

CALIFORNIA COASTAL COMMISSION

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STAFF RECOMMENDATION
ON CONSISTENCY DETERMINATION

Consistency Determination No.	CD-25-01
Staff:	MPD-SF
File Date:	3/14/2001
60th Day:	5/13/2001
75th Day:	5/28/2001
Commission Meeting:	5/9/2001

FEDERAL
AGENCY:

U.S. Navy

PROJECT
LOCATION:

Naval Base Point Loma, near Cabrillo National Monument, southern end of Point Loma peninsula, San Diego (Exhibits 1-3)

PROJECT
DESCRIPTION:

Construction of 100 ft. high steel communications tower to support combat system testing and training (Exhibit 4)

SUBSTANTIVE
FILE DOCUMENTS:

See page 10.

EXECUTIVE SUMMARY

The Navy has submitted a consistency determination for the construction of a 100 ft. high steel communications tower to support combat system testing and training for the Cooperative Engagement Capability (CEC) near the southern end of Point Loma. The antenna would be used to verify and validate CEC computer programs and to test new CEC systems installed on Navy ships at nearby Naval Air Station North Island (NASNI) and Naval Station San Diego. The project site, called "Battery Humphrey," is currently used for Navy military activities, including the temporary installation and operation of radar equipment. The proposed site for the tower has previously been developed and is adjacent to an existing Navy building (Bldg.

562), which would be modified to accommodate supporting computer equipment. The project would improve air safety for both military and civilian air operations, as well as improve Navy test capabilities.

The project site is on federal land, and the Navy's various missions on Point Loma involve a large number of communications towers throughout Point Loma. Nevertheless, because the site is located near a heavily used visitor center and historic lighthouse (Old Lighthouse), which are part of the Cabrillo National Monument, on a high promontory overlooking the Pacific Ocean and San Diego Bay, particular care needs to be taken to minimize the tower's impact on scenic public coastal views.

Two existing tall communications towers (a Coast Guard tower and a Navy tower) are located adjacent to each other and nearer to the Old Lighthouse than the proposed facility. The first question raised is whether the proposed tower should be co-located with the existing towers. Because of the topography and the fact that the existing towers are much closer to the lighthouse and visitor center, the National Park Service has discouraged further tower improvements at the existing tower sites. The second question raised is whether the proposed Battery Humphrey site is the least damaging feasible alternative site. Given that it is further down the slope, the tower's visibility is far less than at the existing towers' site. The Navy's detailed extensive alternatives analysis establishes that there is no feasible less visually and environmentally damaging site available on Point Loma for the new tower.

The third question raised is whether, in conjunction with the new tower, one or two of the existing towers could be removed, with existing equipment relocated to the proposed new tower. The Navy is investigating the potential to implement such a visual improvement, and it appears most of the users of the existing Navy tower would consider relocating to the new tower. If all the users can be convinced to relocate, the Navy could remove the existing tower. Thus, the Navy has indicated a willingness to pursue removal of the existing Navy tower and relocation of the various radar facilities on the existing tower. The physical design of the proposed tower would accommodate most or all of the radar equipment from the existing tower. The Navy is seeking formal agreements with each of the radar owners to determine whether facility relocation can feasibly be accomplished. Given that the Navy has selected the least visually damaging feasible site and agreed to make good faith efforts to relocate facilities and possibly remove the existing tower, the Navy has minimized scenic coastal view impacts, and, if feasible, will restore and enhance visual quality in a visually degraded areas. The project is therefore consistent with the view protection policy (Section 30251) of the Coastal Act.

Concerning other coastal issues raised, the project would avoid exposing publicly accessible areas to excessive levels of radar hazard, and the project is consistent with the public access and recreation policies (Sections 30210-30214 and 30221) of the Coastal Act. The project site is a previously disturbed area and does not contain environmentally sensitive habitat, and it will not adversely affect sensitive habitat in surrounding areas. The project is therefore consistent with Section 30240 of the Coastal Act. The project site is within a historic district, and the existing lighthouses to the north and south of the site are designated historic resources.

The Navy has contacted the State Historic Preservation Officer, which has not raised any objections to the project. Thus, the project would not adversely affect historic and archaeological resources and is consistent with Section 30244 of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION

I. Project Description. The Navy proposes to construct a 100 ft. high steel communications tower to support combat system testing and training for the Cooperative Engagement Capability (CEC) near the southern end of the Point Loma peninsula in San Diego (Exhibits 1-4). The antenna would be used to verify and validate CEC computer programs and to test new CEC systems installed on Navy ships located at Naval Air Station North Island (NASNI) and Naval Station San Diego. The purpose of the equipment is to provide land-based simulations and interactions with Navy ships in the area prior to installing similar equipment on board Navy ships, to assess performance, software integration, and training "...under realistic operational conditions ..." The project includes:

- Construction of a new 100 ft. high galvanized steel tower;
- Installation of Shipboard Active Aperture (SBAA) AN/USG-2 CEC antenna and associated Joint Tactical Information Distribution Systems (JTIDS) (Link-16) and Link 11 antennas;
- Placement of production equipment within adjacent existing Building 562, a small, cinder-block structure located 10 ft. to the west of the proposed tower; and
- Installation of fiber optic cable within existing underground conduit, to Bldg. 600.

The project site, called "Battery Humphrey," is currently used for Navy military activities, including the temporary installation and operation of radar equipment. The ground level of the site is at an elevation of 316 ft. above sea level. The site for the tower has previously been developed and is adjacent to an existing Navy building (Bldg. 562), which would be modified to accommodate supporting computer equipment. The project would improve air safety for both military and civilian air operations, as well as improve Navy test capabilities.

II. Background/Related Commission Action. One of the two existing towers near the Old Lighthouse is relatively new and was authorized by the Commission. On October 12, 1994, the Commission staff concurred with a Coast Guard Negative Determination for the construction of four Global Positioning System (GPS) towers in various locations throughout the coast, including one near the Point Loma lighthouse (ND-81-94). On December 12, 1997, the Commission staff concurred with a Coast Guard Negative Determination for a modification to two of the four authorized towers, including the one at Point Loma (ND-163-97). The modifications consisted of relocating the transmission equipment from the top of the tower to existing huts at the base, to help with operational problems. This relocation enabled the towers to be lowered.

The Commission also previously concurred with the National Park Service's consistency determination for its General Management Plan for the Cabrillo National Monument (CD-105-95). In that consistency determination, the Commission reviewed conceptual plans for visitor services, recreational opportunities, and various habitat restoration and management efforts and

visitor-serving improvements. The Commission found that, at the general planning phase, this plan was consistent with the California Coastal Management Program (CCMP). The Commission and its staff also concurred with consistency and negative determinations for follow-up implementation of various plan components, including tidepool access management and entrance relocation, in ND-140-96, CD-136-97, ND-63-99, ND-46-00, and ND-120-00.

III. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the CCMP, it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The City of San Diego's LCP has been incorporated into the CCMP.

IV. Federal Agency's Consistency Determination. The Navy has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

V. Staff Recommendation:

The staff recommends that the Commission adopt the following motion:

MOTION: I move that the Commission **concur** with consistency determination CD-025-01 that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the California Coastal Management Program (CCMP).

STAFF RECOMMENDATION:

Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

RESOLUTION TO CONCUR WITH CONSISTENCY DETERMINATION:

The Commission hereby **concurs** with the consistency determination by the Navy, on the grounds that the project described therein is fully consistent, and thus is consistent to the maximum extent practicable, with the enforceable policies of the CCMP.

VI. Findings and Declarations:

The Commission finds and declares as follows:

A. Public Views. Section 30251 of the Coastal Act provides:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

The project site is a federally-owned, previously-disturbed site which has been used for various military purposes since World War II. However, being located near a heavily used visitor center and historic lighthouse ("Old Lighthouse") at the Cabrillo National Monument, and on a high promontory overlooking the Pacific Ocean and San Diego Bay, it is a highly scenic site. The National Park Service describes the views from the nearby Cabrillo National Monument as "commanding," stating in its General Management Plan:

From its 420 foot elevation, the monument offers a commanding view of San Diego and its bay and adjacent cities to the north, east, and south; Mexico to the far south; and the Pacific Ocean to the west.

The National Park Service has expended considerable efforts to redesign its facilities to improve the aesthetics in the project area and increase the scenic qualities of the public views available at the Monument (see ND-46-00). The project site is located 1672 ft. (0.3 mi.) south of the historic, publicly accessible Old Lighthouse, at a ground level elevation just over 100 ft. lower than the lighthouse. Nevertheless, due to the 100 ft. height of the tower, and the topography of the area, the project would be visible from the lighthouse, as well as a number of other publicly accessible locations, including the road down the western slopes to the tidepools, the nearby Whale Overlook (located south of Old Lighthouse), the southernmost portions of the hiking trail leading from Old Lighthouse down the eastern slopes of the end of the Point Loma peninsula (Humphrey Rd./Sylvester Rd.), and from the Pacific Ocean and San Diego Bay on three sides of the Point Loma promontory (i.e., from coastal waters to the west, south, and east). In essence, the same Navy needs for unobstructed lines of communications between the tower and ships at sea are the reasons for its visibility from a large number of surrounding locations. Thus, particular care needs to be taken to site and minimize the tower's impact on scenic public coastal views.

At the same time, the Commission understands that the overall military character of the Navy's various Point Loma complex includes a large number of communications and radar towers. In addition, two existing tall communications towers (a Coast Guard tower and a Navy tower) are

located near each other, higher in elevation, and much nearer to the lighthouse than the proposed facility, and thus are far more visually intrusive than the proposed tower site.^{1 2}

The first visual issue raised is whether the proposed tower should be consolidated with the existing towers. Because of the topography and the fact that the existing towers are much closer to the lighthouse and visitor center, the National Park Service has discouraged further tower improvements at the existing tower sites. The Commission agrees and finds that further visual clutter at the existing tower site nearer the lighthouse should be avoided if possible. Logistical reasons (including radar hazards, which are discussed on pages 8-9 below) also support an argument for locating the proposed facilities farther from publicly accessible areas.

The second visual issue raised is determining the least visually damaging feasible alternative sites for the proposed tower. The Navy acknowledges the visual sensitivity of the site and the need to minimize visual impacts to the extent feasible. The Navy's consistency determination states:

The Navy has minimized the visual impact of the proposed action on the coastal area (see ... [Exhibits 7-10]). The overall incremental visual impact from the tower would be minimal because there are two other prominent antenna towers in the area. The Navy's mission requirements for connectivity to other systems mandate a coastal location for the tower. The tower will be sited on a Navy installation that already has existing towers and is thus, compatible with the character of that site. The Navy has carefully reviewed the location, placement and height of the tower to enable it to meet mission requirements while minimizing impact to coastal resources. The Navy has balanced potential visual impact of the tower, to the maximum extent practicable, with the potential impacts of radiation hazard associated with the elevation and height of the tower. The height of the tower was selected not only to ensure mission requirements of connectivity to other systems but to minimize the potential impact to the public from radiation hazards (real or perceived). There are two existing towers closer to the Cabrillo Monument that would be more prominent when viewed from the park area. The primary viewing areas from the monument grounds are toward the lighthouse, the ocean (whale watching) and towards the islands off shore. The tower at Battery Humphrey would be visible but would not be in the main line of sight for those areas. The impact of the towers visually has been balanced, to the maximum extent possible, with the impact that would result from the radiation hazard that would exist if the antennas were installed at a lower elevation. ... Also ... [Exhibits 3 & 7-10] show that the existing towers provide much more of an impact than the proposed tower and that offshore viewing would not be significantly impacted.

Therefore, the proposed action will have minimal impact on the coastal area.

¹ The Commission staff concurred with a negative determination for the installation of the Coast Guard tower in 1994 (see discussion, page 3).

² The existing Navy tower also contains other government agency equipment, including communications equipment for the FBI, Border Patrol, and U.S. Customs, and a public paging company.

The Navy also conducted a detailed analysis of alternative sites in its consistency determination. Factors considered in this analysis included:

(1) the fact that the proposed site was previously disturbed and contained an existing building suitable for necessary support facilities and containing existing underground cable infrastructure (minimizing the need for ground disturbance for new cables);

(2) the fact that the site optimizes operational advantages and minimizes electromagnetic interference with other communications systems in the area;

(3) the fact that the existing towers north of the site and nearer to the Old Lighthouse could not be used, due to:

- (a) inadequate structural strength to accommodate the new facilities;
- (b) there are no existing buildings to use at the other towers site, and the proposed project requires a support building within a distance of 200 ft.;
- (c) additional space is not available on the existing towers;
- (d) due to their lower heights (60 ft.) and greater proximity to the Old Lighthouse the existing towers would pose greater RF risks to the public than the proposed 100 ft. tower at Battery Humphrey site;

(4) other alternative sites (Battery Strong Area [Bldg. 410], West Tower Site [Bldg. 584], and Battery Armstrong [Bldg. 504] presented conflicts either due to unacceptable electromagnetic interference with existing facilities or the need for more environmentally damaging trenching for cable laying in environmentally sensitive areas (i.e., Point Loma Ecological Reserve).

Based on this analysis, the Commission agrees with the Navy that there are no feasible less visually and environmentally damaging alternative sites available for the posed tower.

The third visual issue raised is whether the requirement of Section 30251 for restoration and enhancement of visual quality in visually degraded areas, where feasible, should be interpreted to require further visual enhancement of the area by removing one of the existing towers (the Navy "red and white" tower) and relocating its equipment to the proposed Battery Humphrey site tower. The Navy has indicated a willingness to pursue removal of the existing tower and relocation of the various radar facilities on the existing tower, some of which are Navy facilities and some of which are private or other agency facilities (see footnote 2, p. 6), to the proposed new tower. The design of the proposed tower would accommodate most or all of the radar equipment on the existing tower, and if the facilities could be relocated the Navy would consider removing the existing, more visually damaging tower. The Navy is seeking written agreements with each of the radar owners to determine whether facility relocation can feasibly be accomplished.

The National Park Service has encouraged these efforts, stating in a letter to the Navy (Exhibit 11):

"... we appreciate the Navy seeking our opinion about the impact it may have on the historical and natural resources at Cabrillo National Monument and intangible values, such as the view, that we are required to preserved.

...

The hundred foot CEC tower will intrude upon the natural and historical scene from at least some viewing areas at Cabrillo NM, in particular the statue of Juan Rodríguez Cabrillo.

Because the Navy understands our concerns regarding the effect of the tower on views from the park, we are encouraged by the fact that you are pursuing the removal of the existing red and white tower that is directly in the viewshed of the Old Point Loma Lighthouse. We appreciate and support your efforts to relocate the antennas mounted on this tower to the CEC tower, and the removal of the tower itself. We hope the Navy will do everything in its power to remove this old tower. It is an eyesore and it will be very beneficial to our visitors to have it removed.

...[A]lthough a new hundred-foot tower is not desirable, the fact that it will be only partly visible from viewpoints in the park makes it acceptable. The removal of the existing red and white tower south of the Old Point Loma Lighthouse will help compensate for the construction of the new tower, while enhancing the scenic values of the park and we strongly support the Navy in this effort. We are pleased that the Navy is also integrating design features in the CEC tower that will help reduce or eliminate it as a hazardous perch for birds of prey. This cooperative effort indicates to us the Navy's interest in preserving the resources of the area as much as feasible, given the nature of the project.

Thus, the Navy has selected the least visually damaging feasible site and agreed to make good faith efforts to relocate facilities and possibly remove the existing tower. The Commission finds that the project complies with the requirements of Section 30251 to minimize scenic coastal view impacts and be visually compatible with the character of the surrounding area. The Commission further finds that, to the extent feasible, the Navy has been willing to pursue additional efforts to remove the existing, more visually damaging tower and restore and enhance visual quality in a visually degraded area. The Commission therefore concludes that the project is consistent with the requirements of the view protection policy (Section 30251) of the Coastal Act.

B. Public Access and Recreation. Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreational opportunities, with certain exceptions for, among other things, military security needs and public safety. Section 30213 provides that "Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided." Section 30214 provides for the implementation of public access "... in a

manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case" Section 30221 provides that "Oceanfront land suitable for recreational use shall be protected for recreational use...."

According to the Navy, there are over 30 radiofrequency (RF) and microwave antennae supporting various governmental agency (predominantly Navy) communications needs at the Nava Base Point Loma. RF transmitters operate within the range of 530 (kiloHertz) kHz to 40 gigaHertz (GHz). If existing regulatory standards and guidelines are exceeded, radar facilities have the potential to cause tissue heating and safety risks, thereby posing public access and recreation concerns when high-intensity radar emitters are located near publicly accessible recreation areas. The immediate project site is not accessible to the public; however, public trails exist nearby and the heavily visited Old Point Loma Lighthouse is located 0.3 mi. to the north of the site.

The purpose of the proposed project is to develop equipment for eventual fleet use by simulating at sea operations by first using land-based systems. The Navy states: "The West Coast land-based site must accurately emulate shipboard configurations and provide the most realistic simulation possible of the combat environment."

The Navy examined the potential for radar hazards in publicly accessible areas in its consistency determination. The Navy analyzed the facility under both Department of Defense radar standards, as well as the more stringent FCC guidelines. This analysis concludes that the only areas of concern would be within a radius of 147 ft. from the site, and no lower than 48 ft. above ground level (Exhibit 5-6). The Navy's consistency determination states:

The worst case Permissible Exposure Level (PEL) at 1 mW/cm² [megawatt/square centimeter] [i.e., the FCC guideline] distance with the CEC antenna operating at high power is 147 ft. from the antenna along the main-beam. Since the CEC antenna on the tower would be at least 105 ft. above ground level and no more than a -5 degree depression of the beam will be allowed, the PEL cannot be exceeded on the ground at any point where the public would be allowed access.

The nearest publicly accessible area would be 144 ft. from the tower; any closer would be off limits to the public. The signal strength at this point would be 0.7 mW/cm², which the Navy states is "well within the FCC guidelines." The Navy also points out that:

Additionally, the antenna radiation would be blanked from 350° to 20° thus ensuring no radiation is directed towards the monument and is well above anyone walking anywhere on the nearby walkways and trails.

Finally, even though the publicly accessible area at the lighthouse is at a higher ground level elevation, the lighthouse is too far from the tower to receive hazardous exposures (see Exhibit 6). The Commission agrees with the Navy's analysis and finds that the public would not be exposed to hazardous RF radiation levels, and the Commission therefore concludes that the proposed project is consistent with the public access and recreation policies (Sections 30210-30214 and 30221) of the Coastal Act.

C. Environmentally Sensitive Habitat. Section 30240 of the Coastal Act provides:

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

Sensitive wildlife species in the project area include the coastal California gnatcatcher (*Poliophtila californica californica*), which forages in coastal sage scrub habitat on the slopes surrounding the visitor center and the project site. The project site itself is a previously disturbed area, and does not contain gnatcatcher or other sensitive wildlife species habitat. There is no evidence to suggest that RF exposure (discussed in the previous section of these findings) would adversely affect the gnatcatcher. The Navy has also integrated design features into the tower to help reduce or eliminate it as a hazardous perch for birds of prey. The Commission concludes that the project is consistent with Section 30240 of the Coastal Act.

D. Archaeological Resources. Section 30244 of the Coastal Act provides:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

The project site and surrounding area are located within a designated historic site, the Fort Rosecrans Point Loma Coastal Defenses Historic District, which has been recommended as eligible for inclusion in the National Register of Historic Places. The lighthouses to the north and south of the site (Old Lighthouse, and the Coast Guard lighthouse at the southern end of Point Loma) are also designated historic resources. The Navy has contacted the State Historic Preservation Officer, which has not raised any concerns over the proposed project. The Commission concludes that no additional mitigation measures are required and that the project is consistent with Section 30244 of the Coastal Act.

VII. Substantive File Documents:

1. Negative Determination ND-163-97, Coast Guard, Negative determination, GPS/Navigation Tower, Pigeon Point, San Mateo Co. and Point Loma, San Diego Co.

2. Negative Determination ND-81-94, Coast Guard, GPS/Navigation Tower, Pigeon Point, San Mateo Co., Port Arguello, Santa Barbara Co., Cape Mendocino, Mendocino Co., and Point Loma, San Diego Co.

4. Consistency and Negative Determinations ND-140-96, CD-136-97, ND-63-99, ND-46-00, ND-120-00, National Park Service, habitat restoration, tidepool management and entrance relocation, Cabrillo National Monument.

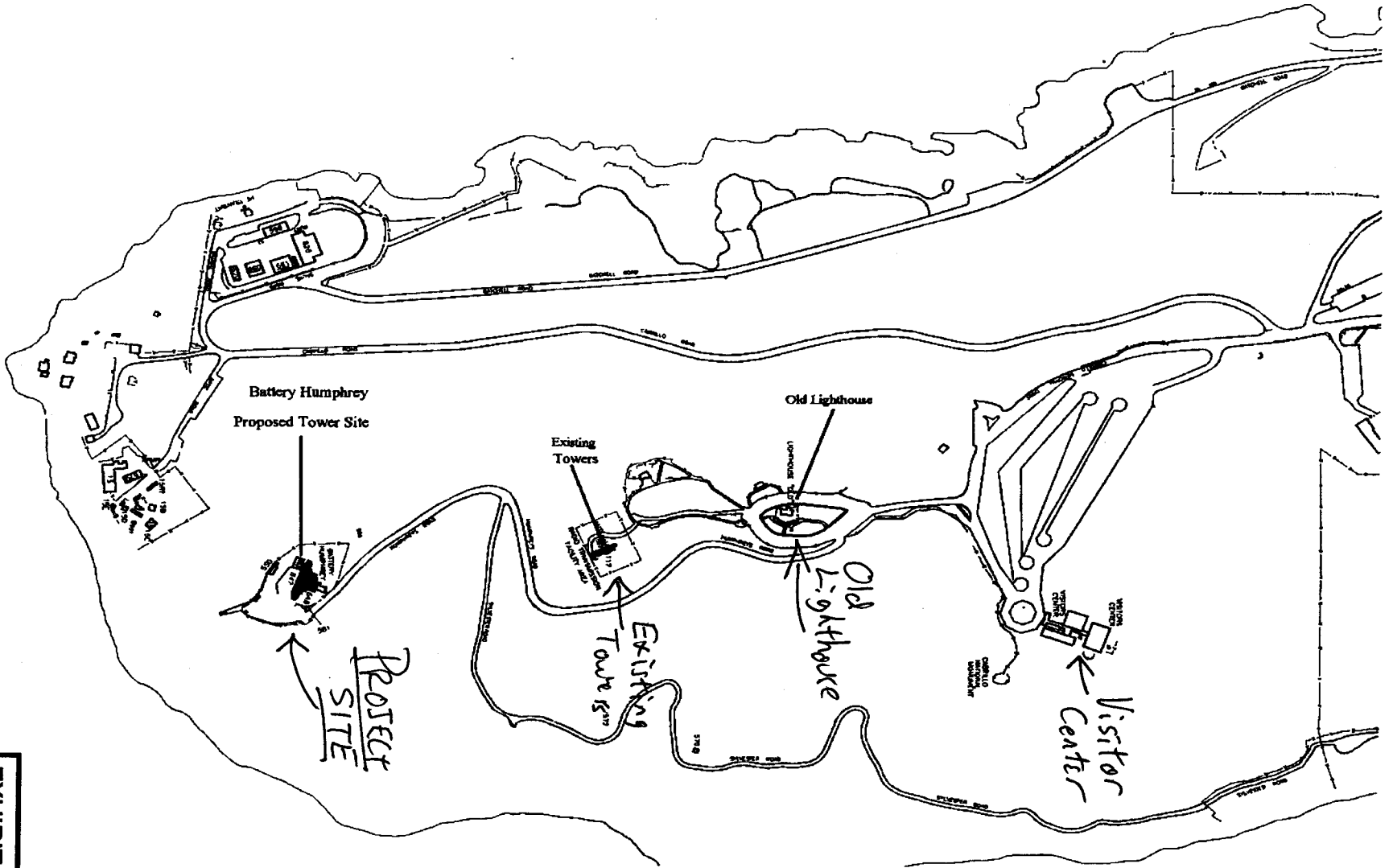
5. Consistency Determination CD-4-00, Navy, Virtual Test Capability (VTC) Surface Warfare Engineering Facility (SWEF), Naval Construction Battalion Center (NCBC), Port Hueneme.





Figure 1. Topographical Map of Point Loma With North Island to the East

EXHIBIT NO.	1
APPLICATION NO.	
	CD-25-01



Alternate CEC Tower sites – Battery Humphrey

EXHIBIT NO. 2
APPLICATION NO.
CD-25-01

D. ARTICLE 6 – DEVELOPMENT (SECTIONS 30250-30255)

Section 30250

This section provides that new residential, commercial, or industrial development shall be located within, contiguous with, or in close proximity to existing developed areas.

The proposed action would occur in areas currently used by the Navy for military testing, training, and associated operations. Therefore, no changes in land use would occur as a result of the proposed action.

Section 30251

This section provides that scenic and visual qualities of coastal areas shall be protected as a resource of public importance.

The Navy has minimized the visual impact of the proposed action on the coastal area (see figures 10 thru 14). The overall incremental visual impact from the tower would be minimal because there are two other prominent antenna towers in the area. The Navy's mission requirements for connectivity to other systems mandate a coastal location for the tower. The tower will be sited on a Navy installation that already has

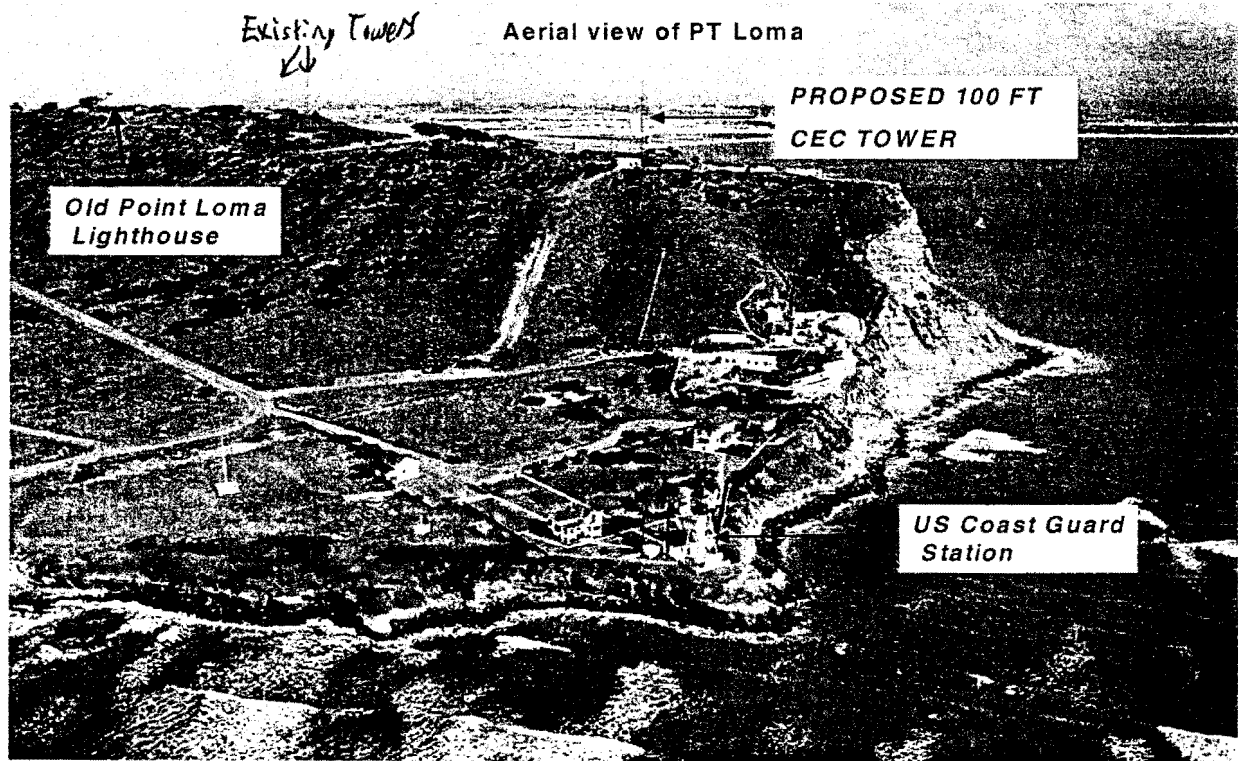
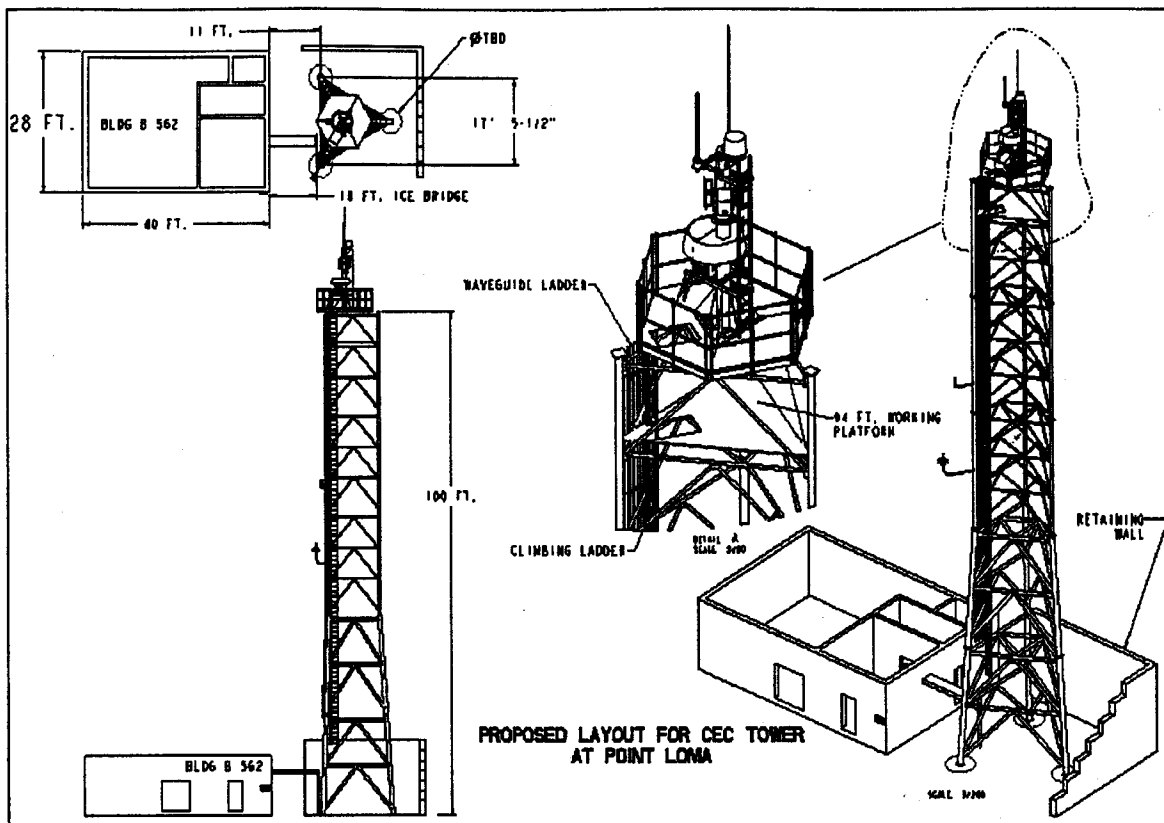


Figure 10. Aerial view of Point Loma – With a pictorial representation of the new tower.

existing towers and is thus, compatible with the character of that site. The Navy has carefully reviewed the location, placement and height of the tower to enable it to meet mission requirements while minimizing impact to coastal resources. The Navy has balanced potential visual impact of the tower, to the maximum extent practicable, with the potential impacts of radiation hazard as elevation and height of the tower. The height of the tower was selected not only to requirements of connectivity to other systems but to minimize the potential impact radiation hazards (real or perceived). There are two existing towers closer to the

EXHIBIT NO. 3
APPLICATION NO.
CD-25-01



SCALE : 9/800 TYPE : ASSEN NAME : POINT-LOMA-LAYOUT SIZE : D

Figure 3. Proposed 100 ft tower for Battery Humphrey.

Purpose and Need

The purpose of the system at Naval Base Point Loma is to:

- Support system software integration at the facilities at SSC SD
- Support system checkout and evaluation by interacting with Navy ships and aircraft at Naval Base Coronado, Naval Air Station North Island and at Naval Base San Diego across San Diego Bay, with ships transiting the channel to and from those Navy installations, and
- Interact with ships at sea involved in Fleet exercises in the Southern California (SOCAL) Offshore ranges and operating areas.

The DON must conduct test and evaluation of the CEC systems deployed on Pacific Fleet ships using land-based equipment emulating a realistic environment to ensure that the systems developed for fleet use function effectively and consistently in the combat environment for which they are intended during actual deployment. Testing using a land-based system, rather than on actual ships and/or during deployment, is critical so that test conditions can be standardized and failures and errors evaluated accurately and corrected effectively, efficiently and cost effectively. The West Coast land-based site must accurately emulate shipboard configurations and provide the most realistic simulation possible environment.

EXHIBIT NO.	4
APPLICATION NO.	
	CD-25-01

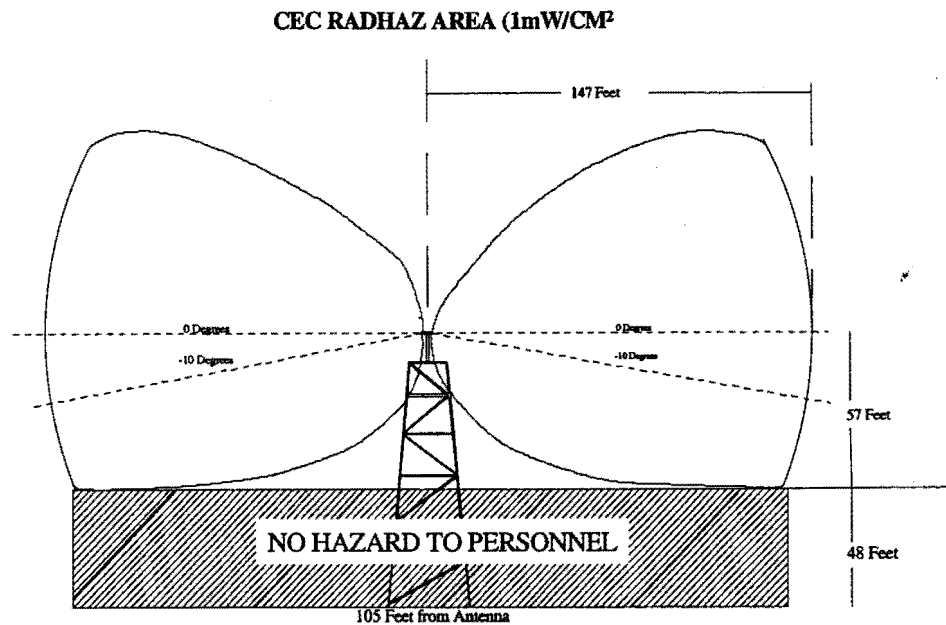


Figure 5. CEC RADHAZ AREA (Elevation view)

POTENTIAL IMPACTS TO PERSONNEL

The worst case Permissible Exposure Level (PEL) (at 1mW/cm²) distance with the CEC antenna operating at high power is 147 feet from the antenna along the main-beam. Since the CEC antenna on the tower would be at least 105 feet above ground level and no more than a -5 degree depression of the beam will be allowed, the PEL cannot be exceeded on the ground at any point where the public would be allowed access. This analysis assumes that the CEC antennas would be located within controlled environments due to the heights of the towers/masts and that ground access would be restricted to authorized personnel only. "Man aloft" procedures must be implemented for accessing and maintaining the antennas and towers, including shutting down the CEC system during maintenance, and posting appropriate RADHAZ warning signs leading to and on the platform.

North of Battery Humphrey is the Cabrillo National Monument and associated buildings and walkways, where general uncontrolled exposures can occur. In this situation, the public or employees that could be exposed to electromagnetic radiation might not be aware of the potential hazard or might not have control over their exposure. The nearest point of approach to the proposed CEC tower for anyone visiting the monument is 144 ft at the gate to Battery Humphrey. The signal strength at this point would be 0.7mW/cm², well within FCC guidelines. Other areas of concern are the pathway to the beach below the monument at 686 ft and the Old Lighthouse at 1672 ft. By utilizing the beam pointing capability of the CEC system and allowing no more than a -5 degree depression of the beam, the signal strengths at these locations would be 0.43mW/cm² and 0.0074 mW/cm² respectively. Additionally, the tower would be blanked from 350° to 20° thus ensuring no radiation is directed towards the ground well above anyone walking anywhere on the nearby walkways and trails.

EXHIBIT NO. 5
APPLICATION NO.
CD-25-01

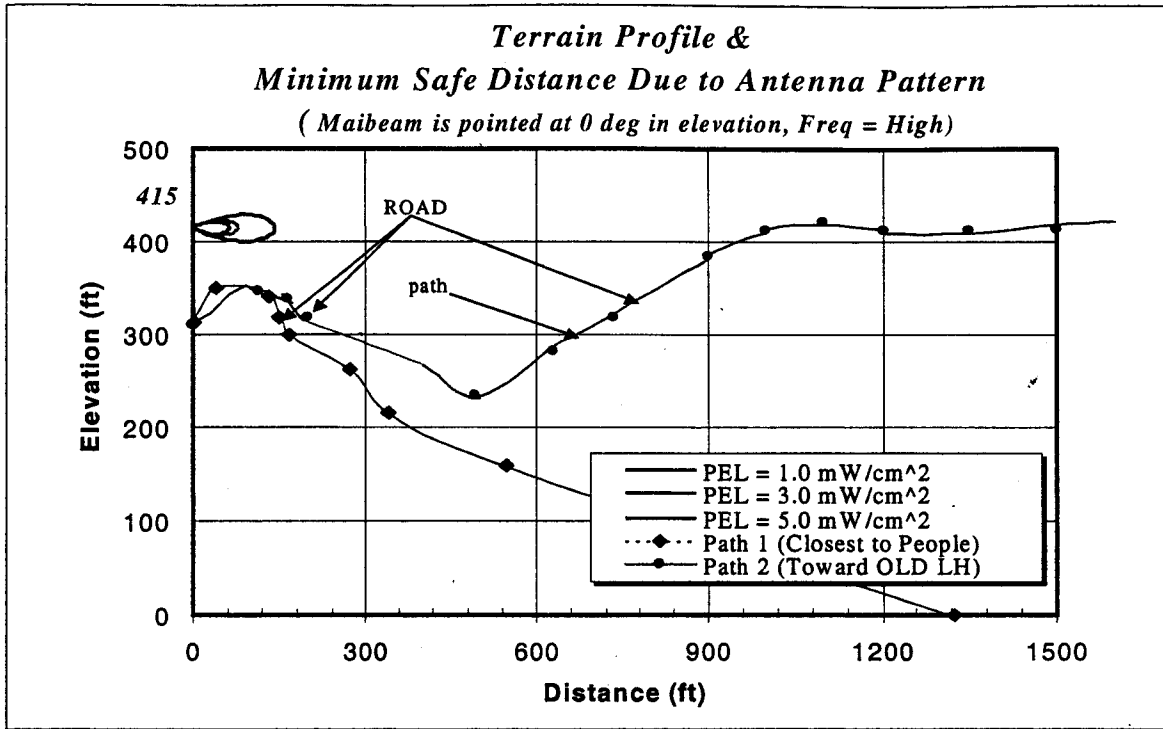


Figure 7. HERP Assessment with Different PELs - CEC Mainbeam Steered at 0°

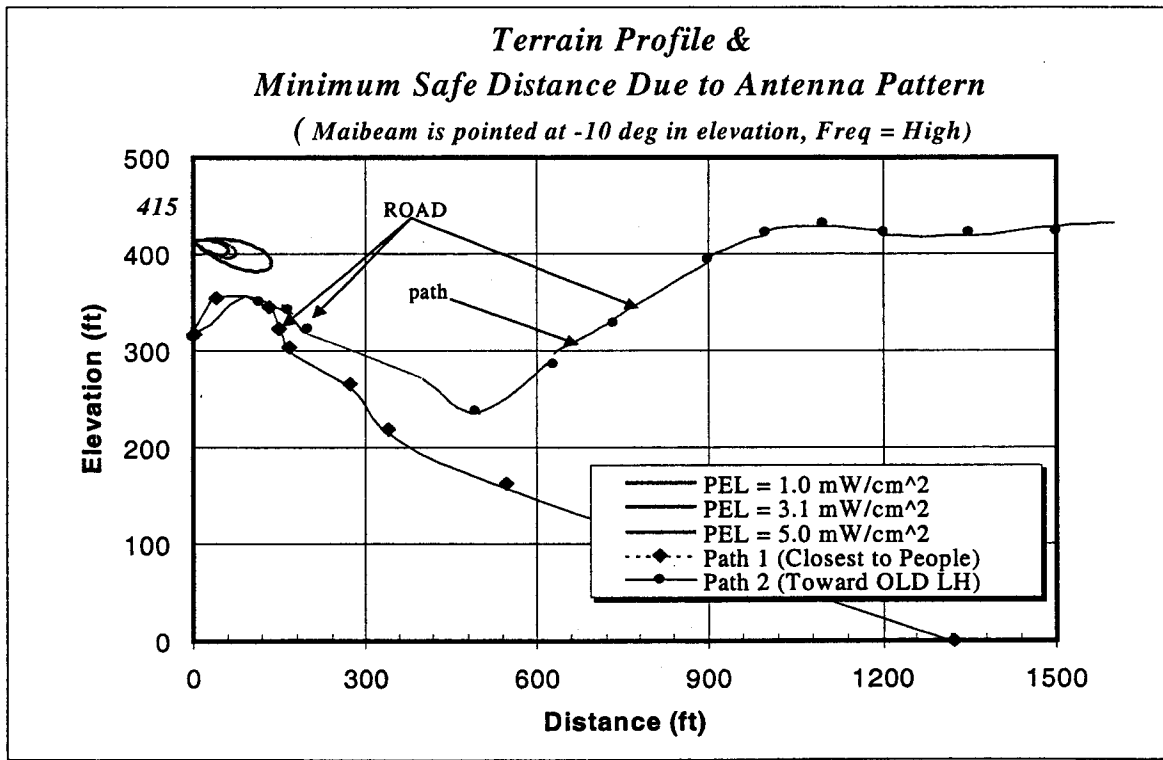


Figure 8. HERP Assessment with Different PELs - CEC Mainbeam Steered at 10° Elevation

EXHIBIT NO.	6
APPLICATION NO.	
	CD-25-01

would be more prominent when viewed from the park area. The primary viewing areas from the monument grounds are toward the lighthouse, the ocean (whale watching) and towards the islands off shore. The tower at Battery Humphrey would be visible but would not be in the main line of sight for those areas. The impact of the towers visually has been balanced, to the maximum extent possible, with the impact that would result from the radiation hazard that would exist if the antennas were installed at a lower elevation. The height of the tower was selected not only to ensure connectivity to other systems but also to minimize the danger (both real and perceived) to the public resulting from radiated energy. Also, figures 15 thru 17 show that the existing towers provide much more of an impact than the proposed tower and that offshore viewing would not be significantly impacted.

Therefore, the proposed action will have minimal impact on the coastal area.



Figure 11. View from the Old Lighthouse – with new tower superimposed.

EXHIBIT NO.	7
APPLICATION NO.	
	CD-25-01

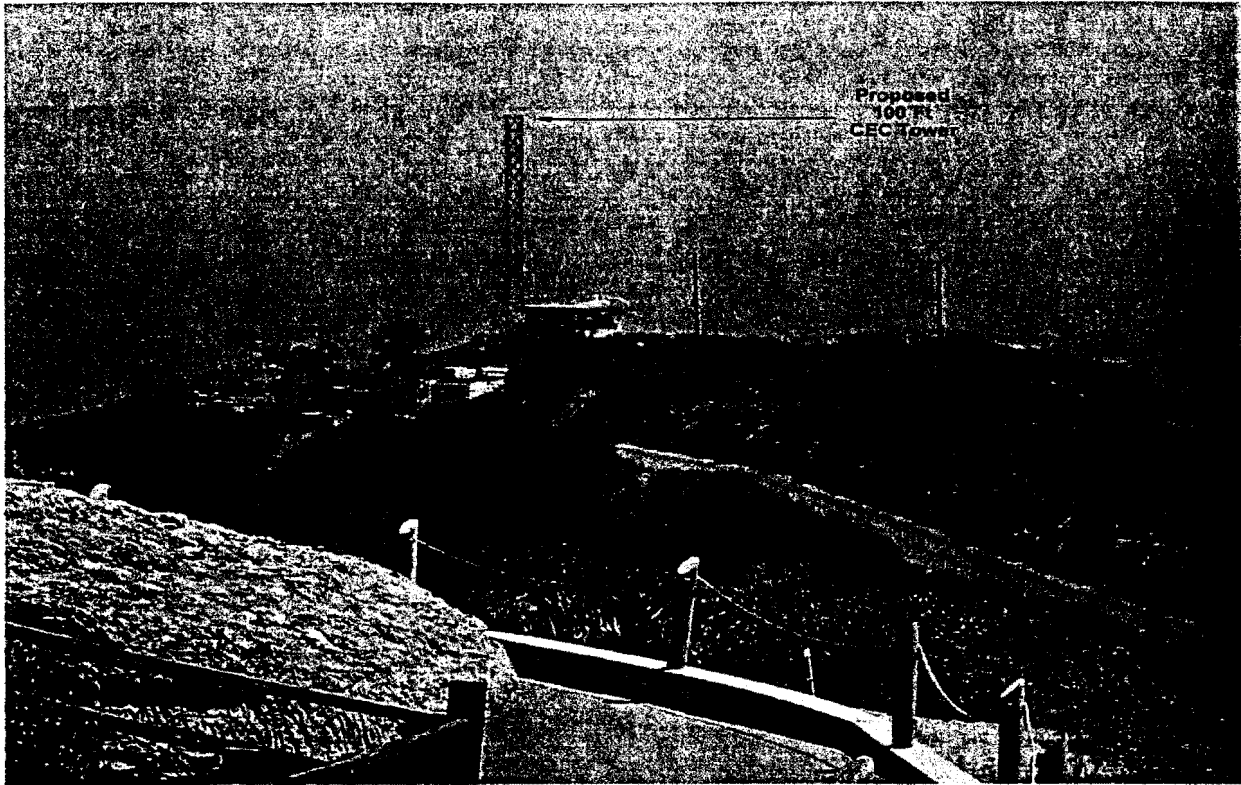


Figure 12. View from the walkway – with new tower superimposed.

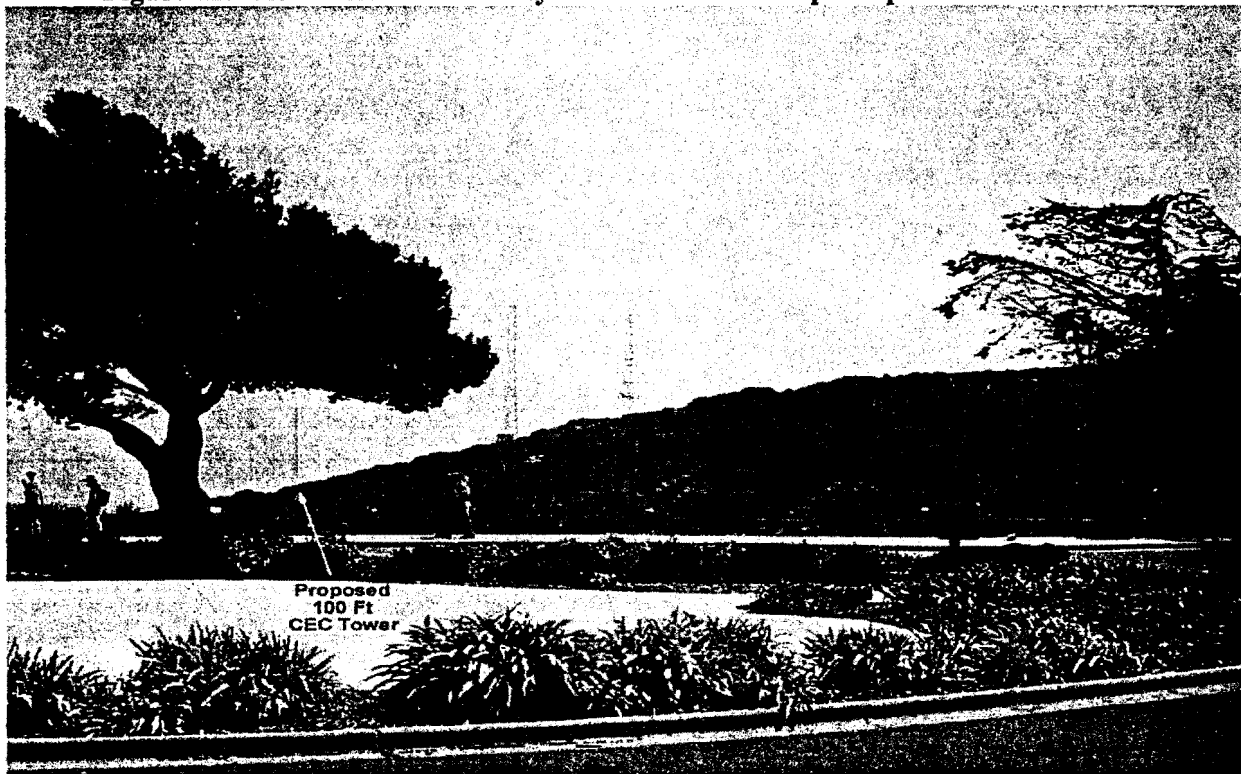


Figure 13. View from the Visitor Center – with new tower superimposed.

EXHIBIT NO.	8
APPLICATION NO.	CD-25-01

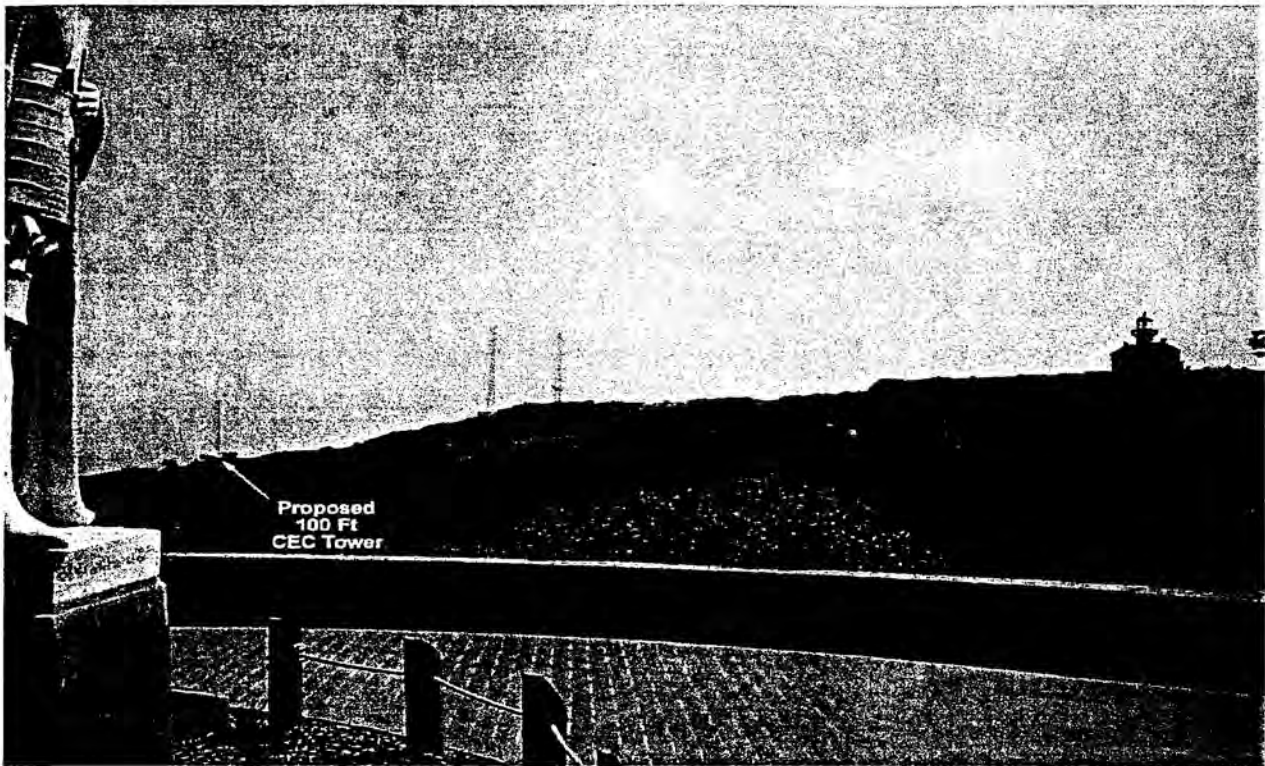


Figure 14. View from the Shrine - with the new tower superimposed.



Figure 15. Aerial view of Point Loma - From the West.

EXHIBIT NO.	9
APPLICATION NO.	
	CD-25-01

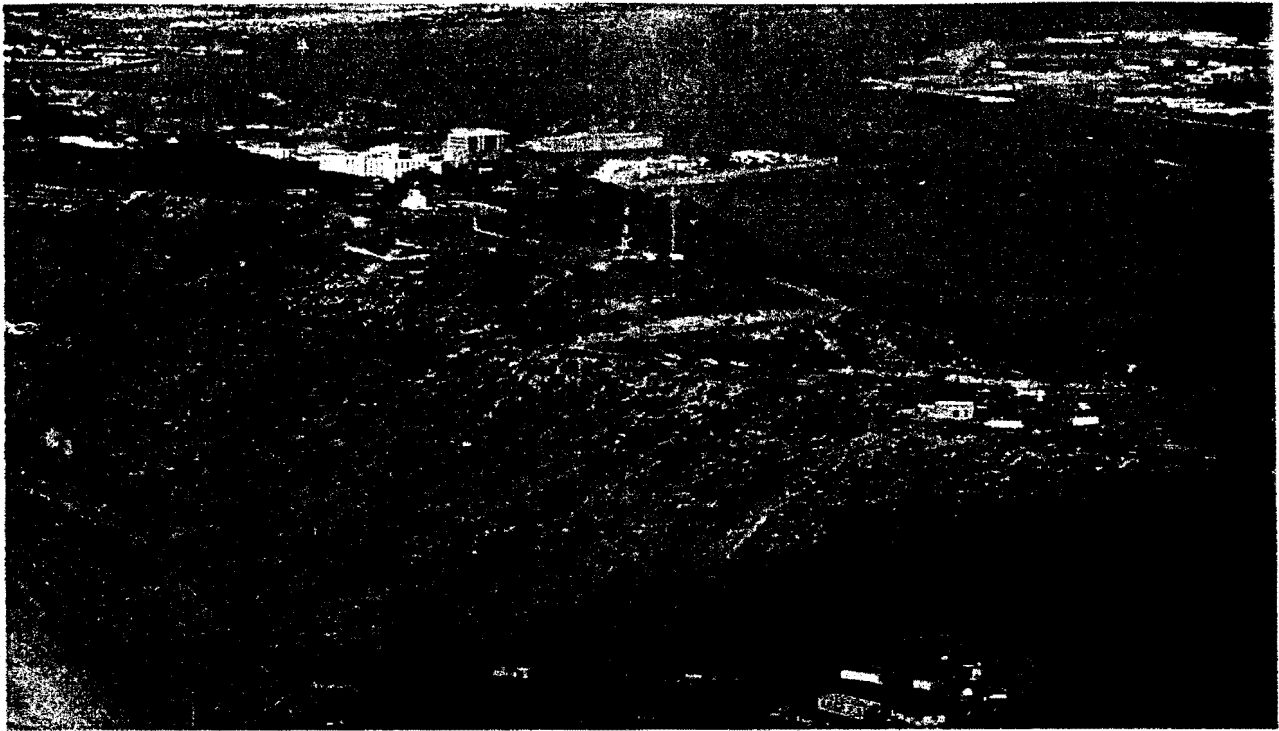


Figure 16. Aerial view of Point Loma – From the South.

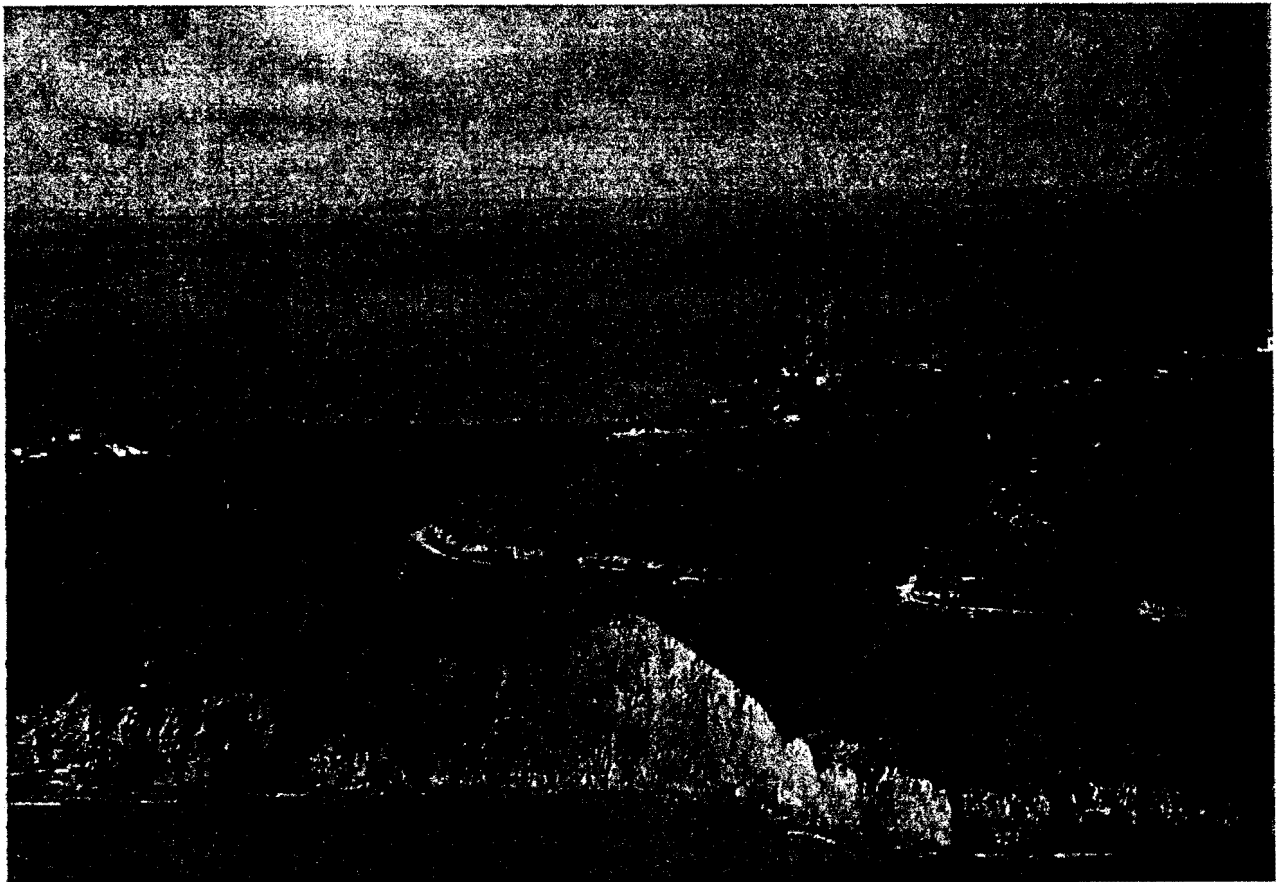


Figure 17. Aerial View of point Loma – From the East.

EXHIBIT NO. 10
APPLICATION NO.
CD-25-01



United States Department of the Interior

NATIONAL PARK SERVICE

Cabrillo National Monument
1800 Cabrillo Memorial Drive
San Diego, California 92106-3601

www.nps.gov/cabr/

L24
xN16

March 28, 2001

Ted Stanford
Deputy Program Manager
PMS 465
2531 Jefferson Davis Highway
Arlington, Virginia 22242-5165

Dear Mr. Stanford:

We understand the importance of the Cooperative Engagement Capability (CEC) program to the Navy and to future naval operations. Because the CEC program for Point Loma will require construction of a one-hundred foot tower adjacent to National Park Service property at Battery Humphries, we appreciate the Navy seeking our opinion about the impact it may have on the historical and natural resources at Cabrillo National Monument and intangible values, such as the view, that we are required to preserve.

Cabrillo NM is a popular destination for many local and out-of-town visitors with over one million people visiting annually. The primary reason visitors come to the park is to enjoy the view of San Diego, Mexico and the Pacific Ocean. In keeping with the park's mission, the National Park Service is working to restore the native natural habitat and recreate a sense of how the area might have appeared during the time the Old Point Loma Lighthouse was in operation during the 1880s. The hundred-foot CEC tower will intrude upon the natural and historical scene from at least some viewing areas at Cabrillo NM, in particular the statue of Juan Rodríguez Cabrillo.

Because the Navy understands our concerns regarding the effect of the tower on views from the park, we are encouraged by the fact that you are pursuing the removal of the existing red and white tower that is directly in the viewshed of the Old Point Loma Lighthouse. We appreciate and support your efforts to relocate the antennas mounted on this tower to the CEC tower, and the removal of the tower itself. We hope the Navy will do everything in its power to remove this old tower. It is an eyesore and it will be very beneficial to our visitors to have it removed.

We understand the Navy's strong need for and commitment to the CEC program, and although a new hundred-foot tower is not desirable, the fact that it will be only partly visible from viewpoints in the park makes it acceptable. The removal of the existing red

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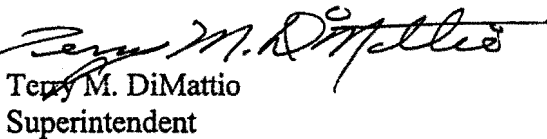
CALIFORNIA
COASTAL COMMISSION

EXHIBIT NO. 11
APPLICATION NO.
CD-25-01

and white tower south of the Old Point Loma Lighthouse will help compensate for the construction of the new tower, while enhancing the scenic values of the park and we strongly support the Navy in this effort. We are pleased that the Navy is also integrating design features in the CEC tower that will help reduce or eliminate it as a hazardous perch for birds of prey. This cooperative effort indicates to us the Navy's interest in preserving the resources of the area as much as feasible, given the nature of the project.

Thank you for working with Cabrillo NM on this project. Those involved with it have been helpful and informative. If you have any questions, please call me at 619-523-4560.

Sincerely,


Terry M. DiMattio
Superintendent

cc: Mark Delaplaine, Federal Consistency Supervisor,
California Coastal Commission