# 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/Overseas Environmental Impact Statement (EIS/OEIS) 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

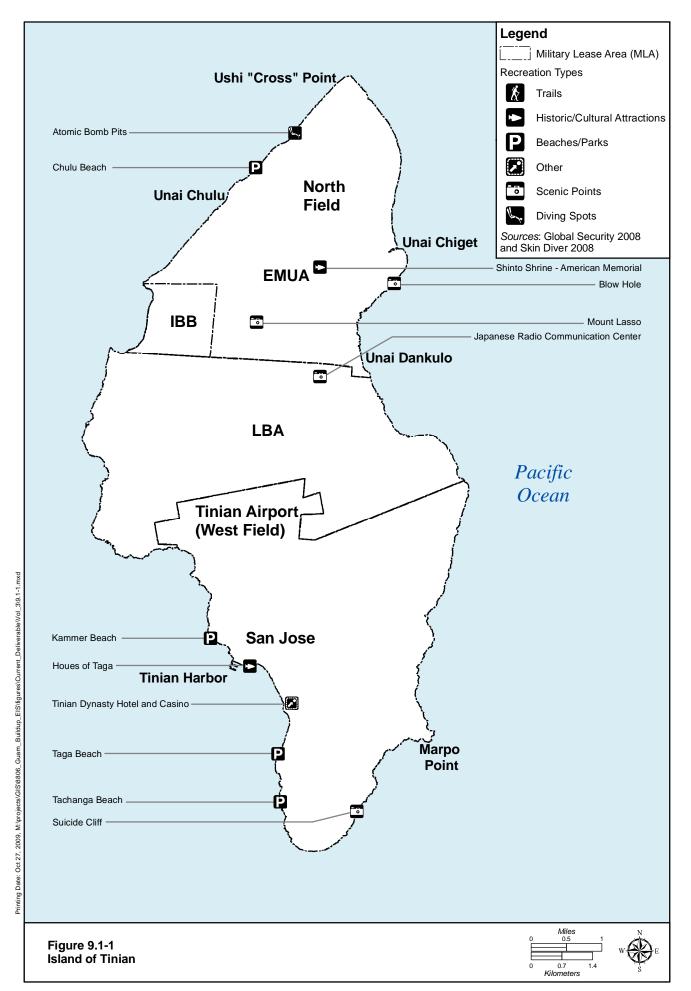
Tinian lies approximately 100 miles (mi) (160 kilometers [km]) northeast of Guam and 3 mi (4.8 km) south of Saipan. Although Tinian covers an area of only 39 square mi (mi²) (101 square km [km²]), nearly 26 mi² (67 km²) of it are leased to the Department of Defense (Navy 2009). Most establishments catering to the community and tourism activities are in coastal San Jose village, southwest 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.

#### 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 trail includes the take-off sites for the aircraft B-29 Enola Gay from Atomic Bomb Pit No. 1 that dropped the atomic bomb on Hiroshima on August 6, 1945, and B-29 Bock's Car from Atomic Bomb Pit No. 2 that dropped the bomb on Nagasaki on August 9, 1945. Also present are World War II Japanese fortification features such



as a bunker, naval battery, command post, North Field runway where Enola Gay and Bock's Car took off, and the Bomb Assembly Building.

## Historic and Cultural Attractions

Shinto Shrine

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

#### 9.1.2.2 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 feet (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

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.

Chulu Beach

Chulu Beach is located on the northwestern shore of Tinian.

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.

## 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/OEIS, 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/OEIS.

# 9.2.1.2 Determination of Significance

For the purpose of the EIS/OEIS, 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. The EIS/OEIS 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, northwest shoreline, and southwest in the vicinity of San Jose village. The proposed structures associated with Alternative 1 implementation are not situated in the proximity of the existing recreational resources; as such, impediments to access are not expected. North-south thoroughfares such as Broadway and 8<sup>th</sup> 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 Surface Danger Zone (SDZ) would affect a segment of Broadway, one of the two north-south thoroughfares on Tinian. Portions of the range area would not be accessible by non-participating personnel during training periods lasting one week per month, including 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 through gates at existing roads. This would safeguard the public by keeping them out of any areas where there are potential dangers while simultaneously maintaining access to areas where training is not being conducted. This would also ensure access to National Historic Landmark, northern beaches, and the IBB via 8<sup>th</sup> Avenue. Broadway would be closed during training. However, the public can travel up 8<sup>th</sup> Avenue, check in with personnel manning the first access gate. Once cleared by range control, they can proceed up 8<sup>th</sup> Avenue, checking in with each successive guard point until clear of the training area. As the result, travelers on 8<sup>th</sup> Avenue are likely to experience increased numbers of automobiles on the road and longer time spent in travel. Prior to training, range flags would be raised and gates would be closed and guarded. Interior portions of the range area (those affected by SDZs) would be inspected and watches would be

posted in a range observation site for boats and aircraft, with positive observation of the sea and air space and having positive communications with range control. These impacts are not considered significant as they are limited in duration. As such, less than significant impact 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 are situated outside of South Tinian. No disturbance to access to the existing recreational resources is anticipated.

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** 

Area	Project Activities	Project Specific Impacts
Tinian	Construction	Increased travel time due to construction vehicles on roads.
	Operation	Increased travel time due to diversion of traffic to 8 <sup>th</sup> Avenue.

## 9.2.2.3 Alternative 1 Potential Mitigation Measures

No potential mitigation is suggested for Alternative 1.

## 9.2.3 Alternative 2

#### 9.2.3.1 Tinian

## Construction

The effects of Alternative 2 are similar to those described in Alternative 1 as the proposed structures are not situated in proximity to the existing recreational resources. Inconvenience to travelers on roads accommodating construction related vehicles may occur.

## **Operation**

Under Alternative 2, the SDZ would affect a segment of Broadway only. During training period, access to the north half of Tinian would be diverted to 8<sup>th</sup> Avenue. Increased travel time as the result of added vehicles on 8<sup>th</sup> Avenue is likely to occur as discussed in Alternative 1 analysis. Increased noise would not impact recreational resources, as discussed in Alternative 1. Although a small portion of the Yellow Beach One on the northeast shore is situated in the SDZ, access to a significant portion of the beach would be undisturbed by the proposed actions. As such, less than significant impact to the recreational resources would result.

The proposed actions are situated outside of South Tinian. No disturbance to access to the existing recreational resources is anticipated.

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

Area	Project Activities	Project Specific Impacts
Tinian	Construction	Increased travel time due to construction vehicles on roads.
1 1111411	Operation	Increased travel time due to diversion of traffic to 8 <sup>th</sup> Avenue.

## 9.2.3.3 Alternative 2 Potential Mitigation Measures

No potential mitigation is suggested for Alternative 2.

#### 9.2.4 Alternative 3

#### 9.2.4.1 Tinian

## Construction

The effects of Alternative 3 are similar to those described in Alternative 1 and 2 as the proposed structures are not situated in proximity to the existing recreational resources. Inconvenience to travelers on roads accommodating construction related vehicles may occur.

## **Operation**

The effects of Alternative 3 are similar to those described in Alternative 2; access via Broadway would be denied during training period and diversion of north-southward road traffic to 8<sup>th</sup> Avenue would result. Inconvenience to road travelers is likely to happen. Increased noise would not impact recreational resources, as discussed in Alternative 1.

Similar to previous alternatives presented, the proposed Range Training Area is outside of South Tinian and no impacts to the existing recreational resources are expected.

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

Area	Project Activities	Project Specific Impacts
Tinian	Construction	Increased travel time due to construction vehicles on roads.
1 iiiiaii	Operation	Increased travel time due to diversion of traffic to 8 <sup>th</sup> Avenue.

## 9.2.4.3 Alternative 3 Potential Mitigation Measures

No potential mitigation is suggested for Alternative 3.

#### 9.2.5 No-Action Alternative

Under the no-action alternative, no training activities and associated functions would occur. The proposed area within the MLA would continue to remain the existing uses as farmlands and other conditions existing at present. Therefore, the no-action alternative would not have 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** 

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Alternative 1	Alternative 2	Alternative 3	No-Action Alternative	
Trails				
• LSI	• LSI	• LSI	• NI	
Historic and Cultural Attractions				
• LSI	• LSI	• LSI	• NI	
Beaches and Parks				
• LSI	• LSI	• LSI	• LSI	

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, 8<sup>th</sup> Avenue. Consequently, congestion on 8<sup>th</sup> Avenue would increase. Because training would last one week per month 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 each alternative, recreational resources on South Tinian are situated outside of the project areas and would not be affected by the proposed actions.

# 9.2.7 Summary of Potential Mitigation Measures

Table 9.2-5 summarizes potential mitigation measures for all alternatives.

**Table 9.2-5. Summary of Potential Mitigation Measures** 

Alternative 1	Alternative 2	Alternative 3		
Construction				
• None	• None	• None		
Operation				
• None	• None	• None		

Guam and CNMI Military Relocation	Draft EIS/OEIS (November 2009)
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