

FINDING OF NO SIGNIFICANT IMPACT (FONSI)
CONSTRUCTION AND OPERATION OF REVISED PACBAR III RADAR STATION
SAIPAN, CNMI

INTRODUCTION

1. The U.S. Air Force proposes to install a radar facility and approximately two miles of Access Road on Mt. Petosukara, Saipan, Commonwealth of the Northern Mariana Islands (CNMI). This facility will be used for three missions. The majority of the Access Road currently exists and will be improved. One portion will be paved. Approximately 0.3 mile of the Access Road will be newly constructed. The Radar Site and most of the Access Road are located in the Marpi Commonwealth Forest, which will be leased by the Air Force from the Marianas Public Land Corporation (MPLC).
2. Many project design features have already incorporated environmental concerns. In addition, discussions with Saipan environmental agencies have resulted in mitigation measures, which have been added to the design.
3. A major environmental improvement in the scope of the facility was made in June 1986 when the U.S. Air Force decided to eliminate construction of the Boresight Tower and its related additional Access Road from the project. That decision has eliminated the majority of the project construction which would have impacted endangered species habitat in the area.

IMPACT

1. Primary potential impacts associated with the project include:
 - The effects of nonionizing radiofrequency emissions on humans and wildlife.
 - The effects of project activities on an endangered wildlife species.
 - The visual effect of the antenna.
 - The considerable reduction of existing soil erosion at the Access Road.
 - The potential demand for above-average housing.
 - The increased opportunity for employment of local residents.

Of these potential impacts, nonionizing radiofrequency emissions, endangered species, and visual impact issues are most important.

2. Normally, the antenna will operate at angles above the horizon, and power density levels at ground level are not expected to exceed permissible values for human (and wildlife) exposure. A single exception could occur at a small area on the northeast side of the top Mt. Petosukara, if the antenna is recording splashdowns on the horizon. However, elevation and azimuth limit switches will be installed to achieve personnel and public protection. Angles below the horizon could also be acceptable in some direction, depending on: (1) the rate which the land slopes away, and (2) locations of human access or normal wildlife habitat.

Exposure level outside the site boundary will be below the Air Force standard of 5 mW/cm² so public access will not be limited due to RF radiation. Due to use of elevation and azimuth limit switches, restricted access areas will not need to be established.

3. Access Road widening and construction activities will occur in areas of potential endangered species habitat, specifically that of the Micronesian Megapode, a ground dwelling bird. Mitigation measures will include:
 - Placement of the majority of the road along existing road alignments or on grassland.

Less than 14 percent of the road will be through existing forest.

- Vegetation along cliff bases will not be removed (Kosaka 1984 and Schmitt 1985).
 - Vegetation alongside the Access Road will not be removed unless required for road widening.
 - Construction contractor work limits will be specified, in order to avoid disturbance to habitat of the Micronesian megapode.
 - Coordination of location of scenic viewpoint, trailhead, and final road alignment with a CNMI Department of Natural Resources Forester (WSMC 1985).
 - Establishment of a habitat enhancement area away from the project site.
 - Prior to start of construction and during initial construction (cleaning), the project area will be field-checked by a DNR Fish and Wildlife biologist to ensure that the megapode or mound nests are not present in the area to be affected (WSMC 1985).
 - The pathways bulldozed in 1985, which will be abandoned, will be mitigated in a manner agreed upon with appropriate island and government agencies.
4. The visual impact of the antenna is difficult to mitigate since it must be painted white, be lighted at night for aircraft warning, and be located at a higher elevation to function properly. Siting of the facility, including the original Boresight Tower, included recommendations based on a seen-area analysis performed by the U.S. Fish and Wildlife Service. Siting also considered the presence of a radio broadcasting company on the northern end of the island with its large antennas, and other development projects which lessen the impact of the radar facility since the visual characteristics of the northern end of the island already have been altered.
 5. Soil erosion in the Access Road areas will be mitigated by paving the initial, approximate 0.3 mile, portion of the improved road and by providing appropriate drainage and erosion control measures along the entire road (DEQ 1986b). This will provide a beneficial effect, since it will help to a large extent to control existing erosion.
 6. The demand for above average housing by the imported employees may be an adverse impact; however, developers are expected to anticipate the demand. New housing may be constructed in association with several development projects in the area, further helping to mitigate any housing problem.
 7. A beneficial impact will be the employment of qualified local residents in both technical and nontechnical positions for operation of the radar facility.
 8. Other, less significant impacts include:
 - Construction noise
 - Increased safety risk by workers being exposed to unidentified, unexploded ordnance during construction.
 - Benefits of revenues for public purposes and in money brought to the island.
 - Increased demand on non-electrical public services.
 9. Several potential impacts such as soil and ground water contamination and effects on historical items have been mitigated through project design. Mitigation measures include;
 - Secondary containment of waste oil storage tank, proper design of septic facilities, spill containment for above ground diesel fuel tanks, and spill containment for a flammable material storage building (Smith, Young and Hida 1987a).

- Appropriate plans for hazardous waste disposal.
 - Hazardous materials spill containment and spill plan procedures.
 - Avoidance of historical items (i.e., U.S. ordnance storage buildings) during construction activities.
10. Three additional area of potential impact, which were studied but found to be non-issues, are air quality, effects on flood plain/wetlands, miscellaneous socioeconomic/land use concerns. These impacts are expected to be minimal for the following reasons:
- Air emissions, although expected, will not adversely affect island air quality due to the natural topography of the site (high elevation) and typical weather conditions (windy).
 - Impacts to flood plains/wetlands are not expected because these sorts of areas are located distant from the project area, and runoff from the site is not expected to reach these areas.
 - Schools, emergency services (police/fire/medical), and transportation on the island are adequate for both construction and operations employees and their families.

ALTERNATIVES

1. Eight site alternatives were considered for this project. One site was located on Guam, two on Tinian, and five on Saipan. The seven sites which were considered and then eliminated in favor of Mt Petosukara on Saipan are listed below with a brief explanation of the more significant reasons for their elimination:
 - Guam, NASA Dandan Tracking Station. This existing station is not a viable option because it will not be available for use by the time PACBAR III is due to operate. Further, it is not able to satisfy one of the three mission objectives.
 - Tinian Sites, Maga Plateau and Massalog. These sites have blockage limitations toward the north, which significantly reduce their effectiveness to satisfy the mission objectives in comparison to the Mt. Petosukara site. The Tinian sites would also have higher construction and operating costs because that island is less developed in comparison to Saipan. Locating the Radar Site at either of the Tinian sites poses potential conflict with naval activities planned for the area. Environmental impacts at the Tinian sites are judged to be comparable to those at the selected site especially since the Boresight Tower has been removed from the project.
 - Saipan, Mt. Tagpochau. Three reasons for eliminating this site included lease uncertainties, mission objective limitations due to the requirement to increase radar blockage to ensure public safety, and aesthetic impacts to this frequently visited tourist attraction.
 - Saipan, Suicide Cliff. This site is currently a tourist attraction. It was eliminated as an alternative due to lease uncertainties, reduced aesthetic value as a tourist attraction, and the requirement to increase radar blockage to ensure public safety.
 - Saipan, Osko Talufofo. This site is located near local housing. Therefore, impacts such as air quality emissions, noise, and the requirements to increase radar blockage to ensure public safety were concerns contributing to eliminating the site.
2. Project equipment alternatives included: (1) use of an onsite Boresight Tower versus other calibration techniques, (2) use of onsite versus offsite powers, and (3) several telecommunications options. The Boresight Tower option for calibration was eliminated to reduce environmental impacts of the project. Other calibration techniques to be used may include a combination of calibration spheres (balloons), satellites, ships and airplanes and/ or a transmitter fixed to an existing structure such as a radio tower. Onsite power and a microwave link telecommunications service were chosen due to cost, reliability, and aesthetic considerations.

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3. A "No Project" alternative, if chosen, could adversely affect the ability of the U.S. AIR FORCE to fully comply with National Space Policy, execute treaty monitoring support, execute U.S. AIR FORCE missions, and satisfy Space Surveillance goals and requirements. None of the adverse or beneficial impacts resulting from the PACBAR III Radar Station would be realized by the No Project alternative.

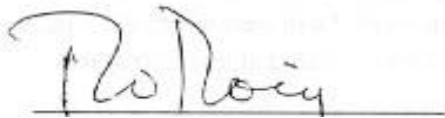
LOCAL AGENCY REQUIREMENTS

1. Preliminary discussions with CNMI government agencies resulted in the following items added to the project design:
 - Addition of one scenic viewpoint and one trailhead.
 - A seen-area analysis to evaluate the areas of least visual impact for the Radar and Boresight Tower Sites (Newell 1984). That analysis was primarily accomplished for the Boresight Tower, which was originally part of the project.
 - Assurance that vegetation along cliff bases will not be removed (Kosaka 1984 and Schmitt 1985).
 - Establishment of a habitat enhancement area located away from the project, upon recommendation of and negotiations with CNMI DNR Fish and Wildlife.
 - Paved road from Beach Road to the entrance of the Marpi Commonwealth Forest (DEQ 1986b).
 - Drainage diversion designs, where necessary, along project access roads (DEQ 1986b).
 - Requirements that equipment and supplies delivered to Saipan be free of introduced organisms, especially snakes (Glass 1986).
 - Requirements that road areas bulldozed in 1985 be mitigated as negotiated with appropriate island and government agencies (Culbert 1986c).
2. Permitting requirements from Saipan agencies will be coordinated through the local Coastal Resources Management Office (CRM). It is expected that four permits will be required, a CRM permit an erosion control permit, a sanitary waste discharge permit, and an archaeological permit.

FINDINGS

1. In view of the above, a finding of no significant impact is made. Negative impacts of the project are not significant and are greatly reduced by the mitigation measures incorporated into the project design. Positive impacts are also not significant, but do help to balance the negative impacts.
2. A Final Environmental Assessment for the Revised PACBAR III Project dated June 23, 1987 is on file at:

HQ SPACE DIVISION
P.O. Box 92960
Worldway Postal Center
Los Angeles, California 90009
ATTENTION: Mr. John R. Edwards, SD/DEV



Raphael O. Roig
Chairman, Space Division
Environmental Protection Committee

25 Jun 1987
Date