



Draft

Environmental Impact Statement /
Overseas Environmental Impact Statement

GUAM AND CNMI MILITARY RELOCATION

Relocating Marines from Okinawa,
Visiting Aircraft Carrier Berthing, and
Army Air and Missile Defense Task Force

Volume 6: Related Actions – Utilities and Roadway Projects

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Guam and CNMI Military Relocation EIS/OEIS

Volume 6: Related Actions – Utilities and Roadway Projects (Guam)

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CHAPTER 1.

PURPOSE OF AND NEED FOR ACTION

Volume 6 of the Guam and Commonwealth of the Northern Mariana Islands (CNMI) Military Relocation Environmental Impact Statement/Overseas Environmental Impact Statement (EIS/OEIS) evaluates proposed utilities and roadway improvements on Guam.

The proposed military buildup on Guam associated with the relocation of the United States (U.S.) Marine Corps (Marine Corps), the Navy aircraft carrier berthing, and the Army Air and Missile Defense Task Force (AMDTF) would increase the demand for power, potable water, and wastewater utilities. The buildup would also affect the remaining life of existing solid waste facilities and the demand for the new Government of Guam (GovGuam) Layon Landfill in Dandan. The proposed actions would also require roadway improvements.

For utilities, the Navy conducted several studies to identify the Guam utility improvements required to accommodate the proposed action. These included a study for power, potable water, wastewater, and solid waste. The utility studies sought to quantify the increased Department of Defense (DoD) demand that would result from the military buildup, and to develop utility solutions to meet those projected demands. The populations on which these utility studies were based are summarized in the individual utility studies (HDR|Hawaii Pacific Engineers 2008; NAVFAC Pacific 2008b, c). These studies accounted for projected increases in DoD personnel, increases in the on-base civilian workforce required to support the military buildup, and construction worker demands while working on base that were known at the time. Subsequent supplementary analysis letter reports (NAVFAC Pacific 2009a, b, c) were prepared to document the changes between the power, potable water, and wastewater utility discussions presented in this Draft Environmental Impact Statement (DEIS) and the original studies.

The roadway improvements sections have been prepared jointly by the Federal Highway Administration (FHWA) as a federal cooperating agency, the Navy's Joint Guam Program Office as the federal lead agency for the Guam and CNMI military relocation, and the Guam Department of Public Works (DPW) as a participating agency.

The utilities and off-base roadway improvements are considered "related actions," in that they would be implemented only to satisfy the increased demand directly caused by the overall proposed actions. Therefore, the purpose of and need for the utilities and roadway improvements support the purpose of and need for each of the three major action components described in the following volumes:

- Volume 2 (Marine Corps Relocation Guam)
- Volume 4 (Aircraft Carrier Berthing)
- Volume 5 (Army AMDTF)

The purpose of and need for each major action component is described in Chapter 1 of each of those volumes. The purpose of and need for the utilities are to provide for the essential increased utility demands from the DoD buildup and induced growth. The purpose of and need for roadway improvements is described later in this chapter.

1.1 PURPOSE OF AND NEED FOR ROADWAY IMPROVEMENTS

1.1.1 Introduction

The Guam Road Network (GRN) is proposed to become Guam’s nonmilitary roadway system. Construction of the GRN is required to provide mission-critical transportation infrastructure as part of the planned construction, training, and operations associated with the three proposed military actions (Figure 1.1-1). First, the GRN must accommodate increased traffic from the island’s military buildup associated with relocating approximately 8,600 Marines of the III Marine Expeditionary Force and their dependents from Okinawa by 2014. Aviation and waterfront operations; training; construction of the main cantonment, family housing, and associated utilities; and infrastructure improvements represent the scope of activities to be conducted in support of Marine Corps projects on the island. Roadway improvements are needed to support both construction of the facilities and the ensuing traffic related to the military buildup on Guam. Roadway improvements are also related to construction of operational facilities, the main cantonment, and family housing on Guam, and training to support the Marine Corps’ defensive mission.

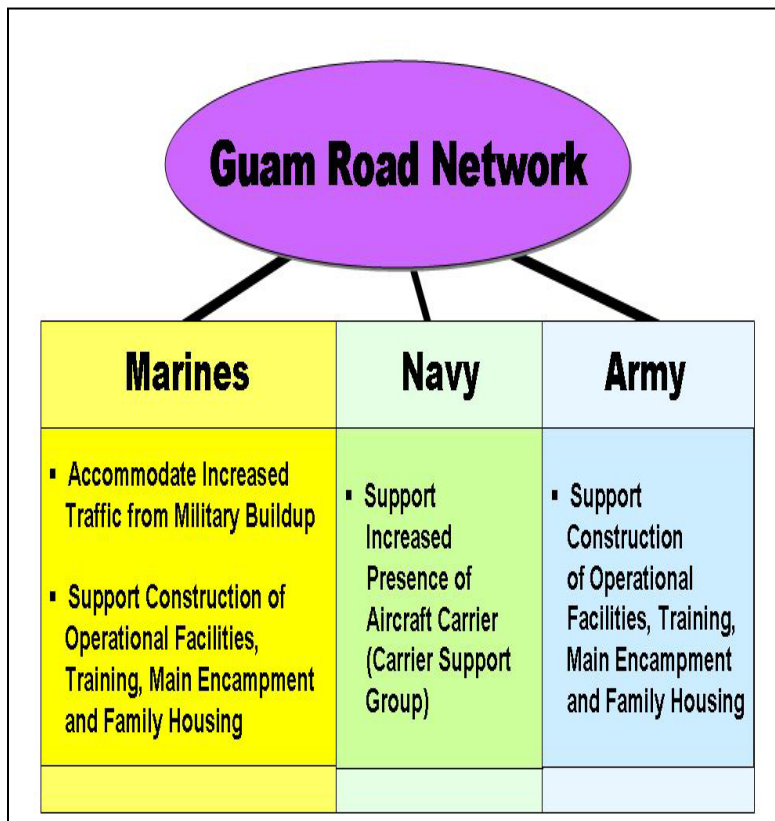


Figure 1.1-1. Connectivity of the Guam Road Network

Second, the roadway improvements are related to Navy initiatives associated with an increase in aircraft carrier presence to support engagement and deterrence consistent with the global shift of trade and transport. A new deep-water wharf at Apra Harbor is needed to support the increased Navy presence and port visits associated with a carrier support group.

Third, the roadway improvements are related to construction of operational facilities, training, and construction of the main cantonment and family housing on Guam, and training to support the AMDTF and its defensive mission.

1.1.2 Project Purpose

The purpose of the proposed construction of the GRN is to improve the existing network through the Defense Access Road Program and provide mission-critical transportation infrastructure as part of the planned military buildup. The improvements proposed for the GRN would result in strengthened roadways, bridge replacement, increased roadway capacity, roadway realignment (Route 15), new access, and enhanced roadway safety on Guam as a response to construction for military buildup and growth.

1.1.3 Project Need

An improved network of roads on Guam is needed as part of the mission-critical infrastructure to support planned relocation of Marines and their dependents, as well as to accommodate ongoing growth on the island. The island of Guam is experiencing a variety of roadway problems: inadequate bridges; flooding roads; poor lane visibility as a result of tight corners; poor lane striping, lighting, and lane geometry; locations with a large number of accidents; landslides; eroding embankments; and inadequate intersections because of the absence of traffic signals. The existing roadways connecting the population centers and DoD lands on Guam are shown in Figure 1.1-2.

Without improved roads and bridges, the movement of people, materials, equipment, and waste associated with construction and operations would result in congestion. The resultant wear and tear on existing roads could severely limit the construction schedule if these roadway and bridge projects were not implemented.

To meet these needs, the proposed GRN improvements would include roadway widening, intersection improvements, bridge replacements, and pavement strengthening at specific locations islandwide, as well as the realignment of Route 15. These improvements are needed to resolve traffic congestion during the construction period from 2010 through 2016, with peak construction and peak population in 2014, and the ensuing traffic increase from full military buildup combined with projected organic growth. The transportation network would become an integral component for fulfilling the U.S. defense strategy and alliance requirements; the network would also enhance the ability of the AMDTF to defend critical military assets on Guam. The need for the proposed action is explained in further detail in Section 2.5.1.

1.1.4 Project Location, Funding, and Setting

The project may be funded by FHWA through annual allocations for calendar years 2010 through 2016 and funding requested under the Defense Access Road Program. The Defense Access Road Program provides the means for DoD to pay a fair share for public highway improvements required as a result of a sudden or unusual defense-generated traffic impact or unique defense-related public highway requirement.

The setting for the project encompasses the primary roadway network for the entire island of Guam, composed of 20 federal-aid roadways and one local road totaling approximately 66 miles (106 kilometers) in length.

Projects may be eligible for funding based on any of the following five criteria:

- A new access road to a facility is needed.
- A defense action would cause traffic to double.
- A new or improved access road is needed to accommodate a temporary surge in traffic associated with a defense action.
- A new or improved road is needed to accommodate special military vehicles.
- A road is needed to replace one closed for defense needs.

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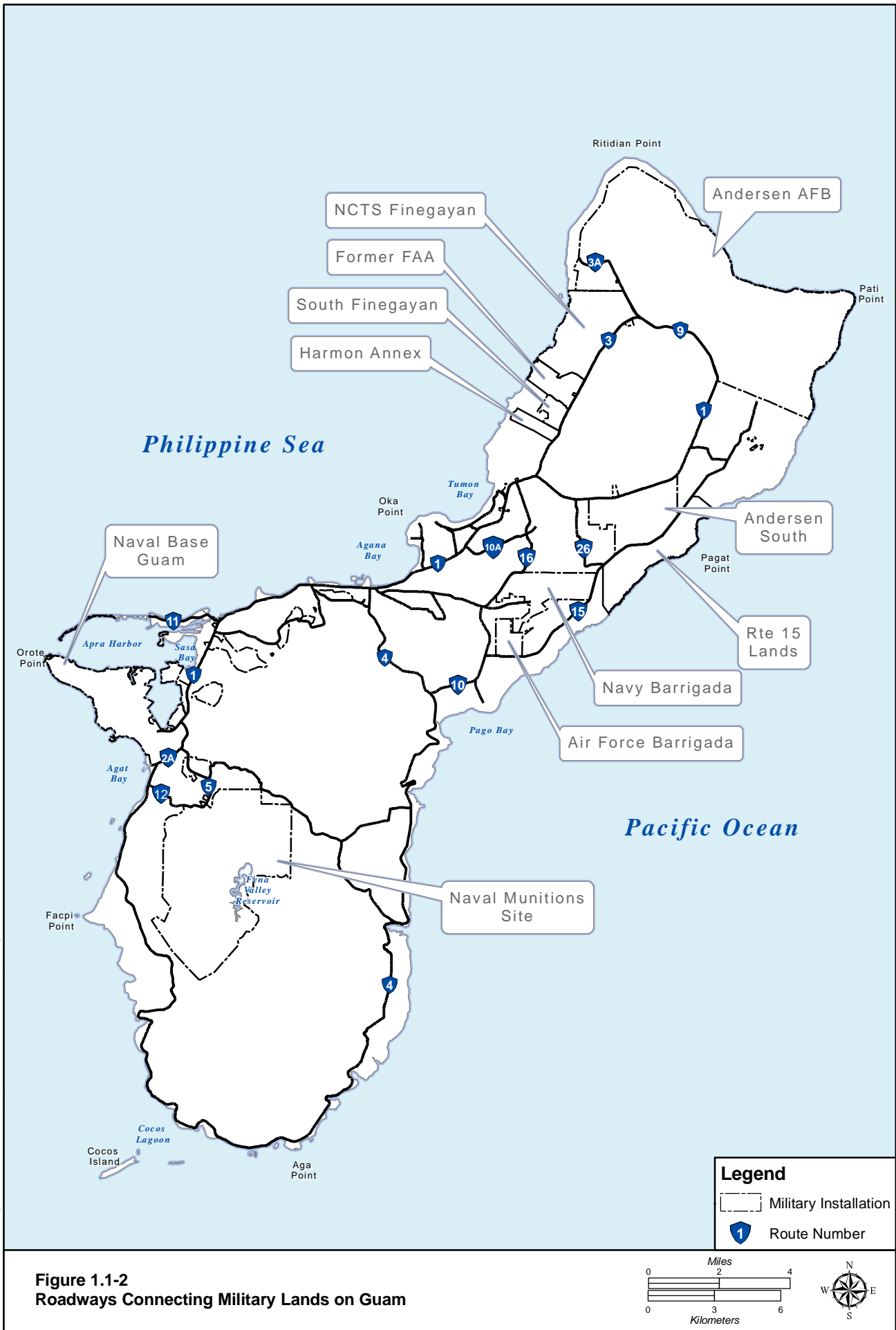


Figure 1.1-2
Roadways Connecting Military Lands on Guam

1.1.5 Governing Laws, Regulations, and Standards

Governing laws, regulations, and standards include the Council on Environmental Quality's *Regulations for Implementing NEPA* (40 Code of Federal Regulations [CFR] 1500-1508); FHWA environmental regulations (23 CFR 771); FHWA Technical Advisory T6640.8A (*Guidance for Preparing and Processing Environmental and Section 4(f) Documents*); FHWA Section 4(f) Regulations (23 CFR 774—Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(f)); and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (23 United States Code [USC] 139).

1.1.5.1 Least Environmentally Damaging Practicable Alternative (LEDPA)

Chapter 4 of this volume contains an analysis of the least environmentally damaging practicable alternative (LEDPA), which is required under the Section 404(b)(1) guidelines of the Clean Water Act (CWA). Specifically, Section 404(b)(1) of the CWA stipulates that no discharge of dredged or fill material into waters of the U.S., which include wetlands, shall be permitted if there is a practicable alternative (LEDPA) which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant environmental consequences. Furthermore, an alternative is considered practicable if it is available and capable of being implemented after taking into consideration cost, existing technology, and logistics in light of overall project purposes. The Section 404 (b)(1) guidelines are applicable to proposed actions that are analyzed in this volume.

1.2 NON-DECISION POINT ACTIONS

DoD's proposed action to relocate about 8,600 Marines to Guam and the Navy and Army actions covered by this DEIS would create ripple impacts affecting Guam. Impacts can be identified as direct impacts and indirect or induced impacts. In various cases, effects on resource areas could occur but may not be discernable as direct and indirect impacts. This section discusses areas and/or facilities that are related to the proposed action, but are not in DoD's control .

1.2.1 Port of Guam

The Jose D. Leon Guerrero Commercial Port (also known as the Port of Guam [Port]) is located in the northern portion of Apra Harbor. It is the only port on Guam, and more than 90% of all imported goods and materials come through the Port. This makes the Port an essential facility that supports the entire population of Guam. The proposed military buildup on Guam would create an increased demand for imported goods and materials (especially construction supplies, equipment, and materials) that would be shipped to Guam. Also, during the peak years of construction, goods and other supplies would be required to support the estimated off-island construction workers and induced population. Long-term operational impacts include the importation of supplies, goods, and materials that would support the additional permanent population created by the proposed action.

The Port is administered by the Port Authority. The Port Authority is part of GovGuam and operates as a semipublic organization.

Since its construction in 1969 the Port has remained largely unchanged. With many areas near capacity or unusable, expanding the Port's facilities and equipment upgrades would create operational efficiencies and maximize Port capacity. Before the news of the proposed military relocation, Port improvements and expansion were under consideration; however, the military relocation created an additional impetus to implement planning studies and improvements to service the anticipated construction work and additional population.

In August 2007, work began to update the Port's master plan. The recommendations and updates address future expansion and development based on typical commercial growth, as well as the impending military buildup. Needs assessments for the proposed military buildup on Guam were based on preliminary information about cargo volumes and personnel relocation provided by the Joint Guam Program Office. A final draft Port master plan was completed in April 2008 which updated master plan and set the road map for upgrading the facilities. The master plan for the Port calls for nearly \$200 million in capital improvement upgrades to the Port facilities to support the military buildup. The modernization program, which was granted conditional approval from the Guam Legislature in December 2008, would address both Guam's expected growth without the proposed action and the anticipated increase in cargo volume resulting from the proposed action.

The following are some of the key modernization initiatives for the Port:

- Upgrade of the terminal operating system to allow for automated invoicing, cargo and container tracking, financial management, and maintenance management
- Expansion of wharf space to accommodate larger vessels and increase overall vessel handling capacity
- Acquisition of additional gantry cranes to allow increased cargo movement through the Port and enhance overall productivity and efficiency
- Expansion of existing facilities to support the fishing and cruise line industries

The upgrades to the Port are scheduled to occur between 2009 and 2012 and would comply with both Guam's environmental regulations and the National Environmental Policy Act (assuming that funding from the United States through federal agencies is involved). The modernization plan would increase demand capacity to ensure that Guam's only commercial port is developed and managed to adequately accommodate and capitalize on the expansion (including the military relocation) expected to occur over the next few decades.

At the time of this writing, Port personnel continue to evaluate the Port master plan and study the key modernization initiatives identified above.

Funding for the Port's improvements (modernization) and expansion is anticipated to come from various federal agencies, GovGuam, and private sources. The funds for capital improvements would likely be repaid through user fees that would then be passed on to consumers, businesses, and other entities (i.e., DoD). DoD is not funding Port improvements, nor is it directing or requesting Port improvements.

1.2.2 Related Action

Related actions, as defined in 40 CFR 1508.25, are actions that are closely related. Such actions automatically trigger other actions that have environmental impacts, cannot or would not proceed unless other actions have been taken previously or simultaneously, or are interdependent parts of a larger action and/or depend on the larger action for their justification. If not for the proposed actions, then the related action would not occur.

Workforce housing to support the proposed actions would be a related action.

Workforce housing would be provided by the contractors as described in Volume 2, Chapter 16, "Socioeconomics and General Services." DoD would not provide workforce housing, but design-build contracts would require the contractor to accommodate the workforce in accordance with specified health and safety standards. Various proposals are being developed by potential contractors in anticipation of winning a contract. The timing and location are unknown for construction and/or renovation of housing to

accommodate the construction workforce, but it is likely that some of the workforce housing projects would begin in advance of the record of decision. DoD has no decision-making authority on current proposals for construction workforce housing, and the record of decision would not endorse specific proposals for workforce housing.

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