

CHAPTER 9.

RECREATIONAL RESOURCES

9.1 AFFECTED ENVIRONMENT

9.1.1 Definition of Resource

Recreational uses of an area for the purposes of this Environmental Impact Statement (EIS) may include any type of outdoor activity in which area residents, visitors, or tourists may participate. Typically (though not exclusively) focused on weekends or vacation periods, such activities may include hiking, fishing, beachcombing, spelunking, and boating. Recreational opportunities and resources can be a very important component of an area's economy and the lifestyle of its residents. Recreational resources as discussed in this chapter are primarily assets pertaining to the physical geography of the Island of Tinian, from the mountains to the oceans, and terrains in between; there are various man-made resources in urban and semi-rural settings as well.

Recreational resources have been organized into the following categories with similar uses grouped in parentheses: *trails* (pedestrian hikes, mountain bike trails, “boonie stomping,” or hiking through “boonies” of large areas of undeveloped jungle and beaches); *historic and cultural attractions* (historic monuments, parks, and cultural sites); *scenic points* (vistas, lookouts, and overlooks); *dive spots* (snorkeling, self contained underwater breathing apparatus, or SCUBA diving, and free diving); *beaches and parks* (also including conservation areas, preserves, and refuges); *spelunking*, or cave exploration; *fishing*; and *other*. The categories employed throughout the chapter are for the purpose of data organization only; this point is emphasized to acknowledge multi-recreational opportunities from a particular resource. For instance, a resource organized under *trail* may offer hiking as well as swimming, snorkeling, and picnicking at the trail terminus. Because all such activities are considered to be recreational resources, a description of each resource, is provided to supplement its categorization.

9.1.2 Tinian

Tinian lies approximately 100 miles (mi) (160 kilometers [km]) northeast of Guam and 3 mi (4.8 km) south of Saipan. Although Tinian covers an area of only 39 square mi (mi²) (101 square km [km²]), nearly 26 mi² (67 km²) of it are leased to the Department of Defense (DoD) (DoN 2010). Most establishments catering to the community and tourism activities are in coastal San Jose village, on the southwest section of the island. Much of the Tinian coast is noted for its precipitous cliffs, but there are pockets of coves and beach area as well. Near the Tinian Harbor on the west side of the island are several small and narrow fringing reefs and a small barrier reef. Notable recreational resources are trails, historic and cultural attractions, scenic points, dive spots, and beaches and parks as shown in Figure 9.1-1.

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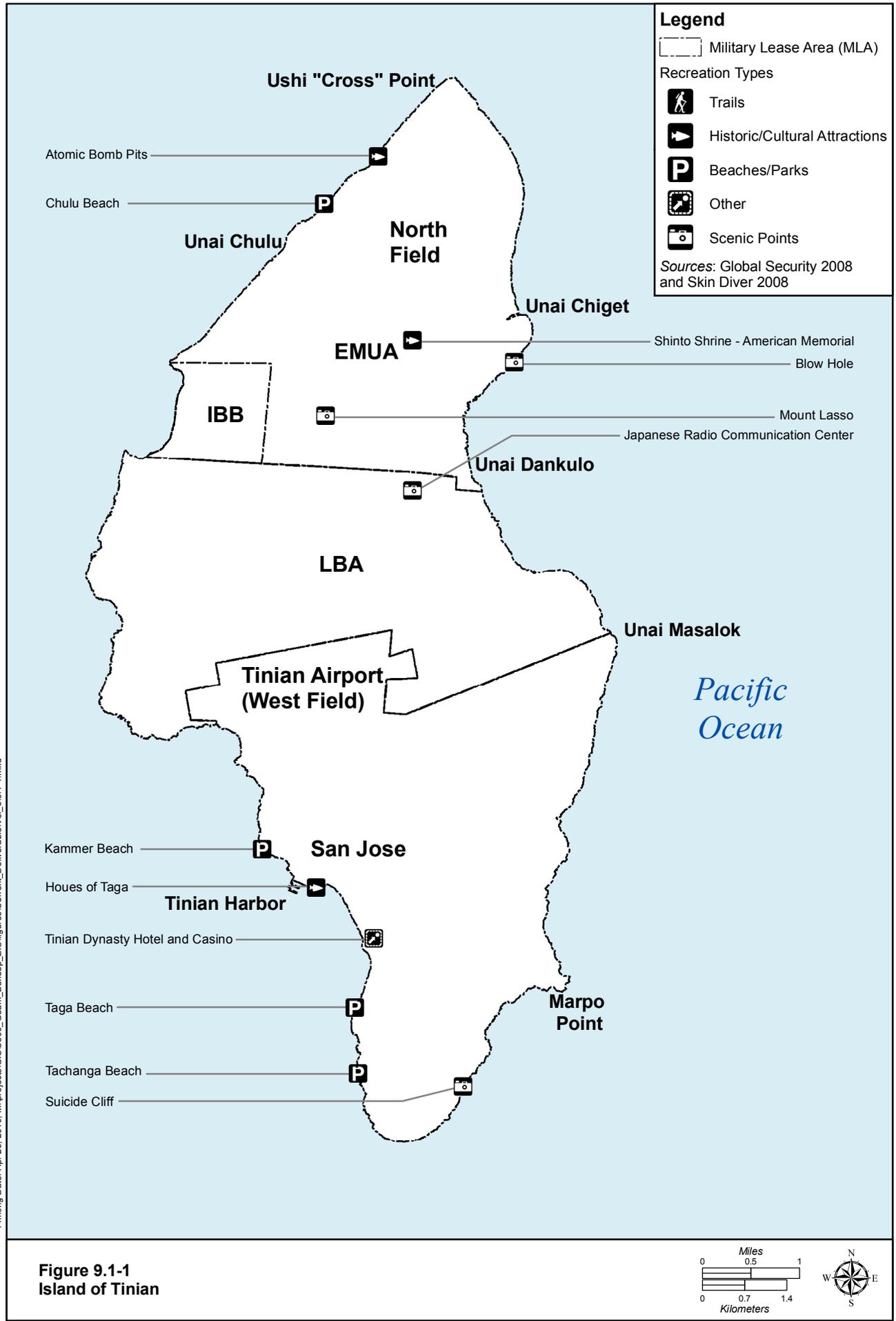


Figure 9.1-1
Island of Tinian

9.1.2.1 North

Trails

Ushi Field-North Field Trail

This is an interpretive trail that identifies 14 points of interest from World War II. The Seabees and Marines constructed six air strips on the island, four of them on North Field. Each had an alphabetical designation—A (Able), B (Baker), C (Charlie), and D (Dog). Able is at the northernmost location and was where the Enola Gay took off to drop the atomic bomb on Hiroshima, Japan, on 6 August 1945, and Bock's Car took off to drop the bomb on Nagasaki, Japan, on August 9, 1945. Before the U.S. took control of Tinian, the Japanese had an airfield in northern Tinian named Ushi Field. Two B-29 airstrips and a third airstrip for smaller aircraft were built by the Seabees further south, near the Japanese Kahit Airfield. These were named West Field and the smaller runway is still in use as a civilian airport. Also present are World War II Japanese fortification features such as a bunker, naval battery, command post, and the Bomb Assembly Building.

Scenic Point

Mount Lasso Lookout

Situated south of North Field, Mount Lasso is a frequently visited lookout point.

Historic and Cultural Attractions

Shinto Shrine

Situated in the North Field, the site marks the sole Shinto Shrine in the Marianas.

Beaches and Parks

Chulu Beach

Chulu Beach is located on the northwestern shore of Tinian.

9.1.2.2 Central

Beaches and Parks

Unai Dankulo (Long Beach)

Situated on the east coast, Unai Dankulo is the largest beach on Tinian and has a continuous reef crest across the entire run of the beach. Unai Dankulo comprises at least 10 beaches over a distance of 4,921 feet (ft) (1.5 km).

Unai Masalok

Unai Masalok is comprised of three beaches over a distance of 1,640 ft (0.5 km).

9.1.2.3 South

Historic and Cultural Attractions

Ruins of House of Taga

The House belonging to Taga, ancient Chamorro Chief, in San Jose village, contains the tallest set of latte stones that were actually used by the ancient Chamorros. The stones are quarried limestone, each approximately 20 ft (6 meters [m]) in length. Of the 12 large latte structures, only one remains standing.

According to a local legend, when the last stone falls, Chief Taga would return to Tinian (The House of the Ancient Chamorro Chief Taga 2008).

Beaches and Parks

Taga Beach

Taga Beach is located on the south end of Tinian. Adjacent to the beach are picnic facilities, parking, and a place to rent scooters.

Tachogna

Situated adjacent to Taga Beach, Tachogna Beach spans for several blocks. Activities available include snorkeling, SCUBA diving, jet skiing, and various other marine activities.

Kammer Beach

Kammer Beach is located near San Jose village.

9.2 ENVIRONMENTAL CONSEQUENCES

9.2.1 Approach to Analysis

9.2.1.1 Methodology

Information on recreational resources on Tinian and public access were collected through stakeholder meetings in April 2007, Geographic Information System data compiled and reviewed for this EIS, literature review, and personal communications. A comprehensive recreational carrying capacity analysis—assessing the number of individuals who can be supported in a given area within natural resource limits without degrading the natural social, cultural, and economic environment (Global Development Research Center 2009)—was not conducted as part of this EIS.

9.2.1.2 Determination of Significance

For the purpose of this EIS, the proposed action and alternatives would cause a significant impact to recreational resources if they:

- Would impede access to recreational resources
- Would substantially reduce recreational opportunities
- Would cause substantial conflicts between recreational users
- Would cause substantial physical deterioration of recreational resources

To determine whether impacts might be significant, potentially adverse impacts are identified and evaluated using the significance criteria for the recreational resources on Tinian. This EIS addresses both adverse and beneficial impacts resulting from the proposed actions.

9.2.1.3 Issues Identified during Public Scoping Process

As part of the analyses, concerns relating to recreation impacts that were raised by the public, including regulatory stakeholders, during scoping meetings were addressed. A concern was raised regarding potential obstruction of access to historical sites on Tinian at the scoping meetings in April 2007.

9.2.2 Alternative 1 (Preferred Alternative)

9.2.2.1 Tinian

Construction

Recreational resources on Tinian are situated primarily along the North Field, coastal areas islandwide, and southwest in the vicinity of San Jose village. The proposed development associated with Alternative 1 implementation would not be situated in the proximity of the existing recreational resources; as such, impediments to access are not expected. North-south thoroughfares such as Broadway and 8th Avenue would experience an increase in the number of construction-related vehicles, including slow moving and/or oversized vehicles. Increased numbers of vehicles on roads may cause inconvenience to travelers using these thoroughfares. However, access to recreational resources would still be possible. Therefore, construction associated with Alternative 1 would result in less than significant impacts to recreational resources.

Operation

Under Alternative 1, the Range Training Area and associated Surface Danger Zone (SDZ) would affect a segment of Broadway, one of two north-south thoroughfares on Tinian. The range area would not be accessible by non-participating personnel for 12 to 16 weeks per year during training periods. There would be sufficient lead-time before training to ensure range area clearance. Training periods would be scheduled in advance with signs posted and published on a regular basis. To facilitate range safety, ground access would be controlled by traffic control points on existing roads. This would safeguard the public by keeping them out of any areas where there would be potential dangers while simultaneously maintaining access to areas where training is not being conducted. This would ensure access to the National Historic Landmark, northern beaches, and the International Broadcasting Bureau via 8th Avenue. Broadway would be closed during training. However, the public would be able to travel on 8th Avenue, check in with personnel manning the first traffic control point. Once cleared by range control, they would proceed on 8th Avenue, checking in with each successive traffic control point until clear of the training area. Prior to training, range flags would be raised and traffic control points would be established and manned continuously throughout the duration of training. Interior portions of the range area (those affected by SDZs) would be inspected and watches would be posted at a range observation site for boats and aircraft, with positive observation of the sea and air space and having positive communications with range control.

Feeder roads off of Broadway leading to Unai Dankulo and nearby recreational resources would be closed due to the SDZ. The closure of the smaller roads would compound traffic congestion on other smaller roads outside of the SDZ and 8th Avenue. Recreational resources situated within the SDZ (i.e., Mount Lasso and Japanese Communications Center) would not be accessible by the general public during training periods. These impacts are not considered significant as they would be limited in duration. As such, less than significant impacts to recreational resources would result.

Noise from airfield operations and training would generate increased noise levels within the military area, not impacting surrounding use of recreational resources. The results of the modeling of the noise impacts from Range Complex Alternative 1 are analyzed in Chapter 6, Noise. The contours would be entirely within the DoD-controlled land except for a small portion extending on the northern edge of the Tinian Airport property. In this case, no noise-sensitive receptors would be impacted, resulting in no impacts from noise to recreational resources associated with this alternative.

The proposed actions would be situated outside of South Tinian. No disturbance to access to the existing recreational resources is anticipated in this region.

Recreational resources would also be affected by the proposed action if the Marines in training are granted liberty, as has been the case in the past. However, such liberty is not currently guaranteed for regular training exercises under the current description of proposed action. Liberty may be available to advanced teams before and after training exercises, though these advanced teams would be much smaller. During periods when Marines are at liberty, there would be a minor increase in use of recreational resources throughout Tinian.

Therefore, Alternative 1 would result in less than significant impacts to recreational resources.

9.2.2.2 Summary of Alternative 1 Impacts

Table 9.2-1 summarizes Alternative 1 impacts.

Table 9.2-1. Summary of Alternative 1 Impacts

<i>Area</i>	<i>Project Activities</i>	<i>Project Specific Impacts</i>
Tinian	Construction	Increased travel time due to construction vehicles on roads.
	Operation	Broadway would be closed during training operation; increased travel time due to diversion of traffic to 8 th Avenue.

9.2.2.3 Alternative 1 Proposed Mitigation Measures

No mitigation is suggested for Alternative 1.

9.2.3 Alternative 2

9.2.3.1 Tinian

Construction

The effects of Alternative 2 would be similar to those described in Alternative 1 as the proposed development would not be situated in proximity to the existing recreational resources. Inconvenience to travelers on roads accommodating construction related vehicles may occur. Therefore, construction associated with Alternative 2 would result in less than significant impacts to recreational resources.

Operation

Under Alternative 2, the SDZ would cause Broadway to be closed during training periods. Considerable portions of the Unai Dankulo and Unai Masalok are situated in the SDZ, and access would be impeded. To seek comparable resources during training periods, recreational users would have to venture to northern parts of Unai Dankulo outside of the SDZ or to other coastal areas on the island. Since comparable uses already exist on Tinian, resulting impacts would be less than significant. Similar to Alternative 1, road congestion would result due to feeder roads in the SDZ being closed. Access to the northern half of Tinian would still be available via 8th Avenue. Identical to Alternative 1, recreational resources situated within the SDZ (i.e., Mount Lasso and Japanese Communications Center) would not be accessible by the general public during training periods. Increased noise would not impact recreational resources, as discussed in Alternative 1.

Similar to Alternative 1, the proposed Range Training Area would be outside of South Tinian and no impacts to the existing recreational resources would be expected in this region.

Therefore, Alternative 2 would result in less than significant impacts to recreational resources.

9.2.3.2 Summary of Alternative 2 Impacts

Table 9.2-2 summarizes Alternative 2 impacts.

Table 9.2-2. Summary of Alternative 2 Impacts

<i>Area</i>	<i>Project Activities</i>	<i>Project Specific Impacts</i>
Tinian	Construction	Increased travel time due to construction vehicles on roads.
	Operation	Lost access to parts of Unai Dankulo and Unai Masalok during training periods. Broadway and smaller roads off of Broadway would be closed. For recreational resources on other parts of the island, increased travel time due to diversion of traffic to 8 th Avenue.

9.2.3.3 Alternative 2 Proposed Mitigation Measures

No mitigation is suggested for Alternative 2.

9.2.4 Alternative 3

9.2.4.1 Tinian

Construction

The effects of Alternative 3 would be similar to those described in Alternative 1 as the proposed development would not be situated in proximity to the existing recreational resources. Inconvenience to travelers on roads accommodating construction related vehicles may occur. Therefore, construction associated with Alternative 3 would result in less than significant impacts to recreational resources.

Operation

The effects of Alternative 3 would be similar to those described in Alternative 1; Broadway would be closed during training periods, but access to the northern half of Tinian would be available through 8th Avenue. During range operations, 86th Street would also be closed to traffic. Similar to Alternative 1, 8th Avenue and smaller roads east of Broadway would be likely to experience congestion due to some roads in the SDZ being closed (in the vicinity of Broadway). Recreational resources situated within the SDZ (i.e., Mount Lasso and Japanese Communications Center) would not be accessible by non-participating personnel during training periods. Inconvenience to road travelers would be likely to happen. Increased noise would not impact recreational resources, as discussed in Alternative 1.

Similar to Alternative 1, the proposed Range Training Area would be outside of South Tinian and no impacts to the existing recreational resources would be expected in this region.

Therefore, Alternative 3 would result in less than significant impacts to recreational resources.

9.2.4.2 Summary of Alternative 3 Impacts

Table 9.2-3 summarizes Alternative 3 impacts.

Table 9.2-3. Summary of Alternative 3 Impacts

<i>Area</i>	<i>Project Activities</i>	<i>Project Specific Impacts</i>
Tinian	Construction	Increased travel time due to construction vehicles on roads.
	Operation	Broadway and 86 th Street would be closed during training operations; increased travel time due to diversion of traffic to 8 th Avenue.

9.2.4.3 Alternative 3 Proposed Mitigation Measures

No mitigation is suggested for Alternative 3.

9.2.5 No-Action Alternative

Under the no-action alternative, no new construction or new training activities associated with the Marine Corps relocation to Guam would occur in Tinian, and the Marine Corps would not meet training needs and requirements in support of the proposed action. The purpose and need for training in Tinian as described in Chapter 1 would not be met. The existing land uses, access to recreational resources, and other conditions would continue to remain as described under existing conditions. Therefore, the no-action alternative would have no impacts to the existing recreational resources.

9.2.6 Summary of Impacts

Table 9.2-4 summarizes the potential impacts. A text summary is provided below.

Table 9.2-4. Summary of Impacts-Construction and Operation

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>	<i>No-Action Alternative</i>
Access to recreational resources			
• LSI	• LSI	• LSI	• NI
Reduction of recreational opportunities			
• LSI	• LSI	• LSI	• NI
Conflicts between different recreational uses			
• LSI	• LSI	• LSI	• NI
Substantial deterioration to recreational resources			
• LSI	• LSI	• LSI	• NI

Legend: LSI = Less than significant impact, NI = No impact.

In each alternative presented, the SDZ associated with the proposed action would affect a substantial portion of Broadway, inhibiting access on the Island's north-south thoroughfare. Traffic leading to the recreational resources on north Tinian would have to be diverted to the other north-south thoroughfare, 8th Avenue. Consequently, congestion on 8th Avenue would increase. Because training would last 12 to 16 weeks per year and access to recreational resources in north Tinian would be restored otherwise, the effects of the proposed actions are determined to be less than significant. Under Alternative 2, training activities would result in loss of access and use for portions of Unai Dankulo and Unai Masalok; however, because comparable resources exist on other parts of the island, this would result in less than significant impact to recreational resources. Under Alternative 3, 86th Street would be closed during training operations, but this would not limit access to recreational resources. Therefore, all three alternatives would result in less than significant impacts to recreational resources.

9.2.7 Summary of Proposed Mitigation Measures

Table 9.2-5 summarizes the proposed mitigation measures for all alternatives.

Table 9.2-5. Summary of Proposed Mitigation Measures

<i>Alternative 1</i>	<i>Alternative 2</i>	<i>Alternative 3</i>
Construction		
• None	• None	• None
Operation		
• None	• None	• None