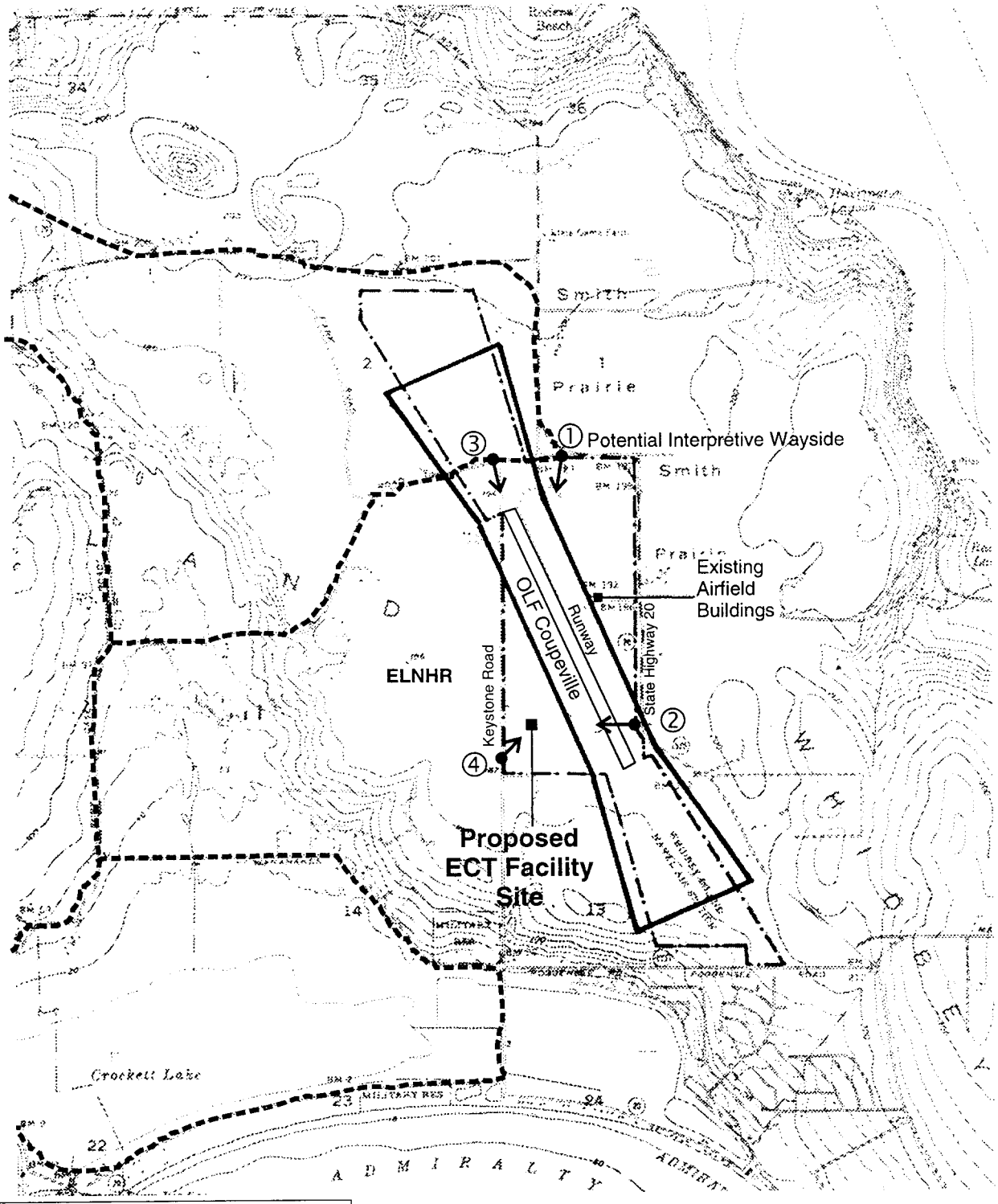
The proposed site is in the southern portion of Smith Prairie and within OLF Coupeville. Smith Prairie is primarily an open, flat grassland and agricultural landscape with only a few trees and structures, providing long panoramic vistas. The native prairie grasses are brown during the summer and fall. Residential and farm structures are located throughout the landscape.

Existing Navy facilities at OLF Coupeville are visible, man-made features in the southern portion of Smith Prairie. These include an airfield runway and a red-and-white checkered tower, a residence, a warehouse structure used to store fire-fighting equipment, and other smaller support facilities. Because the Navy airfield is used for training purposes, typical approach and runway lights are absent.

Surrounding Smith Prairie is dense Douglas-fir forest and mixed woodland vegetation. Ground-level views within Smith Prairie generally extend to the surrounding treeline. These trees provide a dark green visual backdrop with distant views of Mount Baker and the Cascade mountain range on a clear day.

The majority of public views in the southern portion of Smith Prairie are along SR 20 to the east and north of the proposed site, and from the Patmore Road area north of the OLF Coupeville runway. Of these viewpoints, the future site of the planned ELNHR wayside along **SR** 20 and the ELNHR visitor self-guided tour route along Patmore Road and SR 20 are the most prominent public viewpoints. Keystone Road, which parallels the boundary of the ELNHR and OLF Coupeville, is approximately 300 feet west of the proposed ECT facility. This road, however, is used by few ELNHR visitors and is not part of the designated Reserve self-guided tour route. Three nearby private residences are located west of the proposed site along this road.

With cooperation of the Trust Board of ELNHR, four viewpoints were selected to illustrate views of existing conditions and prepare simulations of the Proposed Action. Viewpoint locations are shown in Figure 3.5-1. View 1 is looking south toward the proposed site from the site of a future ELNHR interpretive wayside that is planned to be constructed in 1997 near the intersection of SR 20 and Patmore Road (Figure 3.5-2). View **2** is looking west toward the proposed site from SR 20 as motorists enter and exit Smith Prairie (Figure 3.5-3). View 3 is looking south toward the proposed site from the intersection of Patmore Road and Keystone Road along the nearest ELNHR visitor self-guided tour route (Figure 3.5-4). View 4 is looking northeast toward the proposed site from Keystone Road across OLF Coupeville as motorists would enter Smith Prairie near the proposed site (Figure 3.5-5). This view would also represent the general view from three nearby residences, except the structure would be smaller because the three residences are farther away than this viewpoint on Keystone Road. These viewpoints depict a range of views with particular emphasis on ELNHR resources, which were determined to be the most visually sensitive. Photographs of these four viewpoints were



LEGEND

Viewpoints

Navy Property Boundary

ELNHR Driving & Bicycle Tour Route

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Not to Scale

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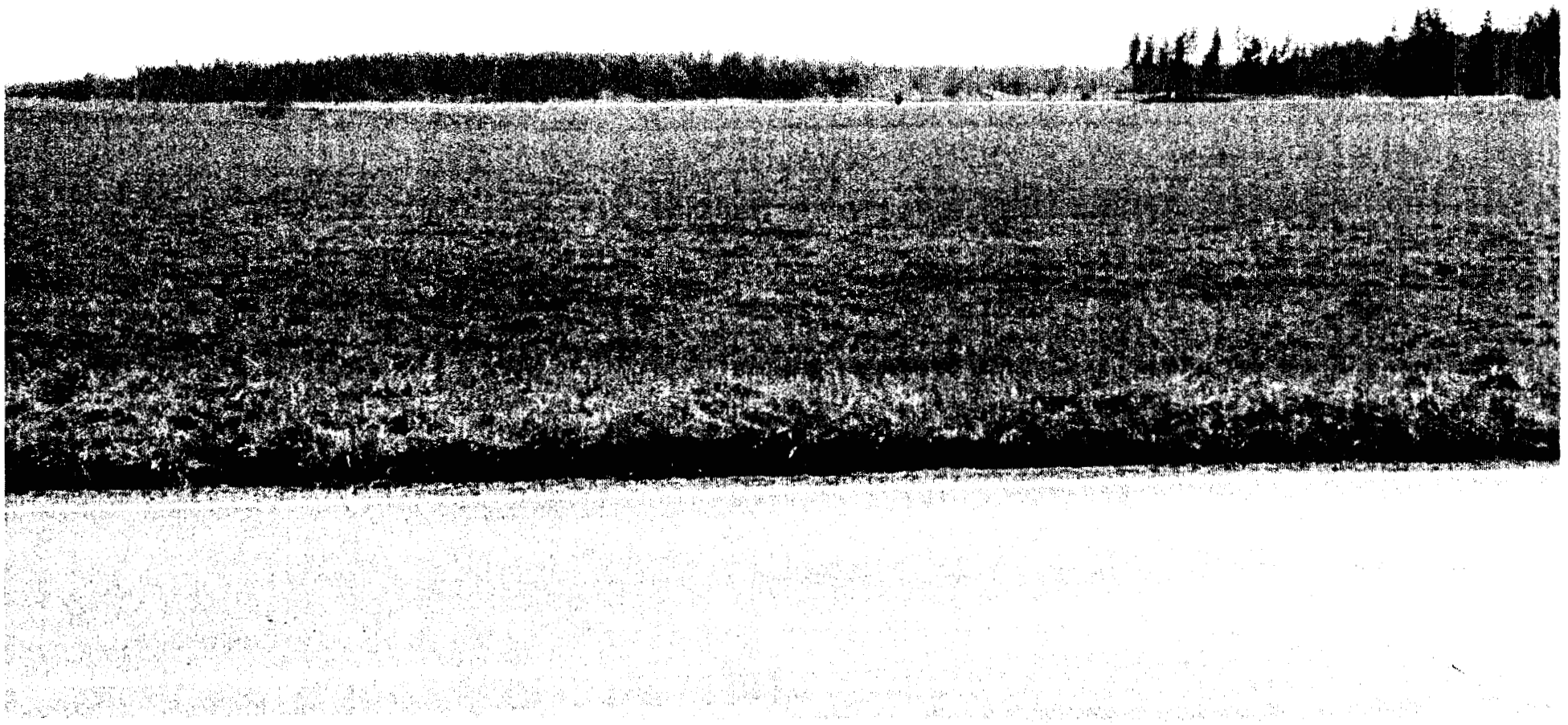
Proposed ECT Facility Simulation View Points

Figure 3.5-1



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View 1: Looking South from the Future ELNHR Wayside Along SR 20 -- Existing Conditions

Figure 3.5-2

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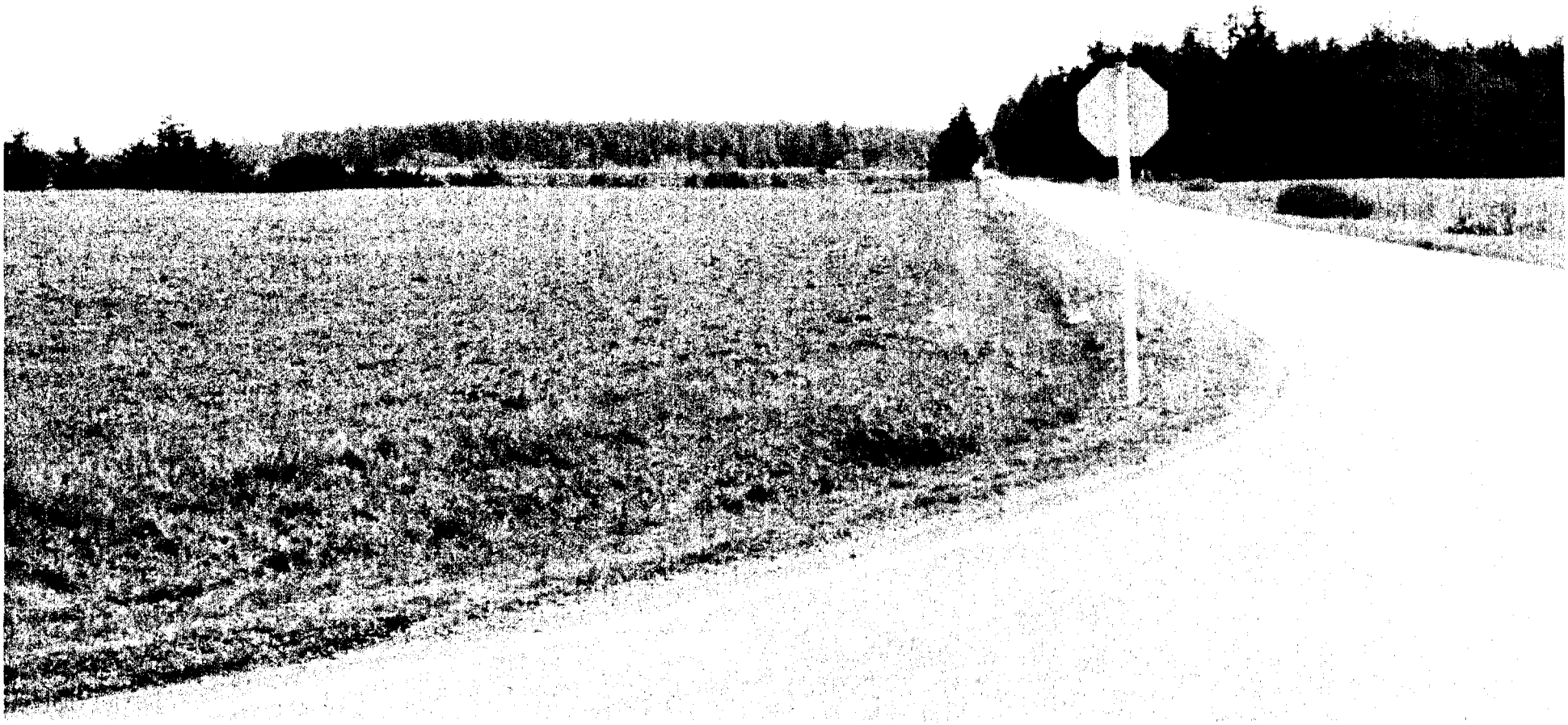
View 2: Looking West from SR 20 -- Existing Conditions

Figure 3.5-3



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View 3: Looking South from Intersection of Patmore & Keystone Roads -- Existing Conditions

Figure 3.5-4

Provided by EDAW, Inc., 1996

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View 4: Looking Northeast from Keystone Road -- Existing Conditions

Figure 3.5-5

taken using a 50 mm lens, which is similar to the perspective of the human eye. Each viewpoint was then scanned by computer to produce a digital image of the photograph.

3.5.2 Environmental Consequences

The visual prominence of the proposed ECT facility can be affected by several variables which give the facility either greater or less visual prominence. These variables include topography, background, landscape content, color, reflection, and viewer orientation. Distance can have a considerable effect on visual and aesthetic quality where the farther the object perceived, the smaller the visual effect. Objects in the background of a view comprise a smaller portion of the total view. Objects in the foreground appear larger and make up a greater portion of the total view. To assess the level of impact from the Proposed Action, the typical angle of view and duration of view was noted from the four selected viewpoints.

As part of the Proposed Action, the radome will be impregnated or painted with an olive green surface color or colors to mimic the surrounding Douglas-fir as seen from a distance. The coloration of the radome would be made to look mottled or weathered. This color was recommended by ELNHR staff based on recent experience with mitigating an FAA radome on Whidbey Island. An evergreen buffer will be planted around the proposed ECT facility and a serviceberry hedgerow will be planted along a portion of Keystone Road (approximately 700 feet long). These actions will provide additional visual screening and make the facility more visually compatible with the existing surrounding landscape.

Changing the height and shape of the radome was considered during initial facility design; however, the height of the ECT facility has been lowered as much as possible. A lower beam height would require a larger facility area and would be impacted by ground effects. Furthermore, the shape of the radome must be spherical due to construction materials and wind load engineering constraints. Therefore, a large cylindrical shape or the shape of a large barn is not practicable.

To determine the level of aesthetic impact of the Proposed Action on its surroundings, a visual impact analysis of the four viewpoints relative to the proposed ECT facility was conducted. The visual impact analysis involved three steps:

(1) Identifying the characteristics of the existing landscape setting;

(2) Identifying the predicted visibility of the proposed ECT facility; and

(3) Comparing #1 and #2 to identify the level of visual impact. This analysis was done for each of the four viewpoints.

To provide a benchmark of the visibility of the proposed ECT facility, a NASWI fire truck was positioned with its ladder extended to 45 feet, simulating the height and approximate location (within 200 feet) of the proposed ECT facility. A computer image

of the proposed structure (wire-frame AutoCAD image) was then superimposed into the digital image of existing conditions using the fire truck ladder as a guide to height and location of the proposed ECT facility.

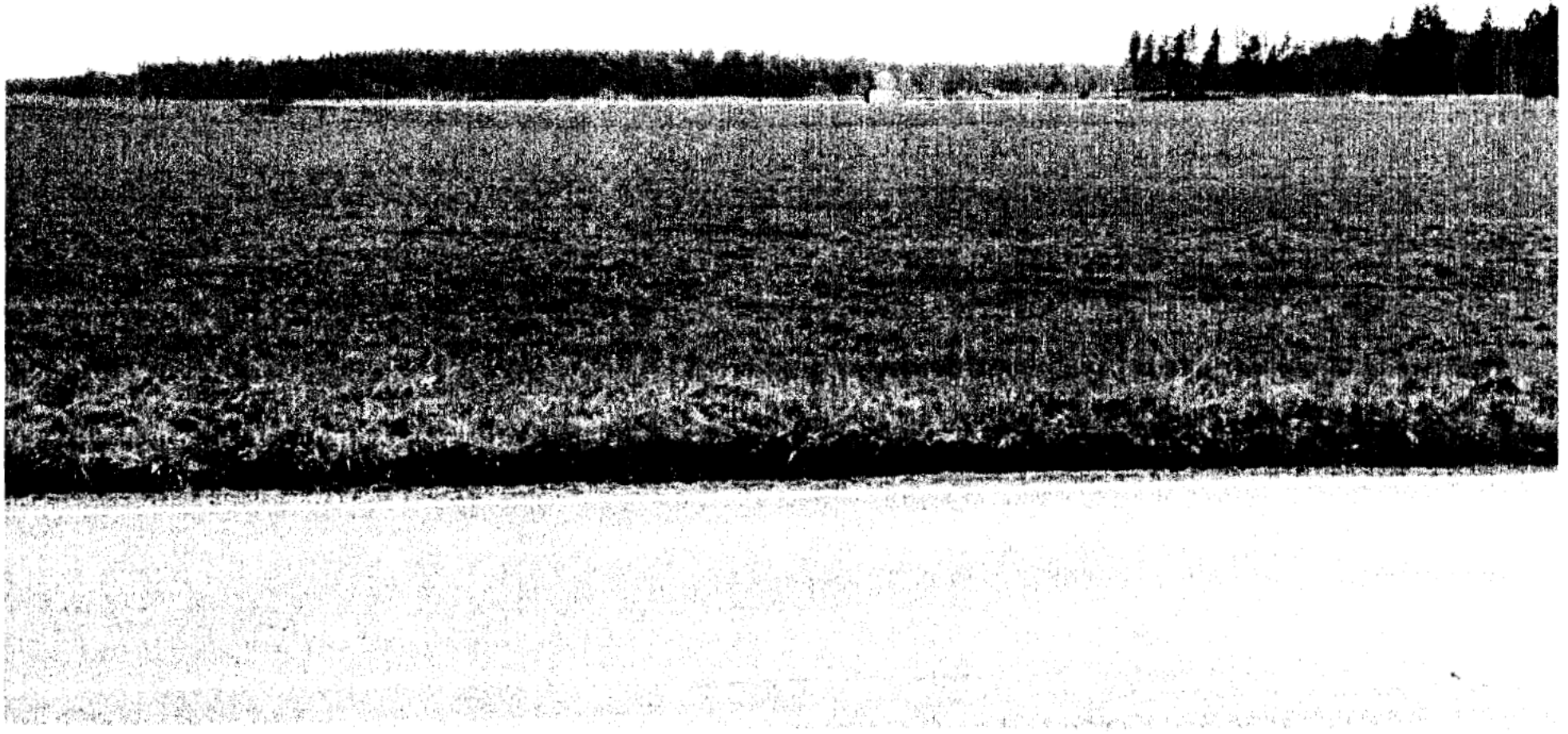
Viewpoint 1 - Future ELNHR Wayside Site at SR 20/Patmore Road

Figure 3.5-6 simulates View 1 of the proposed ECT facility from the future ELNHR wayside site at SR 20/Patmore Road. The proposed ECT facility would be located almost one mile (5,150 feet) to the south. Assuming that the future wayside would include interpretive displays pointing out the features of Smith Prairie and OLF Coupeville, the typical duration of view would be relatively long.

The proposed ECT facility would be a distant feature in the landscape. The top of the proposed radome would be below the existing treeline; therefore, it would not stand out on the horizon. From this viewpoint toward the site, the proposed ECT facility would appear as a distant background element in the landscape and would contrast somewhat with the adjacent grass fields and forest. However, the non-reflective dark green surface treatment and the evergreen trees planted for screening would help minimize the visual contrast. Other OLF Coupeville structures located farther east (to the left of the simulation) and closer (2,730 feet from the wayside site) are included in the larger panoramic view; however, these existing facilities are clustered and located more than 2,630 feet from the proposed ECT facility site. The Proposed Action from this viewpoint is not considered to have an adverse effect on Smith Prairie or ELNHR resources given the elements of the Proposed Action such as the Navy's commitment to eventually remove the radome, siting of the facility, coloration of the radome, and planting of trees for screening.

Viewpoint 2 - View Looking West from SR 20

Figure 3.5-7 simulates the view of the proposed ECT facility from Viewpoint 2. This viewpoint is approximately 2,300 feet from the proposed ECT facility. Views would be perpendicular from the north-south direction of travel on **SR** 20. Assuming the view is from a vehicle, the angle of view would be changing as motorists enter/exit Smith Prairie along SR 20 at a curve; the typical duration of view would be short. The top of the proposed radome would be below treeline. The existing farmstead site, which is immediately north of the access road, has existing tree cover and would not block the view of the facility completely. From here, the view of the proposed ECT facility would be more prominent as compared to View 1, as it would be much closer. It would appear in the middle to background of the landscape and would contrast somewhat with the adjacent grass field and tree line. Because it would be the only tall built structure at the south end of OLF Coupeville, it would visually contrast with the surrounding natural landscape. The landscaping and vegetative screening included in the Proposed Action, however, would screen much of the proposed building. Therefore, the Proposed Action from this viewpoint is not considered to have an averse effect on Smith Prairie or ELNHR resources.



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View 1: Looking South from the Future ELNHR Wayside Along SR 20 -- Simulation of the Proposed Action

Figure 3.5-6

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View 2: Looking West from SR 20 -- Simulation of the Proposed Action

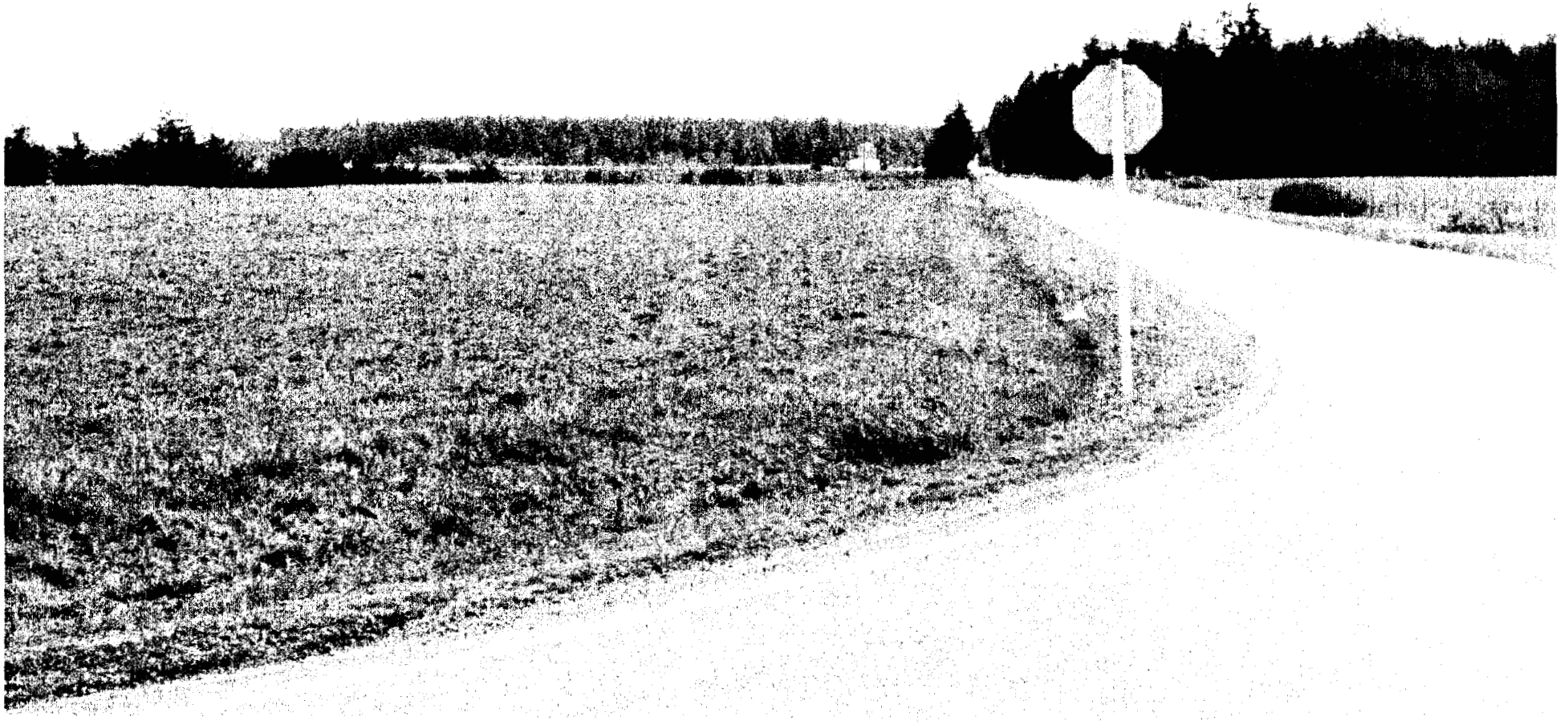
Figure 3.5-7

Viewpoint 3 - View from Self-guided ELNHR Tour at Patmore/Keystone Roads

Figure 3.5-8 simulates the view of the proposed ECT facility from Viewpoint 3. The proposed ECT facility would be located almost one mile (approximately 5,000 feet) to the south. Assuming the view is from a vehicle, the angle of view would be perpendicular from the east-west direction of travel on Patmore Road/SR 20. Since the angle of view is perpendicular as viewers travel this route, the typical duration of view would be short to moderate. Similar to View 1, the proposed ECT facility would be a distant background feature in the landscape. The top of the proposed radome would be below treeline and would not stand out on the horizon. Because the existing farmstead site, with its tree cover, would be between the viewer and the proposed ECT facility, the lower portion of the facility would be less visible. The proposed ECT facility would contrast somewhat with the surrounding landscape; however, the Proposed Action from this viewpoint is not considered to have an adverse effect on Smith Prairie or ELNHR resources.

Viewpoint 4 - View Looking Northeast from Keystone Road

Figure 3.5-9 simulates the view of the proposed ECT facility south from Keystone Road. The proposed ECT facility would be approximately 500 feet to the northeast. The typical view would be at an angle, assuming visitors are traveling along Keystone Road in a north-south direction. The typical duration of view would be short assuming that visitors are traveling by vehicle. The distance to the proposed ECT facility would be relatively close and the facility would be a dominant foreground visual feature in the landscape. Other OLF Coupeville structures, such as the airfield tower, would also be evident in the background. The top of the proposed radome would be above the distant treeline due to its proximity and would stand out in the foreground. The existing farmstead site, with its tree cover, would be north of the proposed ECT facility. Approximately 400 feet south and west from this viewpoint is a single-family residence. Two other residences are located nearby. From here, the proposed ECT facility would be a dominant middle-ground feature in the landscape. Compared to the other three views, the visual contrast of the proposed facility with the surrounding landscape would be the most pronounced. Given its relative proximity to the road, the proposed ECT facility would be a dominant visual feature and would contrast with the agricultural landscape. The radome's dark green coloration, which would allow it to blend with the tree line from the other viewpoints, would contrast with the sky backdrop from this viewpoint. However, views from motorists driving directly adjacent to the proposed ECT facility along Keystone Road would be partially buffered by the tall serviceberry hedgerow over time, and the design of the curving gravel entrance driveway would help block views at the entry point. Furthermore, the vast majority of visitors to Smith Prairie will view the proposed ECT facility from the other viewpoints previously discussed. Considering the all of the elements of the Proposed Action designed to reduce visual impacts, the Proposed Action at this viewpoint is not considered to have an adverse effect on Smith Prairie or ELNHR resources.



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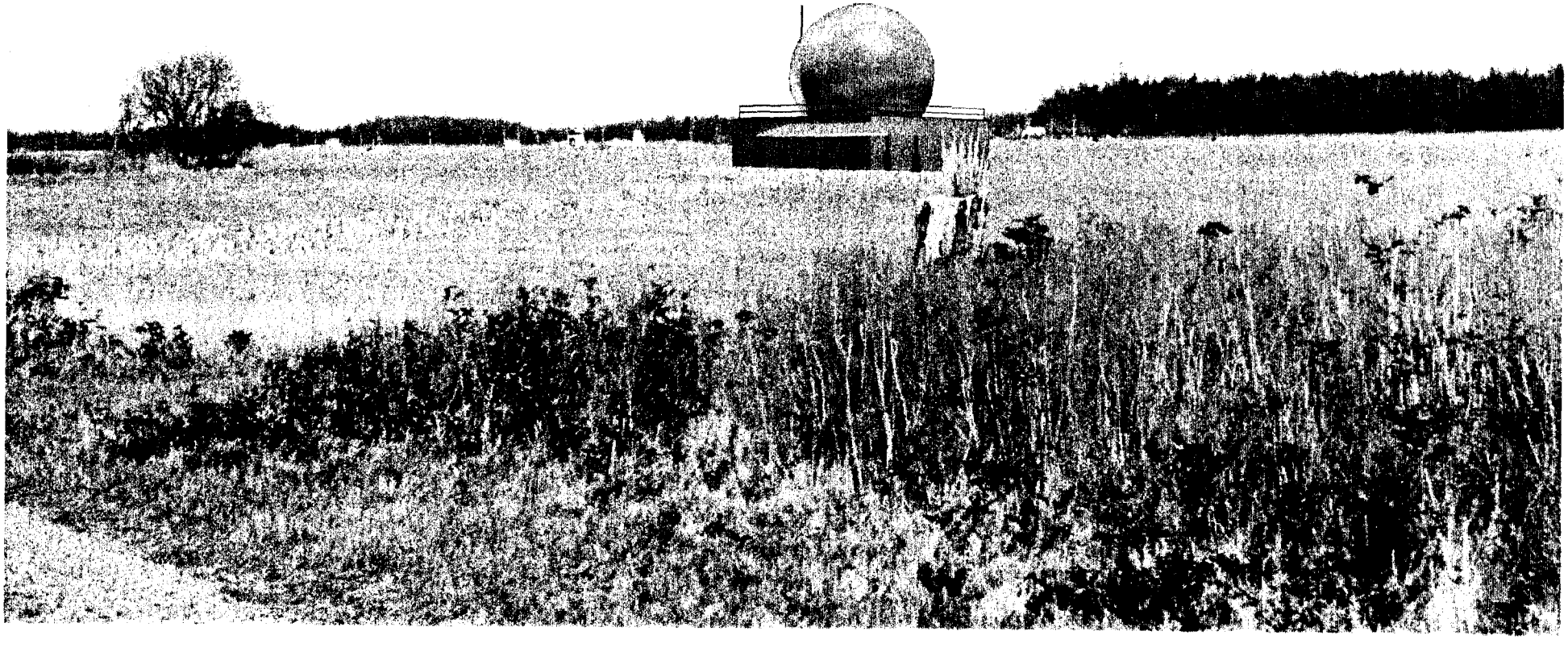
View 3: Looking South from the Intersection of Patmore & Keystone Roads -- Simulation of the Proposed Action

Figure 3.5-8



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View 4: Looking Northeast from Keystone Road -- Simulation of the Proposed Action Without Mitigating Vegetation

Figure 3.5-9

Summary

At distances of approximately 1 mile (Views 1 and 3), the proposed ECT facility would appear in the background and would not be very evident. Within less than 1 mile (Views 2 and 4), the proposed ECT facility would be in the middle-ground and foreground, respectively, and would be more apparent. Additionally, the proposed ECT facility would be more apparent in open flat areas where there are no obstructions from trees or structures and without a visual backdrop of surrounding forest. Painting or impregnating the surface of the proposed radome with a non-reflective dark green color(s) will help minimize the visual contrast by blending the structure in with the surrounding Douglas-fir forest and woodland vegetation. The evergreen tree buffer planted around the proposed facility would provide additional screening. In approximately five years, the evergreen trees would reach approximately 20 feet in height. In the High Zone (See Figure 2.3-1) the Douglas-fir trees would be allowed to continue to grow as long as they did not interfere with the operation of the ECT facility. These trees would grow taller than the radome and would effectively screen the views from the north and south. Trees in the Low Zone would need to be maintained at or below 20 feet so the ECT facility signal would not be blocked (See Figure 2.3-1). In addition, the serviceberry hedgerow to be planted along Keystone Road would help screen views along the adjacent roadway.

Considering the elements of the Proposed Action designed to reduce visual impacts, impacts of the Proposed Action on aesthetics/visual resources in the southern portion of Smith Prairie and the ELNHR are not considered to be an adverse effect.

The No Action Alternative would have no adverse effect on visual resources in the southern portion of Smith Prairie or the ELNHR. However, landscaping elements included in the Proposed Action would not occur, including planting of a serviceberry hedgerow and retention of forest lands near the proposed site.

3.5.3 Mitigation Measures

The Proposed Action includes many built-in measures to eliminate or minimize visual impacts. As a result, no adverse effect on aesthetics/visual quality is anticipated. Therefore, no mitigation measures are recommended.

3.6 ELECTROMAGNETIC ENVIRONMENT

This section discusses the potential impacts of the Proposed Action and No Action Alternative on the electromagnetic environment near the proposed ECT facility.

3.6.1 Affected Environment

NASWI currently operates an existing ECT facility at Seaplane Base. This existing ECT facility operates within the emission characteristics as the proposed ECT facility and has been in operation since 1983. A review of the database maintained by NASWI for the time period of 1988 to 1996 has revealed no calls identifying complaints regarding the existing ECT facility. There have been no reported Electromagnetic Interference (EMI) impacts to Oak Harbor area facilities, including the Oak Harbor police and fire communications centers (1.3 miles), Viacom Cable facilities (1.3 miles), Naval Hospital (4.5 miles), Skagit Valley College (0.5 mile), Navy Exchange (900 feet), Navy Commissary (600 feet), and Navy family housing (450 feet) from the existing ECT facility.

The proposed ECT facility would house an electronic device called a ground threat signal generator or Device AN/FSQ-T22. This is not a radar device. This device has been in use by the Air Force at the Cannon AFB since 1991. The device includes a large aperture circular antenna array that is housed inside the radome, plus an external, telescoping, sail-type antenna (the external antenna may be relocated inside the radome). The antenna array would send signals to Navy aircrews. Pulsed energy signals would be released by the antenna and would range in frequency from 120 megahertz (MHz) to 18 gigahertz (GHz). Continuous wave (CW) signals would also be released ranging in frequency from 4 to 18 GHz. These energy signals would be concentrated within a main beam or beams aimed above the horizon toward the Darrington Airspace and Olympia MOA. These main beams would not be aimed over the nearby town of Coupeville (13,200 feet to the northwest) because the airspaces are situated to the northeast and southwest of the proposed site (see Figure 2.2-3). As with the existing ECT facility at Seaplane Base, NASWI, the proposed ECT facility would be designed, constructed, and operated to limit main beam exposure to designated azimuths, attitudes, and degrees only. Equipment lockouts would preclude the main beam from ever being pointed toward the ground, people, structures, or roads.

For high frequency electronic devices such as this proposed project, the Navy is required to conduct an Electromagnetic Compatibility (EMC) analysis in accordance with the current IEEE Standard C95.1-1991, *Safety Levels With Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 KHz to 300 GHz.* These limits are used as the basis for Department of Defense (DoD) Regulation 6055.11, *Protection of DoD Personnel from Exposure to Electromagnetic Fields at Radio Frequencies from 3 Kilohertz to 300 Gigahertz.* This EMC analysis ensures that the specified equipment and systems can be operated in the intended operational electromagnetic environment at

designed levels of efficiency without degradation due to EMI and without causing Radiation Hazard (RADHAZ) problems. A "worst-case" condition is used in this analysis. Actual measured radio frequency (RF) levels would be smaller than the calculated values due to system losses and less than optimum performance by transmitters and antennas. This Navy EMC analysis that was conducted in 1996 is required as a precursor to a required Navy Site Approval. Results of the analysis are summarized in Section 3.6.2. EMI and RADHAZ are discussed further below.

EMI - EMI is defined as any electromagnetic disturbance, phenomenon, signal, or emission that causes or can cause undesired response of electrical or electronic equipment. Common examples are lines on a TV set or static on a radio. EMC safe separation distances have been defined for areas surrounding antennas where W field strengths are 10 Volts/meter (V/m) or greater.

Potential sensitive receptors related to EMI from the Proposed Action, as well as potential EMI-related issues identified by the public, include: (1) non-military communications equipment that typically have a design interference sensitivity level of 1 V/m (pers. comm., Harvey, 1996); **(2)** communication operations in the town of Coupeville; (3) hospital/medical facilities with sensitive equipment located in the town of Coupeville; (4) electronic equipment used by nearby residents and motorists traveling along area roads, including Keystone Road (300 feet to the west) and SR 20 (located farther away); *(5)* aircraft within or near the main beam; and (6) people with implanted pacemakers in the vicinity of the proposed ECT facility.

RADHAZ - RADHAZ is broken down into three areas: Hazards of Electromagnetic Radiation to Personnel (HERP), Hazards of Electromagnetic Radiation to Fuel (HEW), and Hazards of Electromagnetic Radiation to Ordnance (HERO). Strong RF fields can be hazardous to personnel and the public. Maximum Permissible Exposure (MPE) limits have been established by the IEEE and DoD and are based on recognized thermal effects. These effects are the actual heating of tissue due to the absorption of RF energy. These limits vary by the time of exposure and whether the area is controlled or uncontrolled. Personnel can be exposed to higher RF fields than those listed in the requirements, but for a shorter period of time. The RF strength increases as one moves closer to the source antenna.

HERP - The biological effects of RF exposure are thermal in nature and have been determined to be a function of the specific absorption rate (SAR). The threshold for adverse biological effects is recognized to be 4 Wattskilogram *(Wkg)* for whole body exposure. Due to numerous variables that affect the SAR and the need to account for partial body exposure, the MPE limits are set at one-tenth this level, or 0.4 W/kg. The MPE limits are expressed in terms of measurable in-the-field parameters such as number of feet from an emission source and number of minutes of exposure.

Limits are set for controlled (inside Navy control) and uncontrolled (outside Navy control) environments. In controlled environments, persons are cognizant of the potential

for exposure and the limitations for being in a particular area for a given length of time. These areas are often fenced and signed. Uncontrolled environments are locations where there is the exposure of individuals who have no knowledge or control over their exposure levels.

The HERP safe separation distances for each emitter are based on the Permissible Exposure Limits (PELs) provided in IEEE Standard C95.1-1991. In a controlled environment, HERP distances for the proposed ECT facility range from 1 to 66 feet. In an uncontrolled environment, HERP distances for the proposed ECT facility range from **32** to 107 feet.

Potential sensitive receptors related to RADHAZ from the Proposed Action, as well as potential RADHAZ-related issues identified by the public, include: (1) personnel operating the proposed facility within the fenced security zone and inside the structure; **(2)** people outside the fenced security zone, such as hunters and farmers; **(3)** occupants of three nearby residences west of Keystone Road (the closest residence is approximately **630** feet away); and **(4)** wildlife, including the bald eagle and peregrine falcon.

HERF - In specific circumstances, RF fields can also ignite fuel vapors. Handling of fuels under normal circumstances and in normal temperatures does not pose a problem. Due to the many variables, minimum separation distances have been established between RF sources and fueling activities. Setback distances range from 50 to 200 feet.

HERO - Like fuel, military ordnance can also be ignited under specific circumstances. Of particular concern are electronic devices on modem ordnance that are triggered electronically. There is no hazard to small arms ammunition.

3.6.2 Environmental Consequences

To minimize visual impact to the Smith Prairie landscape, the Navy investigated whether the proposed ECT facility could be lowered in height with the radome at approximately ground level and the support facility located underground. This would lower the overall height of the facility by approximately 15 feet. The Navy concluded that placing the antenna array at ground level would distort the beam pattern radiated to the aircraft due to ground effect. From a safety standpoint, if the antenna pedestal was placed at ground level, the safety zone required to provide an adequate distance to meet HERO, HERF, and HERP requirements would call for a much greater fenced area and an impractical working environment. By elevating the pedestal the height of the one-story support building, approximately 15 feet, the antenna beam pattern is propagated above building height and its energy dissipated in a manner that meets all applicable IEEE standards and HERO, HERF, and HERP safety standards at a shorter safe distance.

Based on the Navy's EMC analysis, Navy Site Approval has been recommended for the Proposed Action (technical memo from Commanding Officer, Naval Command, Control and Ocean Surveillance Center, 1996). This analysis used a worst-case condition and

considered the location and type of sensitive receptors in the project vicinity. No adverse impact from the Proposed Action is anticipated based on all current applicable IEEE standards and DoD regulations. The Navy would comply with all applicable IEEE standards and all recommendations of the Navy Site Approval for the Proposed Action.

EMI - Based on the EMC analysis, no adverse impacts would occur because of the Proposed Action to potential sensitive receptors related to EMI if all Navy Site Approval recommendations are followed. These potential receptors include: (1) non-military communications equipment which have **a** design interference sensitivity level of 1 V/m; **(2)** communications operations in the town of Coupeville; (3) hospital/medical facilities with sensitive equipment in the town of Coupeville; (4) nearby residents and motorists traveling along area roads, including Keystone Road and SR 20; (5) aircraft within the main beam; and (6) persons with implanted pacemakers.

The Navy would submit a request for frequency assignment to operate the proposed ECT facility to be forwarded to the Navy Area Frequency Coordinator and the Joint Frequency Panel of the United States Military Communications-Electronics Board. The Navy has filed an application with the FAA for Proposed Construction, FAA Form 7460-1. This form addresses frequency and power transmissions related to aircraft and airfields. The FAA will further determine if restrictions on usage or direction may be required. This information would also be provided to the FCC for review.

The proposed ECT facility should have no impact on vehicle electronics. During the entire operational life of the existing 15E34A at Seaplane Base, automobiles belonging to the technical personnel have parked within 50 feet of the facility with no known adverse effects on electronics. The operational ECT facility at Cannon AFB also has parking vehicles adjacent to the facility with no known problems.

HERP - No adverse impacts would occur because of the Proposed Action to potential sensitive receptors related to RADHAZ if all Navy Site Approval recommendations are followed.

There are no significant hazards to personnel operating the proposed ECT facility according to operational experience elsewhere. The current device 15E34A has been functionally operational since 1983. Since that time, the facility in which it is housed has been staffed 16 hours per day, five days per week by 4 to 10 technicians with no known adverse effects. The 15E34A is located adjacent to the NASWI fire department, aviation gas fuel farm, marina, Navy exchange, and base housing. There are no reported incidents of interference or disruption of any of these activities by the operation of the 15E34A ECT.

Since public property and Keystone Road are at least 300 feet west of the proposed ECT facility, no HERP hazard would exist outside the security fence, off Navy OLF Coupeville property, or for nearby residents or any future residents in the area.

IEEE Safety Standard C95.1-1991 does not preclude the possibility of generating RF sparks or shocks through personal contact with conducting objects. Therefore, there is potential for exposure to RF hazards by on-site Navy technicians that may be located outside the building but within the security fence when the device is in operation. This potential hazard, however, would be addressed through signing and operational requirements included in the Navy Site Approval. Radio frequency hazard warning signs would be posted in the vicinity of the radome/antenna, especially in areas that technicians/visitors would normally use to transit to and from the proposed facility (e.g., parking lot and access driveway).

IEEE Safety Standard C95.1-1991 exposure limits are not exceeded in areas subject to public occupancy and, unlike some proposed exposure guidelines for low-frequency (power lines) electromagnetic fields, C95.1-1991 does not identify cardiac pacemaker wearers as being at risk from the subject fields.

Although there is a protected stand of trees containing a nesting pair of eagles within a quarter mile of the 15E34A at Seaplane Base, the birds fly the air currents flowing off the bluff and have continually flown within a few feet of the current ECT facility with no known adverse effects. There are no nesting eagles in the immediate vicinity of OLF Coupeville, and this area is not frequently used by eagles for foraging or roosting.

The Navy has also investigated whether there would be any adverse effects from aircraft jamming signals sent from Navy aircrews directed toward persons or property on the ground. One of the basic principles of electronic warfare concerns electronic equipment where it is most vulnerable - at the receiver. The electronic systems of concern function with signal sensitivity levels greater than -100 dBm. Typical aircraft jammer power levels are attenuated by distance, atmospherics, and environmental effect, reaching the targeted systems on the ground at power levels of approximately 158 pW (158×10^{-12} W). This power level may be compared with a typical cell phone that utilizes 600 mW (600×10^{-3} W) of power. The typical cell phone user receives approximately 211 mW (211×10^{-3} W) of energy. The amount of energy received by a person or object on the ground from an aircraft jammer would be negligible, or a billion times smaller than the amount of energy received by an average cell phone user.

HERF - There are no significant hazards because of the Proposed Action to fuel as supported by current U.S. environmental and safety standards, where applicable. Since no fueling would occur within the allowed distance under the Proposed Action, no HERF hazard would exist.

HERO - OLF Coupeville does not store ordnance so there would be no HERO hazard under the Proposed Action. In addition, aircraft currently fly within the main beam of the 15E34A without adverse effects.

The No Action Alternative would not result in any EMI impacts and would have no RADHAZ impacts in the area surrounding the proposed site.

3.6.3 Mitigation Measures

No adverse impacts to the electromagnetic environment are anticipated. Therefore, no mitigation measures are necessary.

3.7 CLIMATE AND AIR QUALITY

3.7.1 Affected Environment

Whidbey Island has a uniform marine climate with temperature extremes modified by prevailing westerly winds from the Pacific Ocean. The marine influence is responsible for the relatively mild but distinct wet and dry seasons associated with the area. The mean annual temperature at OLF Coupeville is 46.6°F (Department of the Navy 1989). Average annual precipitation is approximately 20 inches due to the precipitation shadowing effect of the Olympic mountains, which cause prevailing southeast storms to drop most of their moisture before reaching Whidbey Island. Snowfall is a relatively rare occurrence and usually melts within a day or two.

Spring and summer are characterized by clear, sunny days, with average daily maximum temperatures of 57.9°F. Winds are light and variable. In winter, a relatively stationary low pressure region develops in the Aleutian Islands in Alaska. This low pressure region sends storms through Puget Sound and is responsible for overcast, rainy winters with occasional fog. The average daily minimum temperature is 41.2°F. The strongest winds occur from the south or southeast during intense Pacific winter storms. Winds may exceed 55 mph once every two years and 80 mph once every 50 years. The design of the ECT facility would incorporate appropriate features to address the specific climatic conditions at OLF Coupeville including heating and cooling.

The Whidbey Island air basin is considered an air quality attainment area. Air quality in the area surrounding the project site is regulated by the EPA, Ecology, and the NWAPA. The NWAPA is the local air pollution control agency serving Island, Skagit, and Whatcom counties. The NWAPA is not required to conduct a new source review for this project because they only have jurisdiction over non-mobile emissions. The EPA has established National Ambient Air Quality Standards (NAAQS) to protect the health and welfare of the public. Ecology has established standards for the State of Washington that, except for more stringent sulfur dioxide limits, parallel the NAAQS. Table 3.7-1 summarizes the Federal, State, and local ambient air quality standards.

Monitoring of ambient air quality on Whidbey Island is limited. NWAPA operated a total suspended particulate (TSP) monitoring station in Oak Harbor, but it was discontinued after documenting several years of low TSP levels. The other NWAPA air quality monitoring network is associated with an industrial complex near Anacortes. Sulfur dioxide levels there are approximately 30 percent of the 3-hour, 24-hour, and annual national standards, and about half of the short-term State standards. Because of

the low level of sulfur dioxide emitted locally and the distance from Anacortes, sulfur dioxide is not considered by NWAPA to be a problem in the Whidbey Island - Coupeville area. Carbon monoxide, oxides of nitrogen, and ozone are not measured on Whidbey Island. However, the ambient levels of these pollutants are not expected to be of concern. The population near OLF Coupeville is sparse and the number of major industrial sources is limited. The only major source near the site is NASWI near Oak Harbor, which according to a 1993 letter from the NWAPA has emitted volatile organic compounds, particulate matter, nitrogen oxides, sulfur dioxides, and carbon monoxide.

Table 3.7-1. Ambient Air Quality Standards.

POLLUTANT	NATIONAL Primary	NATIONAL Secondary	WASHINGTON STATE	PUGETSOUND REGION
Carbon Monoxide (CO)				
8-Hour Average	9 ppm		9 ppm	9 ppm
1-Hour Average	35 ppm		35 ppm	35 ppm
Particulate Matter (PM_{10})				
Annual Arithmetic Average	50 µg/m³	50 µg/m³	50 µg/m³	50 µg/m³
24-Hour Average	150 µg/m³	150 µg/m³	150 µg/m³	150 µg/m³
Ozone (O_3)				
1-Hour Average	0.12 pprn	0.12 pprn	0.12 pprn	0.12 pprn
Sulfur Dioxide (SO_2)				
Annual Average	000.03 pprn		0.02 pprn	0.02 pprn
30-Day Average				0.04 ppm
24-Hour Average	0.14 pprn		0.10 pprn	0.10 pprn[a]
3-Hour Average		0.50 pprn		
1-Hour Average[b]			0.25 pprn	0.25 pprn
1 Hour Average			0.40 pprn	0.40 pprn
5-Minute Average[c]				1.00 pprn
Lead (Pb)				
Calendar Quarter Average	1.5 µg/m³	1.5 µg/m³	1.5 µg/m³	1.5 µg/m³
Nitrogen Dioxide (NO_2)				
Annual Average	0.05 pprn	0.05 pprn	0.05 pprn	0.05 ppm

ppm = parts per million (volumetric)
µg/m³ = micrograms per cubic meter
[a] *Sulfur dioxide short-term standard never to be exceeded.*
[b] *Not to be exceeded more than twice in 7 days.*
[c] *Not to be exceeded more than once in 8 hours.*

Source: 40 CFR 50 (Federal); WAC 173-470 (State); Puget Sound Air Pollution Control Agency (PSAPCA) Regulations, Section 17.07 (local)

3.7.2 Environmental Consequences

The primary air pollutant emissions from the Proposed Action would be from construction activities and automobile trips associated with construction activities and operation of the facility. These impacts are summarized below.

Construction activities associated with the Proposed Action would temporarily generate locally elevated levels of pollutants, primarily suspended particulate matter due to the operation of portable generators and compressors that would produce exhaust emissions, use of heavy equipment, and local construction-related traffic. The movement of construction workers and materials to and from the project site would result in vehicle exhaust emissions and the generation of fugitive dust near the site. Soil disturbance during site preparation (clearing and grading) is likely to be the primary source of fugitive dust. However, such activities would be temporary and are not expected to significantly affect air quality. No large quantity of fill material will be required. Furthermore, the Navy would develop and implement appropriate fugitive dust control measures during the construction period. These dust control measures would reduce the emission of particulates, including during non-working periods. These measures would include the use of dust suppressants (i.e., site watering during dry periods), street sweeping, and reducing vehicle travel speeds over exposed surfaces. These measures could likely reduce on-site particulate emissions by up to 50 percent and would ensure compliance with Section 550 of NWAPA regulations (NWAPA 1993).

The operational impacts of the Proposed Action to air quality are minimal and would include primarily air pollutant emissions from vehicles used by technicians commuting to and from the proposed ECT facility. Four personnel (two shifts of two personnel each, five days a week) would operate the proposed ECT facility, resulting in four extra round trips to and from the site (most likely from the Oak Harbor area). This very small increase in traffic is not expected to be a significant impact to air quality. The facility itself would not emit any criteria pollutants. There would not be any backup generators.

The No Action Alternative would not affect climate or air quality, as no construction and no new operational activities would occur.

3.7.3 Mitigation Measures

No significant impacts to climate and air quality are anticipated. Therefore, no mitigation measures are necessary.

3.8 TRAFFIC AND CIRCULATION

3.8.1 Affected Environment

The proposed project site would be accessed by acquiring a County road access easement and constructing a 250-foot-long, 24-foot-wide gravel driveway from Keystone Road. Keystone Road is a two-lane local arterial County road with a posted speed limit of 50 mph and has a shoulder easement of 20 feet on either side. The project driveway would intersect Keystone Road approximately 0.9 mile from its intersection with Patmore Road and 1.1 miles from the two-lane SR 20. Just southeast of OLF Coupeville, SR 20 meets **SR** 525, which connects to the city of Clinton in southern Whidbey Island. The 3.4-mile segment of SR 20 between the Keystone ferry landing and SR 525 has a level of service (LOS) rating of "A" that indicates high quality traffic service. This LOS rating is not anticipated to change through the year 2003 (Island County 1994). The SR 20 speed limit in the vicinity of the intersection with Keystone Road is posted at 55 mph. SR 20 has been identified by the Washington Department of Transportation (WSDOT) as a ***Designated Bicycle Touring Route*** (Island County 1994).

Visitors to the ELNHR travel through the Reserve by way of SR 20 and five other roads that intersect SR 20. Keystone Road may also be used to travel in north-south directions but is not a heavily used route for Reserve visitors (pers. comm., Harbour, April 15, 1996).

None of the State or County roadways in the vicinity of the proposed project currently have, or are expected to have, LOS ratings of "D" any time in the near future (Island County 1994). LOS D is considered to be the service level beyond which traffic levels create adverse impacts. Although groups of vehicles may occasionally form, traffic flow would remain stable and Island County LOS standards for rural areas would continue to be met. There are no highway improvements planned for the roads in the vicinity of the proposed project site.

3.8.2 Environmental Consequences

Short-term traffic impacts because of the Proposed Action from construction of the proposed facility would result due to the use of construction vehicles, hauling of construction materials, and construction workers traveling to and from the site on a daily basis during the approximately 10-month construction period. No significant hauling of fill material would be required. The arrival rate of trucked construction materials would vary over the construction period, as would the number of daily construction workers at the site. During construction, the Navy would use flaggers as needed to safely control construction traffic on Keystone Road and to guide large construction vehicles into and out of the proposed ECT site. Construction workers would likely arrive and leave during peak traffic periods (a.m. and p.m. peak), although typical construction activity would be spread beyond an 8-hour work period. It is anticipated that a maximum of 15 employees

would report to the site on any given day. Most workers would drive their own vehicles and park on Navy property. Construction traffic and parking are not expected to have a significant impact on the surrounding traffic.

Operation-related impacts because of the Proposed Action would be limited to the addition of approximately four daily round trips occurring five days a week between the proposed ECT facility and the Oak Harbor area. The project would not cause a doubling of traffic volumes, which is the standard used by Navy Military Traffic Management Command (MTMC) guidelines to determine if roadway improvements are warranted. No significant impacts would occur to WSDOT-controlled facilities as a result of the Proposed Action. No intersections or road segments would be permanently impacted by 10 or more peak hour trips, which is the threshold to require a traffic impact analysis under WSDOT guidelines. The proposed access driveway would access Keystone Road 0.9 mile from the nearest intersection and would meet Island County arterial access spacing requirements. The Navy would acquire a County road access easement to construct a gravel driveway to the ECT facility. The Proposed Action would conform to Island County's building setback of 20 feet from local access road rights-of-way (Island County 1994). Furthermore, the Navy would comply with all Island County Engineering Design and Development Standards and the Island County Fire Code related to adequate site access and safety sight distances (500 feet for a 50 mph road).

The No Action Alternative would not affect traffic conditions, as no construction and no new operational activities would occur.

3.8.3 Mitigation Measures

No significant impacts on traffic and circulation are anticipated. Therefore, no mitigation measures are recommended.

3.9 VEGETATION

3.9.1 Affected Environment

The proposed site is entirely within an agricultural field used primarily for growing hay grass, such as alfalfa *(Medicago sativa)*, but **also** may include varying amounts of orchardgrass (*Dactylis glomerata*), tall fescue (*Festuca avundinaceae)*, bromegrass *(Bromus* spp.), bluegrass (*Poa* spp.), bentgrass *(Agrostis* spp.), clover *(Trifolium* spp.), and barley *(Hordeum jubatum*). Winter wheat *(Triticum aestivum)*, oats *(Avena sativa)*, and peas (*Pisum sativum)* are also grown on site. Approximately 477 acres of the 666 acres at OLF Coupeville are outleased agricultural lands. Agricultural vegetation is compatible with the operation of OLF Coupeville and the adjacent ELNHR. The cultivated land may have supported native Camas (*Camassia* sp.) and other prairie vegetation prior to settlement (letter from Skubi, 1996). An abandoned farmstead is located along Keystone Road, and lies immediately north of the access driveway and

building site. It is dominated by apple/pear trees, shrubs, and blackberries. Douglas-fir (*Pseudotsuga menziesii*) dominated forests occur within 0.25 mile of the site. There are no rare plants, or sensitive native plant communities associated with the site (Department of the Navy 1989; letter from WDFW, 1996).

3.9.2 Environmental Consequences

The Proposed Action would eliminate approximately 2.8 acres of outleased agricultural area. Of this total, approximately 1.3 acres would be occupied by the proposed facility, security zone, parking lot, and driveway; the remaining 1.5 acres would be converted from cultivated field to an evergreen tree buffer. The Navy would revise the existing boundary of the outleased agricultural parcel. This change in use is not considered a significant impact to vegetation resources in the area. The Navy would design and construct the project to minimize the amount of land converted from agricultural use and would avoid any impacts to the nearby forested areas. Landscaping of the ECT facility and buffer would be consistent with vegetation in the area and will help visually screen the new structures and parking lot. During construction, the Navy would plant approximately 83 evergreen trees (Douglas-fir and Leyland cypress *[Cupressocyparis leylandii*]) surrounding the ECT facility, blending the buffer vegetation with the existing vegetation. **A** serviceberry hedgerow would be planted extending from the proposed driveway south along the east side of Keystone Road to the existing forest vegetation (approximately 700 feet long).

The No Action Alternative would result in the retention of the 2.8 acres of existing agricultural vegetation, principally hay grass.

3.9.3 Mitigation Measures

No significant impacts to vegetation are anticipated. Therefore, no mitigation measures are necessary.

3.10 WILDLIFE AND FISHERY RESOURCES

3.10.1 Affected Environment

There are no streams or open water bodies at OLF Coupeville; therefore, fish and other water-dependent species of wildlife are absent. The primary mammal species that may occasionally use the agricultural fields at the proposed site and nearby forests include: black-tailed deer (*Odocoileus hemionus columbianus*), red fox *(Vulpes vulpes)*, coyote *(Canis latrans)*, weasel (*Mustela* sp.), European rabbit (*Oryctolagus cuniculus)*, cottontail rabbit (*Sylvilagus floridanus*), Douglas squirrel (*Tamiasciurus douglasii)*, mice (*Peromyscus* sp.), voles *(Microtus* sp.), and moles (Family Talpidae). Department of the Navy (1989) lists 139 species of birds that potentially occur at OLF Coupeville.

However, many fewer are likely to occur at the project site due to agricultural uses and air operations at OLF Coupeville. Northern harriers *(Circus cyaneus*), red-tailed hawks (*Buteo jamaicensis*), and owls may occasionally forage on small mammals, and ground-foraging birds such as sparrows and western meadowlarks (*Sturnella neglecta*) may feed on plant seeds. Approximately 400 ring-necked pheasants (*Phasianus colchicus*) are released each year on portions of OLF Coupeville for hunting purposes.

The bald eagle (*Haliaeetus leucocephalus*), a threatened species under the Endangered Species Act (ESA), is the only Federally or State-listed or sensitive species (a species that is proposed for listing, a candidate for listing, or a species of concern) known to occur near the site (letter from WDFW, 1996; letter from **USFWS,** 1996). Bald eagles are regularly seen at OLF Coupeville. There are three nesting territories within approximately 5 miles of the site – two along the Saratoga Passage shoreline and one along Admiralty Bay. According to the WDFW, the nearest nest is located about **2** miles northeast of the proposed site. There are no known roost or perch sites in proximity to the site. Bald eagles have been know to prey on the ring-necked pheasants that occur near the site and may fly over the area while foraging. The **U.S.** Fish and Wildlife Service **(USFWS)** also indicated that bald eagles may occur in the vicinity of the project during the wintering period of about October 31 through March 31.

The peregrine falcon (*Falco* ***peregrinus),*** a Federally listed endangered species, may migrate through the project vicinity in the spring and fall (letter from the **USFWS,** 1996). However, it is unlikely that the falcon occurs near OLF Coupeville, even as a transient visitor, given the level of activity and disturbance and lack of open water bodies for foraging.

3.10.2 Environmental Consequences

The Proposed Action would result in the loss of approximately 2.8 acres of hay grass, which would slightly reduce habitat for small mammals and birds that use the area. These impacts are not considered significant. The Navy would design and construct the project to minimize the acreage of vegetation loss/alteration and will avoid disturbing nearby forested habitats. Planting of a serviceberry hedgerow along Keystone Road and a Douglas-fir and Leyland cypress buffer surrounding the ECT facility would provide additional wildlife cover and screening. This would increase habitat value as compared to a hay grass field. Due to the distance to nesting, foraging, and roosting habitat, construction and operation is not likely to adversely affect bald eagles; nor would the Proposed Action have any adverse effects on the prey base or potential habitat of the peregrine falcon.

The No Action Alternative would retain the 2.8 acres of hay grass habitat, but would not include the addition of evergreen trees and serviceberry hedgerows that would benefit some wildlife species.

staging area are anticipated to disturb approximately 3.3 acres of land. No significant impacts are anticipated.

The No Action Alternative would not affect the geology, soils, or topography.

3.11.3 Mitigation Measures

No significant impacts to geology, soils, or topography are anticipated. Therefore, no mitigation measures are necessary.

3.12 HYDROLOGY

3.12.1 Affected Environment

Surface water runoff at the site is minimal as the topography is nearly flat with a slight slope to the south. There are no surface water bodies at or near the proposed site. Review of U.S. Geological Survey (USGS) 7.5-minute quadrangle topographic maps indicates that the primary surface water bodies within a 5-mile radius of the proposed site include the Saratoga Passage and Race Lagoon, 1.7 miles to the northeast; a tributary creek to Race Lagoon, 1.3 miles to the east; Crockett Lake, 1.1 miles to the southwest; and a tributary creek to Crockett Lake, 1.2 miles to the west.

Groundwater is the primary source of drinking water in the portion of Whidbey Island near the proposed site. A City of Coupeville water supply well is located approximately 0.6 mile southwest of the site. The City does not have a specific building restriction requirement around the well but is concerned about activities within the well field that could potentially affect groundwater. Typical construction activities such as those proposed at the ECT facility have a low potential for impacting groundwater as long as BMPs are implemented. EPA has classified the groundwaters of Whidbey Island as a sole source aquifer (47 FR 66, 6 April 1987); Ecology has designated Island County as a groundwater management area under WAC 173-100, ranking second in priority within the state. In response to this condition, Island County has prepared a Ground Water Management Program (ICGWMP) to guide education, conservation, monitoring, regulation, and coordination efforts. Contamination of groundwater supplies is a major concern within Island County. Over the last decade, a building moratorium has been required in certain areas due to lack of groundwater; however, the moratorium did not include the proposed site.

Whidbey Island groundwater yields range between 50 to 350 gallons per minute (gpm), with most wells yielding less than 100 gallons. An average of 6 percent of the precipitation percolates to recharge aquifers, and aquifer recharge is the preferred method for surface water disposal from a site within the ICGWMP. Water quality from wells varies considerably with regard to mineral content, color, and seawater infiltration. Water

tables generally follow the topography although perched water tables exist in some locations. Groundwater depths are typically 190 to 200 feet below ground level (pers. comm., Bruce, 1996).

3.12.2 Environmental Consequences

In general, the Proposed Action has the potential to generate a variety of construction-related pollutants such as sediment, diesel fuel, motor oil, paints, solvents, and cement. Water quality problems can arise if these pollutants are released to the environment and transported to water bodies. Construction of the proposed facility is not likely to affect surface waters since there are no waterbodies on or near the site. However, erosion and sediment control measures should be implemented during construction to minimize the opportunity for off-site degradation. The risk of groundwater contamination during construction would be greatly minimized by implementing BMPs as discussed in Section ***2.3.***

Operation of the ECT facility would have no significant effect on Surface water and only minimal effect on groundwater. The Navy would obtain potable water for the proposed ECT facility from a new on-site well. ECT facility water use is estimated to be up to 300 gallons per day (see Section **3.4).** Only two personnel would occupy the facility at one time. Newly planted evergreen trees and the serviceberry hedgerow would require some irrigation water during dry periods for approximately **3** years, or until fully established. The Navy would transport the water to the site by vehicle from OLF Coupeville, Seaplane Base, or Ault Field. No significant impacts to hydrology are expected.

The No Action Alternative would not affect surface or groundwater resources.

3.12.3 Mitigation Measures

No significant impacts to hydrology are anticipated. Therefore, no mitigation measures are necessary.

3.13 PUBLIC SERVICES

Public services analyzed in this EA include law enforcement, fire protection, emergency medical, and solid waste handling.

3.13.1 Affected Environment

There are no military security guards at OLF Coupeville, although there is a resident active duty military caretaker who can call for assistance when needed. The North Precinct of the Island County Sheriff's Department, located at 6th and Main Street in

Coupeville, is responsible for law enforcement in unincorporated portions of Island County from south of Coupeville to Deception Pass. There are 35 deputies and 1 sheriff, or approximately 0.6 officers/1,000 residents in the Island County Sheriff's Department. At any one time, there are between one and three deputies on duty. Law enforcement in the nearby Town of Coupeville is provided by the Coupeville Police Department.

The proposed ECT facility would be equipped with an FM-200 chemical fire suppression system (pers. comm., Bruce, 1996). Fire protection and emergency medical services on Navy property would be provided by Navy fire fighters located at OLF Coupeville while military aircraft are operating. The Navy has an emergency vehicle located at Ault Field that is equipped to handle flammable liquid spills. In the case of fire at OLF Coupeville, the Navy may be assisted by Island County Fire District No. 5 (District), which provides fire protection and emergency medical services for central unincorporated Island County. This assistance would be voluntary on the part of the District, based on the County-wide Mutual Assistance Agreement (pers. comm., Biller, 1996). The Navy would coordinate with the Island County Fire District No. 5 regarding on-call volunteer fire protection services that may be required for the proposed ECT project when OLF Coupeville is not staffed by Navy fire fighters. The District headquarters is located at 215 East Race Road, approximately 0.2 mile east of the SR 20 - SR 525 intersection. There is a volunteer station less than 1 mile from OLF Coupeville on Morris Road. The headquarters is staffed by two professional fire fighters/emergency medical technicians from 8:00 a.m. to 5:00 p.m. daily, and volunteers at other times. Between these stations there are three fire engines. One aid car is available that is fully equipped with advanced life support gear and staffed by emergency medical technicians and paramedics (pers. comm., Biller, 1996).

Solid waste management and recycling services for the site are handled by the NASWI Public Works Department, with lunch-room and office-type waste long-hauled off the Island. There is an Island County transfer station for non-military waste located just north of SR 20, east of the town of Coupeville (pers. comm., Biller, 1996).

3.13.2 Environmental Consequences

The Proposed Action would occur within a fenced security area on Navy property; therefore, construction and operation would not result in additional demand for law enforcement services. The Proposed Action would not result in any significant increase in need for community medical or emergency services or for solid waste disposal as these are provided by Navy personnel.

The No Action Alternative would not affect public services in the area.

3.13.3 Mitigation Measures

No significant impacts to public services are anticipated. Therefore, no mitigation measures are necessary.

3.14 NOISE AND VIBRATION

3.14.1 Affected Environment

In general, humans can perceive noise level differences of about 3 A-weighted decibels (dBA) or greater; however, a change in the noise level of at least *5* dBA is required before any noticeable response is expected. A difference of 10 dBA is perceived as a doubling of loudness, and would almost certainly cause an adverse change in community response.

One way of describing fluctuating sound is to present a fluctuating noise heard over a specific time period as if it had been a steady, unchanging equivalent sound level called Leq. Leq is the constant sound level (A-weighted) that, for a given situation and time period (i.e., l-hour Leq, or 24-hour Leq), conveys the same sound energy as the actual time-varying sound. Several sound descriptors have been developed to summarize how people hear sound and to measure the impact of environmental noise on public health and welfare. The day-night sound level (Ldn) is the A-weighted equivalent sound level for a 24-hour period with an additional 10 dBA weighting imposed on the equivalent sound levels occurring during night-time hours (10 p.m. to 7 a.m.). The added sound level to this noise descriptor is used to account for the greater sensitivity of people to noise during these evening and night-time periods.

The EPA suggests the use of the Ldn noise descriptor to relate noise in residential environments causing interference with speech, sleep, and other activities. The EPA studies (EPA 1978) indicate that non-construction related levels of *55* Ldn or lower are acceptable, levels of *55* to *65* Ldn cause some impact, levels of *65* to 70 Ldn cause adverse impacts, and levels of 70 Ldn or higher are unacceptable. Various guidelines have also been developed by other Federal agencies.

Ecology has also established environmental noise limits. These limits are defined in terms of an Environmental Designation for Noise Abatement (EDNA), which considers the use of the property and adjacent lands. However, noise generated at temporary construction sites as a result of construction activities (between the hours of 7 a.m. and 10 p.m.) is exempt from these limits.

The proposed site is bounded by OLF Coupeville airfield facilities and agricultural fields to the north, south, and east; and open area with private residences to the west of Keystone Road. The closest noise-sensitive locations are the private residences approximately *630* and 840 feet from the proposed site. There is also a large residential development located *0.5* mile to the southeast.

Navy training flights at OLF Coupeville occur between 7:00 p.m. and 7:00 a.m. and substantially increase noise levels during flights. Measured Ldn values from current Navy air training operations range up to 75 dB in the area surrounding OLF Coupeville (Department of the Navy 1993).

3.14.2 Environmental Consequences

Construction noise caused by the Proposed Action would be temporary and would not be expected to be significant. Impacts from construction would include noise from activities such as site preparation, truck hauling of material, pouring of foundations, use of cranes, and building construction. Typical noise levels associated with different phases of construction are shown in Table **3.14-1.** These temporary noise levels may occur near the site boundary; however, the proposed structure is sited approximately 300 feet from the roadway, which would lessen off-site noise impacts. The Navy would minimize noise emissions during construction in compliance with Navy Environmental and Natural Resources Manual (OPNAVINST 5090.lB) that requires maximum use of low noise emission products, as certified by EPA, for all Navy-related operations, as well as compliance with other Federal, State, and local regulations pertaining to construction-related noise generation. In addition, the Navy would adopt the following measures to reduce construction noise: (1) limiting construction activities to normal daytime periods between 7 a.m. and 7 p.m. Monday through Saturday, (2) using equipment with proper mufflers or noise control devices, and (3) situating noise-generating equipment as far as possible from residences along Keystone Road.

Table 3.14-1. Typical Construction Noise Levels.

Construction Phase	Peak Average[1] Noise Level (dBA)	Typical Average[2] Noise Level (dBA)
Ground Clearing	84	79
Foundations	78	**73**
Erection	85	80
Exterior Finishing	89	84

[1] *During heavy activity periods.*
[2] *Averaged over an entire day of typical activities.*

Source: Bolt, Baranek, and Newman 1971

Operational noise impacts associated with the Proposed Action would be caused by automobile traffic. Since the proposed ECT facility would be operated by a crew of only four contractor technicians (two persons during two shifts), the increased traffic noise would be insignificant. Residents along Keystone Road should notice no significant increase in noise level due to operations.

Operation of the ECT facility itself would cause a small increase in exterior noise and would only be audible if standing next to the new facility. This noise would be caused by

the revolving antenna inside the radome. This noise level would be inaudible to persons off site, including adjacent residences. Operation of the proposed ECT facility does not affect the number, type, or location of air training operations that occur at OLF Coupeville and, therefore, would neither increase nor decrease Navy aircraft noise.

The No Action Alternative would eliminate any short-term noise impact associated with the construction activity. There would be no effect on long-term noise levels from implementation of the No Action Alternative.

3.14.3 Mitigation Measures

No significant impacts to noise are anticipated. Therefore, no mitigation measures are necessary.

3.15 ENVIRONMENTAL JUSTICE

3.15.1 Affected Environment

In February 1994, the President issued Executive Order 12898 that requires all Federal agencies to seek to achieve environmental justice by "identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations" (Executive Order 12898). The DoD followed in March 1995 with its Strategy on Environmental Justice to meet the intent of Executive Order 12898, which the EPA approved in April 1995. The Navy has established policies and assigned responsibilities with the goal of preventing disproportionately high and adverse human or environmental effects on minority and low-income populations. The strategy states that DoD would use NEPA as the primary mechanism to implement the provisions of the Executive Order. The Navy is making this EA available to Federal, State, and local government agencies and representatives, the Swinomish and Samish Tribes, and other organizations so that possible concerns about the potential impacts of the Proposed Action can be expressed.

Island County exhibits a lower percentage of racial minorities than Washington State as a whole, although the county's percentage of Hispanics is slightly higher than that of the entire state. Compared to the nation as a whole, Island County has a lower percentage of Blacks and Hispanics and a higher percentage of Asian/Pacific Islanders and Native Americans. Demographic data for Island County appear in Table 3.15-1.

The proposed site at OLF Coupeville is near a few existing residences, but is not near a predominately minority or low-income community.

Table 3.15-1. Island County 1990 Population Characteristics.

Race/ Ethnicity	Island County		Washington State		United States	
	Number	Percent	Number	Percent	Number	Percent
White	55,093	89.7%	4,308,937	88.5%	199,686,070	80.3%
Black	1,552	2.5%	149,801	3.1%	29,986,060	12.1%
Native American	536	0.9%	81,483	1.7%	1,959,234	0.8%
Asian/ Pacific Islander	2,397	3.9%	210,958	4.3%	7,273,662	2.9%
Hispanic (any race)	1,855	3.0%	115,513	2.4%	9,804,847	3.9%
Total	61,433	100.0%	4,866,692	100.0%	248,709,873	100.0%

Source: *U.S.* ***Bureau of the*** *Census* ***1992***

3.15.2 Environmental Consequences

The Proposed Action would not have a significant impact on specific minority or low income communities, including Native American Tribes. No significant increase in pollution or health risks are anticipated as a result of the Proposed Action. The Navy has no plans to surplus OLF Coupeville. The Navy will distribute this EA to the Swinomish and Samish Tribes to ensure that these minority groups receive adequate information concerning the Proposed Action. Requests from any minority or ethnic groups or organizations for information and/or copies of this EA will be met in a timely manner by the Navy.

The No Action Alternative would have no effect on environmental justice.

3.15.3 Mitigation Measures

No significant impacts to environmental justice are anticipated. Therefore, no mitigation measures are necessary to comply with Executive Order 12898 and NEPA.

4.0 CUMULATIVE AND LONG-TERM ENVIRONMENTAL IMPACTS

4.1 CUMULATIVE IMPACTS

NEPA requires that EAs address the cumulative environmental impacts from implementing a proposed action. Cumulative impacts are typically defined as two or more individual effects which, when considered together, compound or increase other environmental impacts. Cumulative impacts can derive from the individual effects of a single project on various resources or the effects of several past, present, and/or future projects on these resources. Thus, cumulative impacts can result from individually minor, but collectively significant, actions taken over a period of time.

Principal resource topics addressed in this EA are presented first, followed by a discussion of other resource topics of less concern.

4.1.1 Cultural Resources

No known on-site archeological resources would be affected by the Proposed Action. Therefore, there would be no cumulative impacts. If subsurface archeological resources are uncovered during construction activities, the Washington SHPO would be consulted.

Historic resources in the vicinity of the proposed site include the CWIHDELNHR and two associated structures. Due to measures incorporated into the project to screen its visibility and the Navy's commitment to remove the radome in the future, the project is not anticipated to adversely affect these resources, and no cumulative impacts to historic resources are anticipated. At the present time, no other future projects are planned at OLF Coupeville which could lead to cumulative effects.

The No Action Alternative would not include the positive elements of the Proposed Action, including forest retention near the proposed site and hedgerow planting.

4.1.2 Land and Shoreline Use

The Proposed Action would permanently remove a small amount (2.8 acres) of outleased Navy agricultural land from crop production. While not designated prime agriculture land, this loss would contribute to an incremental reduction in the amount of agricultural land in the County. However, no significant adverse cumulative land use impacts are expected because of the abundance of existing farmland in the region and the small amount of land in question. No cumulative impacts on shoreline use would also be expected.

4.1.3 Utilities

The Proposed Action would require new electrical and telephone utility hookups and Navy installation of a new water well and septic system. These utility hookups would cause an incremental increase in electrical and telephone usage in the area but would not exceed capacities. Long-term water use would be less than 300 gallons a day. This small quantity is considered a small increase in water use countywide. Short-term water use would result from landscape buffer and hedgerow irrigation until the plants are established. This use is not considered significant. No significant capacity problems were identified; therefore, there would be no significant cumulative impacts.

Over time, other development may occur in Smith Prairie that would require utility service. However, no significant planned developed is expected within or adjacent to OLF Coupeville in the near future.

4.1.4 AestheticsNisual Quality

The Proposed Action would introduce a new large industrial structure in the landscape at OLF Coupeville and Smith Prairie. The Proposed Action would permanently replace some agricultural land with developed land. Because there are other existing industrial structures at OLF Coupeville, including a red and white airfield tower and a large industrial building, the proposed ECT facility would be similar in character to other OLF facilities. Additionally, vegetative screening has been included in the project to avoid or minimize visual impacts and the Navy has committed to remove the radome in the future. No cumulative adverse effects on aesthetic and/or visual resources are anticipated.

At the present time, no other future projects (either by the Navy or other agencies or persons) are planned in the immediate area which could cause additional cumulative effects on aesthetic and/or visual resources.

4.1.5 Electromagnetic Environment

The Navy has conducted an electromagnetic compatibility analysis in compliance with DoD and IEEE standards to ensure that the proposed equipment and systems in the Proposed Action can be operated in the intended electromagnetic environment at designed levels of efficiency without degradation due to electromagnetic interference and without radiation hazard problems. A “worst-case” scenario was used in this analysis. Because there would be no significant contact with the main beam by wildlife and no contact by human beings, the proposed ECT facility would have no cumulative impact. Persons located immediately outside of the proposed building within the fenced security zone would need to adhere to posted restrictions to avoid any cumulative impacts. Because the main beams of the existing ECT facility and the proposed facility would not coincide near humans or wildlife, there would be no cumulative effect of the two beams.

Based on the Navy's analysis, no cumulative environmental impacts are anticipated by the construction or operation of the proposed ECT facility.

4.1.6 Climate and Air Quality

The Proposed Action would have no significant cumulative air quality or climatic impacts. Auto emissions in the area would be expected to increase slightly; however, this increase would be insignificant. Construction-related dust impacts would be mitigated by implementing fugitive dust control measures. As such, no cumulative impacts would be expected.

4.1.7 Traffic and Circulation

The Proposed Action would cause an insignificant increase (four round trips per week day) in the level of traffic near the proposed ECT facility. Traffic levels along **SR 20** and other roads are expected to increase slowly and all roads in the vicinity of the proposed ECT facility are expected to operate at acceptable levels of service for the foreseeable future. All WSDOT intersections in the area would operate adequately at LOS C or better. No cumulative impacts would be expected.

4.1.8 Vegetation

The Proposed Action would convert a small quantity of agricultural land to a non-vegetated (i.e., developed) condition. Special status plant species do not occur at the proposed site. Considering the quantity of agricultural land at OLF Coupeville and in the area, any cumulative loss of vegetation is not significant.

4.1.9 Wildlife and Fishery Resources

The Proposed Action would result in a small reduction in the amount of potential foraging area for bald eagles and peregrine falcons that might rarely use this area for scavenging of carrion found along Keystone Road. Because of the large prairies on Whidbey Island, this impact is not considered a significant cumulative impact. No fishery resources are found in the area; therefore, there would be no impact to this resource.

4.1.10 Soils, Geology, and Topography

Although the Proposed Action would cause minor localized impacts to soils during construction due to potential for soil erosion and changes in surface water runoff, these minor impacts can be effectively mitigated. In addition, the proposed site is flat and the soil is well drained. Therefore, no cumulative impacts would be expected.

4.1.11 Hydrology

Temporary construction activities for the Proposed Action could affect groundwater resources. Hydrologic impacts, however, would be effectively avoided through implementation of the BMPs described in this EA. These practices would preclude cumulative impacts as well.

4.1.12 Public Services

The Proposed Action would not cause significant additional service demands on Sheriff and fire/emergency services in the OLF Coupeville area and would not result in a significant cumulative impact to these services. The Navy would coordinate with the Island County Sheriff's Department and Island County Fire District No. 5 to ensure that the Navy would continue to receive on-call service from these providers for all Navy facilities at OLF Coupeville.

4.1.13 Noise and Vibration

The Proposed Action is not expected to generate any significant noise impacts and would have no cumulative impact on noise levels. Measures would be implemented to reduce construction-related noise because of the proximity of off-site residences. The proposed ECT facility would cause no vibration impacts. Navy aircraft operations at OLF Coupeville/NASWI are not a part of this Proposed Action.

4.1.14 Environmental Justice

The Proposed Action would not have a significant impact on specific minority or low income communities on Whidbey Island. Therefore, no cumulative impacts would occur.

4.1.15 Minor Resource Topics Considered

Resource topics considered to be of minor concern in this EA, but which need to be adequately addressed, are discussed below.

Wetlands

No wetlands exist at the proposed site for the ECT facility. Therefore, no cumulative impact to wetlands would occur.

Recreation

The Proposed Action would have no impact on recreation resources in the area; therefore, there would be no significant cumulative impacts.

Socioeconomics and Housing

Because only four personnel would be assigned to the proposed ECT facility, the Proposed Action would not cause a significant increase in the demand for housing. Therefore, there would be no significant cumulative effect on affordable housing in Island County. The Proposed Action would create both short-term construction jobs and a few new long-term jobs.

Schools

Because only four personnel would be assigned to the proposed ECT facility, the Proposed Action would not significantly affect enrollment in the Coupeville or other Island County school districts. Therefore, there would be no cumulative impacts.

4.2 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENT OF RESOURCES

The Proposed Action would result in the irretrievable use of energy and material, although such use is not expected to be significant. The Proposed Action would also irreversibly alter a small quantity of existing Navy agricultural outlease land. The loss of the agricultural land (non-prime agricultural land), however, would not be significant. The proximity of the proposed ECT facility to the existing ECT facility at Seaplane Base, NASWI would produce long-term energy and time savings through daily vehicle trip reductions in comparison with more distant alternative sites. Under the Proposed Action, the Navy would commit to removing the radome portion of the proposed ECT facility thereby minimizing the visual impact of the proposed project on Smith Prairie and adjacent ELNHR.

4.3 RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

The loss of a small quantity of existing outleased agricultural land for use as an ECT facility (industrial use) would not be a significant impact since an adequate quantity of agricultural land exists elsewhere in the County, OLF Coupeville, and the vicinity.

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6.0 LIST OF PREPARERS AND DISTRIBUTION LIST

6.1 LIST OF PREPARERS

This EA for the Navy Electronic Combat Training Facility, OLF Coupeville, NASWI, Washington, was prepared by a multi-disciplinary team managed by the Department of the Navy, Engineering Field Activity, Northwest, Poulsbo, Washington. Contributions to the EA were also made by several organizations and Wings at NASWI, Oak Harbor, Washington. EDAW, Inc., Seattle, Washington, a consulting firm under contract to the Navy, compiled and prepared the EA document. EDAW, Inc. was assisted by a team of subcontractors that included Beak Consultants, Kirkland, Washington; and Woodward-Clyde Consultants, Seattle, Washington. Contributions by individuals were subject to revision during product reviews and editing. The following is a list of contributors to this EA:

Department of the Naw

(b) (6)	Engineering Field Activity, Northwest, Project Manager, Environmental Planning & Natural Resources (retired)
(b) (6)	Engineering Field Activity, Northwest, Project Manager, Environmental Planning & Natural Resources
(b) (6)	Engineering Field Activity, Northwest, Director, Environmental Planning & Natural Resources
(b) (6)	NASWI, Department Head, Environmental Affairs Dept.
(b) (6)	NASWI, Wildlife Biologist, Environmental Affairs Dept.
(b) (6)	NASWI, Wildlife Biologist/Cultural Resource Specialist, Environmental Affairs Dept.
(b) (6)	NASWI, EA-6B Training Device Manager, Electronic Combat Wing, U.S. Pacific Fleet
(b) (6)	NASWI, Community Air-Land Use Management Officer
LCDR (b) (6)	Electronic Combat Wing, EA-6Bs, COMVAQWINGPAC
LT (b) (6)	Patrol Wing, P-3s, COMPATWING10
LT (b) (6)	CVWP Operations

EDAW, Inc.

(b) (6)	Navy Contract Manager, Planner, AICP
(b) (6)	Project Manager, Environmental Planner
(b) (6)	Terrestrial Biologist
(b) (6)	Terrestrial Biologist
(b) (6)	Planner/Cultural Resources Specialist
(b) (6)	Planner
(b) (6)	Editor
(b) (6) / (b) (6) / (b) (6)	Graphics/Word Processing
(b) (6)	Computer Simulations Specialist
(b) (6)	Computer Simulations Specialist

Beak Consultants

(b) (6)	Wetlands Biologist
(b) (6)	Biologist
(b) (6), PhD	Electromagnetics/EMF Specialist

Woodward-Clyde Consultants

(b) (6)	Planner

6.2 DISTRIBUTION LIST

The following is the distribution list for this EA:

U.S. Senator [redacted]

U.S. Senator [redacted]

U.S. Representative [redacted]

State Senator [redacted]

State Representative [redacted]

State Representative [redacted]

U.S. Environmental Protection Agency

U.S. Fish and Wildlife Service

National Park Service

Federal Aviation Administration

Washington State Office of Archaeology and Historic Preservation

Washington Department of Fish and Wildlife

Washington Department of Natural Resources

Washington State Department of Ecology

Island County Health Department

Island County Planning Department

Mayor [redacted], Town of Coupeville

Town of Coupeville, Planning Department

City of Oak Harbor, Planning Department

Swinomish Tribal Community

Samish Tribal Nation

Trust Board of Ebey's Landing National Historical Reserve

Whidbey Islanders for a Sound Environment (WISE)

Oak Harbor Library

Coupeville Library

Mr. [redacted], Coupeville, WA

APPENDIX A

NAVAL STATION PACIFIC BEACH, WA
PRELIMINARY SITE INVESTIGATIONS

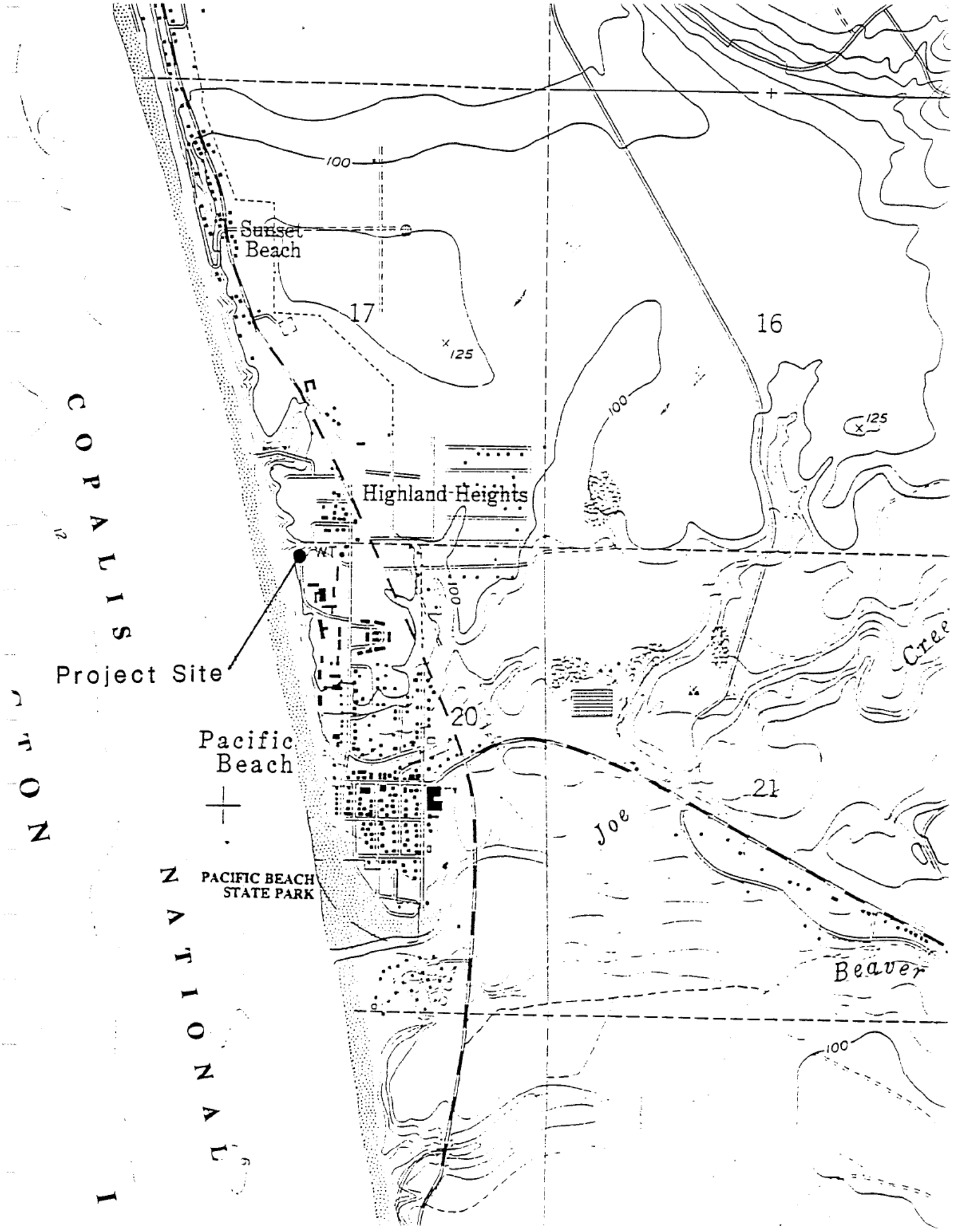
NAVAL STATION PACIFIC BEACH, WA
PRELIMINARY SITE INVESTIGATIONS

A preliminary site investigation was conducted by the Navy and EDAW, Inc. during March and April, 1995 at a candidate ECT facility site at Naval Station Pacific Beach, Pacific Beach, Washington. This site investigation preceeded a follow-on location evaluation conducted by the Navy in 1996 (see Section **2.3** of this EA). During the preliminary site investigations, the Navy's siting criteria changed and site constraints became known. This potential site was then dropped from serious consideration.

This preliminary site investigation included a preliminary assessment of several site constraints including topography, erosion, wetlands, wildlife, and visual resources. Some agency consultation was conducted including scoping and identification of threatened and endangered plant and wildlife species that may occur at this site. These investigations found potential slope stability, wetlands, and threatened and endangered wildlife species issues at the Pacific Beach site. Preliminary visual impact studies were begun but not completed; however, there may have also been visual impacts to the adjacent state park and coastline due to the siting of the proposed facility near the edge of the bluff.

This appendix includes the following:

- Regional Map;
- Site Map;
- March **27,** 1995 Memo from (b) (6), Woodward-Clyde Consultants, Inc., to (b) (6) EDAW, on earth and water resources;
- April 18, 1996 Memo from (b) (6), Beak Consultants, Inc., to (b) (6), EDAW, on wetlands and potential threatened and endangered species;
- June 19, 1995 Letter from (b) (6), **USFWS,** to (b) (6), Department of the Navy, on potential threatened and endangered species;
- June **2,** 1995 letter from (b) (6), U. **S.** Coast Guard, to (b) (6), Department of the Navy, on potential communications interference;
- June 9, 1995 letter from (b) (6), Federal Aviation Administration, to (b) (6), Department of the Navy, on navigation communications;
- May 31, 1995 letter from (b) (6), Washington State Parks and Recreation Commission, to (b) (6), Department of the Navy, on aesthetic and EMF concerns;
- June 9, 1995 phone conversation log from (b) (6), Washington Department of Fish and Wildlife, to (b) (6), Department of the Navy, on potential wildlife and water quality concerns; and
- May 18, 1995 letter from (b) (6), Department of the Navy, to (b) (6), U. **S.** Fish and Wildlife Service, regarding scoping for NEPA compliance.


Sunset Beach
17
16
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Highland Heights
Project Site
Pacific Beach
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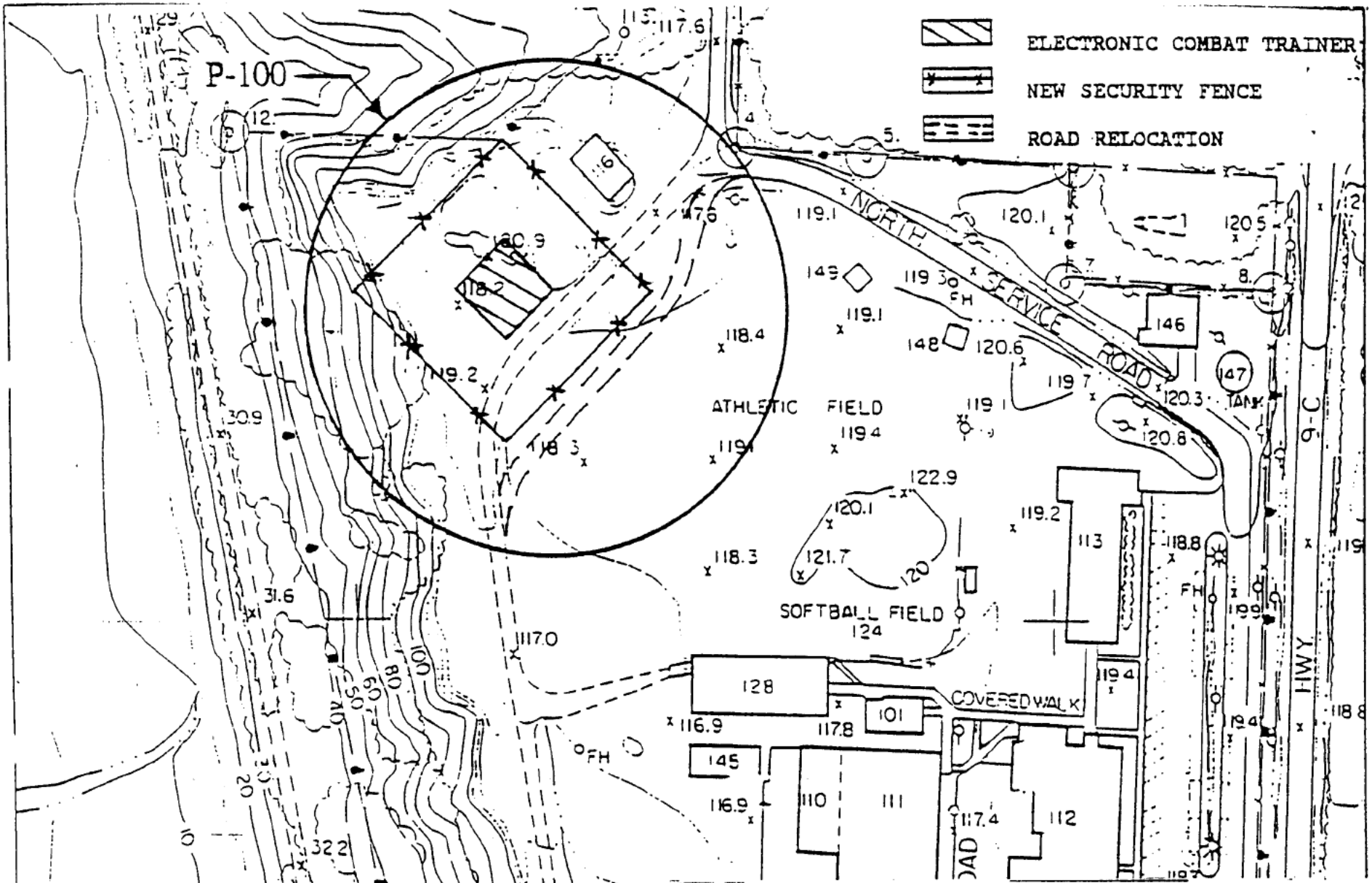
Joe
PACIFIC BEACH STATE PARK
Beaver
COPALIS
NATIONAL



certified site

NORTH

NAS WI

P-100 ELECTRONIC COMBAT TRAINER

at NAVSTA AT PACIFIC BEACH ANNEX

planner [redacted] (b) (6) scale 1" = 100' date DEC 98

Woodward-Clyde Federal Services

1500 Century Square
1501 Fourth Avenue
Seattle, WA 98101-1662
Phone: (206) 343-7933
Fax: (206) 343-0513

Memorandum

Date: March 27, 1995

To: (b) (6)
EDAW, Inc.
1505 Western Avenue, Suite 601
Seattle, WA 98101

Phone: 622-1176
Fax: 343-9809

From: (b) (6)

Subject: Pacific Beach EA

Bill,

The following is a short summary of the earth/water findings for the Electronic Combat Trainer site at Pacific Beach Naval Station. These findings relate to the proposed site, west of the perimeter road.

- The proposed construction site is located approximately 25 feet from the bluff edge near the existing whale watching platform. Immediately north of the proposed site, the bluff is disected by a steep ravine (the North Ravine).

- The bluff is approximately 110 feet high, and is composed of about 80 feet of gravelly sands overlying a gravelly sandy clay. The sand unit is highly permeable and erodible. In addition, the clay unit underlying the sand acts as a barrier to groundwater moving vertically through the sand. Water hitting the clay unit tends to move laterally towards the cut face of the bluff. The water on top of the clay unit therefore acts as a glide plane along which slope failure and slumping can occur.

- Erosion due to wave action has been prevented by a remnant railroad grade at

the base of the bluff. The most prevelent erosion occurs from two culverts which discharge stormwater from the playfield area onto the top of North Ravine. One culvert is located at the head of the Ravine; the other is located on the southern side of the Ravine, adjacent to the proposed construction site. The water cascading from the culverts accelerates erosion and increases the potential for siope failure by undercutting the base of the bluff.

- Visual inspection of the site suggests that the promentory upon which the proposed construction site is located is approximately 2 feet lower than the playfield area. This could suggest chat some slumping of the promentory has occurred, making the area unsuitable for supporting a large structure. The weight of the Electronic Combat Trainer could act to further accelerate slumping along the clay layer underlying the sand.

- The bluff upon which the Electronic Combat Trainer would be constructed has a slope of approximately 68%. The Grays Harbor County Uniform Building Code has specific requirements for footing setbacks from descending slope surfaces. The code states that where the slope is steeper than 45% (1 horizontal to 1 vertical), the required setback shall be measured from an imaginary line 45 degrees to the horizontal, projected upward from the toe of the slope. Using a bluff height of 120 feet, the setback would be approximately 70 feet. The setback can be less if a geotechnical engineering study is conducted that states the slope is stable.

In summary, visual inspection of the site indicates that slope stability issues potentially exist at the proposed site. There is a possibility that slope failure could arise from construction of the Electronic Combat Trainer on the bluff site. A geotechnical engineering study should be conducted prior to construction of the Trainer to further assess slope stability and foundation engineering options for the site.

beak consultants incorporated

12931 N.E. 126th Place
Kirkland, Washington 98034-7715
(206) 823-6919 • FAX (206) 820-9399

18 April 1996

APR 2 2 1996
CE

Mr. (b) (6)
EDAW, Inc.
1505 Western Avenue
Suite 601
Seattle, Washington 98101

RE: U.S. Navy Nectronic Combat Training Facility - Pacific Beach, Washington, Beak Project No. 21931.500.

Dear (b) (6):

The purpose of this letter is to discuss and summarize the findings of the 22 and **23** March 1995 wetlands reconnaissance at the U.S. Navy's (Navy) Pacific Beach facility in Pacific Beach, Washington. Additionally, this letter has been developed to briefly address endangered and threatened species concerns that must be addressed during the potential development of an Electronic Combat Training Facility (ECTF) at the Navy's Pacific Beach facility.

WETLANDS

The primary focus of the wetland reconnaissance was to determine the existence of potential jurisdictional wetland habitat on either the "preferred" or "alternative" sites proposed for construction of the Navy's ECTF. The preferred site is adjacent to the steep bluff above the beach and the alternative site is located immediately to the east of the preferred site. The preferred site has been used in the past for the storage of gravel; the alternative site has been used in the past for recreational fields and parking areas. An identification of buffers associated with adjacent wetlands which might extend into the preferred or alternative sites was also a focus of the initial site reconnaissance. Consequently, the drainage and beach areas located immediately north and west, respectively of the preferred site were inspected.

Methodoloav

Currently, there are two federal wetland delineation methodologies generally recognized for the delineation of jurisdictional wetland habitat. The first methodology, defined in the 1987 Corps of Enaineers Wetlands Delineation Manual (Environmental Laboratory 1987), is currently used by the U.S. Army Corps of Engineers (COE) for permit review under Section **404** of the Clean Water Act. The second methodology, defined in the Federal Manual for Identifvina and Delineating Jurisdictional Wetlands (Federal Interagency Committee for Wetlands Delineation 1989), is recognized by many local jurisdictions in Washington state. Both federal wetland delineation methodologies generally require the existence of hydric (wetland) soils, wetland hydrology and hydrophytic (wetland) vegetation before an area is considered jurisdictional wetland.

Although the results of using either methodology are generally similar, the 1987 federal methodology was used during the initial reconnaissance as this was the methodology currently accepted by the COE. During a 23 March 1995 meeting, Grays Harbor County Planning Department staff stated that the County does not have a sensitive areas ordinance. Consequently, the County does no specifically exert jurisdiction over development activities in wetland habitat. However, it is assumed that once the County adopts sensitive area regulations, the Planning Department would likely recognize wetland delineations conducted using the 1987 federal methodology.

During the wetland reconnaissance, five soil test pits were excavated in the vicinity of the alternative site; however, due to compact soils and gravel, only one soil test pit was excavated in the preferred area. Within each soil test pit, soil texture, matrix color, presence of mottles (spots of contrasting color) or gleying, and saturation levels were recorded. Soil and mottle colors were determined through the use of the Munsell Soil Color Chart. In addition, hydrologic indicators, including wetland drainage patterns, presence of surface water, depth of groundwater and evidence of inundation (i.e., drift lines, water marks, oxidized root zones, etc.) were noted in the vicinity of each soil test pit. In addition to soils and hydrology data, vegetation information was also collected at random locations in the general vicinity of the preferred and alternative sites.

Results

Vegetation

In general, both sites support plant species normally observed in maintained lawns. The dominant plant species in both areas is bluegrass *(Poa* spp.). English daisy (*Bellis perennis*), cat's ear (*Hypochaeris radicata*), lanceleaf plantain *(Plantago lanceolata*), clover *(Trifolium* spp.) and coastal strawberry (*Fragaria chiloensis)* are also common plant species throughout both areas. While wetland plant species, including soft rush (*Juncus effusus*), small-fruited bulrush *(Scirpus microcarpus*) and creeping buttercup *(Ranunculus repens*) occur in isolated patches throughout the alternative site, these species are dominant only in localized areas. Their total dominance throughout both sites is negligible.

Soils

Halbert muck, a hydric (wetland) soil, has been mapped by the Soil Conservation Service (SCS) as occurring throughout the Navy's Pacific Beach site (Pringle 1986). Based on observations, and according to the Natural Resource Management Plan (NRMP) prepared for the area, past on-site activities (occurring at least **40** years ago) resulted in the removal of the organic topsoil (muck) from most of the site (SCS 1991a). Soil profiles observed in both the preferred and alternative sites consisted of a gravelly sandy silt loam surface layer over a very compact silty clay subsoil. It appears the gravelly sandy silt loam is fill material that was placed over the slowly permeable native subsoil following the excavation of native muck topsoils.

Matrix colors of soils observed on the preferred site ranged from dark gray (10YR 4/1) to light brownish gray (2.5Y 6/2) on the Munsell Soil Color Chart (Kollmorgen 1990). Soil mottle colors observed in soils on the preferred site ranged from yellowish brown (10YR 5/8) to strong brown (7.5YR 5/8). Matrix colors of soils observed on the alternative site ranged from dark gray (10YR 4/1) to light brownish gray (2.5Y 6/2) to light yellowish brown (2.5Y 6/4) to light olive brown (2.5Y 5/4). Soil mottle colors observed in these soils ranged from yellowish red (5YR 5/6) to strong brown (7.5YR 5/8) to yellowish brown (10YR 5/6 to 1OYR 5/8).

Hydrology

Saturated surface soils were present on both the preferred and alternative sites at the time of the site visit. The native subsoils were generally moist, however, they were not saturated. It appears that on-site surface water percolates through the fill material and "perches" on top of the native clay subsoil for extended periods, especially on the alternative site.

Discussion

As stated earlier, both federal wetland delineation methodologies generally require the existence of hydric soils, wetland hydrology and hydrophytic vegetation before an area is considered jurisdictional wetland. A hydric soil is any soil that is saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions favoring the growth and regeneration of hydrophytic vegetation (SCS 1991b). Several soil forming factors such as climate, parent material and organisms affect the characteristics of a hydric soil; however, the hydrologic regime of a soil is the dominant influence on the characteristics of that soil. Prolonged anaerobic conditions cause the chemical reduction of many soil components resulting in the development of soil colors and other physical characteristics indicative of hydric soils (Environmental Laboratory 1987). Consequently, during the process of delineating a wetland, readily observable field indicators such as low soil chromas and soil mottling are generally used to determine the existence of hydric soils within an area. However, in many instances, hydric field indicators may be non-existent or difficult to observe due to past soil disturbance or the relatively recent introduction of a wetland hydrologic regime to the area in question.

Based on observations during the March 1995 wetland reconnaissance, surficial soils in the test pit excavated in the preferred site exhibited strong hydric soil field indicators. Consequently, these soils would be considered hydric. Due to past soil disturbance including the removal of the topsoil, the soils in the alternative area generally do not exhibit hydric soil field indicators. However, based on observations, it appears soils within the alternative site are ponded for 7 or more consecutive days. Consequently, these soils are saturated for sufficient duration to develop anaerobic conditions. Therefore, they would be considered hydric under criteria developed by the National Technical Committee on Hydric Soils (NTCHS) (SCS 1991b).

Under the 1987 federal wetland delineation methodology, soils must be saturated to the surface for at least 14 days during the growing season (March through October) in order to satisfy the wetland hydrology criterion. Based on observations, it appears a large portion of the alternative site and, at least those portions of the preferred site which have not been impacted through the storage of gravel, would satisfy this saturation threshold. Consequently, in addition to the presence of hydric soils on both the preferred and alternative sites, the wetland hydrology criterion is also generally satisfied at both sites.

As stated earlier bluegrass is the dominant plant species on both the preferred and alternative sites. Due to the time year when the wetland reconnaissance was conducted and local site conditions (mowing), it was not possible to key the on-site bluegrasses to species. However, it appears the on-site bluegrass is annual bluegrass (*Poa annua)* which is considered to be a hydrophytic species. Regardless of the plant species, COE regional guidance (U.S. Army Corps of Engineers 1994) allows an area supporting upland vegetation to be classified as wetland if both the hydric soil and wetland hydrology criteria are satisfied. Therefore, regardless of the species of plants growing on either the preferred or alternative sites, both of these areas would be considered jurisdictional wetland based on the presence of hydric soils and wetland hydrology.

In a 4 April 1995 telephone conversation, Mr. (b) (6), COE, Regulatory Branch, concurred that since the soils and hydrology criteria are satisfied, the COE would likely consider both the preferred and alternative sites to be jurisdictional wetland even though a strict interpretation of the vegetation criterion may not be satisfied. Mr. (b) (6) further stated that, based on his limited knowledge of the project, it appeared that since the project area was on top of the steep bluff, on-site wetlands would be considered "isolated" from a regulatory point of view and would not meet the COE definition of "adjacency". Consequently, Mr. (b) (6) stated that development activities in either area could likely proceed under the Nationwide Permit (NWP) process. Since the proposed area of development was likely to be relatively small, Mr. (b) (6) suggested that it might be possible to permit the project under NWP 18 which allows minor discharges of **fill** material into jurisdictional wetlands providing that the amount of **fill** does not exceed 25 cubic yards **or** the filled area does not exceed 0.1 acre. Other provisions for the use of NWP 18 includes the completion of a wetland delineation and COE notification by the applicant prior to the start of the project. A Section 401 Water Quality Certification from the Washington State Department of Ecology would also be required to permit the proposed project under NWP 18.

Lastly, based on observations, jurisdictional wetland does exist on the beach and in the drainage north of the preferred site. However, the proposed project is not expected to impact either of these areas. Additionally, since neither the COE or the County recognize buffer setbacks from jurisdictional wetlands, no wetland buffer encroachment issues exist for either the preferred or alternative sites.

Summary

Based on field observations, and a telephone conversation with the COE, it appears all of the alternative site, and at least those portions of the preferred site which have not been impacted by past gravel storage, would likely be considered jurisdictional wetlands. However, based on the anticipated small area of project impacts, it appears it would be possible to permit this project under the COE's NWP program.

ENDANGERED AND THREATENED SPECIES

As part of this project, the U.S. Fish and Wildlife Service (USFWS) was contacted to determine the actual or potential existence of endangered and threatened animal and plant species within the proposed ECTF project area. Additionally, Priority Habitat and Species (PHS) database information was requested from the Washington State Department of Fish and Wildlife (WDFW).

As a result of the formal request, the USFWS provided a consultation letter that stated both the peregrine falcon *(Falco peregrinus)* and the marbled murrelet (*Brachyramphus marmoratus marmoratus*) may occur in the vicinity of the proposed project (U.S. Fish and Wildlife Service 1995). These species are federally listed as endangered and threatened, respectively (U.S. Fish and Wildlife Service 1994). In addition to listed species, the USFWS consultation letter also provided a listing of candidate animal species that may occur in the proposed project area. These species consists of the little willow flycatcher (*Empidonax traillii brewsteri*), long-eared myotis (bat) *(Myotis evotis),* long-legged myotis (bat) *(Myotis volans),* northern red-legged frog *(Rana aurora aurora),* Olympic mudminnow (*Novumbra hubbsi*), Pacific western big-eared bat (*Plecotus townsendii townsendii*) and Yuma myotis (bat) *(Myotis yumaensis).* Since the 1995 consultation, the USFWS has revised the listing of plant and animal taxa that are candidates for listing as endangered and threatened (Federal Register 28 February 1996). All animal candidate species listed in the 1995 consultation letter have since been officially removed from candidate status. No plant species were included in the 1995 USFWS consultation letter (U.S. Fish and Wildlife Service 1995).

Results from the WDFW PHS database search yielded no records of priority or habitat species directly within the vicinity of the proposed project. However, the lack of database information does not necessarily imply that no sensitive wildlife species or habitats exist within the vicinity of the proposed project.

In summary, prior to the development of the proposed ECTF project, the Navy should request a new species listing from the USFWS since the previous listing was prepared approximately 10 months ago. As a result of a new USFWS listing, the Navy may need to prepare a Biological Assessment (BA) addressing those species having the potential to occur in the project area. Additionally, although the WDFW PHS database search did not reveal the existence of any sensitive wildlife species or habitats in the vicinity of the

proposed project, the Navy should request an updated database search prior to development of the project. If sensitive wildlife species or habitats are noted as a result of this database search, the Navy should contact WDFW prior to development of the ECTF project.

Please contact me at (b) (6) if you have any questions or comments, or if you need additional information.

Sincerely,

(b) (6)

Wetland Biologist
BEAK CONSULTANTS INCORPORATED

REFERENCES

Environmental Laboratory. 1987. Corps *of* engineers wetlands delineation manual, technical report Y-87-1, U.S. Army Corps of Engineer Waterways Experiment Station, Vicksburg, Mississippi.

Federal Interagency Committee for Wetlands Delineation. 1989. Federal manual for identifying and delineating jurisdictional wetlands. U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S.D.A. Soil Conservation Service, Washington D.C. Cooperative Technical Publication.

Grays Harbor County. Montesano, WA. Personal communication, meeting with (b) (6) (Beak), 23 March 1995.

Kollmorgen Instruments Corporation. 1990. Munsell Soil Color Charts.

Pringle, R.F. 1986. Soil survey of Grays Harbor Area, Pacific County, and Wahkiakum County, Washington.

(b) (6) U.S. Army Corps of Engineers Regulatory Branch, Seattle, WA. Personal communication, telephone conversation with (b) (6) (Beak), **4** April 1995.

U.S. Department of Agriculture, Soil Conservation Service. 1991a. Natural Resources Management Plan, Pacific Beach Annex, Naval Station Puget Sound.

U.S. Department of Agriculture, Soil Conservation Service. 1991b. Hydric soils of the United States.

U.S. Fish and Wildlife Service. 1994. Endangered and threatened wildlife and plants. 50 CFR 17.11 and 17.12. 20 August 1994. 42 p.

U.S. Fish and Wildlife Service. 1995. Personal communication, consultation letter from (b) (6), Supervisor, concerning currently listed threatened, endangered and candidate species to (b) (6) (U.S. Navy), 19 June 1995.

U.S. Fish and Wildlife Service. 1996. Endangered and threatened wildlife and plants; Review of plant and animal taxa that are candidates for listing as endangered or threatened species. 50 CFR 17. 28 February 1996.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Pacific Coast Ecoregion
Western Washington Office
3704 Griffin Lane SE, Suite 102
Olympia, Washington 98501-2192
(360) 753-9440 FAX: (360) 753-9008

June 19, 1995

[redacted]
Department of the Navy
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 7th Avenue N.E.
Poulsbo, Washington 98370-7570

FWS Reference: 1-3-95-SP-585

Dear [redacted]

This is in response to your letter (undated) received in this office on May 18, 1995. Your letter requested comments about the environmental impacts of constructing and operating an electronic combat training facility (ECTF) on the western boundary of Naval Station Pacific Beach in Pacific County, Washington. Due to staffing constraints, the U.S. Fish and Wildlife Service (Service) does not have time to comment on all the issues that you intend to address in your environmental assessment. However, a list of listed threatened and endangered species, and candidate species (Attachment A), that may be present within the area of the ECTF is enclosed to assist you in your environmental assessment. Several phone calls left the question unanswered of whether wetlands are present in the vicinity of the proposed ECTF as Navy personnel were unfamiliar with the site. The Service will assume wetlands are present and add wetland species to the list.

The list fulfills the requirements of the Service under Section 7(c) of the Endangered Species Act of 1973, as amended (Act). We have also enclosed a copy of the requirements for U.S. Department of the Navy (Navy) compliance under the Act (Attachment B).

Candidate species are included simply as advance notice to federal agencies of species which may be proposed and listed in the future. However, protection provided to candidate species now may preclude possible listing in the future. If early evaluation of your project indicates that it is likely to adversely impact a candidate species, the Navy may wish to request technical assistance from this office.

There may be other federally listed species that may occur in the vicinity of your project which are under the jurisdiction of the National Marine Fisheries Service (NMFS). Please contact NMFS at [redacted] (b) (6) to request a species list.

In addition, please be advised that federal and state regulations may require permits in areas where wetlands are identified. You should contact the Seattle District of the U.S. Army Corps of Engineers for federal permit requirements and the Washington State Department of Ecology for state permit requirements.

Your interest in endangered species is appreciated. If you have additional questions regarding your responsibilities under the Act, please contact [redacted] (b) (6), [redacted] (b) (6) or [redacted] (b) (6) of this office at the letterhead phonefaddress.

Sincerely,

[redacted] (b) (6)

For/ Supervisor

cm/tb
Enclosures
SE/NAVY/1-3-95-SP-585/Pacific
c: WDFW, Region6
WNHP, Olympia

ATTACHMENT A

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND CANDIDATE SPECIES WHICH MAY OCCUR WITHIN THE VICINITY OF THE PROPOSED ELECTRONIC COMBAT TRAINING FACILITY, NAVAL STATION PACIFIC BEACH, PACIFIC *COUNTY*, WASHINGTON (T20N R12W S20)

1-3-95-SP-585

LISTED

Marbled murrelet *(Brachyramphus marmoratus marmoratus)* - murrelets may occur in the vicinity of the project.

Peregrine falcon *(Falco peregrinus)* - spring and fall migrant falcons may occur in the vicinity of the project.

Major concerns that should be addressed in your biological assessment of project impacts to listed species are:

1. Level of use of the project area by listed species.

2. Effect of the project on listed species' primary food stocks, prey species, and foraging areas, in addition to roosting, nesting, and dispersal habitat in all areas influenced by the project.

3. Impacts from project construction and implementation (e.g., increased noise levels, increased human activity and/or access, loss or degradation of habitat) which may result in disturbance to listed species and/or their avoidance of the project area.

PROPOSED

None

ATTACHMENT A (1-3-95-SP-585) Continued

CANDIDATE

The following candidate species may occur in the vicinity of the project:

Little willow flycatcher (*Empidonax traillii brewsteri*)
Long-eared myotis (bat) (*Myotis evotis*)
Long-legged myotis (bat) (*Myotis volans*)
Northern red-legged frog (*Rana aurora aurora*)
Olympic mudminnow (*Novumbra hubbsi*)
Pacific western big-eared bat (*Plecotus townsendii townsendii*)
Yuma myotis (bat) (*Myotis yumanensis*)

ATTACHMENT B

FEDERAL AGENCIES' RESPONSIBILITIES UNDER SECTIONS 7(a) AND 7(C) OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED

SECTION 7(a) - Consultation/Conference

Requires: 1. Federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species;

2. Consultation with FWS when a federal action may affect a listed endangered or threatened species to ensure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The process is initiated by the federal agency after it has determined if its action may affect (adversely or beneficially) a listed species; and

3. Conference with FWS when a federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or an adverse modification of proposed critical habitat.

SECTION 7(c) - Biological Assessment for Construction Projects *

Requires federal agencies or their designees to prepare a Biological Assessment (BA) for construction projects only. The purpose of the BA is to identify any proposed and/or listed species which is/are likely to be affected by a construction project. The process is initiated by a federal agency in requesting a list of proposed and listed threatened and endangered species (list attached). The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the species list, please verify the accuracy of the list with our Service. No irreversible commitment of resources is to be made during the BA process which would result in violation of the requirements under Section 7(a) of the Act. Planning, design, and administrative actions may be taken; however, no construction may begin.

To complete the BA, your agency or its designee should (1) conduct an onsite inspection of the area to be affected by the proposal, which may include a detailed survey of the area to determine if the species is present and whether suitable habitat exists for either expanding the existing population or potential reintroduction of the species; (2) review literature and scientific data to determine species distribution, habitat needs, and other biological requirements; (3) interview experts including those within the FWS, National Marine Fisheries Service, state conservation department, universities, and others who may have data not yet published in scientific literature; (4) review and analyze the effects of the proposal on the species in terms of individuals and populations, including consideration of cumulative effects of the proposal on the species and its habitat; (5) analyze alternative actions that may provide conservation measures; and (6) prepare a report documenting the results, including a discussion of study methods used, any problems encountered, and other relevant information. Upon completion, the report should be forwarded to our Endangered Species Division, 3704 Griffin Lane SE, Suite 102, Olympia, WA 98501-2192.

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* "Construction project" means any major federal action which significantly affects the quality of the human environment (requiring an EIS), designed primarily to result in the building or erection of human-made structures such as dams, buildings, roads, pipelines, channels, and the like. This includes federal action such as permits, grants, licenses, or other forms of federal authorization or approval which may result in construction.

U.S. Department of Transportation
United States Coast Guard

Commander
Coast Guard Group Astoria

2185 S.E. 12th Place
Warrenton, OR 97146-9693
Phone: (503) 061-6220
(FTS) 700-396-9220

5182
JUN 2 1995

Department of the Navy
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
[redacted] (b) (6)
19917 7th Avenue N.E.
Poulsbo, WA 98370-7570

I have reviewed your letter of 18 May 1995, and have some concerns in regards to interference with emergency radio communications.

We operate a high site in the Pacific Beach area that monitors emergency frequencies for distressed vessels. Your letter was not specific as to operational frequencies of the proposed facility.

I request that you contact my telecommunication office at (503) 861-6233 with more details so that I can ensure that this project won't create a hazard to safe boating. Please ask for TTC [redacted] (b) (6) [redacted].

[redacted] (b) (6)

rd
Group Commander

NOTE:
called Chief [redacted] (b) (6) 6/8/95 - They have UHF reciever mounted on 2nd floor of Gym at PB. Only concerned with UHF Marine frequencies. Facility is called a 'high site' and they also have one at whidbey. If we don't affect marine freq then there is no problem.

[redacted] (b) (6)

U.S. Department
of Transportation

Northwest Mountain Region
Colorado, Idaho, Montana,
Oregon, Utah, Washington,
Wyoming

1601 Lind Avenue, S.W.
Renton, WA 98055-4056

Federal Aviation
Administration

JUN 9 1995

[redacted] (b) (6)
Department of the Navy
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 7th Avenue N.E.
Poulsbo, WA 98370-7570

Dear Mr. [redacted] (b) (6) :

We are writing in regards to the proposed electronic combat training facility (ECTF) near Pacific Beach, Washington. Our Spectrum Management Office has considered your proposal. Since we have navigation and communication facilities in the area, we are concerned about your ability to obtain frequency coordination for the activities planned for the Pacific Beach facility.

We request that you coordinate your spectrum needs with the area Navy Spectrum Management Office to pre-determine the compatibility of the proposed facility with the FAA and other spectrum users in the region.

If you have any questions, or if we can be of any assistance please contact [redacted] (b) (6) of our Spectrum Management Staff, ANM-462J, at (206)227-2328.

Sincerely,

[redacted] (b) (6)

for Manager, Airway Facilities Division

CLEVE PINNIX
Director

STATE OF WASHINGTON

WASHINGTON STATE PARKS AND RECREATION COMMISSION

7150 Cleanwater Lane • P.O. Box 42650 • Olympia, Washington 98504-2650 • (360) 902-8500

May 31, 1995

Department of the Navy
Naval Facilities Engineering Command
Attn: (b) (6)
19917 - 7th Avenue NE
Poulsbo, WA 98370-7570

Dear (b) (6)

Thank you for notifying Washington State Parks and Recreation Commission of the Navy's intent to prepare an Environmental Assessment (EA) for a proposed electronic combat training facility (ECTF) on the western boundary of Naval Station Pacific Beech. We feel the following questions and concerns should be addressed in your EA.

Aesthetic impacts to the Pacific Beach Seashore Conservation Area.

How visible will the ECTF be from the park area and how will aesthetic impacts be minimized? The Commission has tried to preserve the natural features of the park's shoreline and the adjacent Seashore Conservation Area . Every development visible from the shoreline area works against this goal.

Path of radar and other low wave radiation

Will the Pacific Beach State Park and Seashore Conservation Area be outside the main path of the ECTF radar?
Will beach goers be exposed to any electromagnetic fields7 At what distance from the facility are impacts from EMF negligible?
What will be done to minimize *impacts, if any,* from these waves7

By addressing these questions and concerns in your EA, State Parks can better assess the extent of impacts on Commission owned lands. When the EA is completed, please send a copy to Environmental Programs at the above letterhead address, Ann: (b) (6).

Thank you for the opportunity to provide input into the scope of your EA. If you have any further questions or concerns I can be reached at (360) .

Sincerely,

(b) (6)

Resources Development Division

cc: (b) (6), Region Manager, Southwest Region
P., Chief, Environmental Programs
Park Manager, Pacific Beach Area

CONVERSATION RECORD

TIME: 0930

DATE: 6/9/95

TYPE: ☐ VISIT ☐ CONFERENCE ☑ TELEPHONE ☑ INCOMING ☐ OUTGOING

LOCATION OF VISIT/CONFERENCE:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU	ORGANIZATION (Office, dept., bureau, etc.)	TELEPHONE NO.
(b) (6)	WA. Dept Fish + Wildlife	(b) (6)

ROUTING

NAME/SYMBOL	INT

SUBJECT: PAC BEACH - P-100

SUMMARY: (b) (6) left message that he would like to see us address impacts on the species, wildlife and Water Quality from the project. Wants copy of EA.

ACTION REQUIRED

NAME OF PERSON DOCUMENTING CONVERSATION	SIGNATURE	DATE
(b) (6)		6/9/95

ACTION TAKEN

SIGNATURE	TITLE	DATE

DEPARTMENT OF THE NAVY
ENGINEERING FIELD ACTIVITY, NORTHWEST
NAVAL FACILITIES ENGINEERING COMMAND
19917 7TH AVENUE N.E.
POULSBO, WASHINGTON 98370-7570

5090
Ser 232DM/5 182
MAY 18 1995

Mr. [redacted] (b) (6)
Field Supervisor
U.S. Fish & Wildlife Service
3704 Griffin Lane SE
Suite 102
Olympia WA 98501-2192

Dear [redacted] (b) (6):

The Navy, in compliance with the National Environmental Policy Act, is preparing an Environmental Assessment (EA) to analyze the potential environmental impact of constructing and operating and electronic combat training facility (ECTF). As indicated on the enclosed map, the ECTF would be located in a currently vacant area on the western boundary of Naval Station Pacific Beach (Moclips Quadrangle -- S 20, T 20, R 12). From this location, rhe proposed ECTF, working in conjunction with an existing ECTF at NAS Whidbey Island, would provide concurrent radar coverage for aircraft operating in the Olympic military operating area.

One 25 foot high concrete and steel structure would be constructed on concrete piers. It would provide enclosed administrative and equipment storage space, and computer space. On top of this would be a 45 to 50 foot high dome which will house the radar device. The total height of the facility would be 70 to 80 feet. Perimeter fencing and physical security are required. Special construction features include an elevator, exterior hoist. and 275 KVA power. Fire alarm. fire protection, acoustic attenuation, and electromagnetic radiation shielding is also required for the facility. Photographs of a similar ECTF are enclosed.

We are soliciting your comments on specific issues and concerns which your agency believes should be addressed in the EA. Please note that we intend to address the following issues:

- earth and water,
- wetlands and biological resources,
- land and shoreline use/aesthetics,
- recrcatioq
- socio-economics and social justice,
- transportation, public services and utilities. and.
- air quality, noise. and EMF

Please submit your comments. if any, by June 9, 1995 to the above letterhead address. Attn: [redacted] (b) (6) [redacted] (b) (6)

Should you have any questions, please contact [redacted] (b) (6) at (b) (6) [redacted].

Sincerely,

(b) (6)

Director. Environmental Planning **and**
Natural Resources Division

Enclosure

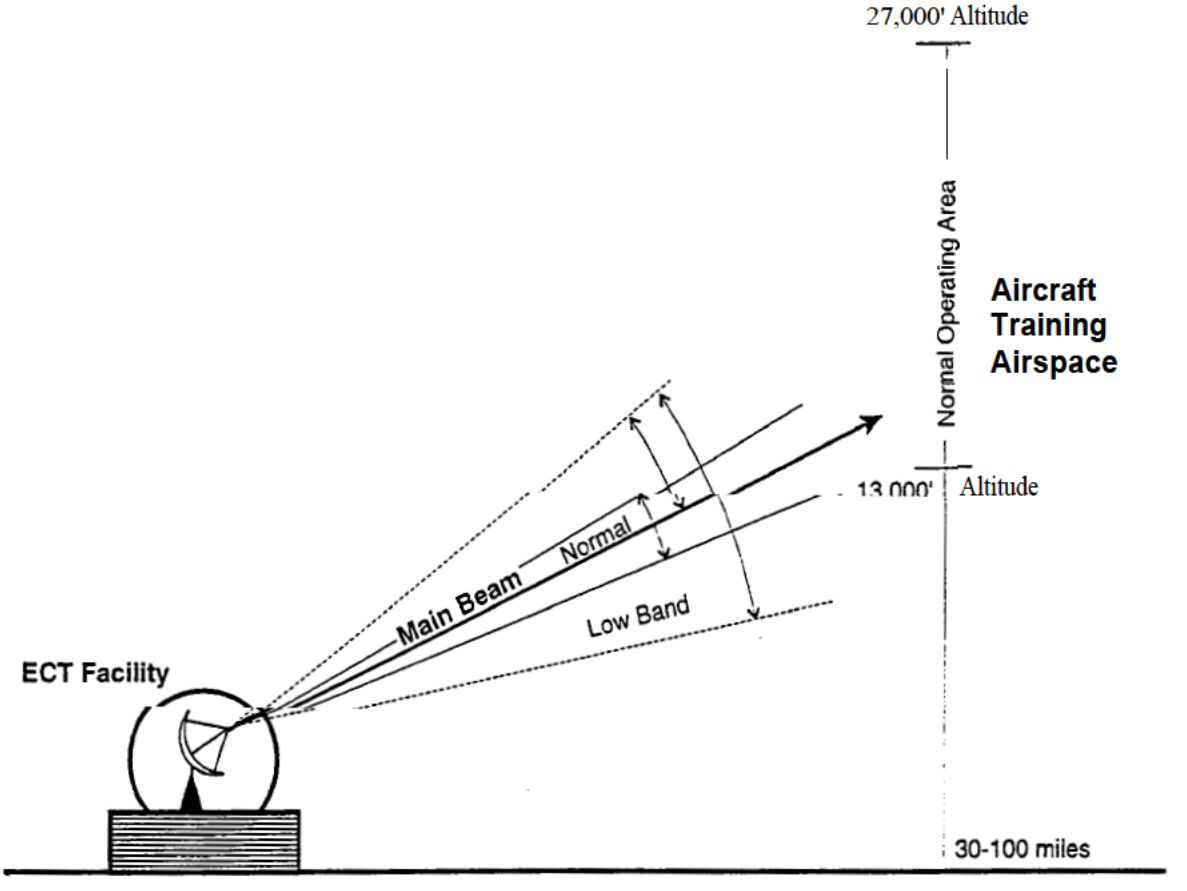
APPENDIX B

PROPOSED SECOND NASWI ELECTRONIC COMBAT TRAINING FACILITY

ALTERNATIVES ANALYSIS

Proposed Second NASWI
Electronic Combat Training Facility

Alternatives Analysis



Naval Air Station, Whidbey Island
Oak Harbor, Washington

and

Engineering Field Activity, Northwest
Poulsbo, Washington

October 21,1996

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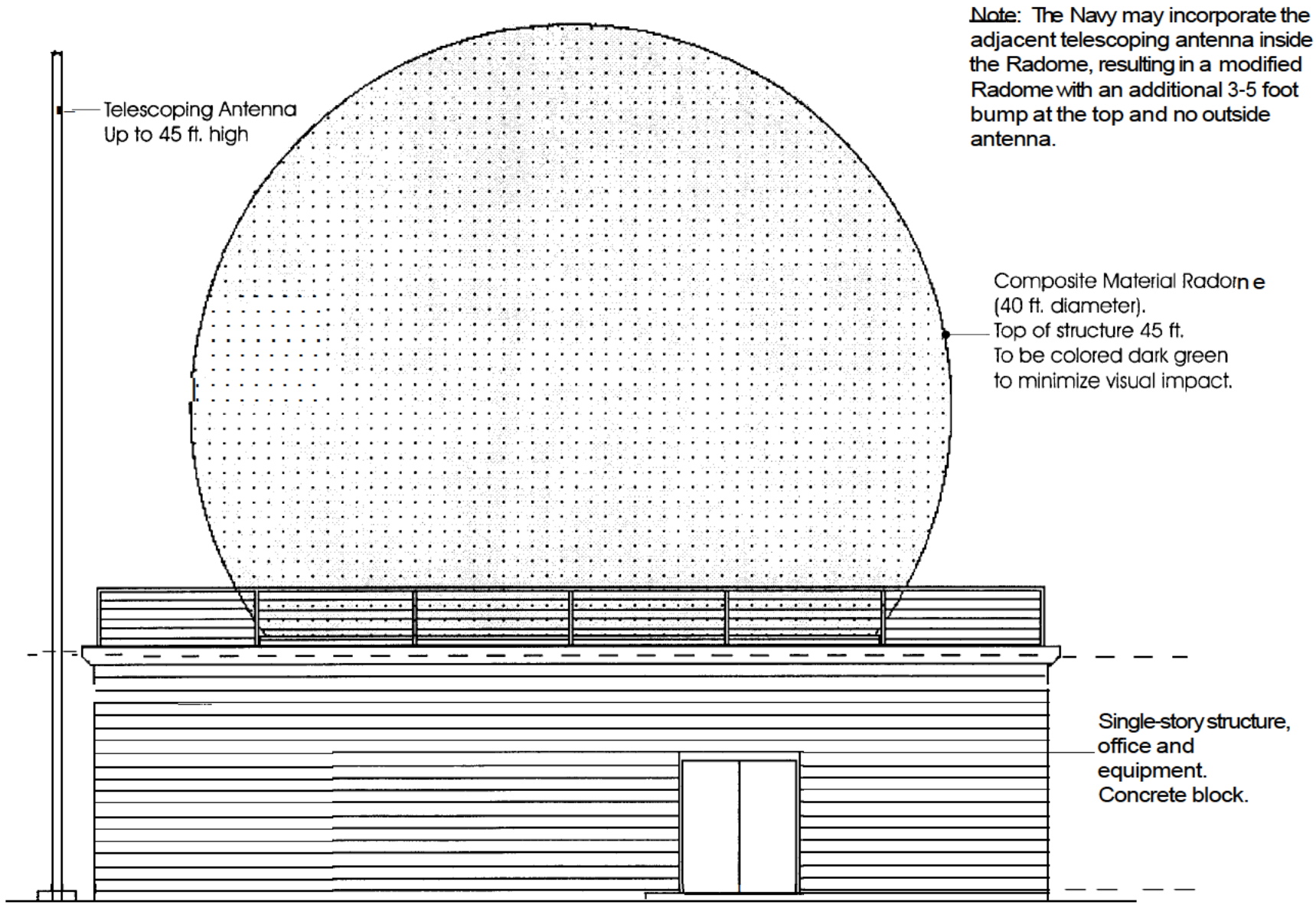
1.0 INTRODUCTION

This Alternatives Analysis was conducted by the Navy to identify and assess potential candidate sites for construction and operation of a second Electronic Combat Training Facility (ECTF) to be used for training purposes by aircrews at Naval Air Station, Whidbey Island (NASWI), Washington (Figure 1). The ECTF would house a AN/FSQ-T22 device used for electronic combat training purposes. An existing ECTF with this device is currently located on Whidbey Island at Seaplane Base, NASWI, near Oak Harbor, Washington. A total of **14** candidate Navy sites were evaluated in this analysis. Most sites (12) are located in the Puget Sound area. Two additional sites are located along the central Washington coast and south of the Columbia River in northcentral Oregon.

The purpose of this analysis was to determine which candidate site or sites best met specific site selection criteria established by the Navy for a second ECTF to be operated in parallel with the existing ECTF at NASWI. Six site selection criteria were identified by the Navy to ensure proper and effective siting and operation of the second ECTF: five exclusionary criteria and one evaluative criterion. Acceptable sites must meet all exclusionary critieria to be considered by the Navy. Should more than one site meet all exclusionary critieria, an evaluative criterion was included to assess day-to-day efficiency of operating the existing ECTF at NASWI plus a second ECTF at another location on or off Whidbey Island.

This Alternatives Analysis is divided into four sections - study area, methodology, detailed analysis and results, and summary - and is discussed below.



Note: The Navy may incorporate the adjacent telescoping antenna inside the Radome, resulting in a modified Radome with an additional 3-5 foot bump at the top and no outside antenna.

Provided by Bouillon, Christofferson & Schairer, Inc. 1996

ECTF Alternatives Analysis

ECTF Elevation Preliminary Design

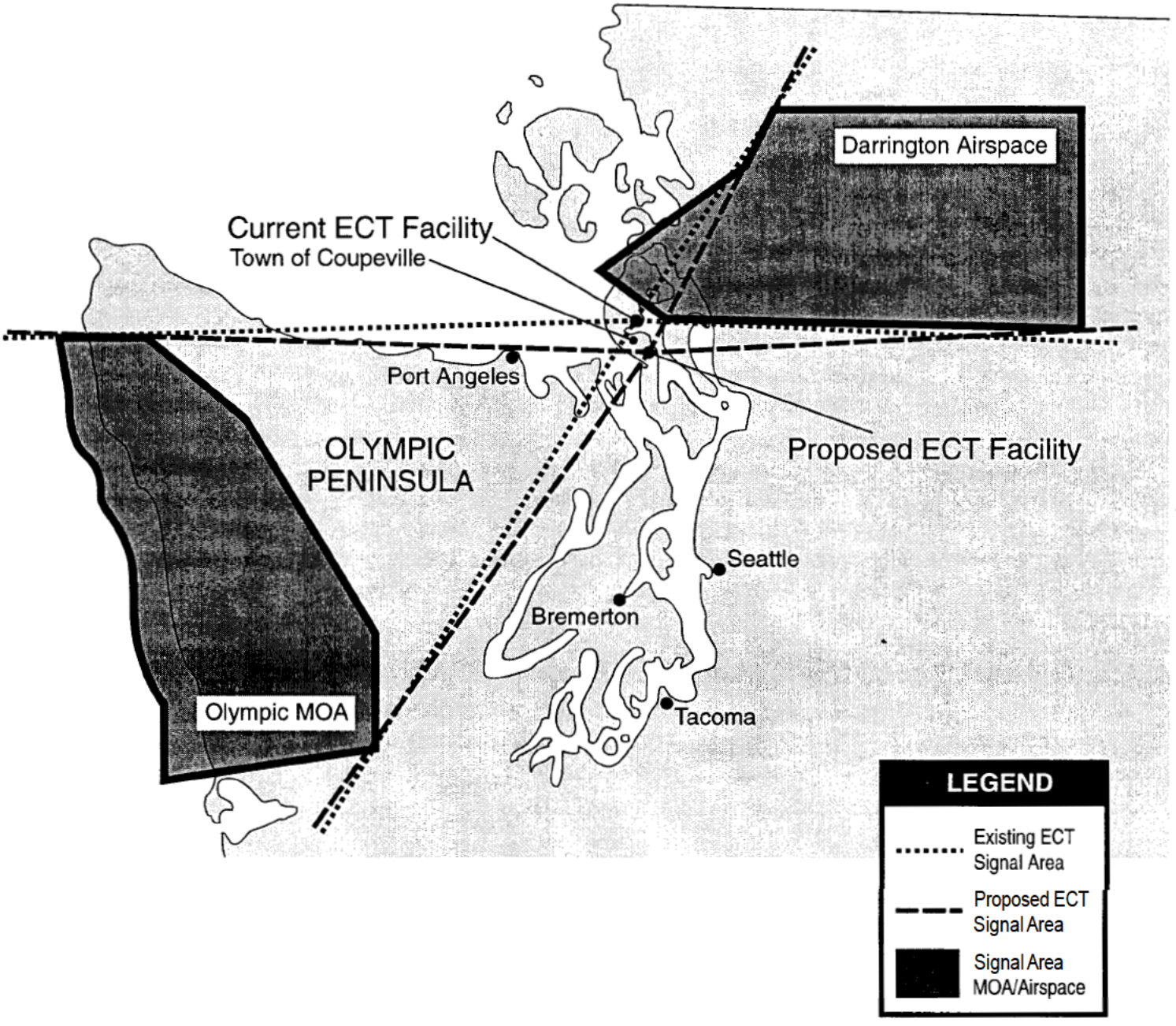
Figure 1

2.0 STUDY AREA

The construction and operation of multiple ECTFs in the Pacific Northwest has been a training goal of the Navy for many years. The study area has evolved over time with training program requirement changes and military project funding availability. Several potential Washington State sites were identified early on in the Navy's site selection process including sites at Port Angeles, Omak, Moses Lake, and Pacific Beach, Washington. These sites were initially considered when training activities were to be jointly conducted with the Air Force in eastern Washington, and when the Navy fleet in the Pacific Ocean was included in the training program. The Navy's training program has evolved to now include Navy aircraft only flying out of NASWI. These Navy aircraft use two training airspaces over Washington State called the Darrington Airspace east of NASWI (primary area used) and the Olympic Military Operating Area (MOA) west of NASWI. This MOA includes two sections: A and B. The location of the existing ECTF at NASWI and the location and configuration of the two training airspaces are critical to the study area for a second ECTF (Figure 2).

The initial set of candidate sites at Port Angeles, Omak, Moses Lake, and Pacific Beach did not meet all the requirements of the aircrew training program using these two airspace areas. A second ECTF in the Port Angeles area would not provide adequate radar signal separation as there would only be a two degree angle of separation between the existing ECTF and a second ECTF site at Port Angeles. Due to this small angle, aircrews would be unable to distinguish between multiple radar signals. Candidate sites at Omak and Moses Lake were initially considered during program participation by the Air Force. However, Air Force realignment relocated its EF-111 aircraft assets elsewhere and a new ECTF within the eastern Washington State area no longer became an option. These two sites had additional restrictions since the efficient range for the training scenario from the Darrington Airspace area is between 30 and 100 miles, and the Omak and Moses Lake sites would be too distant. Finally, a candidate site at Pacific Beach, Washington was considered and initially appeared to meet the Navy's training requirements. Naval Station Pacific Beach in Grays Harbor County, Washington was initially the preferred location for the second ECTF. With the exception of potential conflict with a commercial aircraft corridor in the area, this site appeared to be suitable for training both shipcrews and aircrews. However, field investigations showed that soils, wetlands, and erosional bluff hazards made this site unacceptable for construction (also see Appendix A in the Environmental Assessment). In addition, a tall metal water tank and tower located off site would likely block signal transmission. At about the time this site was being considered, the Navy's training program dropped the requirement for inclusion of the Navy fleet in the Pacific Ocean. This change also made a coastal site such as Pacific Beach less preferred. Additionally, the distance to the Darrington Airspace from Pacific Beach was too great and significant terrain masking exists which precludes adequate signal coverage.

Following Navy changes in the training program and the elimination of the four initial candidate sites, the Navy needed to search for a new set of candidate sites and siting criteria had to be revised. In addition, candidate sites must be sited far enough away from the existing ECTF at



Source: **NASWI** 1996

Not to scale

ECTF Alternatives Analysis

Darrington Airspace and Olympic MOA in Relationship to the ECTFs

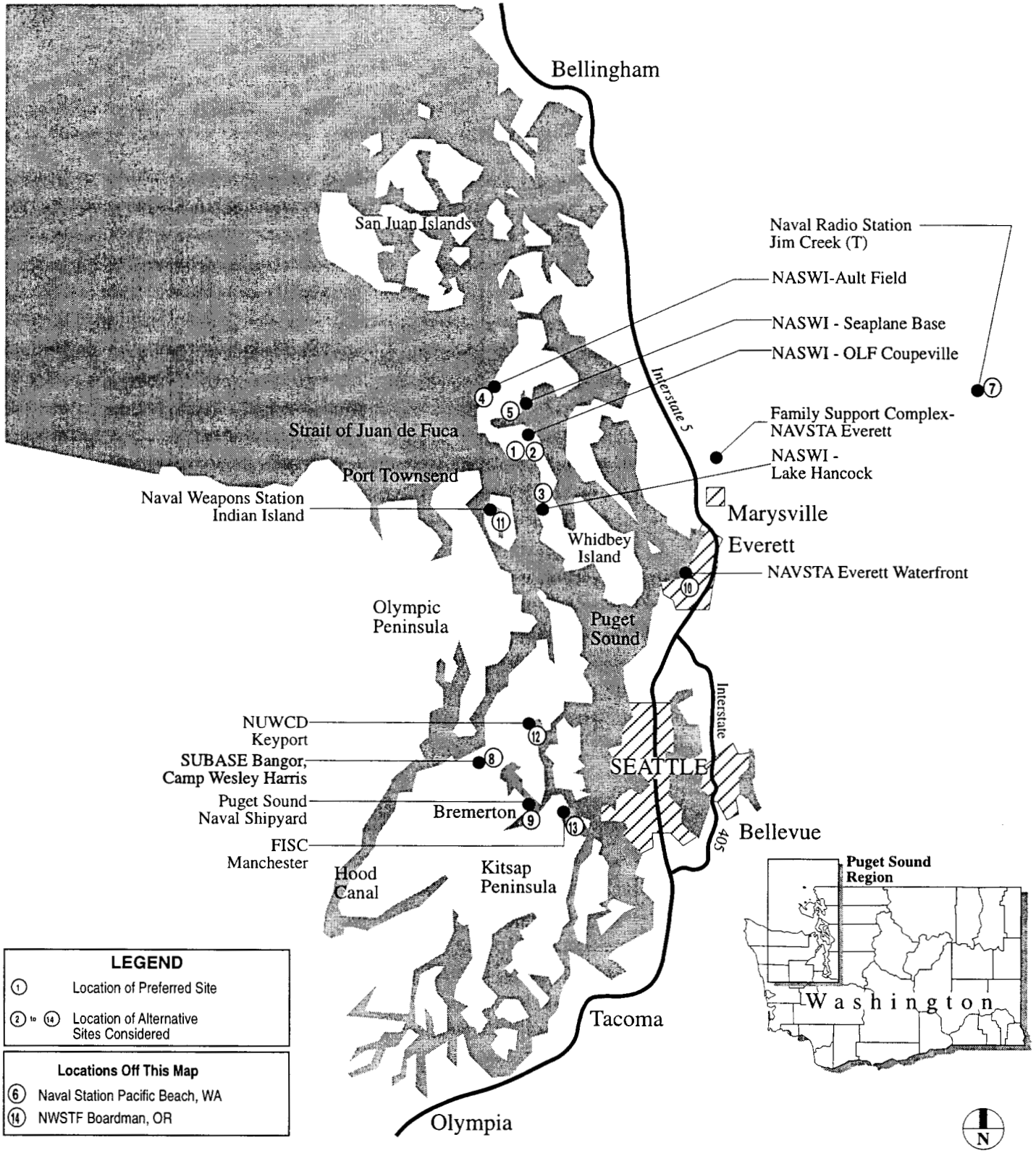
Figure 2

Seaplane Base, NASWI, so that Navy aircrews can clearly distinguish between the signals being sent from the two sources. If the angle of separation between the signals is too small, aircrews cannot clearly distinguish between them. Other criteria must also be considered as described in Section 3.0, Methodology.

To identify this new set of candidate sites, all Navy installations in the Puget Sound were considered. An ECTF site in the Puget Sound area is capable of sending a signal to both the Darrington Airspace and the Olympic MOA. In addition, Naval Station Pacific Beach on the Washington coast was reconsidered and a remote NASWI bombing range in northcental Oregon - NWSTF Boardman - was also considered for comparative purposes. All Navy properties greater than 2.5 acres in size and located on Whidbey Island were considered. Non-Navy military installations or other Federal properties in the Pacific Northwest were not considered because potential sites must be on existing Navy property due to nonavailability of federal funds to acquire additional non-Navy property.

Fourteen candidate sites were identified from this search (Figure **3).** These sites include:

- Five at NASWI (two at OLF Coupeville and one each at Lake Hancock, Ault Field, and Seaplane Base, WA)
- One at Naval Station Pacific Beach, WA
- One at Naval Radio Station (T) Jim Creek, WA
- One at SUBASE Bangor, Camp Wesley Harris, WA
- One at Puget Sound Naval Shipyard, Bremerton, WA
- One at Naval Station Everett, WA
- One at Naval Weapons Station, Detachment Port Hadlock, WA (Indian Island)
- One at NUWCD Keyport, WA
- One at FISC Manchester, WA
- One at NWSTF Boardman, OR



Provided by EDAW, Inc. 1996

ECTF Alternatives Analysis

Alternative Locations for the ECTF in the Puget Sound Region

Figure 3

3.0 METHODOLOGY

Fourteen candidate sites located in the study study area were assessed using criteria identified by the Navy: five exclusionary criteria and one evaluative criterion. These criteria are further discussed below. An acceptable site must meet all five exclusionary criteria. These criteria include physical, operational, and site availability requirements for the siting of a new ECTF. Additionally, candidate sites were assessed using an evaluative criterion related to operational efficiency and coordination. This last evaluative criterion was used to rank all acceptable sites, if needed.

3.1 Exclusionary Criteria

The five exclusionary criteria used to evaluate potential sites include the following:

- Criterion 1: Line of Sight /Terrain Blockage. This criterion addresses one of the physical requirements of the ECTF. The signal used to track aircraft and radio communications, as well as signals emitted for training, do not bend in the atmosphere. Their physical properties require an AN/FSQ-T22 device to be positioned in a location from which the aircraft being tracked can maintain straight line, or line of sight (L-0-S), between the ECTF and the aircraft during a training flight. Criterion 1 addresses primary obstructions preventing L-0-S operations including large-scale terrain blockage or the physical blockage of signals by topography (e.g., large hills and mountains). Other man-made or smaller-scale obstructions (e.g., trees, small hills, buildings, water tanks, antenna, etc.) can also block signals. These considerations were addressed in Criterion 5 based on site specific information from maps and site visits. For Criterion 1, the Tactical EA-6B Mission Support (TEAMS) system, a mission planning computer for EA-6B aircrews, was used to evaluate the effect of large-scale terrain obstructions on airspace coverage. A candidate site location was chosen for each installation that would potentially be suitable for operating an ECTF. A TEAMS computerized terrain analysis was conducted for each site based on the latitude and longitude of that site. This analysis assumed an aircraft altitude of 20,000 feet within the defined airspace of the Olympic MOA and Darrington Airspace. The computerized terrain analysis for each candidate site depicts a graphic display of the signal coverage and its relationship to the Olympic MOA and Darrington Airspace. The computer output displays the Darrington Airspace and Olympic MOA-sections A and B as white-line geometric shapes and includes the coastal shoreline, Canadian/US border, and terrain relief. Each candidate site is marked by a "B" on these displays with a site name indicator. The displays indicate the area of signal coverage limited by terrain blockage or distance as a fluid-like white line. Assuming an aircraft altitude of 20,000 feet, an aircraft inside of the signal polygon would have line-of-sight with the ECTF. Outside of the signal polygon, the aircraft would be blocked by terrain obstruction or the site is too far away for acceptable signal transmission. In this case, the aircraft would no longer have line-of-sight. Each candidate site was evaluated as either good (no or minimal obstructions to airspace coverage), fair (significant obstructions to airspace coverage), or poor (total obstruction of airspace).

- Criterion 2: Loiter Airspace Reauirements. This criterion addresses one of the physical requirements of the ECTF. The electronic signal emitted from the AN/FSQ-T22 device must extend across the Darrington Airspace and the Olympic MOA so that aircraft can loiter for a required time while conducting surveillance training. The size, shape, length and configuration of the signal area is important. Non-signal areas or dead spots within the Darrington Airspace or Olympic MOA negatively affect training excercizes. The ability of an aircraft to conduct realistic racetrack patterns is negatively impacted by terrain blockage of a signal. If the terrain obstruction is significant enough, the aircraft may not be able to fly a normal racetrack pattern and still receive signals from the ECTF while remaining within the airspace boundaries. Although limited operations can be conducted while an aircraft is transiting through the airspace, normal training events must be conducted while flying non-maneuvering straight line racetrack patterns. Racetrack tracking lengths for the EA-6B aircraft typically run from 50 to 60 miles. For the P-3/EP-3 aircraft, racetrack lengths are longer typically running from 90 to 100 miles. Mission time for the EA-6B aircraft averages approximately 30 minutes, and for the P-3/EP-3 aircraft the average time is 60 to 90 minutes. These lengths and times differ between the EA-6B and P-3/ EP-3 aircraft airframes due to turning radii, time to turn, and other operational characteristics. The primary loiter airspace for the conduct of this form of training is the Darrington Airspace. The secondary or lesser-used loiter airspace is the Olympic MOA - sections A and B.

- Criterion 3: Distance From the Device to the Airspace Areas. This criterion addresses one of the physical requirements of the ECTF. Routine operations involve aircraft tracking in the range of 30 to 100 miles, with a minimum allowable range of near overhead and a maximum noted tracking range of approximately 125 miles. Beyond 100 miles from the AN/FSQ-T22 device, reception of the signals is severely degraded. Therefore, 100 nautical miles is used as a maximum distance.

- Criterion 4: Signal Direction of Arrival (DOA)/Angle SeDaration. This criterion addresses one of the operational requirements of the ECTF. EA-6B aircrew require the ability to routinely practice the rapid identification and location of simulated threat signals generated from multiple sites on the ground in coherent scenarios so as to arrive at the aircraft from diverse directions, A DOA separation of more than two degrees is required. This requirement translates to approximately 6 miles (minimum) required between the existing ECTF at Seaplane Base, NASWI, and a potential site for a new ECTF.

- Criterion 5: Potential Site Available and Feasible. This criterion addresses one of the operational requirements of the ECTF. A new ECTF site must have the physical space available for construction of the ECTF. Area requirements are approximately 2.5 to 5.0 acres in size and include space for the ECTF building with radome, possible telescoping antenna, parking area, security zone, site access road, and utilities. There must also be sufficient clearance around the ECTF such that surrounding structures, hills, and trees do not obstruct or prevent signal reception by aircrews. Potential sites must be on existing Navy property because federal funds are not available to acquire non-Navy property. A candidate site at each installation was selected where there was minimal or no signal blockage. Typically, this resulted in the selection of hilltops or ridgelines or sites located away from the bottom of steep slopes. The constraints of siting the ECTF at these locations is addressed

in this criterion. Such constraints may include access and utility problems, insufficient signal clearance over trees or small hills, need for demolition or relocation of existing structures, and man-made physical constraints blocking the signal such as water tanks, antenna, and houses.

3.2 Evaluative Criteria

One operational evaluative criterion was considered. This criterion was applied after all five exclusionary criteria were first satisfied.

Criterion 1: Site Coordination and Efficiencv. This criterion addresses the efficiency of operating the existing ECTF at Seaplane Base, NASWI, plus a second ECTF at another location. Extensive coordination between the two ECTF operators is necessary to support the day-to-day requirements for training scenario development and conduct. In addition, aircrew and threat simulator operators must be able to efficiently interface to develop real world mission rehearsal scenarios. Operators would need to be able to work at either ECTF site interchangeably on a daily basis. Computer software and/or hardware changeouts are needed daily or weekly to change training sceanarios. A central warehouse of spare computer and device parts at NASWI is highly desirable. ECTFs that are far apart (over one hour drive from Seaplane Base) would likely require additional staffing and duplicate spare parts warehousing. This would significantly increase the operation and maintenance costs of the proposed dual-ECTF training program. Since coordination needs are daily, ECTFs in relative close proximity (minimum of six miles separation needed) would increase overall efficiency, reduce operational costs through reduced staff travel time, reduce staffing needs at distant sites, and eliminate duplicate spare parts warehousing. Sites within one hour driving time (one way) are rated as good. Sites within a one to two hour driving time are rated as fair. Sites with more that a two hour driving time are rated as poor. In several cases, ferry travel time on and off Whidbey Island must also be considered.

4.0 SUMMARY

A summary of the Alternatives Analysis is presented in Table 1. Table 1 compares the results from the analysis discussed in Section 5 for each of the 14 candidate sites using the five exclusionary criteria and one evaluative criterion.

Only one candidate Navy site fully satisfies all exclusionary criteria: OLF Coupeville -Site #1 (Southwest). This site also rates good for the evaluative criterion. As a result, the southwest OLF Coupeville site is the Navy's preferred location for the construction and operation of a second ECTF in the Pacific Northwest.

Table 1. Evaluation of Alternative Locations for a Second NASWI Electronic Combat Training Facility.

Potential ECTF Site Locations & Installations Considered in This Analysis	Physical Exclusionary Criteria 1: Line of Sight & Terrain Blockage From Potential Site	Physical Exclusionary Criteria 2: Loiter Air Space Requirements Met in Airspace/MOA	Physical Exclusionary Criteria 3: Distance From the Device to the Operating Area	Operational Exclusionary Criteria 4: DOA (Angle) Separation From Existing ECTF	Operational Exclusionary Criteria 5: Potential ECTF Site Available & Feasible	Evaluative Criterion 1: Coordination & Efficiency Between The Two ECTF Sites
1. NASWI OLF Coupeville, WA Site #1 - Southwest	Yes (Good)	Yes	Yes	Yes (Fair)	Yes	Good
2. NASWI OLF Coupeville, WA Site #2 - Northeast	Yes (Good)	Yes	Yes	Yes (Fair)	No	NA (Good)
3. NASWI Lake Hancock, WA	Yes (Good)	Yes	Yes	Yes (Good)	No	N/A (Good)
4. NASWI Ault Field, WA	Yes (Good)	Yes	Yes	No (Poor)	Yes	N/A (Good)
5. NASWI Seaplane Base, WA	Yes (Good)	Yes	Yes	No (Poor)	Yes	N/A (Good)
6. Naval Station Pacific Beach, WA	No (Poor)	No	No	No (Poor)	No	N/A (Poor)
7. Naval Radio Station Jim Creek (T), WA	Yes (Good)	Yes	Yes	Yes (Good)	No	N/A (Poor)
8. SUBASE Bangor, Camp Wesley Harris, WA	Yes (Fair)	No	Yes	Yes (Good)	Yes	N/A (Poor)
9. Puget Sound Naval Shipyard, WA	Yes (Fair)	No	No	Yes (Good)	No	N/A (Poor)
10. NAVSTA Everett, WA	Yes (Good)	Yes	Yes	Yes (Good)	No	N/A (Fair)
11. Naval Weapons Station Indian Island, WA	Yes (Fair)	No	Yes	Yes (Fair)	No	N/A (Poor)
12. NUWCD Keyport, WA	Yes (Fair)	No	Yes	Yes (Good)	No	N/A (Poor)
13. FISC Manchester, WA	Yes (Fair)	No	Yes	Yes (Good)	No	N/A (Poor)
14. NWSTF Boardman, OR	No (Poor)	No	No	No (Poor)	Yes	N/A (Poor)

N/A = Not applicable due to application of exclusionary criteria before evaluative criteria.
Yes = Alternative site meets intent of criterion; **No** = Site does not meet criterion's intent.
Sources: NASWI memo dated 16 April 96, AN/FSQ-T22 Site Location Requirements; NASWI ECTF Meeting, 25 March 96; and Alternatives Analysis dated October 21, 1996.

5.0 DETAILED ANALYSIS AND RESULTS

Each of the 14 candidate sites were analyzed by applying the five exclusionary and one evaluative criteria. The results of this analysis are summarized below by candidate site.

5.1 NASWI, OLF Coupeville, WA - Site #1 - Southwest

General Site Location and Description

Outlying Field (OLF) Coupeville (Coupeville) is a component installation of NASWI and is located south of the Town of Coupeville in central Whidbey Island, Island County, Washington (Figure 4). Coupeville is 666 acres in size and is bounded by State Route 20, Patmore Road, and Keystone Road. The installation is used for Navy aircraft practice landings and takeoffs called Field Carrier Landing Practice (FCLP). Much of the aircrew practice takes place at night when the airfield is kept dark to simulate landings on a carrier at sea. The candidate site is flat and in an open agricultural field in the southwest portion of Coupeville approximately 300 feet east of Keystone Road and the boundary of Ebey's Landing National Historical Reserve. The Navy's runway is located to the east and north. Forest lands are located to the south. Agricultural land and three homes are located to the west. Aircraft noise can be high at times requiring noise attenuation. The candidate site is located outside of the lateral clear zone and required Navy setbacks of the runway. The site is located at elevation of 188 feet.

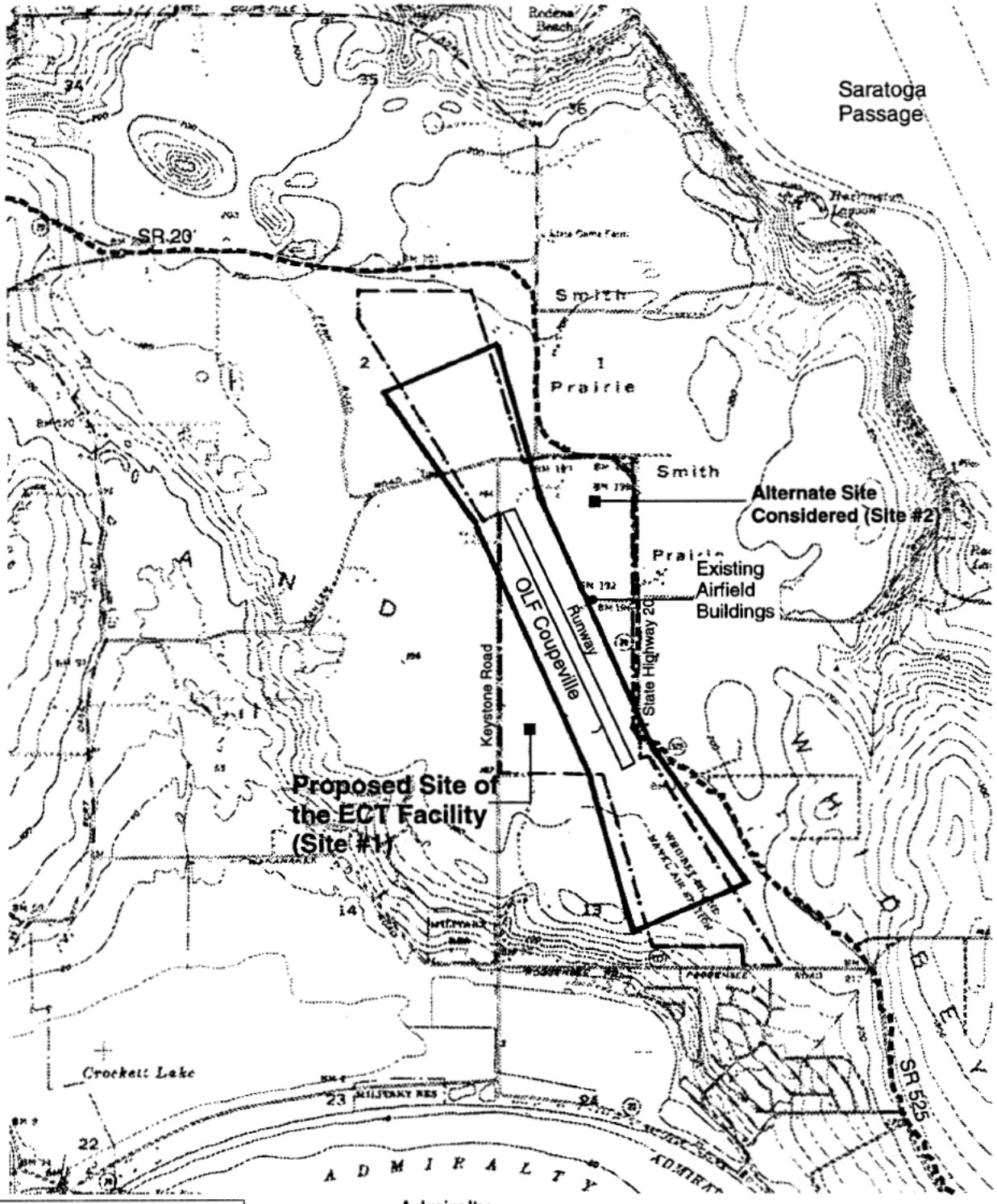
Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated in Figure 5. For Coupeville Site #1, the latitude and longitude for the terrain analysis is 48 11 10N, 122 38 OOW. Coverage of both airspace areas was judged to be good. Only a small portion of the Olympic MOA- section A would not receive a signal.

Criterion 2 - Loiter Airsuace Reauirements: For Coupeville Site #1, the loiter airspace requirement for both the Darrington Airspace and Olympic MOA would be met.

Criterion 3 - Distance From the Device to the Ouerating Area: Coupeville Site #1 is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Coupeville Site #1 is approximately 6 miles from the existing ECTF at Seaplane Base, NASWI. This is the minimum separation distance required by this criterion for adequate DOA separation. Since this site meets the minimum separation requirements, it was rated fair.



LEGEND

Navy Property Boundary

StateRoute 20/525

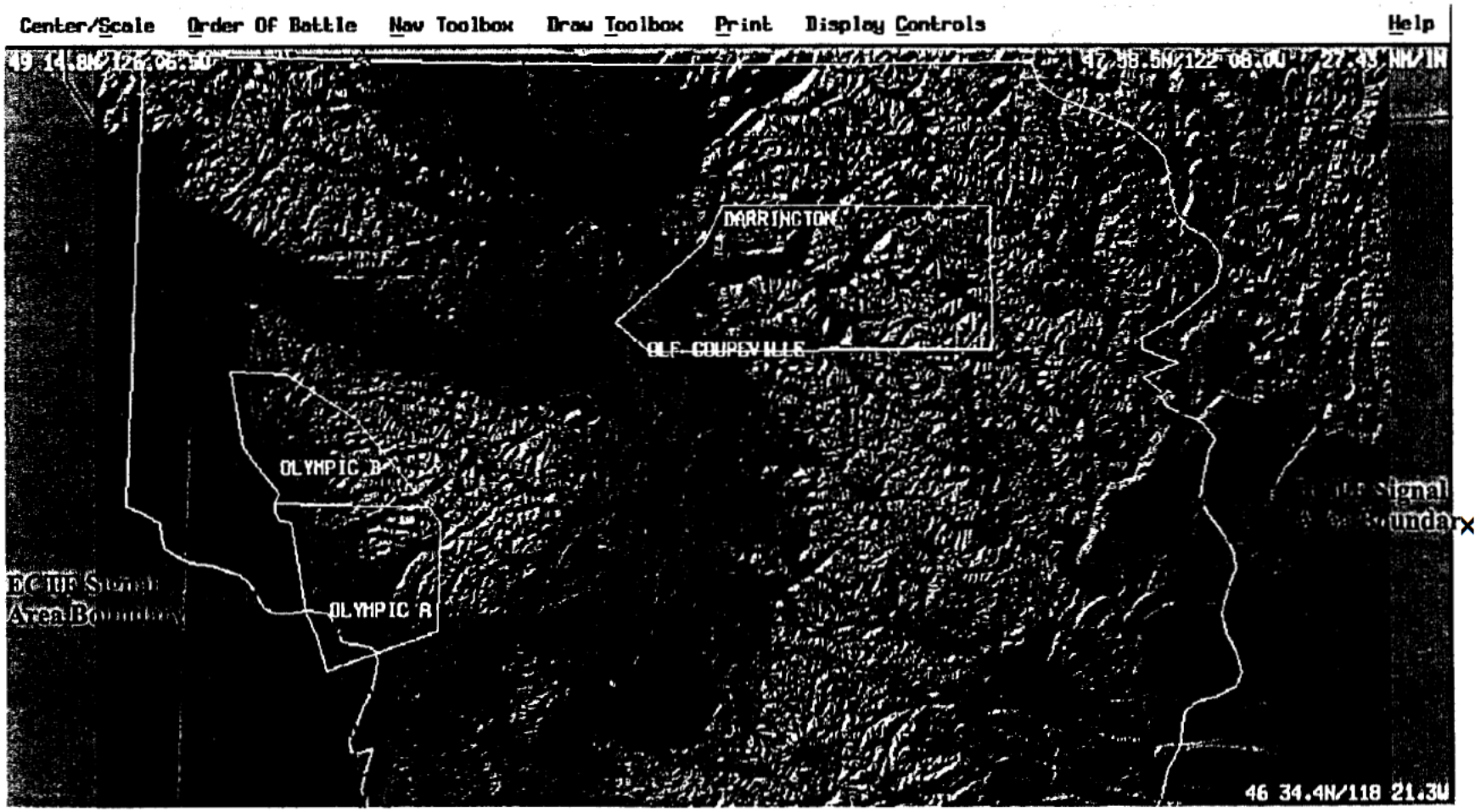
Source: Department of the Navy 1988

Not to Scale

ECTF Alternatives Analysis

NASWI OLF Coupeville, WA Sites

Figure 4


Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
DARRINGTON
OLF COUPEVILLE
OLYMPIC B
OLYMPIC R
46 34.4N/118 21.3W

Criterion 5 - Navy Site Location Available/Constraints: There are no physical siting constraints for Coupeville Site #1. The site is open, set back from adjacent hills and forest, and no tall structures are located nearby. The site is approximately 300 feet east of the boundary of Ebey's Landing National Historical Reserve, a reserve established to preserve and interpret the historical landscape. The site is distant (approximately one mile) from a self-guided tour route of the Reserve. The radome would not extend above the treeline when viewed from the self-guided tour route or a proposed interpretive wayside along this route. However, to minimize the visual and cultural impact of the proposed radome on the landscape of the Reserve, mitigation would be required. Mitigation measures proposed include vegetative screening from several vantage points, coloration of the radome so that it blends in with the green backdrop of the adjacent forest, planting a serviceberry hedgerow and curving the entrance gravel driveway to minimize close-up views, and focusing visitors along the self-guided tour route and proposed wayside located one mile away (also refer to the EA). In addition, the radome would be removed when it is no longer needed by the Navy.

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: The two ECTFs would be less than one hour's driving time apart (20-25 minutes). The proximity of Coupeville Site #1 to the ECTF at Seaplane Base, NASWI, and to other resources at NASWI, enhances coordination opportunities and efficiency and would assist in maximizing training time and the utilization of both ECTFs.

5.2 NASWI, OLF Coupeviile, WA - Site #2 - Northeast

General Site Location and Description

A second site at Coupeville was considered in this analysis (see Figure 4 for Sites 1 and 2). The candidate site #2 is flat and in an open agricultural field in the northeast portion of Coupeville approximately 300 feet west and south of State Route 20. The boundary of Ebey's Landing National Historical Reserve is approximately 300 feet north of the site. The runway is located to the west and south. Forest lands are located to the east. Agricultural land is located to the north and west. Aircraft noise can be high at times requiring attenuation. The candidate site is located outside of the lateral clear zone and required Navy setbacks of the runway. The site is located at an elevation of 195 feet.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated previously in Figure 5 (for Sites 1 and 2). For Coupeville Site #2, the latitude and longitude for the terrain analysis is 48 11 10N, 122 38 OOW. Coverage of both airspace areas was judged to be good. Only a small portion of the Olympic MOA-section A would not receive a signal.

Criterion 2 - Loiter Airspace Reauirements: For Coupeville Site #2, the loiter airspace requirement for both the Darrington Airspace and Olympic MOA would be met.

Criterion 3 - Distance From the Device to the Operating Area: Coupeville Site #2 is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Coupeville Site #2 is approximately 6 miles from the ECTF at Seaplane Base. This is the minimum separation distance required by this criterion for adequate DOA separation. Since this site meets the minimum separation requirements, it was rated fair.

Criterion 5 - Navv Site Location Available/Constraints: There are no physical siting constraints for Coupeville Site **#2.** However, adequate mitigation of cultural, visual and aesthetic impacts to the adjacent Ebey's Landing National Historical Reserve would not be possible because the site would be too close (within 300 feet) to the self-guided visitor tour route for the Reserve, the radome would extend above the treeline from most viewpoints, and a proposed Reserve interpretive wayside pullout is planned within 500 feet of the site. Vegetative screening and coloration of the radome would not be adequate to mitigate the anticipated visual impact. Additionally, the site is in close proximity to a highway (SR20) creating security concerns. Therefore, this site is not reasonably feasible.

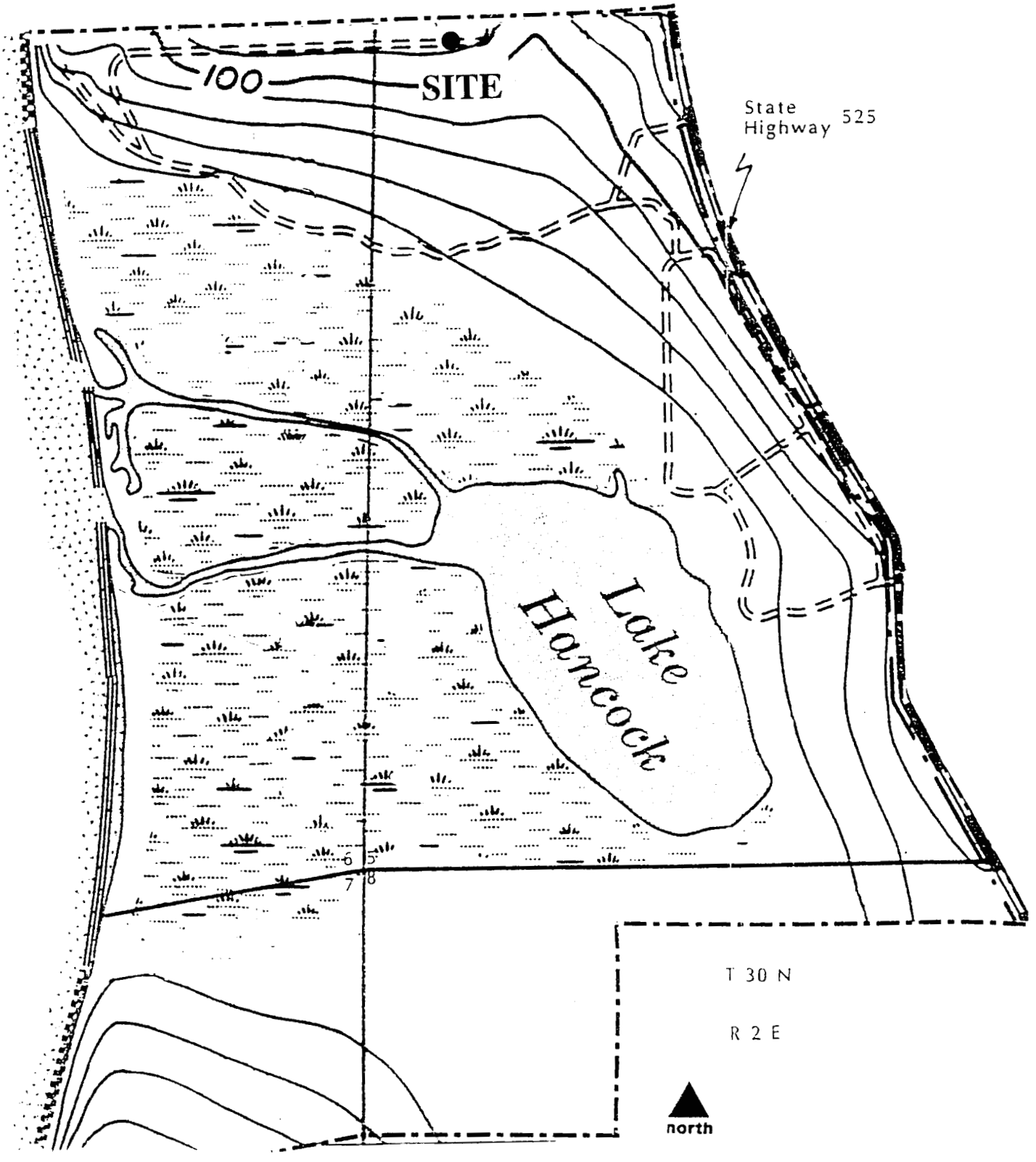
Evaluative Criterion

Criterion 1 - Site Coordination and Efficiencv: The proximity of Coupeville Site #2 to the ECTF at Seaplane Base, NASWI, and to other resources at NASWI, enhances coordination opportunities and efficiency and would assist in maximizing training time and the utilization of both ECTFs.

5.3 NASWI, Lake Hancock, WA

General Site Location and Description

Lake Hancock is a component installation of NASWI and is located approximately 15 miles south of Ault Field in central Whidbey Island, Island County, Washington (Figure ***6).*** Lake Hancock is part of the Admiralty Bay mining range, a deactivated target complex which is now managed for wildlife, forestry, and limited outdoor recreation. It is bounded by State Highway 525 to the east and Admiralty Inlet on the west. A tidal lagoon (Lake Hancock) is located in the southern half of the installation. The installation is 410 acres in size and is comprised predominately of timber, brush, and salt marsh. The deactivated target area includes an open field and one mile of shoreline. Development on the installation includes radio antennas and a concrete block house. The target area is closed and the installation has not been fully cleared of ordnance hazards. Due to the steep slopes on site that would block the ECTF signal, a high point was selected for the candidate site rather than one at the shoreline. The candidate site is moderately sloped (10 percent) and is located along the northern boundary of the installation above the lower tidal lagoon salt marsh area. Terrain to the northeast rises to over 300 feet within 0.5 mile of the site. The site is heavily wooded in this area. It is located at an elevation of 100 feet.


100
SITE
State Highway 525
Lake Hancock
6
5
7
8
T 30 N
R 2 E
north

Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
47 58.5N/122 08.0W
27.43 NM/IN
HARRINGTON
LAKE HANCOCK
OLYMPIC B
OLYMPIC A
46 34.4N/118 21.3W

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated in Figure 7. For Lake Hancock, the latitude and longitude for the terrain analysis is 48 07 10N, 122 35 5W. Coverage of the airspace areas was judged to be good. Only a small portion of the Olympic MOA- section **A** would not receive a signal.

Criterion 2 - Loiter Airspace Requirements: For Lake Hancock, the loiter airspace requirement for the Darrington Airspace and the Olympic MOA would be met.

Criterion **3** - Distance From the Device to the Operating Area: Lake Hancock is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Lake Hancock is approximately 11 miles from the ECTF at Seaplane Base, NASWI. This is greater than the minimum separation distance (6 miles) required by this criterion for adequate DOA separation and resulted in a rating of good.

Criterion 5 - Navy Site Location Available/Constraints: The candidate site is heavily wooded and has a moderate slope (10 percent) making construction and access more difficult and costly. No utilities or roads are located in the area, but these facilities could potentially be extended from the north through non-Navy property. Clearcutting of trees would be required over an estimated minimum 5-acre area. Lake Hancock contains several significant constraints including erodible slopes, sensitive habitat, saltwater and freshwater wetlands, cultural resources, and potentially unexploded ordnance. The radome would be highly visible along the coastline. Off-site terrain containing 100 foot high tree cover raises 280 feet above the site to the northeast and may cause some terrain blockage, particularly towards the Darrington Airspace. Therefore, this site is not reasonably feasible.

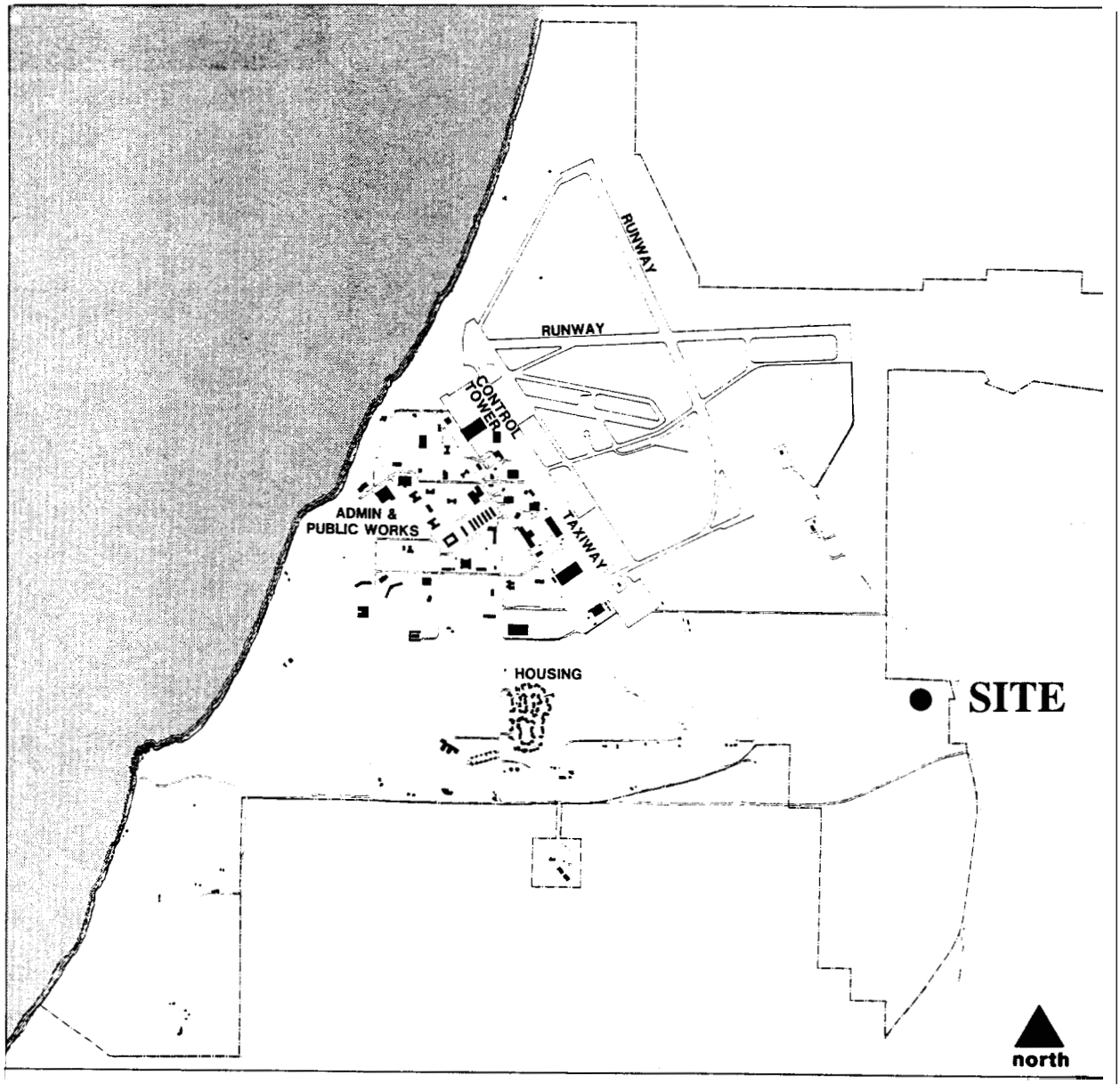
Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: The proximity of Lake Hancock to the ECTF at Seaplane Base, NASWI, and to other resources at NASWI, enhances coordination opportunities and efficiency and would assist in maximizing utilization of both ECTFs. Driving time from the existing ECTF at Seaplane Base to this site would be under one hour (45 minutes).

5.4 NASWI, Ault Field, WA

General Site Location and Description

Ault Field is the main aircraft operations area of NASWI containing the primary airfield and runways. All NASWI flights originate from this installation. The primary mission at Ault Field is to support Navy EA-6B and P-3/EP-3 aircraft squadrons. Ault Field is located 5 miles north of Oak Harbor, Washington in Island County (Figure **8).** It is bounded on the west by the Strait of Juan de Fuca and on the east by State Route **20.** The installation covers 4,325 acres with 4.4 miles of shoreline. Although the base is highly developed with runways and other structures, it still contains more than 2,700 acres of open area, wetlands, agricultural leases, and forest lands.


RUNWAY
RUNWAY
CONTROL TOWER
ADMIN & PUBLIC WORKS
TAXIWAY
HOUSING
SITE
north

Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
DARRINGTON
AULT FIELD
OLYMPIC B
OLYMPIC A
ECTF Signal
Area Boundary
46 34.4N/118 21.3W

The candidate site is located north of the landfill area near Fakkema Road at an elevation of approximately 200 feet. It is near the main flight path of the north-south runway, but outside of the runway clear zone.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated in Figure 9. For Ault Field, the latitude and longitude for the terrain analysis is 48 19 20N, 122 38 10W. Coverage of both airspace areas was judged to be good. Only a very small (negligible) portion of the Olympic MOA-section A would not receive a signal.

Criterion **2** - Loiter Airsuace Requirements: For Ault Field, the loiter airspace requirement for the Darrington Airspace and the Olympic MOA would be met.

Criterion **3** - Distance From the Device to the Operating Area: Ault Field is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Separation: Ault Field is approximately 3 miles from the ECTF at Seaplane Base, NASWI and other NASWI resources. This is half of the minimum separation distance **(6** miles) required by this criterion for adequate DOA separation and resulted in a rating of poor.

Criterion 5 - Navy Site Location Available/Constraints: The site is wooded and moderately sloped (5-10 percent) at an elevation of 200 feet. The Navy's landfill is located nearby. Roads and utilities are located within the area. No major constraints were identified; however, the site is near the main north-south flight path and clear zone and would require further AICUZ analysis. Aircraft noise would require noise attenuation.

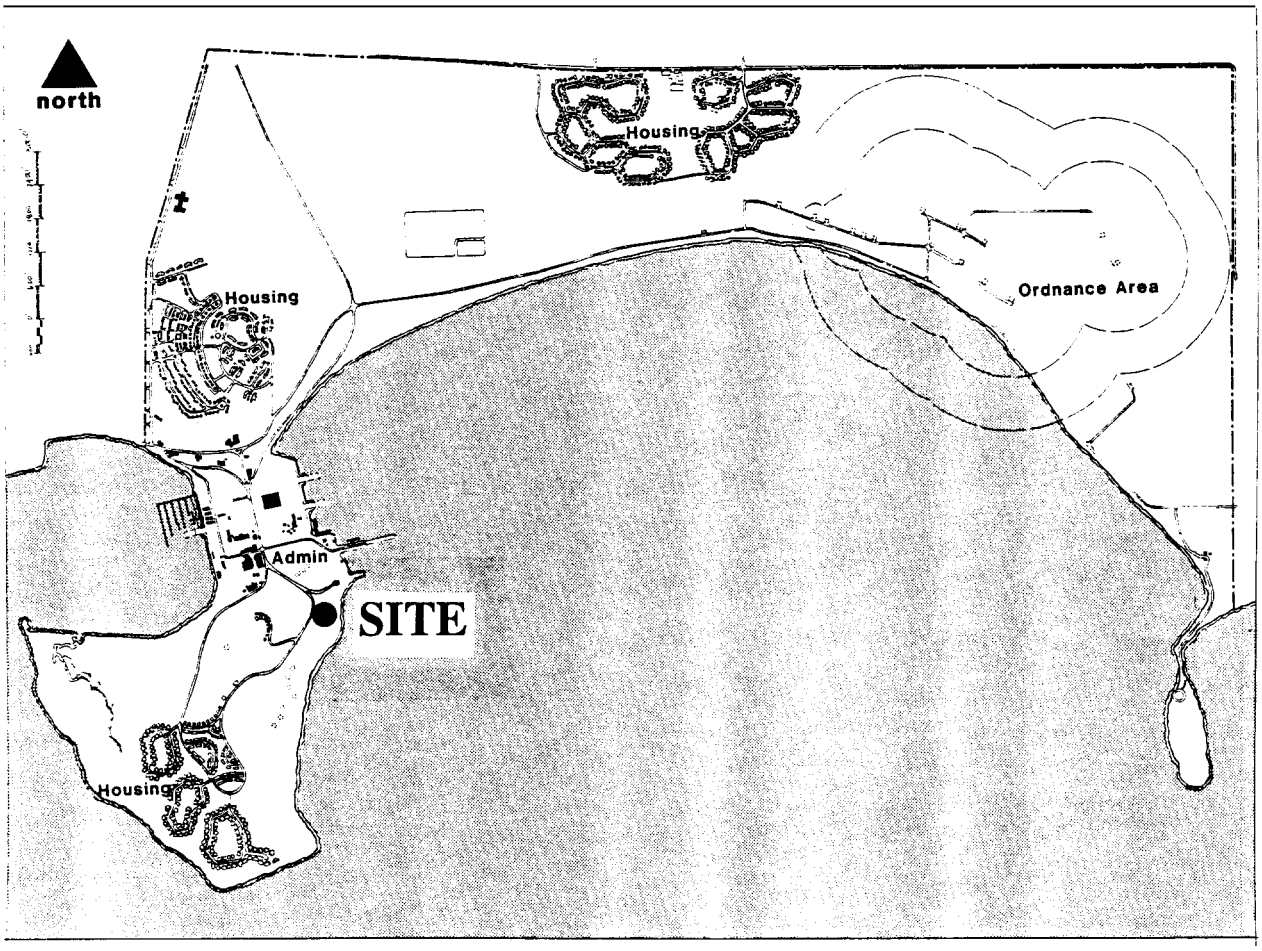
Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: The proximity of Ault Field to the ECTF at Seaplane Base and to other NASWI resources enhances coordination opportunities and efficiency and would assist in maximizing utilization of both ECTFs. Driving time between the existing ECTF and this site would be very short (5-10 minutes).

5.5 NASWI, Seaplane Base, WA

General Site Location and Description

Seaplane Base is a support installation of NASWI and is located near Ault Field to the southeast (Figure 10). It is located within the City of Oak Harbor on a point between two harbors and is bounded on the south by Maylor Point, Forbes Point and Crescent Harbor, a part of Saratoga Passage. On the north it is bound by Crescent Harbor Road. Oak Harbor bay is located to the west. Seaplane Base contains an area of 2,795 acres with 10.1 miles of shoreline. There are over 2,000 acres of wetlands, agricultural leases, and forest lands. The base contains engineering and other support functions, Navy Exchange, Commissary, marina and pier, Navy Lodge, family


north
Housing
Housing
Ordnance Area
Admin
SITE
Housing

Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
47 58.5N/122 08.0W
27.43 NM/IN
DARRINGTON
SEAPLANE BASE
OLYMPIC B
OLYMPIC A
ECTF Signal
Area Boundary
46 34.4N/118 21.3W

housing, fuel storage, the existing ECTF, and other functions. The candidate site is near the existing ECTF (approximately 500 feet away) on a point of land between Oak Harbor and Crescent Harbor. The site is at an elevation of approximately 85 feet, approximately the same elevation as the existing ECTF. Officer's housing is located to the west. The terrain drops off sharply to the east. The candidate site is in a HERO (ordnance hazard) area with a 3,000 foot radius. A bald eagle nest is also located in the vicinity.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated in Figure 11. For the Seaplane Base, the latitude and longitude for the terrain analysis is 48 16 50N, 122 37 20W. Coverage of both airspace areas was judged to be good. Only a very small (negligible) portion of the Olympic MOA-section **A** would not receive a signal.

Criterion **2** - Loiter Airsuace Reauirements: For the Seaplane Base, the loiter airspace requirement for both airspace areas would be met.

Criterion 3 - Distance From the Device to the Ouerating Area: The Seaplane Base is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Separation: The candidate Seaplane Base site is collocated with the current ECTF at Seaplane Base. This is does not meet the minimum 6 mile separation distance required by this criterion for adequate DOA separation and resulted in a rating of poor.

Criterion 5 - Navv Site Location Available/Constraints: The candidate site is undeveloped open space. The second ECTF, as with the existing one, would be very visible from the City of Oak Harbor. Roads and utilities are located nearby. A 30-40 foot standby water tank (No. **89)** is located on a hilltop nearby and may cause some signal blockage. A bald eagle nest was identified in the area near the water tank which may likely seasonally restrict construction activity between January 1 and August 15. Operational conflicts between the two ECTFs may arise due to the close proximity which may need to be further evaluated.

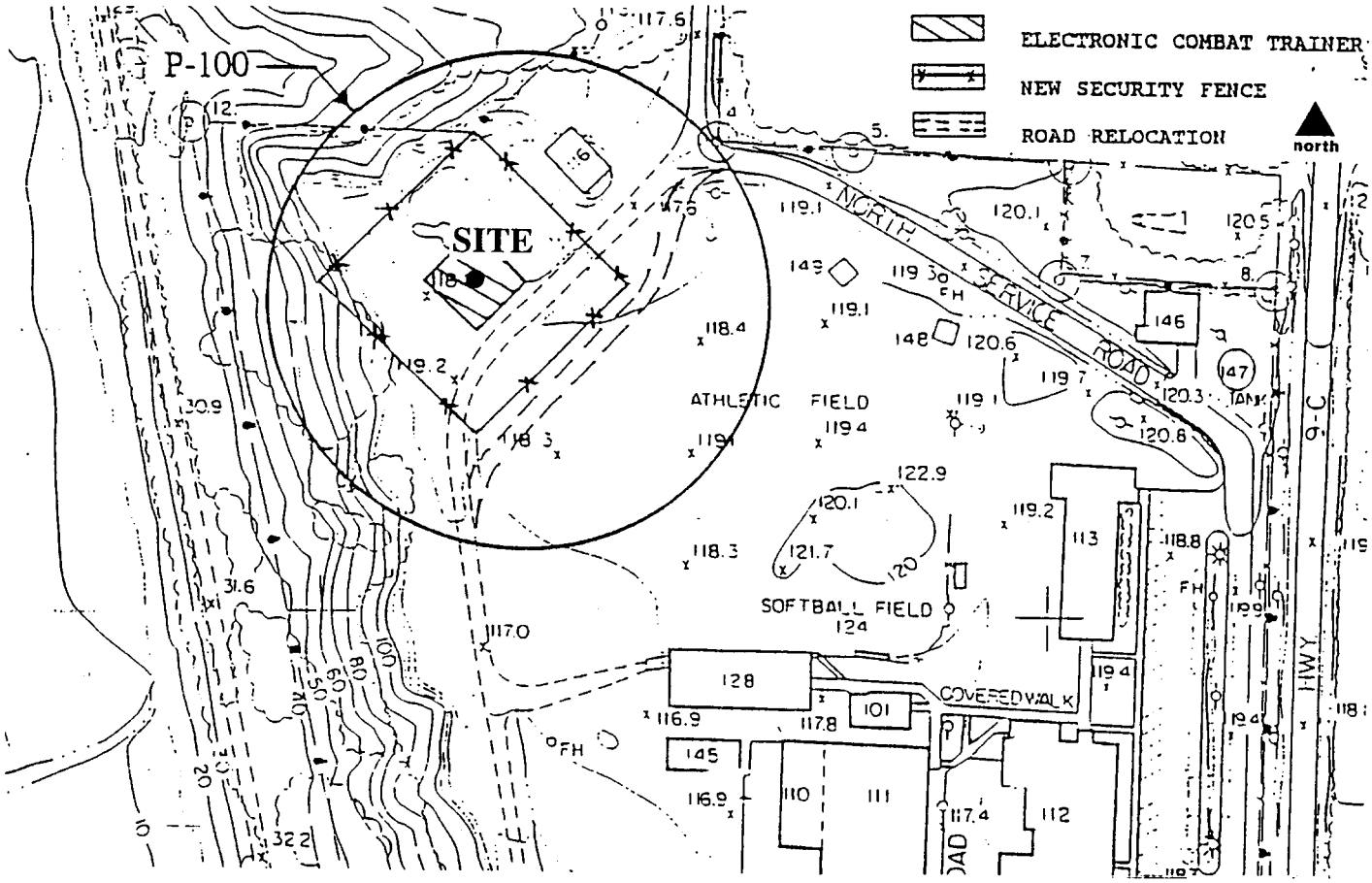
Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: The proximity of the candidate Seaplane Base site to the current ECTF at Seaplane Base and to other **NASWI** resources enhances coordination opportunities and efficiency and would assist in maximing utilization of both ECTFs.

5.6 Naval Station Pacific Beach, WA

General Site Location and Description

Naval Station Pacific Beach (Pacific Beach) is a hydrographic engineering laboratory. Its major tenant is the Northwest Fleet Recreation and Education Support Center comprising about 51 acres of the base. The installation is located on the central Washington coast, within the Town of Pacific Beach, about 30 miles north of Aberdeen in Grays Harbor County (Figure 12).


ELECTRONIC COMBAT TRAINER
NEW SECURITY FENCE
ROAD RELOCATION
north
P-100
SITE
ATHLETIC FIELD
SOFTBALL FIELD
NORTH SERVICE ROAD
COVERED WALK
HWY

Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
47 58.5N/122 08.0W
27.43 NM/IN
DARRINGTON
OLYMPIC B
OLYMPIC A
NAVSTA PACIFIC BEACH
46 34.4N/118 21.3W

The base is bounded on the west by approximately 800 feet of shoreline on the Pacific Ocean, and 2,800 feet of abandoned railroad grade. All of the area to the west is within Copalis National Wildlife Refuge. State Route 9-C traverses in a north-south direction through the base. The site elevation is 118 feet. The candidate site is located near the edge (within 25 feet) of a high coastal bluff approximately 110 feet high with a slope of 68 percent. Next to the site is a whale watching platform. To the east is an access road and an athletic field. An off site water tank is also located to the east. Immediately north of the site, the bluff is disected by a steep ravine. Wetlands are also located nearby.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was not achieved for the Darrington Airspace as indicated in Figure 13. For Pacific Beach, the latitude and longitude for the terrain analysis is 48 16 50N, 122 37 20W. Coverage of both airspace areas was judged to be poor. Most of the Darrington Airspace would not have signal coverage.

Criterion 2 - Loiter Airsuace Requirements: For Pacific Beach, the loiter airspace requirement would not be met for the Darrington Airspace due to terrain obstruction.

Criterion 3 - Distance From the Device to the Ouerating Area: Pacific Beach is within 100 nautical miles of the Olympic MOA, but is farther than 100 nautical miles from most of the Darrington Airspace. Therefore, this site would not meet the criterion.

Criterion 4 - DOA/Angle Seuaration: Pacific Beach is over 100 miles from the ECTF at Seaplane Base, which provides adequate DOA separation for the Olympic MOA. However, this site has minimal DOA separation with the ECTF at Seaplane Base when the aircraft is operating in the Darrington Airspace. This condition results in a rating of poor for this criterion.

Criterion 5 - Navy Site Location Available/Constraints: The candidate site has significant problems related to adjacent wetlands, bluff stabilization, and soil erosion. A tall metal water tank located off site would potentially block signal transmission. The radome would be highly visible along the bluff top from the Refuge. An athletic field would need to be reconfigured and potentially resited or abandoned. An access road would need to be realigned around the fenced ECTF. Therefore, no site is realistically feasible at Pacific Beach.

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiencv: Naval Station Pacific Beach is approximately 7 hours (driving time with ferry crossing) from the ECTF at Seaplane Base and other resources at NASWI. This precludes efficient coordination. A lack of daily logistical support would result in less than optimum utilization of both ECTFs.

5.7 Naval Radio Station (T) Jim Creek, WA

General Site Location and Description

Naval Radio Station (Transmitting [T]) Jim Creek (Jim Creek) is a 5,000 acre Navy transmitter facility and is a component activity of Naval Computer and Telecommunications Station, Puget Sound (Figure 14). Operations at the installation include: (1) maintaining and operating an AN/FRT-3 very low frequency (VLF) Radio Transmitting System; (2) operating an electronic courier circuit for the receipt and delivery of Navy message traffic; and (3) operating and maintaining associated control and orderwire circuits. The installation is situated on the western slopes of the Cascade Mountains approximately 60 miles northeast of Seattle, Washington and 12 miles east of the City of Arlington in Snohomish County. Jim Creek flows through the installation and is a tributary to the Stillaguamish River. Elevations at the installation range from 450 feet at the administration area/main gate, to just over 3,000 feet at the tops of both Wheeler Mountain and Blue Mountain. Elevations above 1,800 feet receive snowfall from most winter storms. Side slopes are very steep. The installation has a system of access roads to provide maintenance on a 980 acre antenna field. The field is a complex network of overhead wires and towers and wires laying on the ground in a grid pattern. Vegetation in the antenna field must be maintained low for the transmitter to function properly. Due to the steep slopes on site that would block the ECTF signal, a ridgeline site is required for the ECTF to function. Two potential sites were identified: top of Blue Mountain or the top of Wheeler Mountain, both at an elevation of 3,020 feet. Both sites may be accessed via on-site gravel roads. Snow cover would make year-round access difficult. Two rows of six antenna are located along the ridgeline which may block the ECTF signal. Jim Creek administrative buildings are located down in the valley at an elevation of 450 feet or 2,570 feet below the ridgelines. The ECTF may potentially cause radio interference with the existing Navy transmitter facility. This possibility would need to be assessed.

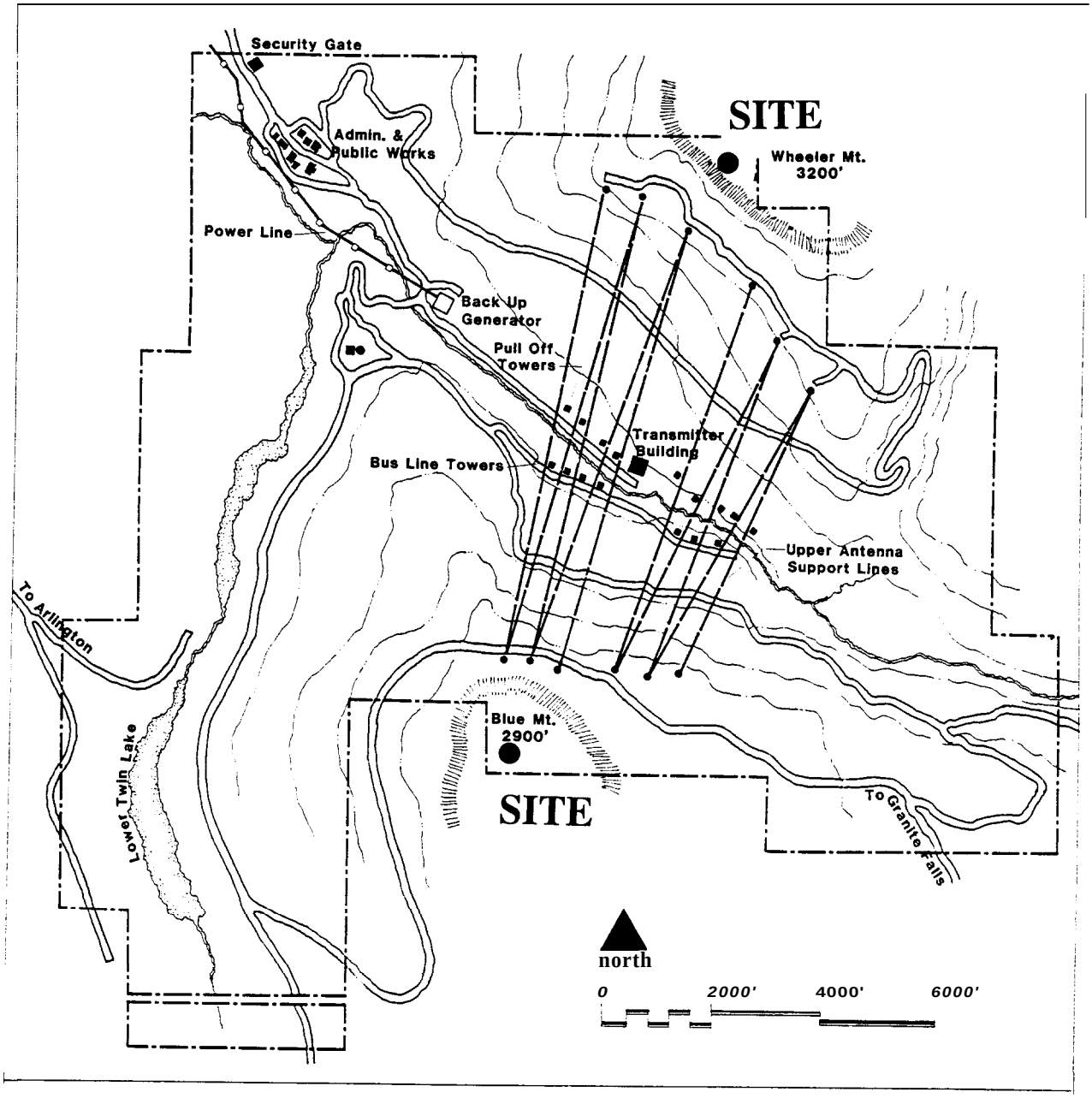
Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated in Figure 15. For Jim Creek, the latitude and longitude for the terrain analysis is 48 13 10N, 121 54 30W. Coverage of both airspace areas was judged to be good. The southeast corner of the Darrington Airspace would have signal blockage.

Criterion 2 - Loiter Airspace Reauirements: For Jim Creek, the loiter airspace requirement for both airspace areas would be met.

Criterion 3 - Distance From the Device to the Operating Area: Jim Creek is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle SeDaration: Jim Creek is approximately 30 miles from the ECTF at Seaplane Base. This is greater than the minimum 6-mile separation distance required by this criterion for adequate DOA separation and results in a rating of good.


Security Gate
Admin. & Public Works
SITE
Wheeler Mt. 3200'
Power Line
Back Up Generator
Pull Off Towers
Transmitter Building
Bus Line Towers
Upper Antenna Support Lines
To Arlington
Blue Mt. 2900'
SITE
Lower Twin Lake
To Granite Falls
north
0
2000'
4000'
6000'

Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
DARRINGTON
NAVAL RADIO STATION JIM CREEK
OLYMPIC B
OLYMPIC A
46 34.4N/118 21.3W

Criterion 5 - Navv Site Location Available/Constraints: The only possible ECTF sites are located on mountain tops which would receive significant amounts of snowfall (3,020 feet in elevation). Year-round daily access to these two sites would be difficult via existing gravel roads. Possible conflicts with the existing transmitter system may cause ECTF signal blockage or interference. Therefore, no site is realistically feasible at Jim Creek.

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiencv: Jim Creek is approximately 3 hours (driving time to the mountain tops) from the ECTF at Seaplane Base and other NASWI resources. This distance would make direct coordination and logistic support more difficult and expensive as compared to a site closer to the current ECTF; therefore, Jim Creek was rated poor for this criterion.

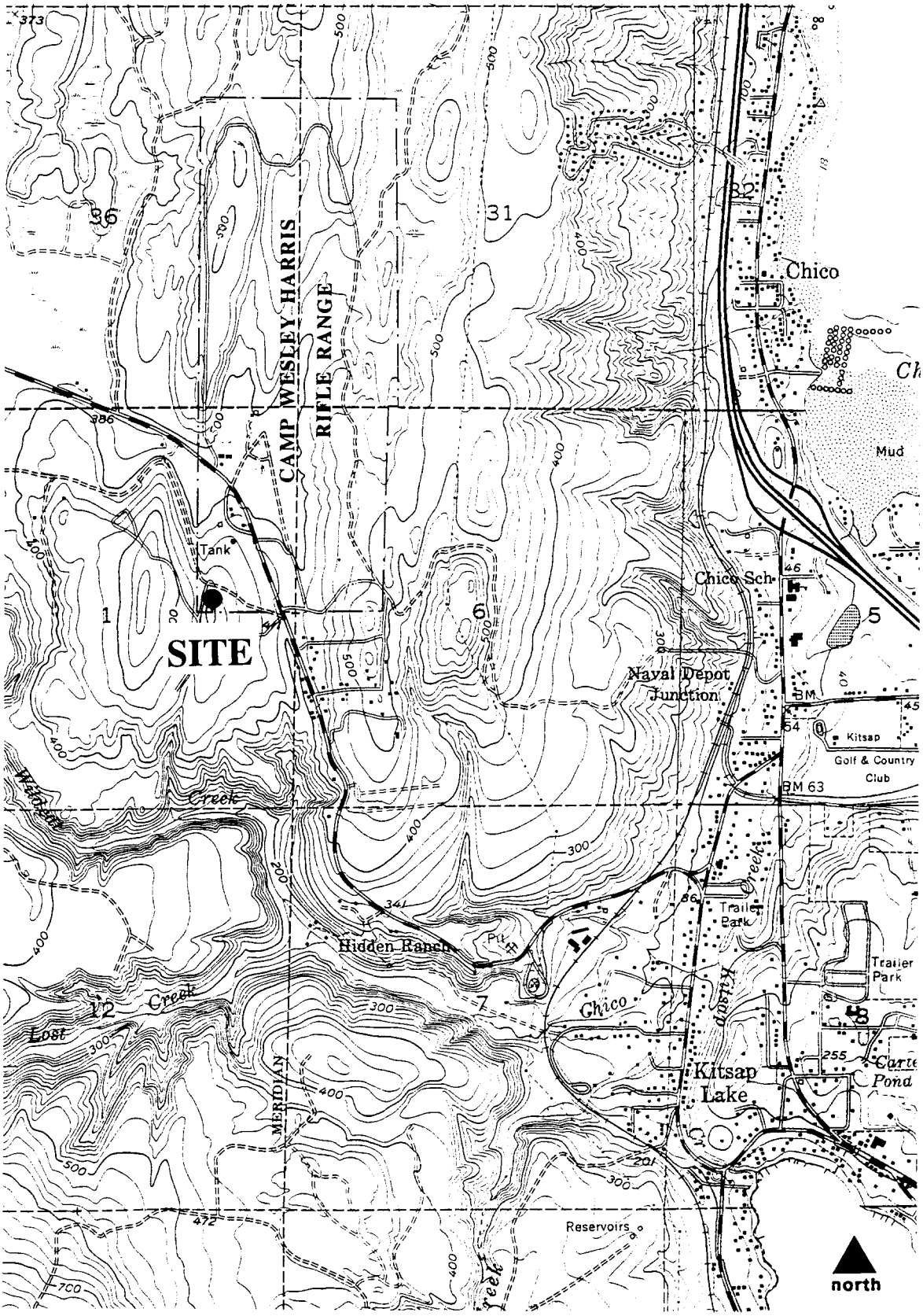
5.8 SUBASE Bangor, Camp Wesley Harris, WA

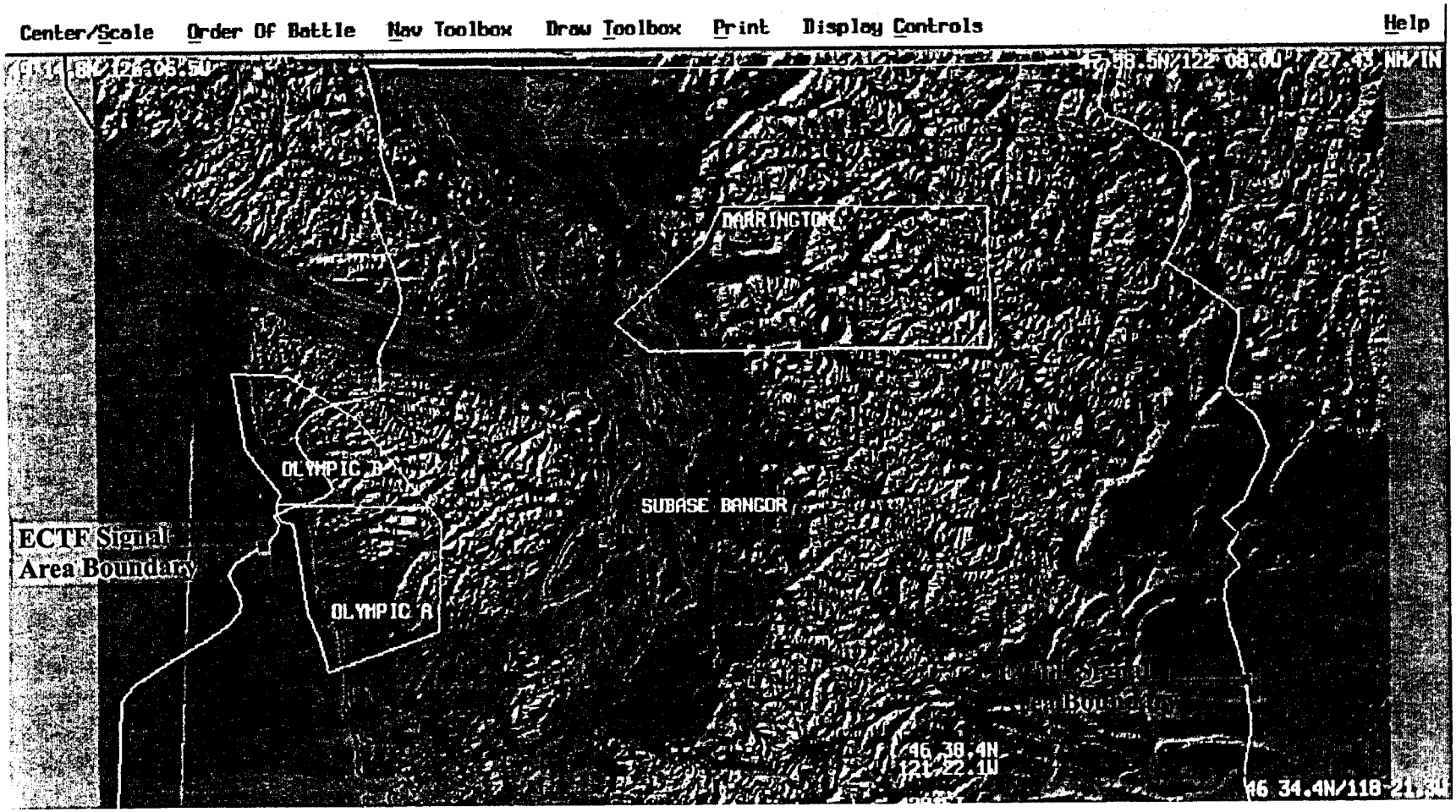
General Site Location and Description

Naval Submarine Base (SUBASE) Bangor (Bangor) is a large Navy complex situated on the Hood Canal in Kitsap County, Washington (Figure 16). It is the only strategic defense installation in the Puget Sound. The primary mission of Bangor is to support and maintain a Trident submarine squadron and other ships homeported or moored at its facilities. Support facilities include ship refit, missle support, training, operational command and control, and community and personnel support. The waterfront area extends along the entire 4-mile long shoreline and contains facilities operated by four different commands. The entire waterfront is constrained by ESQDs (explosives safety setbacks). Bangor lands total 6,785 acres of which 6,130 acres are at the main base. Miscellaneous land areas include 1,072 acres at the Keyport Ordnance Annex and 3,910 acres of ESQD arc encumbered lands (restricted areas due to explosives). The main installation area is already constrained by many existing facilities, ESQD arcs from weapons storage and handling facilities, and other planned uses. Potential ECTF sites at Bangor with no terrain blockage were all constrained with existing water tanks, antenna, or planned housing. However, a remote Bangor facility called Camp Wesley Harris offered a potential site which was selected for this analysis. Camp Wesley Harris is a 388-acre small arms markmanship and tactical training area located 6 miles south of the main Bangor installation. Seabeck Highway traverses through the southern portion of this installation. **A** small administrative complex is located near the highway. All ranges are located in the northern portion of the Camp. The candidate site is located away from the ranges on a hilltop at an elevation of 500 feet. The site is forested (second growth) and is gently sloped. Access is good and utilities are located nearby. A water tank near the site has been removed. The adjacent off-site area consists of a Christmas tree farm lot.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for both the Olympic MOA and Darrington Airspace as indicated in Figure 17. For SUBASE Bangor, the latitude and longitude for the terrain analysis is 47 37 10N, 122 44 10W.


CAMP WESLEY HARRIS
RIFLE RANGE
SITE
Chico
Mud
Tank
Chico Sch
Naval Depot
Junction
Kitsap
Golf & Country
Club
BM 63
Hidden Ranch
Trailer
Park
Trailer
Park
Chico
Kitsap
Lake
Pond
Reservoirs
Creek
Lost
Creek
MERIDIAN
north



SUBASE Bangor, Camp W H WA Te n An

Figure 17

Coverage of the airspace areas was judged to be fair due to partial terrain masking of the Olympic MOA- section B.

Criterion 2 - Loiter Airspace Reauirements: For Bangor, the loiter airspace requirement was met for the Darrington Airspace, but not for the Olympic MOA. Terrain masking in section **B** would prohibit the flying of normal racetracks patterns in this airspace. Therefore, this criterion would not be met.

Criterion **3** - Distance From the Device to the Operating Area: Bangor is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion **4** - DOA/Angle Separation: Bangor is approximately **35** miles from the ECTF at Seaplane Base. This is greater than the minimum separation distance required by this criterion for adequate DOA separation and results in a rating of good.

Criterion **5** - Navv Site Location Available/Constraints: The candidate site would require the clearing of approximately 5 acres of forest cover to allow for ECTF construction and to eliminate possible signal blockage. No other constraints were identified; therefore, this site has minimal constraints and would meet this criterion.

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: Bangor is approximately **3.5 to 4** hours (driving time with ferry crossing) from the ECTF at Seaplane Base and other NASWI resources. This distance would make direct coordination and logistic support difficult and expensive as compared to a site closer to the current ECTF and thus would not meet this criterion.

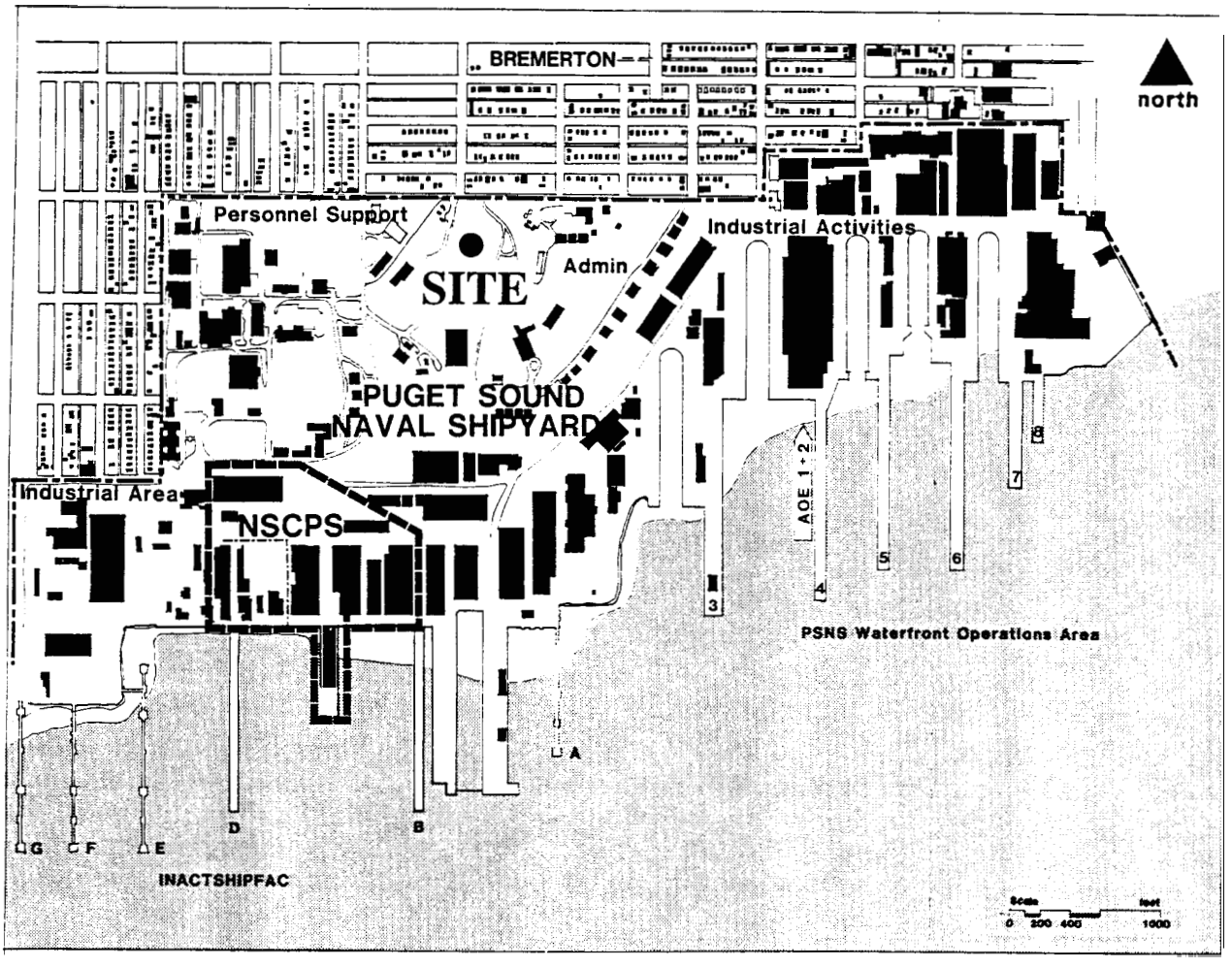
5.9 Puget Sound Naval Shipyard, WA

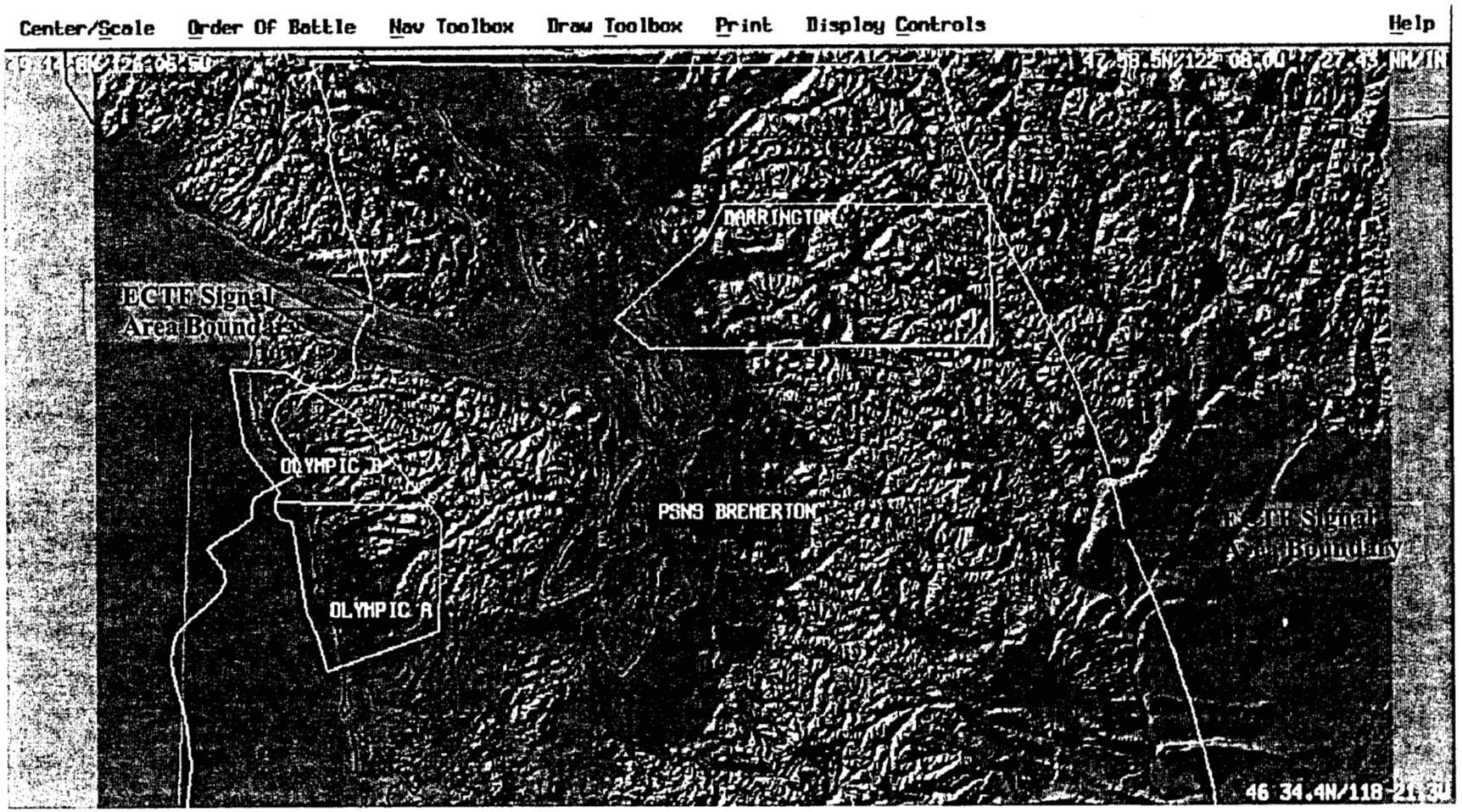
General Site Location and Description

Puget Sound Naval Shipyard (the Shipyard) is located in the City of Bremerton in Kitsap County, Washington (Figure 18). The mission of the Shipyard is to overhaul submarine, carrier and surface attack ships. This includes the refitting of various systems including nuclear propulsors. Some ships are homeported at the Shipyard. The Shipyard is an industrial area that contains **354** acres and is densely developed offering no potential site without demolition of an existing facility. The only open areas are scarce athletic playfields, parking lots and steeply sloped areas. The candidate site is sloped and is south of Mahan Avenue between two parking lots. A radio tower is located at this site and several buildings are located nearby.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for most of the Olympic MOA and all of the Darrington Airspace as indicated in Figure 19. For the Shipyard, the latitude and longitude for the terrain analysis is **47 35** 50N, 122 **38** 10W. Coverage of the airspace areas was judged to be fair due to partial terrain masking of the Olympic MOA-section B.


BREMERTON
north
Personnel Support
Industrial Activities
Admin
SITE
PUGET SOUND
NAVAL SHIPYARD
Industrial Area
NSCPS
AOE 1 + 2
3
4
5
6
7
8
PSNS Waterfront Operations Area
A
B
D
E
F
G
INACTSHIPFAC
Scale
feet
0
200
400
1000



Pug Sound N S p d. WA T n A

Figure 19

Criterion 2 - Loiter Airspace Requirements: For the Shipyard, the loiter airspace requirement would be met for the Darrington Airspace. However, the criterion is not met for the Olympic MOA due to terrain masking which prohibits the flying of normal racetracks patterns in section B.

Criterion 3 - Distance From the Device to the Operating Area: The Shipyard is within 100 nautical miles of the Olympic MOA, but is greater than 100 nautical miles from the northeast portion of the Darrington Airspace. This condition would preclude this site from meeting this criterion.

Criterion 4 - DOA/Angle Separation: The Shipyard is approximately 45 miles from the ECTF at Seaplane Base. This is greater than the minimum separation required by this criterion for adequate DOA separation and results in a rating of good.

Criterion 5 - Navy Site Location Available/Constraints: The candidate site would displace some existing parking area and an antenna. Signal blockage may be possible due to nearby industrial buildings and terrain. The site is sloped which would make construction more difficult and costly. Therefore, this site is not reasonably feasible.

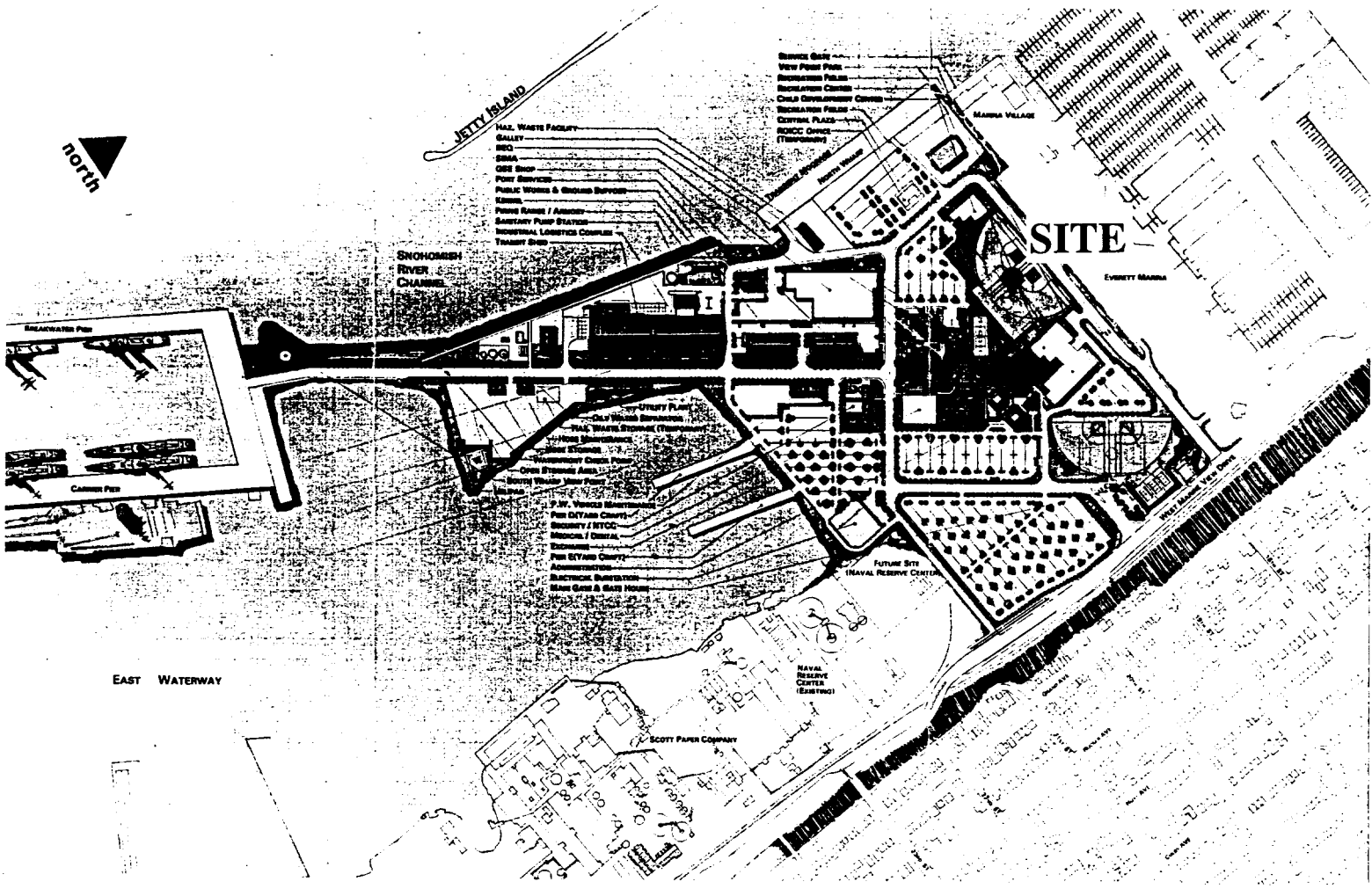
Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: The Shipyard is approximately 3.5 to 4 hours (driving time with ferry crossing) from the ECTF at Seaplane Base and other resources at NASWI. This distance would make direct coordination and logistic support very difficult and expensive as compared to a site closer to the current ECTF and thus would not meet this criterion.

5.10 NAVSTA Everett, WA

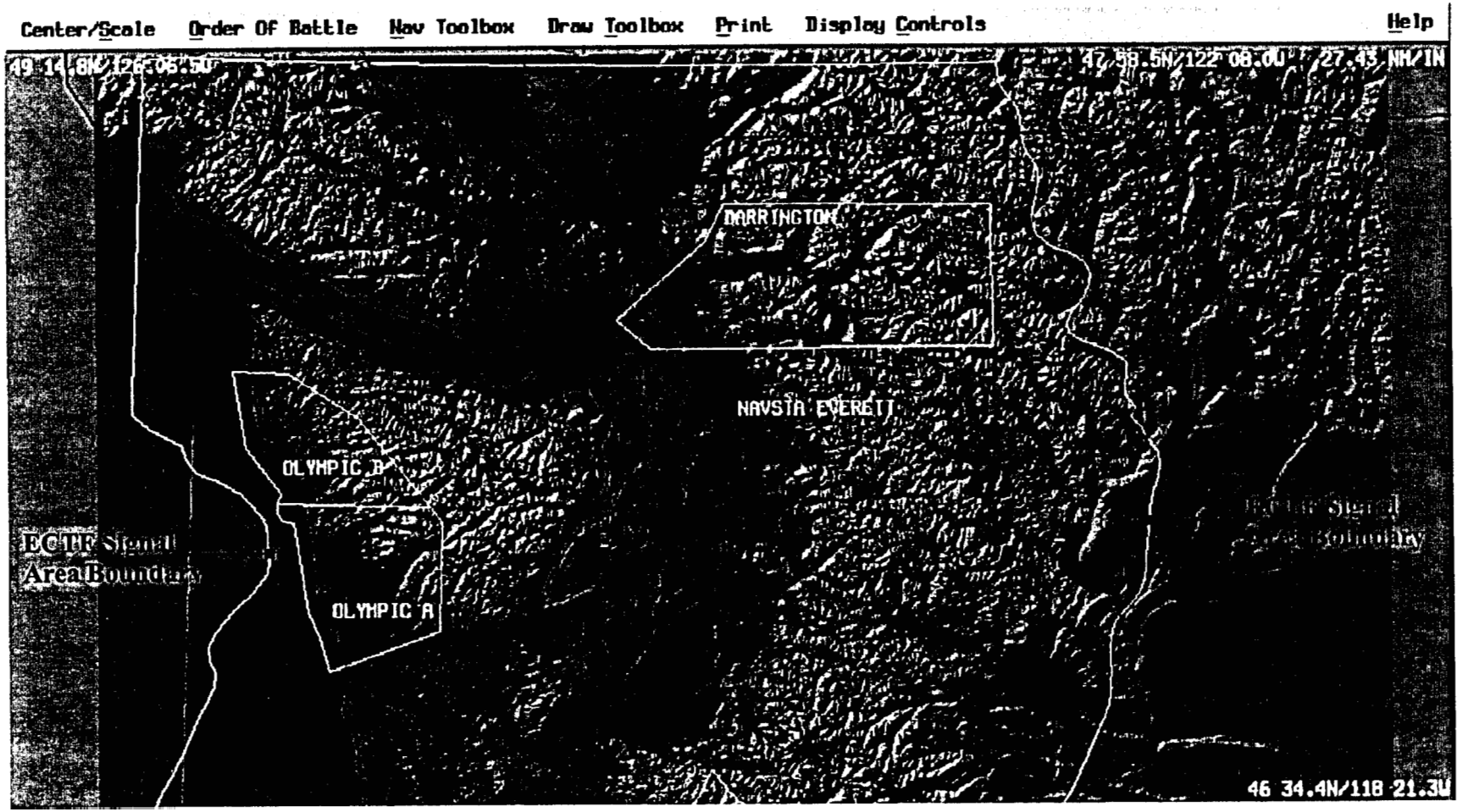
General Site Location and Description

The waterfront portion of Naval Station (NAVSTA) Everett (Everett) is located in the City of Everett, Snohomish County, Washington (Figure 20). A remote Navy Family Support Complex (FSC) is also associated with Everett and is located north of the City of Marysville, Washington. Both installations are new and are very compact. Portions of the waterfront site are not yet fully developed with new construction extending into 1998. Everett supports a Carrier Battle Group homeported at the installation and provides numerous support functions. No potential sites were available at the FSC due to the location of existing Navy buildings, a planned family housing complex, and off-site housing including a nearby mobile home park. Therefore, the only possible site would be along the Everett waterfront. The Everett waterfront is at an elevation of approximately 18 feet. A 60 foot high bluff is located to the east of Everett with a plateau beyond extending up to 100 feet in elevation within the downtown Everett area. The candidate site is located below the bluff top but away from the edge by about 1,300 feet. This site would impact three Navy athletic ballfields south of the off-site Port of Everett Marina. These ballfields are in short supply and cannot be replaced elsewhere including the FSC.



ECTF Alternatives Analysis **NAVSTA Everett, WA Site**

Figure 20


Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
47 58.5N/122 08.0W
27.43 NM/IN
DARRINGTON
NAVSTA EVERETT
OLYMPIC B
OLYMPIC A
ECTF Signal
Area Boundary
46 34.4N/118 21.3W

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for the Olympic MOA and Darrington Airspace as indicated in Figure 21. For Everett, the latitude and longitude for the terrain analysis is 47 59 OON, 122 13 40W. Coverage of both airspace areas was judged to be good.

Criterion 2 - Loiter Airsuace Reauirements: For Everett, the loiter airspace requirement for both airspace areas would be met.

Criterion 3 - Distance From the Device to the Ouerating Area: Everett is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Everett is approximately 25 miles from the ECTF at Seaplane Base. This is greater than the minimum separation distance required by this criterion for adequate DOA separation and results in a rating of good.

Criterion 5 - Navv Site Location Available/Constraints: The candidate site would displace three overlapping athletic ballfields which cannot be replaced elsewhere including the FSC. The 60 foot high shoreline bluff and nearby buildings located on base may present potential signal blockage. This new Navy installation is densely developed and the siting of the ECTF at Everett would be inconsistent with planned use of the land. Therefore, this site is not reasonably feasible.

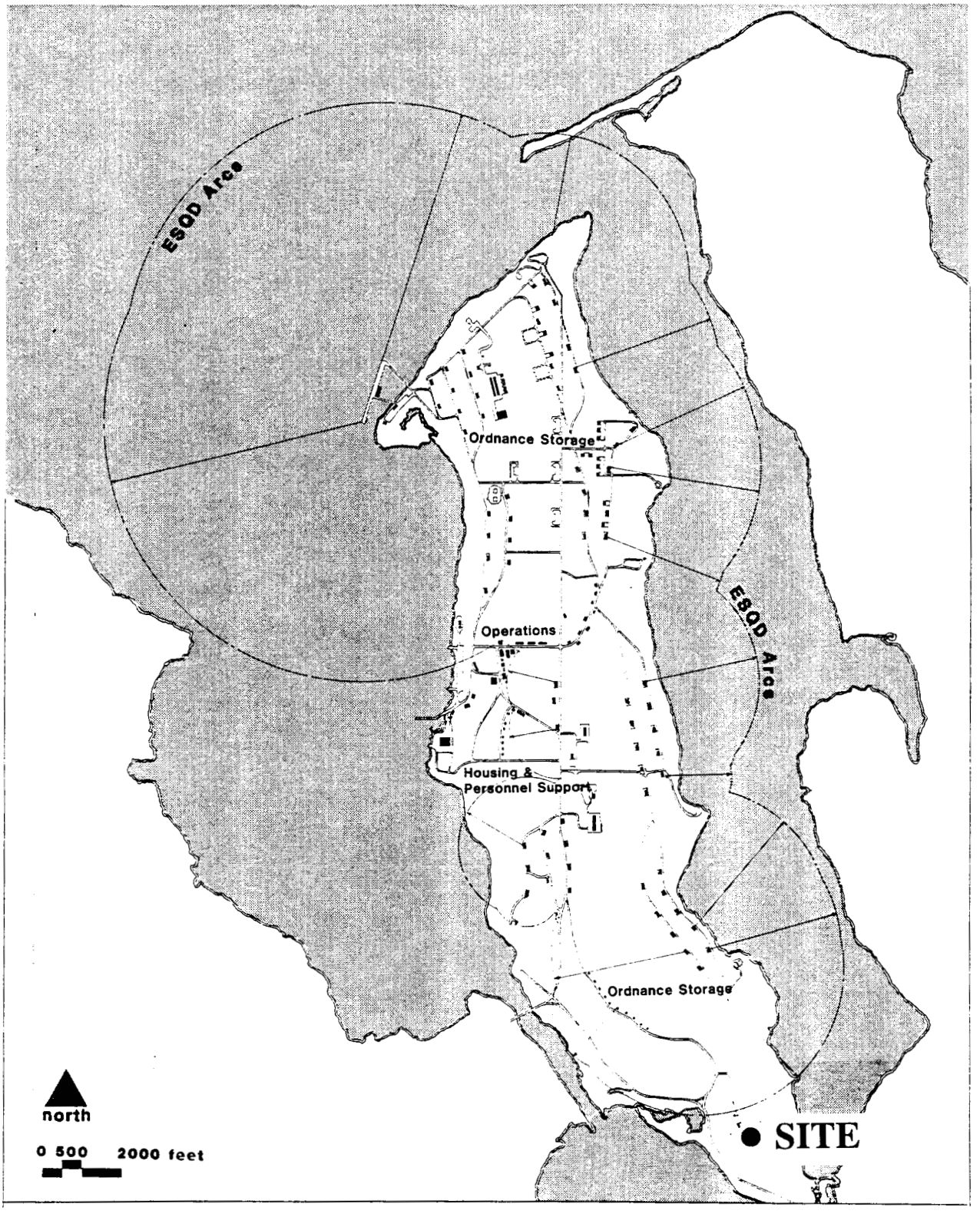
Evaluative Criterion

Criterion 1 - Site Coordination and Efficiencv: The Everett waterfront is approximately a 1.5 hour (driving time) commute from the ECTF at Seaplane Base and other NASWI resources. This distance would make direct coordination and logistic support more difficult and expensive as compared to a closer site to the current ECTF. Therefore, this site was rated fair because it is over one hour away from Seaplane Base.

5.11 Naval Weapons Station, Detachment Port Hadlock, WA (Indian Island)

General Site Location and Description

Naval Weapons Station, Detachment Port Hadlock, WA (hereafter called Indian Island) is located 35 miles north of the Keyport-Bangor complex (Figure 22). The installation is on an island connected to the mainland by a bridge. Indian Island provides the only road access to nearby Marrowstone Island to the east. Indian Island is in northeast Jefferson County, Washington, and is bounded by Port Townsend Bay to the north and west, Kilisut Harbor to the east, and Oak Bay to the south. The City of Port Townsend has car ferry service to Whidbey Island is located to the northwest. The mission of Indian Island is to provide conventional ordnance storage and refurbishment support to fleet ships coming into and out of Puget Sound. Indian Island consists of 2,716 acres of fee-owned land. Most of the island is constrained by ESQDs (explosives safety setbacks). The only area not encumbered by ESQD arcs is near the administrative area and an area used for operations and training near East Road.


ESQD Arcs
Ordnance Storage
Operations
ESQD Arcs
Housing &
Personnel Support
Ordnance Storage
north
0 500 2000 feet
SITE

Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
27.43 NM/IN
DARRINGTON
NWS INDIAN ISLAND
OLYMPIC B
OLYMPIC A
46 34.4N/118 21.3W

Figure 23

The candidate site is at an elevation of 100 feet. Jorgenson Hill is located to the northeast with an elevation of 348 feet. A Bald Eagle nest, one of several on the island, is located approximately 500 feet away. The site is forested with a moderate slope. A Navy study would need to be done to address HERO (ordnance hazards) requirements at Indian Island. Ordnance electronic fusing may be potentially affected by the ECTF.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for the Olympic MOA and Darrington Airspace as indicated in Figure 23. For Indian Island, the latitude and longitude for the terrain analysis is 48 01 30N, 122 42 30W. Coverage of airspace areas was judged to be fair due to partial terrain masking of the Olympic MOA- section A.

Criterion 2 - Loiter Airsuace Reauirements: For Indian Island, the loiter airspace requirement would be met for the Darrington Airspace, but not for the Olympic MOA due to terrain masking. This would prohibit the flying of normal racetracks patterns.

Criterion 3 - Distance From the Device to the Ouerating Area: Indian Island is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Indian Island is approximately 15 miles from the ECTF at Seaplane Base. This is greater than the minimum separation distance required by this criterion for adequate DOA separation. However, some areas in the Olympic MOA and Darrington Airspace have less than optimum DOA because the two sites come close to lining up, depending on aircraft location. This condition results in a rating of fair.

Criterion 5 - Navv Site Location Available/Constraints: The island is generally encumbered by ESQD arcs. The candidate site is outside of these ESQD arcs, but is 500 feet from a Bald Eagle nest. Federal and State Bald Eagle nest setback and activity restrictions would severely limit or prohibit ECTF construction and/or activities. A forested hilltop located nearby may cause some signal blockage. The site would need to be cleared of tree cover for construction and signal blockage. HERO requirements may be an issue at Indian Island. Therefore, this site is not reasonably feasible.

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: Indian Island is approximately 1.5 to 2 hours (driving time with ferry crossing) from the ECTF at Seaplane Base and other NASWI resources. This time and distance would make direct coordination and logistic support very difficult and expensive as compared to a site located closer to the current ECTF. Thus, this site was rated poor.

5.12 NUWCD Keyport, WA

General Site Location and Description

Naval Undersea Warfare Center Detachment (NUWCD) Keyport (Keyport) is located in Kitsap County, Washington approximately 8.5 miles north of the Shipyard (Figure 24). The mission of Keyport is to: (1) test, proof, and evaluate underwater weapons and components; (2) provide material and technical support for undersea weapons systems; and (3) manage undersea test ranges. Keyport is 361 acres in size consisting of a central warehouse area and a laboratory complex surrounded by groupings of housing and personnel support functions and ordnance magazines. The waterfront area has two piers. The candidate site is on a ridgeline at an elevation of 150 feet south of the main complex. This site is near a few base housing units on Griffen Road, an underground reservoir, and a 120-foot antenna. The area is designated for housing. Several off-site homes are located nearby as well.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for the Olympic MOA and Darrington Airspace as indicated in Figure 25. For Keyport, the latitude and longitude for the terrain analysis is 47 41 30N, 122 37 10W. Coverage of the airspace areas was judged to be only fair due to partial terrain masking of the Olympic MOA- section B.

Criterion 2 - Loiter Airspace Reauirements: For Keyport, the loiter airspace requirement was met for the Darrington Airspace, but not for the Olympic MOA due to terrain masking. This condition would prohibit the flying of normal racetracks patterns. Therefore, the the loiter airspace requirement for both airspace areas would not be met.

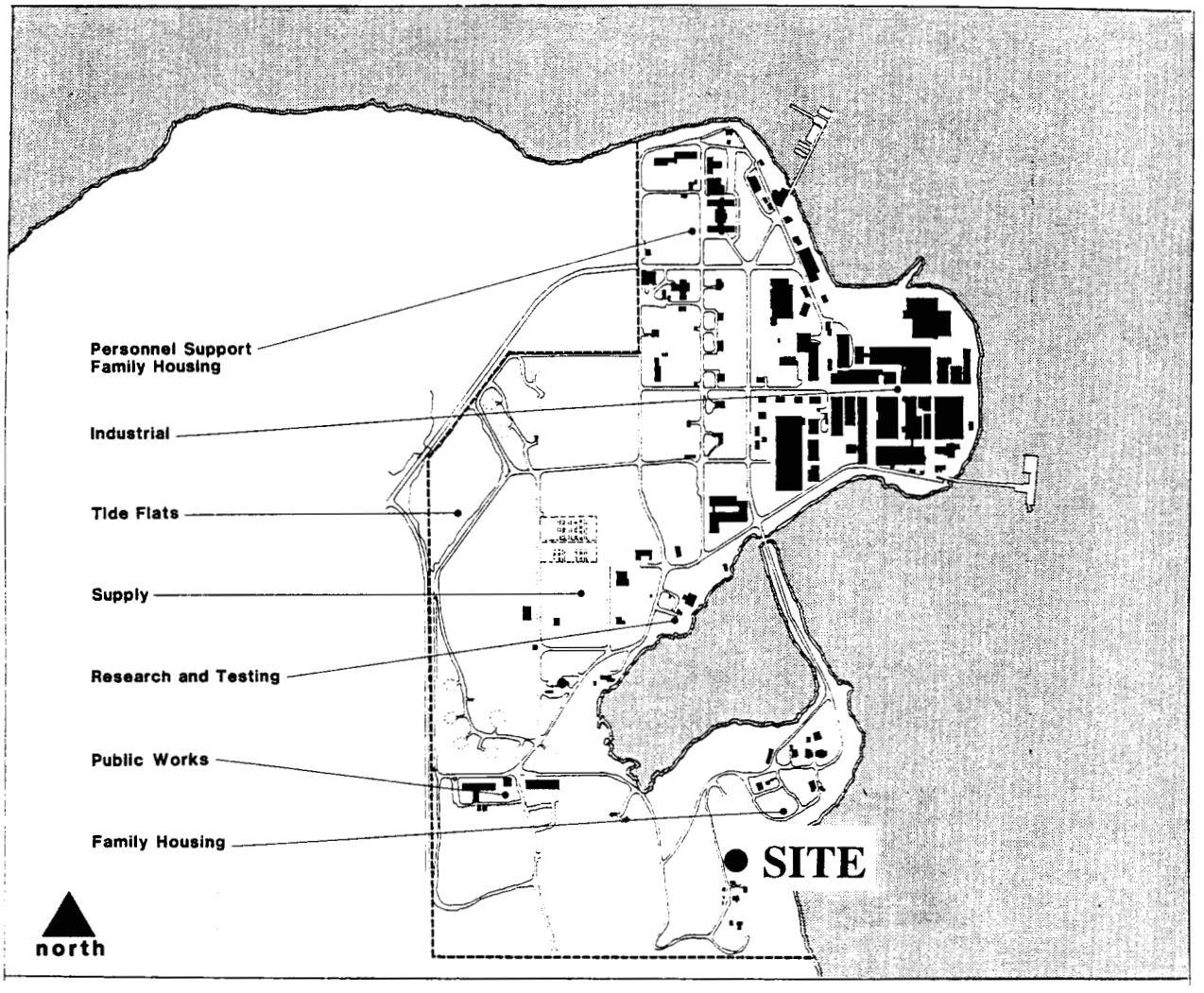
Criterion 3 - Distance From the Device to the Operating Area: Keyport is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle SeDaration: Keyport is approximately 35 miles from the ECTF at Seaplane Base. This exceeds the minimum separation distance required by this criterion for adequate DOA separation and results in a rating of good.

Criterion 5 - Navv Site Location Available/Constraints: The candidate site is located within a ridgeline housing area, would displace two to three homes, and would conflict with a nearby antenna. The site would need to be cleared of tree cover and the radome and clearcut would be visible for miles around. Therefore, this site is not reasonably feasible.

Evaluative Criterion

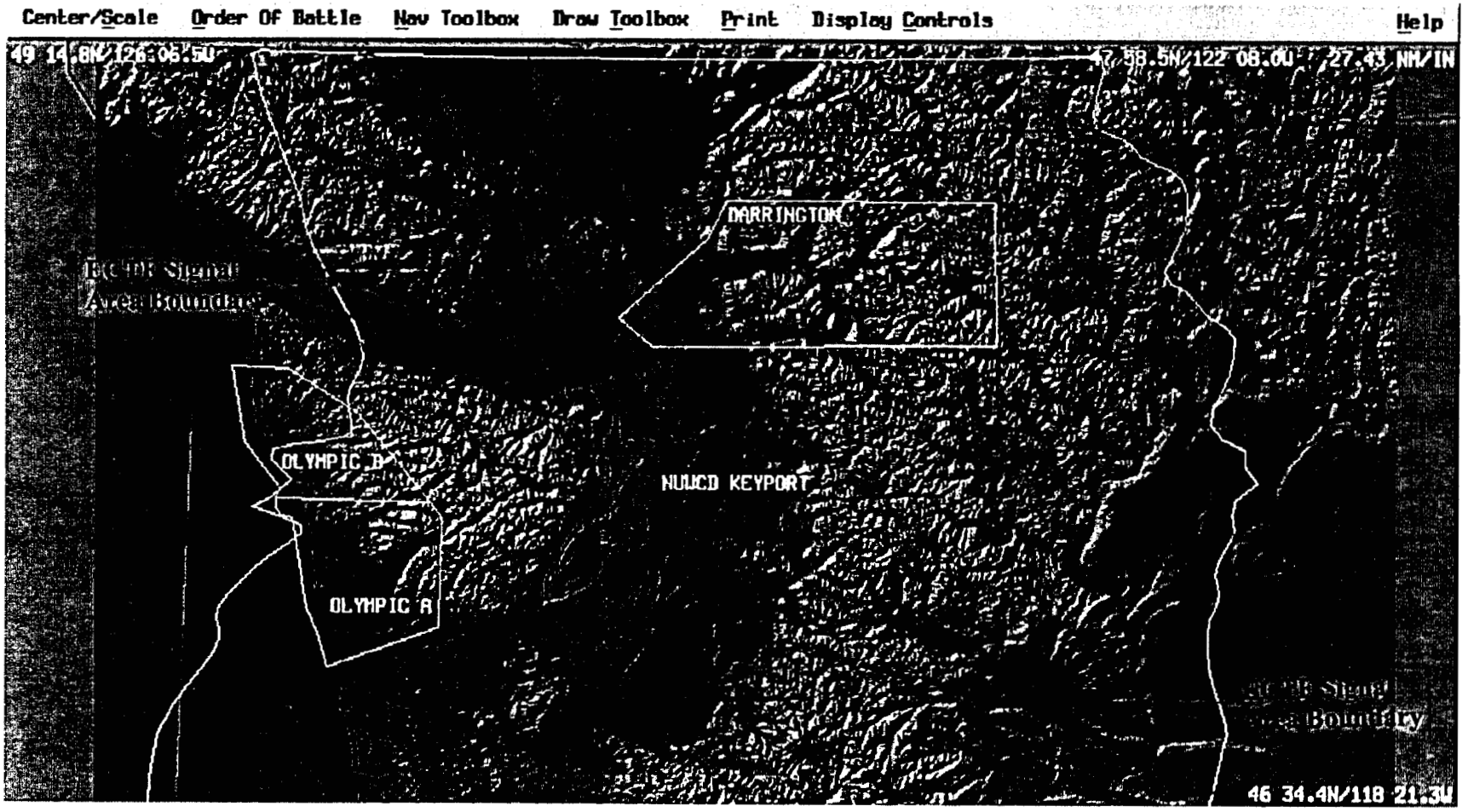
Criterion 1 - Site Coordination and Efficiency: Keyport is approximately 2.5 hours (driving time with ferry crossing) from the ECTF at Seaplane Base and other NASWI resources. This distance would make direct coordination and logistic support very difficult and expensive as compared to a site closer to the current ECTF. Thus, this site is rated poor.



ECTF Alternatives Analysis

NUWCD Keyport, WA Site

Figure 24


Center/Scale
Order Of Battle
Nav Toolbox
Draw Toolbox
Print
Display Controls
Help
47 58.5N/122 08.0W
27.43 NM/IN
DARRINGTON
OLYMPIC B
OLYMPIC A
NUWCD KEYPORT
46 34.4N/118 21.3W

5.13 FISC Manchester, WA

General Site Location and Description

Fleet and Industrial Supply Center (FISC) Manchester (Manchester) is located on Orchard Point in Kitsap County, Washington, south of Bainbridge Island (Figure 26). Bremerton is located 16 miles to the west. Approximately 80 percent of Manchester is devoted to fuel storage over a 234-acre area. With 33 under-ground tanks and five above-ground tanks, it is the largest DOD storage facility on the West Coast. Three types of fuel are stored here. **A** second mission is to operate the Oily Waste Treatment Facility and Fuel Reclamation Plant. The Navy would need to insert Figure 26- Manchester site assess HERF (fuel hazards) requirements if this site was selected. A **U.S.** Environmental Protection Agency test laboratory and a National Marine Fisheries Service research facility are located nearby at Clam Bay to the northwest. The candidate site is highly constrained and includes recreational facilities and housing. The site is highly visible from Bainbridge Island to the north and Seattle to the east. A Washington State ferry route is 0.5 mile away. The site is at an elevation of 20 feet with a 200 foot high hill located nearby.

Exclusionary Criteria

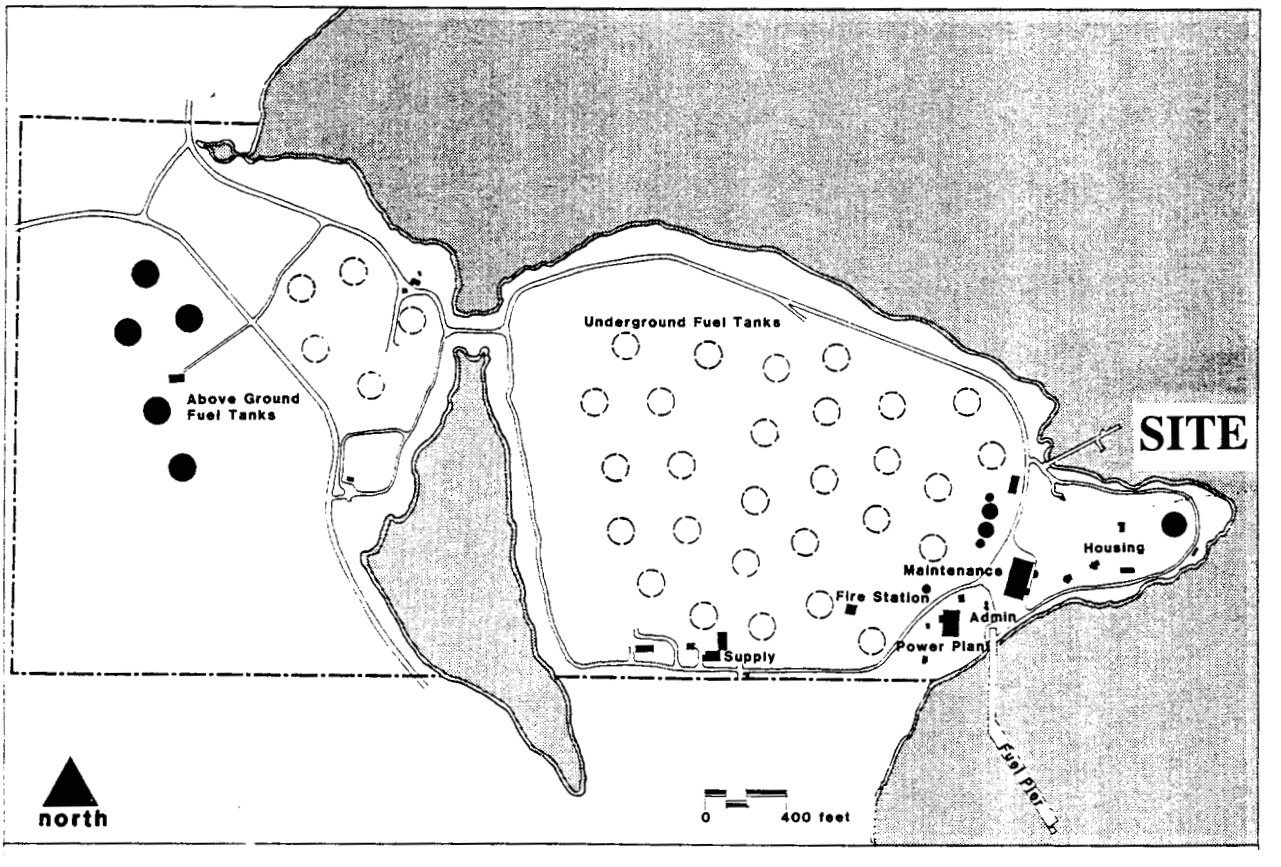
Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was achieved for the Olympic MOA and Darrington Airspace as indicated in Figure 27. For Manchester, the latitude and longitude for the terrain analysis is 47 34 OON, 122 32 20W. Coverage of airspace areas was judged to be fair due to partial terrain masking of the Olympic MOA- section B, as well as the Darrington Airspace.

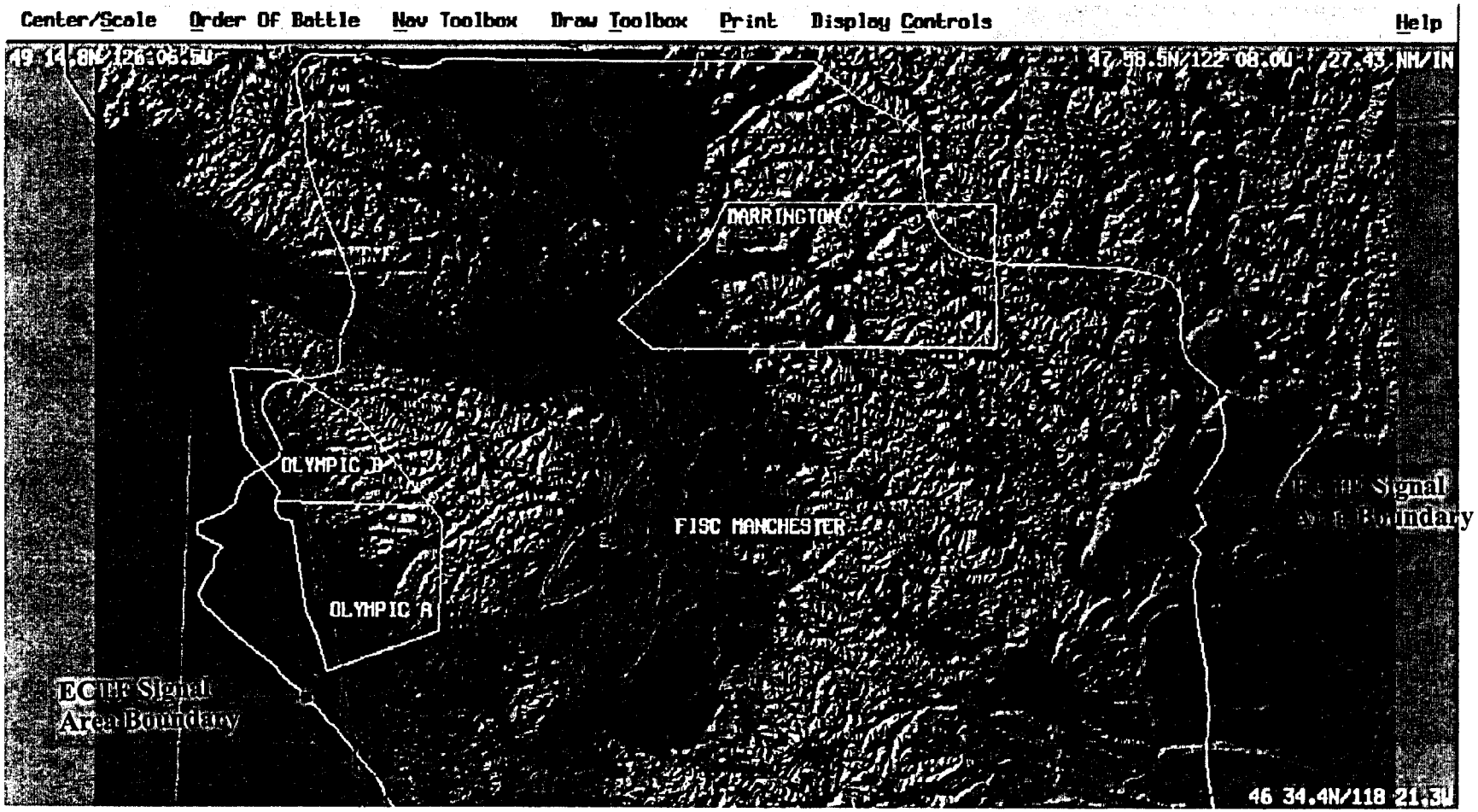
Criterion 2 - Loiter Airsuace Requirements: For Manchester, the loiter airspace requirement would be met for the Darrington Airspace, but not for the Olympic MOA due to terrain masking in section B. This condition would prohibit the flying of normal racetracks patterns. Therefore, the loiter airspace requirement for both airspace areas would not be met.

Criterion 3 - Distance From the Device to the Ouerating Area: Manchester is within 100 nautical miles of both airspace areas and would fully meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Manchester is approximately 45 miles from the ECTF at Seaplane Base. This is greater than the minimum separation distance required by this criterion for adequate DOA separation and results in a rating of good.

Criterion 5 - Navv Site Location Available/Constraints: Manchester is highly constrained. The site is located within an existing housing area with recreational facilities at Orchard Point. Some facilities and housing would be displaced. The radome would be highly visible from nearby Bainbridge Island, Seattle, and the Bremerton ferry route. Potential HERF hazards would need to be assessed by the Navy. Therefore, this site is not reasonably feasible.


Underground Fuel Tanks
Above Ground
Fuel Tanks
SITE
Housing
Maintenance
Fire Station
Admin
Power Plant
Supply
Fuel Pier
north
0
400 feet


Center/Scale
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Draw Toolbox
Print
Display Controls
Help
47 58.5N/122 08.0W
27.43 NM/IN
DARRINGTON
OLYMPIC B
OLYMPIC A
FISC MANCHESTER
ECTF Signal
Area Boundary
46 34.4N/118 21.3W

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiency: Manchester is approximately 3.5 hours (driving time and ferry crossing) from the ECTF at Seaplane Base and other resources at NASWI. This distance would make direct coordination and logistic support very difficult and expensive as compared to a site closer to the current ECTF. Therefore, this site is rated poor.

5.14 NWSTF Boardman, OR

General Site Location and Description

Naval Weapons Systems Training Facility (NWSTF) Boardman (Boardman) is located in northcentral Oregon south of the Columbia River in Morrow County (Figure 28). The installation is about 220 nautical miles from Ault Field, NASWI. Boardman consists of 47,432 acres of controlled land and is used as a bombing and training range by A-6/EA-6 aircrews stationed at NASWI. The area contains many static and moving targets. However, much of the area (41,084 acres) is being used for grazing and crop production. Other areas are commited as Research Natural Areas. A support complex is situated in the far northwest corner of the installation. Boardman has an elevation of about 400 feet in the northern area and slopes up to 900 feet in the southern area. The region is semi-arid with a sagebrush steppe habitat. The candidate site is located east of the support complex along the northern border at an elevation of 420 feet. This area is not used for the bombing range. The site is undeveloped with access via a main base road. Few utilities are located nearby.

Exclusionary Criteria

Criterion 1 - Line of Sight/Terrain Blockage: Line of sight coverage was not achieved for the Olympic MOA or the Darrington Airspace as indicated in Figure 29. For Boardman, the latitude and longitude for the terrain analysis is 45 47 OON, 119 45 OOW. Coverage of airspace areas was judged to be poor due to terrain masking and the far distance to the two airspace areas. This condition precludes any signal coverage of either the Darrington Airspace or the Olympic MOA.

Criterion 2 - Loiter Airspace Reauirements: For Boardman, the loiter airspace requirement is not met for either airspace area due to distance and terrain masking.

Criterion 3 - Distance From the Device to the Operating Area: Boardman is greater than 100 nautical miles from both airspace areas and thus would not meet this criterion.

Criterion 4 - DOA/Angle Seuaration: Boardman is approximately 220 nautical miles from the ECTF at Seaplane Base, NASWI. This distance is far greater than the minimum separation required by this criterion for adequate DOA separation. However, the lack of signal reception in the airspace areas due to this far distance (greater than 100 miles) and terrain masking results in a rating of poor.

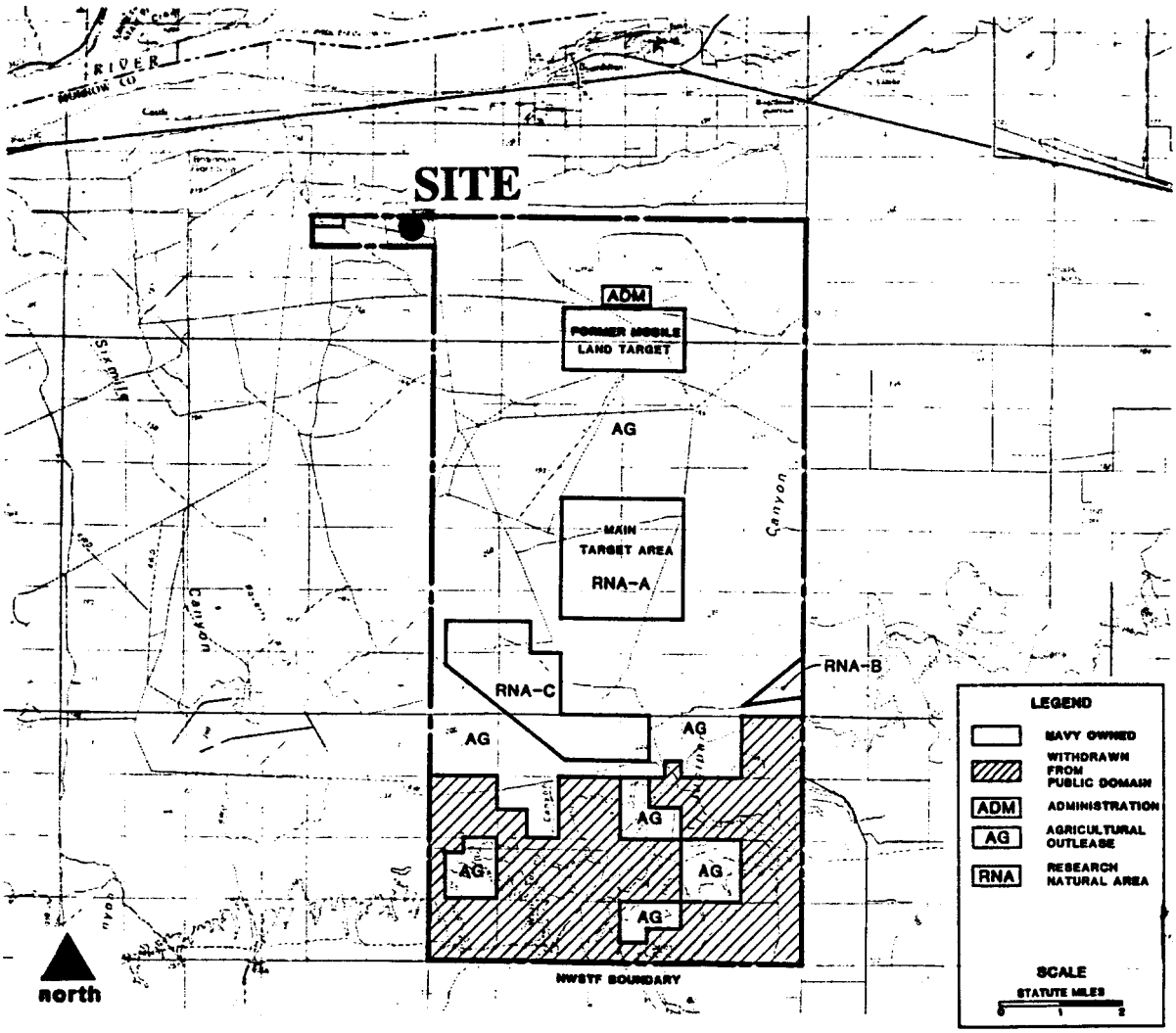
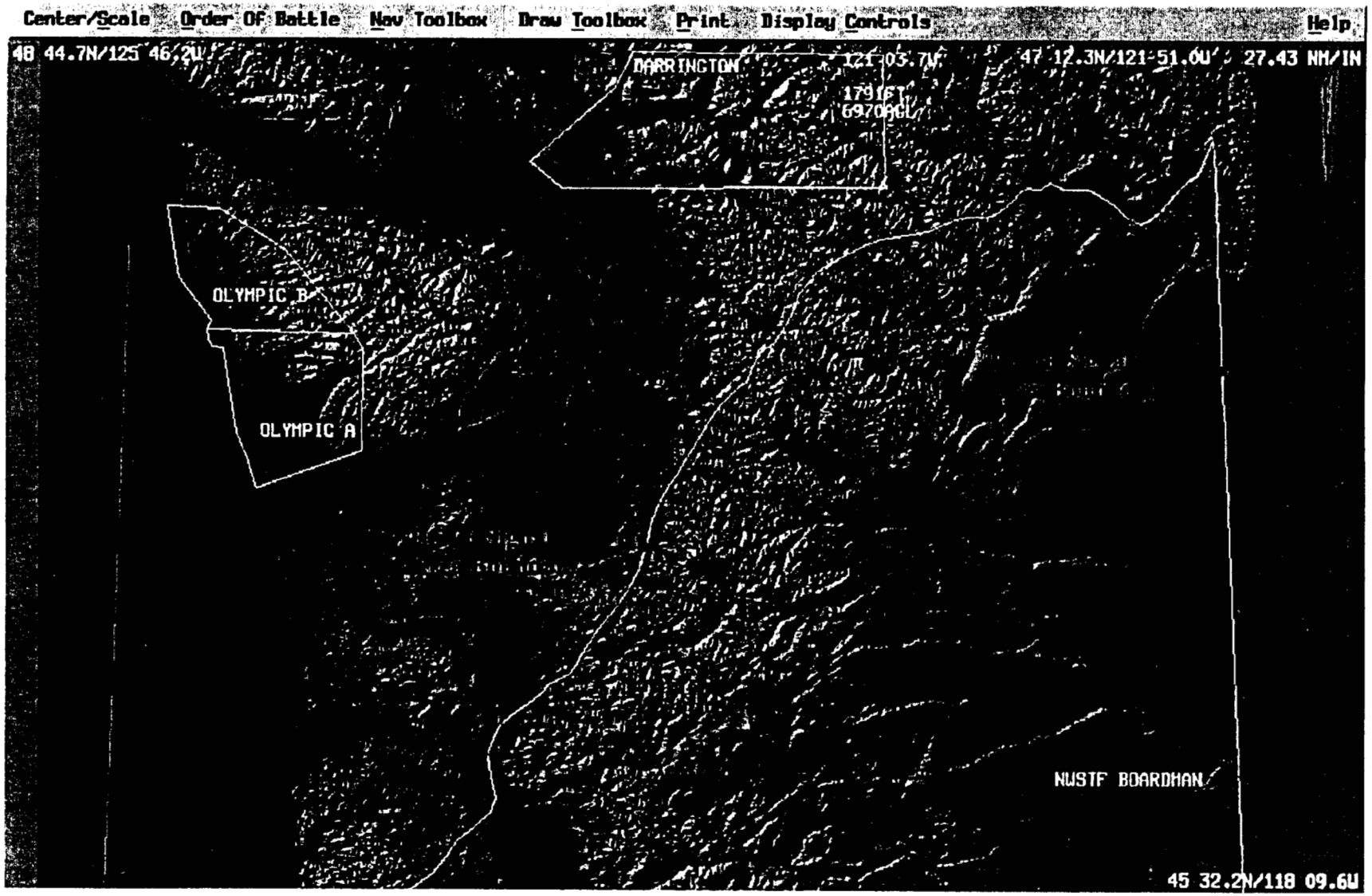

SITE
ADM
FORMER MOBILE LAND TARGET
AG
MAIN TARGET AREA
RNA-A
RNA-B
RNA-C
AG
AG
AG
AG
AG
AG
Canyon
Canyon
Canyon
NWSTF BOUNDARY
north
LEGEND
NAVY OWNED
WITHDRAWN FROM PUBLIC DOMAIN
ADM
ADMINISTRATION
AG
AGRICULTURAL OUTLEASE
RNA
RESEARCH NATURAL AREA
SCALE
STATUTE MILES
0
1
2

Figure 28


Center/Scale
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Print
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Help
48 44.7N/125 46.2W
DARRINGTON
121 03.7W
47 12.3N/121 51.6W
27.43 NM/IN
1791FT
6970AGL
OLYMPIC B
OLYMPIC A
NWSTF BOARDMAN
45 32.2N/118 09.6W

Figure 29

Criterion 5 - Navv Site Location Available/Constraints: The candidate site is undeveloped and has no known physical constraints. Since there are few utilities in the area, long extensions would likely be required.

Evaluative Criterion

Criterion 1 - Site Coordination and Efficiencv: Boardman is approximately 7 hours (driving time) from the ECTF at Seaplane Base and other NASWI resources. This distance would make direct coordination and logistic support very difficult and expensive as compared to a site much closer to the current ECTF. Thus, this site is rated poor.

APPENDIX C

CORRESPONDENCE

Federal

- Department of Defense, Department of the Navy
- USDI, Fish and Wildlife Service, North Pacific Coast Ecoregion, Western Washington Office
- USDI, National Park Service, Columbia Cascades System Support Office
- Trust Board of Ebey's Landing National Historical Reserve

Indian Tribes

- Samish Tribal Nation

State of Washington

- Department of Community, Trade and Economic Development, Office of Archaeology and Historic Preservation
- Washington Department of Fish and Wildlife, Olympia

Local Government

- Town of Coupeville
- Island County Board of Commissioners

Organizations

- Whidbey Islanders for a Sound Environment (WISE)
- US Navy League

Public

- (b) (6) [redacted]
- (b) (6) [redacted]
- (b) (6) [redacted]
- (b) (6) [redacted]

Navy Contractor

- EDAW, Inc.

CHIEF OF NAVAL OPERATIONS

22 January 1996

Dear Mr. [redacted] (b) (6),

This is in response to your letter concerning the Environmental Impact Statement (EIS) *for* Management of Air Operations at Naval Air Station (NAS) Whidbey Island and a proposal to build a radar facility at Outlying Landing Field (OLF), Coupeville.

We are in the process *of* completing the Final Environmental Impact Statement (FEIS) and anticipate public distribution in the spring of 1996. As you have correctly stated, the NAS Whidbey Island mission is changing and we want the FEIS to appropriately reflect those changes. I will ensure you are on the mailing list to receive the FEIS.

These is a proposal to consider placing a radar simulator emitter at OLF Coupeville, similar to the one at the Seaplane Base in Oak Harbor. This system would be used by aircraft operating 50 to *80* miles east *of* Coupeville and would not involve any increase in alraraft activity at the OLF. This proposal is a functionally independent action from operations management being addressed in the EIS, and a separate Environmental *Assessment* (EA) is being prepared in compliance uith requirements of the National Environmental Policy Act. The EA will analyze all potential environmental *impacts* associated with construction and operation of the radar system. We will make the EA available to the public *for* review by mid-1996 and prior *to* making any decision on placement of the radar. I will also ensure you are on the mailing list for the EA.

I appreciate your interest in Navy activities on Whidbey Island and hope you remain involved in assisting us to reach out to the community.

All the best,

J. M. BOORDA
Admiral, U.S. Navy

Mr. [redacted] (b) (6)
[redacted] (b) (6)
Coupeville, WA 98239

4

DEPUTY CHIEF OF NAVAL OPERATIONS (LOGISTICS)
WASHINGTON, D.C. 20350

20 May 1996

Dear Mr. [redacted],

Thank you for your letter of April 27, 1996, concerning safety factors associated with proposed construction of a radar facility at Navy Outlying Landing Field (OLF) Coupeville, Washington. Your concerns are appreciated. I can assure you that we will not construct a facility that would increase risk to our pilots or ground personnel.

The Environmental Assessment (EA) being prepared to document the potential environmental impacts associated with the proposal will address the concerns raised in your letter. A final decision to begin construction will not be made until the EA has been thoroughly reviewed and all safety factors have been considered. The EA is expected to be completed by September 1996 and I will ensure you receive a copy.

I appreciate your interest in this matter and hope you remain involved in assisting us to reach out to the community. Thank you again for your comments.

Sincerely,

[redacted]

Admiral, U.S.

[redacted]
Coupeville, WA 98239

DEPARTMENT OF THE NAVY
ENGINEERING FIELD ACTIVITY, NORTHWEST
NAVAL FACILITIES ENGINEERING COMMAND
19917 7TH AVENUE N.E.
POULSBO, WASHINGTON 98370-7570

5090
Ser 23/5164
MAY 31 1996

RE: Preliminary Environmental Assessment (EA) Review

Dear Reviewer:

The attached Preliminary EA assesses the environmental impacts of constructing and operating an Electronic Combat Training (ECT) Facility at OLF Coupeville. Naval Air Station Whidbey Island. This proposed facility would be nearly identical to the current operating ECT Facility at the Seaplane Base and would operate in concert with the existing ECT Facility to provide in-flight crew training and practice on rapid identification, location and reaction to simulated threat radar signals from multiple ground sources.

The proposed site provides the best fully operational alternative of the fourteen alternative locations considered in the northwest. The EA presents the operational site selection analysis and a detailed analysis of impacts for the proposed action.

Your review and comment would help us prepare the final EA. Please return comments to Mr. (b) (6) (Code 232DM) of this office by June 17, 1996.

(b) (6)
Director. Environmental Planning and
Natural Resource Division

Enclosure:
(1) Preliminary Environmental Assessment (EA)

5090
Ser N44:Ke/0353
February 5, 1997

Mr. [redacted] (b) (6)
Department of Community Development
Office of Archaeology and Historic Preservation
P.O. Box 48343
Olympia, WA 98504-8343

Dear Mr. [redacted] (b) (6):

Naval Air Station, Whidbey Island, proposes to construct and operate an Electronic Combat Trainer (ECT) at the station's Outlying Field (OLF) Coupeville, southwest of the town of Coupeville, Island County, Washington. This project will provide facilities needed for training the aircrews of the EA-6B Prowler, an electronic jamming aircraft based at NAS Whidbey Island. Such training is important for national security and Naval readiness.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, NAS Whidbey Island has undertaken steps to identify any properties that may potentially be affected by the proposed undertaking that are listed in, or eligible for listing in, the National Register of Historic Places (NRHP). Concurrent with these studies, NAS Whidbey Island is completing an Environmental Assessment (EA) on the project in compliance with the Nationql Environmental Policy Act (NEPA). A description of the proposed undertaking, taken from the draft EA, is attached as enclosure (1). Several photos and a map of the proposed project area comprise enclosure (2).

Efforts to identify historic properties have determined that no historic properties are present at the site of the proposed undertaking. However, the proposed undertaking would be visible from the eastern boundary of the Central Whidbey Island Historic District/Ebey's Landing National Historical Reserve (ELNHR), which is listed in the NRHP. Since the initiation of this project, NAS Whidbey Island has been working with the Trust Board of the ELNHR and Whidbey Islanders for a Sound Environment (WISE) to provide project information and keep open lines of communication. We provided draft documents to WISE and the Trust Board for review, and attended their meetings and workshops to discuss issues regarding the project. We held these discussions to allow the Trust Board and other interested persons to convey to us their concerns regarding potential impacts to the ELNHR. NAS Whidbey Island then carefully planned and defined the proposed undertaking to respond to these concerns. Based on these discussions, the proposed undertaking incorporates the following measures to eliminate potential indirect effects to ELNHR:

a. Painting or impregnating the radome with appropriate color(s) to reduce the visual impact of the facility. The colors would be the same as those used in the FAA navigational aid station recently constructed within the north end of the ELNHR near Zylstra Road!.

b. Planting a hedgerow .ofserviceberry.along Keystone Road, and planting native evergreens as a vegetative buffer around the ECT facility will,both screen the ECT facility frdm view and retain the rural character of *the* area.

c. Retaining standing timber on OLF Coupeville located to the south of the site of the proposed undertaking.

d Committing to removal of the radome from the building when the facility will no longer be needed (approximately 25 years) .

NAS Whidbey Island has applied the Criteria of Effect [36CFR 800.9(a)] and determined that the undertaking, as currently defined, would. have no effect on the ELNHR. A detailed description'of,the ELNHR and a discussion of the finding of no effect, prdvided from the draft EA, are enclosure (3). In brief, the characteristics of the ELNHR that make it significant in the history of Washington and listed in the NRHP focus on the historic relationships between various landscapes and the 19th century settlement and development of the area.; The portion of ELNHR that would have views of the ECT is known:as the East Woodlands, ,anarea of standing timber and relatively hilly topography. The historic significance of this region lies in the fact that the early settlers to the area avoided this region and chose to homestead in the surrounding prairies, known as Smith Prairie, Crockett Prairie, and Ebey's Prairie. This visual and physical relationship between the East Woodlands and these surrounding prairies is the crucial characteristic of this portion *of* the ELNHR which gives it historic significance. The proposed undertaking, which includes vegetative screening and other measures described above and detailed in Attachment A, would not affect the visual and physical relationship between woodland and prairie.

To assess the current status of this visual and physical relationship,,it should be noted that other alterations *to* this portion of the ELNHR have occurred in the past and are continuing to occur. Such aiterations include two mobile homes (one of which has been constructed since this project began), a recently constructed:house; a large clearcut within the East Woodlands, and a private airstrip with a grass runway. Such alterations

5090
Ser N44:Ke/0353
February 5, 1997

have impacted the character of the East Woodlands and weakened the historic relationships between the East Woodlands and the surrounding landforms. The site of the proposed undertaking is within this area; which has been already altered from its previous historic character.

We are submitting this letter to your office to fulfill NAS Whidbey Island's requirements under 36 CFR 800.5(b). We will forward a copy of this letter and its supporting information to. the Trust Board and other interested persons. NAS Whidbey Island requests your office's review of and concurrence pith this finding of no effect within 15 days.

Thank for your continued attention to this matter. If you have any questions or comments, please direct them to Mr. (b) (6) (b) (6) who can be reached at (b) (6).

(b) (6)

'Environmental Affairs Director
By direction of the
Commanding Officer

Encl:
(1) *Section 2.0*
(2) Photos' and Map
(3) Section 3.2

copy to:
The Honorable (b) (6). U.S. Senate
The Honorable (b) (6) U.S. Senate
The Honorable (b) (6). U.S. Congress
The Honorable (b) (6) WA State Representative
(b) (6) land County Commissioner
ey Island Task Force Chair
, President Association o'f Naval Aviation
resident, Oak Harbor Chapter Navy League
Association of Old Crows, National Headquarte'rs
Trust Board, Ebey's Landing National Historical Reserve
Whidbey Islanders for a Sound Environment
Svinomish Tribal Community
Samish Indian Nation

United States Department of the Interior

FISH AND WILDLIFE SERVICE
North Pacific Coast Ecoregion
Western Washington Office
3704 Griffin Lane SE, Suite 102
Olympia, Washington 98501
(360)753-9440 Fax: (360)753-9008

April 29, 1996

MAY - 1 1996

[redacted] (b) (6)
EDAW, Inc.
1505 Western Avenue, Suite 601
Seattle, Washington 98101

FWS Reference: 1-3-96-SP-217

Dear [redacted] (b) (6):

This is in response to your lerter dated March 19, 1996, and received in this office on March 20. Enclosed is a list of proposed ana listed threatened and endangered species, candidate species and species of concern (Attachment **A)** that may be present within the area of the proposed Electronic Combat Training Facility Project near Coupeville, Naval *Air* Station Whidbey Island, Island County, Washington. This list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (Act). The list reflects changes to the candidate species list published February 28, 1996, in the Federai Register (Vol. 61 No. 40, 7596) and the addition of "species of concern" prepared by the Service's Western Washington Office. We have also enclosed a copy of the requirements for U.S. Department of the Navy (Navy) compliance under the Act (Attachment B).

Should the Biological Assessment (BA) determine that a listed species is likely to be affected (adverseiy or beneficially) by a project, the Navy should request section **7** consultation through this office. If the **BA** determines that a proposed action is "not likely to adversely affect" a listed species, the Navy should request Service concurrence with that determination through the informal consultation process. Even if the BA shows a "no effect" situation, we would appreciate receiving a copy for our information.

Candidate species are those species for which the Service has sufficient information to propose for listing as threatened or endangered under the Act. Species of concern (most formerly known as Category 1 and Category **2** candidates) are those species whose conservation standing is of concern to the Service, but for which further status information is still needed. Conservation measures for species of concern and candidate species are voluntary but recommended. Protection provided to these species now may preclude possible listing in the future.

In addition, please be advised that federal and state regulations may require permits in areas where wetlands are identified. You should contact the Seattle District of the U.S. Army Corps of Engineers for federal permit requirements and the Washington State Department of Ecology for State permit requirements.

Your interest in endangered species is appreciated. If you have additional questions regarding your responsibilities under the Act, please contact (b) (6) [redacted] or (b) (6) [redacted] of this office at the letterhead phone/address.

Sincerely,

(b) (6) [redacted]

for Supervisor

cm/jkp
Enclosures
SE/Navy/1-3-96-SP-217/Island
c: Navy, Poulsbo, (b) (6) [redacted]
WDFW, Region 4
WNHP, Olympia

ATTACHMENT A

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES
CANDIDATE SPECIES AND SPECIES OF CONCERN
WHICH MAY OCCUR WITHIN THE VICINITY OF THE PROPOSED
ELECTRONIC COMBAT TRAINING FACILITY
AT NAVAL AIR STATION WHIDBEY ISLAND,
ISLAND COUNTY, WASEUNGTON
(T31N R01E S12)

FWS REF: 1-3-96-SP-217

LISTED

Bald eagle *(Haliaeetus leucocephalus)* - wintering bald eagles may occur in the vicinity of the project from about October 31 through March 31.

There is one bald eagle nesting territory located in the vicinity of the project at T31N R02E S06. Nesting activities occur from about January 1 through August 15.

Peregrine falcon *(Falco peregrinus)* - spring and fall migrant falcons may occur in the vicinity of the project.

Major concerns that should be addressed in your Biological Assessment of project impacts to listed species are:

1. Level of use of the project area by listed species.

2. Effect of the project on listed species' primary food stocks, prey species, and foraging areas, in addition to roosting, nesting, and dispersal habitat for applicable species in all areas influenced by the project.

3. Impacts from project construction and implementation (e.g., increased noise levels, increased human activity and/or access, loss or degradation of habitat) which may result in disturbance to listed species and/or their avoidance of the project area.

CANDIDATE

None

ATTACHMENT A CONTINUED

SPECIES OF CONCERN

The following species of concern may occur in the vicinity of the project:

Long-eared myotis (*Myotis evotis)*
Long-legged rnyotis *(Myotisvolans)*
Olive-sided flycatcher *(Contopus borealis)*
Pacific western big-eared bat *(Corynorhinus (=Plecotus) townsendii townsendii)*

ATTACHMENT B

FEDERAL AGENCIES' RESPONSIBILITIES UNDER SECTIONS 7(a) AND 7(C) OF THE ENDANGERED SPECIES ACT OF 1973, AS AMENDED

SECTION 7(a) - Consultation/Conference

Requires: 1. Federal agencies to utilize their authorities to carry out programs to conserve endangered and threatened species;

2. Consultation with FWS when a federal action may affect a listed endangered or threatened species to ensure that any action authorized, funded, or carried out by a federal agency is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The process is initiated by the federal agency after it has determined if its action may affect (adversely or beneficially) a listed species; and

3. Conference with FWS when a federal action is likely to jeopardize the continued existence of a proposed species or result in destruction or an adverse modification of proposed critical habitat.

SECTION 7(c) - Biological Assessment for Construction Projects *

Requires federal agencies or their designees to prepare a Biological Assessment (BA) for construction projects only. The purpose of the BA is to identify any proposed and/or listed species which is/are likely to be affected by a construction project The process is initiated by a federal agency in requesting a list of proposed and listed threatened and endangered species (list attached). The BA should be completed within 180 days after its initiation (or within such a time period as is mutually agreeable). If the BA is not initiated within 90 days of receipt of the species list, please verify the accuracy of the list with our Service. No irreversible commitment of resources is to be made during the BA process which would result in violation of the requirements under Section 7(a) of the Act. Planning, design, and administrative actions may be taken; however, no construction may begin.

To complete the BA, your agency or its designee should (1) conduct an onsite inspection of the area to be affected by the proposal, which may include a detailed survey of the area to determine if the species is present and whether suitable habitat exists for either *expanding* the existing population or potential reintroduction of the species; (2) review literature and scientific data to determine species distribution, habitat needs, and other biological requirements; (3) interview experts including those within the FWS, National Marine Fisheries Service, state conservation department, universities, and others who may have data not yet published in scientific literature; (4) review and analyze the effects of the proposal on the species in terms of individuals and populations, including consideration of cumulative effects of the proposal on the species and its habitat; *(5)* analyze alternative actions that may provide conservation measures; and (6) prepare a report documenting the results, including a discussion of study methods used, any problems encountered, and other relevant information. Upon completion, the report should be forwarded to our Endangered Species Division, 3704 Griffin Lane SE, Suite 102, Olympia, WA 98501-2192.

---

* "Construction project" means any major federal action which significantly affects the quality of the human environment (requiring an EIS), designed primarily to result in the building or erection of human-made structures such as dams, buildings, roads, pipelines, channels, and the like. This includes federal action such as permits, grants, licenses, or other forms of federal authorization or approval which may result in construction.

United States Department of the Interior

NATIONAL PARK SERVICE
Columbia Cascades System Support Office
909 First Avenue
Seattle, Washington 98104-1060

IN REPLY REFER TO:

H4217(EBLA)

July 31, 1996

Mr. [redacted] (b) (6)
Code 2320M
Department of the Navy
Engineering Field Activity, NW
Naval Facilities Engineering Command
19917 7th Avenue N.E.
Poulsbo, Washington 98370-7570

Dear [redacted] (b) (6):

I have reviewed the Preliminary Environmental Assessment prepared for the electronic combat training (ECT) facility proposed for the OLF near Coupeville and would like to provide comments. I understand that the comment period ended June 17, 1996, but I hope that you will take these comments into consideration as our office did not receive the EA until May 31, 1996. Initially, I agreed that the Trust Board of Ebey's Landing National Historical Reserve prepare comments on behalf of the historical reserve, because the board represents four partners, including the National Park Service. However, after giving the proposal the review it deserved, I am compelled to comment as a representative of the National Park Service separate from the Trust Board.

I am concerned about the finding of no significant impact in this EA and the use of that finding to preclude the preparation of an Environmental Impact Statement. The proposed undertaking will have a significant impact on the Central Whidbey Island Historical District. As required by NEPA, an EIS is required for proposals and major federal actions that significantly affect the quality of the human environment. "Significantly" is defined in 40 CFR Part 1508.27 with reference to "Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands. . . or ecologically critical areas." The reserve is a unit of the National Park System and deserves special consideration because of its significance.

For your information, the National Park Service is preparing an amendment to the CWIHO nomination to include 20th century properties and significant cultural landscape components that were not identified in the original nomination. Historic Smith Prairie, the area in which the proposed undertaking is to occur, is considered by the NPS to be a contributing element of the cultural landscape of the reserve. This ECT facility will have a direct impact on the integrity of one of only three open prairies in

the reserve that were farmed historically. Farming remains an important land use pattern that continues to this day. While it is true that documented historic buildings are not in close proximity to the proposed facility, it is critical to understand that the cultural landscape of the reserve presents an important component of Pacific Northwest history. Landscape features in the reserve, including open prairies, are important historic resources regardless of the presence of historic buildings. The visual impact of this facility is more than merely an aesthetic issue and would have great impact on the historic landscape. The proposed mitigation to create an orchard for screening of the facility would present an historically inaccurate message to park visitors. This was open, unobstructed agricultural land that had crops, not an orchard.

While I applaud the Navy's attempt to mitigate the visual impact of the proposed ECT, I strongly believe that the proximity of the proposed undertaking to the park is inappropriate. At the very least, a project of this scope requires an EIS to fully evaluate the proposed project and all feasible alternatives.

If you have any questions about these comments, please contact me at (b) (6) [redacted]. Thank you for your time and consideration.

Sincerely,

[redacted] (b) (6)

Historian

cc:
Chairman, FBLA Trust Board
[redacted] (b) (6), WA SHPO

TRUST BOARD OF
EBEY'S LANDING NATIONAL HISTORICAL RESERVE
Post Office Box 774
Coupeville, Washington 98239

June 17, 1996

Mr. [redacted] (b) (6)
(Code 232DM)
Department of the Navy
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 7th Avenue N.E.
Poulsbo, Washington 98370-7570

Dear [redacted] (b) (6),

Thank you for the opportunity to comment on the Preliminary Environmental Assessment of the construction and operation of an electronic Combat Training Facility at OLF Coupeville, Naval Air Station. Whidbey Island. As previously stated, the Trust Bomd of Ebey's Landing National Historical Reserve is of the opinion that the proposed facility should be located at a site that is not visible from the Reserve, a nationally significant unit in the National Park System.

The following are more specific comments about the contents of the EA:

ALTERNATIVE LOCATIONS FOR ELECTRONIC COMBAT TRAINING FACILITY
It is difficult to believe that not a single alternative location could be identified outside of Smith Prairie for consideration in the Environmental Assessment.

PROTECTION OF ARCHAEOLOGICAL RESOURCES ; SECTION 106
It is recommended that a professionally trained archaeologist be on-site during major ground disturbing activities such as foundation excavation and drainfield installation to ensure potential archeological sites and features can be adequately recognized and protected.

VISUAL IMPACT MITIGATION
The Trust Board applauds the effort to mitigate the visual impacts of the electronic combat training facility upon the cultural landscape of the Reserve. However, the board has some concerns about the proposal. It is important to note that the height of the hedgerow proposed in mitigation measure CR-4 must be sufficient enough to screen the view of the electronic combat training facility from Keystone Road. It will probably be necessary to plant the hedgerow with larger stock to assure that it can compete with vegetation in the existing hedgerow dong Keystone Road and become a screen for the electronic combat training facility in the near future.

While the orchard tree planting discussed in mitigation measure CR-5 should screen the lower portion of the electronic combat training facility, orchards in the Reserve were traditionally planted in a grid pattern (square, rectangular), not an octagonal pattern as shown. They were much smaller in scale than the 142-tree orchard proposed, and were of a subsistence and supplemental nature for a family. The desire of the Navy to perpetuate "traditional agricultural practices" in the Reserve would require Smith Prairie to remain open and undeveloped, and planted in grain and field crops,

Another measure that has the potential to mitigate visual impacts of the electronic combat facility would be to lower its overall height. The Trust Board encourages the further exploration of alternative designs that would do this,

SURVIVAL OF MITIGATING VEGETATION

Smith Prairie contains dry, gravely soils that do not hold much moisture. This soil characteristic combined with the light rainfall of the area creates a challenging environment for the establishment of orchards and native hedgerows. The Trust Board recommends that measures to assure survival of the introduced vegetation be outlined in the EA and that adequate budget and staff time be allocated to follow through with appropriate maintenance for at least three years following planting.

Sincerely,

(b) (6)

Reserve Manager

cc: (b) (6), National Park Service
Washington State Historic Preservation Officer
Central Whidbey Island Preservation District Advisory Committee

TRUST BOARD OF
EBEY'S LANDING NATIONAL HISTORICAL RESERVE
Post Office **Box 774**
Coupeville, Washington **98239**

H4217
L782I

October **8**, 1996

RECEIVED
OCT 10 1996
EDAW, INC.

Mr. (b) (6)
Code 232DM
Department of the Navy
Engineering Field Activity, NW
Naval Facilities Engineering Command
19917 7th Avenue N.E.
Poulsbo. Washington 98370-7570

Dear (b) (6).

The Trust Board of Ebey's Landing NHR has continued to review the proposal to build an electronic combat training facility at OLF Coupeville. The Board's review process included meeting with representatives of **NAS** Whidbey and EDAW. site visits and workshop sessions. It is the responsibility of the Trust Board to preserve and protect, in perpetuity, the historic and scenic resources which are vital to Ebey's Landing NHR.

As you **know**, the proposed facility would be located adjacent to Ebey's Landing National Historical Reserve. **a** unit of the National Park System. **A** major resource of the Reserve is the cultural landscape that tells the story of pacific northwest history, including its early exploration and settlement. The Smith Prairie area of the Reserve is **an** important landscape element of the Reserve.

One of the largest threats to the resources of the Reserve is the incremental diminishment of the historical value of its landscape units. including Smith Prairie.

The construction of the Combat Training Fncilin would be **a** major change in the landscape on the western marge of OLF Coupeville and thus significantly impacts on the Reserve. While the Trust Board apprecintes the efforts to design mitigating measures. such as color choice and vegetative screening. that will reduce some of the visual impacts of the project. it is our opinion that a thorough analysis of alternative project locations has yet to be documented.

After length!. review of the proposal. it is the opinion of the Trust Board that an in order to fully evaluate the alternatives to and impacts of the project. a full EIS should be prepared.

If you have any questions. please contact me or (b) (6). Reserve Manager. at (b) (6) (b) (6)

Sincerely,

(b) (6)

Chairman

Meeting with Trust Board of ELNHR

ELECTRONIC COMBAT TRAINING FACILITY
OLF COUPEVILLE, WA

AGENDA

10 SEPTEMBER 1996

1. Introductions
2. Project Description and Overview
3. Background on the Environmental Assessment (EA)
   a. Original project location - Pacific Beach, WA
   b. Discussion of alternate project locations
4. Discussion of location - OLF Coupeville, WA
   a. Background on Keystone Road site
   b. Development of mitigation measures
5. Status of Environmental Assessment
6. Development of a Memorandum of Agreement
7. Other issues

ELECTRONIC COMBAT TRAINING FACILITY
OLP COUPEVILLE, WA

10 SEPTEMBER 1996

ATTENDANCE ROSTER

NAME	ORGANIZATION	TELEPHONE/FAX
(b) (6) [redacted]	EDAW	(b) (6) [redacted]
	ELHR	
	Nat'l Park Service	(b) (6) [redacted]
	TRUST TSD. ELHR	(b) (6) [redacted]
	EDAW	(b) (6) [redacted]
	NAVY EFA, NW	(b) (6) [redacted]
	EBLA	(b) (6) [redacted]
	Trust Board	
	EBLA	(b) (6) [redacted]

Samish Indian Tribe
OF WASHINGTON

May 16, 1996

[redacted] Captain USN
Commanding Officer
Naval Air Station Whidbey Island
Oak Harbor, Washington 98278

Dear Captain [redacted]:

It has come *to* our attention that the Navy is proposing *to* build a high energy *radar* site on Smith Prairie on Whidbey Island; an area of cultural interest to the Samish Tribe. As the Chairperson of the Samish Tribal Council. I would like to request a meeting between you and my Acting Director of Cultural and Natural *Resources*. Dr. [redacted], to discuss our many concerns about this project and its possible ramifications as well as to establish protocols and develop methods for handling Navy developments in *the* future. Perhaps. this should be done in the form of a memorandum of understanding between the Samish and the Navy.

Please be aware that the Samish Nation intends to lay claim to any and all Navy surplus lands. As the direct descendants of the original signers of the Point Elliot Treaty of 1855, we have every intention of using every resource at *our* disposal, including the President's "Environmental Justice" doctrine in reacquiring our lands.

I look forward to hearing from you and scheduling the above mentioned meeting.

Respectfully,

[redacted]

Chairperson, Samish Indian Tribe

MAILING ADDRESS: P.O. BOX 217 ANACORTES, WA 98221 OFFICE: 1618 D AVENUE
(360) 293-6404 FAX (360) 299-0790

Samish Indian Tribe
OF WASHINGTON

June 28,1996

Mr. [redacted] (b) (6)
Naval Air Station, Whidbey Island
Public Affairs *office*
3730 North Charles Porter Ave
Oak Harbor, Washington 98278-5100

The Samish Tribe has not had sufficient opportunity to consider its comment on the preliminary environmental assessment for the Electronic Combat Training Facility at OLF Coupeville, NASWI. We request an expanded opportunity for comment and evaluation that an Environmental Impact Statement would afford.

As I am sure you are aware, Hall v. Muckleshoot does *give* the Samish recourse and protection under *the* Boldt Decision and the Point Elliott Treaty. Further, the President's Environmental Justice initiative provides additional opportunities to protect the interests of the tribe. In ,that regard, we request that we be informed of any and all activities, and request involvement in your process in a direct way which would include membership on your committees. I can be reached at [redacted] (b) (6).

Respectfully;

[redacted] (b) (6), Ph.D., Director
Office of Cultural and Natural Resources
Samish Indian Nation

cc Hon. [redacted] (b) (6) [redacted] (b) (6) Indian Agent
Senator [redacted] (b) (6) [redacted]

MAILING ADDRESS: P.O. BOX 217 ANACORTES, WA 98221 OFFICE: 1618 D AVENUE
(360) 293-6404 FAX (360) 299-0790

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P.01

STATE OF WASHINGTON

DEPARTMENT OF COMMUNITY, TRADE AND ECONOMIC DEVELOPMENT

OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION

771 21st Avenue S.W. • P.O. Box 18343 • Olympia, Washington 98504-8343 • (360) 753-4011

November 21, 1995

Mr. [redacted] (b) (6)
Department of the Navy
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 7th Avenue N.E.
Poulsbo, Washington 98370-7570

Log: 110695-19-USN
Re: Electronic Combat Training Facility,
Whidbey Island Naval Air Station

Dear [redacted] (b) (6):

Thank you for contacting the Washingon State Office of Archaeology and Historic Preservation (OAHP) regarding the above referenced project. From your letter, I understand that the Navy proposes to construct and operate an electronic combat training facility (ECTF) on Whidbey Island Naval Air Station (WINAS) property at OLF Coupeville.

In response, I concur with your determination that the Environmental Assessment (EA) for this project should address impacts upon cultural resources. Briefly, the OLF Coupeville property lies partially within the Central Whidbey Island Historic District (also known as Ebey's Landing National Historical Reserve), a property listed in the National Register of Historic Places. Therefore, it appears that construction of a 70 to 80 foot high facility could have an effect upon the visual qualities of the Historic District. I also recommend contacting the Trust Board of Ebey's Landing National Historical Reserve for comments.

Again, thank you for contacting *OAHP* regarding this proposal. Should you have any questions, please feel free to contact me at [redacted] (b) (6).

Sincerely,

[redacted] (b) (6)

Comprehensive Planning Specialist

cc: [redacted] (b) (6), Ebey's Landing Trust Board

[redacted] (b) (6):tjt

STATE OF WASHINGTON
DEPARTMENT OF COMMUNITY, TRADE AND ECONOMIC DEVELOPMENT
OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
111 21st Avenue S.W. • P.O. Box 48343 • Olympia, Washington 98504-8343 • (360) 753-4011

June 25, 1996

Mr. [redacted] (b) (6)
(Code 232DM)
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 Seventh Avenue Northeast
Poulsbo, Washington 98370-7570

Log: 060496-18-USN
Re: NASWI, OLF Coupeville: Electronic Combat Training Facility (ECT)

Dear [redacted] (b) (6):

Thank you for the opportunity to review a draft Environmental Assessment (EA) for the above referenced project proposal. I apologize for being unable to respond by June 17th

While outside the Central Whidbey Island National Register Historic District, the proposed facility has the potential for considerably impacting Smith Prairie, a cohesive cultural landscape element that is partially within the District However, in our view, Smith Prairie should have been included in both the District and the Ebey's Landing National Historical Reserve boundaries. We believe the integrity of Smith prairie will be considerably compromised by placement of the ECT at its proposed location More effort should be made to find an alternative site for the facility that will be either less intrusive or not seen from the *Historic* District

Efforts to minimize the ECT's potential *impact* to *the* District are commendable, and should cause a softening of its effects from earlier proposals. However, the hedgerow and orchard, even when healthy and mature; and a mottled paint scheme still would not fully ameliorate the problem of viewing *such* a *large*, modern, incongruous structure from the District and Smith prairie, or continue to maintain the *open*, rural character of the area.

Because of the distance of the proposed ECT from the official boundary of the Historic District and the efforts made, in consultation with the Trust Board, to lessen its potential impact, the resulting determination of effect under Section 106 of the National Historic Preservation Act may not be adverse. However, further attempts should be made to find an alternative site. At the very least, more consultation should occur with the Trust Board and the National Park Service to identify other methods to lessen its impact.

Please contact me at (b) (6) if You wish to discuss our review of this EA.

Sincerely,

(b) (6)

Restoration Designer

(b) (6) tjt

cc: (b) (6)
(b) (6)

STATE OF WASHINGTON
DEPARTMENT OF COMMUNITY, TRADE AND ECONOMIC DEVELOPMENT
OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION
711 21st Avenue S.W. • P.O. Box 48343 • Olympia, Washington 98504-8343 • (206) 753-4011 • SCAN 234-4011

March 6, 1997

(b) (6) [redacted]
Environmental Affairs Director
Naval Air Station Whidbey Island
Oak Harbor, Washington 98278-5000

Log: 060496-18-USN
Re: NASWI, OLF Coupeville: Electronic Combat Training Facility (ECT)

Dear (b) (6) [redacted]

The above referenced project proposal has been reviewed under provisions of Section 106 of the National Historic Preservation Act of 1966 and 36 CFR 800.

The Navy's finding of no effect has been considered, but we can not concur for the following reasons. First, while the proposed project lies outside the current boundaries of the Whidbey Island Historic District and Eby's Landing National Historical Reserve, we believe the portion of Smith Prairie on which OLF Coupeville is located is potentially eligible for inclusion in the National Register as a natural open extension of the that part of Smith Prairie which is located within the Historic District boundaries. For this reason, we believe this facility may have more than indirect effects on eligible historic and cultural resources.

Second, if only indirect effects are considered, we do not believe, even with design features intended to minimize impacts of the facility, there will be no effect on views from that portion of Smith Prairie now listed. The dome will be visible from the District even when landscaping and trees intended to minimize its effects reach maturity; and this vegetation may well not reach full height before the useful life of the facility ends.

Without the mitigative measures mentioned above, the effect of the installation of the ECT may well be adverse under criteria in 36 CFR 800. However, these design features which include planting of appropriate landscaping and trees, painting of the dome a muted color, and the commitment by the Navy to remove the structure at the end of its useful life (estimated 25 years), appear to manifest a determination of no adverse effect for the project.

If you wish to discuss our review of this project, please contact me at (b) (6) (b) (6).

Sincerely

(b) (6)

Restoration Designer

(b) (6)

cc (b) (6)

November 8, 1995

(b) (6) [redacted]
[redacted] ronmental Planning and Natural Resources Division
Department of the Navy
Engineering Field Activity, Northwest Naval Facilities
Engineering Command
19917 - 7th Ave. N.E.
Poulsbo, WA 98370-7370

RE: Electronic Combat Training Facility
OLF Coupeville

Dear (b) (6) [redacted]:

Thank you for your letter of November 2, 1995 soliciting comments on specific issues and concerns that the Town of Coupeville believes should be addressed in the E.A. for the proposed Electronic Combat Training Facility. The Town would appreciate receiving a copy of the E.A. when it is completed.

The proposed Electronic Combat Training Facility (ECTF) is located approximately 2.5 miles from the Town of Coupeville. Therefore, the primary issue and concern of the Town would be the impact of Electromagnetic Fields (EMF) being radiated into the Town and the associated impact on essential services.

Radio, satellite, computer, and telephone facilities located within the Town may not have sufficient filtering to prevent the high power ECTF radiation, either at the primary frequency band, or at side-bands or spurious frequencies, from compromising police, fire, and emergency service communications.

In addition, there is a major Internet facility within the Town (Whidbey Connections) that provides both government and educational services, and the EMF immunity of this activity should be reviewed. Also, there is a regional hospital in the Town (Whidbey General Hospital) which uses sensitive electronic equipment for patient monitoring and the EMF immunity of this equipment is also unknown and should be reviewed.

(b) (6) [redacted]

While not a direct impact on Coupeville, many of the Town residents are elderly, some have pacemakers to sustain heart function, and drive on the highway which passes within about 1,000 feet of the proposed facility. The field strength of the ECTF at this location should be reviewed with respect to a pacemaker either being stopped or burned out by high power fields.

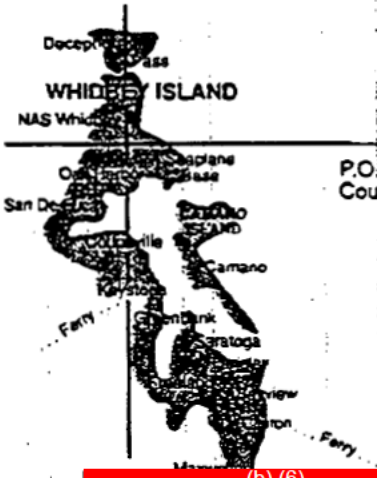
Thank you again for the opportunity to comment on the EA for this project. The Town would be pleased to work with you and provide whatever assistance is available within the limited resources of a small town.

Sincerely,

(b) (6)

Mayor

(b) (6)/pc



Island County Board of Commissioners

P.O. Box 5000
Coupeville, WA 98239-5000

Phone (360) 679-7354
From Camano (360) 629-4522
From So. Whidbey (360) 321-5111
Fax (360) 679-7381

February 10, 1997

[redacted] (b) (6)
Department of Community Development
Office of Archaeology and Historic Preservation
P. O. Box 48343
Olympia, WA 98504-8343

RE: SER N44:Ke/0353

Dear [redacted] (b) (6):

The Board of Island County Commissioners is in receipt of a copy of Department of Navy's letter to you dated February 5,1997, regarding the construction of an Electronic Combat Trainer (ECT) at the Navy's Outlying field (OLF) Coupeville.

Although the Board of Island County Commissioners is not the permitting agency for federal property, we recognize the importance of commenting on this project. We understand the focus of a portion of the Navy's mission, locally, has changed in recent years which, subsequently, necessitates the need for construction of new structures to accommodate this new direction.

The additional measures proposed by the Navy to eliminate potential indirect effects to the Ebey's Landing National Historic Reserve area falls in line with typical measures Island County would require such as special painting and screening. The Navy's commitment to remove this structure upon the end of its useful life is, we believe, pivotal in the approval process. The Board of Island County Commissioners encourages approval to construct and operate the ECT at OLF.

Sincerely,
BOARD OF COUNTY COMMISSIONERS
ISLAND COUNTY, WASHINGTON

[redacted] (b) (6)

[redacted] (b) (6) Chairman

[redacted] (b) (6)

[redacted] (b) (6) Member

[redacted] (b) (6) Member

12 FEB 1997
Chrono
N4460

BOCC:db
cc: [redacted] (b) (6) NAS Whidbey

Whidbey Islanders for a Sound Environment
A Non-Profit Public Benefit Corporation
P. O. Box 773
Coupeville, WA 98239

March 14, 1996
Department of the Navy
Engineering Field Activity, Northwest
Naval Facilities Engineering Command
19917 7th Avenue NE
Poulsbo, WA 98370-7570

Attn: (b) (6) **Code 232DM**

Subject: Comment on **proposed** siting of **Radar** facility at OLF Coupeville.

Safety Hazard

OLF Coupeville is a Navy facility comprising a single 5400 ft runway and 4500 ft taxiway on a narrow 544 acre open property entirely surrounded by private property. The Navy allows local farmers to harvest hay fiom the property, and model aircraft operators access to the runway for recreational use. In addition to these current open access uses the OLF is used by local law enforcement agencies for driver's training. In the past it has been used for Drivers Education by Coupeville High School. The Navy property has no consistent perimeter fence or security gate.

For over twenty-five years the Navy has repeatedly and consistently petitioned Island County government to take measures limiting construction near the airfield to buildings less than thirty feet in height. The Navy has refined this policy through successive generations of AICUZ studies. Other Navy documents list built structures as potential hazards to FCLP flight operations and indicate existing structures in the vicinity of OLF Coupeville require approach of the-field at a glide angle twice as steep as standard practice. Significant structures such as homes in Admiral's Cove at the south end of the runway and Island Transit Bus Depot and Hoyt Holster Company at the North end of the runway are situated within the ***highest*** accident potential zone which the AICUZ advises should be kept clear of buildings.

The Navy is also well aware that the practice landing field constructed by the Navy in World War II for wartime use of single engine propeller

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A Non-Profit Public Benefit Corporation
P. O. Box 773
Coupeville, WA 98239

aircraft is a short 5400 A. single runway on a bare minimum of Navy property with Island County's one arterial highway running close to the Runway property line (in places closer than the Navy's own requirements) on three sides. A county road runs on the fourth side of this narrow open property within one or two hundred feet of the proposed Radar facility.

In 1982 an EA6B crashed during FCLP operations not far from the proposed location of the radar facility.

In light of this record the board of WISE on behalf of its membership finds it inconceivable that the 70 foot tail radar station located next to this active FCLP runway wouid not add an increment of hazard to those operations. Given the Naw's conscious decision to use OLF Coupeville for FCLP despite its failure to meet previously formulated standards for Class B Runway we find it unacceptable for the Navy to purposely add an additional hazard when other alternatives exist.

Although Safety is the environmental impact of most immediate concern to WISE we consider all of the following additional reasons to reconsider siting this facility at OLF Coupeville in the order listed in your lerter:

Hydrogeology

OLF Coupeville is located within one of two officially designated sole-source aquifer critical water recharge areas in Washington State. All habitation and other land uses in Central Whidbey is entirely dependent on groundwater. OLF Coupeville is located in the most important recharge area and its continued status as unpaved open space has a positive environmental impact. Additional building and paving and automobile traffic associated with the proposed radar station will have a negative impact on recharge.

Wetlands and biological resources

WISE board member and native seed propagation expert (b) (6) expresses his concern for unique biological resources at this site. Citing an incident when a onetime deep disturbance of OLF land under cultivation resulted in a reappearance of native Camas and other vegetation dating back prior to

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A Non-Profit Public Benefit Corporation
P. O. Box 773
Coupeville, WA 98239

settlement and cultivation, [redacted] (b) (6) believes this relatively undisturbed section of native prairie should be studied prior to proceeding with this proposal.

Landuse/aesthetics

OLF Coupeville is located on the eastern edge of the Ebey's Landing Historical Reserve, a unit of the National Parks System designated in 1978. Property within the reserve is in mixed private, state and federal ownership and the over-arching purpose of the reserve is the preservation of scenic easements of historical and natural significance. The proposed radar tower would be three times higher than any other structure visible from the Smith Prairie. It's discordant appearance would dominate a rural landscape essentially unchanged in a century and a half.

Recreational and culfurairesources

Smith Prairie is visited and used by visitors to ELHR and their recreational use would be diminished consistent with the impact listed above. Additional security could impact current and future recreational and educational uses of the facility.

A county recreational field near the north end of the runway attracts many organized youth sports events. Will radiation fiom the radar facility affect these children and their adult supervisors?

Transpotiation,public services, etc.

OLF Coupeville is so located so that an accident during FCLP could easily close state highway 20, Island County's only north-south connecting arterial. To the extent that this proposed radar tower is a hazard to FCLP operations it is a hazard to transportation.

Any interference to radio transmissions caused by this proposed facility would negatively impact Island Transit bus service whose dispatching headquarters are located within one mile of the proposed tower.

Air quality, noise, and EMF

WISE is concerned along with the town of Coupeville and Island County Health Department that EMF generated by the proposed facility could impact nearby

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P. O. Box 773
Coupeville, WA 98239

residents, especially those with pacemakers or other medical devices subject to EMF interference.

It is noted that the proposed facility will require acoustic attenuation presumably to create a same working environment in the vicinity of 120+ decibel impact created by FCLP ar OLF. WISE suggests a site, such as Jim Creek or Pacific Beach, absent such background noise is preferable.

The Navy has identified one alternative site at Pacific Beach and WISE asks why the Arlington Navy Station at Jim Creek was not considered. Both facilities are already secure dedicated Navy communications facilities free . from the hazard and noise of FCLP in the immediate vicinity. We strongly recommend that the Navy reconsider all alternatives before proceeding with siting of this facility at OLF Coupeville.

Sincerely,

Whidbey Islanders for a Sound Environment

(b) (6), president

cc:
CNO
(b) (6), Commanding Officer NAS Whidbey Island
(b) (6) attorney
the membership of WISE

WISE

WHIDBEY ISLANDERS FOR A SOUND ENVIRONMENT

A NONPROFIT PUBLIC BENEFIT CORPORATION
Post Office Box 773 Coupeville, WA 98239
June 17, 1996

[redacted]
Public Affairs Officer
NAS Whidbey Island

Comments on the Preliminary EA for Electronic Combat Training Facility at OLF Coupeville, NASWI

Whidbey Islanders for a Sound Environment welcomes the opportunity to comment on a preliminary Environmental Assessment for Electronic Combat Training Facility proposed for construction at Coupeville. WISE first received a copy of the document in its post office box on Thursday June 6, 1996. Three WISE board members and [redacted], former mayor of the Town of Coupeville and former WISE board member attended an informational meeting with NASWI PAO, [redacted] the evening of June 10. At this meeting WISE requested a 20 day extension of the June 17 deadline for comment. On June 10 [redacted] informed WISE by e-mail that [redacted], CO of NASWI, had denied this request.

Comment Number 1. A full EIS is needed
Contrary to the Finding of No Significant Impact recommended in the Preliminary **EA** we find the project development to date and information presented in the preliminary document clearly indicate a significant environmental impact. It would be hard for the Navy to have settled on a more environmentally sensitive area in the entire county than Central Whidbey with regard to preservation of historical landscapes. The area has a twenty-five year history of joint community and governmental involvement in preserving scenic easements within an Island County designated Historic District, which became the nation's first Historical Reserve ratified by Congress in 1979 and administered as a unit of the National Park Service. Likewise the Navy would be hard pressed to find a location with a local population more interested in participating in the EIS process than Central Whidbey Island. In 1988 over 350 persons attended scoping hearings in Coupeville for a Navy Air Operations EIS, yet to be released'. So far the Navy has proceed in planning this project without public participation and given the high level of community interest this is cause enough for reaching the EIS threshold.

To further elaborate this point there are four (sometimes overlapping) constituent groupings with a direct interest in this project. These are historical preservationists, neighboring property owners, members of the Samish Tribe and recreational users of three National **Park** units, ELNHR, The Olympic National **Park,** and the North Cascades National **Park.** WISE, an organization that could be said to represent neighboring property owners recently polled its members on the relative importance of five local environmental

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issues. Over 40% of member households have returned questionnaires and the proposed RADAR dome at Coupeville is overwhelmingly the most important issue (next to our members primary issue of aircraft noise and safety.) Only two of 48 responding households failed to list it in the "Top Priority" or "Important" categories.[ii]

In each one of these four public constituencies there are important individual comments that will not be registered unless the EA is upgraded to an EIS. Captain (b) (6) denial of the WISE request for a reasonable extension to the comment period only underscores the importance of the less rushed and more deliberative EIS process.
Therefore our number one comment is to renew our written request that interested members of the public be given the opportunity to participate in a full EIS process.

Comment number 2: Reconsider the "No Action" Alternative.
The preliminary EA (PEA) is clear in stating that the preferred plan is a less than optimal compromise addition to the Navy's current Electronic Warfare mission.
First, the Navy would have preferred three additional ECTs with the combined capability of directing shipboard training off the Washington Coast. The PEA states that due to limited funding the Navy could consider building only one. Secondly, the Coupeville site is in no way ideal. Signal separation is only fair and the NAS Whidbey Master Plan states, "construction at OLF Coupeville should be discouraged." At the same time the EA admits to (but we feel understates) environmental impacts associated with building this facility including negative visual impacts as viewed fiom Ebey's Landing Historical Reserve, withdrawal of recreational area, ground water withdrawal from one of the most ground water sensitive areas in the state. Proposed mitigations to the preferred plan include planting an orchard of fruit trees around the facility, and while a welcome idea, there is no mention of the water needed for irrigation and any chemicals used in maintenance, both of which need to be added to the environmental impacts.
The justification of this questionable building projects rests on the assertion of need, and the claim that combat readiness would suffer without it. However in the recent Persian Gulf conflict there was no evidence of any operational shortfall in EA-6B crews that had trained under existing facilities and procedures. On the contrary Whidbey trained EA-6B Prowlers and crews were flawlessly proficient, overwhelming a state of the art air defense system of a capable adversary who was expecting attack. And they did so without losing a single aircraft or crewmember. How much better than perfect will this marginal improvement in training make NASWI prowlers?
Construction of the ECT at Coupeville given its compromise nature and environmental impacts should be weighed carefully against the "no action" alternative. This should be considered in light of the remaining useful life of the mission and ECT given the rapid evolution of electronic technology and the waning service life of the EA-6B airframes. The basic design of the EA-6B aircraft is forty years old with production beginning in 1970 and ending in 1991. In 15 years most of the aircraft will be at the end of their service life if the advance of electronic warfare technology hasn't left them behind before that (there is considerable discussion in the literature about miniaturizing electronic warfare countermeasure apparatus to the point where advanced capabilities now found only in the EA-6B will be fitted into every US combat aircraft.) Will being able to give training aircrews one additional signal to detect for the remainder of this mission life be a benefit that outweighs the impact of leaving a highly visible and permanent relic of military operations at OLF Coupeville? Would these scarce resources not be better spent on

development of the next generation of unmanned hi-tech weapons and defense systems, Or should it be dedicated to improving the Fallon test range where truly multiple and movable electronic signal emitters are currently in use? If built in Coupeville how will this dome look to future historians?

Ironically, the trademark wooden blockhouses built in 1855 that dot the central Whidbey country-side as well as the massive concrete bunkers of **Fort** Casey already convey (within the spotlight context of the Historic Reserve) the reality that much in the way **of** military construction is never actually **needed** regardless of **how** earnestly desired it is at the time it is built. Rather than build this hybrid compromise facility at Coupeville **WISE** asks that "no action" be considered as a viable option.

Comment number three: Include operations information, alternatives & restrictions

This project and the operations it will take part in will directly impact the environment of three national park units. At Ebey's Landing National Historical reserve there is a recognized visual impact and a safety concern over EMI. In the skies over the Olympic National Park and North Cascade National Park the public reports that Military Jet training disturbs the experience of the wilderness environment. Hikers, rockclimbers and horseback riders have registered serious complaints due to military training use of recreational wilderness areas. The PEA mentions on page 2-6 "NAS WI aircraft operations and aircraft noise are being addressed in a separated Draft EIS being prepared by the Navy." It is important to note that that EIS is seven years overdue. The more than 400 individuals who took part in scoping hearings in Coupeville, *Oak* Harbor and Anacortes have been denied the benefit of that document. It is also important to note that National Parks user groups were denied their 1988 scoping request that environmental impact on North Cascades National Park be considered in the EIS.[iii]

WISE requests that **the no** action be taken **on the** ECT **at** Coupeville **OLF** until the **NASWI** air operations **EIS** is released. WISE was told at the June 10 meeting with Howard Thomas that EA-6B training over the national parks is between 13,000 and 30,000 feet, and that there would be no increase in training due to the additional ECT. **WISE** requests that operational information concerning **EA-6B** training over National Parks be included in one or both of these documents. That information should state in writing the altitude, frequency and intensity **of** this training to establish a baseline.

And while EA-6B Prowler performance was near perfect in recent combat it **is** not without serious safety concerns in training. A total of 209 A-6 type (A6 and EA-6B) aircraft have crashed in non-combat accidents since 1965.[iv] That is more than 20% of all A-6 airframes ever built. In the period 1980-84 five EA-6B aircraft crashed while training out of NASWI, three in the Olympic Pennisula and one each at Coupeville OLF and Ault Field. At Coupeville the crash took place within the Ebey's Landing Historical Reserve.

The PEA states on page 2-9 "Naval Station Pacific Beach in Grays Harbor County, Washington was initially the preferred location of the new ECT facilty." The report goes on to say "this site appeared to be suitable for training both shipcrews and aircrews." WISE requests the **Navy** investigate whether the **ECT** unit currently planned for installation at Coupeville might be installed **on a** Navy ship thus offering the multiple training options (and more) **of** the oceanside location.

Comment number 4: Complete failure to address environmental justice issues.
The fact that few recognized minority groups live in the Central Whidbey *Area* does not mean bonafide Native tribes do not have an interest in federally owned lands in the region. Native American tribes inhabited this land well into the 1930s. Were any part of NASWI be surplused in the next quarter century the Samish and Swinomish tribes may well have a well founded claim and current federal law would give that claim priority status. The authentic voice of Samish Tribe has been ignored by the Federal Government until this year when it was granted status as a federally recognized tribe. Considering the indignity of past years we think the Federal Government should grant the Samish Tribe and its individual members every opportunity to comment on this proposal. The Coupeville OLF is land formerly inhabited by these native tribes, and over the past forty years the Coupeville OLF has been considered seriously for surplus by the Navy. In the 1950s and early 1960s aircraft operated out of NASWI of a *size* and type unsuited for use at Coupeville OLF. In fact the 5400 ft. runway at Coupeville does not meet the Navy's own criterion of 8800' minimum for use with high performance jet aircraft. For ten or more years after the Korean War the OLF Coupeville field was unused by the Navy. In 1964 the Secretary of the Navy, [redacted] (b) (6) publicly announced the Navy would surplus the field as reported in the June 4 Island Telegraph." When the new A-6 medium attack mission (for which NAS Lemoore was specially built) was brought to NASWI by the political clout of Senators [redacted] (b) (6) and [redacted] (b) (6) Coupeville OLF was eventually pressed into service despite its substandard status. The 1986 NASWI Master Plan indicates that Coupeville OLF is operated under special waivers.' In 1991 the Navy again considered closure of Coupeville OLF. Given this history and the substandard nature of the field it is likely that the property could well be surplused at the end of the EA-6B service life. WISE suggests the Navy prepare a removal and site restoration plan for the ECT in the event of disuse or surplus. The reason to do this is sound environmental practice and Environmental Justice since leaving an unused and unusable radar dome would devalue the land in the eyes of native people.

Comment number 5: more thorough safety assessment
Safety is the most important consideration for WISE. We share with the Navy the goal of seeing Coupeville OLF through to the end of its service life without another serious accident involving loss of property or life. The 1977 Navy AICUZ states:

Although the field is operationally important as a carrier qualification field, facilities at OLF Coupeville do not now meet criteria established for current FCLP operations levels. The following improvements are required:
a. Extend runways -- Runway 14/32 from 5400' to 8800' Taxiway from 4866 to 8800
b. Strengthen existing pavement
c. Improve roads and drainage
d. Acquire land in fee (Accident Potential Zone A land outside the base) 71 acres.[vii]

None of these required improvements have ever been implemented. WISE takes the position that in operating the field with disregard to its own minimum requirements the Navy potentially increases its liability in the event of accident. To willfully construct an additional building 45' in height on the Coupeville OLF base prior to implementing its own safety requirements adds an additional hazard to navigation and is wrong. 'The PEA recognizes the conflict in building an industrial use in the rural area and acknowledges that the NASWI master plan states "with no pressing need for additional facilities, construction

at OLF should be discouraged." page 3-14. In concert with our comment number two we do not feel the Navy has demonstrated this "pressing need."

WISE suggests that a full EIS is needed to determine the actual impacts and explore additional alternatives. If it is determined that the Radar Dome needs be built on this location, WISE holds fast to the claim that it should be no taller in height than other buildings in the area. This could possibly be achieved by building the first floor operators' structure underground.

Neither is WISE satisfied that EMI fiom the Radar Dome will not present a negative environmental impact. We dismiss claims of safe operation based on the absence of complaints in the course of operating the ECT on the Seaplane Base. These claims are not only unscientific but run contrary common sense and WISE experience. Over the past ten years WISE has fielded many complaints from individuals who felt either constrained to lodge a complaint with Navy or County officials, or were convinced it would do no good if they did. Where health concerns are involved effects may well be cumulative with no one acute incident to trigger a complaint, or the complaint itself may be manifest but neither sufferer or physician has thought to connect it with EMI. WISE also very much aware that different thresholds of sensitivity to environmental impacts is a reality. Nor are differences in sensitivity constant within an individual or living group. With the onset of outside stress or illness otherwise tolerant individuals can become sensitive to environmental pollution from chemical, biological, dust, noise or EMI pollution. Where the impacts of EMI on plant and animal life are concerned the possibility of complaint as a monitoring process is precluded only well documented independent scientific observation and testing could address the issue.

WISE suggests that if constructed the Navy have a plan to monitor complaints of all types relating to the radar and a commitment to address those complaints with effective mitigation if substantiated. WISE requests that a more detailed and scientific analysis of the possible impact on wild life be included in any subsequent EA or EIS pertaining to this project.

Comment No. *6:* Need for Antenna Propagation survey.

Several questions were asked at the meeting with Mr. [redacted] that concerned the amount of radiation expected over a 24 hr. period and its cumulative effect for the Coupeville area. He was unable to answer these. If the radiation is of sufficient strength to require a radiation hazard zone and special clothing by its operators then we feel that antenna propagation surveys need to be addressed in an EIS. The old common wisdom of "if you can't see it, taste it, or smell it, it don't exist", is no longer a acceptable rationale. All types of pollution can be harmful at threshold levels of detection, including radiation.

Summary: WISE has heard from its membership, and relays to the Navy that the proposed Radar Dome at Coupeville OLF is not without significant Environment Impact and therefore requires the completion of a full EIS. This fact is demonstrated the concern already expressed, not only by WISE, but by the National Parks Service, ELNHR, Town of Coupeville, and Native American Tribes. Significant Environmental Impact is also demonstrated by the fact that the Navy has already modified its project considerably in light of the NEPA process. The preferred site has changed from Pacific Beach to Coupeville, the total height of the facility has been changed from 75' to 45' with vegetation buffers and color changes.

If built without further mitigation suggested in this comment the historically conscious community of Central Whidbey would have to live with another military accretion forever, regardless of how long the facility was of actual use.[viii]
A full EIS would undoubtedly result in an even better project outcome.

Respectfully submitted for WISE by [redacted], president.

[redacted]

CNO/Logistics, Admiral [redacted]
Senator [redacted]
Congressman [redacted]
[redacted], NPS
[redacted], ELNHR
Honorable [redacted], Samish Tribe
Mayor [redacted], Town of Coupeville
[redacted], NCCC
Attorney [redacted]
[redacted], Editor
[redacted], reporter

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[i] Environmental study far too long overdue, Dec 26, 1990 Whidbey News Times /copy enclosed.

[ii] At the time these comments were written **WISE** was still having questionaires returned. One reason WISE requested the comment extension deadline was *to* have the benefit of the largest possible sample and have the opportunity *to* elicit specific feedback. In lieu of this expanded comment we feel a full EIS is even more important.

[iii] Mention of North Cascade Park users comments are found on page *6* of the Navy's 1989 Scoping Report / Environmental Impact Statement for the Management of Air Operations at NAS Whidbey Island.

[iv] Source is Aircraft Operations Accident Report NAS Whidbey, Washington May **1,** 1991 by FISE

[v] Photocopy of this Front Page enclosed

[vi] Copy of Waivers enclosed.

[vii] Copy of page **XI-22** of 1977 AICUZ enclosed.
[viii] Perspective on the lifecycles **of military weapons** systems compared to **natural** enviroment and community **consciousness** *can* be had from contemplating the front page **stories** reponed **on** the August *6,* 1970 Whidbey **News** Times. Reported was **community** outrage and **concern** over late night **training** at Coupeville OLF and the capture of Killer Whales in Penn Cove by [redacted]. Twenty-six years later the last A-6E is scheduled to stand down shortly and interest is growing locally and nationally in an effort to return Lolita, the last **survivor** of the **Penn** Cove capture to her free native environment.

Whidbey News-Times
December 26, 1990
OAK HARBOR, WASHINGTON

EDITORIALS

Environmental study far too long overdue

More than two years ago, the Navy held public hearings on its expanding operations at the Whidbey Island Naval Air Station. The idea was to do an environmental impact statement. The document was to include data on the impact Navy jets have when they fly over island homes.

More than a few people participated in the hearings, and at least a few of them suffered for speaking plainly. Business people who said the noise of jets hurt their ability to make a living were boycotted by people who saw the testimony as a condemnation of the Navy in general.

Whidbey Islanders for a Sound Environment, a group on Central Whidbey who has long attempted to hold the Navy accountable for increasing operations over island homes, bought its own noise monitors and started collecting its own data.

People from Whidbey to Anacortes to LaConner participated. The government set aside $500,000 to get the study done.

Then, last week, officials at the air station said it could take until June to complete the study.

This environmental impact statement is no longer just a bit tardy, it's downright overdue. At worst, it is a half million dollar boondoggle. At best, it is a series of mistakes, however well intentioned.

But regardless of the view one takes, the result is the same. The people who stepped forward and made their views known, sometimes at great personal cost, have seen only the downside of their participation. The people who trusted have been betrayed by a process that has not produced a single page of usable information.

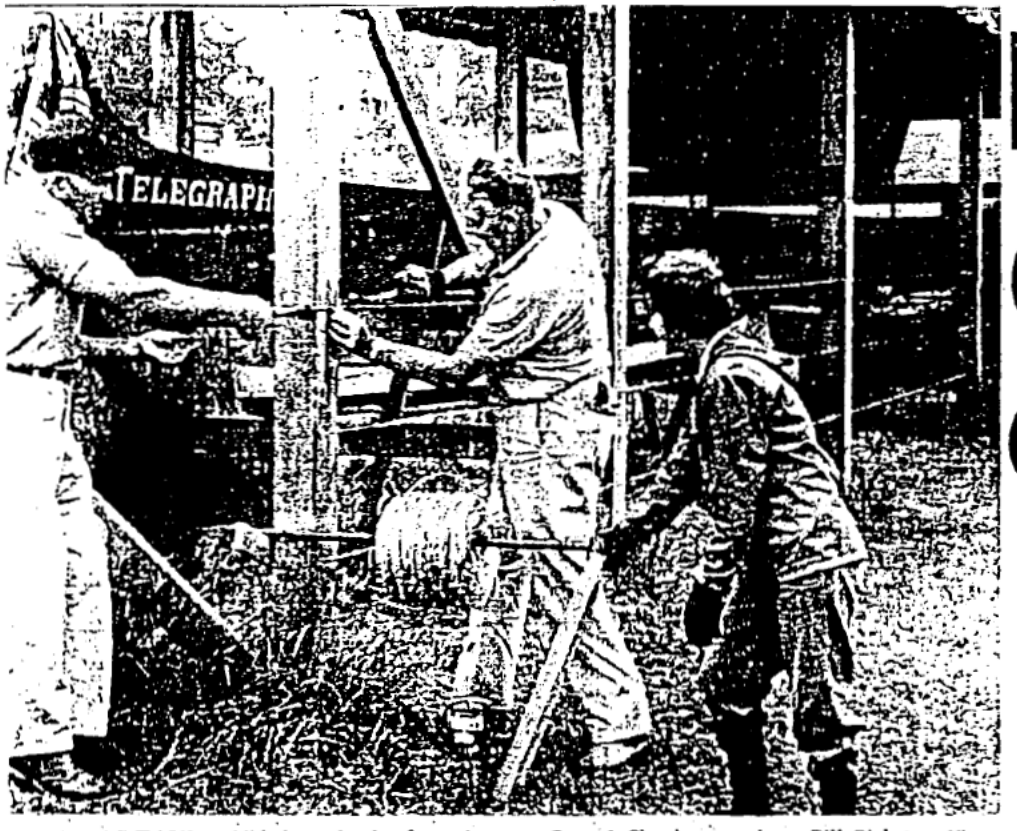
Navy insiders blame the delay on a document that was flawed from the beginning. Drafts were delivered, and rejected, as not being up to the standards the Navy was insisting upon.

While you can't blame Navy officials for insisting on better work, you can blame them for not making the effort necessary to *fix* what was wrong and deliver a document that clearly outlined the impact Navy operations have on the environment. If nothing else, the data could be used to justify the purchase of an alternative bounce field in the other Washington, which stands rather heavily on official documents and studies before making a decision.

Yes, the past year has been a tumultuous one for the Navy, and yes, it is easy to see why some of the information in the environmental impact statement is now out of date.

But tumult cannot shoulder the blame entirely for the delay. The people who gave up their time, who suffered for speaking out, deserve more than a 'sorry it's late' response. The Navy needs to be demanding more from the people preparing the study.

COUPEVILLE, WASHINGTON PRICE 10¢ THURSDAY JUNE 4,1964



THE TELEGRAPH -- With the onslaught of on, it took just one warm weekend to remind that their prize canoe collection needs pro- ng the Memorial Day weekend, kids scrambled the fragile old canoes. One was even sighted on the Blockhouse, posing while daddy took his picture. Central Chamber members Bill Pinkston, Vic Sealey and Lucille Reid got busy Monday stringing barbed wire around the canoes. As his part of the defense, Jack Williams has offered to shoot any kids he spots scaling the Blockhouse.

Navy release of airfield is confirmed

Civilian hopes are soaring on Whidbey this week following official confirmation from the Navy that it will release the Coupeville airfield for civilian use.

Word of the military decision was received late last week from U.S Senator Henry M. Jackson. Sen. Jackson had earlier alerted the island that a favorable decision was in the offing.

The large, unused field just south of Coupeville has been eyed by civilian fliers for some time as an ideal site for the island's potential air traffic. Initial negotiations for it were checked because of its proximity to the Navy's big air field north of Oak Harbor.

Sen. Jackson's letter last week was accompanied by a copy of a letter to him from Assistant Secretary of the Navy, Kenneth BeLieu. BeLieu's letter is printed here in its entirity, as the best report available of the situation at the moment:

My dear Senator:

This is in reply to your letter relative to the use of the Outlying Field Coupeville, Island County, Washington for civil general aviation. I am happy to report that it appears that an acceptable solution can be worked out to provide the civil general aviation needs.

Subject to a possible need within the Department of Defense which would be

The declaration of excess to the General Services Administration will include the provision that this excessing action is based on a need of Island County, Washington for a general aviation airport which has been certified by the Federal Aviation Agency.

In addition, certain operating provisions must be accepted to insure non-interference with air operations of NAS Whidbey Island. These provisions are:

a. That this civil airport will be designated for visual flight rules operation only unless otherwise mutually agreed to in a joint agreement between NAS Whidbey Island and the Coupeville airport manager.

b. That this civil airport be included in the NAS Whidbey Island control zone in order to assure flight safety through coordinated control.

c. That this civil airport's traffic patterns be established with prior Navy approval.

d. That the Seamount Airport revert to a private airport since the availability of Coupeville will obviate its need as a general aviation airport.

I trust that these arrangements will meet with your approval. The necessary implementing actions within the Navy Department have been initiated.

Sincerely yours,
Kenneth BeLieu
Assistant Sec. of the Navy

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horseshoe 4-H its second an- how Saturday, Howard Mc- n San de Fuca. ow will be held starting at 9 ernoon will be s, with What- l Island County icipating. ill be staged in arena on the ce, and lunch on the grounds

Sheriff's Log

Active public keeps officers on the move

Many and varied are the calls that come in to the Island County Sheriff's Office during a week's time. Some are serious and some trivial, but all must be checked and action taken. Men go out at all hours, just on a chance that it may be serious. A small portion of a week is reported:

May 27--Report that someone threw bottle through a window, (so said the innocent notation in the sheriff's log. What didn't appear, even between the lines was: eight cars full of juveniles from a high school in Snohomish County were allowed to use a private summer home on South Whidbey with no supervision. They were reported as drunk and disorderly on the beach and roads. When the deputies got there, they

Blockhouse Fund aided by donations

The Blockhouse fund in Coupeville is growing steadily, Bill Pinkston, secretary of Central Whidbey Island Chamber of Commerce reported this week. At the present time the fund in the bank amounts to $862.12, Bill noted.

Fran and Jerry collected $47 of this, on hot dog sales during their anniversary. The fifth grades at Clover Valley school in Oak Harbor and Pat's Cafe in Coupeville came in with another $10

Epidemic scare quickly downed

A frantic call came in to the Sheriff's Office this week, a man wanting information on a typhoid epidemic in Aberdeen. He had heard it on his transistor radio while he was out fishing

Woman injured as car upends in the ditch

A car turned upside down on the Crescent Harbor Road Tuesday afternoon about 3:30, injuring the passenger and landing on its top in the ditch.

The automobile, driven by Laeton Roberts, was coming from the enlisted area of Capehart Housing, when it hit the soft shoulder near Gate 5 and turned over. Mrs. Alma Roberts, wife of the driver, was taken to Station Hospital unconscious and bleeding badly.

Word from the hospital Wednesday morning reported that Mrs. Roberts had suffered

RECEIVED
OCT 3 1986
PLANNING DEPT.

NAS WHIDBEY ISLAND

MASTERPLAN UPDATE

* * * * * *

Existing Conditions Report

30 September 1986

western Division Naval Engineering Facilities Command

. Contract Number N 62474-85-C-5608

OLF Coupeville Waivers

C-1: (a) To permit end zones for Runways 14 and 32 to remain narrower than 1,500 feet required by criteria and to be crossed at outer corners by roads; (b) To permit clear zones for Runways 14 and 32 to remain approximately 1,300 feet wide in lieu of the trapezoidal areas required by criteria; and (c) TO permit the runway length to remain 5,400 feet in lieu of 8,550 feet length required.

C-2 (T): To temporarily permit a glide angle of 2°15' (approximately 25:1) in lieu of the required 50:1 approach slope. Built constraints are summarized on Figure Nos. 22 and 23.

REPRODUCED AT GOVERNMENT EXPENSE

surrounding community; it is likely that noise complaints may increase somewhat from areas under the night FCLP patterns on Runways 24, 13 and 31. The fact that 15,000 Operations can be added to Ault Field without changing the AICUZ makes It clear that CNR contour corrections are step-functions which allow for considerable leeway in operational level. FCLP operations at Ault Field would have to triple before the difference would be reflected in the CNR contours.

Costs incurred in implementation of this strategy are centered on administrative expenditures. This strategy implies careful scheduling of FCLP operations. Planning of deployment activity by the Wing Commander will ease FCLP loading at Ault Field.

In the event overloading does occur at Ault Field, it would be possible to construct a parallel runway (designated 13R-31L) such that at all times one of the parallel runways would serve FCLP operations and the other could accommodate arrivals and departures. A runway 8,800' in length with associated taxiway and lighting systems may cost $40-70 million.

On the other hand, the Wing Commander could assign FCLP deployment to other Pacific Fleet support facilities. However, there are considerable costs associated with this course of action which are difficult to accurately estimate. There would be transfer of maintenance facilities and maintenance personnel as well as aircraft squadrons and dependents.

Although the field is operationally important as a carrier qualification field, facilities at OLF Coupeville do not now meet criteria established for current FCLP operations levels. The following improvements are required:

a. Extend runways--
   Runway 14/32 from 5,400' to 8,800'
   Taxiway from 4,866' to 8,800'
b. Strengthen existing pavement
c. improve roads and drainage
d. Acquire land in fee (APZ A lands outside the base) 71 acres.

The cost of bringing OLF Coupeville up to standard is approximately $8.75 million. Should operations at OLF Coupeville continue, it is likely that if planning and zoning alternatives were unsuccessful, extensive restrictive use easements would also have to be acquired since OLF Coupeville is in an area more prone to second home subdlvision development than Ault Field.

1977 AICUZ

WHIDBEY news·times

VOLUME 78 Oak Harbor and Coupeville, Washington, Thursday, August 6, 1970 NUMBER 47

For Whidbey Residents and Navy Officials—

Training Flights - Sleepless Nights

By Julie Walker

Several dozen residents in the Admirals Cove area of Whidbey Island are losing a lot of sleep, literally, over the Navy's use of its Coupeville landing field for night flying. However, the Navy is also losing a lot of sleep, although figuratively, over the same problem.

According to residents, the "situation is critical," "exceedingly dangerous" and "Admirals Cove is threatened with becoming a ghost town."

The planes, they say, are flying as low as 500 feet above their homes and the noise is unbearable — nerves are on edge, conversion is impossible and sleep is at a bare minimum. A physician in the area points out that the noise is also hazardous to health.

The residents are also afraid that there will be an accident and possibly injuries. They point out that the Navy pilots are training and "accidents will happen." Last week, for example, one Navy plane, flying out of the set flight pattern, lost a non-explosive training device in the area. The device, used by the pilots for bombing practice over the water, landed in an unpopulated area and did no damage.

Letters have been sent to Senator Henry Jackson and Congressman Lloyd Meeds urging action to halt, or at least limit the number of flights during one night. A petition with over 100 signatures of persons in and surrounding Admirals Cove and a tape-recording of one night's flight training over Admirals Cove have also been sent to Jackson.

Jackson and Meeds, the residents agree, "have been most cooperative and very interested." They have sent inquiries to Naval officials and answered the residents inquiries. However, they admit little can be done.

According to Capt. E. J. Winter, chief of staff, Fleet Air Whidbey, there are only two alternatives open to Navy — both of them unfeasible. The Navy could overload the Oak Harbor field or abandon its Whidbey Island location completely.

He ruled out limiting the flights because of the tremendous number of pilots who need training in carrier landings.

Winter said the Coupeville field is an auxiliary one which was reopened in Mid-1969 to take some of the burden off the Oak Harbor field and residents. At that time, he said, there was very little de-

(Continued on page 6)

Oak Harbor, Wash. Thursday, August 6, 197

Training Flights

(Continued from page 1)

velopment in Admirals Cove.

He added that at one time, according to records, the secretary of the Navy proposed that this field be jointly used by civilian and Naval aircraft and proceedings for this had started when it became apparent that A-6 squadrons would be forming at NAS Whidbey and the pilots would need the field for training. At no time, he said, were there plans to completely abandon the Coupeville field.

If the Navy vacated the Coupeville field, the possibility of mid-air collisions, serious injuries and deaths would increase greatly because of the wide variety of aircraft used at Ault Field, he said.

He pointed out that Whidbey Island would suffer both tremendous losses, both financially and population-wise, if the base at Whidbey was abandoned and the personnel moved elsewhere. There are 12,000 dependents and 6,000 enlisted men, not including reservists, on the island because of the base. Winter said. Financially, the island would lose an estimated $60 million a year in payroll and unemployment would rise significantly.

Training flights are continued all year. Winter said, but during the summer when the nights are shorter, the residents are more aware of them because more flights have to be made in a short-

er period of time.

He added that the Navy h a made attempts to inform prospective buyers in that area of the flight pattern through newspaper articles, the Central Whidbe Chamber of Commerce an through Navy briefing teams the area high schools.

According to the residents, the were there first or they were n informed of the flight patter They point out that the realt who so'd many of them their pr erty also built his home in A mirals Cove. "Would he h a v done that if he had known abo the flights?" one resident queri

Most of the residents have co to this area to relire or to g away from the noise and bust of the city; some are recuper ing from serious illnesses. Th all are indignant when it is su gested by some that they mov

"People have invested the life's savings in this area," o woman stated.

In an effort to educate the u happy, and in many ways, wea residents of Admirals Cove, t Navy has set up a meeting i August 11 in the Coupeville re reation hall at 7 p.m. The Nav Winter said, hopes to impre upon those concerned, the nece sity of landing operations and, u insignificantly, the importance the Navy to the Whidbey co munity.

WISE

WHIDBEY ISLANDERS FOR A SOUND ENVIRONMENT

A NONPROFIT PUBLIC BENEFIT CORPORATION

Post Office Box 773 Coupeville, WA 98239

June 23, 1996

Vice Admiral [redacted] (b) (6)
Deputy Chief of Naval Operation (Logistics)
Washington, D.C. 20350

Dear Admiral [redacted] (b) (6)

On June 17, 1996 Whidbey Islanders for a Sound Environment (WISE) commented on the Preliminary Environmental Assessment (PEA) for Electronic Combat Training Facility at OLF Coupeville, NASWI. A copy of that comment is enclosed. We wish to notify you that we find the Navy (PEA) deficient to such a degree that the only effective remedy would be escalation of the environmental review process to the status of a full EIS. We are asking you and your staff to immediately bring this project under closer scrutiny.

Two points should be sufficient to justify a thorough review:

1. The Finding of No Significant Impact (FONSI) in the PEA is negated by the fact WISE (a registered non-profit corporation representing 140 households neighboring the proposed site), The National Parks Service and Ebey's Landing Historical Reserve, The Samish Tribe (a federally recognized Native American Tribe), The Town of Coupeville and the North Cascades Conservation Council have all comment to the significant environmental impact of this project.

2. The fact that such comment as has been received by the Navy has been unduly rushed by a "hurry up" EA process. WISE asked for and was denied a twenty day extension on the June 17 comment deadline. And while WISE was able to meet this deadline other commentors were not and themselves asked for additional time and opportunity to comment.

We have grave doubts about the environmental appropriateness of this project and even worse concerns over the process that has brought it to this impasse.

Thank you very much for your time and consideration of this matter.

[redacted] (b) (6)

[redacted] (b) (6), president

WISE

WHIDBEY ISLANDERS FOR A SOUND ENVIRONMENT

A NONPROFIT PUBLIC BENEFIT CORPORATION

Post Office Box 773 Coupeville, WA 98239

Officers and Board of Directors
1996

President, (b) (6) -- Writer, editor, and independent communications consultant.

Vice President, (b) (6) -- Retired photographer, magazine editor.

Secretary, (b) (6) -- (b) (6) is a technical writer for Boeing.

Treasurer, (b) (6) -- Businessman and private pilot. President Coupeville Arts Center. Former president of Central Whidbey Chamber of Commerce and Island County Economic Development Council

(b) (6) -- Fourth generation Whidbey Islander, associate innkeeper of the Captain Whidbey Inn.

(b) (6) -- Coupeville school teacher, member of Coupeville town council and Ebey's Landing Historical Reserve Trust Board.

(b) (6) -- Specialist in native plants he is owner of Inside Passage a business to collect, propagate, and distribute native seed plants.

(b) (6) -- Retired Naval Aviator whose last duty was operations officer at NAS North Island in 1984.

The following associate board members have an advisory role intended to extend the regional scope the Board and act as liaison to neighboring communities.

(b) (6) M.D. (La Conner) --Anesthesiologist at Mt. Vernon Hospital

(b) (6) (Lopez Is.) -- Private pilot and business owner.

(b) (6) M.D. (Anacortes) -- Former Naval flight surgeon, in private practice.

(b) (6) (North Whidbey) -- Retired Naval officer and computer expert.

Contact information is found on the back of this page.

April

(b) (6)

Coupeville, WA 98239

Adm. J. M. Boorda, USN
Chief of Naval Operations
Dept. of the Navy
Room 4E 660
The Pentagon
Washington D.C. 20350

Dear Admiral Boorda,

The purpose of this letter is to request your review of the flight safety impact associated with a decision to locate and construct a Radar Station at the Coupeville Outlying Field.

Attachment 1, from the Naval Facilities Engineering Command dated Nov. 2 1995, describes the Radar Station a being 70 to 80 feet high and requiring 275 KVA of power. The location proposed, is scaled from the drawing, as being adjacent to and 889 feet from the side of the active runway. The Engineering Command says that three sites are under consideration for the Station.

Attachment 2, is a newspaper article dated April 22,1996 which quotes a spokesman at NAS Whidbey as saying a decision has been made to locate the Radar Station at the Coupeville Outlying Field. The Environmental Assessment has not deen released.

The Coupeville Outlying Field is used by NAS Whidbey exclusively for Field Carrier Landing Practice (FCLP). training is conducted for both daytime and night Aircraft Carrier landing.

I am requesting your review of the following seven operational factors associated with the Coupeville Outlying Field and an associated review of the decision to locate this Radar Station at the Coupeville Field as compared to other options.

1. Last year NAS Whidbey performed 19,954 flight operations at this landing strip.

2. Pilots practice day and night carrier landing at this field.

3. Some of the pilots have as little as 50 flight hours experience in the EA-GB aircraft when they start using this field. Air Force pilots are now being trained at the field and some of them have never flown a Navy airplane prior to assignment to a Navy/Air Force squadron.

4. Wave-offs from missed carrier landing approaches are frequent.

5. Weather is sometimes marginal at this location with fog or rain

6. Aircraft are not permitted to land on the strip except in an emergency because the runway is too short.

7. If an aircraft flying at 300 knots veered off the runway center li e there would be less than 2 seconds required to cover the 889 feet of distance between the runway and the Radar Station. If en EA-6B impacted the Radar Station, it would likely destroy the aircraft as well as the Radar Station and would probably fatally injure the flight crew as well as any personnel inside the Station.

I believe there are three questions that need to be reviewed prior to a final decision to locate this Radar Station at the Coupeville Outlying Field. These are:

1. The Radar Station is a very high cost facility. Are the benefits worth the risk of having the Station destroyed when other locations are available that do not have Intense flight operations adjacent to the facility?

2. This large facility which is 75 to 80 feet high and 889 feet from the active runway presents a flight hazard which does not currently exist at the field. Is compromising Safety, whatever the risk may be, consistent with flight safety being the number one priority for Naval Aviation?

3. In light of all the recent aircraft accidents and concerns about flight safety, both within the Navy and including civilians on the ground. Do you feel that locating this facility next to an active runway is the best decision for the Navy and the community?

I look forward to a response to these concerns and I will share your thoughts with others in the community who have similar interests.

Sincerely,

(b) (6)

Professional Engineer
Former Mayor of Coupeville

June 11, 1996

[redacted] (b) (6)

Coupeville, WA 98239

Mr. [redacted] (b) (6)
Public Affairs Officer
Naval Air Station Whidbey Island
Oak Harbor, WA 98278-5000

Dear Mr. [redacted] (b) (6):

This Letter responds to your invitation to provide comments on the Preliminary Environmental Assessment Report for the proposed Electronic Combat Training Facility.

My comments are attached and are in the form of a letter from Vice Admiral W. A. Earner, to me, stating that the Assessment Report would include a safety review "addressing the concerns raised in my letter of April 27, 1996." My letter of April 27, 1996 is currently included in the Assessment Report.

Further comments are in my letter of June 11, 1994 to Vice Admiral [redacted] (b) (6), which details some of the safety criteria that should be in the Assessment Report and concludes that none of the 14 possible locations studied to date, is a suitable location for the ECTF.

Thank you for the opportunity to comment on this important training facility.

Sincerely,

[redacted] (b) (6)

17 JUN 1996
Chrono
N4460

Copy to N44
17 June 96
MIL

June 11,1996
(b) (6)
Coupeville, WA 98239

Vice Admiral (b) (6)
Deputy Chief of Naval Operations (Logistics)
Washington, D.C. 20350

Dear Admiral (b) (6):

Thank you for your response to my letter of April 27, 1996 regarding construction of a Radar Station (Electronic Combat Training Facility) at the Coupeville Outlying Field in Washington State.

Since your letter of May 20, 1996, I have had the opportunity to review a Preliminary Environmental Assessment document and provide comments to Mr. (b) (6) who is the Base Public Affairs Officer at NAS Whidbey.

Your letter stated that the Environmental "Assessment would address the concerns (flight and ground safety) raised in my letter". In this connection, I want to advise you that as of this date the Assessment contains no discussion or evaluation of the 14 possible locations for safety and in particular, there is no discussion of the possible of probable accident potential at the Coupeville Outlying Field. In addition, my name was not on the distribution list, as you said it would be. However, my letter on safety was included in the report. I have discussed these omissions with Mr. (b) (6), representing NAS Whidbey, and he will not commit to do the Safety analysis that you said would be done, in your letter to me. I am recommending that the Assessment include a discussion and analysis of the safety criteria included in my letter of April *27,* 1996 and listed in the attachment to this letter.

The Assessment states that out of 14 possible locations "OLF Coupeville was the only acceptable location to implement the Proposed Action". However the Assessment Report further states that the Signal Direction of Arrival (DOA) Separation "is fair but acceptable" at OLF Coupeville.

It seems to me, as a professional engineer, that to invest $20 million dollars in a system that is only "fair" at the outset, and is probably not safe, is a mistake that the Navy would want to avoid. In my opinion there are many more possible locations than the 14 selected for assessment. The Navy should either re-examine some of the current possible selections or select some new possible selections and should not start construction at a location unless all of the performance parameters are "good" as opposed to "fair", and the installation is safe.

I thank you for your interest in this matter. We all want to see our air crews properly trained and they deserve the best training possible (better than "fair") and the ground crews that maintain and operate the Training Facility need to perform their duties without fear of an aircraft crashing into the Training Facility.

I would appreciate your continued review of this project.

Sincerely,

(b) (6)

Professional Engineer
Former Mayor of Coupeville

Attachment

ELECTRONIC COMBAT TRAINING FACILITY
ENVIRONMENTAL ASSESSMENT REPORT

RECOMMENDED SAFETY REVIEW

1. Several years ago an EA-GB aircraft crashed at Coupeville OLF. The aircraft was destroyed and the crew were killed. Include in the Assessment Report **a** map showing the crash site as compared to the proposed ECT facility location.

2. Based on the above crash and the number of flight hours in the patterns since the crash, calculate the accidents per million flight hours at Coupeville OLF and compare this accident rate with the accident rate at the other 13 possible locations.

3. Specify the external lighting to be provided for the Radome and the **45** foot antenna and discuss the possible distraction these lights may have on pilots practicing night carrier landings.

4. Identify the number of flight operations performed at Coupeville OLF last year.

5. identify the number of wave-offs by LSO's last year

6. Discuss the level *of* training and experience for pilots who are using the field for the first time.

7. Make an overall assessment as to whether the level of safety degradation caused by the Electronic Combat Training Facility at Coupeville OLF is consistent with Safety being the highest priority for Naval Aviation .

To: [redacted] (b) (6)

cc:
Bcc:
From:
Subject: Fwd: Navy Radar Improvements at Whidbey NAS
Date: Friday, June 21, 1996 8:11:42 PDT
Attach:
Certify? N
Forwarded by:

- - - - - - - - - - - - - - Original Message - - - - - - - - - - - - - -
To: [redacted] (b) (6) >
From: [redacted] (b) (6) (b) (6)
Date: 18, 1996 at 5:38:39 am PDT
Attached: None

In 1989 as then-president of North Cascades Conservation Council, I participated in a scoping process for possible operations changes in the use of Ault Field and a landing site in eastern Washington. I requested to be kept informed about changes involving Whibey NAS overflight of the Cascades mountain range. Recently, I learned that you are the Public Affairs Officer in charge of comments on a new facility -- the Coupeville Electronic Combat Training Facility (ECT). I would like to have an opportunity to review the materials describing this facility and the projected impact on military overflights in the Puget Sound lowlands and the Cascade Mountains. Can you please send me the available documentation on the proposal and its implications.

From discussions, I have learned that the Navy considers that only an Environmental Assessment addressing the construction of a radar dome near the current airfield is sufficient to meet the requirements of NEPA. I would argue that the full range of environmental impacts affected by operations associated with the facility constructed would constitute the appropriate geographic scope for the evaluation. This would probably entail the study and evaluation at the level of a full EIS to adequately account for the impacts. I urge you to consider the Cascades and Puget Sound lowlands as the "affected environment" as a result of the new training proposed.

I request the opportunity to revise the views expressed above in light of a concrete description of the proposal. As you can expect, our members are very upset with the continued disturbance to recreation and wildlife that we experience in the Cascades.

Sincerely,

[redacted] (b) (6)

5 February 1997

(b) (6) [redacted] National Director
US Navy League
(b) (6) [redacted]
Oak Harbor, WA 98277

(b) (6) [redacted]
Department of Community Development
Office of Archeology and Historic Preservation
PO Box48343
Olympia; WA 98503-8343

Sir:

It has been brought to my attention that you are requesting inputs on the proposed siting of the Navy's new P-100 Electronic Combat System Trainer located on the Navy's Coupeville: Outlying Facility.

Having closely viewed the area and observed the computer modelled current and planned structures, it is apparent to me that this much needed training facility poses no threat to the aesthetics of the surrounding area and that the planned landscaping and coloration of the structure will be an enhancement to the current view.

If one looks at the adjacent Fort Ebey Preserve, one observes the logging that has taken place and also the construction of private structures within the reserve.

Having lived here on Whidbey Island for the past 30 years, I must state that the Navy has been excellent stewards of the Coupeville OLF and that, again, the area's developers are continuing their efforts to disturb this long and peaceful alliance...

It is suggested that you endorse the planned structure as it will be aesthetically pleasing., pose no detriment to the environment, and necessary to ensure the critical training requirements of our Naval flight crews.

Thank you for your consideration.

Sincerely,

(b) (6) [redacted]

National Director
US Navy League

Mr. [redacted] (b) (6)
Department of Community Development
office of Archeology and Historic Preservation
P.O. Box 48343
Olympia, WA 98504-8343

February 5, '1997

Dear [redacted] (b) (6),

It has just came to my attention that the Navy 'is planning to build a "dome" on 'the Navy's airfield at Coupeville, Washington,: Apparently, your vffice is involved with this project; thus: this letter.

I feel sure you ake aware that the Navy at Naval Air Station, Whidbey Island, has been assigned the task of training both Navy and Air Force personnel 'in electronic 'warfare.

In order to meet current and future electronic warfare training requirements, it is essential that this "dome" be built as planned at the Navy's airfield at Coupeville. I assume that you are :aware of the role that EA6B squadrons play in actual combat.' Rarely, if ever, are attack missions schedulkd without the electronic warfare aircraft(EA6B) preceding the attack aircraft to suppress enemy weaponry.

Because the Navy's plans to landscape the area ,around the:"dome" are quite extensive,. there 'willbe no significant impact on *the* aesthetics! of the area.

:Clearly, this training facility will have a reai effect on increasing Navy and Air Force readiness. Increased read'iness always has a positive effect on reducing personnel casualties. That's what this training .device is all about!

.I ask that your office do what it can do to approve this project.

Thanks for listening.

Sincerely, [redacted] (b) (6)

(b) (6)

.Telephone: [redacted] (b) (6)

Mr. [redacted] (b) (6)

February 5, 1997

Department of Community Development
Office of Archeology and Historic Preservation
PO Box 48343
Olympia, WA 98504-8343

Dear Mr. [redacted]:

I am writing to you regarding a Navy proposal to place an electronic warfare training facility near the Navy's Outlying landing Facility (OLF) at Coupeville, WA.

I have lived in Oak Harbor, WA since 1969 and am well aware of the various local community groups, who either support or resist the efforts of the Navy to maintain a viable training environment for the EA-6B aircraft. I am also aware of the environmental concerns with regard to growth in this area.

My letter to you is in support of the Navy in this instance. I have seen the Navy plans for construction of the domed facility and how they propose to "blend" it into the surrounding area. I have also visited the proposed site and feel those plans are well-suited to the existing environment, both natural and man-made. I note that it may, in fact, be an improvement over existing private structures near the site.

Please consider the value that this facility will provide to the training of current and future electronic warfare aircrews and to maintaining our Navy's overall operational readiness. In my opinion, this value far exceeds any impact on the aesthetics of the area and will in no way affect a visitor's appreciation of this beautiful island.

Sincerely,

[redacted] (b) (6)

Oak Harbor, WA 98277

EDAW

March 19, 1996

[redacted] (b) (6)
U.S.Fish and Wildlife Service
3074 Griffin Lane, Suite 102
Olympia, Washington 98501

Landscape Architecture
Planning
Urban Design
Environmental Analysis
Sire Engineering
Graphic Design

Dear Mr. [redacted] (b) (6).

The Department of the Navy is preparing an Environmental Assessment to evaluate the potential environmental effects of constructing an eiectronic combat training facility near Coupeviile. Washington within the Naval Air Station Whidbey Island. The legal description of the proposed sire is **Township** 31N, **Range** 1E, Section 12. X map has been attached identifying this location.

EDAW, Inc.
1505 Western Avenue
Suite 601
Seattle, WA 98101
206 622-1176
FAX 206 343-9809

EDRW, Inc., a contracted consultant to the Navy, requests a list of any threatened or endangered plant and wildlife species that potentially occur within 1 miie of this proposed project. If you have any questions regarding this request. please call me at [redacted] (b) (6). Thank you.

Sincerely,

[redacted] (b) (6)

Biologist

San Francisco
Alexandria
Atlanta
Denver/Fort Collins
Imine
Seattle
Phoenix
London
Glasgow
Berlin
Sydney

f:\project\2e40708\corresp\letter\fwsreq.wp

EDAW

March 19, 1996

[redacted]
Washington Department of Fish and Wildlife
600 Capital Way North
Olympia, Washington 98501-1091

Landscape Architecture
Planning
Urban Design
Environmental Analysis
Site Engineering
Graphic Design

Dear Ms. [redacted],

The Department of the Navy is preparing an Environmental Assessment to evaluate the potential environmental effects of constructing an electronic combat training facility near Coupeviile. Washingron within the Naval Air Station Whidbey Island. The legal description of the proposed site is **Township 31N, Range 1E, Section 12.** X map has been attached identifying this location.

EDAW, Inc., a contracted consuitant to the Navy, requests a list of any rare. threatened. or endangered plant and wildlife species that potentially occur within 1 miie of this proposed project. If you have any questions regarding this request. please call me at [redacted] Tinank you.

EDAW, Inc.
1505 Western Avenue
Suite 601
Seattle, WA 98101
206 622-1176
FAX 206 343-9809

Sincerely,

[redacted]

Biologist

San Francisco
Alexandria
Atlanta
Denver/Fort Collins
Irvine
Seattle
Phoenix
London
Glasgow
Berlin
Sydney

f:\project\2e40708\corresp\letter\wdfwreq.wp

EDAW, Inc.
15.05 Western Avenue, Suite 601
Seattle, Washington 98101
Tele (206) 622-1176, Fax (206) 343-9809

MEMORANDUM

TO: [redacted], Ebey's Landing National Historical Reserve
[redacted], National Park Service

FROM:

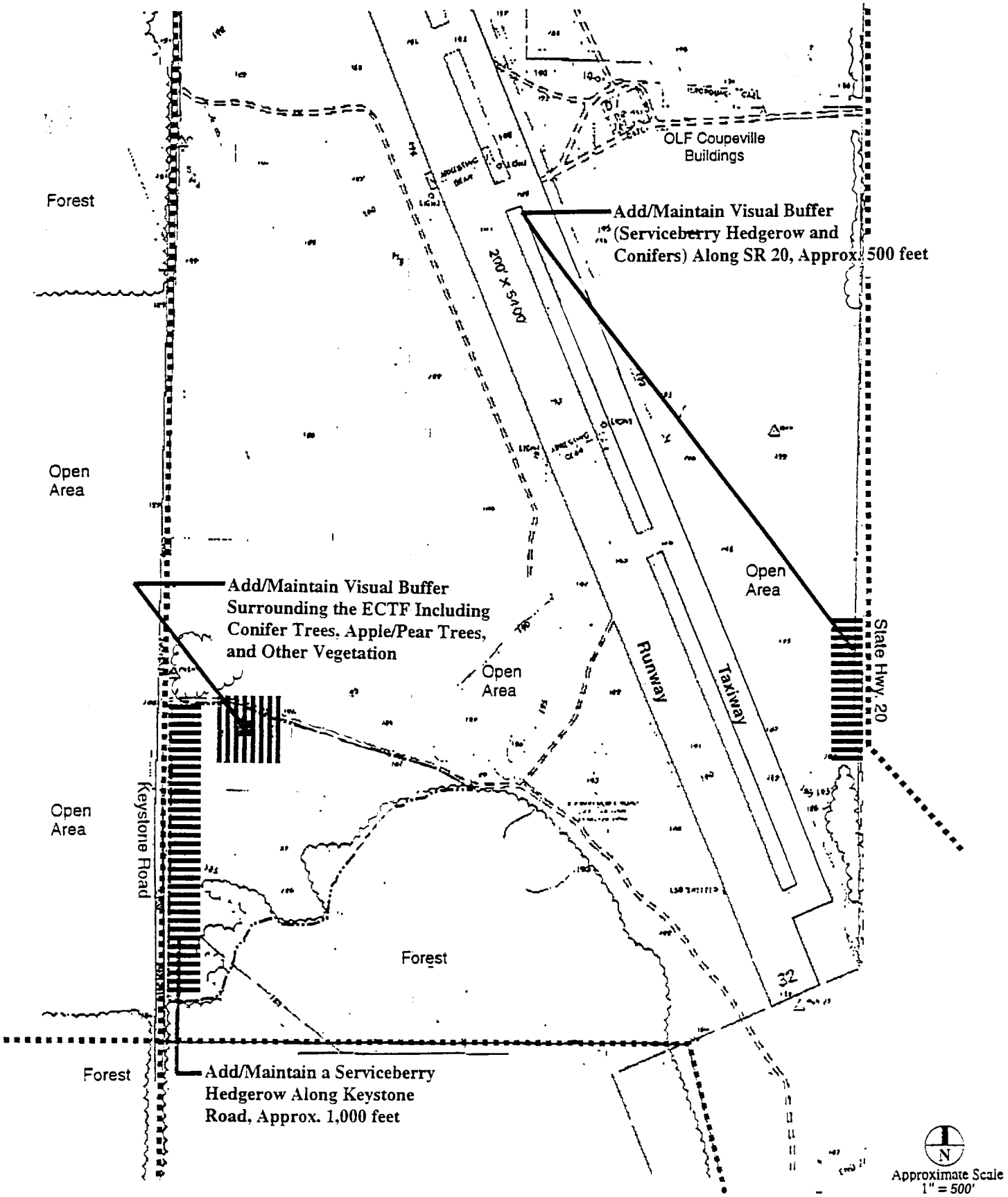
DATE: September 16, 1996

RE: Proposed Navy Electronic Combat Training Facility (ECTF) at OLF Coupeville - Meeting of September 10, 1996

I wanted to thank you and the members of the Trust Board for meeting with myself and Navy respresentatives to discuss the Navy's proposed ECTF at OLF Coupeville. I feel that we all came away with a better understanding of the issues associated with the OLF Coupeville site and the lack of an alternative site. Good input was received and is very much appreciated.

The Navy's mitigation package is essential to the proposed ECTF project. Several new ideas were discussed at the meeting which I feel can further enhance the Navy's mitigation package and lessen the visual impact of the ECTF. These new ideas are discussed below for consideration by the Trust Board. Your input and acceptance of these measures is requested.

1. The Navy would commit to removing the round radome portion of the ECTF (top 30-32 feet of the facility) after the facility is no longer needed for aircrew training. This measure would limit the duration of the impact. It is not known when removal would occur; however, the radome would no longer be a permanent impact. The lower 13 foot high building would remain and be reused.
2. The Navy would install and maintain a second visual buffer along State Route 20 (see Figure 1). The buffer would consist of serviceberry hedgerow and douglas fir trees to match the existing vegetative buffer along SR20. This new buffer would significantly limit the view of the ECTF from motorists or others traveling along SR20, especially as motorists enter Smith Prairie at the southern curve.
3. The gravel access road to the ECTF would be curved to minimize views to the ECTF from motorists or others traveling along Keystone Road (see Figure 2). The intersection of the access road would be relocated to the existing road alignment and would curve southward.



Memorandum of Agreement **Visual Screening Concept**

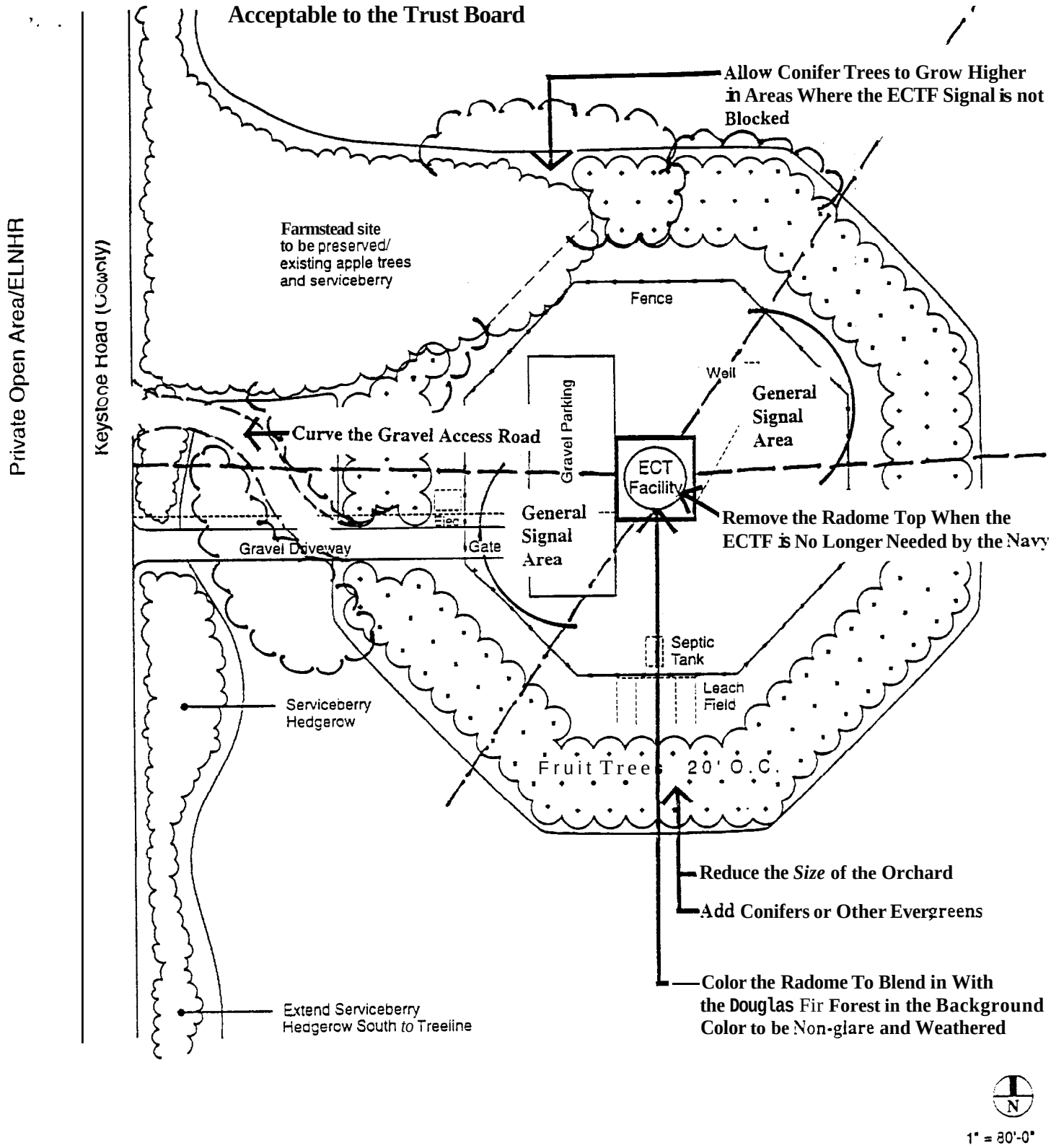
Figure **1**

4. The landscape mitigation plan for the area surrounding the ECTF (see Figure **2)** would be revised to reduce the number of apple/pear trees to be consistent with a subsistence-level orchard traditionally found in the District. The exact number of trees would be worked out later following review of other orchards in the District. Evergreen conifers would also be added to the landscape plan to provide year-round screening. The Navy would work with the Trust Board to finalize a plan acceptable to both parties.
5. The height of the apple/pear trees and conifers to be planted around the ECTF would vary depending upon the ability of the ECTF signal to reach the aircrews. Trees planted within the general signal area would need to be kept lower (approximately 1/3 up the radome in height). Other trees surrounding the ECTF would be allowed to grow taller if they do not block the signal. Figure **2** shows where the approximate signal areas are located. The majority of the trees would be allowed to grow to their full height thus screening the top of the radome. Taller trees along the northern portion of the ECTF would block views from the proposed interpretive wayside along Patmore Road.
6. In the past, the Navy has indicated that the site of the District's proposed interpretive wayside along Patmore Road (future vacated County right-or-way) was not suitable because of safety concerns. The proposed wayside would be a likely location for visitors and residents to watch take-off and landing practice at OLF Coupeville and the safety issue must be fully considered before concurrence can be given to the Trust Board. NAS Whidbey Island will further research this issue and will contact the Trust Board regarding this issue in the next few weeks. The Navy feels that it is important for the mitigation plan to congregate visitors to the District away from the proposed ECTF to minimize visual impacts. The proposed site of the wayside is about a mile away from the ECTF and the ECTF would appear very small in the distance below the treeline. The proposed wayside is a perfect opportunity to accomplish this goal. Therefore, the Navy would like to work with the Trust Board on the proposed wayside project (see Figure 3).

In addition, it was discussed at the meeting that the Navy would enter into a Section 106 process with the *SHPO* and would complete a Memorandum of Agreement (MOA). The Trust Board would be a main party to the MOA. In addition to the final mitigation measures listed in the NEPA document, the MOA would provide the Trust Board with additional assurance that the measures would be carried out, such as maintaining the landscape over time. The MOA would be an agreement between NAS Whidbey Island and the SHPO with the Trust Board as a party to the MOA. A draft MOA has been prepared and is included for consideration by the Trust Board. It has not been forwarded to SHPO or other agency at this time. Your input on the MOA would be appreciated.

Thank you again for your input. Please contact Mr. (b) (6) at NAS Whidbey Island at (360) (b) (6) with your comments and further input.

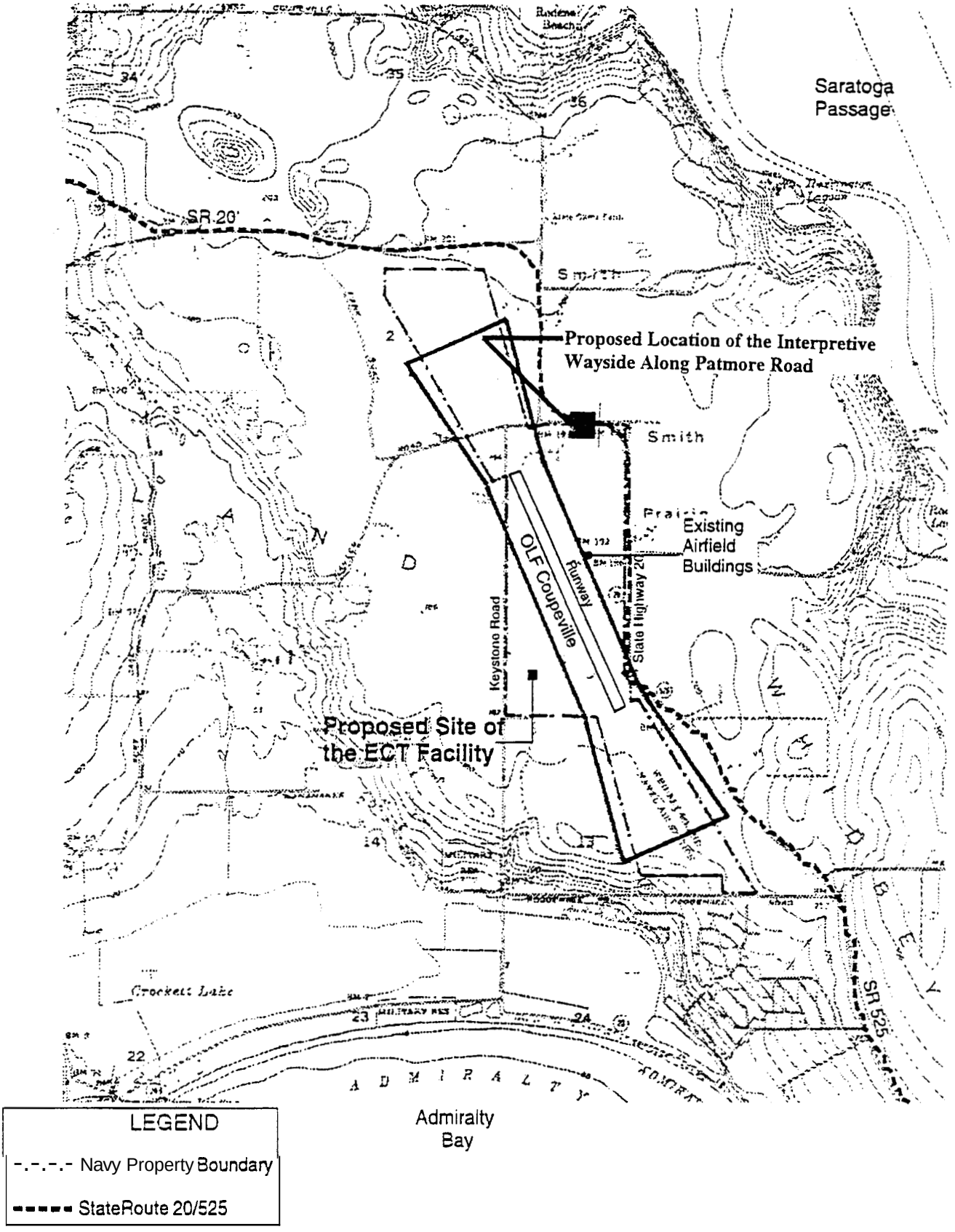
Note: Comments Received From the Sept. 10 Meeting Are Shown Here and Are the Basis of a Revised Plan Acceptable to the Trust Board



Memorandum of Agreement

Visual Screening Concept

Figure 2



Memorandum of Agreement **Interpretive Wayside Location**

Figure *3*

DRAFT

MEMORANDUM OF AGREEMENT BETWEEN NAVAL AIR STATION, WHIDBEY ISLAND AND THE WASHINGTON STATE OFFICE OF ARCHAEOLOGY AND HISTORIC PRESERVATION, REGARDING THE CONSTRUCTION AND OPERATION OF AN ELECTRONIC COMBAT TRAINING FACILITY AT OLF COUPEVILLE

WHEREAS, Naval Air Station (NAS), Whidbey Island recognizes the Central Whidbey Island Historic District (District) and collocated Ebey's Landing National Historical Reserve are listed on the National Register of Historic Places; and

WHEREAS, NAS, Whidbey Island has determined that a second Electronic Combat Training Facility (ECTF) is needed to meet its aircrew electronic combat training needs and that Outlying Field (OLF) Coupeville, a component of NAS, Whidbey Island, has been determined by NAS, Whidbey Island to be the only suitable site to operate and construct a second ECTF; and

WHEREAS, the operation and construction of a second ECTF at OLF Coupeville by NAS, Whidbey Island will have an adverse effect upon the District thereby requiring mitigation measures; and

WHEREAS, NAS, Whidbey Island consulted with the Washington State Historic Preservation Office *(SHPO)*, the Trust Board of Ebey's Landing National Historical Reserve (Trust Board) and National Park Service, and the Advisory Council on Historic Preservation (ACHP) pursuant to 36 CFR Part 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f);

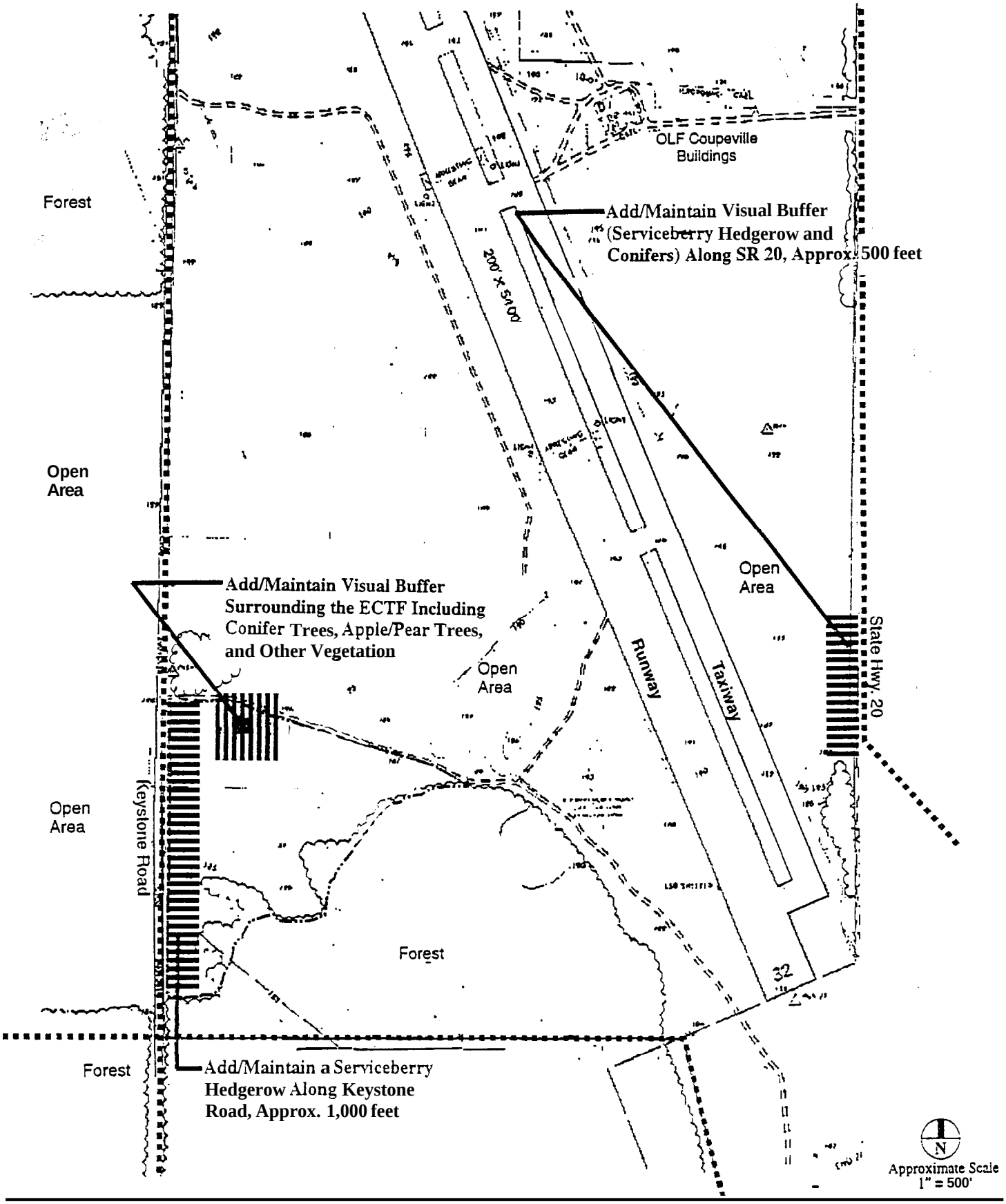
NOW THEREFORE, NAS, Whidbey Island, SHPO, Trust Board, and ACHP agree that NAS Whidbey Island shall implement the undertaking in accordance with the following stipulations in order to take into account the effect of the undertakmg on the District.

Stipulations

NAS, Whidbey Island will ensure that it carries out the following measures:

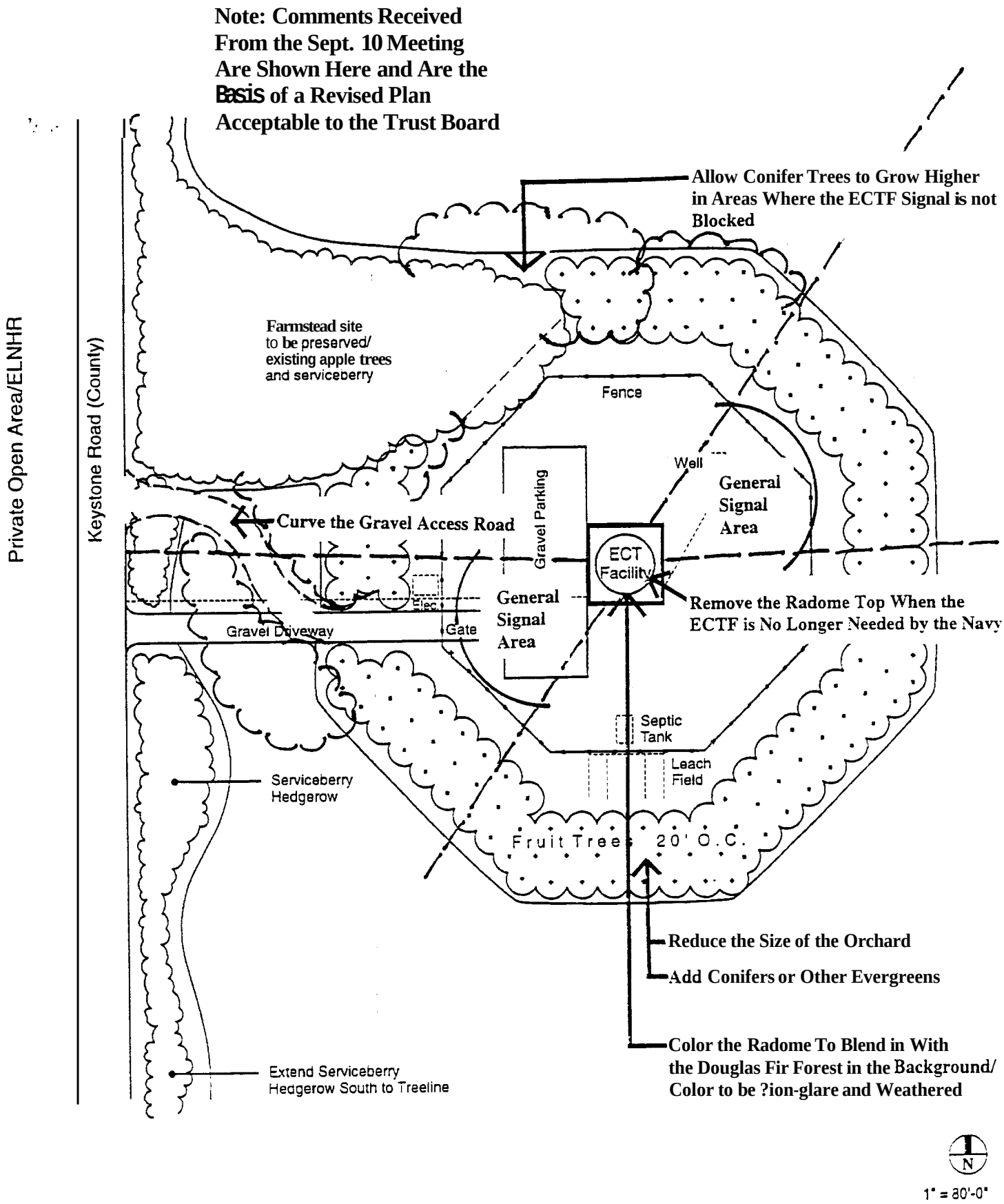
1. Visual Screening: Prior to construction of the second ECTF, and within 60 days of the execution of this Memorandum of Agreement, NAS, Whidbey Island will implement the recommendations of the SHPO and will consult with the Trust Board to finalize a plan to provide for adequate visual screening of the second ECTF. NAS, Whidbey Island will provide copies of the documentation to the SHPO. A conceptual plan for visual screening is presented in Figures 1 and ***2***.

2. Interpretive Wayside: NAS, Whidbey Island will work with the Trust Board to plan and implement an interpretive wayside project at a safe location in the vicinity of OLF Coupeville along Patmore Road. Within 60 days of the execution of this



Memorandum of Agreement **Visual Screening Concept**

Figure 1



Memorandum of Agreement

Visual Screening Concept

Figure 2

Memorandum of Agreement, NAS, Whidbey Island will implement the recommendations of the SHPO and will consult with the Trust Board to finalize a plan to implement the interpretive wayside project. The wayside project is intended to congregate visitors to the District in an area distant from the second ECTF along the existing self-guided tour route and to interpret Smith Prairie and past and present Navy operations at OLF Coupeville. NAS, Whidbey Island will provide copies of the documentation to the SHPO. The anticipated location of the interpretive wayside is presented in Figure 3.

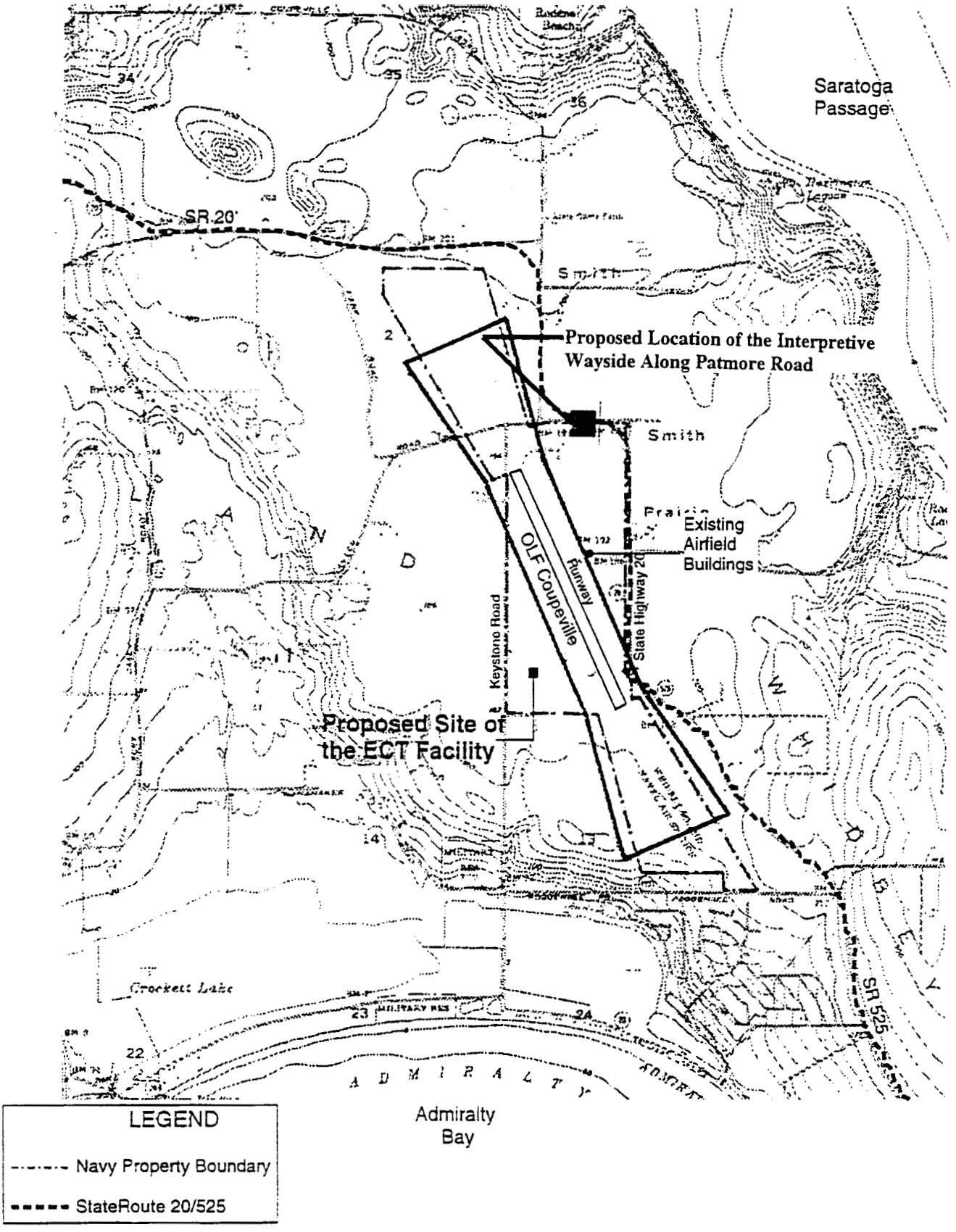
3. ECTF Radome Removal: NAS, Whidbey Island will remove the upper radome portion of the second ECTF within 180 days after the Department of the Navy determines that the facility is no longer needed for its original intended use as an ECTF. NAS, Whidbey Island will notify the *SHPO* in writing upon such determination. The remaining concrete block structure located below the upper radome may be reused by NAS, Whidbey Island.

4. Mitigation List: NAS, Whidbey Island will implement the mitigation measures included in the Environmental Assessment for Electronic Combat Training Facility at OLF Coupeville, NASWI (date) and measures applicable to the District will become part of this Memorandum of Agreement by reference.

5. Dispute Resolution: Should the SHPO or the ACHP object to any aspect of the implementation of this Memorandum of Agreement, NAS, Whidbey Island will consult with the objecting party to resolve the objection. If NAS, Whidbey Island determines that the objection cannot be resolved, NAS, Whidbey Island will forward all documentation relevant to the dispute to the ACHP. Within 30 days after receipt of all the pertinent documentation, the ACHP will either: (a) provide NAS, Whidbey Island with recommendations which NAS, Whidbey Island will take into account in reaching a final decision regarding the dispute, or; (b) notify NAS, Whidbey Island that it will comment pursuant to 36 CFR Section 800.6 (c) ***(2)*** with reference to the subject of the dispute. Any recommendation or comment provided by the ACHP will be understood to pertain only to the subject of the dispute; **NAS,** Whidbey Island's responsibility to carry out all actions under this Memorandum of Agreement that are not subjects of the dispute will remain unchanged.

6. Amendments: Any party of this Memorandum of Agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR 800.5 (e) *(5)* to consider such amendment.

7. Anti-Deficiency Act: Any requirement for the payment or obligation of funds by the Navy established by the terms of this Memorandum of Agreement shall be subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficeincy Act, U.S.C. 1341.



Memorandum of Agreement

Interpretive Wayside Location

Figure 3

Execution of this Memorandum of Agreement and implementation of its terms evidence that NAS, Whidbey Island has afforded the ACHP an opportunity to comment on the construction and operation of a second ECTF at OLF Coupeville, and that NAS, Whidbey Island has taken account the effects of the undertakmg on the District.

NAVAL AIR STATION, WHIDBEY ISLAND

By: _____ Date: _____

Captain (b) (6)
Commanding Officer

WASHINGTON STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: _____

(b) (6)
State Historic Preservation Officer

TRUST BOARD OF EBEY'S LANDING NATIONAL HISTORICAL RESERVE

By: _____ Date: _____

(b) (6)
Trust Board Chairman

ACCEPTED for the Advisory Council on Historic Preservation

By: _____ Date: _____

(b) (6)
Executive Director