

CALIFORNIA COASTAL COMMISSION

ENERGY, OCEAN RESOURCES AND FEDERAL CONSISTENCY
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November 25, 2024

Beatrice L. Kephart
U.S. Department of the Air Force – U.S. Space Force
30 CES/CEI
1028 Iceland Avenue
Vandenberg SFB CA 9437-6919
Via email to: beatrice.kephart@spaceforce.mil

Re: Negative Determination No. ND-0034-24: New telemetry antenna at Pillar Point Space Force Station, San Mateo County

Dear Beatrice L. Kephart,

On August 13, 2024, the United States Department of the Air Force (DAF), United States Space Force submitted the above-referenced negative determination to install a new, 64-foot-tall telemetry antenna at the Pillar Point Space Force Station (PPSFS), situated on the coastal bluff overlooking Pillar Point Harbor, north of Half Moon Bay. The primary purpose of the new antenna is to provide tracking information to support rocket launch activities at the Vandenberg Space Force Base. The PPSFS has been used by the United States military since 1940, and the DAF has used it as a tracking station for operations at Vandenberg for over fifty years.

The new antenna would be the latest of several different antennae and other support structures installed on the blufftop at the PPSFS over the last several decades. Additions and upgrades to antennae tracking equipment at Pillar Point have been reviewed extensively by the Commission in the past and the subject antenna raises comparable enforceable policy considerations related to public views and access in California's Coastal Management Program (CCMP) that the Commission has previously contemplated. Pillar Point is highly visible from public vantage points spanning 360 degrees, including Fitzgerald Marine Reserve, Highway 1 and the Coastal Trail, the Pacific Ocean, Pillar Point Harbor, Half Moon Bay State Beach, Montara Mountain, and many other publicly accessible locations. For this negative determination, the DAF would minimize the visual impact of the new antenna through a commitment to decommission and remove a 40-foot-diameter dish antenna once the proposed antenna is fully operational in roughly 2028 and by implementing a landscape screening, plan such that the new development would be sited and designed to protect views to and along the ocean in this scenic coastal area, consistent with Section 30251 of the CCMP.

Background

On December 15, 2006, the Commission concurred with a consistency determination (CD) by DAF for the installation of a large antenna/radome at Pillar Point (CD-089-06). The 2006 CD was for installation of a 44-foot telemetry antenna enclosed by a 62-foot-diameter radome

and related utilities and interior building repairs at the PPSFS.¹ The concurrence was based in part on the DAF's commitment to mitigate visual impacts to the extent feasible through landscaping and building color treatment. The new 62-foot diameter radome that was erected under CD-089-06 stands at 135 feet in height and was installed after the DAF had removed an 80-foot-diameter antenna dish in 1997.² The site of the tallest antenna, known as Facility 22, which was the subject of CD-089-06 and ND-072-97, has had a prominent antenna tower since at least the late 1960s, and the 80-foot diameter dish that operated from 1969 to 1996 was considered eligible for the National Register of Historic Places based on Cold War criteria. In its concurrence letter for the 1997 negative determination, Commission staff noted the benefits to the highly scenic area from removal of the 80-foot diameter antenna, which was by far the most visually intrusive structure at the site. Neither the DAF's submittal in 1997 nor the Commission staff's response letter specifically discussed or provided any details for a replacement antenna. For CD-089-06, the Commission raised concerns about impacts to public views, but ultimately concurred based on findings that the facility was needed, and no less damaging alternatives were available, and after the DAF agreed to mitigate the visual impacts to the extent feasible through installation of landscaping improvements to partially screen some existing visible structures at the station.

In 2008, the Commission concurred with a second CD (CD-013-08³) by the DAF for modernization of its radar tracking capabilities at the PPSFS, which included two new 31-foot-high command transmit antennas and one new 76-foot-high telemetry antenna. In its concurrence, the Commission found that the proliferation of additional facilities at the PPSFS on the blufftop raised similar view protection issues to those raised in CD-089-06 and required the DAF to remove the structures described in CD-089-06 when they were no longer operationally functional. The 76-foot-high antenna that the Commission agreed with as part of CD-013-08 for the PPSFS Western Range Instrumentation Modernization Program (see Exhibit 3 of CD-013-08) was never erected, however, and the 64-foot high antenna proposed under the current ND would be built in a similar location. While the subject antenna is proposed for a location similar to the location reviewed by the Commission in 2008, the DAF nonetheless submitted a negative determination due to the length of time that has elapsed since the Commission's concurrence.

Proposed Project

In the subject negative determination, the DAF proposes to construct a new antenna at the Pillar Point Space Force Station (PPSFS) for the purposes of telemetry tracking (See Figures 1 and 2 below). The DAF states that construction is expected to last 12 months, commencing in January 2025. The proposed antenna would be 64 feet tall with a 62-foot-diameter radome enclosing the antenna to protect the telemetry system from adverse environmental conditions, as shown in Figure 3. To construct the proposed antenna system, an existing 15-foot x 15-foot concrete pad will be removed and replaced with a 45-foot x 45-foot concrete pad. A 45-foot-diameter concrete ringwall will be constructed to support the antenna pedestal and radome. The antenna would be sited east of an existing similar structure, further away from the coastal edge of the property (see Figures 2 and 4). Trenching is proposed within the

¹See CD-089-06: <https://documents.coastal.ca.gov/reports/2006/12/F8d-12-2006.pdf>.

²See ND-072-97: <https://documents.coastal.ca.gov/reports/1997/7/T10-7-1997.pdf>.

³See CD-013-08: <https://documents.coastal.ca.gov/reports/2008/5/F19a-5-2008.pdf>.

area of the 45-foot x 45-foot concrete pad to connect power to the antenna through an existing conduit that runs to Building 13. The trench will be backfilled with the original material from the excavation. Up to twelve 1.58-foot diameter footings approximately 20 feet deep will be poured along the perimeter of the ringwall.

Although the proposed antenna would be an additional protuberance located on top of a notable coastal knoll that is highly visible from numerous public vantage points, DAF addresses the visual resource concerns from the project to the extent feasible, considering the need for DAF to maintain the antenna's full technological operation. The height of the new antenna would be less than half that of the existing, tallest, 62-foot-diameter antenna, which is approximately 135 feet tall (See Figure 4). For comparison, the tallest antenna is three times the height of an NFL field goal post and the new proposed antenna would be less than two goal-posts-tall at 64-feet. The new antenna would also be sited further seaward and at a slightly lower elevation than the existing large antenna, as shown in Figure 4. As a result, the new antenna would not be as conspicuous as the existing large antenna and would have a lesser visual impact on the coastline. Moreover, the new proposed antenna is consistent with the existing visual character of the PPSFS, which includes several other radome-enclosed antennae. To find the best candidate site, the DAF analyzed six locations for a new telemetry antenna and conducted a modeling analysis to determine how to best mask the antenna while still maintaining line-of-sight for a variety of launch trajectories. The analysis considered access to the telemetry site, terrain, constraints posed by existing structures, and existing power and communication sources and found that the proposed location met all of the DAF's mission requirements in addition to being visually compatible with the character of the surrounding areas, as the blufftop has been home to three other antennae/radome structures since the Cold War era.

In response to Commission staff's request to have the radome and ringwall painted with sky or earth tones to help the structure blend in with the blufftop, the DAF responded that it could not paint the radome any color other than white because white keeps antennae cool and minimizes heat damage by reflecting sunlight; however, the ringwall would be painted tan, which would help blend that portion of the structure with the ground. To further enhance the visual quality of the knoll top, the DAF has agreed to prepare a vegetation screening plan for review by the Executive Director within 60 days of Commission concurrence with this negative determination. The vegetation screening plan shall propose new plantings of appropriate vegetation (e.g., noninvasive, drought resistant, native plants from local stock) to be planted and maintained for the life of the facility, with particular emphasis on screening the radome structures and the buildings that are the most visible within views from public areas to the north, northeast, and east of the PPSFS, but configured in such a way as to avoid interference with equipment operation. DAF would then accept feedback on the plan from the Executive Director and consider making revisions based on that input. DAF would implement the vegetation screening plan no more than 60 days after the antenna project is completed. The DAF states that the new facility is largely obscured when viewed from the beaches to the north and south by a steep embankment, so the new antenna is not expected to significantly affect public viewing in those areas, especially because it will be much closer to the ground than the tallest antenna. The proposed removal of an existing 40-foot diameter, 89-foot-tall telemetry dish would also serve to reduce the number of structures on the blufftop and partially offset the addition of the new 64-foot-tall antenna. Additionally, the DAF would

remove an 8-foot dome on top of Building 9 as part of the proposed project. The DAF has also reinforced its commitment to decommissioning antennae equipment at the PPSFS when such equipment reaches the end of its lifetime.

In addition, the DAF determined that the project would not have adverse effects on sensitive habitats or archaeological resources. Vegetation in the area of disturbance consists mainly of non-native annual grasses and iceplant. Ground disturbance associated with construction of the new antenna base would take place on previously-disturbed ground where archaeological resources are not expected to occur; however, a tribal monitor and archaeological monitor would be present during all earth-moving activities associated with the project. During construction, DAF would manage concrete curing compound, waste and washout water to contain and prevent any pollution from entering coastal waters. All construction work would take place within PPSFS property that is inaccessible to the public so the proposed project would not affect public use or access to public areas in the coastal zone near Pillar Point.

Under the federal consistency regulations (Title 15 CFR, Section 930.35), a negative determination can be submitted for a federal agency activity that has no coastal effects “which is the same as or similar to activities for which consistency determinations have been prepared in the past.” The Commission has concurred with multiple CDs submitted by the DAF for development at the PPSFS, as discussed on pages 1-2 above, which specifically contemplated the installation of new antennae while minimizing effects on the scenic quality of Pillar Point. For the proposed project, the DAF would also minimize visual impacts to the greatest extent feasible through the additional commitments described above, which include decommissioning defunct equipment and supplemental vegetation screening. Commission staff therefore agrees that the antenna project would be “the same as or similar to” the previously concurred with antenna projects at the PPSFS and would not adversely affect coastal zone resources. Commission staff therefore **concurs** with your negative determination made pursuant to title 15 CFR section 930.35 of the NOAA implementing regulations.

Please contact Jules Kelly, PhD at jules.kelly@coastal.ca.gov should you have any questions regarding this matter.

Sincerely,

[unsigned]

KATE HUCKELBRIDGE, PhD
Executive Director

cc. North Central Coast District Office

Figure 1. Vicinity map.



Figure 2. Project site and location of proposed new antenna.



Figure 3. Dimensions of new proposed antenna radome.

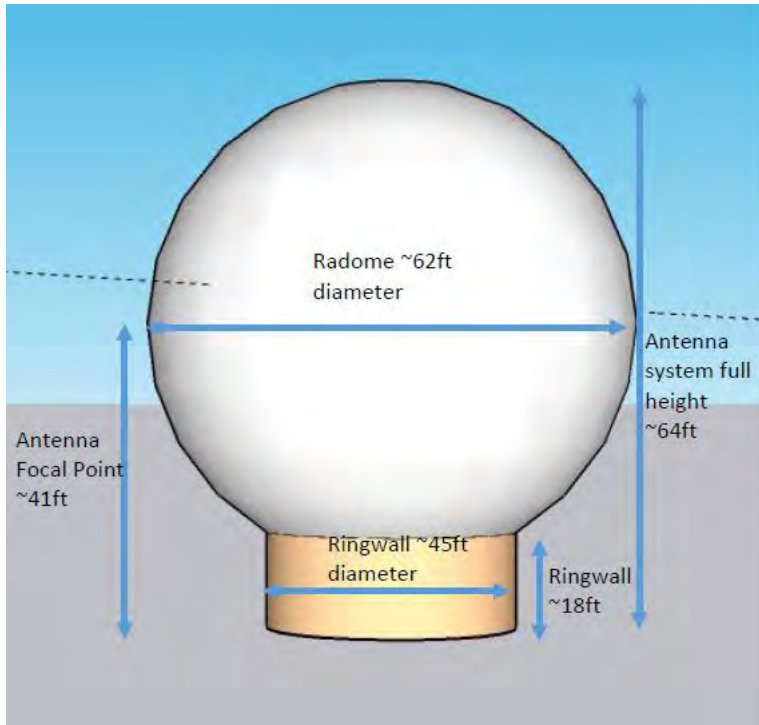


Figure 4. Estimated view provided by DAF showing new proposed antenna and antenna dish to be removed.



Figure 5a. Current view from Pillar Point Harbor. Photo credit: ©iStock, stw_15



Figure 5b. Estimated view from Pillar Point Harbor with new antenna provided by DAF. Photo credit: ©iStock, stw_15



Figure 6a. Current view from north side of Pillar Point Harbor. Photo credit: Getty Images, Sundry Photography



Figure 6b. Estimated view provided by DAF. Photo credit: Getty Images, Sundry Photography



Figure 7a. Current view of PPSFS from public trail north of the site looking back towards Ross' Cove. Photo credit: Lisa Ketcham



Figure 7b. Estimated view with new antenna created by Commission Staff with photo credit to Lisa Ketcham.



Figure 8a. Current view of PPSFS from Surfer's Beach. Photo credit: ©BrandonReadPhoto



Figure 8b. Estimated view with new antenna created by Commission staff with photo credit to ©BrandonReadPhoto



Figure 9a. Current view from Pillar Point Harbor. Photo credit: Glenn Mitchell



Figure 9b. Estimated view from Pillar Point Harbor with new antenna created by Commission staff with photo credit to Glenn Mitchell.

