Department of Defense
Legacy Resource Management Program

09-454

Regional Cold War History for Department of Defense Installations in Guam and the Northern Mariana Islands

Jayne Aaron, LEED AP, Architectural Historian

July 2011

EXECUTIVE SUMMARY

The U.S. military missions for Guam and the Commonwealth of the Northern Mariana Islands (CNMI) in support of U.S. policies are today evolving and a major buildup of military personnel and equipment is underway. Additional military personnel are required to support missions of deterrence, antiterrorist and anti-piracy operations support, and humanitarian assistance. A buildup of forces from all four military branches on Guam is projected over the next 10 years. As a result of this buildup, it is estimated that Guam's population could increase by 15%, a population total of up to 196,000. The increased U.S. military presence on Guam has the potential to affect and alter cultural resources there and on the greater CNMI. This Department of Defense Legacy Resource Management Program project to develop a Cold War history for U.S. military installations, including the Air Force, Navy, and Army on Guam and the CNMI, was awarded to develop the history, which will assist in identifying possible Cold War historic properties.

This Regional Cold War History for Guam and the CNMI presents a framework for determining National Register of Historic Places eligibility within a definitive context. This history is a means to more evenly and expediently evaluate resources from the U.S. military response during the Cold War period of significance. The Cold War is defined primarily by the relationship between the United States and the Union of Soviet Socialist Republics. However, for this history, the specific relevance of U.S. military installations on Guam and the CNMI is emphasized during two primary events when the Cold War went "hot," namely, the Korean and Vietnam wars and the proximity of Guam and the CNMI to these conflicts.

Four common themes emerged in this history: (1) how nuclear weapons influenced political and military decisions, including construction; (2) the logistical role Guam and the CNMI played in U.S. Cold War engagements; (4) the role Guam and the CNMI played in Cold War military intelligence and space communications; and (4) the influence of natural disasters, namely typhoons and earthquakes, on the development of U.S. Cold War military facilities in Guam and the CNMI.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

APPENDICES

FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
AFB	Air Force Base
AFDB	Auxiliary Floating Drydock Big
AFDL	Auxiliary Floating Drydock Large
AFDM	Auxiliary Floating Drydock Medium
APWO	Area Public Works Office
BRAC	Base Realignment & Closure Act of 1990
BuDocks	Bureau of Yards & Docks
BWM	Bombardment Wing Medium
CDAA	Circularly Disposed Antenna Array
CFR	Code of Federal Regulations
CIA	Central Intelligence Agency
CincFE	Commander-in-Chief, Far East
CINCPAC	Commander in Chief, Pacific
CINCPACFLT	Commander in Chief, Pacific Fleet
CINCPOA	Commander in Chief, Pacific Ocean Area
CIVAD	Civil Administration Unit
CNMI	Commonwealth of the Northern Mariana Islands
ComNavFe	Commander, United States Naval Forces, Far East
COMNAVMAR	Commander, Naval Forces Mariana
COMSERVPAC	Commander Service Force, U.S. Pacific Fleet
COMUSMACV	Commander, U.S. Military Assistance Command Vietnam
DMZ	Demilitarized Zone
DoD	Department of Defense
EASTPAC	Eastern Pacific
FEAF	Far East Air Force
FWMAF	Free World Military Assistance Forces of the Vietnam War
ICBM	Intercontinental Ballistic Missile
MARC	Micronesian Area Research Center
MCB	Mobile Construction Battalion
MSTS	Military Sea Transportation Service
NARA	National Archives and Records Administration
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NATO	North American Treaty Organization
NATS	Navy Air Transport Service
NAVCOMMSTA	Naval Communications Area Master Station
NCS	Naval Communications Station
NCTAMS	Naval Communications Area Master Station
NCTS	Naval Computer & Telecommunications Station
NHPA	National Historic Preservation Act of 1966, as amended
NMCB	Naval Mobile Construction Battalion
NRHP	National Register of Historic Places
NSD	Naval Supply Depot
NTTU	Naval Technical Training Unit
OICC	Officer in Charge of Construction
PACAF	Pacific Air Force
PWC	Public Works Center
RVNAF	Republic of Vietnam Air Force
SAC	Strategic Air Command
SALT II	Strategic Arms Limitation Talks
SAM	Surface to Air Missiles
SHPO	State Historic Preservation Office(r)
SLBM	Submarine Launched Ballistic Missiles
SOSUS	Sound Surveillance System
SRF	Ship Repair Facility
STARCOM	Strategic Army Communications System
START	Strategic Arms Reduction Treaty
THPO	Tribal Historic Preservation Officer
UN	United Nations
USC	United States Code
USSR	Union of Soviet Socialist Republics
WESTPAC	Western Pacific

THIS PAGE INTENTIONALLY LEFT BLANK

1.0 INTRODUCTION

1.1 OVERVIEW

The Department of Defense (DoD) and the various branches of the military are responsible for managing their properties throughout the United States and its possessions, including management of historic properties. Under sections 106 and 110 of the National Historic Preservation Act of 1966, as amended (NHPA) (16 *United States Code* [USC] 470-470w-6) and DoD Directive 4715.16, the Department of Defense is required to identify, evaluate, and manage cultural resources on federally owned and leased properties. To support the services' ability to meet this requirement, this DoD Legacy Resource Management Program project provides a history for U.S. military installations, including the Air Force, Navy, and Army on Guam and the Commonwealth of the Northern Mariana Islands (CNMI) (figure 1-1).

Military missions from Guam and the Northern Mariana Islands in support of U.S. policies are evolving and a buildup of forces from all four military services currently based on Guam (U.S. Navy, Marines, Army, and Air Force) is projected over 10 years (2009–2019). The military forces buildup in Guam has the potential to affect and alter cultural resources on both Guam and the greater CNMI. This study will help decision makers, planners, and compliance specialists identify sensitive resources early in the planning process. Project proponents and jurisdictional agencies will be able to address mitigation holistically and effectively through a comprehensive understanding of potential historic properties and the proposed effects to them in the future. This project is timely and will help to expedite this strategic buildup, as well as other future U.S. military projects and development.

1.2 GOALS AND OBJECTIVES OF THIS STUDY

The objective of the Regional Cold War History for Guam and the CNMI is to present a framework for determining National Register of Historic Places (NRHP) eligibility within a definitive context or environment. The definitive context is a means to more evenly and accurately evaluate cultural resources from the U.S. military's Cold War period of significance.

For this history, the Cold War era is defined as occurring between 1946 and 1991. Furthermore, the specific relevance of U.S. military installations on Guam and the CNMI is emphasized during two primary events when the Cold War went "hot," namely, the Korean and Vietnam wars. Although the emphasis for this history centers on U.S. military installations on Guam and the CNMI, information about additional U.S. installations abroad and nonmilitary installations in the region is provided when necessary to better understand the larger context of the Pacific Theater of Operations.

The traditional components of a historic context are period, theme, and property type. For this study, the theme is the U.S. military history on Guam and the CNMI. The time period is the Cold War: 1946 to 1991. In the popular perception, this period began with Winston Churchill's 1946 Iron Curtain speech and ended with demolition of the Berlin Wall in 1989. The geographic area encompassed by this study is the U.S. Territory of Guam and the Trust Territories of the Commonwealth of the Northern Mariana Islands. Generally speaking, the property types are military properties built during the Cold War in Guam and the CNMI.

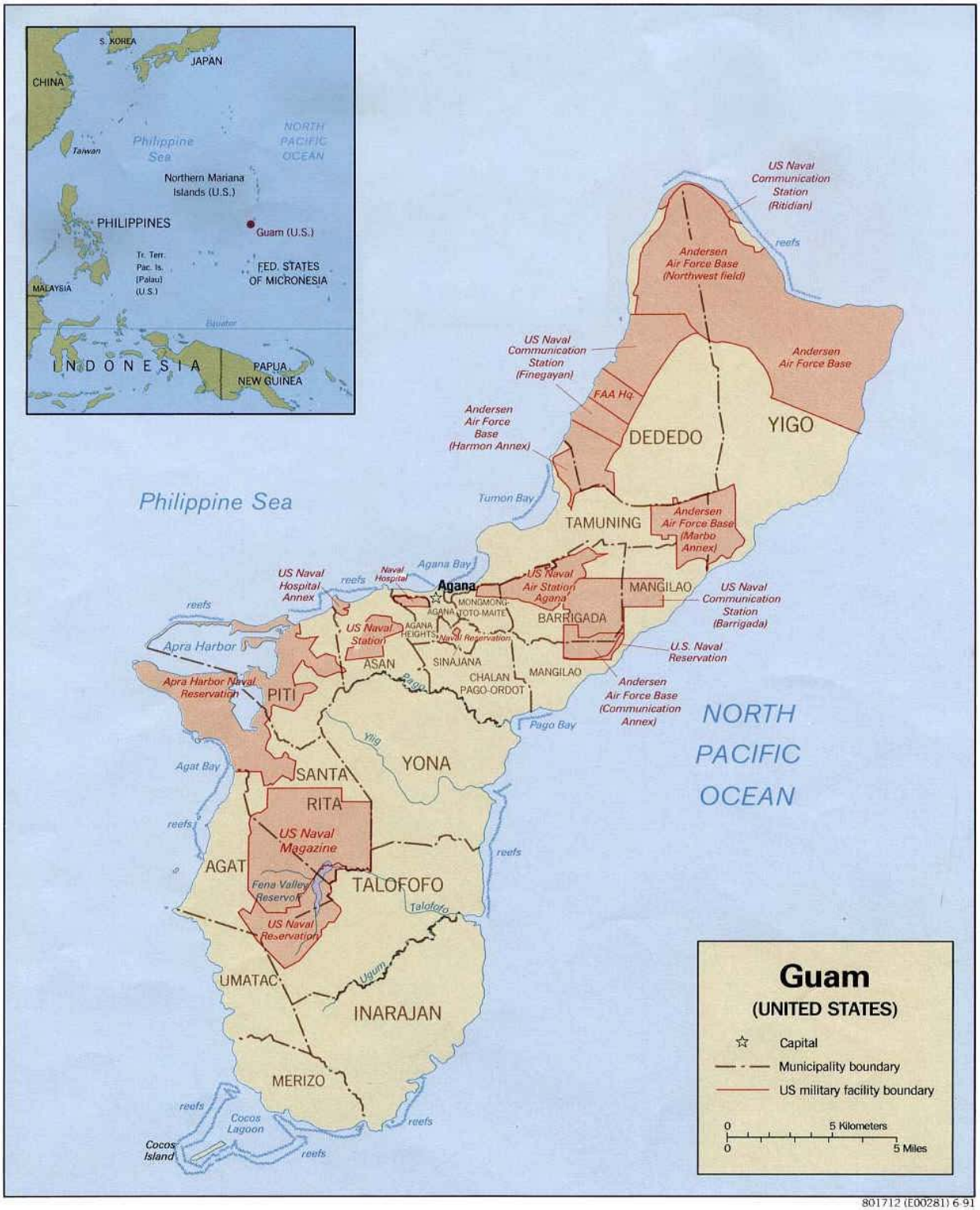


FIGURE 1-1. MILITARY BASE LOCATIONS ON GUAM AND THE CNMI

The results of this study contribute to our understanding of the historical roles that military installations played on Guam and the Mariana Islands from a defensive, offensive, and political perspective during the Cold War by: (1) explaining the "regional" Cold War in the western Pacific Ocean and Southeast Asia, (2) identifying unique and important resource types for this region, and (3) being a tool for management of installations properties associated with the Cold War. Installations can use the history, themes, and criteria to identify and evaluate the significance of Cold War properties that are associated with military history. Using this document, identified resources can be evaluated objectively against others of their property type, theme, and occurrence.

Within this report, the first goal was to develop and define Cold War period events in order to define themes. These themes, in turn, served as a framework by which property types could be organized and evaluated. A second goal was to produce a list of property types that were developed during the Cold War period. Finally, many of the properties are less than 50 years old and do not fall under the standard means of evaluating resources for the National Register; therefore, the last goal was to generate guidance for applying the exceptional significance criteria by which these properties could be evaluated.

1.3 ORGANIZATION OF THIS REPORT

This Regional Cold War History for Guam and the CNMI document is presented in seven chapters. Chapter 1 provides the reason, goals, and objectives for the project, and a geography and history overview. Chapter 2 provides the methodology used to complete the project. Chapter 3 provides an overview of the global and national political and military setting of the Cold War period and a local political and military history of Guam and the CNMI. This information is provided as an annotated time line and the themes are outlined. The installations developed by the U.S. military in Guam and the CNMI during the Cold War are discussed by island and by military branch in chapter 4. Chapter 5 provides the criteria by which properties should be evaluated for inclusion in the National Register, and summarizes some of the previously conducted surveys of resources in the region. Selected references are provided in chapter 6. Appendix A presents the current inventory of buildings and structures (linked to Cold War themes for evaluating historical significance) on existing U.S. military installations on Guam and the CNMI.

1.4 GEOGRAPHY AND HISTORY OVERVIEW

The U.S. Territory of Guam is the southernmost and largest (approximately 209 square miles) of the islands within the Mariana Islands archipelago. Guam is approximately 3,600 miles west-southwest of Hawai'i, and 1,550 miles southeast of Japan (figure 1-2). The climate of Guam and the CNMI is comfortably mild with temperatures ranging from the low 70s to the middle 80s and an average annual temperature of 81 degrees Fahrenheit (ºF). The area receives 80 to 110 inches of rain annually, with a dry season stretching from December to June and a wet season during the other half of the year.

Guam is the largest and southernmost of the Mariana Islands. Hagatna, the capital, is on the west coast of Guam. The interior of the island is composed of dense jungle; therefore, most of the villages are found along the coasts. The southern portion of Guam is mountainous and Mt. Lamalm is the tallest mountain at 1,332 feet above mean seal level. The southern CNMI islands are limestone while the northern islands are volcanic. The largest volcano is Agrihan, which is 3,166 feet above mean sea level.

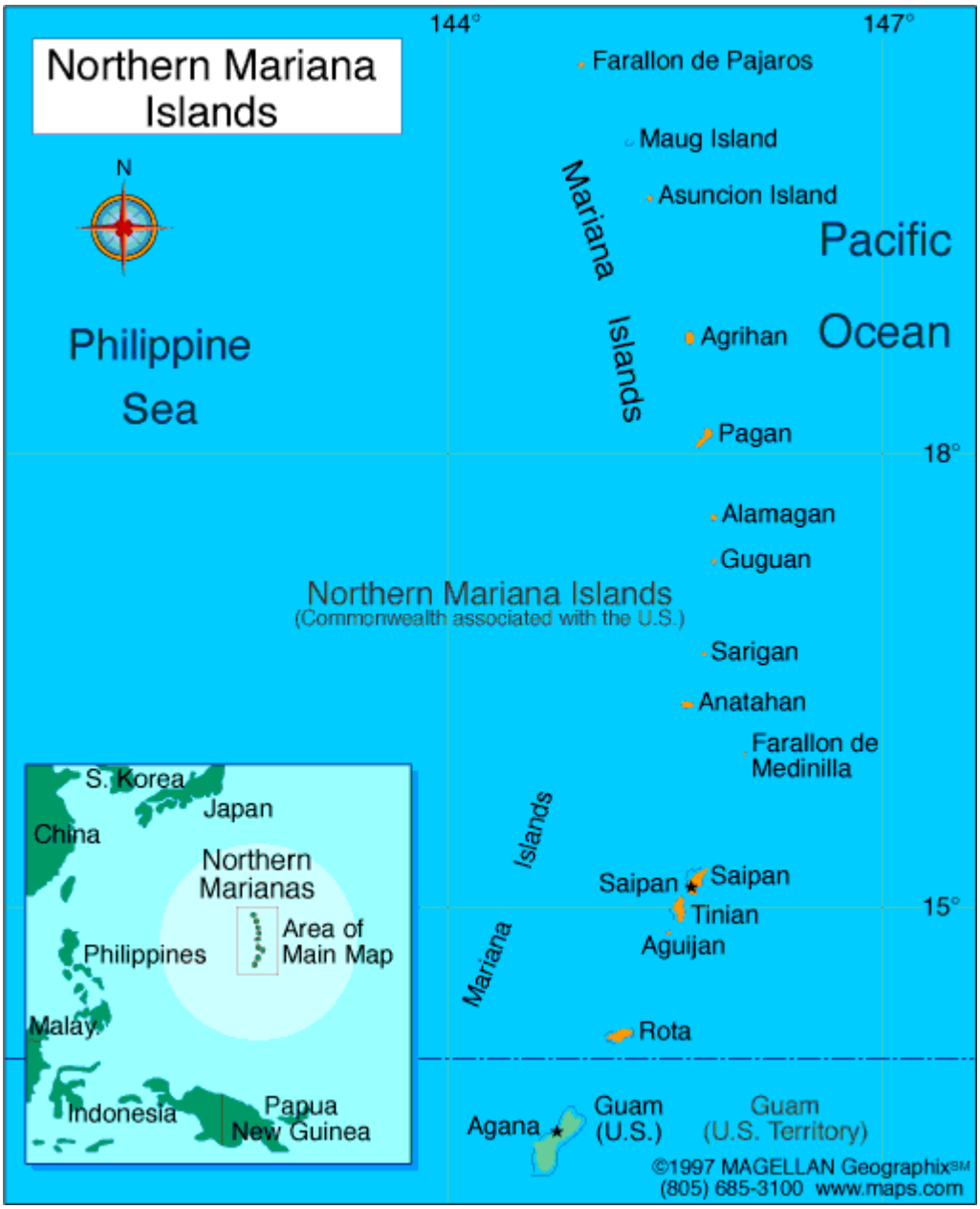


FIGURE 1-2. MAP OF THE PACIFIC REGION INCLUDING GUAM AND THE CNMI

Guam lies within the typhoon tracks of the western Pacific Ocean. In one 25-year period an average yearly incidence of 11.4 storms of high wind velocity were reported in the vicinity of Guam. Typhoons cause "prolonged periods of ineffectiveness; a high cost of manpower to remove debris and make temporary repairs; a large loss of aircraft incurred by flying debris from flimsy buildings and collapse of portable hangars; and a great loss of supplies due to exposure." Typhoons frequently passed near or made landfall on Guam during the 1950s. Typhoon Nina blew ashore in August 1953, followed by Typhoon Alice in October 1953. Typhoon Doris and Ida passed near Guam in December 1953 and August 1954,

respectively; followed by Typhoon Lorna on 13–15 September 1954; a near miss by Typhoon Hester in October 1957; Typhoon Lola in November 1957; and Typhoon Ophelia in December 1960. All storms inflicted damage to Glass Breakwater and the buildings and roads of Guam.

The first known inhabitants of the islands were the Chamorros, who are believed to have arrived in 2,000 BC from Southeast Asia. The Chamorros were a matriarchal society that practiced hunting, fishing, and horticulture. The famous Latte Stones were the pillars of their homes where they would bury their ancestors and their possessions.

The first European to encounter the islands and the Chamorro who occupied them was Ferdinand Magellan in 1521. Spain laid claim to the islands in 1565, but it was not until 1668 that there was a significant European population in the area. At that time, Jesuit missionaries arrived on the island brining their Catholic faith with them. From that time on, the church has played a central role in the daily lives of the people of Guam and the CNMI. The Spanish ceded the islands to U.S. Navy Capitan Henry Glass in 1898 during the Spanish-American War.

Following the Spanish-American War of 1898, Spain ceded Guam to the United States and sold the remaining Mariana Islands (along with the Caroline and Marshall islands) to Germany. Japan declared war on Germany during World War I and invaded the Northern Mariana Islands. In 1919, the League of Nations, precursor to the United Nations, awarded the islands to Japan by mandate (Riveria 2002).

In late 1910, the U.S. military considered Guam to be the key to defense of the Philippine Islands, and on 18 December 1919, the joint Army and Navy board recommended that, "Guam be fortified and garrisoned adequate to its defense against any force that could be brought against it," and that a first class naval base be constructed in Apra Harbor. The Washington Naval Treaty of 1922[1], which limited the naval armaments of the U.S. and four European signatories, ultimately ended plans to occupy Guam with military forces (Walsh 1944).

On 19 January 1939, in a letter to the speaker of the House of Representatives, the acting secretary of the Navy forwarded a draft of a proposed bill that would authorize construction of certain facilities recommended by the Hepburn Board.[2] This bill authorized and directed the secretary of the Navy to establish or increase naval aviation facilities at or in the vicinity of Kaneohe Bay, Hawai'i ; Midway Island; Wake Island; Johnston Island; Palmyra Island; Kodiak and Sitka, Alaska; San Juan, Puerto Rico; Pensacola and Jacksonville, Florida; Pearl Harbor, Hawai'i ; and Guam. For Guam, construction included a breakwater, dredging the harbor and clearing coral heads, providing a channel for ships and seaplane operations, building seaplane ramps and parking lots, and constructing a small power plant (Walsh 1944). On 23 February 1939, the construction projects slated for Guam were stricken from the bill; in part, because of protests from Japan stating this project represented an act of aggression (Union 1939).

Hours after the 7 December 1941 attack on Pearl Harbor, Hawai'i, Japanese forces from the Mariana Islands invaded Guam on 8 December 1941. Guam was attacked and occupied by Japanese Imperial forces–the only U.S. territory occupied by the Japanese military during World War II. The United States

[1]The Washington Naval Treaty, also known as the Five-Power Treaty, limited the naval armaments of its five signatories: the United States of America, the British Empire, the Empire of Japan, the French Third Republic, and the Kingdom of Italy. The treaty was agreed to at the Washington Naval Conference, which was held in Washington, D.C., from November 1921 to February 1922, and was signed by representatives of the treaty nations on 6 February 1922.

[2] In 1937, the Navy Department and the naval committees of the House and Senate undertook legislation for a new naval policy. There was much opposition in 1938 to a new naval building program. However, the bill did authorize the creation of a board directed by the secretary of the Navy to investigate naval needs. The board was directed by Admiral Hepburn, and the Hepburn Board Report (H. doc. 65, 76th Congress) estimated construction projects in the amount of $326,216,000.

focused war efforts elsewhere for two and a half years until July 1944 when Guam, Saipan, and Tinian were freed from Japan's military occupation. On 15 August 1944, Guam was officially liberated and was once again under the protection of the U.S. military. U.S. Navy commanders began fortifying the island extensively as a forward base for World War II missions in the Pacific Ocean theater (Riveria 2002). Admiral Chester W. Nimitz (U.S. Navy as both Commander in Chief [CINCPAC] Fleet and Commander in Chief, Pacific Ocean Area [CINCPOA] envisioned the strategic value of Guam for military operations against targets in Japan. Shortly after the liberation of Guam in 1944, Admiral Nimitz moved the entire CINCPAC Fleet / CINCPOA Pacific headquarters to the island so he could better direct the war effort against Japan. Thus, Guam became the main forward operating base in the Pacific Ocean Theater, while Hawai'i became the rear area (Riveria 2002).

Following a massive military buildup and construction of bases, Guam and the other large islands in the Northern Marianas (Saipan and Tinian) became important airfields and naval harbors supporting the invasion of Japan. Guam, Saipan, and Tinian were used as staging bases for over 500,000 troops and about 1,500 allied ships that were being readied for the planned invasions to the north, beginning with Okinawa, then Iwo Jima, and finally the Japanese mainland. Additionally, over 1,000 B-29 Superfortress bombers were stationed on these islands and used against Japanese targets. From the three islands, the U.S. was able to bomb key Japanese infrastructure and cities, ultimately resulting in Japan's unconditional surrender. While hundreds of B-29 bombers flew out of Guam and neighboring islands, it was from Tinian, approximately 120 miles north of Guam, where two atomic bombs (named Little Man and Fat Boy) were loaded on B-29s to be dropped on the Japanese cities of Hiroshima and Nagasaki (http://www.globalsecurity.org/military/facility/tinian.htm).

In the final phase of Pacific combat and in less than a year of construction, the U.S. Navy built its largest advanced base on Guam, which supplied material support for more than one-third of U.S. Navy power. From 7 August 1944, when the initial cargo was landed by the U.S. Marines from two Alligator Amphibian vehicles (designed by Donald Roebling in 1935) on Agat Beach, the Naval Supply Depot (NSD) occupied more area until it covered 6,384 acres. Supply facilities developed within the year included 451 Quonset huts providing 1,804,000 square feet of covered storage space; transit sheds totaling 509,100 square feet where incoming and outgoing stores were sorted; and more than 200 large storage tanks for gasoline, fuel oil, and diesel oil with a total capacity exceeding 1,000,000 barrels. At the peak of its operation, the depot's complement included approximately 300 officers and 8,000 enlisted men (Navy Department Press Release, 20 October 1945).

Late in World War II, Guam was known as the largest filling station in the central Pacific Ocean. The fuel supply branch of the Naval Supply Depot had issued a total of 231,167,000 gallons of bunker oil up to 1 July 1945–a quantity equivalent to the annual production of 151 oil wells (in 1945); 101,374,000 gallons of aviation fuel–enough gasoline to run 60,000 family automobiles around the world at the equator; and 85,932,000 gallons of diesel fuel–enough to heat every home in a city the size of Columbus, Ohio, for an entire season. A fleet of tankers, which would have stretched 18-miles long if placed bow to stern, steamed continuously from the major Allied oil shipping ports into Guam. The fueling facility operated on a 24-hour-day basis and fueled an average of 75 naval ships and small craft every day (Navy Department Press Release, 10 October 1945). Apra Harbor had grown to one of the world's busiest ports by July 1944, with an average of over 1,700 ships passing through each month, totaling over 20,000 ships per year.

On 2 September 1945, Japan formally surrendered and the occupation of Japan by the Allied Forces began. By the end of 1945, more than 350,000 U.S. personnel were stationed throughout the islands of Japan. The end of World War II in the Pacific Ocean Theater resulted in substantial readjustments of U.S. military forces and strategic priorities. The war also marked the beginning of a new epoch in U.S. history, one in which newly assumed international responsibilities seriously altered many traditional relationships.

The beginning of the Cold War resulted in new strategic priorities and an increasing U.S. presence in the western Pacific Ocean.

The Communist Party, led by Mao Zedong (also known as Mao Tse-tung), overthrew the Nationalist government of China by 1949, creating political tension with non-Communist nations. French Indochina (nations comprising Indochina) and other nations in Southeast Asia appeared to favor local Communist Party nationalists, including Ho Chi Minh of the Republic of Vietnam. The U.S. government postulated that a "domino effect" could occur whereby if one country in Southeast Asia adopted Communist governance, the other nations would likely follow and fall under Communist domination.

This changing global picture had its effects on Guam and the CNMI. In 1949, U.S. President Harry S. Truman signed the Organic Act making Guam an unincorporated territory of the United States. The U.S. military established and maintained jurisdiction over its bases on Guam, which occupy approximately 39,000 acres (160 square kilometers), or 29% of Guam's total land area, including:

- Commander, Naval Forces Marianas, U.S. Navy – Sumay
- U.S. Coast Guard, District 14 Sector Guam – Sumay
- Andersen Air Force Base, U.S. Air Force – Yigo
- Apra Harbor, U.S. Navy – Orote Peninsula
- Ordnance Annex, U.S. Navy – South-central Highlands (formerly Naval Magazine)
- Naval Computer and Telecommunications Station, U.S. Navy – Barrigada and Finegayan
- Joint Force Headquarters – Guam
- Guam National Guard – Radio Barrigada and Fort Juan Muna

Five years of peace following World War II ended on 25 June 1950, when North Korean troops attacked South Korea. Approximately a decade later, the U.S. military was again deployed in Southeast Asia—this time in Vietnam. During the post-Vietnam period and throughout the 1980s, military installations on Guam and the Northern Mariana Islands remained vital overseas platforms for carrying out the U.S. mission of global nuclear deterrence.

Thus, Guam was once again thrust into the front lines of the U.S. security posture in the Pacific Ocean.

THIS PAGE INTENTIONALLY LEFT BLANK

2.0 METHODOLOGY

2.1 BACKGROUND RESEARCH AND LITERATURE REVIEW

The purpose of this task was to collect the materials necessary to develop the Regional Cold War History, including narrative, themes, property types, and evaluation criteria. The first research subtask focused on the global political climate following World War II through 1991, and how that climate affected U.S. military installations on Guam and the CNMI. Two initial research efforts were conducted. The first effort was conducted by the Micronesian Area Research Center (MARC) of the University of Guam. MARC staff provided on-island, installation-specific initial research on Guam and the CNMI, including identification of all U.S. military installations on Guam and the CNMI from 1945 to 1991, and collection of data about the Cold War history and facilities of identified installations. Research was performed by MARC staff at the following institutions and agencies in Guam:

- Guam Historic Preservation Office
- Micronesian Area Research Center, University of Guam
- Andersen Air Force Base
- War in the Pacific National Historical Park

Naval Facilities Engineering Command Pacific staff in Pearl Harbor, Hawai‘i , provided draft copies of reports on Naval Hospital Guam and the Cold War History for Naval Base Guam. Permission was granted to use the data excerpted in this report.

The second research phase was conducted at repositories on the U.S. mainland. Primary and secondary materials were collected from the National Archives and Records Administration (NARA) in College Park, Maryland; NARA in San Bruno, California; and Port Hueneme Navy/Marine Corps Museum and Archives, Port Hueneme, California. The Air Force Historical Resource Agency at Maxwell Air Force Base (AFB); U.S. Army Center of Military History, U.S. Marine Corps History Division; and the Naval History and Heritage Command were accessed online. Over 1,500 pages of primary and secondary data, including military memos, correspondence, histories, and reports, were collected from the various archives and reviewed for relevance and inclusion.

Secondary research included reviewing materials collected by authors of published works (documents, surveys, and books by military historians and cultural resources professionals) on the Korean War, the Vietnam War, and Guam, and from other Department of Defense Legacy projects. Internet research provided verification of some facts and personal accounts of specific events. The National Register provided information on designated Cold War properties. Andersen AFB and Naval Facilities Engineering Command Marianas provided data, reports, and inventory lists.

2.2 ACKNOWLEDGEMENTS

The U.S. Air Force sponsored the project, specifically Fairchild AFB, supported by Andersen AFB. Mr. Jonathan Wald, Fairchild AFB, served as the technical point of contact for the project and reviewed the draft history and inventory providing valuable guidance. A number of individuals provided additional

support to the project by assisting with data calls, providing reports and resources, and general guidance. They include:

- Jonathan Wald, Chief, Asset Optimization, 92 Civil Engineer Squadron/CEA, Fairchild AFB
- David Lutz, Cultural Resources Specialist, Andersen AFB
- John Peterson, Micronesian Area Research Center
- Annie Griffin, Micronesian Area Research Center
- Eric West, Naval Facilities Engineering Command Pacific
- Jackie Sanehira, Naval Facilities Engineering Command Pacific
- Lon Bulgrin, Archaeologist, Naval Facilities Engineering Command Marianas
- Dr. Sue Goodfellow, Head, Conservation Section, Headquarters, U.S. Marine Corps
- Brian Lusher, Historian/Conservator, Naval Facilities Engineering Command
- William R. Manley, NAVFAC-HQ Environmental, U.S. Navy
- Hillori Schenker, NAVFAC-HQ, Environmental, U.S. Navy

3.0 THE COLD WAR: 1946–1991

The war in Europe ended on 7 May 1945 with the unconditional surrender of German troops. The war in the Pacific Ocean Theater ended with Japan signing the surrender agreement on 2 September 1945. The United States did not return to its national prewar isolationism after World War II because the balance of power in Europe and Asia and advances in air transportation and weaponry extended beyond the ocean barriers, making isolation impossible. In the years immediately following World War II, full participation in world events became a governing dynamic of the United States (Stewart 2005).

In 1945, two superpowers emerged–the United States and the Union of Soviet Socialist Republics (Soviet Union/USSR). Soviet Union domination of Eastern Europe and the use and proliferation of atomic weapons caused continuing tensions between the United States and the Soviet Union for the next five decades. In the post-World War II years, the United States emerged as the wealthiest and most productive nation in the world, redefining itself as a leader among all nations. Foreign policy became increasingly complex and constantly changed.

The U.S. hopes for a peaceful future focused on the United Nations (UN), founded when representatives of 50 countries met in San Francisco at the International Conference on International Organization to draw up the United Nations Charter (signed 26 June 1945). These 50 signatories to the UN Charter agreed to employ "effective collective measures for the prevention and removal of threats to the peace and for the suppression of acts of aggression," including the use of armed force if necessary. The organization included a Security Council, which was granted authority to determine when the peace was threatened, to decide what action to take, and to call on member states to furnish military forces. Five founding members of the United Nations (the United States, Union of Soviet Socialist Republics, United Kingdom, China, and France) held permanent representation on the Security Council and the power of veto over any council action. Since the effectiveness of the United Nations depended largely on the full cooperation of these member nations, the primary objective of U.S. foreign policy during the early post-war era was to continue to strengthen solidarity among them (Stewart 2005).

This chapter provides an overview of the geopolitical setting of the international scene and Pacific theater from the end of World War II until 1991–a period that has become known throughout the world as the Cold War. Common themes that emerge in this history include how nuclear weapons influenced political and military decisions, including construction; the logistical role Guam and the CNMI played in U.S. Cold War engagements; the role in military intelligence and space communications; and the influence of natural disasters, namely typhoons and earthquakes, on the development of U.S. military facilities in Guam and the CNMI.

3.1 POST WAR TO 1950

3.1.1 Post-war Politics

As the euphoria of victory subsided, the United States became part of the international landscape shaped by World War II. The U.S. role in the international community had permanently changed: at war's end the United States was one of two predominant military powers and the leader of the Western Alliance. In that capacity, the United States was confronted not only with the challenges of converting its economy back to a peacetime financial structure, but also with helping the war-ravaged nations of Europe and Asia

rebuild their economies and meet challenges from an increasingly aggressive Soviet Union (Lonnquest 1996).

As the Cold War began, the United States was assisting the Allied Forces financially devastated by World War II to regain economic stability and rebuild infrastructures. The Soviet Union used the chaos to introduce Communism to countries left financially and politically weakened from the war. President Harry S. Truman was the first U.S. president to engage in the Cold War. He concentrated on the European theater, rather than the Pacific Ocean. Avoiding a two-front war had long been a fundamental strategic choice. Germany, during the twentieth century, was hampered by engaging in two-front wars, and the Allies gave preference to the European theater (where the Soviet Union was engaged with Germany) over the Pacific Ocean Theater (where the Soviet Union remained at peace with Japan). President Truman was, in a sense, reaffirming the geographical preferences of the struggle against the Axis nations in his priorities to confront Communism.

The future of Eastern Europe became a point of contention between the Soviet Union and its Western allies. The Soviet Union had been invaded via Eastern Europe in both the first and second world wars, and in both conflicts, some of the nations of Eastern Europe had participated in the invasions. Both wars had devastated the Soviet Union; an estimated 25 million Russians were killed during World War II alone. Therefore, the Soviet Union was determined to install "friendly" regimes throughout Eastern Europe following the war, with the strategic goal of protecting its European borders from future invasions. Since the Soviet Union was a group of Communist-ruled countries, the government preferred to install Communist regimes throughout Eastern Europe. The Red Army of the Soviet Union was liberating the nations of Eastern Europe and, therefore, the Soviet Union was positioned to influence the type of governments that would emerge following the war.

FIGURE 3-1. WINSTON CHURCHILL, FRANKLIN ROOSEVELT, AND JOSEPH STALIN ("THE BIG THREE") IN ATTENDANCE AT THE YALTA CONFERENCE

In this environment, relations between the United States and the Soviet Union deteriorated rapidly. Delays by the Soviet Union in withdrawing from northern Iran drew protests from the United States, as did the Soviet administration of occupied Eastern Europe. At the Yalta Conference held in February 1945 (figure 3-1), General Secretary of the Central Committee Josef Stalin promised U.S. President Franklin D. Roosevelt and British Prime Minister Winston Churchill that the Soviet Union would allow the nations of Eastern Europe to hold free and fair elections to choose their own governments. The Soviet Union, however, soon reversed that promise, and over the next three years installed a succession of satellite governments in the once-sovereign nations of Eastern Europe (Lonnquest 1996).

The Soviet Union believed an agreement existed with the western democracies that made Eastern Europe a USSR sphere of influence, i.e., the Soviet Union would have dominant influence in that region. In 1945, General Secretary Joseph Stalin pronounced that any freely elected governments in Poland, Czechoslovakia, and other eastern European states would be anti-Soviet, which he would not allow. In March 1946, British Prime Minister Winston Churchill referred to an iron curtain descending across the continent, and by 1948, pro-Soviet Union regimes were in power in Poland, Bulgaria, Hungary, Romania, and Czechoslovakia.

During World War II, Communist parties throughout Western Europe had gained popularity because of their resistance to German Nazi occupation. There was a real possibility the Communist Party would be elected in both France and Italy. While unable to stop the Soviet Union in Eastern Europe, the United States and Great Britain were determined to prevent Communist regimes from achieving power in Western Europe. The Cold War began with the struggle for political control of Western Europe, which resulted in increasing tensions between the Soviet Union and its World War II allies, which hardened into outright animosity and a descending wall of secrecy between Eastern and Western Europe.

In March 1947, President Truman asked Congress for $400 million in aid for Greece and Turkey, stating, in what became known as the Truman Doctrine: "It must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or by outside pressures." The Truman Doctrine was a plan to give money and military aid to countries threatened by Communism, and was credited with preventing Greece and Turkey from becoming Communist states.

A broader program of economic aid followed the Truman Doctrine. General Catlett Marshall, who became secretary of state in January 1947, proposed that the United States pursue economic recovery in Europe as a single task, not nation by nation, and that a single program combine the resources of European countries with aid from the United States (Stewart 2005). This policy strengthened the economies and governments of countries in Western Europe, and as the economies of Western Europe improved, the popularity of the Communist Party declined.

In 1947, U.S. State Department analyst George F. Kennan argued that the Soviet Union was not likely to make any rash moves and that the United States could keep Communism from spreading simply by deterring Soviet Union expansion at critical points, mostly in Europe, over the long term. This policy of containment became extraordinarily influential in the U.S. government and became the basis of U.S. policy for much of the Cold War era.

During the 1940s, nuclear weapons development moved to the forefront of U.S. policy decisions. As the nation demobilized after the end of World War II on 14 August 1945, there was no clear U.S. policy on the development or use of nuclear weapons. Some U.S. scientists believed as early as 1946 that the Soviet Union might develop an atomic bomb by 1949; however, there was considerable disagreement among U.S. policy officials over how long it would be until the Soviet Union developed an atomic bomb. For example, General Leslie Groves, commanding officer of the Manhattan Engineer District, testified before Congress that it would take the Soviet Union 20 years to duplicate the U.S. feat (e^2M 2005).

Once the atomic bomb had been introduced, opinions in the way it would impact war quickly diverged. Bernard Brodie, a U.S. scholar and professor at the National War College in Washington D.C., wrote *The Absolute Weapon: Atomic Power and World Order*, and stated that, ". . . the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them." Such was the bomb's destructive power and the difficultly of mounting a defense against it, that any large-scale war between countries possessing the atomic bomb could only lead to the virtual annihilation of both. Dr. Brodie had no doubt that other countries besides the United States would eventually possess the atomic

bomb, and sooner rather than later. The belief soon emerged that the only possible purpose the atomic bomb could serve was to deter war (Van Creveld 2006).

President Truman's administration briefly considered proposals that would attempt to control nuclear weapons at the international level. When it became clear that the Soviet Union was intent on entering nuclear arms control agreements only from a position of equality with the United States, preserving the U.S. monopoly of nuclear weapons (or at least maintaining an overwhelming superiority) became a cornerstone of U.S. military policy.

Although efforts continued toward international disarmament in the postwar period, particularly through the United Nations, there was little progress. As a consequence, an increasing portion of U.S. foreign and military policy became centered on nuclear weapons development.

Several crises in 1948 and 1949 served to accelerate the chilling of relations between the United States and the Soviet Union. When the Soviet Union attempted to physically blockade the city of Berlin, Germany, in 1948, the first major Cold War crisis erupted and had direct effects on U.S. nuclear strategy. In June 1948, the Soviet Union blocked all access to the western section of Berlin. President Truman quickly ordered military cargo planes to fly coal, food, and medicine into the city. The cargo planes arrived steadily, sometimes landing every few minutes, for more than a year. The United States received help from Great Britain and France, and together they provided almost 2.5 million tons of supplies via approximately 280,000 flights. Gradually, there was a massive buildup of airlifted supplies into Berlin through September 1949, although the blockade was officially lifted in May 1949. The tensions stemming from the crisis resulted in a revised production system that aimed to quadruple the U.S. stockpile of nuclear weapons. A review of U.S. military nuclear readiness during the Berlin crisis found a "discouraging" level of preparedness.

The United States lost its atomic weapons domination status in late summer of 1949 when the Soviet Union exploded an atomic bomb two to three years in advance of Western intelligence estimates. This action prompted a broad review in the National Security Council, Department of State, and Department of Defense of the political and strategic position of the U.S. at top staff levels. Concurrently, a special National Security Council committee evaluated the specific problem posed by the achievement of the Soviet Union. The committee decided to intensify research on the hydrogen bomb to assure that the United States would continue to lead the field of nuclear weaponry. From the broader review completed in April 1950 (known as "NSC 68: United States Objectives and Programs for National Security"), a large expansion of U.S. military, diplomatic, and economic efforts was recommended to meet the changed world situation (Stewart 2005).

In the Indo-China region, U.S. Army Chief of Staff General George C. Marshall was President Truman's special representative to China from 1945 until 1947. He concluded that no describable amount of U.S. aid could save Chiang Kai-shek from the Communists, and returned to Washington, D.C., to propose a strategy that concentrated on Europe. Later in 1949, Chinese Communists led by Mao Zedong succeeded in toppling the Nationalist government of China, establishing the People's Republic of China. The Chinese Nationalist government fled to and eventually settled in Taipei, Taiwan. Chairman Mao Zedong's only visit to Moscow, USSR, to meet General Secretary Stalin following the Communist victory in 1949, culminated in the proclamation of a Sino-Soviet alliance in February 1950. The alliance peaked during the Korean War as China intervened for almost three years on behalf of North Korea.

Following the Chinese Communist Party victory in China, the United States began to apply its policy of containment in Asia. In January 1950, Secretary of State Dean G. Acheson publicly defined the U.S. "defense line" in Asia as running south from the Aleutian Islands to Japan, to the Ryukyu Islands, and then to the Philippine Islands. This delineation raised a question about Taiwan and Korea, which lay

outside the line. Secretary Acheson stated that if Taiwan and Korea were attacked, "the initial reliance must be on the people attacked to resist it and then upon the commitments of the entire world under the Charter of the United Nations." A question remained whether the Communist bloc would construe his statement as a definite U.S. commitment to defend Taiwan and Korea if they came under attack (Stewart 2005). According to wartime agreements, the World War II Allied nations would award Korea full independence following a period of military occupation during which native leadership was to be regenerated and the country's economy rehabilitated. Lack of agreement among the occupying powers very quickly blighted these expectations. While the United States regarded the 38th Parallel as only a temporary boundary between occupation forces, the Soviet Union considered it a permanent delineation between spheres of influence. This interpretation, as happened in Germany, ruptured the administrative and economic unity of the country (Stewart 2005).

The Truman administration hoped to remove the 38th Parallel obstacle during a meeting of foreign ministers in Moscow, USSR, during December 1945. The ministers agreed that a joint U.S.-Soviet Union commission would develop a provisional Korean government. A four-power trusteeship composed of the United States, the Soviet Union, Great Britain, and China would guide the provisional government for a maximum of five years. But when the commission met, the members from the Soviet Union were only willing to reunite Korea if the Communists dominated the provisional government. The United States refused this proposition and the resulting impasse finally prompted the United States to bring the provisional Korean government initiative before the UN General Assembly in September 1947 (Stewart 2005).

During 1949, the Communists were gaining control of China; therefore, the Kashag Secretariat (Cabinet) in Tibet expelled all Chinese connected with the Chinese government, over the protests of both the Kuomingtang (Chinese Nationalist political party) and the Communists. The Chinese Communist government led by Chairman Mao Zedong quickly asserted a new Chinese presence in Tibet. In October 1950, the People's Liberation Army invaded the Tibetan area of Chamdo, defeating sporadic resistance from the Tibetan army. In 1950, a shipment of U.S. weaponry arrived in Tibet through Calcutta, India, to aid the Tibetan resistance of the Chinese Army invasion. However, by this time the attention of the United States and the United Nations was primarily on Korea.

While U.S. policy analysts had long predicted the events of the late 1940s, their rapid succession left many Americans arguing for a dramatic response to the apparent creeping Communist movement, and plunged the United States into deep paranoia and a fear that Communism would overtake the world. In response to the climate of fear, U.S. President Harry S. Truman quickly directed the Atomic Energy Commission to consider developing the thermonuclear, or hydrogen "super" bomb (e²M 2005).

In this environment of alarm, national security advisors of President Truman wrote an influential memorandum entitled "NSC 68: United States Objectives and Programs for National Security" (14 April 1950) (NSC-68) that advocated a tremendous increase in military spending to finance a massive military buildup, hoping to deter Soviet Union aggression. Following the policy outlined by this memorandum, the United States became increasingly concerned with Communist expansion anywhere, not just at the critical points identified by State Department Analyst George Kennan.

In 1950, President Truman began a rapid buildup of the U.S. military to "develop a level of military readiness which can be maintained as long as necessary as a deterrent to Soviet aggression, as indispensable support to our political attitude toward the USSR, as a source of encouragement to nations resisting Soviet political aggression, and as an adequate basis for immediate military commitments and for rapid mobilization should war prove unavoidable." Truman's NSC-68 memorandum states:

> *In the broadest terms, the ability to perform these tasks requires a build-up of military strength by the United States and its allies to a point at which the combined strength will be superior for at least these tasks, both initially and throughout a war, to the forces that can be brought to bear by the Soviet Union and its satellites. In specific terms, it is not essential to match item for item with the Soviet Union, but to provide an adequate defense against air attack on the United States and Canada and an adequate defense against air and surface attack on the United Kingdom and western Europe, Alaska, the Western Pacific, Africa, and the Near and Middle East, and on the long lines of communication to these areas. Furthermore, it is mandatory that in building up our strength, we enlarge upon our technical superiority by an accelerated exploitation of the scientific potential of the United States and our allies.*
>
> NSC 68: United States Objectives and Programs for National Security

By 1950, the arms race between the United States and the Soviet Union was underway. President Truman had approved the development of the hydrogen bomb while the National Security Council's mandate, NSC 68, reappraised the U.S. strategic position, shifting the definition of Cold War from political to military with an emphasis placed on a Soviet Union "design for world dominance." It also called for a buildup of nuclear weapons and military strength at the expense of social welfare programs. Senator Joseph McCarthy presented his list of "known Communist threats" to U.S. society. Congress also passed the McCarran Internal Security Act allowing the government to secretly monitor domestic Communist activity. Using the Mutual Defense Assistance Agreement with Vietnam, President Truman sent U.S. military aid to French Indochina as North Korea crossed the 38th Parallel.

3.1.2 General Post-war U.S. Military History to 1950

The international geopolitical environment of the 1940s also created a complex and changing environment in the U.S. military. The U.S. policy of "containment" was largely a program to strengthen governments (primarily in western European countries) through economic recovery, thereby dismissing the popularity of Communism. Containment was a defensive posture and needed strong military reinforcement. The Soviet Union had not completely demobilized and was maintaining over four million soldiers under arms while rearming some of its satellite countries, which kept the armament industry operating at full capacity. To succeed, containment required the support of a military policy of deterrence—a strategy and force structure possessing sufficient strength and balance to discourage any Soviet Union-directed or supported military aggression (Stewart 2005).

Post-war military policy, however, did not develop as a full response to the needs of containment. The traditional and current trend of U.S. military thinking focused on mobilization in the event of war, not the maintenance of ready forces to prevent war. The fear of another depression constituted the single most important inhibitor to increased military spending by the Truman administration. Moreover, the advent of the atomic bomb appeared to provide an economic alternative to large standing armies and navies. President Truman in particular considered the U.S. nuclear monopoly the primary deterrent to direct Soviet military action. Determining the size of the military force meant balancing what the president perceived as a nominal risk of invasion of Western Europe by the Soviet Union against the very real possibility of an unbalanced federal budget requiring the maintenance of a large conventional military force, which would lead to an economic downturn that could fatally undermine containment (Stewart 2005).

U.S. membership in the United Nations implied a responsibility to maintain sufficient military power to make an equitable contribution to UN forces that might be assembled. However, it was difficult in the

immediate aftermath of war to anticipate the national security needs of a changed world, and consequently, to predict the configuration of a military force to meet those needs. The immediate task was to demobilize the immense war machine while maintaining occupation troops in conquered and liberated territories. Future decisions would include deciding the size and composition of post-war armed forces and create a staff of government officials that would formulate national security policy and govern the military establishment (Stewart 2005).

In response to the growing Soviet influence in Eastern Europe, the United States formed the North Atlantic Treaty Organization (NATO) in early 1949. NATO was a joint military group whose purpose was to defend against forces of the Soviet Union in Europe (or, as the saying went, "to keep Russia out, America in, and Germany down"). The first member nations of NATO were Belgium, Great Britain, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Portugal, and the United States. NATO served as a guarantee of U.S. military support, including the use of nuclear weapons in the event of the westward expansion of the Soviet military.

During World War II, the U.S. military was organized into separate Navy and War departments. The Navy Department consisted of both the U.S. Navy and the Marine Corps, along with the administrative and logistical infrastructure to support both services. The Navy was separated into numbered fleets and the naval infrastructure (consisting of Navy headquarters, bureaus, shore bases, and other supporting forces). The Marine Corps was composed of the Fleet Marine Force and its supporting infrastructure. In wartime, the Coast Guard became part of the Navy Department, while retaining its separate identity. After the war, the Coast Guard reverted to oversight by the Treasury Department. The War Department General Staff developed overall policies for the Army. Theater commanders, including General Dwight D. Eisenhower and General Douglas MacArthur, exercised leadership over all Army elements within their respective commands. Three major commands executed the policies established by War Department headquarters, e.g., the Army Ground Forces, the Army Air Forces, and the Army Services Forces (Goodwin 1997).

During the war, the U.S. Army and Navy commands each determined reasonable postwar strengths and produced plans for an orderly demobilization. The Navy developed a program for 600,000 personnel–370 combat and 5,000 other ships, and 8,000 aircraft. The Army Air Force was equally specific, focusing on becoming a separate service with 400,000 personnel–70 combat groups and a complete organization of supporting units. The Army initially established as an overall postwar goal a regular and reserve structure capable of mobilizing 4,000,000 men within a year of any future outbreak of war, and later set the strength of the active ground and air forces at 1,500,000 (Stewart 2005). President Harry S. Truman (determined to balance the national budget) dictated a new maximum Army personnel strength of just over 1,000,000.

The U.S. post-war military underwent sweeping changes: the nation demobilized, defense spending plummeted, and the National Security Act of 1947 resulted in wholesale reorganization of the military establishment. Defense spending had peaked at $81.5 billion in 1945. In 1946, spending was reduced to $44.7 billion, and in 1947 it further declined to $13.1 billion (Lonnquest 1996).

The National Security Act was intended to provide a comprehensive program for the future security of the United States by: (1) establishing three separate military departments—the Army, Navy, and Air Force; (2) providing for their coordination and unified direction under civilian control; and (3) providing for the effective strategic direction and operation of the armed forces under unified control. In 1948, an interservice accord was developed on roles and missions. The Army received primary responsibility for conducting operations on land, for supplying antiaircraft units to defend the United States against air attack, and for providing occupation and security garrisons overseas. The Navy, besides remaining responsible for surface and submarine operations, retained control of its sea-based aviation and of the

Marine Corps with its organic aviation. The new Air Force received jurisdiction over strategic air warfare, air transport, and combat air support of the Army (Stewart 2005).

Creating a separate Air Force was closely connected to the development of atomic weapons. The destruction of the Japanese cities of Hiroshima and Nagasaki at the close of World War II had demonstrated the lethal power of these new weapons. As the United States then possessed a monopoly over nuclear weapons, it was assumed that the threat of nuclear warfare would serve U.S. objectives by not requiring expensive conventional forces such as the Army divisions. Because the Air Force was the only service capable of delivering nuclear weapons, leading airmen argued that funding should be applied toward their service, at the expense of Army and Navy priorities.

3.1.3 Pacific Theater Post-war U.S. Military History to 1950

Throughout postwar demobilization, about half of U.S. Army personnel remained overseas–the bulk of them involved in the occupation of Germany and Japan. The Army maintained a significant force in the southern portion of the former Japanese colony of Korea and smaller forces in Austria and the Italian province of Trieste (Stewart 2005).

The United States established a network of Pacific Ocean military bases, which eventually were used to support forward deployment of U.S. forces in allied nations around the Pacific Rim as part of the plan to contain Communism. U.S. occupation of this region also denied future access to Micronesia by the Soviet Union, China, and Japan. Additionally, the U.S. desired the isolated atolls of the Marshall Islands for testing nuclear weapons. The United States had already begun nuclear testing in July 1946 with the first explosion at Bikini Atoll (Rogers 1995), and had begun building permanent facilities on key islands in Micronesia (primarily Kwajalein Atoll and Guam) as part of the new Pacific Ocean military base network.

On 4 July 1946, the United States granted independence to the Philippine Islands. Representatives of Manila signed a treaty by which the United States would resume responsibility for the strategic defense of the new Republic of the Philippines in return for U.S. leases of bases at Subic Bay, Clark Field, and elsewhere in the islands. At this time, Japan was administered under the MacArthur Constitution, which prohibited Japanese rearmament (Rogers 1995).

The growing U.S. interest in the security of Japan and the anti-Communist governments in South Korea, South Vietnam, and Taiwan required the continuous presence of the U.S. Seventh Fleet in Far Eastern waters throughout the Cold War. President Truman directed the U.S. Seventh Fleet based at Subic Bay in the Philippines to prevent the war from spreading to the coastal waters and islands adjacent to China. The presence of these U.S. forces deterred the Communists from launching a long-planned amphibious assault on the Chinese stronghold on Taiwan (Marolda 2000).

Soon after victory over Japan (V-J Day) was declared, fleet and shore activities in the United States and in the war zone shifted to new priorities. The rapid demobilization of U.S. armed forces, called the Magic Carpet Program, greatly reduced military personnel and equipment on Guam. Admiral Chester W. Nimitz and his CINPAC staff, including Vice Admiral John H. Hoover, departed Guam for Hawai‘i in late August 1945, leaving Vice Admiral George D. Murray as the new Commander, Naval Forces Marianas (COMNAVMAR) and Marine Major General Larsen, remaining as the island commander. As of 31 August 1945, the military population on the island was 201,718, and civilians numbered 21,838, for a total of 223,556. With 1,045 persons per square mile, Guam's population density was the highest in its recorded history. Less than 10 months later, by mid-June 1946, military personnel numbered 36,923, a reduction of nearly 165,000, or 82% (Rogers 1995).

The Magic Carpet Program continued until December 1946, when U.S. forces vacated the military camps of Guam—military personnel numbered fewer than 29,000. The hasty military force reduction in 1945–46 left the central and northern island landscape cluttered with military debris. A journalist described post-war Guam: "For Guam is a huge construction camp, crude and jerry-built. It is also a vast junk yard and a one-time battlefield where the scars of combat still offend the eye everywhere."

In 1945, the UN Trusteeship Council was created to oversee self-determination for 11 trusteeships worldwide, and Micronesia, the former Japanese mandate islands, constituted the 11th trusteeship (Rogers 1995). U.S. military leaders requested the retention of Micronesia by the United States for national defense purposes stating, along with members of Congress, that the Micronesian islands were too valuable strategically and had cost too much militarily to be given up for decolonization. The U.S. Navy supported U.S. annexation of Micronesia and designated Guam the capital of a new U.S. territory using an organic act for future designation as a U.S. state. Instead of annexation, the U.S. delegates requested authorization to fortify the trusteeship islands in Micronesia and close them to outsiders. President Truman promised to take steps to bring about self-determination for the Micronesians (Rogers 1995).

This compromise fit the new U.S. military strategy of creating an oceanic "base network" rather than depending on a string of bases across the Pacific Ocean as in the prewar Orange Plans.[3] Guam was transformed from a relatively isolated U.S. outpost surrounded by hostile Japanese-occupied islands of the prewar days, to one in which it was the center of a U.S.-administered western Pacific Ocean.

Following World War II, the U.S. military was in a better position to strategically manage the region (Rogers 1995). After visiting Guam and other islands in the region in July 1946, Secretary of the Navy James V. Forrestal described this strategy: "Single island positions cannot be considered strong bases. Selected island positions can, together with Guam, form a far-reaching mutually supporting base network, although alone would fall short of being an impregnable fortification."

The Micronesia trusteeship, named the Trust Territory of the Pacific Islands, was placed under the oversight of the UN Security Council, where the United States maintained a veto, rather than in the Trusteeship Council, where a majority vote decided issues. President Truman transferred management responsibility for the trusteeship to the Department of the Navy and appointed CINCPAC (located in Hawai'i) as the first high commissioner. The Micronesia Trusteeship did not include Guam, which continued to be administered separately by the Navy as a U.S. flag territory (Rogers 1995).

[3] The Japanese scenario had existed since the turn of the century when the United States, after its war with Spain, found itself in possession of many islands in the Pacific Ocean, most notably the Philippine Islands and Guam, which it could neither administer nor adequately defend. The military aspects of the situation called for close cooperation between the Army and Navy and in 1903 led to creation of the joint Army-Navy Board, usually known as the Joint Board. From its inception, the board concerned itself with prospects of war with Japan, particularly after Japan emerged victorious from the Russo-Japanese war in 1904–05. A fundamental assumption by the board was that the Philippine Islands would always be Japan's first wartime objective. Adopting a series of colors to identify its plans, the board developed the first Japanese war plans (Orange) in 1904–05. The weakness of the U.S. position in the Far East and the danger of war steadily became more apparent. The expiration of the naval limitations agreements re-opened the possibility that the United States might fortify Guam, thus partially neutralizing the Japanese position in its mandates (which were presumably being fortified, since it had become impossible to gain access to them or much intelligence about them). Fortification was not authorized. The latest revision of these plans, completed in April 1941 and called War Plan ORANGE-3 (WPO-3), was based on the joint Army-Navy ORANGE plan of 1938, one of the many "color" plans developed during the prewar years. Each color plan dealt with a different situation, ORANGE covering an emergency in which only the United States and Japan would be involved. In War Plan ORANGE it was assumed that the Japanese attack would come without a declaration of war and with less than 48 hours' warning so that it would not be possible to provide reinforcements from the United States for some time. The defense would therefore have to be conducted entirely by the military and naval forces already in the Philippine Islands, supported by such forces as were available locally http://www.globalsecurity.org/military/ops/war-plan-orange.htm).

Source: http://www.destination360.com/australia-south-pacific/guam/apra-harbor-overlook

FIGURE 3-2. APRA HARBOR, GUAM (DATE UNKNOWN)

The U.S. military constructed permanent facilities on key islands in Micronesia, primarily Kwajalein Atoll and Guam, as part of the new Pacific Ocean base network. The COMNAVMAR mission between 1947 and 1950 was to complete those facilities on Guam. The U.S. Navy improved Apra Harbor (figure 3-2, with construction designed to be as "typhoon proof" as possible and to protect other naval development, totaling almost 7 square miles. The U.S. Navy also sought to improve morale for soldiers that had been separated from their families during World War II. The wives and children of military men stationed on Guam were transported there by mid-1946. In June, the Navy opened a commissary store, and by the end of 1946, the Admiral Nimitz 18-hole golf course (restricted to military personnel) was completed. On 20 September 1946, Pan American Airlines (Pan Am following World War II) reopened regular transpacific commercial flights using military-designed Douglas C-54 Skymasters converted to airliners. Pan Am planes landed at the Naval Air Station (NAS) where a civilian terminal was constructed across the runway from the military facilities (Rogers 1995).

U.S. Pacific Ocean defenses, once based in Hawai'i and the Philippine Islands, shifted to the triangle of islands centered on Guam, Okinawa, and Iwo Jima. By March 1949, the Advanced Base Harbors under Commander Service Force, U.S. Pacific Fleet (COMSERVPAC) administered Guam Island; Okinawa Shima; Kwajalein Island; Midway Island; Wake Island; Samoa; Saipan; Subic Bay and Sangley Point, Philippines; and Tokyo Bay, Hakodate, Sadebo, Yokosuka, Kobb Osaka, Kobe, and Nagoya, Japan (figure 3-3).

3.1.4 Post-war Guam and CNMI to 1950

Near the end of World War II, the U.S. Army, Navy, and Air Force shared joint responsibility for the protection of Guam. The Navy also administered logistical support for the government of Guam and administration units of the Micronesia Trust Authority. Most office, housing, and other military structures on the U.S. installations on Guam, Saipan, and Tinian were of the wartime advanced base temporary type. Permanent replacement structures were needed to support the advanced bases and civilian administration, rebuild cities destroyed during the war, house and shelter numerous functions and personnel, and withstand the climate. Throughout the 1940s and 1950s, hundreds of temporary buildings in areas planned for new construction or destroyed by typhoons, were deconstructed and replaced with permanent buildings. Construction contractors and military engineers worked through difficult circumstances with deteriorating existing structures, tropical vegetation regrowth, limited budgets, labor shortages, costly construction, and changing military missions.

Skilled labor was an important issue that limited the rate of permanent facility construction. Navy engineers and contractors recruited U.S. mainland civilian personnel to work on the Mariana Islands. In 1946, the Navy conceded that, "Upon further review the Department is of the opinion that the program will need more coordination than anticipated." To encourage more skilled labor, the Navy appealed to the financial sensibilities of possible recruits, and a press release announced:

Source: www.hawaii.edu

FIGURE 3-3. MAP OF PACIFIC ISLAND LOCATIONS

The Navy today offered qualified American workers relief from spiraling food prices and rents in the form of civilian positions in the Mariana Islands area of the Pacific, where housing is available at six dollars a month and meals cost 70 cents a day. Choice of positions, ranging from stenographers to electrical engineers, are open in connection with the building and maintenance program of the Navy Bureau of Yards and Docks on Guam, Saipan, Tinian, and adjoining Pacific Islands. In addition to the islands varied recreational facilities and the low living costs, which include rooming accommodations, most civilian employees in the Marianas area are exempt from payment of income tax on money earned there. Urgently needed are telephone technicians, engineers (electrical, architectural, civil, sanitary, mechanical, structural, materials and construction), mechanics, electricians, plumbers, building tradesmen, chauffeurs, stenographers, accountants, and telephone technicians, and land acquisition specialists (appraisers, survey aides, attorneys). Positions are open only to single men and women because of lack of suitable quarters for couples. In general the rooming accommodations are in Quonset huts, minimum age requirement for women is 21.

Navy Department Press Release, 22 July 1946

Due to skilled labor limitations, the Officer-in-Charge of Construction (OICC) of the Bureau of Yards and Docks (BuDocks) contracts on Guam stated that, ". . .the most efficient volume of yearly construction for the Navy contractors on Guam as presently organized, was $30 to 40 million, with $30 million annual minimum limit for efficient operations." He further stated that, ". . .the maximum limit of annual volume of Naval construction on Guam-Saipan by civilian contractors was approximately $60 million and that this volume could be accomplished only by considerable loss in efficiency. The Guam construction contractors are presently spending contract funds at a rate of approximately $36 million per year and employ about 8,000 personnel. An annual contract expenditure of $60 million would require approximately 15,000 contractor employees and increased Naval personnel and shipping logistics" (Navy Department, Report on On-Site Survey of the Marianas in late 1947).

During the first quarter of 1949, the U.S. Navy Public Works were tasked with an unusually heavy construction workload due to rapid deterioration of temporary structures and utilities throughout NAS Agana, Guam. Due to large and unplanned expenditures from the previous years, buying and ordering materials was reduced substantially, all backorders were reviewed, and some new orders were cancelled (Narrative of Naval Air Station Agana, 1 April 1949 to 30 September 1949). Construction projects were prioritized and funds were diverted from lower priority projects to higher priority projects. For example, funds to construct community facilities and provide harbor development were diverted to cover the cost of a high-priority cold storage plant. High priority projects included runway repair at Orote; interim housing for civilian personnel; several projects at the medical center, hospital, and laundry; repairs for typhoon damage; Asan camp and hotel for civilians (which included a 16-Butler-building mess hall and a 200-room hotel); and a navy laundry.

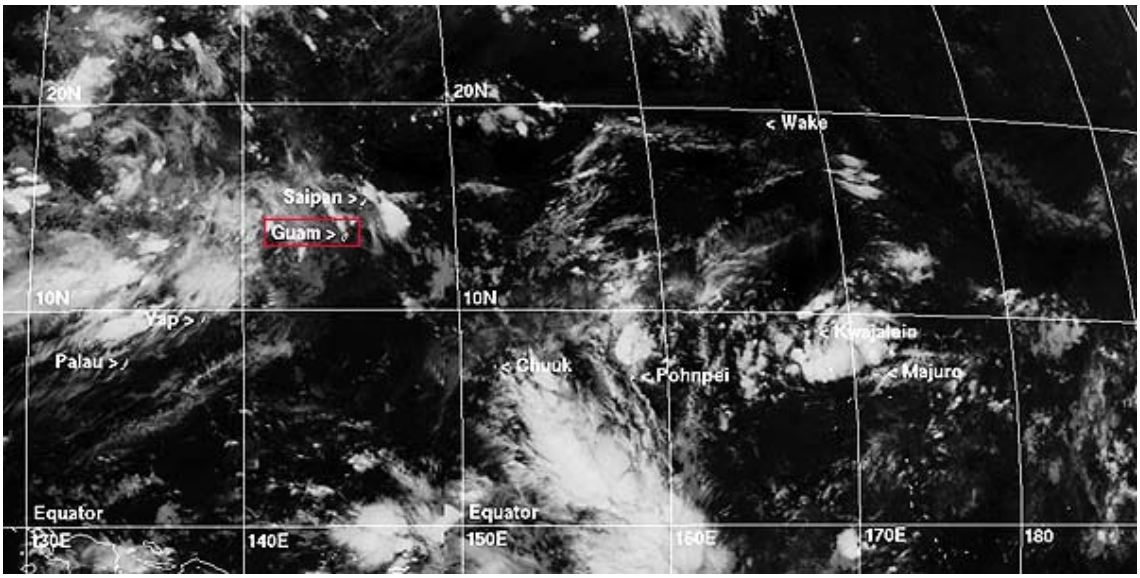
By late 1949, construction contracts were awarded for completion of the breakwater, harbor dredging, permanent utilities, and shore facilities on Guam. Design and construction was also underway on steam and diesel power plants, military and civilian quarters, and rehabilitation of the cities of Agat and Agana. Early in the program, engineers determined that to build the type of earthquake- and typhoon-proof structures necessary for safety and reconstruction costs, reinforced concrete would have to be the basic building material. The reinforced concrete design adopted for island construction was based on maximum use of precast concrete; an elaborate casting yard was built for casting panels and frames. A new type of cement especially adapted to the type of aggregate available on the Pacific islands was also developed and used ("Navy Rebuilds Pacific Fortress," *This Earth*, Vol 3, No.1, January 1950).

To support construction projects, a materials laboratory for conducting basic soils, aggregate, and concrete tests was organized and staffed by the Island Public Works Department in 1945. Most of the equipment for the materials laboratory was obtained from various test kits left on Guam by armed forces at the close of World War II. In mid-1946, this laboratory was transferred to the OICC and was organized as a testing laboratory. In July 1950, the materials laboratory was again transferred to the Base Development Division of COMNAVMAR and was reorganized as a Materials Test Division with functions divided into three major types: chemical, soils, and materials.

On 7 September 1949, President Truman issued Executive Order 10077, which formally transferred administration of Guam to the Department of the Interior, effective 1 July 1950. Following on 1 August 1950, President Truman signed HR 7273 as the Organic Act of Guam, designating Guam an official unincorporated territory of the United States. Even though the government of Guam assumed civil jurisdiction, the U.S. military presence on the island remained dominant. The U.S. Navy also retained the security clearance and did not want Apra Harbor opened to more commercial shipping; thus placing additional burdens on military facilities. The Navy was also concerned about potential espionage by the Soviet Union in the anti-Communist atmosphere of the early Cold War years.

Prior to passing the Organic Act, the U.S. Congress authorized a $45 million construction program for Guam on properties under military administration. When President Truman issued Executive Order 10178 on 31 October 1950, the Navy and Air Force directly managed about 49,600 acres of land, or over 36% of the island (Rogers 1995). Throughout the late 1940s and early 1950s, the amount of land required for military operations was continually under assessment. Studies were conducted to determine what the military required in terms of acreage and site location and what could be reasonably transferred to the government of Guam. Because of the difficulties encountered by U.S. engineers and contractors under military management to rehabilitate Guam's infrastructure and build a permanent military base, the Navy and Air Force did not support the transfer of all island utilities to local maintenance and management.

In addition to these planned construction-related activities, the islands were hit by a succession of typhoons that caused millions of dollars in damages (figure 3-4). On 21 – 22 September 1946, all island activities were interrupted when a typhoon blew across the Mariana Islands. Typhoon Querida (Spanish for "darling") destroyed the U.S. Naval Hospital at Oka consisting of Quonset huts, as well as 4,000 feet of breakwater under construction at Apra Harbor; completion of the breakwater was delayed until June 1947.



Source: Typhoon Warning Center

FIGURE 3-4. SATELLITE PHOTO OF TYPHOON ALLEY

Typhoon Allyn made landfall on Guam on 17 November 1949, and damaged or destroyed offices, mess halls, storage facilities, warehouses, the air terminal and tower, housing and barracks, hangars, and downed some utilities (memoranda dated 18 November 1949). After Typhoon Allyn blew over the islands, damages resulting in construction projects included rehabilitation of housing facilities (estimated cost of $2,070,688); replacement and repair of aircraft maintenance shops, nose hangars, motor maintenance shops, and warehouse facilities (estimated at $1,331,415 total); and rehabilitation of Guam Air Ammunition Depot facilities, 811th Engineer Aviation Battalion facilities, electrical distribution system (estimated at $772,000) (Headquarters, 19th BWM, 13 January 1950).
The post-war mission for Guam and Saipan, as of April 1946, was as follows:

> *Major operating base to provide general support for vessels of all types including complete support for one carrier task force, and Mine, Amphibious, Submarine, and*

> *service forces. Heavy repair and large supply facilities with over load capacity of 50%. Additional support for local craft and voyage service to incidental vessels. Major logistics support center for entire western Pacific and Asiatic vessels. On Guam, a Submarine Base for one division of submarines capable of expansion to support one squadron. Headquarters for ComMarianas and facilities for CINPac. Aviation facilities for reconnaissance, anti-submarine operations, carrier groups, and NATS. Full operations.*
>
> History of U.S. Naval Activities on Guam Island, Marianas, 15 April 1954

To carry out the stated mission and other duties, the following commands, subordinate commands, units, and other support were stationed on Guam:

Service	Commands	Subordinate Commands, Units, Etc.
Naval		
	▪ ComMarianas	
	▪ Naval Government of Guam	
	▪ Movement report center	
	▪ Fleet weather central	
	▪ Fleet training center	
	▪ Underway training unit, West Pacific	
	▪ ComNATS Asia	
	▪ Naval Air Base, Agana	– FAirWing 18 – Flight Air Service Squadron 118 – Patrol Squadron 118 – Patrol Weather Squadron 1
	▪ Naval Air Base, Orote	
	▪ ComFAirWes Pac	
	▪ CASU 12	
	▪ Boat Pool (Naval Air Base Orote)	
Naval	▪ Naval Operating Base	– Industrial Department – Public Works Department – Fleet Dental Clinic – RPIO – FPO – Fleet Service Division – Port Director & Operations – Communication Center – Receiving Station – Naval Barracks – Naval Ammunition Depot – Naval Supply Depot (aviation, ordnance, medical, electronics, yard & docks, ships, general, and submarine supply base)

Service	Commands	Subordinate Commands, Units, Etc.
Naval	▪ Naval Medical Center	– Naval Hospital – Guam Memorial Hospital – Institute of Tropical Medicine – School of Medical Practitioners and School of Nursing
	▪ Military Government	
	▪ MSU No. 3	
	▪ Service Squadron 3	
	▪ Officer in Charge of Construction, NOy Contracts, Marianas Area	
Marine	▪ Marine Barracks	
	▪ Heavy AAA Group – 1st AAA Battalion Fleet Marine Force	
	▪ Provost Marshall, Guam	
	▪ Fifth Service Depot	
	▪ Representative, Air Fleet Marine Force Pacific, Marianas Area	
Joint	▪ Military Commission for Trials of War Crimes	
	▪ Office of Foreign Liquidation Commissioner	
	▪ Joint Airways Communications System, Pacific Ocean Areas Detachment	
	▪ Military Air Traffic Control	
	▪ U.S. Government	
	▪ War Shipping Administration	

The U.S. Coast Guard maintained two units (no. 335 and no. 336) on Guam to operate the Loran Station constructed during World War II. Commercial entities using the island included U.S. Commercial Company (agriculture and commerce rehabilitation), Pan American World Airways (Pan Am), shipping import export agents and other contractors. As of 15 March 1946, the number of personnel associated with the U.S. military included:

▪ Navy	33,844
▪ Marines	7,451
▪ Coast Guard	60
▪ Army	11,909
▪ Miscellaneous	615
Total	53,879

Source: History of U.S. Naval Activities on Guam Island, Marianas, 15 April 1954

By 15 May 1946, due to funding reductions and demobilization, personnel numbers were reduced as follows:

▪ Navy	19,048
▪ Marines	4,861
▪ Coast Guard	36
▪ Army	13,912
▪ Miscellaneous	158
Total	38,015

Source: History of U.S. Naval Activities on Guam Island, Marianas, 15 April 1954

Various changes in military personnel and missions occurred through 1947. The submarine base was reduced to caretaker status on 7 November 1947, and the institute of tropical medicine was disbanded on 3 September 1947, at which time the Medical Center consisted of the:

- Naval Hospital
- Guam Memorial Hospital (under civil government)
- School of Medical Practitioners and School of Nursing
- School of Dental Practitioners

The Basic Naval Establishment Plan 1-48 mandated a reduction in the missions of Guam and the Mariana Islands resulting in reduced design and construction funding. In a Navy Department report following an on-site survey of the Marianas in late 1947 to make the recommendation for mission reduction, the survey team concluded that "the permanent facilities for the Guam-Saipan area recommended in the Report of the Joint Marianas Board on the Military Development of the Marianas dated 1 June 1947, and by the Marianas Area Shore Station Development Board were adequate to meet the missions assigned the area by the Basic Naval Establishment Plan 1-48, but were so high in total estimated cost as to preclude any possibility of their development within the target date (1 January 1955) with the annual appropriations that the Navy can reasonably expect to receive from Congress" (Navy Department, 6 October 1948). 1 January 1955 was established as the target date at that time (1 June 1947) because 1 July 1955 was generally considered the earliest date a potential enemy would have strike capability. The survey team recommended that Naval Operating Base (NOB) Saipan be disestablished and the activities on Saipan be reduced to the status of a NAS, Tanapag. The team also recommended the removal of the Navy Air Transport Service (NATS) and the Civil Aeronautics Administration to Harmon Field on Guam to free NAS Agana for naval operations only.

The determination of the amount of land needed by the U.S. military based on Guam fluctuated over time; in 1948, $1,600,000 was appropriated for Guam land acquisition. However, the Navy Department stated that, ". . .the actual amount of land required for military purposes had not been determined. All branches of the armed services are working together to avoid unnecessary duplication of installations and to keep land acquisition to a minimum." At that time, about half of Guam's 200 square miles were held for military use (Guam Echo, Vol 2, No. 5, 29 May 1948).

On 2 May 1949, Commander Fleet Air Wing One became Commander Fleet Air Guam, with additional duty as Commander Fleet Air Wing One. On 30 June 1949, NAS Orote, Guam, was decommissioned and

became Outlying Field, Orote to NAS Agana. In May, Fleet Weather Central was relocated to NAS Agana. Units supported by NAS Agana on 30 September 1949 were (Narrative of Naval Air Station Agana, 1 April 1949 to 30 September 1949):

- Commander Fleet Air Guam
- Commander Fleet Air Wing One
- Fleet Aircraft Service Squadron 118
- Heavy Patrol Squadron 22
- Transport Squadron 23
- Utility Squadron 7, Baker Detachment
- Marine Fighter Squadron 218
- Fleet Weather Central Guam
- Civil Aeronautics Authority
- Pan American World Airways
- TransOceanic Airways
- Philippines Airlines
- Dependent Housing for Transport Squadron 6

In November 1949, U.S. Naval Operating Base, Guam, Mariana Islands, was disestablished and the U.S. Naval Operating Base Marinas was established. The mission of the base was,

> *. . .to provide support for local Marianas activities, only, including contractors' personnel engaged in development of permanent base facilities and assisting special commitments to other government departments; general logistics support for vessels and craft, including Army craft necessary for local operations and services to outlying facilities in the Marianas and Trust Territory and the Bonin-Volcano Islands; provide emergency drydocking for all types including capital ships, except that such vessels and craft capable of proceeding to a major repair facility will not be overhauled in the Marianas, and will only receive emergency repairs and emergency docking at Guam, as required, to proceed to a major repair facility. Fleet units, including submarines, making use of the base will be self-supporting or accompanied, as necessary, by appropriate numbers and types of service vessels* (Navy Department Bulletin 15 November 1949, Office of Secretary item 49-787).

The stated mission was to be carried out by the following subordinate commands:

- Naval Supply Depot
- Naval Magazine
- Ship Repair Facility (including one each large, medium, and small floating drydocks)
- Marine Barracks
- Harbor Defense Unit
- Naval Station (including Port Control Office)
- Public Works Center
- Dental Clinic

- Consolidated Industrial Relations Office
- Publications and Printing Office

On Guam, Northwest Field had been deactivated in late 1949, but the facilities were retained by the U.S. Air Force for munitions storage and other uses. Studies were conducted and plans made to move the Military Air Transport Service to Agana NAS (13 February 1950). The Fleet Marine Force stationed on Guam was reassigned to California, with the Marine Corps security forces remaining on Guam (A Chronology of the U.S. Marine Corps 1971).

NAS Tanapag, Saipan, was deactivated on 30 June 1950, and the Civil Administration Unit (CIVAD) of the Trust Territories of the Pacific Islands began utilities management. However, the Chief of Naval Operations retained control of the fuel and aviation gas storage areas, 13 magazines (and safety zones), all the piers including a small boat basin and adjacent shops for the boat repair facility, and all the permanent installations at Kobler Field (taxi and runways, hardstands, fueling system) (7 August 1950 Memo to Chief of BuDocks). The U.S. Coast Guard assumed the upkeep and maintenance of aids to navigation required for Tanapag Harbor. The Far East Command deactivated the U.S. Army Garrison on Saipan in December 1950 (Memo dated 10 January 1951 to Lt. Col. Henderson Director of Installations, from W.T. Hudnell, Colonel USA, Chief, Plans Division, re: Elimination of the Army Garrison on Guam).

3.2 KOREAN WAR ERA: 1950 TO 1953

After several years of diplomatic conflict over reunification of North and South Korea, partitioned by the Allies at the end of World War II, the pro-Communist North Korean government attempted to reunite the country by force in June 1950. President Truman moved decisively to defend U.S. and allied interests when Prime Minister Kim Il-Sung's North Korean armed forces, equipped with Soviet tanks, artillery, and combat aircraft, invaded the Republic of (South) Korea on 25 June 1950. President Truman ordered U.S. air, ground, and naval forces to assist South Korean and other UN forces in resisting the Communist attack. Currently, it is known that the North Korean government took this action largely without authorization or coordination from the Soviet Union or China, but in 1950, it appeared to be a clear example of Communist expansion in Asia (Field 1962).

U.S. readiness for war in the summer of 1950 was minimal and the war in Korea taxed military resources. The Army comprised ten combat divisions with nine divisions under full strength. The Marines maintained two combat divisions, both undermanned. The Navy was in the process of being downsized, and the Air Force had been ordered to narrow its focus and capabilities. Because of the reduced military budget and the assumption that Western Europe was the objective of Communist governments, the U.S. strategic plan relied on long-range bombardment and focused on the European theater. The available ground forces were divided among the European continent, the continental United States, and occupation duty in Japan. The Navy maintained a larger number of assets in the Atlantic Ocean and the majority of Strategic Air Command (SAC) and other Air Force units were stationed in the U.S. and in the forward European bases (Field 1962).

The commencement of war in Korea triggered tremendous activity on and adjacent to the Pacific Ocean. Along Korea's west coast, the forces of the U.S. Far East Command were focused on evacuating friendly nationals, supporting the government and military of South Korea, monitoring and checking North Korean forces, and guarding the South Korean flanks. On the West Coast, the U.S. government expedited the gathering of troops and prepared to transport them across the Pacific Ocean (Field 1962). In July 1950, within two weeks of the outbreak of the Korean War, the U.S. Air Force reactivated the Far East

Bomb Command using B-29 Superfortress bombers operating out of Andersen AFB and Northwest Field in Guam. The 19th Bombardment Group operations under the 20th Air Force command were moved from Guam to Okinawa operations under the Far East Air Force (FEAF) Bomber Command (Provisional) after 8 July 1950. As the first B-29 unit in the war, the bomber group attacked North Korean fuel storage tanks, marshaling yards, and armor, initially on 28 June 1950. In the first two months of operation, the 19th Bombardment Group flew more than 600 sorties, supporting UN forces by bombing North Korean troops, vehicles, communication infrastructure, and critical transportation links including the Han River bridges. In North Korea, bombing targets included an oil refinery and port facilities at Wonsan, a railroad bridge at Pyongyang, and an airfield at Yonpo. After UN ground forces pushed the Communists across the 38th Parallel, the 19th Bombardment Group focused on strategic targets in North Korea, including industrial and hydroelectric facilities.

North Korea possessed tanks and aircraft, and the North Korean army included many veterans of the Chinese Civil War and a few that fought at Stalingrad, Russia, thus retaining experienced combat leadership; South Korea had none of these assets. The North Koreans and allies in Asia maintained and stockpiled military supplies far exceeding those available to the government of South Korean President Syngman Rhee (Field 1962).

The troops and supplies urgently needed in Korea were provided from within the Far Eastern theater. On 1 July 1950, Task Force Smith was airlifted to Pusan, and the remaining 24th Division sailed in vessels operating under the Shipping Control Administration, Japan, principally at Sasebo. In Hawai ʻi, the mid-Pacific branch of the Military Sea Transportation Service (MSTS) was assembling shipping to move the 5th Regimental Combat Team to South Korea, while on the west coast of the U.S. mainland planning for the transport of the 2nd Division was in progress, as were urgent efforts to ship supplies across the Pacific Ocean (Field 1962).

For all military service groups there was increased demand for supplies and logistical requirements. For example, the planned overseas transport of Army ammunition was to increase from zero to 77,000 tons for the month of August, paralleled by increased calls for general stores, refrigerated provisions, and for personnel. The MSTS had prepared for a predicted transport of 66,000 tons of cargo to the Far East in July; it actually transported 312,000 tons of cargo and 30,000 passengers. More supplies were urgently required, and by the third week in July, the number of military transport ships had been increased from 20 to 31, with 12 commercial vessels being time chartered (Field 1962).

The military budget ceiling had affected the strength and mobility of the Pacific Fleet, reducing response time to the Korean Peninsula. Overseas stocks of the supplies required to support a modern fighting force were limited, e.g., at Pearl Harbor, Hawai ʻi, a supply officer could find almost everything needed, but to the west, supply availability was unpredictable. At Yokosuka, Japan, there were moderate supplies of general military materials and stocks of technical spares; but Guam, which had supported large naval forces during the war against Japan, had no supplies because the fleet support mission had been cancelled in 1947. At Subic Bay in the Philippines there were small quantities of various military supplies. Originally planned as a major fleet base, Subic Bay was not in a position to provide major supplies due to a previous reduction in mission status. Reduction of supplies and base closings were the result of economic decisions rationalized by the stated intention of providing mobile support for any forces west of Pearl Harbor (Field 1962).

The concept of mobile support had proven both economically sound and strategically effective; however, the Naval Service Forces manpower and material from World War II no longer existed. The roster of Naval Service Force ships assigned to the Western Pacific Ocean on 25 June 1950 included one destroyer tender, one reefer, a fleet oiler on shuttle duty for the Seventh Fleet, a fleet tug, and a landing ship tank on

loan to Task Force 90 for training purposes. There had been no prior strategic planning for a minor war, or for any conflict short of full mobilization (Field 1962).

The total strength of the Pacific Fleet Service Force, as of the end of June 1950, consisted of 91 auxiliary ships of various types. Forty-seven of these mobile support ships were responsible for the logistic support of fleet ships in the eastern Pacific Ocean, including Alaska–most of the auxiliary ships were docked in U.S. west coast ports. The 26 auxiliary ships of the Logistic Support Group whose area of responsibility included fleet ships and bases in the western, central, and southern Pacific Ocean were at Pearl Harbor and were commanded by COMSERVPAC. The remaining 18 ships were assigned to Naval Service Division 51 based on Guam, a subordinate echelon of the Logistic Support Group responsible for the administration of service force in the Mariana and Caroline islands (Field 1962).

Stockpiling, shipping, and delivering vital military cargo to Korea encompassed logistics challenges due also to the need for fuel, parts, and administrative personnel along the westward route and the islands of Oahu, Johnston, Kwajalein, and Guam, and in the need to reactivate facilities on Midway Atoll (Field 1962).

U.S. military forces stationed in Asia in 1950 were organized under the unified command of General Douglas MacArthur, who was both Commander in Chief Far East Command and Supreme Commander for the Allied Powers, responsible for the occupation of Japan. In addition to these duties, General MacArthur was responsible for the defense of Japan, Okinawa, and the Mariana and Philippine islands. To support General MacArthur's missions, all U.S. military forces were assigned to Commander-in-Chief, Far East (CincFE) (Field 1962).

FEAF, the air component of General MacArthur's command, was commanded by U.S. Air Force Lieutenant General George E. Stratemeyer, which in June 1950, comprised five fighter and two bomber wings, a transport wing, and miscellaneous support units of approximately 1,200 aircraft. The principal mission of FEAF (the air defense of Japan, Okinawa, Guam, and the Philippine Islands) was reflected in the aircraft inventory of 553 aircraft in organized units and 365 F-80C jet fighters (Lockheed F-80 Shooting Star) (figure 3-5), which had recently replaced the premier fighter plane of World War II, the piston-engine P-51 Mustang (North American) (figure 3-6). The jet-powered aircraft had comparatively high performance, but combat radius without external fuel tanks was limited to 100 miles (with external fuel tanks, no bombs could be carried), and they required sizable, modern airstrips. The efficiency of General Stratemeyer's command, therefore, was limited by deficiencies of material, inadequate engineering support, and training restricted by budget cuts (Field 1962).

The U.S. Navy submarine force under the operational control of Commander Seventh Fleet, administratively organized as Task Unit 70.9, included four fleet submarines and a submarine rescue vessel. Its principal activity had been in antisubmarine warfare training exercises with units of the fleet and of Naval Forces Far East. One of the four boats (USS *Remora*) was based at Yokosuka, Japan, on loan to Commander, United States Naval Forces, Far East (ComNavFE); the USS *Cabezon* was at sea en route from the Philippine Islands to Hong Kong; the USS *Segundo* with Commander Francis W. Scanland (the task unit commander) was based at Sangley Point in the Philippine Islands; and the USS *Catfish* was based at Subic Bay. The submarine rescue ship USS *Florikan* was based on Guam and about to be relieved by the USS *Greenlet*. No submarine tender was stationed in the western Pacific Ocean, but limited quantities of spare parts and torpedo warheads were available from the destroyer tender USS *Piedmont* based at Subic Bay (Field 1962).

Source: HTTP://WWW.NATIONALMUSEUM.AF.MIL/FACTSHEETS/FACTSHEET.ASP?ID=290

FIGURE 3-5. LOCKHEED F-80 SHOOTING STAR JET FIGHTER

Source: http://www.boeing.com/companyoffices/aboutus/wonder_of_flight/p51mustang%20.html

FIGURE 3-6. P-51 MUSTANG FIGHTER PLANE

Patrol plane missions in the western Pacific Ocean were another Seventh Fleet responsibility that was centralized at Guam under control of Commander Fleet Air Wing 1, Captain Etheridge Grant, who served as Commander Task Unit 70.6 and Commander Fleet Air Guam. For long-range search and reconnaissance in the theater, Captain Grant commanded two squadrons of patrol aircraft: (1) Patrol Squadron 28, a heavy landplane squadron with nine PB4Y-2 Privateers, the single-tailed Navy modification of the Liberator, based at Agana, Guam, and (2) Sangley Point, Luzon, Patrol Squadron 47 operated nine Martin PBM-5 Mariner flying boats. In addition, Fleet Air Wing 1 commanded a small seaplane tender (USS *Suisun*), which on 25 June 1950 was moored in Tanapag Harbor, Saipan (Field 1962).

Western Pacific Ocean U.S. Naval strength in June 1950 was minimal under the command of ComNavFE and Commander Seventh Fleet and included one carrier, two cruisers, three destroyer divisions, two patrol squadrons, and a few submarines. This represented a limited force with which to support a war on the Asiatic mainland; its southward deployment, with the principal base facilities at Guam and Luzon, was inappropriate for a campaign in Korea (Field 1962).

In the spring of 1951, concerned with the tenuous military situation in Korea, President Truman authorized the transfer of nuclear weapons to the Air Force for historic deployment to Asia under the auspices of the Atomic Energy Commission. Nuclear weapons were not used by allied forces in Korea because conventional military means could be employed as successfully. In addition, the Truman administration was concerned that an ineffective use of nuclear weapons would undercut their deterrence value and was determined not to draw the Soviet Union directly into war. The deterrence value proved advantageous numerous times in discussions of potential uses for nuclear weapons during the Cold War; however, the Truman administration continued preparations to use nuclear weapons in future warfare, if necessary.

Korean War truce talks began 10 July 1951. On 27 November 1951, representatives of North and South Korea agreed on the 38th Parallel as the line of demarcation; military operations slowed almost immediately thereafter. General Mark Clark assumed command of UN forces in Korea on 12 May 1952, prior to the truce talks. While in command, General Clark managed a near military deadlock on the front lines, then later the stalled Armistice negotiations, and then a violent prisoner of war situation on the island of Koje-do off the southern coast of South Korea. General Clark accelerated military pressure on the North Korean military to ultimately advance the truce negotiations.

The war in Korea accelerated the production of tactical nuclear weapons, and the nuclear stockpile grew from about 50 to over 1,100 weapons over a five-year period (e²M 2005). The Air Force underwent significant expansion during the war, as Congress voted $10 billion to double its size from 48 to 95 wings. The production of aircraft rose from 2,600 planes in 1949 to 12,000 planes in 1953. The Navy was nearly doubled as well, from 683 to 1,130 ships (Shiman 1997). In 1952, for the first time, the Department of Defense was authorized to store nuclear warheads in depots outside the United States. Soon thereafter, nuclear weapons designed for the U.S. Air Force and Navy were being guarded by the Marines at storage sites on Guam (Rogers 1995).

On 27 July 1953, the United States, North Korea, and China signed an armistice that ended the war, but failed to bring about a permanent peace. To date, the Republic of Korea (South) and Democratic People's Republic of Korea (North) have not signed a peace treaty; however, they did sign a nonaggression pact in 1991.

3.2.1 Guam and the Commonwealth of the Northern Mariana Islands

When North Korean armed forces under Prime Minister Kim Il Sung invaded South Korea on 25 June 1950, materials required to support the Korean War were limited and ammunition stored on Guam totaled approximately 6,000 tons. Guam, which had supported large naval forces during World War II, did not have spare parts for U.S. naval vessels (Guam's mission of fleet support had been cancelled in 1947). By the end of July 1950, vital cargoes of fuel, food, ammunition, and personnel were en route westward to South Korea via ship and plane, through Oahu, Hawai'i, Johnston Island, Kwajalein, and Guam (Field 1962).

In 1951, Andersen AFB was one of several overseas locations selected by the SAC to support rotational unit deployments of its bomber forces from stateside bases. A number of squadrons of B-50 bombers and KC-29 refueling tankers with support personnel subsequently deployed to Andersen for 90-day rotational duties (http://www.globalsecurity.org/military/facility/andersen.htm). In June 1954 SAC established the 3rd Air Division at Andersen AFB as a tenant unit, and then took over the base completely on 1 April 1955 (http://www.andersen.af.mil/shared/media/document/AFD-110425-077.pdf).

The war in Korea resulted in increased security measures on Guam. In early 1951, plans were proposed to install defensive armaments in the Apra Harbor area and to arm NOB small craft. Other defense measures included magnetic loop, controlled mines, acoustic systems, gate vessels, patrol, and mine sweepers in the harbor. COMNAVMAR began conducting surveillance and necessary naval operations in the Caroline-Palau islands area in order to ensure military security of those islands and the adjacent Pacific Ocean in search of Soviet ships conducting "surreptitious reconnoitering trips for purposes of surveying sites and areas, or possible sabotage to U.S. installations" prior to all-out armed conflict (26 February 1951, Memo from COMNAVMAR, Task Force 94).

Guam served as a busy air and seaport in support of the Korean War. During the period of 1 July through 31 December 1951, air traffic control at NAS Agana comprised:

	Airfield Landings		**Seadrome Landings**
	Military	**Civilian**	**Military**
July	379	63	8
August	396	80	–
September	385	80	2
October	396	59	9
November	389	63	–
December	332`	65	11
Total	2,277	410	30

The bulk of air traffic continued to be transport-type, which imposed a greater workload. For this period, 1,876,901 gallons of aviation fuel and 19,075 gallons of oil were dispensed. (Source: 8 January 1952 memo from Commanding Officer, NAS Agana, semiannual logistics data.)

New facilities and activities were needed on Guam to support the Korean War effectively. On 5 September 1951, a U.S. naval ship repair facility was established with the mission to "provide overhaul and general logistics support to locally assigned vessels and craft; limited support of fleet units and army

vessels operating in the area, including emergency drydocking for all types including capital ships; overhaul and preservation of torpedoes; repair and maintenance of shore-based electronics equipment; operation of boat pool and repairs to boats; and maintenance and operation of gas generating plants." The Auxiliary Floating Drydock Big (AFDB)-1 (a Class Large Auxiliary [10-section, non-self-propelled] floating drydock) was activated at Pearl Harbor Naval Shipyard, Hawai'i, and in June 1951, was towed to Guam. The decision to activate the AFDB-1 was based on the absence of docking facilities for ships in excess of 18,000 tons operating in the central and western Pacific Ocean, except in Japan and at Pearl Harbor, Hawai'i . Although this AFDB-1 dock was not actually required for the Korean War, the perceived threat of full-scale war with extensive submarine operations and attendant underwater hull damage resulted in the military decision to relocate the dock to Guam. On 1 September 1952, the AFDB-1 was placed in maintenance status (http://www.navsource.org/archives/09/28/2801a.htm).

During November 1951, the Command Naval Forces Marianas Rescue Coordination Center was established to "render emergency assistance to aircraft and vessels in distress and to rescue survivors thereof" (Memorandum 1951). In December 1951, the Aviation Supply Annex at the Naval Supply Depot was established with the mission to provide aviation supply support for western Pacific Ocean bases south of Japan. In October 1952, a U.S. Coast Guard search and rescue group was established on Guam, and increased in strength during 1953 (Memorandum, 7 October 1952).

By the end of 1951, SAC had allocated nuclear bombs to the air wing on Guam. In 1952, the Department of Defense was authorized for the first time to store nuclear warheads in depots outside the United States (Rogers 1995).

It was also believed that President Truman ordered the transfer of nuclear "capsules" or "pits" to Guam following a major Chinese military offensive in Korea on 6 April 1951 (R. Norris 1999). On 7 April 1951, the 99th Medium Bomb Wing at Travis AFB received orders to deliver atomic bombs to Guam (R. Dingman 1988), although the 99th Bombardment Wing Medium (BWM) returned to the U.S. mainland in June 1951 with the assigned nuclear weapons. In the document obtained by weapons expert Robert Norris titled "History of the Custody and Deployment of Nuclear Weapons (U) July 1945 through September 1977," prepared by the Office of the Assistant to the Secretary of Defense (Atomic Energy) February 1978, Guam received at least the nuclear delivery system for weapons including the Bomb, Depth Bomb, the Boar, Hotpoint, Lacrosse, Little John, Honest John, and Davy Crockett beginning in 1951 and which was removed in June 1969.[4]

Following signing of the U.S.-Japan Mutual Security Treaty, which was enacted on 28 April 1952, the Department of Defense expanded Guam's role in the new U.S. strategy of deterrence using long-range bombers to defend against Communist aggression against the United States or its allies. This role was undertaken in August-September 1953 when SAC flew new Convair six-engine turbo-prop B-36 Peacekeeper bombers to Guam, Okinawa, and Japan in a month-long exercise called Operation BIG STICK. This operation was the first of many large-scale military exercises that used Guam facilities during the ensuing decades (Rogers 1995).

[4] According to weapons expert Robert Norris, at peak periods, which is the late 1960s and early 1970s, there were approximately 12,000 U.S. nuclear weapons outside the borders of the United States. About 7,000 of those were in NATO Europe. About 2,000 of those in Pacific Ocean countries, and another 3,000 nuclear weapons were what the Pentagon calls "afloat" (Dateline Washington Report 28 October 1999).

By 31 December 1953, U.S. Navy personnel stationed on Guam had increased by over 20% from 1946 lows; personnel assigned to Naval Operating Base Marianas included:

▪ Navy Military Personnel	9,663
▪ Navy Civilian Workers	11,611
▪ Navy Dependents	7,793
▪ Marine Military Personnel	289
▪ Marine Dependents	60
▪ Army and Air Force Military Personnel	4,447
▪ Army and Air Force Civilian Workers	1,444
▪ Army and Air Force Dependents	1,954
▪ Other Navy Logistics Responsibilities	8,344
Total Personnel	45,605

Source: History of U.S. Naval Activities on Guam Island, Marianas, 15 April 1954

3.2.2 Saipan

The High Commissioner of the Trust Territories of the Pacific received instructions from President Truman on 2 December 1952 to relinquish Saipan and Tinian to U.S. Navy administration and management under the assumption the territory would be more effectively operated by the Navy (2 December 1952, Department of Navy, Naval News Experts). The U.S. Department of the Interior assumed administration of the trusteeship from the Navy in 1951. On 29 September 1954, Trust Territory of the Pacific Islands headquarters was transferred from Hawai'i to Guam. Trust Territory headquarters was on Guam instead of on Saipan because the main Northern Mariana Islands had been removed from jurisdiction of the Department of the Interior and placed under jurisdiction of the U.S. Navy.

The principal reason for the change in administrative jurisdiction was that the United States had become involved in unconventional warfare in Korea and Saipan and was strategically located for related missions. In 1953 the Central Intelligence Agency (CIA) established a secret base in the central mountains of Saipan, known as Saipan Training Station of the Naval Technical Training Unit (NTTU), at a cost of $28 million. The primary mission of the Saipan Training Station was to provide physical facilities and competent instructor personnel to fulfill a variety of training requirements including intelligence tradecraft, communications, counter-intelligence, and psychological warfare techniques. Training was performed in support of CIA activities conducted throughout the Far East. The existence of this secret installation was one reason the U.S. Navy perpetuated stringent security clearance for the Trust Territory of the Pacific Islands and Guam following the Korean War (*The Pentagon Papers,* Gravel Edition, Volume 2, pp. 643–649).

In excerpts from a memorandum from Brigadier General Edward G. Lansdale (Pentagon expert on guerrilla warfare) to General Maxwell D. Taylor (President Kennedy's military advisor) on "Resources for Unconventional Warfare, SE. Asia," he stated:

> *CIA maintains a field training station on the island of Saipan located approximately 160 miles northeast of Guam in the Mariana Islands. The installation is under Navy cover and is known as the Naval Technical Training Unit.*
>
> *The primary mission of the Saipan Training Station is to provide physical facilities and competent instructor personnel to fulfill a variety of training requirements including intelligence tradecraft, communications, counter-intelligence and psychological warfare techniques. Training is performed in support of CIA activities conducted throughout the Far East area.*

The houses used by NTTU staff were divided into two areas: 1200 block housing was assigned to civilians and high-ranking enlisted personnel while 1300 block housing on the opposite side of the hill accommodated military officers and the chief of station's residence, the largest and most well-furnished residence within the housing complex. It is unknown if the chief of station was one of the CIA's "super grades" (the civilian equivalent of a general) (Stewart 2005).

One of the Cold War clandestine objectives of the CIA's covert facility on Saipan was to halt Communist expansion in Asia and to train and infiltrate Communist China in support of President Chiang Kai-shek's desire to return to the mainland and overthrow the Communist government. When it was pointed out that the Chinese army, which had fled the mainland with him for the nearby island of Taiwan, was (by the early 1960s) "old tigers without teeth," the effort lost much of the support of the United States, and the invasion to reclaim the mainland never occurred (Stewart 2005). Without an invasion force, the government in Washington, D.C., quietly discontinued NTTU operations in May 1962. The Department of the Interior resumed jurisdiction over Saipan and the other Northern Mariana Islands on 1 July 1962, and moved Trust Territory of the Pacific Islands headquarters from Guam into the offices and residences on Saipan formerly occupied by the CIA (Rogers 1995).

3.3 POST KOREAN WAR: 1954 TO 1964

3.3.1 Post Korean War Politics—New Look and Flexible Response: 1954 to 1964

In 1952, Dwight D. Eisenhower was elected president of the United States, and during his administration (19523–1961): (1) the first U.S. nuclear submarine, the USS *Nautilus*, was launched; (2) the Atomic Energy Commission exploded a hydrogen bomb on the Marshall Islands in November 1952; (3) nearly a year later, the Soviet Union exploded their first hydrogen bomb; (4) in 1954 the USSR unveiled the M-4, a jet-propelled long-range bomber, and the United States developed the Nike-Ajax missiles that were deployed at Fort Meade, Maryland. Later in 1954, President Eisenhower signed the Communist Control Act, which outlawed the Communist Party in the United States.

Following the French defeat in Dien Bien Phu, Vietnam, during the first half of 1954, President Eisenhower gave a speech that set forth an outline of U.S. Cold War policy. President Eisenhower expanded on State Department Analyst Kennan's previously articulated containment policy by describing the domino theory. President Eisenhower stated that the United States must not only contain the USSR at critical locations, but in *all* locations. The assumption was that if one nation in a region came under the influence

of Communism, then the surrounding countries would follow in a domino effect. The domino theory was used by successive U.S. administrations during the Cold War to justify U.S. intervention throughout the world.

The Geneva Conference held on 27 April 1954 (at the conclusion of the first Indochina War) produced a declaration that supported the territorial integrity and sovereignty of Indochina, thereby granting its independence from France. In addition, the Geneva Conference declaration agreed on the cessation of hostilities and foreign involvement (or troops) in internal Indochina affairs.

As part of the post-war settlement announced on 21 July 1954, Vietnam was temporarily partitioned into northern and southern zones at the 17th Parallel pending unification on the basis of internationally supervised free elections to be held in 1956. Opposing troops were to withdraw into northern and southern zones facilitating the cessation of hostilities between Vietnamese forces and those that had supported the French. Viet Minh units, having advanced to the far south while fighting the French, retreated from these positions to north of the 17th Parallel (Gravel (ed.) 1971).

Acceptance of the domino theory resulted in U.S. policy makers treating Vietnam as extremely important. If Vietnam became Communist, domino-theory logic held that all of Indochina, and perhaps all of Southeast Asia, might also accept the Communist doctrine. Well aware of the popularity of Ho Chi Minh and his Viet Minh associates in both North and South Vietnam, U.S. leaders expressed concern that the free elections promised at the Geneva Conference would result in a unified Communist Vietnam (the 1956 elections were never held).

The 1953 death of Soviet leader, General Secretary Joseph Stalin, resulted in an opportunity for President Eisenhower to conduct discussions with the new Soviet Premier Georgy Malenkov, and in July 1955, President Eisenhower, Soviet Prime Minister Nikolai Bulganin, and the leaders of Great Britain and France met in Geneva, Switzerland. President Eisenhower proposed that the U.S. and Soviet Union agree to allow their military bases to be inspected by air; however, the Soviet Union later rejected the proposal. However, the meeting held in Geneva was not considered a failure because the leaders of the world's most militarily powerful nations had shaken hands and joined in discourse.

During 1955, the Soviet Union responded to the formation of NATO with the Warsaw Pact; an alliance of eight countries including the Soviet Union, Albania, Bulgaria, Romania, East Germany, Hungary, Poland, and Czechoslovakia. In 1956, Hungary asked the United States for assistance as the Soviet Union aggressively crushed the Hungarian resistance to Communist rule, which the U.S. denied. Shortly thereafter, First Secretary Khrushchev, who earlier denounced General Secretary Stalin, told Western diplomats "we will bury you."

Cold War tension increased and subsided variously as both sides actively attempted to influence political and economic developments around the world. For example, the Soviet Union provided military, economic, and technical aid to Communist governments in Asia. The United States then assisted eight Asian nations to oppose Communism by establishing the Southeast Asia Treaty Organization. In the mid-1950s, the United States began sending military advisors to prepare South Vietnam defenses against the military of Communist North Vietnam (later expanding into a long period of U.S. military and diplomatic involvement in Vietnam).

In August 1958, the Chinese Communist Navy began shelling Quemoy and Matsu islands in the Strait of Taiwan, attempting to isolate approximately 100,000 Nationalist Chinese defenders from logistical support, and possibly allowing a Chinese Communist military invasion of Taiwan. President Eisenhower directed the U.S. Navy to deploy six carrier task groups to the Pacific Ocean near China and begin escorting Nationalist ships resupplying Quemoy and Matsu islands. President Eisenhower also entertained

diplomatic action to resolve the crisis peacefully; Chairman Mao Zedong's government in Beijing did not undertake additional military actions and the crisis subsided (Marolda 2000).

The Cold War influenced policies in the Middle East. For example, in the 1950s, both eastern block and western countries offered aid to Egypt to build the Aswan High Dam on the Nile River. Western nations rescinded their aid offer when Egypt purchased military weapons from the Communist government of Czechoslovakia. Egyptian President Gamal Abdel Nasser retaliated by seizing control of the Suez Canal operation. As a result of the Suez Canal seizure, Israel, supported by France and Great Britain, invaded Egypt. The United States and the Soviet Union supported a UN resolution demanding an immediate ceasefire; however, the Suez crisis became a political victory for the Soviet Union because its support of Egypt was viewed favorably in Arab countries.

During the latter half of the 1950s, several provinces in Laos (west of and bordering Vietnam and China) were forcibly governed by Communist leaders from the movement called the Pathet Lao. The Laotian non-Communist government signed a peaceful coexistence agreement with the Pathet Lao in 1956; nevertheless, warfare occurred in 1959. The United States provided military advisors and other assistance to the Laotian 25,000-man army and the Soviet Union and China provided substantial military aid to the Pathet Lao; resulting in the conflict being fought to a relative stand-still (Stewart 2005).

Between 1959 and 1962, Laotian Communists, with military assistance from President Ho Chi Minh's government in Hanoi, Vietnam, conducted guerrilla attacks intended to overthrow the generally pro-Western Laotian government in the capital of Vientiane. On several occasions the U.S. government ordered Seventh Fleet carrier task forces into the South China Sea to demonstrate U.S. opposition to the military actions of the Laotian Communists. In 1962, U.S. President John F. Kennedy deployed U.S. Marines and Army troops into Thailand, a U.S. ally on the western border of Laos. In each conflict, the possibility that U.S. troops with nuclear-armed ships and aircraft would invade Laos to protect the national government persuaded the Communist leaders to limit warfare; however, the region remained in political turmoil (Marolda 2000).

Source: http://highlandcoldwar8.wikispaces.com/Sputnik-p7

FIGURE 3-7. SPUTNIK, SOVIET ROBOTIC SPACECRAFT

The Soviet Union's successful launching of the Sputnik I satellite (using the ICBM R-7 and low earth orbiter system) (figure 3-7) on 4 October 1957 demonstrated the viability of using satellites to explore Earth's upper atmosphere. This launch became the focus of U.S. Senator Lyndon B. Johnson of Texas who began an inquiry into U.S. satellite and missile programs, calling the Soviet launch and capability a "technological Pearl Harbor." There was concern that the ability to launch a satellite into an Earth orbit indicated the technological ability to launch long-range missiles capable of destroying the United States. As a result, a "space race" between scientists and the governments of the Soviet Union and the United States commenced (Raines 1996).

The Soviet Union launched Sputnik II on 3 November 1957, again using the ICBM R-7 launch vehicle. This mission included radio transmitters, telemetry system, programming unit, regeneration and temperature control system, scientific

instruments, and a dog named Laika. The United States was motivated to close the space exploration technological gap. The U.S. military had not been part of the space exploration program prior to 1957 because President Eisenhower determined space exploration to be a purely scientific endeavor. Following the launch of Sputnik 1, the U.S. Army received orders and funding to begin a satellite program using a modified Jupiter-C rocket booster to launch the Explorer I satellite on 31 January 1958. Explorer I carried cosmic ray instrumentation, temperature sensors, acoustic and wire grid detectors to sense micrometerrite impacts, and was the first satellite to recognize the Van Allen radiation belt. As additional satellites and technology were launched into orbit, a communications revolution occurred that largely replaced wires and cable systems (Raines 1996).

Military operation of the space program occurred over a relatively short timeframe; in July 1958, President Eisenhower signed into law an act establishing the National Aeronautics and Space Administration (NASA), which began operations on 1 October 1958. NASA assumed the military role and function of the National Advisory Committee for Aeronautics, which was authorized by Congress following World War I.

During this time, the doctrine of massive nuclear retaliation was gradually yielding to the reality of mutually assured destruction (MAD)–both Communist and non-Communist nations possessed enough weapons and delivery systems to destroy one another should a nuclear war occur. Mutually assured destruction represented the key for deterrence for most of the Cold War—both sides were aware that initiating nuclear war would likely result in mutual annihilation.

During 1959, Cold War tensions eased when the new Soviet leader, Premier Nikita Khrushchev, visited U.S. President Eisenhower at his home near Washington, D.C. President Eisenhower desired to end the Cold War and the military arms buildup through negotiation with the Soviet Union. This effort was thwarted on 1 May 1960 when the Lockheed U-2 Dragon Lady surveillance aircraft flown by CIA pilot Francis Gary Powers was shot down by the Soviet Union. The ensuing public acknowledgement of the aerial surveillance missions reasserted the tensions between the United States and the Soviet Union, disrupting military arms negotiations. In a subsequent incident, Premier Khrushchev pounded his desk with his shoe during a speech before the UN General Assembly in protest of U.S. aerial surveillance policy.

President Eisenhower and the U.S. Congress, during two presidential terms between 1952 and 1960, shaped U.S. nuclear policy. As NATO's first Supreme Allied Commander Europe, President Eisenhower guided the forward deployment of U.S. nuclear weapons in Europe. As U.S. president, he supported development of the nuclear arsenal to over 18,000 weapons by 1960, largely because of his concern about the growing cost of a large, conventional military. The Eisenhower administration's "New Look" was a military posture for the United States that was dependent on the threat of retaliation using nuclear weapons in response to Soviet aggression. President Eisenhower diversified the nuclear arsenal to include more tactical nuclear weapons, and with congressional approval, adopted the policy that, in the event of war, the United States would consider use of nuclear weapons equally with conventional munitions. Programs were developed that authorized inclusion of Intercontinental Ballistic Missiles (ICBM) and Submarine-launched Ballistic Missiles (SLBM) for the nuclear arsenal.

One incident set in motion prior to John F. Kennedy being elected U.S. president in 1960 (1961– 1963) was President Eisenhower's authorized and CIA-planned invasion of Cuba by Cuban exiles largely living in the Miami, Florida, area. The invasion was designed to overthrow the Communist government of Prime Minister Fidel Castro. Less than three months into the Kennedy presidency, the operation known as the Bay of Pigs or Operation Zapata was launched on 17 April 1961, and failed by 22 April. The Cuban exiles had been trained by the CIA in Florida and Guatemala and launched their invasion from Nicaragua.

Ultimately, air superiority by the Cuban military led to the defeat of the exile force. U.S. aircraft flew sorties from carriers but did not engage in acts of war.

During the same time period in Europe, thousands of East Germans fled to the non-Communist countries of the West. The East German Communist government built a wall separating the eastern and western sections of Berlin in an effort to stop citizens from leaving. Guards stationed along the wall were authorized to shoot anyone attempting to escape preventing most attempts to flee East Germany.

In 1962, U.S. intelligence agencies reported missile and launch facility installations in Cuba using components manufactured in and shipped from the Soviet Union. U.S. aerial photograph signatures permitted interpretation of launch site construction, identification of missile transport vehicles, and identification of missiles, all of which were denied by the Soviet Union. Known as the Cuban Missile Crisis, this incident could have resulted in nuclear war; however, when Premier Khrushchev agreed with President Kennedy to remove the missiles if the United States agreed not to interfere in Cuba, the crisis was resolved.

After the Cuban Missile Crisis, President Kennedy was dissatisfied with the inflexibility of massive retaliation or the mutually assured destruction response. Because the United States was not willing to engage in full-scale nuclear war over relatively small international crises (like the periodic naval shelling of the islands of Quemoy and Matsu by the People's Republic of China), he reformed U.S. nuclear policy. The doctrine of flexible response provided a wider range of nuclear and conventional military options in response to crises or during a time of war (graduated military options, variable target sets, etc.). Flexible response to conflict, rather than massive retaliation, including nuclear weapons, became the foundation of U.S. nuclear strategy throughout the late 1970s.

Some progress was made in easing Cold War tensions under President Kennedy. In 1963, the United States and the Soviet Union reached a major arms control agreement wherein tests of nuclear weapons aboveground, under water, and in space were banned, and a direct telephone line between the White House and the Kremlin was installed. In 1963, President John F. Kennedy was assassinated and Vice President Lyndon B. Johnson became president. Soviet Premier Nikita Khrushchev was ousted from power as Premier Leonid Brezhnev and Prime Minister Alexi Kosygin replaced him in 1964.

3.3.2 Post Korean War–U.S. Military History: 1954 to 1964

With the end of the Korean War, the Eisenhower administration developed a strategy for national defense by configuring military forces to implement that strategy. Guided by worldwide commitments and the desire to reduce defense spending, the administration devised a policy that placed major emphasis on air power and U.S. nuclear superiority. "The basic decision," Secretary of State John Foster Dulles observed, "was to depend primarily upon a great capacity to retaliate, instantly, by means and at places of our choosing." This policy would allow the Department of Defense to mold the military into a force that best suited official policy without having to prepare for every threat the Communists might pose (Stewart 2005).

President Eisenhower reduced defense spending following the Korean War, but the policy to rely more heavily on strategic air power than on ground units created imbalances, both in the military budget and in the distribution of armed forces. In 1953, for example, the U.S. Army included more than 1.5 million personnel or 20 combat divisions (8 in the Far East, 5 in Europe, and 7 in the United States). The military budget was approximately $13 billion, 38% of the total allocated to the military for fiscal year 1954. Over the next four years the Joint Chiefs of Staff reduced the armed services by more than 600,000 personnel. Both the Air Force and Navy experienced personnel reductions; however, most of the personnel were

eliminated from the ground forces. By 1958, the Army had been reduced to 15 divisions and fewer than 900,000 personnel. Two reduced-strength divisions remained in Korea and one was stationed in Hawai'i. The number of military personnel assigned to Europe and the United States remained the same, but several stateside divisions were operating at reduced strength. Funds obligated to the Army for fiscal year 1959 had been reduced to about $9 billion, 22% of the total U.S. military budget. However, the total defense budget increased from $34 billion in 1954 to more than $41 billion in 1959. Much of the increase was attributable to the acquisition of highly technical aircraft and missile systems necessary to provide deterrence and defense against nuclear attack. Highly technical weapons were costly to design and assemble and they occasionally became rapidly obsolete as newer, better systems were available. In addition, the personnel necessary to maintain these highly technical weapons and systems were paid higher salaries and required expensive, on-the-job training to remain current with technological advancements (Stewart 2005).

Under the policy of massive retaliation, the U.S. armed forces acquired a "New Look" as the 1950s progressed. The Air Force increased the size of strategic bombing forces, purchasing expensive bombers and missiles. The Army focused on tactical nuclear weapons to support soldiers on the battlefield, while the Navy concentrated on developing the new submarine-launched nuclear missile known as Polaris (Stewart 2005). On 30 September 1954, the U.S. Navy commissioned the submarine USS *Nautilus* (SSN-571), the world's first nuclear-powered warship, and the following year commissioned the 59,630-ton USS *Forrestal* (CVA-59), the lead ship of a new class of "super carriers" designed to accommodate the AJ-1 Savage and other jet-powered naval aircraft. Within a few years the U.S. Navy was operating carrier squadrons that were equipped to deliver nuclear bombs (Marolda 2000).

By the mid-1950s, the Joint Chiefs of Staff had established unified commands in the Far East, the Pacific Ocean, Alaska, the Caribbean Sea, and Europe, and a few specified commands, the most important of which was the Air Force SAC, then the United States' only atomic strike force (Stewart 2005). SAC maintained almost 1,000 aircraft in forward base units in Korea, Japan, Guam, the Philippine Islands, and elsewhere. These units were under the command of the Pacific Air Forces (PACAF), headquartered in Hawai'i, which replaced FEAF as the air component of the Navy -led Pacific Command in 1957 (McFarland 1997).

As military budgets were reduced, the total size of active military forces gradually decreased. The U.S. Army, Navy, and Marine Corps declined in personnel, while the Air Force expanded. SAC comprised about 30% of the Air Force and was the main deterrent to Soviet military aggression. Secretary of Defense Louis A. Johnson (March 1949) supported a defense policy based primarily on strategic air power. Secretary Johnson reduced defense expenditures and by mid-1950, the Air Force, with 411,000 personnel, maintained 48 combat groups. The Navy, with 377,000 personnel, commanded 670 ships in the active fleet and 4,300 operational aircraft. The Marine Corps, with 75,000 personnel, comprised two minimal divisions and two air wings. The Army, with 591,000 personnel, commanded 10 small divisions and five regimental combat teams with the constabulary in Germany equal in number to an additional division (Stewart 2005).

The nuclear threat overshadowed development and progress in other military areas during the 1950s. Although the United States sought to avoid involvement in limited war, situations arose that required the United States to supply military or economic aid or to dispatch combat forces. U.S. commitments to provide advisory groups and military missions around the world multiplied, even with efforts in Congress and the executive branch to reduce expenditures (Stewart 2005).

The United States did recognize limits and maintained two Army divisions south of the demilitarized zone (DMZ) in Korea and provided substantial military assistance to the South Korean armed forces. However, when France sought U.S. support to reclaim its empire in Indochina, the U.S. refused. When

France considered ending cooperation with NATO, the United States compromised by providing military supplies, equipment, and economic aid, but would not commit troops or bombers (Stewart 2005).

3.3.3 Post Korean War—Guam and CNMI: 1954 to 1964

Even though Korean War combat ended in armistice during September 1954, the COMNAVMAR continued to provide security to 2.5 million square miles of Pacific Ocean, including the Mariana, Bonin Volcano, Marcus, and Caroline island groups. The U.S. Navy provided support to military ships, coordinating regional communication, logistics, weather reconnaissance, ship routing, and search and rescue operations. The Navy Supply Depot stored between 21,000 to 30,000 measurement tons monthly (one measurement ton = 40 ft^3 [cubic feet]), with the U.S. Air Force accounting for approximately 23% of the stored materials. The depot stocked 83,000 items valued at $24,600,000. The U.S. Naval Magazine, Guam, providing munitions for the Seventh Fleet, was the westernmost ammunition supply point on U.S. soil, was situated on 6,200 acres, and contained 278 buildings and structures. VW-1-Airborne Early Warning Squadron 1, a land unit of the Seventh Fleet, provided weather reconnaissance, early warning, and search and rescue. VAP-61, Heavy Photographic Squadron, provided photographic services and aerial photographic intelligence. The ships homeported at Guam included the USS *Brister*, USS *Haverfield*, USS *Cayuga County*, USS *Banner*, and USS *Wandank* (Glimpses of Guam 1962).

By the late 1950s, the United States and the Soviet Union actively conducted nuclear weapons tests and were engaged in a race to orbit satellites in outer space. A growing focus in the Western Pacific Ocean was also underway; most important for Guam was the deteriorating political situation in Vietnam. As early as 1954, the FEAF had organized provisional units as a U.S. military presence in Vietnam, to support the French government. In July 1954, Vietnam had been partitioned into North and South along the 17th Parallel with a DMZ similar to Korea. By mid-1950, the Joint Chiefs of Staff established unified commands in the Far East, the Pacific Ocean, Alaska, the Caribbean Sea, Europe, and a few specified commands, including the SAC, which had the only atomic strike force in the United States at that time (Steward 2005). Beginning in 1957, the U.S. Air Force had prepared for rapid deployment to Vietnam.

Recognizing the growing importance of Guam as a base of activities for SAC bombers, the U.S. Air Force, in June 1954, deactivated the Far East Air Force Bomber Command in Japan and reactivated the SAC Third Air Division at Andersen AFB. The Third Air Division assumed command jurisdiction of Andersen AFB from Far East Air Forces on 1 April 1955. Heavy bomb wings composed of Convair B-36 Peacemakers continued to rotate to Guam for mobility training until July 1956, when the first B-47 Stratojet Medium Bombardment Wing arrived from the home station in the United States and was attached to the Third Air Division for operational control (Glimpses of Guam 1962, U.S. Navy Relief Fund Drive). By this time (mid-1956), Andersen AFB was the chief SAC base in the Pacific Ocean and one of 38 overseas bases that essentially encircled the Sino-Soviet Bloc (Rogers 1995).

In mid-1958, the deployment of entire SAC wings to Guam was replaced by an "Air Mail" alert program, whereby several airwings in the United States maintained a specific number of B-47 Stratojets and KC-97 Stratotankers at Andersen AFB to meet both routine and alert requirements. In April 1964, the division switched from "Air Mail" B-47/KC-97 to "Reflex" B-52 Stratofortress/KC-135 Stratotanker alert forces, again with aircraft and crews furnished in deployed status from U.S.-based SAC wings (http://www.afhra.af.mil/factsheets/factsheet.asp?id=10052).

The Area Public Works Office (APWO), Mariana Islands, was activated on 1 October 1954 under the military command of COMNAVMAR. APWO was assigned the mission to "administer within the Marianas-Bonin area, and elsewhere as directed, the technical programs of the BuDocks pertaining to planning, design, construction, maintenance and operations of facilities and utilities, and all other work

incidental to operate the Marianas-Bonin area for the Armed Forces (including the Coast Guard); to act as land claims administrator for the Saipan District of the Trust Territory of the Pacific Islands (except Rota); contract administration of all types of contracts, and supervision of civil works projects by specific assignment" (APWO Marianas, Annual Report 1958). In September 1960, the public works functions of the U.S. Navy Public Works Department were consolidated with the Navy Public Works Center (PWC) and in 1961, OICC Marianas was integrated with the Public Works Center, making the center the largest single military activity on Guam.

In the mid-1950s, with U.S. military advisors active in South Vietnam, communication types and methods between the United States and South Vietnam were important and extremely vulnerable. A single undersea cable linked the Pacific Command in Hawai'i with Guam, but this connection did not extend to Southeast Asia. Thus, the military depended on high-frequency radio, a medium that could be easily jammed. A new technique, known as scatter communications, was implemented, which employed bouncing high-frequency radio beams off the layers of the atmosphere and reflecting them back to earth. One type, tropospheric scatter, bounced signals off water vapor in the troposphere, the lowest atmospheric layer. A second method, ionospheric scatter, bounced the signals off clouds of ionized particles in the ionosphere, the region that begins about 30 miles above the earth's surface. Using special antennas to send and receive signals, both methods provided high-quality signals that were less susceptible to jamming than ordinary radio frequencies. Unlike microwave relays, scatter communications did not require a line of sight between stations; tropospheric relay stations could be as much as 400 miles apart, compared to about 40 miles for microwave stations (an advantage when operating in hostile territory (Raines 1996).

President Kennedy committed 400 Army Special Forces troops to Vietnam in May 1961, repeating a similar action by President Eisenhower a year earlier (1960). As of 1962, multiple U.S. Air Force units became involved in the advisory buildup in South Vietnam and the U.S. Navy planned to station one of three Polaris submarine squadrons at Naval Base, Marianas. Submarine Squadron 14 was the first Polaris unit established in Scotland, with Submarine Squadron 16 anticipated for assignment to Spain in early 1963, and Submarine Squadron 15 planned for assignment to Guam. The Polaris submarines could launch ballistic missiles carrying nuclear warheads, and were powerful additions to the U.S. Navy arsenal. Submarine Squadron 15 arrived in Guam in late 1964 (Mason Architects, Inc., and Weitzer Research 2010).

In August 1962, the Naval Communication Service became part of the Pacific Scatter Communications System. The system consisted of radio links beginning in Hawai'i and terminating at Taiwan with stations at Oahu and Kauai, Hawai'i; Midway, Wake, Ponape, Guam, Koror, Luzon, Okinawa, and Taiwan. The system was part of the worldwide Strategic Army Communications System (STARCOM) network, and design and construction was completed by the U.S. Army Signal Corps. The Pacific Scatter Communications System stations on Guam and Midway were the only U.S. Navy-operated stations; all others were operated by the U.S. Army or Army-contract civilians (Crossroads 31 August 1962).

3.4 VIETNAM WAR: 1964 TO 1975

3.4.1 Vietnam War Era Politics: 1964 to 1975

During the 1960s, the Cold War resembled a game of global chess that took place between the United States and the Soviet Union; expanding to another dimension in 1967 when Communist China joined the nuclear arms race. In 1965, Cold War tensions again accelerated when the United States, under direction

of President Lyndon B. Johnson (1963–1969), entered the Vietnam War with combat forces (U.S. military advisors arrived beginning in 1950).

Initially, President Johnson was focused on domestic policy issues (civil rights, the Great Society, the War on Poverty, etc.) more than on foreign policy, although foreign policy activities came to dominate his administration as U.S. involvement in Vietnam expanded through 1968. The Johnson administration's focus on domestic policy resulted in relatively minor shifts in nuclear strategy and policy. In general, the increasing size of the Soviet nuclear arsenal produced a gradual move toward the doctrine of mutually assured destruction in the event of nuclear war, and growing political pressure for nuclear arms control and reduction.

The U.S. involvement in the Vietnam War served to reinforce both trends, including a series of nuclear arms control agreements between the United States and the Soviet Union. The first agreement was the Limited Test Ban Treaty, concluded by President Kennedy in 1963. In 1965, President Johnson committed the United States to a Nuclear Non-Proliferation Treaty, which he signed in 1968, but was not ratified by Congress until 1970. The large and increasing size of the U.S. nuclear arsenal was slowing during the latter years of the 1960s. The size of the nuclear arsenal was stabilizing or declining by 1968, both in megatonnage and number of weapons. Within the U.S. nuclear arsenal, the shift was toward larger numbers of tactical weapons with fewer strategic weapons (e²M 2005).

In setting policy for Vietnam involvement, President Johnson had refrained from asking Congress to declare war for fear that the Soviet Union and China would intervene. He had also declined to call up the reserves, relying instead on the military draft to provide the necessary military force. President Johnson had hoped to conduct a limited war in Southeast Asia that would not jeopardize his "Great Society" domestic programs. He surprised the nation by announcing on 31 March 1968 that he would not seek the Democratic nomination for reelection (Raines 1996).

Relations between East and West also improved when Richard M. Nixon was elected U.S. president in 1969 (1969–1974). He and Soviet Premier Brezhnev met several times and reached several arms control agreements. One agreement reduced the number of missiles designed to intercept nuclear weapons and also banned the testing and deployment of long-range missiles for five years. By 1969, President Nixon announced the "Vietnamization" policy to encourage the South Vietnamese to take more responsibility for fighting the war. This policy was designed to enable the United States to gradually withdraw all military personnel from Vietnam. During the spring of 1970, President Nixon authorized a limited invasion of Cambodia, long used as a sanctuary and logistical base by the North Vietnamese. The U.S. government had not previously allowed ground forces to operate outside the borders of South Vietnam. By attacking North Vietnamese bases in Cambodia, the United States planned to create time for Vietnamization to be successful (Raines 1996).

In June 1969, President Nixon announced the first troop withdrawal, thus reducing the 540,000 U.S. troop presence by 25,000, with another 60,000 troops on order to return to the U.S. in December. President Nixon's advisors expressed the fear that the gradual removal of all U.S. troops would eventually result in a North Vietnamese victory. It was therefore agreed that the United States could avoid a humiliating defeat by negotiating a peace agreement at the Paris peace talks.

On the U.S. mainland, critics viewed the invasion of Cambodia (referred to by the Nixon administration as an "incursion") as an escalation of the Vietnam War, and antiwar protests rapidly escalated, particularly on college campuses. In May 1970, four students protesting the Vietnam War and its expansion into Cambodia were shot and killed by Ohio National Guard troops at Kent State University in Kent, Ohio; another four students were shot at Jackson State College in Mississippi by the Jackson, Mississippi, police.

In January 1973, a cease-fire agreement was signed wherein the United States would terminate all direct military support to South Vietnam while North Vietnam agreed to end military incursions into South Vietnam; however, North Vietnamese and Viet Cong forces already present would remain in South Vietnam. The agreement also promised national reconciliation at some future date and required North Vietnam to release U.S. prisoners of war (Raines 1996).

In addition to the end of combat in Vietnam, U.S. foreign policy underwent other transformations during the early 1970s. In 1972, President Nixon became the first U.S. president to visit the People's Republic of China and his administration's foreign policy resulted in a temporary thaw in Cold War relations with the Soviet Union and China, known as *détente*. The most important results of détente in relation to nuclear policy were the Anti-Ballistic Missile Treaty (1972) and the Strategic Arms Limitation Treaty (1972). By the early 1970s, treaties on these issues had become particularly important for both foreign and domestic policy for two reasons: (1) the technological development of antiballistic missiles had begun to threaten the stability of nuclear deterrence, and (2) the development of multiple, independently targetable re-entry vehicles (or MIRVs), which allowed multiple nuclear warheads to be installed on a single missile, resulted in acceleration of the arms race.

3.4.2 Vietnam War Era—U.S. Military History: 1964 to 1975

In 1964, following the Gulf of Tonkin incident (the USS *Madox* and USS *Turner Joy* fired on North Vietnamese torpedo boats on 2–4 August 1964) and the advancement of North Vietnamese forces into South Vietnam, the U.S. military began to shift from an advisory role (since 1950) to providing combat support (beginning in 1965). Although U.S. military operations had commenced by May 1964, the Gulf of Tonkin incident caused the introduction of air defense, ground surveillance and countermeasures, radar, and other security measures. Over the remainder of 1964, the amount of military supplies sent to South Vietnam doubled to about 700 tons per day. The U.S. military had to logistically rely on air and water as modes of transportation because Vietnam had minimal roads and railroads and no pipelines (MACV 1964). By the end of 1965, 12,000 tons of cargo per day was being shipped to South Vietnam.

The broad goals of U.S. national policy were best stated in the following quotes from President Lyndon Johnson's State of the Union Message delivered on 13 January 1966:

> *Last year the nature of the war in Vietnam changed again. Swiftly increasing numbers of armed men from the North crossed the border and joined forces already in the South. Attack and terror increased, spurred and encouraged by the belief that the United States lacked the will to continue and that victory was near.*
>
> *Despite our desire to limit conflict, it was necessary to act: to hold back the mounting aggression—to give courage to the people of the South—and to make our firmness clear to the North. Thus we began limited air action against the military targets in North Vietnam—and increased our fighting force to its present strength of 190,000.*
>
> *. . .Until peace comes, or if it does not come, our course is clear. We will act as we must to help protect the independence of the valiant people of South Vietnam . . .*

The U.S. Military Assistance Command, Vietnam (COMUSMACV) under General William C. Westmoreland, in implementing this policy stated his guidance for the conduct of operations by the Republic of Vietnam Air Force (RVNAF), U.S. forces, and the Free World Military Assistance Forces of Vietnam (FWMAF) during 1966:

> *We must go on the offensive against VC and PAVN (NVA) Main Force units now rapidly building up in South Vietnam. Our operations must be orientated toward destruction of these forces and we must undertake an effective war of attrition against the enemy. We have not yet adequately exploited our great advantage in mobility and firepower. . .*

To carry out these broad objectives and implement them under the Joint Chiefs of Staff, the CINCPAC developed strategic guidance for U.S. Pacific Command forces responsible for the conduct of war in Southeast Asia. CINCPAC conceived a series of military tasks to be executed concurrently, as applicable, to accomplish this strategy. Among these military tasks were operations in the Mekong Delta; air strikes against North Vietnamese ports, power plants, and fuel complexes; various operations against North Vietnamese Logistic Operations Centers in North Vietnam and Laos; and preparation for setting explosive mines in ports, inland waterways, and the coastal waters of North Vietnam (MACV, Command History 1966).

In early 1966, 19,000 officers and airmen were assigned and 679 U.S. Air Force civilians were on duty with the COMUSMACV air component, the 2d Air Division (PACAF). This total represented a threefold increase in U.S. Air Force personnel resources during 1965. Total Air Force tactical aircraft resources supporting COMUSMACV had expanded during 1965 from 222 units to 780 units (599 in South Vietnam, 181 units in Thailand). In early January 1966, the aircraft inventory consisted of 780 fixed- and rotary-wing aircraft under operational control of the 2d Air Division and deployed in 90 organizational units. In addition, U.S. Air Force assets out-of-country provided mission support and airlift capabilities into the Republic of Vietnam, as required. Daily B-52 Stratofortress bombing sorties flown out of Guam (SAC3d AD); airlift out of Japan, Okinawa, and the Philippines Material Air Command; and field tests of tactical air operational prototype weapons systems (TAC/AFSC) continued at an increased rate (HQ MACV, Command History 1966).

In June 1965, B-52 Stratofortresses of the SAC joined tactical aircraft in supporting the battle on the ground, greatly increasing aerial firepower available for the war. Thirty B-52s, specifically fitted with external bomb racks, had been standing by at Guam since the incidents with the USS *Maddox* and USS *C. Turner Joy* in the Gulf of Tonkin. When the air war against North Vietnamese assets was initiated, U.S. Air Force fighter-bombers and the U.S. Navy's carrier aircraft conducted the strikes and the B-52s remained idle. General William C. Westmoreland, commander of military operations during much of the Vietnam War, ordered these bombers to attack the North Vietnamese in South Vietnam for a more efficient means of large-scale bombing. The Operation ARC LIGHT bombing strikes began with a 30-plane mission. During the remainder of the year, B-52s flew more than 1,500 sorties in South Vietnam, dropping large amounts of high explosives on selected area targets, including troop concentrations, military bases, and supply dumps (Schlight 1996). By July 1965, there were 200,000 U.S. military troops deployed to South Vietnam.

In 1968, the North Vietnamese military launched the Tet Offensive; a surprise offensive against U.S. and South Vietnamese forces on the eve of the lunar New Year celebrations. Province capitals throughout the country were seized, garrisons simultaneously attacked, and the U.S. Embassy in Saigon invaded. The offensive led to a massive antiwar demonstration in Washington D.C., by U.S. citizens. In late February 1968, the Chairman of the Joint Chiefs of Staff, General Earle G. Wheeler, traveled to the war zone to assess the impact of the Tet Offensive. General Wheeler returned to Washington with a gloomy report that included a request for an additional 200,000 U.S. troops. To achieve this troop level, however, President Johnson would have to mobilize the National Guard and other reserve forces (Raines 1996).

By 1972, President Nixon was seeking a way to disengage from the Vietnam War, and to that end, initiated an offensive against North Vietnam. Operation LINEBACKER I was launched in early April 1972 in response to the Easter Offensive (conducted by the North Vietnamese Army, which invaded

South Vietnam between 30 March and 22 October 1972). During the Easter Offensive, 14 divisions comprising more than 125,000 North Vietnamese troops, supported by hundreds of tanks and artillery, advanced on three fronts, crossing the DMZ and the Laotian and Cambodian borders into South Vietnam. In many instances, the North Vietnamese soldiers overwhelmed South Vietnamese forces, successfully acquiring a provincial capital and much of the territory near the DMZ. It was the largest military invasion since the Korean War when 300,000 Chinese volunteers crossed the Yalu River into North Korea (Treiber 2007).

For the next few months, U.S. Navy, Marine, and Air Force aircraft (along with the South Vietnamese Air Force) sustained a campaign into North Vietnam that ultimately forced a retreat of North Vietnamese troops from the captured territory. LINEBACKER I was deemed successful, and by early October 1972 the immediate threat to South Vietnam had subsided. On 23 October 1972, as a sign of goodwill, the U.S. ceased attacks beyond the 20th Parallel and expected North Vietnamese leaders to negotiate seriously. Three days later, Secretary of State Henry Kissinger stated to the press that "peace is at hand"; however, the U.S. had misread North Vietnamese intentions (Treiber 2007).

North Vietnam stalled while waiting for the new U.S. Congress to convene, knowing that Congress was poised to end the war by cutting off funding. Thus, the Nixon administration, realizing that time was limited and the North Vietnamese were uncooperative, was forced to resume bombing in operation LINEBACKER II (Treiber 2007).

From 18–29 December 1972, with Christmas Day as the only break, B-52 Stratofortresses stationed at U-Tapao, Thailand, and Guam proceeded to bomb predetermined North Vietnamese military targets. B-52s from both bases dropped 15,000 tons of bombs on 34 types of targets, destroying or damaging 1,600 military structures, and eliminating an estimated 25% of North Vietnam's petroleum reserves and 80% of its electricity producing capacity (Treiber 2007). The U.S. Navy and Air Force fighters and electronic warfare aircraft participated by dropping chaff (radar reflecting material), jamming radar, and attacking surface to air missile (SAM) sites, while Navy ships tracked SAMs and stood by to rescue downed pilots (as did the Lockheed HC-130 search and rescue aircraft and HH-53 Super Jolly Green Giant combat search and rescue helicopters). U.S. Air Force SR-71 Blackbirds provided reconnaissance data in a total force effort. After more than 700 nighttime sorties and 650 daylight sorties over an 11-day period, the sustained bombing brought North Vietnam to the negotiation process, allowing the United States to withdraw from Vietnam.

3.4.3 Vietnam War Era—Guam and CNMI History: 1964 to 1975

As the U.S. military increased military operations in Vietnam, Guam became both a transit point and forward deployed air base during the Vietnam War. "Guam has been an important operating location for the United States, especially the Air Force, over the years," said Patrick Garrett, a defense analyst for Global Security.org. "It is really the only location of its kind in the Pacific, from which long-range bombers can strike nearly any target in Northeast, East, and Southeast Asia" (Specht 1996).

Andersen AFB was used as the takeoff airfield for hundreds of B-52 Stratofortress bombers involved in the ARC LIGHT and LINEBACKER II missions. These bombers were forward deployed to Guam and flew thousands of sorties over Vietnam and adjacent countries between 18 June 1965 and 15 August 1973. Bombing missions were also flown simultaneously from U-Tapao Airfield in Thailand and Kadena Air Base in Okinawa. The combined number of sorties over the Vietnam region during the period of record totaled 130,000, a majority of them from Guam. The Stratofortresses were able to fly nonstop from Guam to Vietnam with one in-air refueling. The availability of the U.S. Naval Magazine and lower security concerns were pivotal in the decision to station bombers on Guam (Riveria 2002).

3.4.3.1 U.S. Air Force

According to the archives: on 18 June 1965, 27 B-52 Stratofortresses of the 7th and 320th Bombardment Wings flew from Guam to perform a bombing run over Viet Cong positions in the jungles of South Vietnam during ARC LIGHT missions (Specht 1996). The B-52 bombers were supported by a KC-135 Stratotanker (refueling tanker) from Kadena Air Base, Okinawa, which made it possible for the heavily loaded bombers to complete the roughly 2,000-mile roundtrip (Wallwork 2009). By 1966, Andersen AFB, Guam, was the main support base for all Lockheed WC-130E Hercules aircraft maintenance, while Udorn was the forward operating base for WC-130 aircraft operating out of Thailand (Seventh Air Force 7AF OPLAN 463-67(R) Popeye, 7 November 1966).

Convinced the B-52 Stratofortress (figure 3-8) could perform a significant role in defeating North Vietnam, General William C. Westmoreland, commander of U.S. forces in South Vietnam, called for additional bombing missions (Specht 1996). In 1965, more than 100 such missions were launched from Guam, primarily saturation bombing runs on Viet Cong bases in South Vietnam. Stratofortresses were also used in tactical support of the Marine Corps Operation HARVEST MOON and the First Cavalry Division Ia Drang Valley operations during 1965. By the end of 1965, B-52 crews had flown more than 1,500 ARC LIGHT sorties and air raids over South Vietnam. Air raids on neighboring Laos occurred in December 1965 (Specht 1996).

Source: http://www.boeing.com/defense-space/military/b52-strat/981221dfb52.html

FIGURE 3-8. B-52 STRATOFORTRESS

Early in 1966, B-52 daily bombing sorties originating in Guam (SAC3d AD); airlifts from Japan, Okinawa, and the Philippines (Material Air Command); and field tests of tactical air operational prototype weapons systems (TAC/AFSC) were continuing at an accelerated pace (HQ MACV, Command History 1966). The number of Stratofortress sorties over South Vietnam increased to 4,290 in 1966, 6,611 in 1967, and 15,505 in 1968. Throughout this period, 75% of the ARC LIGHT missions struck targets in South Vietnam, 20 % were directed to targets in southern Laos, and 5% bombed logistical targets in North Vietnam (mountain passes used by soldiers to carry cargo into southern Laos en route to South Vietnam, etc.) (Schlight 1996). Some U.S. Air Force commanders did not approve of the increase in B-52 sorties because using them for tactical purposes diverted them from their principal mission of strategic deterrence (Schlight 1996). When General Westmoreland requested further increases to 1,200 sorties in early 1967, SAC expressed concern with the impact on its worldwide nuclear forces (MACV, Command History 1966).

ARC LIGHT B-52 Stratofortresses began striking targets in North Vietnam on 11 April 1966–the initial bombardment of Mu Gia Pass marked the largest single bombing raid by the United States since World War II. By late 1966, most ARC LIGHT operations and missions were being staged from U-Tapao, Thailand, while others were flown from Kadena Air Base, Okinawa, and Andersen AFB, Guam. Andersen AFB remained the primary base for deployed forces from the United States, however, aircraft and crews were sent from Guam to Kadena and U-Tapao for combat missions (MACV, Command History 1966).

The B-52 Stratofortresses began to use the MSQ-77 Combat SkySpot system (ground-based automatic tracking radar systems for ground-directed bombing) in July 1966.[5] By the end of the year, SkySpot was the primary aiming method (Schlight 1996). On 6 July 1966, B-52s based on Guam participated in two new events: (1) conducting the first mission under a new QUICK RUN system of rapid response to COMUSMACV targeting, and (2) the first B-52 mission using the MSQ-77 SkySpot bombing system. The SAC quick-reaction force consisted of six B-52 Stratofortress bombers maintained on continuous alert on Guam. On a QUICKRUN mission called Pink Lady, from the 1st Cavalry Division (AM) request through COMUSMACV to the B-52s time over target was only 11 hours, and from the time of SAC receipt of the target until time over target was only 9 hours and 55 minutes, resulting in the following memorandum: "This record reaction time, coupled with the great accuracy in concentration of firepower, resulted in the dismemberment and dispersal of an enemy artillery force of at least battalion size" (Memo from COMUSMACV 1966).

General William C. Westmoreland (COMUSMACV), in a memorandum to CINPAC in August 1966, stated:

> *Since the United States became involved directly in the war in Vietnam, many innovations have emerged to the benefit of our efforts. If these innovations could be tallied in order of their contribution to the overall war effort, the use in SVN of SAC B-52 bombers would be high on my list. This capability, combined with timely intelligence on the location of the enemy, gives the ground commander an unprecedented advantage over the enemy and a means to deter or counter the Asian Communist tactic of employing mass formations on the battlefield.*
>
> *The enemy we face is a master of traversing the difficult terrain prevalent in the area. He is constantly on the move except when preparing for attacks on friendly forces and installations. Our strategy has been to attack forces during his preparatory phase and*

[5] A great advantage in accuracy resulted from the introduction in 1966 of a ground-based radar bombing system, Combat SkySpot, which guided the pilots to the target and told them when to drop the bombs.

> *thereby keep him off balance. Often it is extremely difficult, if not impossible, to position sufficient ground combat power to attack successfully enemy forces due to mobility limitations and the requirements for our ground combat forces to meet a number of threats simultaneously. The B-52 takes up a large part of this slack by enabling us to counter the enemy's attempts to stage for offensive operations.*
>
> *Guam is barely adequate as a base from which to support the war in Vietnam. Strike reaction time, or the time from strike request to actual time over target, is much too long, and many valuable targets are lost due to this delay. In addition, the lengthy flight time greatly reduces sortie availability. We should press our search for closer bases such as Thailand, Taiwan, Okinawa, or the Philippines.*

By November 1966, the Joint Chiefs of Staff was requesting an increase in monthly bombing sorties to 800, with 40% originating from Andersen AFB. The largest U.S. military operation in Vietnam at the time occurred on 7 January 1967, "Operation CEDAR FALLS." The mission was undertaken in the Iron Triangle area just north of Saigon. Six B-52D Stratofortress missions consisting of 47 sorties were flown prior to 7 January to prepare selected areas in support of this ground operation. On 7 January, a force of almost 30,000 troops commenced the search and destroy mission, and by the conclusion of the mission on 26 January, 94 B-52D sorties had been flown in support of this operation (http://www.306thbw.org/ 306thhistory/ history_ArcLgt66.htm). With the additional deployment of bombardment wings to Andersen AFB, SAC reported the following sortie utilization effective January 1967:

- 1 – 13 January 21 sorties per day
- 14 – 16 January 23 sorties per day
- 17 – 19 January 25 sorties per day
- 20 January onward 26 sorties per day

SAC also reported that, "It is most desirable to maintain a steady average of 26 sorties per day, with a maximum of 36 sorties in any 24-hour period. This pattern should be scheduled for two launch periods per day, approximately 12 hours apart and consisting of 12 to 15 aircraft each. This schedule will provide an even flow of recovery and regeneration actions. Maximum turnaround capability is 36 aircraft, 24 hours after landing or the last strike mission" (Memo from SAC to CINCPAC and CINCSAC dated January 1967).

On 15 February 1967, the sortie rate was increased, this time to 60 per day or a monthly total of 1,800. The reason was the quantitative increase in enemy activity in Vietnam and particularly in the Khe Sanh area. The 60-sortie rate was primarily possible by using part of the B-52 contingency at Kadena Air Base, Okinawa, as well as further improvements in aircraft utilization. The effort was also possible because of a number of related factors: first was the all-out commitment of SAC air and maintenance personnel (who were pushed to the limit); another was the close coordination between SAC and MACV in using bombers to the maximum extent by ensuring that targets were timely and the strikes productive. Also, there was significant progress in directing B-52 Stratofortress traffic, improvements that were essential due to aircraft from bases in Thailand, Okinawa, and Guam crowding the airspace above critical areas such as Khe Sanh in northwestern Quang Tri Province. This sortie rate was later considered to be of such great military value to the Vietnam War that it was retained throughout 1967 (MACV, Command History 1966).

COMUSMACV stated that the potential effectiveness of Operation ARC LIGHT had been reduced by dividing B-52 bombers among two or more targets to satisfy mission requirements. Under increasing

enemy ground maneuvers, COMUSMACV expected increased requirements for B-52 strikes in support of troops in contact with the enemy. The major limiting factors were reaction time and weight of attack in terms of number of bombers and bombs released on target. In 1966, COMUSMACV recommended basing B-52s closer to the Republic of Vietnam. CINCPAC calculated that the projected 800-sortie level operating from Guam would cost approximately $7.7 million per month, but if maintained from northern Luzon, the cost would be approximately $2.8 million. CINCPAC advised that immediate steps should be taken to prepare for increased B-52 sorties, and the quickest solution would be to use Kadena Air Base, Okinawa, Japan (estimated at a 38% improvement in costs) or U-Tapao, Thailand (MACV, Command History 1966). By the middle of 1968, 56 bombers were flying from Guam and 28 from U-Tapao, supported by KC-135 Stratotankers based at Andersen AFB, U-Tapao, and Okinawa (Schlight 1996).

At Khe Sanh, ARC LIGHT directors employed a system named BUGLE NOTE. The system required that all aircraft arriving from the west fly to a common point west of Khe Sanh, then continue to their assigned target under control of MSQ-77 ground radar. Bombers arriving from the east maintained a common fly-over point before proceeding to the target area. These improved procedures reduced the reaction time, allowing target decisions to be made as late as three hours prior to time over target (MACV, Command History 1966).

At year's end, the continuous 1,800-sortie rate for ARC LIGHT excessively strained SAC personnel and the mission, and by July 1971, the ARC LIGHT sortie rate had been reduced to 1,000 (it was later increased to 1,200 sorties per month in February 1972). On 1 April 1970, 3d Air Division resources passed to Eighth Air Force command and the Eighth Air Force moved its headquarters from Westover AFB, Massachusetts, to Guam on 1 April 1970. The ARC LIGHT sortie rate that was reduced to 1,000 per month in July 1971 was increased in early 1972 to impel the North Vietnamese into negotiations.

In February 1972, in response to the increased infiltration by North Vietnamese soldiers into South Vietnam, SAC initiated Operation BULLET SHOT, which resulted in an increase in B-52 bombers and personnel at Andersen AFB to carry out increased bombing missions that would eventually involve every B-52D wing. By July 1972, a bomber force of 50 B-52Ds, 100 B-52Gs, and over 12,000 personnel was bedded down at Anderson AFB (Treiber 2007).

After several months of mission expansions, the 155 Stratofortresses deployed to Andersen AFB became the largest concentration of B-52s in SAC. Following the North Vietnamese Army's 1972 Easter offensive, Operation BULLET SHOT increased the number of flight crews, aircraft, staff, and support personnel in the region. Within months, the base population tripled and the bombers participated in raids against enemy targets throughout Vietnam, including north of the DMZ (Tara K. 1972). When Operation BULLET SHOT was completed, the combined B-52 bases of the Pacific Ocean were capable of 3,150 sorties per month.

President Richard M. Nixon ordered Operation LINEBACKER I between April and October 1972, which effectively stopped the Eastertide offensive against South Vietnam by interrupting logistical support of ground troops furthering positive diplomatic action at the Paris Peace Talks. When negotiations stalled, the bombing was escalated. In October, as a sign of good will and hoping to hasten the signing of the peace agreement, President Nixon ended Operation LINEBACKER I.

In retrospect, Operation LINEBACKER I was credited with compelling the North Vietnamese leaders in Hanoi to make concessions and draft a peace agreement in Paris. However, once the bombing lessened, so did the cooperation and willingness of the North Vietnamese to reach an accord. December meetings in Paris proved initially promising, until it was discovered on 13 December that the North Vietnamese made 17 changes to a previously completed portion of the peace agreement. The deception resulted in President Nixon demanding to use military power decisively to win the Vietnam War. President Nixon gave the

order to execute Operation LINEBACKER II to achieve this goal http://www.globalsecurity.org/military/ops/bullet_shot.htm.

On 15 December 1972, 8th Air Force Commander Lieutenant General Gerald Johnson received orders for the Joint Chiefs of Staff contingency plan that proposed swift and continuous raids on targets in the heart of North Vietnam. Operation LINEBACKER II's purpose was to end the war using heavy bombers in their intended role–concentrated strategic bombardment. And on 18 December, 129 B-52 crews based on Guam learned they were assigned to bombing missions over Hanoi, and not returning home for Christmas (Tara K. 1972).

On 18 December 1972 at 2:51 p.m., the first B-52 Stratofortress left Anderson AFB followed by 26 additional heavy bombers. Operation LINEBACKER II consisted of a series of successive night raids of three waves of B-52s, each striking objectives at 4- or 5-hour intervals. Targets, including railroads, power plants, and storage areas, were carefully selected; accuracy was essential for limiting civilian casualties. However, the air strikes were certain to cause anguish and fear in the people of North Vietnam as bombs were released from over 30,000 feet, raining death and destruction from aircraft that could not be seen or heard (Treiber 2007).

During a 36-hour hiatus for Christmas observation by U.S. forces, President Nixon requested that the North Vietnamese contingent return to the negotiating table. North Vietnam's refusal of the president's offer to meet by 3 January 1973 resulted in the most formidable bombing day under Operation LINEBACKER II (Treiber 2007).

On 26 December 1972, 120 B-52s based on Guam bombed 10 targets within 15 minutes. Knowing the North Vietnamese had spent the Christmas holiday respite stockpiling defenses, airfields and SAM storage units were key objectives. The following day North Vietnam agreed to resume peace talks in January. However, Operation LINEBACKER II continued for two additional days until North Vietnam was ready to resume talks and reach an agreement (Treiber 2007).

The number of air crews and aircraft were increased at Andersen AFB to meet mission and operation demands throughout the spring and summer of 1972. Neither the airbase nor Guam was prepared to house and support the influx of personnel. Creativity and cooperation among military personnel of all grades managed to ensure that everyone was provided a bed, meals, and transportation. Tents, metal buildings, spare barracks, and hotels were overfilled with temporary duty personnel. The tripled base population affected all routine services, including the dining hall, legal offices, security police, and supplies (Tara K 1972).

Vital to planning and preparations for the Operation LINEBACKER II missions was the 303d Consolidated Aircraft Maintenance Wing. The wing included 5,000 personnel that maintained the 155 B-52s prior to and during LINEBACKER II. The schedule included servicing 120 jet engine overhauls per month (24 times the average) and providing maintenance for over 60 B-52 sorties per day (the typical number of sorties a bomber wing flies per month) (Treiber 2007).

At the operational peak there were 155 B-52 Stratofortresses on the Andersen AFB flightline, which required five miles of ramp space to accommodate all the planes. There had never been such a large concentration of combat-ready B-52s at any time or any place (Treiber 2007). Relative to operations, B-52s flying from Guam required multiple, precisely timed, in-flight refueling by KC-135 Stratotankers, which flew over 1,300 sorties from U-Tapao, Thailand, and Okinawa, Japan (Treiber 2007).

Between 18 December and 29 December 1972, more than 700 sorties delivered 15,000 tons of 500- and 750-pound bombs, destroying or damaging 1,600 structures, 500 rail targets, 10 airfields, and 80% of

North Vietnam's electrical power-generating capacity–55% originated from Andersen AFB. On December 18, 1972, 87 B-52s were launched from Andersen AFB in one hour and 43 minutes. However, SAMs destroyed 15 U.S. B-52s with 35 crew casualties, and 39 captured as prisoners of war. President Nixon's plan was successful, the United States and North Vietnam settled the last details of the peace agreement, and all parties to the conflict, including South Vietnam, signed the final Paris Peace Accords on 27 January 1973 (Treiber 2007).

3.4.3.2 U.S. Navy

U.S. Naval activity on Guam during the Vietnam War increased as resources were directed toward the war and supplies were transported to the island. Commander Submarine Squadron 15 and staff arrived on Guam on 12 October 1964, and Polaris submarines conducted deterrent patrols in the surrounding international waters. Four destroyer escorts homeported in Apra Harbor (USS *Finch* [DER-328], USS *Koiner* [DER-331], USS *Kretchmer* [DER-329], USS *Lowe* [DER-325]) were assigned to the Seventh Fleet as units of the Coastal Surveillance and Counter Infiltration Force (Market Time) near the coast of South Vietnam. The mission of this force was to prevent the infiltration of personnel, firearms and other munitions, and supplies for the Viet Cong into South Vietnam (Glimpses 1968).

During July 1966, the first ships of Landing Ship Squadron Three arrived at the new homeport in Guam; including 14 landing ship tanks, approximately 1,500 personnel, and 130 families. Landing Ship Squadron Three was tasked with amphibious support for the Seventh Fleet. The relatively slow, flat-bottomed landing ship tank was designed for use on rivers and their use as a support ship to the Riverine Forces was a new concept. The landing ship tanks were well designed to be intentionally grounded and to navigate the narrow and shallow streams then occupied by Vietnamese junks and sampas. The Mekong Delta River Assault Force made deep inroads in the one-time Viet Cong stronghold and the military supplies including rations, weapons, and ammunition necessary to maintain this operation were provided by Landing Ship Squadron Three via Operations OREGON, DIKE, and DECK HOUSE V (Glimpses 1968).

The tug base of the Guamanian naval station experienced increased workload and personnel work hours due to the increased U.S. commitments to Vietnam; 7-day work weeks became standard, and 20-hour days were not uncommon. Division Chief Robert LaBreque issued a brief summary of work provided by tug base personnel: "We make 13 to 15 ship moves per day and are now operating more than 500 hours per month. This is a 100% increase in the workload with no increase in personnel." A ship loaded with cargo vital to support the Vietnam effort required the tugs to float it safely to the pier. Additional docking services were provided by the Special Services Division who provisioned troop ships docking at the Guamanian port and providing shore leave to 3,000 soldiers per ship (Crossroads 1965).

The 605th Airlift Squadron of the Military Airlift Command provided support for the movement of transpacific cargo and passenger aircraft. During 1967, the 605th processed a total of 10,670 aircraft transiting Andersen AFB, an average of 889 aircraft per month and a 24-hour average of 30 aircraft carrying 30,000 passengers and 1,468 tons of cargo per month (Glimpses 1968). The number of casualties arriving from Vietnam increased; the daily number treated within U.S. Naval Hospital Guam increased from an average of 225 to 250 per month to 325 to 350 per month, with a peak of 407 during February 1968 (Marine Barracks Guam, Biannual Report 1968).

3.4.3.3 Operation NEW LIFE

Following the 1973 cease-fire agreement, North Vietnam continued to send large numbers of troops into South Vietnam. President Nixon had pledged to President Nguyen Van Thieu of South Vietnam that the United States would enforce the Paris Peace Accords; however, the Nixon administration failed to honor that commitment. Moreover, the U.S. Congress sharply reduced military aid to South Vietnam, and in November 1973, passed the War Powers Resolution, which prohibited the reintroduction of U.S. combat forces without Congressional consent. The United States focused its attention on domestic issues including the resignation of President Nixon in August 1974. The political circumstances in South Vietnam steadily deteriorated and on 29 April 1975, Saigon was captured by North Vietnam forces (Raines 1996). The occupation of Saigon resulted in hundreds of thousands of South Vietnamese fleeing the country to save their lives and the lives of their families (Public Broadcasting Service 2007).

On 3 April 1975, in response to appeals from South Vietnam's ambassador to the United Nations and various humanitarian agencies, President Gerald R. Ford (1974–977) announced that funding from a $2 million special foreign aid children's fund would be used to airlift 2,000 South Vietnamese orphans to adoptive parents in the United States. President Ford directed U.S. officials in Saigon to act immediately to expedite the mission so that specially equipped aircraft would begin evacuation flights within 36 to 48 hours (Globalsecurity.org 2007).

The airlift operations evolved in two phases: (1) Operation BABYLIFT and Operation NEWLIFE. Operation BABYLIFT focused on the evacuation of orphans while Operation NEWLIFE focused on airlifting politically sensitive refugees. Vietnamese evacuees escaped by a variety of methods including:

- Fixed-wing aircraft from Tan Son Nhut airfield outside Saigon until its closure.
- Helicopters from designated areas within Saigon.
- Military aircraft piloted by South Vietnamese Air Force pilots and personnel flown to U-Tapao, Thailand, or to the U.S. aircraft carrier positioned offshore in the South China Sea.
- All types of sea vessels and boats carried many refugees to the South China Sea to be transferred to ships of the U.S. Seventh Fleet and South Vietnamese merchant vessels.

On 29 April 1975, the government of South Vietnam surrendered as North Vietnam and Viet Cong troops entered the capital city of Saigon in force. Before the surrender, U.S. President Gerald R. Ford ordered a massive evacuation of Americans and Vietnamese from Saigon. Immediately prior to the surrender of Saigon on 23 April 1975, the 30th Naval Construction Regiment directed all Seabees on Guam to halt planned construction projects and work around-the-clock to prepare facilities to house approximately 50,000 refugees fleeing South Vietnam. The rapid collapse of the South Vietnamese government and the ensuing exodus of refugees resulted in one of the most challenging assignments ever carried out by Naval Construction Forces. Some preliminary planning was performed with the intention of allocating an estimated 200,000 refugees to at least 10 Asian countries; however, these plans were abandoned when objections were raised by foreign governments over the possible political consequences of accepting refugees. As the only U.S. territory in the western Pacific Ocean, Guam became the focal point of refugee rescue under Operation NEW LIFE (Shelton 1975).

Foremost among the challenges facing planners of Operation NEW LIFE was the lack of adequate facilities to house and process an estimated 50,000 refugees on average that would occupy Guam. The total civilian population of the island was approximately 80,000 and the influx of refugees could have an adverse impact on local communities. The Seabees worked around the clock to build the needed facilities including mess (military dining area) and kitchen facilities, thousands of feet of water mains for showers

and washing facilities, and sanitary facilities. A U.S. Naval construction force (NMCB-40) was deployed from Okinawa to Guam on 24 April to set up a mess designed to feed 800 personnel a day, which ultimately fed 12,000 refugees twice a day (LaRosa n.d.). By Friday, 25 April, the once abandoned (since January 1971) and now rehabilitated Naval Hospital Annex at Asan Point received the first refugees, quickly reaching its 10,000-person capacity.

As the Vietnamese refugees airlifted to Guam were processed and flown to the U.S mainland, the refugee population declined for a short period until merchant vessels arrived with additional refugees. By 30 April, refugees housed at the camp numbered 28,732; peak camp population of 50,233 was reached on 14 May, then gradually declined as refugees were processed and sent to the United States. On 30 May, the refugee population was 45,523; by 15 June it had decreased to 26,447; and by 26 June the refugee population numbered 10,138 and Operation NEW LIFE slowed accordingly (LaRosa n.d.).

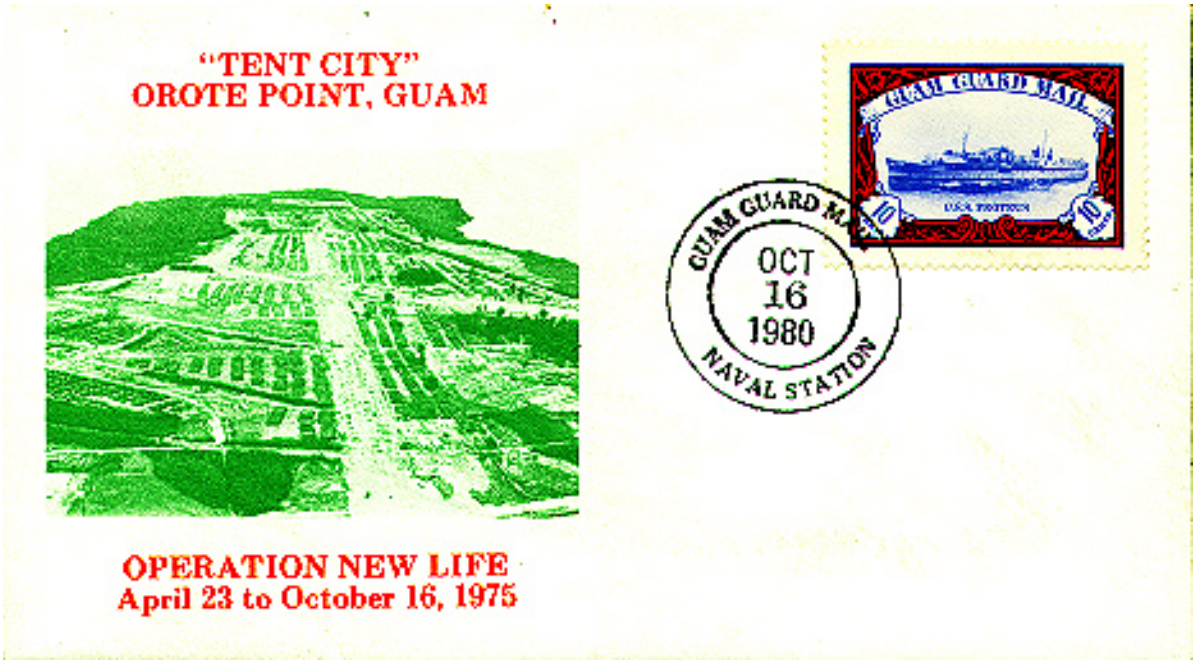
When the Operation NEW LIFE mission was completed, approximately 91,487 refugees had been sheltered at Orote Point in 3,967 tents (figure 3-9). The last 3,800 refugees occupying the camp were moved to permanent buildings in time to avoid the monsoon season. The last Vietnamese refugee departed Tent City at 7:23 p.m. on 24 June 1975, and the formal camp closure ceremony was held at 10:30 a.m., 25 June 1975. Seabees began dismantling tents in early June; by July all the tents were dismantled and removal of utility poles, water lines, Southeast Asia huts, and other facilities ensued (LaRosa n.d.).

For over three months, Operation NEW LIFE affected normal military operations on Guam as reported in "The Marine Barracks" monthly reports, which from February 1970 until March 1975 read, in part: "During this period, Marine Barracks, Guam, has actively participated in numerous civilian and military ceremonies and community relations projects." The 30 June 1975 report read: "On the 23rd of April, this command was notified to prepare to assist in the management of 50,000 refugees who were evacuated from Viet Nam [sic]. 36 hours later the first refugees arrived. Since that date, the Marine Barracks has devoted its entire assets, less 'D' Company, to Operation New Life. Therefore, events normally reported during that time did not occur." From April until October 1975, all training and normal activities on Guam were deferred and the last two months of 1975 were dedicated to regrouping and maintaining normal military stability.

3.5 END OF THE COLD WAR: 1976 TO 1991

3.5.1 End of the Cold War—Politics and Military Maneuvering: 1976 to 1991

By the mid-1970s, the Cold War had dissipated in Southeast Asia, but was evident in the Middle East and the Caribbean Sea. Throughout the latter half of the 1970s and the 1980s decades, global conflicts arose, weapons treaties were negotiated, and new defense programs and strategies, including a multitude of new weapons systems, were proposed and developed. A 1975 Soviet Union naval exercise (Okean 75) involved 220 ships and new long-range bombers in mock strikes against the continental U.S. Soviet warships operated in most oceans and seas, including the Gulf of Mexico. Soviet Union ground combatants and patrol planes began operating from the U.S.-built base at Cam Ranh Bay in Vietnam. The U.S. Navy continued deterrence and security missions around the globe; the Seventh Fleet operated from the northeast Asia arena while the Sixth Fleet performed its mission in the Mediterranean Sea. In both arenas, military encounters occurred.



(Source: National Archives & Records Administration, Military Records)

FIGURE 3-9. OPERATION NEW LIFE, OROTE POINT, 1975

James Earl "Jimmy" Carter Jr. was elected president of the United States in 1976. President Carter (1977–1981) expressed the importance of international human rights, and the United States assisted in negotiating the end of 30 years of war between Egypt and Israel. However, during 1979, President Carter presided over a new conflict in the Middle East when Iranian militants seized the U.S. Embassy in Tehran and captured 63 American hostages. Concurrently, the Soviet Union was preparing the Red Army to

confront and invade Afghanistan. The Carter administration's nuclear policy focused on securing additional arms control agreements with the Soviet Union leading to signing SALT II (Strategic Arms Limitation Talks). However, SALT II was withdrawn following the Soviet invasion of Afghanistan and was never ratified by the U.S. Senate. In addition to refusing to ratify the SALT II Treaty, the United States further implemented a grain embargo, decreased scientific and cultural exchange, and boycotted the 1980 Moscow Olympics. President Carter also requested a major U.S. military buildup to counter the Soviet Union's military force. In July 1980, in response to the Iranian hostage situation and the Soviet invasion of Afghanistan, President Carter signed Presidential Directive 59 authorizing the ability to wage limited and protracted nuclear war.

In November 1980, Ronald Reagan was elected U.S. President (1981–1989), and on the day of President Reagan's inauguration, Iran released the U.S. hostages. During the Reagan administration, diplomatic policy was directed toward a slow and steady military disarmament policy providing for the reduction of strategic nuclear weapons worldwide. However, President Reagan also supported and initiated replacement of Minutemen III ballistic nuclear missiles with larger Peacekeeper ballistic nuclear missiles.

The U.S. Navy responded to a number of international crises during the 1980s. The Soviet Union had invested enormous resources in its war-making establishment, hoping to take advantage of the U.S. post-Vietnam recovery. The Soviet Union deployed thousands of mobile ICBMs and other nuclear-armed weapons; built up large ground and air forces in Eastern Europe and the Far East; and aided Communist guerrilla movements in Africa, Asia, and Latin America. Of great concern to the U.S. Navy, Soviet naval forces increased deployments nearly worldwide, challenging U.S. overseas interests and dominance of the oceans and seas.

In the late 1980s, President Reagan reinvigorated Cold War tensions by initiating an open discussion of how the United States could fight, survive, and even win a nuclear war with the Soviet Union. The administration's hard-line language was accompanied by the largest peacetime military buildup in U.S. history. The $2 trillion defense program included many new weapons systems and the Strategic Defense Initiative. Serving the dual purpose of further intimidating Soviet leaders and quelling domestic pressure for a nuclear freeze, Strategic Defense Initiative proposed to build an antiballistic missile shield in outer space that would protect the U.S. against nuclear missile attacks.

A major change in the Cold War occurred in 1985 when Mikhail Sergeyevich Gorbachev became president of the Soviet Union and initiated a campaign of openness called "glasnost" and restructuring called "perestroika." President Gorbachev held four meetings with President Reagan, withdrew Soviet forces from Afghanistan, and signed an agreement with the United States to destroy all intermediate-range ballistic nuclear missiles and short-range missiles.

George H. W. Bush was elected U.S. president in 1988. During his administration (1989–1993), the eastern European nations began to leave the Soviet Union and renounce allegiance to Russia. By 1989, there was widespread unrest in Eastern Europe, and in June 1989, Poland announced its independence, followed by Hungary in September. By December, the Communist governments of Czechoslovakia, Bulgaria, and Rumania had been replaced. President Gorbachev did not intervene as these countries renounced allegiance to the Soviet Union. On 9 November 1989, the Berlin Wall (symbol of dominance by the Soviet Union) was opened without restrictions, and on 22 December, the Brandenburg Gate in Berlin was opened to pedestrian traffic. These events are popularly recognized as the end of the Cold War. In less than a year, East and West Germany were reunited, the Solidarity Union was legalized in Poland, and the Warsaw Pact was dissolved.

In March 1990, East German voters supported reunification with West Germany and instituted a market-based economy. On 3 October 1990, East and West Germany joined to become one nation. In 1991, in

what was considered to be the official (political) end of the Cold War, presidents George H. W. Bush and Mikhail Gorbachev signed the Strategic Arms Reduction Treaty (START) that was a pledge to destroy thousands of strategic nuclear weapons. All U.S. SAC bombers, tankers, and Minuteman II ICBMs were removed from alert; however, Minuteman III, the Peacekeeper ICBMs, and Navy SSBNs (nuclear-powered ballistic missile submarines) remained on alert. By December 1991, the Commonwealth of Independent States was created in the former Soviet Union; Gorbachev resigned as president and transferred control of the nuclear arsenal to Russian President Boris Yeltsin. The United States officially recognized six independent republics: Armenia, Belarus, Kazakhstan, Kirghizia, Russia, and the Ukraine. The Cold War between the Soviet Union and the United States was over.

3.5.2 End of the Cold War—Guam and CNMI: 1976 to 1991

The 1976 Covenant (Public Law 94-241) creating the Commonwealth of the Northern Mariana Islands established jurisdiction of U.S. laws, agencies, and programs; provided for a CNMI constitution, an elected government, and defined self-rule; and granted U.S. citizenship to CNMI residents. The covenant also resulted in substantial and extended financial support from the United States.

A major portion of U.S. financial support resulted from U.S. payments to the CNMI for leasing approximately two-thirds of the island of Tinian. In 1983, a 50-year lease agreement with a 50-year renewal option covering Tinian lands was signed and the Department of Defense assumed administration and management over the northern two-thirds of Tinian.

According to the Commander in Chief, Pacific Fleet (CINCPACFLT), the "long-term and overriding purpose in acquiring the CNMI lease is to ensure there is a capable forward basing option location in the Pacific. . ., in the event of major hostilities in the Pacific or loss of access to existing forward basing facilities." Under the terms of the lease agreement, none of the leased lands may be privately owned, nor are any CNMI residents allowed to live on or develop leased lands. Essentially, the U.S. Navy administers all land uses within the leased area and any nonmilitary uses must be approved by the Navy (http://www.globalsecurity.org/ military/facility/tinian.htm).

On Guam, the post-Vietnam period was characterized by a return to routine operations at Andersen AFB. This base then served as a Pacific Ocean platform for the SAC nuclear deterrence mission. In October 1988, the nuclear deterrence mission ended, and on 1 October 1989, the administration of Andersen AFB transferred from SAC to the Pacific Air Force 633rd Air Base Wing. The installation later served as a forward-based logistics support center during operations DESERT SHIELD and DESERT STORM in the early 1990s.

4.0 DEPARTMENT OF DEFENSE INSTALLATIONS ON GUAM AND CNMI

This chapter provides a brief overview of each U.S. military installation on Guam and the CNMI. It includes a history summary, the role of the installation during the Cold War, and some physical characteristics of the installations. A list of individual buildings and structures at each of the Guam and CNMI U.S. military installations is included in appendix A.

4.1 U.S. NAVY

U.S. Naval Forces Marianas was responsible for all U.S. Navy missions and activities on Guam, the Commonwealth of Northern Mariana Islands, and the western Pacific Ocean. In Guam, naval functions included the: (1) former Naval Station, which included the Navy Supply Depot (later Fuel Industrial and Supply Center), Naval Supply Depot, waterfront facilities and harbor, Public Works Center, and housing; (2) former Naval Magazine; (3) former Naval Communications Station Finegayan; (4) Naval Hospital; (5) former Camp Covington; (6) Naval Facility; and (6) former Naval Air Station (NAS) Agana.

4.1.1 Naval Operating Base / Naval Station / Navy Main Base

Initially named the Naval Operating Base following World War II, the Naval Station was assigned the vital function of supporting fleet units and adjacent Naval activities. It guarded and administered the Apra Harbor area that encompassed over 4,000 acres of federal land. The former Naval Station became Waterfront Annex under COMNAVMAR and recently was named the Navy Main Base as a result of the consolidation of the U.S. Navy and Air Force commands on Guam (Mason Architects, Inc., and Weitzer Research (2009b).

4.1.1.1 Brief History

Mid 1940s through Mid 1950s

Naval Operating Base, Guam, was established as a logistical support location where "all major battle damage to hull and equipment could be repaired" and as a storage depot with "the necessary stock to furnish every type of vessel with replenishment of fuel, ammunition, consumable supplies, and food." The maintenance and repair mission at Naval Operating Base, Guam, was supported by the Ship Repair Facility (SRF) (Mason Architects, Inc., and Weitzer Research 2010). The Naval Supply Depot and the Ammunition Depot (today's Ordnance Annex, separately located from Main Base) supported the depot mission. The supply units on Naval Operating Base, Guam, handled all types of fuel, equipment, ammunition, and perishables. By the summer of 1945, the base was the largest U.S. military installation west of Pearl Harbor, Hawai'i, and was the second -largest overseas port administered by the U.S. Navy worldwide (superseded only by the port at Antwerp, Belgium). Naval Operating Base, Guam, was capable of supporting 1,000 vessels of submarine size or larger (Mason Architects, Inc., and Weitzer Research 2010).

Naval Operating Base, Guam, included distinct major areas designed in its layout, although much of the installation consisted of Quonset huts, with some Butler-type prefabricated metal buildings scattered among them. The Ship Repair Facility, a major mission activity for the installation, occupied an area on the west side of the channel connecting Outer and Inner Apra Harbors. Facilities for the Ship Repair

Facility remained predominately clustered Quonset huts during the first decades of operation, with new construction focused on improving the wharves and docks (including the addition of mobile cranes). The Naval Supply Depot, initially elevated to the level of Naval Supply Center, was situated on a large site south of the Ship Repair Facility, extending toward Orote Power Plant No. 1. At the southernmost end of the warehousing area and at the bottom of Inner Apra Harbor was a similar shipping and receiving area for the government of Guam (Port of Guam) and a lumber mill. On the east side of Inner Apra Harbor, near the entrance gate to Main Base, additional facilities of the Naval Supply Depot were constructed (figure 4-1) (Mason Architects, Inc., and Weitzer Research 2010).

Waterfront Facilities and Harbor. As part of the post-war establishment of Pacific Ocean military bases, both the U.S. Navy and the Marines rebuilt the facilities on Guam following World War II. The Navy initially focused on completion of Glass Breakwater (figure 4-2) (named after Captain Henry Glass who won Apra Harbor (figure 4-3) from the Spanish during the Spanish-American War) and Apra Harbor, rehabilitating existing military and civilian buildings, and achieving basic infrastructure. The first decade of the Cold War (1945–1956) was devoted to configuring the Guam installation for a long-term military role in the western Pacific Ocean (Mason Architects, Inc., and Weitzer Research 2010).

Source: Mason Architects, Inc., and Weitzer Research 2010

FIGURE 4-1. AERIAL DEPICTION OF MAIN BASE

SOURCE: HTTP://WWW.DESTINATION360.COM/AUSTRALIA-SOUTH-PACIFIC/GUAM/APRA-HARBOR-OVERLOOK

FIGURE 4-2. GLASS BREAKWATER, APRA HARBOR, AND OROTE NAVY BASE AND AIR STRIP

Source: WWW.NAVY.MIL/SHIP/SUBS/TUCSON/TUC-APRA521.JPG

FIGURE 4-3. APRA HARBOR, GUAM, MAY 21, 2002

Naval Operating Base, Guam, consisted of 1,600 buildings (mostly Quonset huts), an extended breakwater, and waterfront facilities for ship repair. Development of permanent facilities at Apra Harbor was of primary importance into the late 1940s. The U.S. Navy extended the breakwater to 3,260 feet and removed 15 million cubic yards of mud and coral from the harbor to deepen the port. The configuration of piers in Apra Harbor at the outset of the Cold War included 14 quay-wall berths, nine pontoon berths, two wooden piers for fueling, and one submarine pier (Naval Forces Marianas September 1950:8-10); sections of a large floating drydock had also arrived at the installation. Repair of the first ship in drydock at Naval Operating Base, Guam, was underway before World War II ended. Both outer and inner portions of the harbor were dredged and Glass Breakwater was completed (Mason Architects, Inc., and Weitzer Research 2010).

The U.S. Navy redesigned Glass Breakwater following damage from a typhoon in the fall of 1946. Expenditures exceeded estimated costs, with the final cost for construction exceeding $11 million (Mason Architects, Inc., and Weitzer Research 2010). To ensure the permanence of the breakwater, a scale model, including ocean bottom and adjacent shoreline and measuring 120 square feet, was constructed by the California Institute of Technology and BuDocks in Azusa, California. The huge model provided accurate information on wave action, surges, and other hydraulic problems in order to design and build a more typhoon-proof harbor to protect the naval development occupying nearly 7 square miles (Navy Department Press Release, 4 August 1946). By 1950, Port Apra contained mooring space for more than 40 ships, submarine pens, and drydocks with a well-designed breakwater to protect the installation against typhoons and tsunamis. Also in 1950, a harbor defense unit and harbor defense plan, including a net facility, was established (Command Naval Operating Base Marianas, 21 January 1950).

By 1952, the Ship Repair Facility included two major drydocks for the overhaul of large and mid-sized ships: (1) Auxiliary Floating Drydock Medium (AFDM)-8 and (2) AFDB-1 (a larger dock). The drydocks were the major infrastructure used for out-of-water overhaul. AFDB-1 was in inactive status at Pearl Harbor, Hawai'i, in early 1951, and was reactivated for towing to Guam during the summer. The U.S. Navy reassembled AFDB-1 in Apra Harbor by April 1952, mooring it with AFDM-8 alongside Drydock Point (Mason Architects, Inc., and Weitzer Research 2010).

In 1954, AFDB-1 was the only drydock operating in the middle and western Pacific Ocean, outside Pearl Harbor, Hawai'i, and Japan capable of overhauling ships in excess of 18,000 tons. Drydock Island (a man-made site in the westernmost part of the causeway) supported a woodworking shop, recreation building, and boatswain's locker (COMSERVPAC 18 January 1954). AFDB-1 remained moored near Drydock Island for two decades; in 1973 it was towed in sections from its position near Drydock Island to the Ship Repair Facility at Subic Bay in the Philippine Islands. In 1974, the Ship Repair Facility at Guam maintained four drydocks; the original AFDM-8 and AFDM-5, Auxiliary Floating Drydock Large (AFDL)-7, and AFDL-21 (Ballendorf 1997:81–82, 86). In early 2009, AFDM-8 was moored alongside the Papa, Quebec, and Romeo wharves, still in use by the Ship Repair Facility (now managed by the government of Guam) (Mason Architects, Inc., and Weitzer Research 2010).

The 1950s marked more improvements as the U.S. Navy embarked on planning, design, and construction of permanent facilities that were earthquake- and typhoon-resistant. These facilities were planned to replace the Quonset huts, Butler buildings, and other temporary facilities (Mason Architects, Inc., and Weitzer Research 2010).

Naval Supply Depot. Many of the warehouses and storage sheds of the Naval Supply Depot were, like the facilities in the Ship Repair Facility, Quonset huts and Butler-buildings. The mission of the Naval Supply Depot, however, depended on the capability of storing goods in typhoon-proof buildings; therefore, the first permanent mission-related facilities were built for and used by the Naval Supply Depot. The Naval Supply Depot occupied many of the warehouses and storage sheds on Guam–the U.S. Navy designed and built one of the first permanent Naval Supply Depot structures at Apra Harbor. It was a large welded, steel-frame transit warehouse (facility 3169) with 8-inch-thick reinforced concrete for lower side walls and transite for the upper walls. Another storage facility made of locally available materials for quick construction was soon completed (Transit Shed No. 6, today Transit Shed No. 1) and was used for storing supplies prior to shipment. A cold storage facility (facility 780XR) and an ancillary facility (battery charging support structure, facility 779XR) were constructed and added to the Naval Supply Depot facility inventory in the late 1940s. From 1949 to 1951, the Navy augmented the Naval Supply Depot permanent warehouses with three nearly identical warehouses (Mason Architects, Inc., and Weitzer Research 2010).

As logistical support for the Korean War increased, so did the need for additional stocks and personnel, which resulted in new construction on Guam. U.S. Navy Public Works proposed a second supplemental appropriation for fiscal year 1951 (Memo, 4 December 1950, U.S. Navy Public Works) stating: "NAS Agana became a vital link in the airlift pipeline to Korea, daily increase in activity and supporting facilities at Agana are imposing severe strain on the command because of the lack of adequate facilities, as the existing Quonset type buildings constructed in 1944 and 1945 are literally falling apart and are beyond repair. Additional stores required the erection of 120 elephant Quonsets comprising 480,000 sq ft of covered storage at the supply depot" (Commander Fleet Air Guam, dated 23 August 1950).

Power Generation. An immediate challenge was reliable power generation, and for the first decade the availability of electricity was minimal for civilians–it was used mainly for military sites. During the first years of military activity, portable generators provided all power. On Main Base, Naval Operating Base,

Guam, the U.S. Navy set up a power plant in a group of Quonset huts near the site of present-day facility 3180. The first large generator arrived on Guam in May 1946 (the USS *Saranac*, an oiler renovated by the Navy as a floating power station); and was docked near (or at) the wooden finger pier on the western bank of Inner Apra Harbor. During 1948, the U.S. Navy began construction of the first power station for the island named Orote Power Plant No. 1 (facility 309). A diesel-powered plant, Orote Station was located immediately southwest of the temporary power plant and near the floating power plant aboard USS *Saranac*. In early 1949, the Navy installed an identical diesel plant in Agana–Power Plant No. 3. The Orote and Agana diesel power plants were major facilities, but were both stop-gap (and later, supporting) infrastructure for a main power plant planned for installation near the village of Piti. A much larger, steam-generated power plant (Piti Power Plant No. 2) did not come on line until 1951. In 1954, the Navy completed the third steam turbine unit at Piti (Piti Power Plant No. 3) (Mason Architects, Inc., and Weitzer Research 2010).

Housing and Community Support. The remaining major areas of Naval Operating Base, Guam, supported the: (1) cantonment, (2) an enclave of married enlisted men's duplexes, (3) a large group of enlisted men and noncommissioned officer barracks with a central mess hall and dedicated steam plant, and (4) public works compounds. With the exception of a few infrastructure buildings and the central laundry (facility 256), the cantonment buildings and buildings used by public works were uniformly Quonset huts (figure 4-4) assembled during World War II (Mason Architects, Inc., and Weitzer Research 2010).

SOURCE: NATIONAL ARCHIVES RECORDS ADMINISTRATION

FIGURE 4-4. EXAMPLE OF QUONSET HUT LIVING QUARTERS, GUAM

At the end of World War II in 1945, the military population on Guam was 201,718 and civilians numbered 21,838 for a total of 223,556 inhabitants. However, by mid-1946, military personnel numbered

36,923 and were further reduced to fewer than 29,000 during the year. By 1948, the U.S. military and support population on Guam and Saipan had risen to 68,562, in addition to 24,717 resident Guamanians and 4,945 resident Saipanese for a total of 98,224 individuals (Navy Department, Report on On-Site Survey of the Marianas in later 1947). Transporting and housing dependents on Guam was considered advantageous for recruitment of military and civilian personnel and essential for morale. Housing construction at Apra Harbor and at other U.S. Navy installations was slow following World War II, but by the 1960s sufficient family housing and barracks was completed to accommodate the population of U.S. military personnel and their dependents (Mason Architects, Inc., and Weitzer Research 2010.

The enlisted men's housing and the barracks were permanent buildings completed early in the construction process and most were occupied on a short-term but continuous basis as soldiers moved to new assignments during 1949. The cluster of dormitories was first known as the NAS Orote barracks. Initially designed as 16 dormitories (facilities 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, and 20, of which facilities 7, 9, 11, 12, 18, 19, and 20 no longer exist) with a collocated mess hall (extant facility SB1) and steam plant (extant facility SP1); the barracks supported the Orote airfield mission (Mason Architects, Inc., and Weitzer Research 2010).

For more adequate housing, the Navy replaced the Quonset huts from World War II with reinforced concrete barracks (figure 4-5). Into mid- to late 1950s, single family and multifamily duplexes were completed. The U.S. Navy designed and built a new style of bungalow for families of enlisted personnel on Guam, e.g., precast concrete homes of modernistic design specifically developed by BuDocks as housing for island-based Navy families. The Guam project consisted of duplex bungalows, which were designed to resist earthquake tremors, typhoons, fire, insects, and rodents. They were constructed of strong, thin, reinforced concrete panels that were molded at or near the building site and assembled by an unusual combination of bolting, welding, and cementing. This principle of precast concrete construction was first used by the U.S. Navy in the construction of warehouses at the Naval Supply Depot in Mechanicsburg, Pennsylvania. Precast concrete panels were determined to be cheaper, more efficient, and saved lumber that was vital to the war effort. As a result, BuDocks began postwar experiments using precast concrete-types of construction for personnel buildings and quarters since it offered a suitable solution to the shortage of housing and normal building materials. The experiments resulted in a two-story dwelling design that would be constructed with precast floor, walls, and roof panels. The design was sent to the Pacific Island Engineers, U.S. Navy contractors on Guam, who accepted the basic principle of the new construction method, but suggested that the design be modified to a single-story duplex house to better suit U.S. Navy needs on Guam (Navy Department, Press Release, 21 September 1947).

Source: http://www.navycthistory.com/guamduncan01.html

FIGURE 4-5. 1955–1956 NAVAL COMMUNICATION STATION BARRACKS

Mid 1950s Through Mid 1960s

Architectural changes to Main Base, Naval Base, Marianas, during 1953 to 1962, continued to transform the installation from a World War II appearance and function to a permanent site of U.S. Navy missions and activities protecting and serving the western Pacific Ocean. Constructed during these years were additional concrete buildings (figure 4-6), including: (1) additional barracks on the Orote Peninsula, (2) houses and duplexes, (3) replacement duplexes and four-plexes, (4) the third and fourth largest general warehouses for the Naval Supply Depot (facilities 3179 and 3180 of 1957), and (5) a dental clinic (facilities 1 and 2 of 1956 to 1957). Following June 1955, the U.S. Navy relocated a group of seven metal buildings to Main Base, installing them on a site adjacent to the cold storage and warehouse complex. These two-story buildings (facilities 100, 101A, 102, 103, 104, 105, and 106) were adapted to house the permanent Public Works Center, which previously operated from a group of Quonset huts at the center of Main Base, west of Transit Shed No. 6, and from multiple other assigned areas on the installation. In 1960, the U.S. Navy added a large area of Capehart housing behind the Orote barracks, infilling land between the barracks and the Sumay duplexes. The final area of housing on Main Base was known as Lockwood Terrace and the houses were uniformly two- and three-bedroom cast concrete duplexes (Mason Architects, Inc., and Weitzer Research 2010).

Source: National Archives Records Administration, Military Records

FIGURE 4-6. JUNIOR OFFICER HOUSING NAS, AUGUST 1959

Political tension escalated nearly worldwide during the late 1950s, and the Public Works Center at Naval Base, Marianas, planned bomb shelters for the installation. In late 1958 through early 1959, Public Works Center prepared designs for adapting two caves at the foot of the cliff northwest of the Sumay cemetery as bomb shelters. Named Cave 1 and Cave 2, they had been designed and used as Japanese bunkers during

World War II. Cave 2 was designed as a disaster control station beginning in 1961 and included a communications station, control room, and living quarters at the back, accessed via three long entry tunnels. Other features distinguishing Cave 2 were air locks and a decontamination shower area (bracketed by undressing and dressing rooms) ("Disaster Control Center" 1 March 1961). Two additional Public Works Center blast shelters were configured for Nimitz Hill, one devised from buried Quonset huts and the other in Cave 8 ("Personnel Protective Shelter" July to October 1958, April 1959). The bomb shelters acknowledged the threat of nuclear weapon use during warfare and the proximity of the emerging war in Vietnam (Mason Architects, Inc., and Weitzer Research 2010).

In November 1962, 13 years following the destructive Typhoon Allyn, another major storm struck Guam and its power was described as the "equivalent to a near-miss by a nuclear bomb." Many Quonset huts still remained on Main Base, Naval Base, Marianas, in 1962, and in ensuing years many were replaced or improved under major new design and construction projects. By late 1963, the U.S. government allocated nearly $14 million for rebuilding Guam. On Main Base, Naval Base, Marianas, the U.S. Navy added many major buildings (distinctive in this period was a textured, reinforced concrete rigid-framing, an improvement devised and built after post-Typhoon Karen). New buildings included a fire station (extant facility 1575), a bowling alley (facility 70), a maintenance shop (extant facility 1793), a large warehouse (extant facility 72), and an administration building for the Naval Supply Depot (extant facility 3190). By the 1960s, the Naval Supply Depot maintained six modern warehouses and two transit sheds. The warehouses contained 563,000 gross square feet of storage space of which 78,000 gross square feet were refrigerated and 193,000 were dehumidified. The two transit sheds contained 155,000 gross square feet of interior space. During early 1964, a new administration building was designed and constructed at the Naval Supply Depot, in addition to a new 8,484,000-gallon oil tank farm (Crossroads 31 January 1964). By 1965, the Naval Station was transformed from a relatively temporary World War II appearance and function into a permanent installation–Naval Base, Marianas, was a major Cold War installation in the western Pacific Ocean (Mason Architects, Inc., and Weitzer Research 2010).

The U.S. Navy established and designed Polaris Point for Submarine Squadron 15 during 1963 as a secured area featuring a dedicated entry station (facility 3183PP). Submarine Squadron 15 sailed to Guam in late 1964 (*Navy Times,* 24 November 1962 and 20 May 1964:3 and 33). The USS *Proteus* inaugurated Polaris missile operations in Apra Harbor, and was the squadron service tender vessel, and had performed an identical role for the christening of Polaris missile operations in Scotland and Spain. Submarine Squadron 15 maintained a forward base at Polaris Point, Guam, until the last Polaris missile-armed submarine sailed from port in July 1981 (Global Security "Apra Harbor" December 2008).

The need for more power generation on Guam led to the design and construction of new power plants at multiple sites over several years. In October 1967, the first unit of a steam power plant at Tanguisson Point on Tumon Bay was designed, built, and operational in 1969 to 1970, supplemented by a 20,000 kilowatt power barge (YFP-10). By the late 1960s, there was a shortfall of power availability on Guam, exacerbated by accelerated load demands incurred by the Southeast Asia buildup during the Vietnam War. A second unit of the steam power plant on Tumon Bay was designed during 1968 to 1969 and built in 1970 (Mason Architects, Inc., and Weitzer Research 2010).

1970 to Present

Throughout the last quarter of the twentieth century, Naval Base, Marianas (Naval Station, Marianas; Naval Base, Guam) supported the U.S. military in the Pacific Ocean. The Naval Supply Depot continued its supply mission for the region. Submarine Squadron 15 patrolled while armed with the Polaris missile from its advance anchorage site on Polaris Point (Global Security "Apra Harbor" December 2008). The Ship Repair Facility performed multiple maintenance and repair assignments in its drydock facilities and

shops; overhauling 21 ships in drydock on Guam, and various repairs on 129 other ships (Ballendorf 1997).

In May 1976, Guam experienced damage from super Typhoon Pamela, requiring facility repair and some new construction prior to the base returning to assigned missions. Two years later (1978), the Ship Repair Facility acquired AFDM-6 from Subic Bay, Philippine Islands, and in the 1980s AFDM-14 was acquired (Ballendorf 1997:95, 126). As the Ship Repair Facility transitioned (in mid-1997) from a U.S. Navy asset to Guam Shipyard (a repair operation administered by the government of Guam), two drydocks remained tethered (AFDM-8 and AFDM-5). In 1998, the Guam Shipyard (former Ship Repair Facility) also acquired the AFDB-8, a large drydock towed to Guam from Hawai'i (Mason Architects, Inc. , and Weitzer Research 2010).

The headquarters for Command Navy Marianas had relocated from Nimitz Hill to Main Base, Naval Base, Guam in 1997, adapting facility 3190 for administrative and office space. In 2000, the U.S. Navy re-established Submarine Squadron 15, with the first of its attack submarines arriving in Apra Harbor, Guam, in 2002 (Global Security "Apra Harbor" December 2008). Headquarters for Submarine Squadron 15 resides in a former Naval Supply Depot building (facility 3110) where planning for a post-Cold War buildup for the U.S. military has been in progress since 2009 (Mason Architects, Inc., and Weitzer Research 2010).

4.1.1.2 Role in the Cold War

The Naval Station and its U.S. Navy tenant activities were critical to the logistics of military missions conducted in the western Pacific Ocean. Guam was an increasingly important shipping port as indicated by the large number of ships docking in Apra Harbor. The Naval Station coordinated and controlled the movement of ships within Apra Harbor and provided both tug and pilot services to military and civilian shipping entering and leaving the port (Glimpses of Guam 1969a:131). The Naval Station also provided security at the Apra Harbor complex by maintaining an around-the-clock patrol of the area.

The NSD supply mission was critical to the region during the Cold War–warehouses and storage facilities provided processing, storage, and distribution of supplies and goods. The Ship Repair Facility provided ship maintenance and repair from drydocks and shops; an AFDM-8 floating drydock replaced the section docks of World War II and supported work at the Ship Repair Facility by 1949. By 1952, the AFDB-1 (a larger floating drydock) was added and Ship Repair Facility administered two major drydocks (the major infrastructure used for out-of-water overhaul) for the overhaul of large ships. In 1967, the Ship Repair Facility in Guam repaired the 18,000-pound propeller of the USS *Proteus* (Ballendorf 1997:70), a service tender vessel to Polaris submarines based at Polaris Point with an important mission history.

In 1973, the Naval Station towed the AFDB-1 in sections to Ship Repair Facility, Subic Bay, Philippine Islands. A year later, the Ship Repair Facility at Naval Station had four drydocks: (1) the original AFDM-8, (2) AFDM-5, (3) AFDL-7, and (4) AFDL-21. The Ship Repair Facility had overhauled 21 ships in drydock on Guam, and had performed repairs on 129 additional ships (Ballendorf 1997:81–82, 86).

During the early 1960s, construction began on a mobile operating base for Fleet Ballistic Missile submarines, designed similarly to the base in Holy Loch, Scotland. The base was designed to accommodate the Polaris tender USS *Proteus* (AS-19) and one fleet ballistic missile submarine squadron, with the tender to be homeported at Guam and the submarines at Pearl Harbor, Hawai'i (CEC Weekly Report, 3 October 1963). The mobile operating base was built by four construction battalions between

December 1962 and May 1965. Submarine Squadron 15 patrolled, armed with the Polaris missile, from its advance anchorage site on Polaris Point on July 1981 when the last Polaris submarine sailed from Guam (Global Security "Apra Harbor" July 2009).

The Public Works Center was responsible for maintaining infrastructure, utilities, and housing. This role was critical to all military operations on Guam in ensuring the least interruption to utilities during and after typhoons. Maintenance of the large number of housing units constructed for all U.S. Navy personnel on Guam was also essential to the morale and welfare of military personnel and their dependents.

Historic Themes

The construction of permanent facilities represents the larger U.S. policy to create a network of Pacific Ocean military bases to implement its containment (of Communism) policy. Permanent construction was influenced by the need for typhoon-resistant structures. This included use of pre-cast concrete building materials designed to be typhoon, earthquake, and bug resistant that incorporated housing and storage. The first permanent structure was a typhoon-proof, welded steel-frame, transit storage building at the Naval Supply Depot. Other typhoon-resistant engineering included the Glass Breakwater. Caves that were transformed into bomb shelters represent a unique engineering solution to the threat of nuclear attack utilizing the surrounding natural environment. In addition, the Naval Supply Depot played a significant logistical role in the Korean War and later to the Vietnam War, including the Ship Repair Facility. Polaris Point supported Submarine Squadron 15, which patrolled the area with nuclear weapons as a deterrent to Soviet military activity in the region. Facilities associated on Naval Operating Base, Guam are associated with the Cold War themes of logistics, influence of natural environment on engineering, and nuclear weapons.

An architectural survey of 149 facilities at Naval Base, Guam was published in 2010 that reported eight of those facilities were eligible for the National Register. See below:

Name	Year Built	Explanation
Berthing Wharf LIMA	1945 (1949)	Criterion A: Association with SRF—a major logistic mission at Guam Criterion C: Example of harbor and wharf design and engineering
Berthing Wharf MIKE	1945 (1949)	Criterion A: Association with SRF—a major logistic mission at Guam Criterion C: Example of harbor and wharf design and engineering
Repair Wharf NVMBR	1945 (1949)	Criterion A: Association with SRF—a major logistic mission at Guam Criterion C: Example of harbor and wharf design and engineering
Warehouse 2116	1953	Criterion C: Example of the unique battered concrete framing engineered to survive typhoons
NSD Administrative Bldg 3190	1965	Criterion C (Criteria Consideration G): Example of rigid concrete frame building engineered to survive typhoons after Typhoon Karen

Name	Year Built	Explanation
Power Plant 4910	1951/1954/1964	Criterion A: Association with logistics as the first power plant on Guam Criterion C: Example of complex engineering design for power plant
Electric Generating Steam Screen House; Water Treatment House 4911	1951	Criterion A: Association with logistics as the first power plant on Guam
Sumay Cemetery	1945	Criterion A and D: placed on the National Register in 1999

Source: Mason Architects, Inc., and Weitze Research 2010

4.1.2 Naval Magazine (Ordnance Annex)

Naval Magazine, known today as Ordnance Annex, occupies an area of 8,840 acres in the south-central portion of Guam. The area is rugged and mountainous and supports a complex of rivers and springs that drain into a reservoir at the southeast portion of the property. The property is bounded on the west by four mountain peaks: Mount Alifan, Mount Almagosa, Mount Lamlam (the island's highest peak), and Mount Humuyong.

4.1.2.1 Brief History

The U.S. Navy began construction of a facility for ordnance storage in 1944 following the liberation of Guam from Japanese forces. The Ground Ammunition Depot (for the storage of all supplies for ground force weapons) occupied an area of 6,910 acres and was commissioned in 1945, transferring the responsibility of administration and operation of all ammunitions in Guam from the U.S. Marines to the U.S. Navy—from ship to shore or shore to ship. Shortly following commissioning, the Ground Ammunition Depot maintained over 50 miles of roads, 197 ammunition magazines, 15 fuze magazines, and 97 revetments and hardstands. During the same year, the U.S. Navy established the Ground Forces Ammunition Depot on a 1,910-acre area north of the Ground Ammunition Depot (Mason Architects, Inc., and Weitzer Research 2010).

During 1950, the Ground Ammunition Depot (the larger area) and the Ground Forces Ammunition Depot (smaller depot) were considered two sections of a single ordnance depot; the former supported the fleet while the latter supported ground forces. In addition to the magazines and revetments, the two depots also contained Quonset huts used for personnel and administration buildings. In the 1950s, the two depots together became known as the Naval Magazine, whose mission was "the receipt, storage, and issue of all types of ammunition including inert torpedo and advanced undersea weapons components" (Mason Architects, Inc., and Weitzer Research 2010:128). A total of 278 buildings and structures comprised Naval Magazine, Guam.

The need for quantities of ammunition and the ability to store it safely and efficiently was important during the Korean War. The U.S. Naval Magazine, Guam, provided the munitions for the Seventh Fleet, and was the westernmost ammunition supply depot on U.S. soil. During the latter part of the Korean War, 36 new ammunition magazines were designed and constructed, which provided 9,000 tons of ammunition storage. As of 8 February 1954, a total of 18,513 tons of ammunition were stored at Naval Magazine,

Guam. However, CINCPACFLT required storage of 20,000 tons of pre-M-day storage and recommended rehabilitation of 44 more magazines, and in July 1959, MCB Five deployed to Guam to construct additional ammunition storage facilities.

Facility improvements at the Naval Magazine, Guam, occurred in the mid-to-late 1950s as part of the need of the U.S. Navy to design and construct more permanent and typhoon-proof buildings (including housing). At Naval Magazine, Guam, completed area allocations included an administration area, enlisted men's quarters and recreation area, dependent housing area, shop area, inert storehouse and magazine operating area, high explosives magazine area, explosive detonation area, and Public Works Center area. An off-site facility in Apra Harbor (the Dock How) was also improved as part of this mission. Dock How became popularly known as Ammo Pier (Mason Architects, Inc., and Weitzer Research 2010).

4.1.2.2 Role in the Cold War

From the end of World War II and into the Vietnam War era, Naval Magazine maintained a single mission. It was officially acknowledged that a shipment of nuclear capsules to Guam was authorized in 1951 (Global Security 2009); however, information about nuclear weapons shipments and storage remains classified.

There was a major increase of stored ordnance at Naval Magazine during the height of the Vietnam War (1960s and early 1970s) making it a major logistical key. Following the Vietnam War, the U.S. military continued to deploy nuclear weapons to the Pacific. Nuclear warheads for the Lance surface-to-surface missiles were stored in the Pacific in 1976 (CINCPAC 1976:160). Lance missiles deployed to the Pacific were armed with conventional warheads. The physical security of stored nuclear weapons and other munitions in Guam were studied by the U.S. military–a team from the Office of the Inspector General inspected Guam in February 1977 (CINCPAC 1977:431). Specific activities and types of weapons stored and issued at Guam remains undetermined.

The Army's 515th Ordnance Company also participated at Naval Magazine, Guam, and used the installation for storage of ammunition in its support role during the Korean and Vietnam wars. Naval Magazine, Guam, was consolidated with Naval Station, Guam, in 1995 under the Base Realignment and Closure Act of 1990 (BRAC), and renamed Naval Activities, Guam. Naval Activities, Guam, was eventually decommissioned and the associated responsibilities were absorbed by COMNAVMAR. Naval Activities, Guam, is known today as Ordnance Annex.

Historic Themes

In the 1950s, permanent construction of facilities was influenced by the need for typhoon and earthquake resistant buildings. Pre-cast concrete structures were built for housing, administration, and explosives storage areas. There are facilities at Naval Magazine, Guam, that represent this theme. During the Vietnam War, the Naval Magazine played an important logistical role as an ammunition supply point; however, it is unknown if the magazine was part of the initial deployment of nuclear weapons outside the United States in the early 1950s.

4.1.3 Naval Communications Station Finegayan (Naval Computer and Telecommunications Station)

Naval Communications Station (NCS) Finegayan (historical name during most of the Cold War period) is presently known as Naval Computer and Telecommunications Station (NCTS), Guam, and is on the northwestern coast of the island on approximately 2,950 acres of a limestone plateau. The site's western view encompasses the Philippine Sea.

4.1.3.1 Brief History

Naval Radio Station (R) Finegayan was established in April 1945 as the primary receiving station for Guam. It was paired with Naval Radio Station (T) Barrigada, the transmitter station. The receiving station occupied a large area, estimated to be 4,800 square acres. In the later 1940s, the initial facilities were three receiving sites; a supplementary receiving site; a Coast Guard Station; a cantonment area (including hundreds of Quonset huts and other temporary structures); the Joint Airways Communications System, Pacific Ocean Areas; and the Hilaan School for the village of Finegayan (Mason Architects, Inc., and Weitzer Research 2010).

Naval Radio Station (R) Finegayan (also known as Naval Communications Station Finegayan) was expanded during the early 1950s when the U.S. Navy hired Pacific Island Engineers to design a new receiver station. By 1953, most of the important permanent facilities were completed, including the receiver and terminal buildings, direction-finder building, firehouse, barracks and mess hall, steam generating plant, sick bay, and the stand-by and emergency power plants. By the late 1950s, permanent housing to replace the remaining Quonset huts from World War II was completed (Mason Architects, Inc., and Weitzer Research 2010).

In addition to the U.S. Navy, other U.S. government agencies and private companies used and occupied the Naval Communications Station Finegayan site, including the U.S. Coast Guard, Air Force (Global Communications or Globecom operations), Radio Corporation of America, and the Civil Aeronautics Administration (later the Federal Aviation Administration. The Civil Aeronautics Administration / Federal Aviation Administration site eventually was designated a separate parcel, which split the Naval Communications Station Finegayan into two separate parcels. North of the Civil Aeronautics Administration / Federal Aviation Administration parcel was established the new permanent main operational site of Naval Communications Station Finegayan, while the parcel south of the Civil Aeronautics Administration / Federal Aviation Administration parcel and containing the old Naval Communications Station Finegayan was named the South Finegayan Annex. The U.S. Navy converted the South Finegayan Annex into a housing area during the 1970s (Mason Architects, Inc., and Weitzer Research 2010).

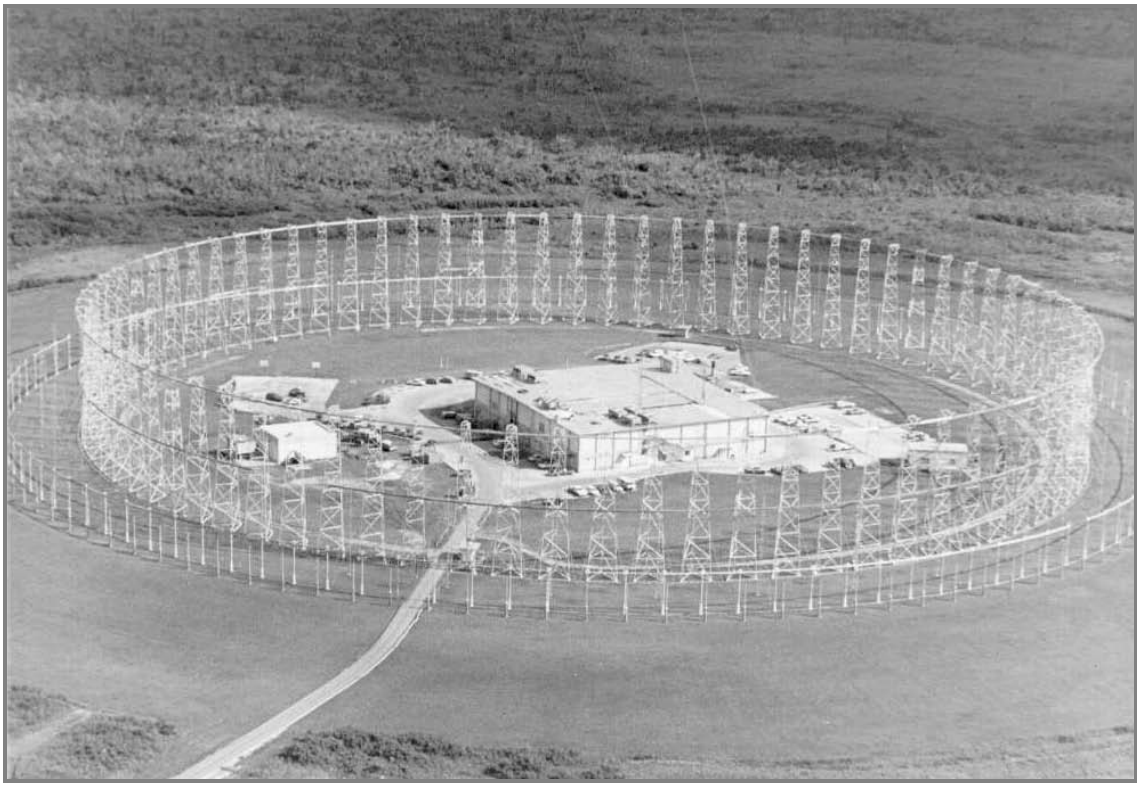
In the early 1960s, the U.S. Navy designed and built a worldwide network of Circularly Disposed Antenna Array (CDAA) popularly known as "elephant cages" (figure 4-7). The 1951 direction finder at Naval Communications Station Finegayan was replaced by a CDAA in 1962. The CDAA in Guam supported the Navy's strategic intelligence gathering and was functional from the early years of the Vietnam War until the end of 1999 (Mason Architects, Inc., and Weitzer Research 2010). In 1962, the Naval Communications Station constructed a Pacific Scatter Communication System consisting of radio links that began in Hawai'i and terminated in Taiwan (Crossroads 31 August 1962); however, the antennae were demolished by Typhoon Karen in 1963 (Mason Architects, Inc. and Weitzer Research 2010).

During 1965, a unified S-band system in support of the NASA Apollo Program was constructed in Dandan, Guam. The station was used to track, communicate, and transmit voice and data signals to and from the Apollo spacecraft during the near-Earth orbits and the lunar phases of the mission. The station cost approximately $2 million and was largely reinforced concrete using the tilt-up scheme with a poured-in-place roof (BuDocks May – June 1965).

In 1976, Naval Communications Station Finegayan was formally designated as Naval Communications Area Master Station (NAVCOMSTA) for the western Pacific (WESTPAC) as a complementary facility to NAVCOMSTA for the Eastern Pacific (EASTPAC) in Wahiawa, Oahu, Hawai'i. By the late 1990s, both installations were renamed Naval Computer and Telecommunications Area Master Station (NCTAMS) WESTPAC and EASTPAC, respectively. NCTAMS WESTPAC was downsized under BRAC and is known today as NCTS Guam (Mason Architects, Inc., and Weitzer Research 2010).

4.1.3.2 Role in the Cold War

The CDAA in Naval Communications Station Finegayan was one of the U.S. Navy networks of CDAAs established worldwide to enhance strategic intelligence gathering in the 1960s and succeeding decades until they were gradually decommissioned in the 1990s.

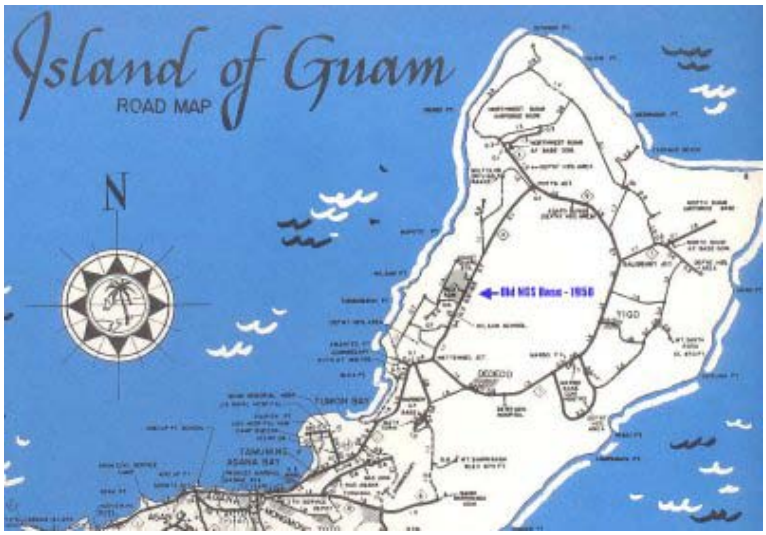


Source: http://www.navycthistory.com/guam_history_6.html

FIGURE 4-7. EXAMPLE OF CIRCULARLY DISPOSED ANTENNA ARRAY AND BUILDING 200, 1965

Historic Themes

The CDAA in Guam had a unique and vital role in U.S. military communication and intelligence gathering (figure 4-8) during the Cold War, including the Vietnam War. The S-band system played an important role for NASA communications during the Apollo Program. Remaining elements of these facilities are associated with the theme communications during the Cold War and space program.



Source: http://www.navycthistory.com/guam_1950_map.html

FIGURE 4-8. LOCATION OF OLD NAVAL COMMUNICATIONS STATION GUAM IN 1950

4.1.4 Naval Hospital, Guam

Naval Hospital, Guam, is the primary medical provider in Guam for military personnel and their families. The main hospital complex occupies a 47-acre property in Agana Heights, on a cliff overlooking Agana Bay and the Philippine Sea. There are two branch clinics (dental and medical), which are inside the Naval Base at Apra Harbor. The main hospital complex (figure 4-9) provides a broad range of medical services and includes the hospital building, storage structures, a fire station, garage and service station, hospital staff quarters, recreational facilities, administrative offices, and other ancillary facilities (Mason Architects, Inc., and Weitzer Research 2010).

4.1.4.1 Brief History

The first U.S. Naval hospital in Guam was established in 1899, and due to the absence of adequate medical care for the civilian population, the hospital treated both civilians and military personnel. The facility was in Agana (exact location unknown) and was destroyed during an earthquake in 1903. A portion of the Maria Schroeder Hospital, which was opened in 1902 for military dependents and local civilians, was rented for the treatment of military personnel until a new naval hospital could be built.

(Source: http://www.med.navy.mil/sites/usnhguam/pages/default.aspx)

FIGURE 4-9. NAVAL HOSPITAL, GUAM, HOSPITAL BUILDING, AGANA HEIGHTS

Source: http://libweb.hawaii.edu/digicoll/ttp/ttp_htms/1931e.html

FIGURE 4-10. NAVAL HOSPITAL GUAM, 1958

A women's hospital was designed and constructed on the property of the Maria Schroeder Hospital to replace the facility destroyed by an earthquake in 1905. The construction was funded by an appropriation of the U.S. government and the two facilities were designated Naval Hospital, Guam. During World War II, the Japanese destroyed Naval Hospital, Guam (figure 4-10). Medical facilities were constructed by the U.S. military at the end of World War II, using Quonset huts and other temporary structures on several locations on Guam (Mason Architects, Inc., and Weitzer Research 2010).

The present Naval Hospital, Guam, was completed in 1954, after several years of planning, design, and construction.

4.1.4.2 Role in the Cold War

Vietnam War

In the latter part of 1965, wounded military personnel from the Vietnam War began arriving for treatment at Naval Hospital, Guam. A local Navy newspaper account recorded the event:

> *During the past weeks Naval Hospital had quadrupled their capacity to care for these men. The hospital now has 423 beds authorized. This was done with no increase in the size of the hospital staff. The Naval Hospital has been receiving more patients two or three times per week. So far more than 300 war casualties have been treated here. Naturally, this increased number of patients puts an increased workload on the entire hospital staff. But the biggest load falls on the non-rated corpsmen who are now standing three section duty and are on call on off-duty days. They seem fiercely proud of their work and though they gripe good-naturedly, they probably wouldn't change jobs with anyone.*
>
> U.S. Navy 1965:6–7

Naval Hospital, Guam, was expanded to include an additional 400 beds, but this expansion was not sufficient to accommodate the increasing number of arriving casualties airlifted to Andersen AFB several times a week. The U.S. Navy renovated the former Asan Point Civil Service Community, added Quonset huts and Butler buildings, and named this facility the Asan Annex, which opened in 1968 with the capacity to accommodate 1,200 patients. In 1973, the Asan Annex was closed following signing of the Paris Peace Accords ending the Vietnam War hostilities. [Note: None of these temporary structures exist today. Asan Beach, where Asan Annex was located, is now a unit of the War in the Pacific National Historical Park (Mason Architects, Inc., and Weitzer Research 2010).

Patients were airlifted from Da Nang, Vietnam, using aircraft based at Clark Air Base, Philippines. The loaded aircraft made a brief stop at Clark Air Base to refuel then flew to Andersen AFB in Guam. At times during the Vietnam War, this airlift of wounded service personnel occurred several times a week.

The patients who completely recovered at the hospital were flown to Vietnam; patients with more serious injuries were given the necessary treatment to enable their transport to the U.S. mainland for further hospital treatment.

In 1975, Naval Hospital, Guam, contributed support to the final Vietnam War activities. From 23 April to 16 October 1975, approximately 100,000 South Vietnamese refugees were transported to Guam for processing prior to flying to the U.S. mainland as part of Operation NEW LIFE. Naval Hospital, Guam, provided the necessary health care for the refugees, and Asan Annex was reopened and used as temporary shelter (www.usnhguam.med.navy.mil).

Historic Themes

Naval Hospital, Guam, served a logistical (medical support) role in the Vietnam War. The Naval Hospital, Guam's role in Operation NEW LIFE supported the mission that rescued 100,000 people from South Vietnam as the government collapsed, and the hospital is the only extant structure representing that operation. The other facilities were temporary and were removed immediately after the operation ended.

4.1.5 Camp Covington, Apra Harbor

Rebuilding and developing utilities and infrastructure was necessary to the advanced base and civilian populations on Guam and the other regional islands. The U.S. Navy Seabees were responsible for the majority of construction projects–from 1948 to 1950 the Seabees constructed Barrigada water tower, Mount Lamlam Road, the earth-filled dam across the Fena River, and an island-long, four-lane highway. Barracks and quarters for 4,222 Navy and Marine single men and 372 married Navy and Marine officer units were constructed in 1948, as were barracks at the Marine base and Naval Air Base, Orote. A bachelor officer's quarters was constructed at the Marine base and Naval Air Base, Agana, and the ship repair base. Seabees constructed Marine housing in housing area 10, and Navy housing in housing area 5 and area 3 (Memorandum BuDocks, 20 February 1948).

The Mobile Construction Battalion (MCB)-10 was commissioned on 1 October 1952, and assigned the task of constructing 1,790 replacement housing units on the islands of Guam and Kwajalein. The first increment consisted of 410 units on Guam and 70 on Kwajalein (CEC Bulletin, May 1954). From December 1952 through June 1957, the battalion completed 1,356 units of replacement housing on Guam. During the month of March 1957, MCB-10 set a production record for construction, completing 60 units of housing in a period of 22 working days. During this housing program, 4,299,276 exterior blocks and 4,773,724 interior blocks were laid and 79,830 cubic yards of concrete was poured (Mason Architects, Inc., and Weitzer Research 2010).

Even with the success of the MCB-10 effort, in 1956 the Area Public Works Office (APWO), Marianas, reported deficiencies of 385 married quarters housing units, and in March 1958, U.S. Naval Station, Guam, reported a housing deficiency of 1,302 units. By 1962, there were approximately 2,050 Navy-owned housing units on Guam (Glimpses of Guam 1962, U.S. Navy Relief Fund Drive).

Throughout the decades of the 1960s and 1970s, various construction battalions improved recreational facilities and built schools, increasing comfort, morale, and educational opportunities. During 1972, Camp Covington was completed to provide the Seabees with comfortable homes as they accomplished various construction tasks throughout the Pacific Ocean Theater. Camp Covington, comprising 39 buildings in Apra Harbor, was designed and constructed by the Naval Mobile Construction Battalion (NMCB) Three and was dedicated on 4 May 1972 (http://nmbc3.or/vietnam.htm August 2009).

NMCB Three, then called MCB Three, was reactivated on 15 July 1950 at Construction Battalion Center, Port Hueneme, California. Major accomplishments following re-commissioning included construction of the NAS in Cubi Point, Philippines (1951–1956), the Marine Corps Air Facility Futenma in Okinawa, Japan (about 1957–1961), and an airstrip at Nakhon Phanom, Thailand. Construction of these and other facilities in the Pacific Ocean Theater by MCB Three was critical during the Vietnam War (http://nmbc3.or/vietnam.htm August 2009).

The NMCB Three role in the Vietnam War is summarized below:

During tours in Vietnam, NMCB Three exemplified its motto "Better Than Best." During the first tour in May 1965, MCB Three designed and constructed more than 500 facilities for the Marine Corps in Da Nang, Vietnam. The second and third tours were focused on projects at Chu Lai and Gai Le, Vietnam, respectively. During 1966, the MCB Three earned the Battle "E" award and a name change occurred to NMCB Three. Production by NMCB Three during 1966 included: (1) in March a new camp was established at Rosemary Point in Chu Lai to accommodate the construction force for the planned Naval Support Facility complex at Chu Lai; (2) the months of June through August were focused on Rosemary Point construction and other projects including a mess hall and a command operations center; (3) during September through October, NMCB Three and units One, Six, and Forty pooled personnel and resources to complete the Chu Lai Crosswind Runway facility, which was considered the most urgent military project in South Vietnam; and (4) by the end of 1966 the NMCB original mission to construct the Naval Support Facility at Chu Lai was accomplished. It was for this effort that NMCB Three personnel were selected as the Pacific Fleet's "Best of Type" for fiscal year 1966 (http://nmbc3.or/vietnam.htm August 2009).

Historic Themes

Camp Covington provides housing to a logistical support unit and does not appear to tie directly to the themes identified in this history.

4.1.6 Naval Facility, Guam

Naval Facility, Guam, was on Ritidian Point at the base of a 500-foot cliff at the northwestern tip of Guam. The facility was commissioned on 3 December 1968, and de-commissioned on 30 September 1992. The former Naval Facility, Guam, property was transferred to the U.S. Fish and Wildlife Service and is currently part of the Guam National Wildlife Refuge. Only one single-story building from the Naval Facility, Guam, properties remains and is used by the U.S. Fish and Wildlife Service as a visitor center/administrative building (http://www.cus.navy.mil/sosus.htm, August 2009).

To fully understand the role of Naval Facility, Guam, during the Cold War, please refer to the U.S. Navy Sound Surveillance System or SOSUS. SOSUS was a long-range, early warning listening system for protecting the United States against the threat of Soviet Union ballistic missile submarines. The following description is summarized from http://www.cus.navy.mil/sosus.htm, August 2009).

As early as the 1920s, research into underwater listening devices was undertaken by physical scientists. Sinking Navy-escorted convoys in the Atlantic during World War II by torpedoes from the German U-boats was an impetus to mobilize the nation's resources in the development of a sonar device. Into the 1940s, various experiments were carried out, and by 1949, the Naval Research Laboratory made a break-through by reporting that tests using Sound Fixing and Ranging hydrophones detected submarines 10 to 15 nautical miles off Point Sur, California. During this time period, and adding to the importance of this discovery, the threat of nuclear war between the United States and the Soviet Union became a reality.

In partnership with private U.S. companies, including Bell Laboratories and Western Electric Company, the U.S. Navy conducted research and development of a low frequency passive detection system (SOSUS). By 1952, there were eight SOSUS locations: (1) Sable Island, (2) Nantucket, (3) Cape May, (4) Cape Hatteras, (5) Bermuda, (6) San Salvador, (7) Grand Turk, and (8) Ramey Field, Puerto Rico. Two years later, three more SOSUS sites were added in Bermuda, Barbados, and Newfoundland. Pacific Ocean expansion of the system was also planned, with 10 additional locations identified.

The U.S. Navy SOSUS was one of the most secretive engineering feats of the early Cold War. The official cover identity for SOSUS stations such as Naval Facility, Guam, was that of oceanographic research. SOSUS was considered so successful that a long cable network (technology later developed by American Telephone &Telegraph Company) was laid out on the Atlantic Ocean floor. Expansion into the Pacific Ocean resulted in the establishment of the U.S. Naval Facility at Ritidian Point, Guam. Ritidian Point was an ideal location for this secretive facility; it is isolated, with no nearby civilian population and with the U.S. Air Force as a neighbor. It is also situated along the shoreline, with easy access for underwater cables from the Pacific Ocean.

Personnel stationed at Naval Facility, Guam, consisted of 10 officers, 100 enlisted personnel, and one civilian contractor. Naval Facility, Guam, earned the distinction of "Best in the West" for its outstanding performance, dedication, and commitment.

Historic Significance

This facility played a role in the implementation of a low frequency passive detection system, which was an important development in the detection of enemy vessels during the Cold War. However, the facility is no longer controlled by the Department of Defense.

4.1.7 Naval Air Station, Agana

Located on central Guam, the original airport was built by the Japanese Navy around 1943; naming the military airfield Guamu Dai Ni (Guam No. 2) as part of their defense of the CNMI. Following the recapture of Guam by U.S. forces in 1944, it was renamed Agana Airfield due to the proximity of the town of Agana. The airfield was repaired during October 1944 and the U.S. Army Air Force Seventh Air Force used it as a base for the 11th Bombardment Group, which flew B-24 Liberator heavy bombers from the station until being reassigned to Okinawa, Japan, in July 1945. With the reassignment of the heavy bombers, the 41st Photographic Reconnaissance Squadron flew long-range reconnaissance aircraft (F-4/P-38 Lightnings) from the airfield until January 1946 (Mason Architects, Inc., and Weitzer Research 2010).

Following World War II, the U.S. Army Air Force used the airfield for fighter defense of the Marianas (21st Fighter Group), (549th Night Fighter Squadron) until early 1947, and as a transport hub (9th Troop Carrier Squadron). During 1947, the U.S. Army Air Force transferred the airfield to U.S. Navy administration, which consolidated its facilities with those at the closing Harmon Air Force Base in 1949, and operated NAS Agana until it was closed by BRAC in 1993 (Mason Architects, Inc., and Weitzer Research 2010).

NAS Agana (formerly Brewer Field) was operationally closed on 31 March 1995 in compliance with the BRAC Commission decision of 1993. The Navy squadrons based at NAS Agana were relocated to other Naval Air Stations in the continental U.S. and Hawai'i, with most of the property (over 1,700 acres) being transferred to the government of Guam. At the time of closure, NAS Agana facilities consisted of the airfield, terminal building, officers' quarters, barracks, family housing, and other support facilities. The

government of Guam improved the airfield and operational areas and built a new terminal for the Antonio B. Won Pat International Airport (formerly the Guam International Airport) (Mason Architects, Inc., and Weitzer Research 2010).

Historic Significance

This facility is no longer controlled by the Department of Defense.

4.2 U.S. AIR FORCE

4.2.1 Andersen Air Force Base

Andersen AFB, Guam, occupies noncontiguous properties on the northern coast of the island. As described in Tomonari-Tuggle and Tuggle (2003:3):

> *The main base of Andersen AFB covers 24.5 square miles, or about 15,460 acres, on a relatively flat, uplifted limestone plateau at the northern end of the island. To the north, west, and east of the plateau, steep cliffs drop 500 to 600 feet to a coastal terrace that extends 300 to 900 ft to a rocky shoreline. The main operations area is in the eastern third of the main base and includes the main active airfield and an array of operations, maintenance, and community support facilities. The central third of the base is a Munitions Storage Area (MSA). The western third is Northwest Field, a World War II era airfield used for fixed-wing aircraft and helicopter training and various field exercises and bivouacs.*

Noncontiguous properties occupied by Andersen AFB include: (1) Andersen Communication Annex No. 2 at Barrigada, (2) Andersen Petroleum Products Storage Annex No. 2, (3) Andersen Water Supply Annex, (4) Andersen Air Force Station at Mt. Santa Rosa, and (5) waterlines at the former Andersen South Administrative Annex.

The mission of Andersen AFB is "to provide the highest quality peacetime and wartime support to protect global power and reach from a vital and strategic location in the Asia-Pacific region" (Tomonari-Tuggle and Tuggle 2003:3). This mission is accomplished by ". . .providing fighters and other military aircraft with operational support and providing the necessary infrastructure to sustain both peacetime and wartime strategic airlift" (General Plan 1999:3-2).

Andersen AFB is the home base of the 36th Air Base Wing, its subsidiary units and tenant organizations, as well as the 13th Air Force, one of the numbered Air Forces of PACAF.

4.2.1.1 Brief History

The present Andersen AFB resulted from construction of two airfields–North Field and Northwest Field, built in 1944 following the liberation of Guam from Japan. These airfields were constructed by U.S. Army engineers and U.S. Navy construction battalions and were designed to support B-29 Liberator bombing missions against Japan. Northwest Field was abandoned in 1949, while North Field continued to be operational and supported major B-52 bomber operations during the Vietnam War (Tomonari-Tuggle and Tuggle 2003).

Under administration and operation of the U.S. Army, the airfield and base were called North Field. North Field was assigned to the U.S. Air Force when it became a separate service in 1947, and was renamed North Guam AFB. North Guam AFB became Andersen AFB in 1949 in honor of Brigadier General Roy Andersen whose aircraft was lost at sea during a flight from Guam to Hawai'i in February 1945 (Tomonari-Tuggle and Tuggle 2003).

4.2.1.2 Role During Cold War

Andersen AFB contributed to important U.S. deterrence policy missions during the Cold War period as the Pacific Ocean base of operations for SAC. With a B-52 long-range bomber force, SAC symbolized the U.S. strategic policy of deterrence to the nuclear arsenal of the Soviet Union. Guam's strategic location was an ideal potential launching site for atomic weapons under military operations in the Far East. Important communication centers, transportation, and industrial areas in the Soviet Union were within a few thousand miles from Guam. The island's relative isolation provided security from air attacks (Tomonari-Tuggle and Tuggle 2003).

4.2.1.3 Korean War

Andersen AFB, Guam, contributed in a minor role during the Korean War. On 28 June 1950, B-29 Liberators assigned to the 19th BOMBARDMENT GROUP flew from Andersen AFB to bombing targets in South Korea. Within a few days, however, the 19th BOMBARDMENT GROUP was detached from the 19th Bomb Wing and deployed to Kadena Air Base on Okinawa. The 19th Bomb Wing remained at Andersen AFB in an administrative and logistics capacity, provided maintenance to transient aircraft, and operated ammunition dumps (Tomonari-Tuggle and Tuggle 2003).

4.2.1.4 Vietnam War

Operation ARC LIGHT

The following discussion is an excerpt from www.airforcehistory.hq.af.mil and History of Andersen AFB, Guam (MARC n.d.).

> *On 18 June 1965, the first B-52 Operation ARC LIGHT bombing mission included 27 B-52F Stratofortresses of the 7th and 320th Bombardment Wings (deployed to Andersen AFB in February 1965) attacked a Viet Cong jungle base with conventional 750-pound and 1,000-pound bombs. Convinced that the B-52 bomber was effective in battling North Vietnam military forces, General William C. Westmoreland (commander of U.S. forces in South Vietnam) ordered additional bombing missions. From June through December 1965, the 7th, 320th, and 454th Bombardment Wings completed over 100 missions to South Vietnam. These B-52 Stratofortresses provided saturation bombing of Viet Cong base areas and tactical support to the U.S. Marine Corps Operation HARVEST MOON and the First Cavalry Division battle in the La Drang Valley.*
>
> *From 1966 through mid-1969, SAC conducted intense bombing missions in Southeast Asia. There was a tremendous increase in B-52 conventional bombing missions in 1967 tasked to provide support to ground operations in close contact with enemy forces. In 1968, the 3rd Division B-52 bombers based at Andersen AFB, Guam, provided an important defense of Khe Sanh, the largest and most significant air campaign to date in*

Southeast Asia. In 1969, B-52 conventional bombing operations in Southeast Asia continued at a steady pace, but emphasis was shifted to missions of harassment and disruption of enemy operations such as bombing enemy supply dumps, base areas, troop concentrations, and the infiltration network that supplied enemy forces in the south. From November 1969 through April 1970, the number of sorties flown in support of Operation ARC LIGHT declined.

At Andersen AFB, the 3rd Air Division was deactivated in April 1970; the personnel, equipment, and functions were absorbed by the Eighth Air Force. The Eighth Air Force continued the Operation ARC LIGHT mission as well as various KC-135 Stratotanker missions. Most prominent in the latter function was "Young Tiger," which was aerial refueling of tactical aircraft in Southeast Asia operations. The most important Eighth Air Force Operation ARC LIGHT mission occurred near the end of 1970 and was named the "Commando Hunt V" campaign. The objective was to disrupt enemy supplies and military personnel moving along and using the Ho Chi Minh Trail in North Vietnam.

4.2.1.5 Operation Bullet Shot

In February 1972, the first contingent of personnel and aircraft under Operation BULLET SHOT arrived at Andersen AFB, Guam. BULLET SHOT was the code name assigned to the increased bomber force; also arriving at Andersen AFB in the same timeframe were additional Stratotankers for ARC LIGHT refueling. The aircraft fleet consisted of all the B-52 Stratofortresses in the SAC inventory, 98 "G" models and 126 KC-135 Stratotankers. Operation BULLET SHOT represented the first time that the "G" model bomber was used in the Vietnam War. The increased bombing during 1972 supported withdrawal of U.S. and allied ground forces from South Vietnam. The "D" and "G" model B-52 bombers based at Andersen AFB dropped bombs relentlessly on enemy supply routes, communication lines, and suspected storage compounds (www.airforcehistory.hq.af.mil and History of Andersen Air Force Base [MARC n.d.]).

The Eighth Air Force B-52 Stratofortresses were often committed to important military campaigns and special bombing missions and operations, including FREEDOM TRAIN BRAVO, FREEDOM DAWN, FREEDOM PORCH, FREIGHTER CAPTAIN, FREQUENT WINNER, and LINEBACKER I (www.airforcehistory.hq.af.mil and History of Andersen Air Force Base [MARC n.d.]).

4.2.1.6 Operation Linebacker II

As a result of the impasse during peace negotiations in Paris, France, a carefully planned operation named LINEBACKER II was designed to return North Vietnam to negotiations to end the war. The B-52 Stratofortress bombers of the Eighth Air Force were tasked to accomplish this objective. Operation LINEBACKER II targets were selected to include facilities in direct support of the war including airfields, railroad yards, repair and storage depots, Radio Hanoi, power plants, and SAM sites. The Operation LINEBACKER II campaign occurred over 11 days (18– 29 December 1972)–the Eighth Air Force B-52 crews flew 729 sorties and dropped 15,237 tons of bombs. A total of 15 U.S. aircraft were destroyed and 10 were damaged during the operation (www.airforcehistory.hq.af.mil and History of Andersen Air Force Base [MARC n.d.]).

Historic Significance

Andersen AFB's location on Guam made it an important strategic and logistical location for the Air Force. The location was perfect for the potential launching of atomic weapons and therefore acted as a deterrent to the Soviet Union in the area. In addition, it was a key location for the SAC missions during the Vietnam War including Operations ARC LIGHT, BULLET SHOT, and LINEBACKER I and II.

4.3 U.S. MARINE CORPS

4.3.1 Barracks

Marine Barracks, Guam, was established on 1 August 1899, and was in continuous service, occupying several locations on the island, except for the two and one-half-year period that Guam was occupied by Imperial Japanese forces during World War II. Marine Barracks facilities in Apra Harbor were heavily damaged or destroyed during the attack by Japanese forces on 8 December 1941, beginning with Japanese airplanes based on Saipan.

Source: http://www.andersen.af.mil/photos/mediagallery.asp?galleryID=6586

FIGURE 4-11. CHRISTMAS ON THE ROCK, 18–29 DECEMBER 1972, LINEBACKER II

Marine Barracks personnel worked to rebuild destroyed or damaged military facilities following the recapture of Guam, including rebuilding facilities in Apra Harbor. Following World War II, the primary

mission of the Marines from the barracks was to provide interior guard security at the Naval Station; NAS; Naval Communications Station, Finegayan; and the Naval Magazine (Glimpses of Guam 1969b:131). Collateral duties assigned to Marine Barracks personnel included operation of the Naval Brig, maintenance of a 14-crew Overland Sea Rescue Team, and maintenance of a Drum and Bugle Corps. Headquarters of the Marine Barracks was at Naval Station, Guam.

During the Vietnam War, additional personnel arrived and were assigned collateral duty of administering and assisting Marine casualties who were evacuated to the U.S. Naval Hospital, Guam. The Marine Barracks also provided temporary accommodation to Marines who completed treatment and were awaiting reassignment (Glimpses of Guam 1969b:135).

Marine Barracks, Guam, departed the island in the 1990s.

[Note: old photographs of Marine Barracks in Guam are pre- or during World War II. Marine Barracks Headquarters in Washington, D.C., or the adjacent Marine Corps Museum are likely sources of graphic and written records of Marine Barracks, Guam, during the Cold War.]

Historic Significance

Although the Marine Corps had a presence on Guam during the Cold War, their primary role was that of security and collateral duties.

4.4 U.S. ARMY

4.4.1 U.S. Army 515th Ordnance Medium Maintenance Company

The U.S. Army on Guam was represented by the 515th Ordnance Medium Maintenance Company (Ammunition) (General Support). The 515th received two U.S. Meritorious Unit Commendations, the Korean Presidential Citation, and 10 battle streamers for service during the Korean War (Glimpses of Guam 1969c:164). The 515th was deployed to Guam in August 1962 from Herlong Ordnance Depot, California, providing support to all Army activities in the western Pacific Ocean area including direct support to Southeast Asia and the Vietnam War. For these services, the unit was awarded its second U.S. Meritorious Unit Commendation.

The headquarters of the 515th Ordnance Medium Maintenance Company was on Naval Station in Barracks No. 18; it also used joint working and storage facilities at the Naval Magazine. As directed by the Commanding General, United States Army, Okinawa, USARYIS, the unit's mission in Guam was to receive, inspect, assemble, maintain, and issue selected items of ammunition. As the official representative of the U.S. Army on Guam, the 515th Ordnance Medium Maintenance Company also performed ancillary duties such as assisting Army casualties from the Vietnam War who were sent to Guam Naval Hospital for treatment (Glimpses of Guam 1969).

In June 1978, the 515th Ordnance Medium Maintenance Company was relocated from Guam to Redstone Arsenal, Alabama.

Historic Significance

Although the 515th Ordnance Medium Maintenance Company received accolades for its performance in the Pacific, its performance is not associated with the facilities it occupied at the Naval Magazine or Naval Station.

4.5 U.S. COAST GUARD

4.5.1 LORAN and Search and Rescue

The construction of the Mariana Islands Long Range Navigation (LORAN) chain began in the summer of 1944 to provide navigation assistance from the Philippine Islands to Japan. World War II campaigns were rapidly approaching the Japanese islands, and U.S. long-range bombers were operating in greater numbers nearer Tokyo, Japan. The LORAN chain consisted of stations on Saipan, Guam, and the Ulithi Islands, approximately 1,200 miles east of the Philippine Islands. The selected points extended in a northeast-southeast line approximately 500 miles in length (http://www.uscg.mil/history).

The new LORAN chain consisted of a single master station on Saipan Island, a single master station on Potangeras Island in the Ulithi Islands, a double slave station on Cocos Island, Guam, and a monitor station at Ritidian Point, Guam. Surveys for the stations on Saipan and Guam were made during September and October 1944, about four months after the first U.S. troops landed on these islands following the Japanese occupation.

The Saipan LORAN station was activated by 16 November 1944, and communicated with a double slave station constructed on Cocos Island, Guam (2 miles from the town of Merizo on the south end of Guam) between 11–27 November 1944. U.S. Coast Guard Unit 336 administered the station on Cocos Island. On 4 December 1944, the Ritidian Point Monitor Station was also in operation on Guam (http://www.uscg.mil/history).

Due to relocation of the U.S. Navy Headquarters of CINCPAC and CINCPOA from Pearl Harbor, Hawai'i, to Guam in early 1945, the U.S. Coast Guard relocated Command Unit 203 to maintain close liaison with Navy Headquarters personnel. It was also becoming increasingly difficult to supervise LORAN construction projects because each new chain of stations was located farther away from Honolulu, Hawai'i. Therefore, planning and coordination were enacted to transfer the command unit to new quarters on Guam and to operate another new unit tasked with LORAN construction and operation at Sand Island, Guam.

Initially, a Quonset hut was erected as an office for the Command Unit, and Construction Detachment C was housed mostly in U.S. Navy Seabee units. Pyramidal tents were installed near the Quonset hut as quarters for the enlisted personnel of the construction force. In less than a week after the area was cleared, sufficient quarters were available to house the entire unit. Construction of the remainder of the facility proceeded as follows: (1) mess hall and galley consisting of two Quonset huts in a "T" plan and a 40 foot by 100 foot storage Quonset with concrete floors, were erected simultaneously; (2) two 20 foot by 48 foot Quonset huts for enlisted quarters; (3) a water tower, showers, a small laundry, and generator house; and (4) the carpenter shop, technician's shop, and garage (http://www.uscg.mil/history).

4.5.1.1 Role in the Cold War

LORAN

The U.S. Coast Guard LORAN chain provided the most direct support of any Coast Guard operation to the combat and logistic efforts against the Communist invasion of South Korea. As they performed during the air offensive on Japan during World War II, Coast Guard LORAN stations provided around-the-clock precise navigation assistance to all UN vessels and aircraft throughout the far Pacific Ocean Theater (http://www.uscg.mil/history).

Pacific Air Search and Rescue Detachments

The U.S. Coast Guard established a number of Pacific Ocean air search and rescue detachments in support of the Korean War operation; commissioning air detachments on Wake and Midway islands, and increasing the strength of existing detachments on Guam, Hawai'i, and the Philippine Islands. These detachments were on call, 24 hours a day to respond to any distress signals or assistance requests (http://www.uscg.mil/history/articles/Korean_War.asp).

Historic Significance

This facility did not play a significant role in any of the themes identified in this history.

4.6 TEMPORARY FACILITIES

Because of military events that led to the large and rapid buildup of personnel, adequate housing was not available on Guam and other accommodations became necessary. During the Operation LINEBACKER II mission, the population of Andersen AFB increased rapidly to at least 12,000 military personnel. Air Force personnel were housed in all available space at Andersen AFB, including a tent city and a temporary barracks facility without air-conditioning.

During 1975, the need for temporary accommodations was even greater due to the arrival of refugees from Vietnam. At midday on 23 April, NMCB Four was tasked with construction of a tent city on Orote Point over a Japanese airfield constructed during World War II. The goal was 2,000 16 foot by 32 foot squad tents to be erected in seven days. All personnel comprising the battalion, including supply clerks, mess cooks, and yeoman, worked around the clock to meet the schedule. In addition to land clearing and setting up the tents, other infrastructure was required, e.g., water, electricity, sanitation, food, processing, and medical facilities. The battalion accomplished the following tasks by 15 May 1975:

- 450 acres of jungle cleared
- thousands of feet of water mains installed
- 148 new showers installed
- electrical system installed
- 3,546 tents erected
- additional berthing – 3,381
- nine galleys erected
- two hospital facilities erected

- 400 restrooms installed
- 25 Southeast Asia huts erected
- over 17,000 feet of fencing installed

The Public Works Center, Guam, also contributed to Operation NEW LIFE, which amounted to 73,727 personnel hours during the first 18 days. The efforts by the Public Works Center included installation of 280 utility poles, 35 power transformers, 10,200 feet of primary and 48,000 feet of secondary powerline, and 180 street and floodlights; 184 administrative telephone lines, 51 extensions, 36 direct lines, and 22 overseas long distance telephone drop wire; and 4 miles of station wire. The public announcement system included 19 speakers, 5 amplifiers, and 84,000 feet of lines to carry messages, announcements, and instructions throughout the refugee areas. The Public Works Center also cleaned and rehabilitated the Asan Annex buildings, installed lights, reactivated water and sewer facilities including replacing 85 toilets, installed showers, constructed a gate house and bus shelter, and converted a warehouse to a galley. Also constructed were 400 gang showers, 191 burn latrines, 2,726 tent sections, and 200 mess tables. The Public Works Center provided continuous transportation using 17 buses and 34 drivers, and hauled water and supplies to the camps (PAC-Facts, June 1975, The Statistics).

Historic Significance

After Operation NEW LIFE ended, the temporary tent city was dismantled and the Asan Annex was closed again. There are no remaining temporary structures associated with the operation.

4.7 NORTHERN MARIANA ISLANDS

4.7.1 Saipan

Saipan is the largest island of the CNMI at approximately 45 square miles, and supports a population of over 62,000 inhabitants. By 1968, there were 21,991 acres of public land on Saipan, of which 4,963 acres were held under use and occupancy agreements to three U.S. military services:

▪ Tanapag Harbor Reservation	U.S. Coast Guard	640 acres
▪ LORAN Station San Antonio	U.S. Coast Guard	23 acres
▪ Kobler Airfield	U.S. Navy	796 acres
▪ Isley Airfield	U.S. Air Force	1,189 acres
▪ Nafutan-Obiam Bomb Dump	U.S. Air Force	2,244 acres
▪ Beach Road	U.S. Air Force	38 acres
▪ Wallace Road	U.S. Air Force	33 acres

The Marpi area in northern Saipan encompasses 4,500 acres including 2,200 acres of the Kagman Peninsula, which were all held under a use and occupancy agreement to the U.S. Navy until 1962. These areas remained intact and reside under public domain (Micronesia Survey 1968).

Historic Significance

There are no facilities associated with the Cold War themes identified in this history.

4.7.2 Tinian

Tinian is one of three principle islands of the CNMI at approximately 39 square miles, and supports a population of over 3,500 inhabitants. The U.S. Navy maintains a training area on Tinian–this 16,100-acre leased area is known as the Military Lease Area and is divided into two sections. The northern half is the Exclusive Military Use Area and the southern half is referred to as the Leaseback Area. North Field and the national historic landmark are within the Exclusive Military Use Area. The Exclusive Military Use Area is used for periodic military training exercises, and is open to the public for recreation when not being used for military training. U.S. Navy uses of the Exclusive Military Use Area include both small and large field exercises. Marine units hold large-scale amphibious assaults and joint training exercises there, using its beaches as entry points to inland areas for maneuvers and for landing fixed-wing aircraft and helicopters. The Navy uses abandoned buildings within the Exclusive Military Use Area for urban warfare practice, some of which are historically related to World War II and North Field. The roads that connect the training area with Tinian's commercial harbor and airport to the south are used by the U.S. Navy during training exercises (http://www.globalsecurity.org/ military/facility/tinian.htm).

The Leaseback Area is a joint-use area where both military and nonmilitary activities may take place, and has been leased back to the CNMI for uses judged by the Navy to be compatible with long-term DoD needs, primarily grazing and agriculture. Under the Leaseback Area, the joint use area may be used for training activities that would not be detrimental to ongoing CNMI economic and agricultural activities (http://www.globalsecurity.org/ military/facility/tinian.htm).

Historic Significance

There are no facilities associated with the Cold War themes identified in this history.

4.7.3 Farallon De Medinilla Island

The U.S. Navy maintains a live fire target range on Farallon De Medinilla Island, a small island encompassing approximately 210 acres approximately 50 miles north of Saipan or 150 miles north of Guam. This live fire target range has been in use since 1976.

Historic Significance

There are no facilities associated with the Cold War themes identified in this history.

5.0 EVALUATION OF COLD WAR RESOURCES

Evaluation of a property, once it has been identified for eligibility for listing in the National Register, involves two steps. The property will have to be assessed against criteria and for its integrity. The evaluation of Guam and CNMI Cold War resources will take into account federal legislation, Department of Defense and agency policies, and information provided in this and other Cold War studies. This chapter provides information about federal legislation and the criteria necessary to evaluate Cold War resources. A list of buildings and structures for Guam and the CNMI U.S. military installations is included in appendix A: Property Types and Inventory of U.S. Military Installations on Guam and the CNMI. Also included are possible associated historic themes, and if previously evaluated, National Register eligibility status.

The following National Register publications are useful guides when evaluating Cold War resources:

- How to Apply National Register Criteria for Evaluation
- Guidelines for Completing National Register for Historic Places Forms
- Researching a Historic Property
- Guidelines for Evaluating and Documenting Historic Aviation Properties
- Guidelines for Evaluating and Documenting Historic Properties that Have Achieved Significance Within the Last 50 Years
- National Register Bulletin 20: Nominating Historic Vessels and Shipwrecks to the National Register of Historic Places

These resources maybe found at http://www.cr.nps.gov/nr/publications/index.htm.

5.1 NATIONAL HISTORIC PRESERVATION ACT

The NHPA is the centerpiece of federal legislation protecting cultural resources. In the act, Congress states that the federal government will "provide leadership in the preservation of the prehistoric and historic resources of the United States," including resources that are federally owned, administered, or controlled.

Section 106 of the NHPA requires the federal government to take into account the effects of its actions on programs, specifically on historic properties prior to implementation. For U.S. military installations, this requirement applies to all proposed actions on federal lands and any proposed activities that are federally supported. Consultation with the state historic preservation office (SHPO) and/or the Advisory Council on Historic Preservation (ACHP) is a critical step in this process. Activities on lands held by an American Indian tribe with a designated tribal historic preservation officer (THPO) must be coordinated with this official. If an undertaking on federal lands may affect properties having historic value to a federally recognized American Indian tribe, such tribe shall be afforded the opportunity to participate as consulting parties during the consultation process defined in 36 *Code of Federal Regulations* (CFR) 800. Compliance can also be accomplished using agreed-upon streamlined methods and agreement documents such as programmatic agreements. Section 110 requires federal agencies to locate, inventory, and identify all properties under their ownership or control that may qualify for the National Register.

Failure to take into account the effects of an undertaking on historic properties, and afford the ACHP a reasonable opportunity to comment on such effects, can result in formal notification from the ACHP to the head of the federal agency of foreclosure of the ACHP's opportunity to comment on the undertaking pursuant to the NHPA. A notice of foreclosure can be used by litigants against the federal agency in a manner that can halt or delay critical activities or programs.

In essence, the NHPA requires the Department of Defense to identify its significant resources, evaluate them for National Register eligibility, and plan for the protection of the listed or eligible historic properties. The Guam and the CNMI Cold War History is designed to assist professionals in the field of cultural resources in identifying significant U.S. military Cold War resources that may be present on military installations on Guam and the CNMI. Criteria for evaluating these properties, once identified, are provided in section 5.2.

5.2 APPLYING NATIONAL REGISTER CRITERIA FOR EVALUATION

The NHPA established the National Register as the official list of properties significant in U.S. history, architecture, archaeology, engineering, and culture. The National Register includes properties that merit preservation and is an important planning tool that is continually updated to represent the many facets of U.S. history. The National Register is maintained by the Secretary of the Interior and administered by the National Park Service. The Department of the Interior has developed regulations defining procedures for listing properties in the National Register (36 CFR Part 60).

The Secretary of the Interior has developed the National Register Criteria for Evaluation (36 CFR Part 60.4) to assist in the evaluation of properties eligible for inclusion in the National Register. The National Park Service has published guidance for applying the criteria in *National Register Bulletin 15*: *How to Apply the National Register Criteria for Evaluation* (NPS 1991). To qualify for the National Register, a property must have significance and retain historic integrity. Significance for U.S. military Cold War-era properties on Guam and the CNMI can be ascertained through the themes in the previous chapters of this history, which included: how nuclear weapons influenced political and military decisions, including construction; military operations in the Pacific theater; the logistical role Guam and CNMI played in U.S. Cold War activities, including communications; and the influence of natural disasters, namely typhoons and earthquakes, in the development of U.S. Cold War facilities on Guam and CNMI.

To be listed in, or considered eligible for listing in the National Register, a cultural resource must meet at least one of the four criteria that follow:

A. Associated with events that have made a significant contribution to the broad patterns of our history.
B. Associated with the lives of persons significant in our past.
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
D. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the above criteria, a historic property must possess integrity of location, design, setting, materials, workmanship, feeling, and association. Integrity is defined as the authenticity of a property's historic identity, as evidenced by the survival of physical characteristics it possessed in the past and its capacity to convey information about a culture or group of people, a historic pattern, or a specific type of architectural or engineering design or technology.

5.2.1 Criterion A: Association with Events

The first criterion recognizes properties associated with single events such as the bombing of Pearl Harbor, or with a pattern of events, repeated activities, or historic trends such as innovations in RDT&E. The event or trends, however, must clearly be important within the associated history. The U.S. involvement in the Cold War was composed of a complex series of political, military, diplomatic, economic, scientific, and industrial events and programs that affected the lives of millions of people worldwide. The Cold War was an event that made significant contributions to the broad patterns of U.S. history; however, because of the volume of properties related to the period and the length of the era, not all military properties constructed during the Cold War are significant. Many buildings and structures were constructed on Guam during the Cold War era; therefore, the property must have an important and specific association with this trend.

Military properties in Guam and the CNMI associated with their role in Cold War logistics (e.g., military operations, communication, etc.) are likely to fall under this criterion. To determine if a property is significant within the Guam and CNMI Cold War History under criterion A:

1. Determine the nature of the property, including date of construction, type of construction, and function(s) from time of construction to the end of the Cold War (1991).
2. Determine if the property is associated specifically with Cold War-era missions, events, or trends.
3. Evaluate the property's history as to whether it is associated with the Cold War History or the installation's history in a significant way.

5.2.2 Criterion B: Association with People

Properties may be listed in the National Register for their association with the lives of significant people. The individual in question must have made contributions to history that can be specifically documented and that were important within history. This criterion may be applicable, but to only a small portion of buildings or structures as the history focuses on events and on design and construction rather than on individuals. However, background research on a particular installation or building may indicate that it is associated with an individual who made an important contribution to Cold War trends or specific events.

While developing this history there were no individuals recognized as historically significant that were associated with the Cold War in Guam and the CNMI. However, this history focused on the broad themes within the Cold War in Guam and the CNMI and there may be significant individuals yet identified as associated with the Cold War in Guam and the CNMI. To determine if a property is significant within the Guam and the CNMI Cold War History under criterion B:

1. Determine the importance of the individual.
2. Determine the length and nature of the person's association with the property.
3. Determine if the person is individually significant within history.
4. Determine if the property is associated with the time period during which the individual made significant contributions to history.
5. Compare the property to other properties associated with the individual to determine if the property in question best represents the individual's most significant contribution.

Refer to *National Register Bulletin 32: Guidelines for Evaluating and Documenting Properties Associated with Significant Persons* (National Park Service) for more information.

5.2.3 Criterion C: Design/Construction

To be eligible for listing in the National Register under criterion C, properties must meet at least one of four requirements: (1) embody distinctive characteristics of a type, period, or method of construction; (2) represent the work of a master; (3) possess high artistic value; or (4) represent a significant and distinguishable entity whose components may lack individual distinction. Cold War resources are most likely to be eligible under the first or fourth of these requirements.

National Register Bulletin 15 defines distinctive characteristics as "the physical features or traits that commonly recur" in properties; type, period, or method of construction is defined as "the certain way properties are related to one another by cultural tradition or function, by dates of construction or style, or by choice or availability of materials and technology." Properties are eligible for listing in the National Register if they are important examples, within history, of design and construction of a particular time. This facet of criterion C can apply to buildings, structures, objects, or districts.

"Significant and distinguishable entities" refers to historic properties that contain a collection of components that may lack individual distinction, but form a significant and distinguishable whole. This portion of criterion C applies only to districts.

Military properties in Guam and the CNMI associated with their role in military construction on Guam and the CNMI during the Cold War (e.g., bomb shelter caves, Glass Breakwater, typhoon-resistant administrative facilities associated with Cold War Operations, etc.) are likely to fall under this criterion (and may also fall under criterion A). "Typhoon-proof," Cold War construction on Guam and the CNMI where the construction techniques and materials are unique to these areas (e.g., Glass Breakwater, pre-cast concrete panel structures, etc.) are examples of properties that should be evaluated under criterion C. To determine if a property is significant within the Guam and CNMI Cold War History as an important example of distinctive characteristics of a building type or as a significant and distinguishable district:

1. Determine the nature of the property, including date of construction, type of construction, historic appearance, and functions during the period of significance.
2. Determine the distinctive characteristics of the property type represented by the property in question.
3. Compare the property with other examples of the property type and determine if it possesses the distinctive characteristics of a specific building type construction.
4. Evaluate the property's design and construction to determine if it is an important example of building type construction.

5.2.4 Criterion D: Information Potential

Properties may be listed in the National Register if they have yielded, or may be likely to yield, information important in prehistory or history. Two requirements must be met for a property to meet criterion D: (1) the property must have, or have had, information to contribute to the understanding of history or prehistory, and (2) the information must be considered important. This criterion generally applies to archaeological sites. In a few cases, it can apply to buildings, structures, and objects if the property itself is the principal source of information and the information is important. For example, a

building that displays a unique structural system or unusual use of materials and where the building itself is the main source of information (i.e., no construction drawings or other historic records) might be considered under criterion D. Properties significant within the Guam and CNMI Cold War History would rarely be eligible under criterion D.

5.2.5 Integrity

A historic property determined to be significant under the criteria for evaluation for the National Register must possess integrity. Integrity is the ability of a property to convey its significance through retention of the property's essential physical characteristics from its period of significance. The National Register Criteria for Evaluation lists seven aspects of integrity. A property eligible for the National Register must possess several of these aspects. The assessments of a property's integrity are rooted in its significance. The reason why a property is important should be established first, then the qualities necessary to convey that significance can be identified. *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* defines the seven aspects of integrity as the following:

1. **Location:** the place where the cultural resource was constructed or the place where the historic event occurred.
2. **Design:** the combination of elements that create the form, plan, space, structure, and style of a cultural resource.
3. **Setting**: the physical environment of a cultural resource.
4. **Materials:** the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a cultural resource.
5. **Workmanship:** the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
6. **Feeling:** a property's expression of the aesthetic or historic sense of a particular period of time.
7. **Association:** the direct link between an important historic event or person and a cultural resource.

National Register Bulletin 15 describes the following steps in assessing historical integrity:

1. Determine the essential physical features that must be present for a property to represent its significance.
2. Determine whether the essential physical features are sufficiently visible to convey significance.
3. Compare the property with similar properties if the physical features necessary to convey significance are not well-defined.
4. Determine, based on the property's significance, which aspects of integrity are particularly important to the property in question and if they are intact.

For properties significant for their association with the Cold War in Guam and the CNMI, they must retain the key physical features associated with these themes. Properties significant for their design and construction must retain the physical features that are the essential elements of the aspects of the building type construction that the property represents.

In cases of active military installations, buildings are more likely to have been modified to extend their useful life. These modifications generally include adapting buildings for new communication systems or

equipment, mission and staff changes, and changes in military assets such as new aircraft models. These integrity issues will be critical in the evaluation process of significant resources.

To qualify for listing as a historic district, the majority of the properties in the district associated with the history must possess integrity and a sufficient number of properties must be retained from the period of significance to represent that significance. The relationship among the district's components, i.e., massing, arrangement of buildings and installation plan must be substantially unchanged since the period of significance.

5.2.6 Criterion Considerations

Certain kinds of properties are not usually considered for listing in the National Register, including:

- religious properties (criteria consideration A)
- moved properties (criteria consideration B)
- birthplaces or graves (criteria consideration C)
- cemeteries (criteria consideration D)
- reconstructed properties (criteria consideration E)
- commemorative properties (criteria consideration F)
- properties that have achieved significance within the last 50 years (criteria consideration G)

These properties can be eligible for listing only if they meet special requirements called "criteria considerations." A property must meet one or more of the four criteria for evaluation (A through D) and also possess integrity of materials and design before it can be considered under the various criteria considerations. Three of these criteria considerations may be applicable to U.S. military properties on Guam and the CNMI; moved properties (criterion consideration B), commemorative properties (criteria consideration F), and properties that have achieved significance within the last 50 years (criteria consideration G).

A property removed from its original or historically significant location can be eligible if it is significant primarily for architectural value or if it is the surviving property most importantly associated with a historic person or event. Properties that are moveable by their nature, such as a ship or rail car, do not need to meet this criterion consideration.

Commemorative properties are designed or constructed after the occurrence of an important historic event or after the life of an important person. They are not directly associated with the event or with the person's productive life, but serve as evidence of a later generation's assessment of the past. The significance comes from their value as cultural expressions at the date of their creation. Therefore, a commemorative property generally must be over 50 years old and must possess significance based on its own value, not on the value of the event or person being memorialized. A commemorative marker erected in the past by a cultural group at the site of an event in its history would not meet this criterion if the marker were significant only for association with the event, and it had not become significant itself through tradition.

Properties less than 50 years old are normally excluded from the National Register to allow time to develop sufficient historical perspective. However, under criteria consideration G, a property may be eligible for the National Register if it possesses "exceptional importance" or significance. Cold War resources span from 1946 through 1991, so could have been built 61 years ago, or as recently as 21 years

ago. Building constructed before 1946 could have significance during the more recent Cold War period. Criteria consideration G (properties that have achieved significance within the last 50 years) applies to buildings and structures that are less than 50 years old at the time of evaluation. For buildings, structures, objects, sites, or districts that have achieved significance within the last 50 years, only those of "exceptional importance" can be considered eligible for nomination to the National Register, and the finding of "exceptional importance" must be made within the specific history associated with the property. National Park Service publication *How to Evaluate and Nominate Potential National Register Properties That Have Achieved Significance Within the Last 50 Years* further describes criteria consideration G.

Properties evaluated under criteria consideration G that do not qualify for exceptional importance must be reevaluated when they reach 50 years of age under National Register criteria A through D.

5.3 SIGNIFICANCE

To qualify for the National Register, a cultural resource must be significant, meaning that it must represent a significant part of U.S. history, architecture, archaeology, engineering, or culture. A resource may possess significance on the local, state, or national level. The significance of a cultural resource can be determined only when it is evaluated within its history. As outlined in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, the following steps are taken to evaluate a cultural resource within its history:

- Identify what the property represents: the theme(s), geographical limits, and chronological period that provide a perspective from which to evaluate the property's significance.
- Determine how the theme of the history is significant to the local area, the state, or the nation.
- Determine the property type and whether it is important in illustrating the history.
- Determine how the property represents the history through specific associations, architectural or engineering values, or information potential (the National Register criteria for evaluation).
- Determine what physical features the property must possess in order for it to reflect the significance of the history.

A cultural resource may be significant within more than one area of history. In such cases, all areas of history should be identified. However, significance within only one area is required. If a cultural resource is determined to possess sufficient significance to qualify for the National Register, the level of integrity of those features necessary to convey the resource's significance must then be examined.

This history identified four themes for the Cold War in Guam and the CNMI. The themes are (1) how nuclear weapons influenced political and military decisions, including construction; (2) the logistical role Guam and the CNMI played in U.S. Cold War activities; (3) the role military facilities on Guam and the CNMI played in communications during the Cold War; (4) and the influence of natural disasters, namely typhoons and earthquakes, in the design and construction of U.S. Cold War facilities on Guam and the CNMI.

5.4 PROPERTY CLASSIFICATIONS

Significant properties are classified as buildings, sites, districts, structures, or objects. Sites or structures that may not be considered individually significant may be considered eligible for listing in the National Register as part of a historic district. The classifications are defined as:

- A building such as a house, barn, church, hotel, or similar construction is created principally to shelter any form of human activity. "Building" may also be used to refer to a historically and functionally related unit such as a courthouse and jail or a house and barn.

- The term "structure" is used to distinguish from buildings those functional constructions made usually for purposes other than creating human shelter.

- The term "object" is used to distinguish from buildings and structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed. Although it may be movable, by nature or design, an object is associated with a specific setting or environment.

- A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure.

- A district possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development.

5.4.1 Issues Related to Evaluating Properties Using the Guam/CNMI Cold War History

5.4.1.1 Historic District vs. Individual Eligibility

Properties that meet one or more criteria, as well as tests of integrity, must then be further analyzed under one of the following relevant organizational categories: one of a kind properties, individual properties, multiple properties, or historic district.

5.4.1.2 One-of-a-Kind Properties

These are properties whose character-defining features singularly embody a Cold War military theme and that are the only known property of its type. Singularity alone does not impact exceptional importance if the property is less than 50 years old. Cold War properties that are singular must be compared against other property types within the same theme to determine if they are truly exceptional. Although unique properties can never be precisely compared quantitatively, a qualitative comparison must take place to protect the exclusivity of the term "exceptional."

The phrase "exceptional importance" may be applied to the extraordinary importance of an event or to an entire category of resources so fragile that survivors of any age are unusual. Properties listed that had attained significance in less than 50 years include, for example, the launch pad at Cape Canaveral from

which astronauts first traveled to the moon. Properties less than 50 years old that qualify as exceptional because the entire category of resources is fragile include a recent example of a traditional sailing canoe in the Trust Territory of the Pacific Islands, where because of rapid deterioration of materials, no working Micronesian canoes exist that are more than 20 years old.

For this study, the caves that were developed into bomb shelters at Naval Operating Base, Guam may represent unique military construction related to the nuclear theme of the Cold War history.

5.4.1.3 Individual Properties

Individual, military Cold War properties are those whose physical attributes singularly represent or embody the Cold War theme. While individual properties need not be unique, they must have integrity and cannot be part of a multiple-property grouping.

For properties that are less than 50 years old to be individually eligible for listing in the National Register within the Guam and CNMI Cold War History, they should:

- Clearly and explicitly reflect the important Cold War mission of the installation. An example might be the CDAA communications area.
- Be regarded as symbolic of the installation or of an aspect of the mission. Improvements made at Andersen AFB to support Operation ARC LIGHT or LINEBACKER I or II might be examples.
- Represent particularly significant examples of a type or method of construction or an important technological advancement. The use of pre-cast concrete construction materials is an example.

Infrastructure and support buildings are not typically individually eligible unless they were: (1) the site of a particular event, (2) directly associated with a significant individual, or (3) of exceptional note as an example of architectural or engineering design.

Although temporary structures associated with Operation NEW LIFE are no longer extant, other buildings and structures may be associated with this Cold War theme of military logistics for the Vietnam War. One example might be the Guam Naval Hospital.

5.4.1.4 Multiple Properties

Multiple properties are the same property type, have physical characteristics that exemplify an important Cold War theme, and are extant at multiple locations. Examples would include properties such as munitions depots. Nationwide studies are generally needed to identify multiple properties associated with the history. Until a nationwide study is completed, properties should be considered for individual listing. Individual listing is un necessary if: (1) the property is the only surviving example of a property type that is important within the history, or (2) the property distinctly has the characteristics necessary to represent the history.

Further research is required to determine if there are multiple properties in Guam and the CMNI. The obvious research question is: were pre-cast concrete structures built in other military installations where typhoons or hurricanes pose eminent danger during the Cold War, and if so, are they associated with the same themes present in this history?

5.4.1.5 Historic Districts with Elements Less than 50 Years Old

Properties less than 50 years old may be integral parts of a district when there is sufficient perspective to consider the properties as historic. This consideration is accomplished by demonstrating that: (1) the district's period of significance is justified as a discrete period with a defined beginning and end, (2) the character of the district's historic resources is clearly defined and assessed, (3) specific resources in the district are demonstrated to date from that discrete era, and (4) the majority of district properties are over 50 years old. In these instances, it is unnecessary to prove exceptional importance of either the district or of the less than 50-year-old properties.

Exceptional importance still must be demonstrated for districts where the majority of properties or the major period of significance is less than 50 years old, and for less than 50-year-old properties that are nominated individually. Some historic districts represent events or trends that began more than 50 years ago. Frequently, construction of buildings continued into the less than 50-year period, with the later resources resulting in representation of the continuation of the event. In instances where these later buildings make up only a small part of the district, and reflect the architectural and/or historic significance of the district, they can be considered integral parts of the district (and contributing resources) without showing exceptional importance of either the district or the less than 50-year-old buildings.

An exceptional Cold War historic district is one comprised principally of structures less than 50 years of age that are integral to understanding the unique aspects of the district's mission or association. Structures that clearly contribute to this understanding would be considered contributing elements to the district. Structures that only tangentially or marginally contribute would not be considered contributing members unless they qualify under the standard National Register criteria.

Construction of military facilities on Guam and the CNMI began immediately following World War II and extended throughout the Cold War as part of the U.S. policy to contain Communism and deter Soviet aggression in the Pacific region. The growth has a discreet period on Guam and the CNMI that corresponds directly to the developments of the Cold War and is associated with the large U.S. Cold War objectives of containment. Since the Cold War and corresponding construction on Guam and the CNMI span a period of time that stretches from 65 to 22 years ago (most of the construction occurred between 65 and 38 years ago), there may be districts that will fall into this category.

5.4.1.6 Properties Significant Within More than One Area of History

Properties may possess significance within multiple areas of history. For instance, a building may be individually significant to Cold War history because of its design characteristics, and may also be part of a district related to a particular mission of an installation. Military installations should be evaluated holistically, with attention to their interrelated historic associations over time. When evaluating the significance of a military property, the period of significance should be defined based on the range of important associations over time. In districts, buildings may illustrate various dates of construction, architectural design, and historical associations. A single building may be associated with several periods of history; for example, a building may have played a vital role in both the Vietnam and Korean wars. Significance within one historic period is sufficient for the property to meet the National Register criteria for evaluation. However, all areas of significance should be identified in order to have a comprehensive picture of the property's importance.

Many of the properties on Guam and the CNMI will likely fall under more than one of the themes identified in this document and care should be taken to explore all the associations with each property.

5.4.1.7 Levels of Significance

The National Register Criteria for Evaluation defines three levels of significance: local, state, and national. The level of significance is based on the selection of geographic area, one of the three components of the framework of a history. The geographic scale selected may relate to a pattern of historical development, a political division, or a cultural area.

Local history represents an aspect of the history of a town, city, county, cultural area, or region, or any portions thereof. It is defined by the importance of the property, not necessarily the physical location of the property. For instance, if a property is of a type found throughout a state, or its boundaries extend over two states, but its importance relates only to a particular county, the property would be considered of local significance.

Properties are evaluated on a state level when they represent an aspect of the history of the state as a whole. These properties do not necessarily have to belong to property types found throughout the entire state: they can be located in only a portion of the state's present political boundary. SHPOs have developed historic contexts relevant to the state and local history. The construction and operation of a military installation may have affected a state's economy, labor force, and development. A military installation should be evaluated based on the importance of its contribution to defined state historic contexts.

Properties are evaluated in a national level when they represent an aspect of the history of the entire United States and its territories. These national historic histories may have associated properties that are locally or statewide significant representations, as well as those of national significance. A property that illustrates an aspect of national history should be evaluated on a national level.

This history has focused on the role military installations on Guam and the CNMI played during the Cold War, which was a significant event and period of time in U.S. history. Therefore, the focus of the recommendations presented here have been for the evaluation of properties on a national level; however, that does not preclude the possibility that properties should be evaluated at a local or regional level of significance. In this case, regional should include other Pacific region, Cold War military installations that were a part of the overall U.S. strategy to contain Communism and deter Soviet action. The local level would encompass Guam and the CNMI.

5.5 PROPERTY TYPES IN GUAM AND CNMI

The property types include a wide range of resources such as buildings, structures, landscapes, sites, districts, and objects. They are not limited to exterior spaces. Interior features such as floor plans, equipment, and furnishings are included within the definition of the property type, as are objects such as aircraft, vessels, and equipment. The property types are presented without regard to National Register of Historic Places eligibility, which is discussed in previous sections of this chapter.

U.S. military property constructed from 1946 through 1991 can be properties, (1) that were developed solely as a result of the Cold War and are therefore developed as a result of the Cold War contextual history of the U.S. military, or (2) that would have been constructed even if the Cold War had not occurred, but that, nonetheless, relate to the Cold War time period. Properties constructed prior to 1946 could have also served a vital role during the Cold War era. Properties that are directly related to the Cold War are defined as ones that meet any or all of the following qualifications:

- They were specifically constructed or used prior to 1991 to meet the perceived Communist threat or project a force designed to influence Communist policy.
- Through their architecture or engineering design, clearly reflect one of the Cold War themes described in chapter 3.
- They are directly related to the U.S./USSR and Southeast Asian relationships through association with a milestone event or period.
- They are directly related to a U.S./USSR and Southeast Asian relationship through association with the life of a person during the Cold War period.

All U.S. military property constructed during the Cold War era does not fit into the definition of a Cold War property. Some facilities would have occurred whether or not the Cold War had taken place. For example, the replacement of facilities destroyed due to a typhoon or the construction of administrative offices and housing; although increased housing may have been necessitated by specific Cold War events. The U.S. military property types evolved with the changing missions of the installations and their tenant activities. For example, the Vietnam War led to bombing missions staged from Andersen AFB. At some installations, while the missions may not have changed, the technology for implementing them did, such as changes in communication technologies.

The property types that may be found on Guam and the CNMI U.S. military installations from the period between 1946 and 1991 are listed by functional area. The types of properties at a particular installation will depend on the past and present function and missions of that installation. This list is derived from real property lists received from the U.S. Navy and Andersen AFB, and focuses on the major property types present on Guam and the CNMI installations. Individual Cold War-era properties at the Navy and Air Force installations are included in section A.2.1.

Naval Defense and Operations. The base was to provide general support for all types of vessels including logistics for the Pacific theater, repairs, and supplying. Property types included terminals; vessels; piers; docks; drydocks; wharfs; floating docks; cranes; staging areas; office buildings for headquarters, logistics, and administration; maintenance bays and shops; emergency response facilities; and fueling facilities.

Aviation and Air Defense. Primary mission of deterring or fighting war. The properties include aircraft, airfields, runways, aprons, taxiways, control tower, terminal, fueling and refueling facilities, maintenance hangars and shops, aircraft storage structures, offices for logistics and operations, emergency response facilities, parachute facilities, and communication facilities.

Public Works Program. Primary mission of administering, within the Marianas-Bonin area, and elsewhere as directed, the technical programs of BuDocks pertaining to planning, design, construction, maintenance and operations of facilities and utilities. Property types include offices, shops, supply and storage, motor pool, material and testing laboratories, and equipment maintenance.

Communications – for Promoting Communication and Intelligence-gathering Operations. Property types include antennae arrays, communication stations.

Training and Military Readiness – for Training Military Troops and Maintaining Fighting Readiness. Property types include classrooms; outdoor training devices such as obstacle courses and rappelling towers; small arms, large caliber, and aircraft weapon targets and ranges; chemical/gas training facilities; parade grounds; and computer simulation facilities.

Warehousing and Depots. Includes storage, maintenance, and assembly of materials required for the U.S. military to perform Cold War missions. It is an essential component of military readiness. Property types include:

- General Purpose Warehouse – most commonly found on supply depots and consist of warehouse space with rail and truck connections
- Cold Storage
- Staging and Distribution Facilities – packing and shipping supplies
- Sheds

Ammunition Storage Facilities. Many were built during World War II. These facilities include magazines, igloos, and bunkers dispersed over large land areas to prevent the spread of explosion. They may also include assemble and repair facilities. Nuclear weapons storage facilities – specially designed igloos and bunkers and site configurations for nuclear weapons storage.

Troop and Employee Support Facilities.

- Housing – property types include barracks, dormitories, hotels, visitor quarters, officers quarters, duplexes, and single family dwellings, personal vehicle garages
- Morale, Welfare, and Recreation – property types include golf courses, swimming pools, bowling alleys, craft shops, shopping facilities, commissaries and exchanges, field houses, gyms, outdoor recreational facilities and playing fields, churches and chapels, clubs, restaurants, basketball courts, tennis courts, theaters and auditoriums, and gazebos
- Other support facilities including schools, libraries, museums, monuments, post office, banking facilities, mess/dining halls, laundry, lavatories, gas stations, fire stations

Medical Facilities. The military provided medical care for troops, personnel, and their dependents. The Guam Navy Hospital provided medical care for troops injured in battle. Property types consist of hospitals, clinics, and other patient treatment facilities, and support structures such as laboratories and storage.

Installation Security. Property types include fencing, gate houses, watch towers, security force offices, and detention and jail/brig facilities.

Infrastructure and Utilities. Property types include petroleum storage and pipeline systems; potable water treatment plant, distribution systems, storage and wells; sewer transport and treatment facilities; incinerators and landfills; power production, transmission, substations; roads and sidewalks; telephone exchange.

5.6 FUTURE RESEARCH

Although extensive research was performed for this project, due to the complex nature and broad time span of this topic, research cannot be considered exhaustive. Additional information may be found at the following locations:

- Guam Historic Preservation Office

- Micronesian Area Research Center, University of Guam
- Andersen Air Force Base
- War in the Pacific National Historical Park
- Naval Facilities Engineering Command Marianas
- Naval Facilities Engineering Command Pacific, Pearl Harbor, Hawai'i
- National Archives and Records Administration in College Park, Maryland
- NARA in San Bruno, California
- Port Hueneme Navy / Marine Corps Museum and Archives, Port Hueneme, California
- The Air Force Historical Resource Agency at Maxwell AFB
- U.S. Army Center of Military History
- U.S. Marine Corps History Division
- Naval History and Heritage Command
- Other published works including documents, surveys, and books by military historians and cultural resources professionals on the Korean War, the Vietnam War, nuclear weapons, and Guam
- Other Department of Defense Legacy projects

6.0 SELECTED REFERENCES

Andrews, Hal
1995 "Naval Aviation in WW II - In the Wake of Victory." Final article in series began in Sep–Oct 89 issue. *Naval Aviation News*. November–December 1995.

Center for Air Force History
1994 *Coming in From the Cold: Military Heritage in the Cold War*. Report on the Department of Defense Cold War Legacy Project. U.S. Department of Defense. Washington, D.C.

De Nesnera, Andre
1999 "U.S. Nukes/Worldwide." Report based on article in *The Bulletin of the Atomic Scientists*. Washington, D.C.

Dingman, Roger
1988 "Atomic Diplomacy During the Korean War," *International Security*, Vol. 13, No. 3, Winter 1988/1989, p. 73. http://www.globalsecurity.org/military/facility/tinian.htm

engineering-environmental Management, Inc. (e^2M)
2005 Cold War Context Statement, Tonopah Test Range. Sandia National Laboratories, Albuquerque, NM. May 2005.

Field, James A.
1962 *History of United States Naval Operations: Korea*. Department of the Navy – Naval Historical Center, Washington Naval Yard. Date unk.

Gravel, Maurice Robert "Mike," (ed.)
1971 *The Pentagon Papers*, Vol 1. Edition Boston: Beacon Press. pp 279–282.

KEA Environmental, Inc. (KEA)
1999 *Cold War Infrastructure for Strategic Air Command: the Bomber Mission*, Prepared for Headquarters, Air Combat Command, Langley Air Force Base, VA. November 1999.

LaRosa, Robert (JOSN, ed.)
n.d. "Operation New Life," prepared by the Public Affairs Office of the Commander, Naval Construction Battalion, U.S. Pacific Fleet, FPO San Francisco, CA.

Lonnquest, John C. and David F. Winkler
1996 "Department of Defense Legacy Project 94-1264; To Defend and Deter: The Legacy of the United States Cold War Missile Program."

Lowe, LT Robert J., USNR; and H.L. Fountain, BULC
1954 "Progress on Guam." *CEC Bulletin*. May 1954.

Marolda, Edward J. (Senior Historian)
2000 "The U.S. Navy in the Cold War Era, 1945–1991." Naval Historical Center (Based on the chapter, "Cold War to Violent Peace," in W.J. Holland Jr., ed. The U.S. Navy. Washington: Naval Historical Foundation, 2000.

Mason Architects, Inc., and Weitze Research
2009 Evaluation of Historic Resources at Naval Hospital Guam.

2010 Cold War Historic Context and Architectural Inventory for Naval Base Guam: Main Base, Piti Power Station, Drydock Island and Polaris Point.

Norris, Robert S., William N. Arkin, and William Burr
1999 "Where They Were," *The Bulletin of the Atomic Scientists*, Vol. 55, No. 6, November/December 1999, p.29.

Office of the Assistant to the Secretary of Defense (Atomic Energy)
1978 *History of the Custody and Deployment of Nuclear Weapons (U) July 1945 Through September 1977*. February 1978.

Op441H
1954 "History of Naval Activities on Guam Island, Mariana. Prepared by Op441H, 15 April 1954.

Palmer, Michael A.
1990 Origins of the Maritime Strategy: the Development of American Naval Strategy. Naval Historical Center, 1990.

R. Christopher Goodwin and Associates, Inc. (Goodwin)
1997 Historic Context for Department of Defense Facilities World War II Permanent Construction, U.S. Army Corps of Engineers-Baltimore District. May 1997.

Raines, Rebecca Robbins
1996 Getting the Message Through, A Branch History of the U.S. Army Signal Corps, Center of Military History, U.S. Army, Washington D.C.

Rearden, Steven L.
1984 *The Formative Years, 1947–1950*. Government Printing Office. Washington D.C.

Riveria, Colonel Jerry M.
2002 Guam USA. America's Forward Fortress in Asia Pacific, U.S. Army War College, Carlisle Barracks, PA United States Army, USAWC Class of 2002, April 2002.

Rogers, Robert E.
1995 *Destiny's Landfall: A History of Guam*. Library of Congress Publication, University of Hawai'i Press. 1995.

Ross, Gregory and Richard Balkin, ed.
2002 *Cold War America: 1946–1990*. Facts on File, Inc. 2002, Nk.

Schlight, John
1996 *A War Too Long, The U.S. Air Force in Southeast Asia, 1961–1975*. Air Force History and Museums Program, 1996.

Shelton, LT Michael W.
1975 "A New Life, A New Home." *The Navy Civil Engineer*. Fall 1975.

Shiman, Dr. Philip
1997 "Department of Defense Legacy Project 95-10092, Forging the Sword. Defense Production in the Cold War." July 1997.

Smith, J.B.
1951 *Strategic Guam*. All Hands, JOC. October 1951.

Stewart, Richard W. (General Editor)
2005 *American Military History*, Volume II, *The United States Army in a Global Era, 1917–2003*, Center of Military History United States Army, Washington, D.C., Library of Congress Cataloging-in-Publication Data.

Stewart, William H.
n.d. Cold War Covert Activities on Saipan & Elsewhere in the Region (CIA Activities on Saipan and the Period of the Naval Tactical Unit (NTTU). Military Historical Cartographer and Economist.

Tara K.
1972 "Christmas on the Rock: Dec. 18–29." 36the Wing Historians Office. Accessed on line at: http://www.pacaf.af.mil/news/story_print.asp?id=123127266.

Treiber, Dr. John
2007 Know Your Andersen History: Linebacker II. 36th Wing Historian. Andersen Air Force Base, Guam. 2007. Accessed online at: http://www.andersen.af.mil/news/story_print.asp?id=123077968.

U.S. Navy
1950 Report of the On-Site Survey Party NAS Tanapag, Saipan, MI. Prepared for U.S. Pacific Fleet, CINPACFLT. March 1950.

Van Creveld, Martin
2006 *The Changing Face of War*. Presidio Press, Random House, Inc., NY.

Walker, J.W. JO2
1975 "Cleanup of Viet Refugee Centers on Guam." *Navy Times*. 31 December 1975.

Wallwork, Ellergy D.
2009 Vietnam the First Tanker War. HQ Air Mobility Command History Office. 1 June 2009.

Walsh, Senator David I.
1944 The Decline and Renaissance of the Navy, 1922–1944, 78th Congress, 2d session, document no. 202; Government Printing Office, Washington, D.C., 7 June (legislative day 9 May), 1944.

Walton Jr., CDR A.W. (CEC, USN)
1965 "Space Age Catches Up with Guam, Site of NASA Apollo Tracking Station." The Navy Civil Engineer. OICC BuDocks Contracts Marianas. May–June 1965.

Yoklavich, A. and H. David Tuggle
2004 Historic Building and Associated Landscape/Viewsheds Inventory and Evaluation for Andersen Air Force Base, Guam.

Correspondence

9 March 1946 – Commander Service Force United States Pacific Fleet, Service Force Letter # 5-46, Subject: Directive. From Commander Service Force to Service Force. Available at: National Archives Records Administration, San Bruno, California.

16 March 1946 – United States Pacific Fleet and Pacific Oceans Area, Pacific Fleet Letter 20- L-46, From Commander in Chief, U.S. Pacific Fleet and Pacific Ocean Area, to Pacific Fleet and Naval Shore Activities, Pacific Ocean Area. Available at: National Archives Records Administration, San Bruno, California.

5 April 1946 – Navy Department, ASTSECNAVAIR, CPL&D-46-95, Circular Letter, subject: recruitment of Civilian Personnel for the Marianas Islands. Available at: National Archives Records Administration, San Bruno, California.

11 January 1950 – Headquarters Far East Air Forces, APO 925, Subject: Far East Air Forces Special Construction Program for Andersen Air Force Base – Guam. To: Chief of Staff, U.S. Air Force. Available at: National Archives Records Administration, San Bruno, California.

13 January 1950 – Headquarters, 19th Bombardment Wing, Medium, Office of Commanding General to Commanding General, HQ, Far East Air Forces, subject: Rehabilitation of Air Force Facilities on Guam, MI, Damaged by Typhoon "Allyn." Available at: National Archives Records Administration, College Park, Maryland.

21 January 1950 – Command Naval Operating Base Marianas, to Command Naval Forces Marianas, subject harbor defense units. Available at: National Archives Records Administration, San Bruno, California.

24 January 1950 – From Secretary of the Army, Gordon Gray, to the Secretary of the Navy. Available at: http://www.history.army.mil/.

14 February 1950 – From Commander Naval Forces Marianas, to Commanding General, Marianas – Bonias Command, Guam and Commanding General 19th Bombardment Wing, subject: Naval Air Station, Tanapag, proposed inactivation of. Available at: National Archives Records Administration, San Bruno, California.

13 February 1950 – HQ 19th Bombardment Wing, Medium, Office of Commanding General to General Hoyt S. Vandenberg, Chief of Staff, HQ U.S. Air Force, The Pentagon. Available at: National Archives Records Administration, College Park, Maryland.

12 March 1950 – From Command Air Force, Pacific Fleet, to Chief of Bureau of Aeronautics, subject: Naval Air Station, Agana Guam, MI; proposed station layout. Available at: National Archives Records Administration, San Bruno, California.

20 October 1950 – From Commander Naval Force Marianas, to high Commissioner of the Trust Territories of the Pacific Islands, subject: establishment of air to ground targets on the island of Tinian, request for, dated. Available at: National Archives Records Administration, San Bruno, California.

20 July 1956 – Department of Navy, from Chief Bureau of Ships, to Chief of Naval Operations, subject request for disestablishment of U.S. Naval Base Marianas Guam. Available at: National Archives Records Administration, San Bruno, California.

Headquarters Far East Air Forces, to Director of Installations, HQ U.S. Air Force, subject: Construction Requirements, FY 51 Budget, Andersen AFB. Available at: National Archives Records Administration, College Park, Maryland.

Press Releases

Navy Department Press Release, dated October 10, 1945, Largest Filling Station in Central Pacific Developed by Navy at Guam.

Navy Department Press Release, dated October 20, 1945. Naval Supply Depot at Guam Called "Pacific Supermarket."

Navy Department, Press Release, dated November 15, 1945. Apra Harbor, Guam – One of the World's Busiest Ports.

Navy Department Press Release dated July 22, 1946. Navy Offers Civilian Employment in Marianas Where Living costs $27 A Month.

Navy Department, Press Release, dated 4 August 1946 – Scale Model of Apra Harbor, Guam, Being Built to Study Typhoon Defenses.

Navy Department, Press Release, 21 September 1947 – New Style Bungalows being constructed for families of enlisted personnel on Guam.

Navy Department, Press Release dated 26 February 1948, fresh produce for Guam military personnel expected to result from project on Tinian.

Joint Army-Navy Press and Radio Release dated 20 February 1949, Army group going to Guam to study recent cases of sleeping sickness.

Newspapers

"Get the Best Defense." Article in the *Union* newspaper, Sacramento, California. 20 February 1939.

"Once Sleepy Guam Now Biggest Base U.S. Has in Pacific." *The Evening Star*, Washington DC, Monday, 8 September 1947.

"Guam Regarded as Control to Sea Path East." *Guam News* newspaper, 24 November 1949.

"Harbor Compared to Times When Ships Stayed Out." *Guam News* newspaper, 24 November 1949.

"Seabees Moving from Hospital Area to Naval Operating Base; Fifth Move on Guam." Article in Guam newspaper, dated 27 March 1950, 103rd.

Memoranda

Memorandum dated 20 December 1945, released all Navy News Guam, all Island Commands. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 20 February 1948, from C-240 to C241 (Navy Bureau of Yards and Docks) subject: CPFF Construction Contract NOy-13931, Guam Summary of work at Guam. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 27 April 1948, to B-220, subject: Construction of Island Government Rehabilitation Projects, Various POA Islands – Allotments for, from H.G. Reiber. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 1 December 1948, from Officer in Charge of Construction, Bureau of Yards and Docks Contracts, Marianas Area, to Chief of the Bureau of Yards and Docks, subject: Contract NOy-13931 Construction Program Analysis and Recommended Reduction to Funds Available. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 4 March 1949, from Commander Service Force, U.S. Pacific Fleet, to Secretary of Navy, Permanent Net facility at Guam. Available at: National Archives Records Administration, San Bruno, California.

Memorandum, dated 23 March 1949. Leper Colony on Tinian, 21 February 1949. Chief of the Bureau of Medicine and Surgery. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 19 August 1949, to Commandant, U.S. Coast Guard, Washington DC, from Department of Navy, Bureau of Yards and Docks, Washington DC. Coast Guard Depot, Cabras Island, Guam MI – permit for use of site. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 7 December 1949, from J.R. Grey, Commander of the U.S. Navy, Civil Administrator Saipan District, to Saipan District, Orders No. 8-49. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated unk circa 1949, to Commanding General, Twentieth Air Force, APO 239, from Headquarters, 19th Bombardment Wing, Medium, APO 334. Request for Approval of Disposal of Buildings. Available at: National Archives Records Administration, College Park, Maryland.

Memorandum dated 4 January 1950, from U.S. Pacific Fleet, HQ of the Commander Naval Forces Marianas, to Commander Naval Operating Base Marianas. Deactivation of 6251 Rescue Boat Unit, Apra Harbor. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 10 January 1951, to Lt Col Henderson Director of Installations, from W.T. Hudnell, Colonel USA, Chief, Plans Division, re: Elimination of the Army Garrisons on Guam. Available at: http://www.history.army.mil/.

Memorandum dated 14 February 1951, from Chief, Bureau of Ordnance, Department of the Navy subj: Pacific ex-continental ammunition stock levels. Available at: National Archives Records Administration, San Bruno, California.

Memorandum dated 8 January 1952, from Commanding Officer, NAS Agana, Semiannual logistics data. Available at: National Archives Records Administration, San Bruno, California.

Memorandum, dated 25 May 1955 – for Assistant Secretary of Defense–subject utilization of leasehold–territory of Guam, from Colonel, U.S. Air Force, Deputy Director of Real Property. Available at: National Archives Records Administration, College Park, Maryland.

Annual Reports

Area Public Works Office, Marianas, 17 July 1956, subject Chief's Annual Report to SECNAV.

Area Public Works Office Marianas, Annual Report, 1958.

Web Sites

http://www.globalsecurity.org/military/ops/war-plan-orange.htm

Operation Bullet Shot, http://www.globalsecurity.org/military/ops/bullet_shot.htm

http://www.sparknotes.com/history/american/vietnamwar/section3.rhtml

http://www.globalsecurity.org/military/facility/tinian.htm

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A:

PROPERTY TYPES AND INVENTORY OF U.S. MILITARY INSTALLATIONS ON GUAM AND CNMI

THIS PAGE INTENTIONALLY LEFT BLANK

INVENTORY OF U.S. MILITARY COLD WAR FACILITIES ON GUAM AND CNMI

The following lists were compiled from several sources including Navy and Air Force real property inventories and previous cultural resources surveys. These lists may not be complete or without error. If a building or structure has been previously evaluated, its National Register of Historic Place eligibility is noted as either yes (eligible) or not eligible. If it has not been evaluated or if it is unknown whether it has been evaluated, the column is denoted as "Unk." For buildings that have been evaluated, the last column contains the author, if known, of that survey. For buildings that have not been evaluated, suggested ties to Cold War themes presented in this document are suggested as a starting point in a future evaluation.

The Cold War Historic Context and Inventory for Naval Base Guam prepared by Mason Architects Inc., and Weitze Research, July 2009 (draft), also contains specific historic contexts for Naval Base Guam / Main Base, Piti Power Station, Drydock Island, Polaris Point, Barrigada, Finegayan, GLUP 77 Parcel South Finegayan, Nimitz Hill, Ordnance Annex, South Finegayan. Another source for historic context is the *Historic Context Statement for the United States Navy in the Cold War*, N62472-01-D-1301-0001 prepared by The Louis Berger Group, Inc., July 2009.

The lists contain the extant buildings and structures constructed and used by the U.S. military during the Cold War era, whether they were directly related to Cold War efforts or to other efforts. The great majority of buildings erected by the U.S. military during this period relate to troop and employee support, specifically housing. Because the resources would have been built (although perhaps not in the same quantity) as part of normal evolution of the military on Guam and CNMI, they are not necessarily directly related to the Cold War history discussed in this document. They are grouped to conserve space and are listed to provide an overall sense of military property development during the Cold War period. However, they may need to be evaluated within another historic theme, for example, military housing.

THIS PAGE INTENTIONALLY LEFT BLANK

U.S. Naval Installations

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
2006	NAVBASE GUAM	Admin Office	1944	Not Eligible	Mason Architects, Weitze Research 2010
2008	NAVBASE GUAM	NEEACT Shops	1944	Not Eligible	Mason Architects, Weitze Research 2010
2016	NAVBASE GUAM	Production Equip Maint Shop	1944	Not Eligible	Mason Architects, Weitze Research 2010
2028	NAVBASE GUAM	Drydock Storage / Office	1944	Not Eligible	Mason Architects, Weitze Research 2010
2056	NAVBASE GUAM	Ships / Spares Storage	1944	Not Eligible	Mason Architects, Weitze Research 2010
2060	NAVBASE GUAM	Apprentice Training / Admin Office	1944	Not Eligible	Mason Architects, Weitze Research 2010
2004	NAVBASE GUAM	NEEACT Storage	1944	Unk	Pre Cold War/All Cold War themes
2013	NAVBASE GUAM	Phosphating Facility	1944	Unk	Pre Cold War/All Cold War themes
2039	NAVBASE GUAM	Shop 99 Maint Shop	1944	Unk	Pre Cold War/All Cold War themes
2049	NAVBASE GUAM	Ships / Spares Storage	1944	Unk	Pre Cold War/All Cold War themes
2053	NAVBASE GUAM	Ships / Spares Storage	1944	Unk	Pre Cold War/All Cold War themes
2054	NAVBASE GUAM	Ships / Spares Storage	1944	Unk	Pre Cold War/All Cold War themes
2055	NAVBASE GUAM	Ships / Spares Storage	1944	Unk	Pre Cold War/All Cold War themes
2068	NAVBASE GUAM	Temporary Service Shop 99	1944	Unk	Pre Cold War/All Cold War themes
2070	NAVBASE GUAM	Production Equipment Maintenance Shop	1944	Unk	Pre Cold War/All Cold War themes
H7	NAVBASE GUAM	Public Quarters, Officers	1944	Unk	Pre Cold War/All Cold War themes
H8	NAVBASE GUAM	Public Quarters, Officers, NRMC	1944	Unk	Pre Cold War/All Cold War themes
1463	NAVBASE GUAM	NCR Vehicle Maint. Shop	1945	Not Eligible	Mason Architects, Weitze Research 2010
OSCAR	NAVBASE GUAM	Repair Wharf	1945	Not Eligible	Mason Architects, Weitze Research 2010
PAPA	NAVBASE GUAM	General Purpose Berthing Wharf	1945	Not Eligible	Mason Architects, Weitze Research 2010
QUEBEC	NAVBASE GUAM	Quay Wall	1945	Not Eligible	Mason Architects, Weitze Research 2010
R96	NAVBASE GUAM	Finger Pier - SRF	1945	Not Eligible	Mason Architects, Weitze Research 2010
LIMA	NAVBASE GUAM	Repair Wharf	1945	Yes	Mason Architects, Weitze Research 2010

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
MIKE	NAVBASE GUAM	General Purpose Berthing Wharf	1945	Yes	Mason Architects, Weitze Research 2010
NOVMBR	NAVBASE GUAM	Repair Wharf	1945	Yes	Mason Architects, Weitze Research 2010
2001A	NAVBASE GUAM	Production Warehouse	1945	Unk	Pre Cold War/All Cold War themes
93-1	NAVBASE GUAM	Structural Group Shop / Storage	1945	Unk	Pre Cold War/All Cold War themes
A5935	NAVBASE GUAM	SRF Pipe & Boiler Shop T/S	1945	Unk	Pre Cold War/All Cold War themes
	NAVBASE GUAM	Piti Electric Power Plant - Steam	1945	Unk	Pre Cold War/All Cold War themes
105	NAVBASE GUAM	Admin Office - NAVFACMAR North	1946	Not Eligible	Mason Architects, Weitze Research 2010
1632	NAVBASE GUAM	Vehicular Bridge - Roxas	1946	Not Eligible	Mason Architects, Weitze Research 2010
1795A	NAVBASE GUAM	Cabana #1	1946	Not Eligible	Mason Architects, Weitze Research 2010
1795B	NAVBASE GUAM	Cabana #2	1946	Not Eligible	Mason Architects, Weitze Research 2010
1795C	NAVBASE GUAM	Cabana #3	1946	Not Eligible	Mason Architects, Weitze Research 2010
5811	NAVBASE GUAM	Chaot Bridge	1946	Not Eligible	Mason Architects, Weitze Research 2010
ALFA-PP	NAVBASE GUAM	Berthing Wharf – Alpha Polaris	1946	Not Eligible	Mason Architects, Weitze Research 2010
B100	NAVBASE GUAM	NAVFACMAR HQ Admin Building	1946	Not Eligible	Mason Architects, Weitze Research 2010
B103	NAVBASE GUAM	Administration Building	1946	Not Eligible	Mason Architects, Weitze Research 2010
B104	NAVBASE GUAM	Administration Building	1946	Not Eligible	Mason Architects, Weitze Research 2010
BRAVO-P	NAVBASE GUAM	Berthing Wharf – Bravo Polaris	1946	Not Eligible	Mason Architects, Weitze Research 2010
ROMEO	NAVBASE GUAM	Romeo Wharf - SRF	1946	Not Eligible	Mason Architects, Weitze Research 2010
SIERRA	NAVBASE GUAM	Supply Wharf	1946	Not Eligible	Mason Architects, Weitze Research 2010
TANGO	NAVBASE GUAM	Supply Wharf	1946	Not Eligible	Mason Architects, Weitze Research 2010
UNIFORM	NAVBASE GUAM	Uniform Wharf	1946	Not Eligible	Mason Architects, Weitze Research 2010
VICTOR	NAVBASE GUAM	Berthing Wharf - Victor	1946	Not Eligible	Mason Architects, Weitze Research 2010
X-RAY	NAVBASE GUAM	Provision Transfer Wharf	1946	Not Eligible	Mason Architects, Weitze Research 2010
	NAVBASE GUAM	Glass Breakwater	1946	Yes	

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
3169	NAVBASE GUAM	Transit Shed 1	1947	Not Eligible	Mason Architects, Weitze Research 2010
779XR	NAVBASE GUAM	MHE Battery Locker	1947	Not Eligible	Mason Architects, Weitze Research 2010
3000	NAVBASE GUAM	Welding Shop	1947	Unk	Mason Architects, Weitze Research 2010
5903	NAVBASE GUAM	Tug Base T/S 3X75	1947	Unk	All Cold War Themes
200085	NAVBASE GUAM	Rec Grounds, Gab Gab	1947	Not Eligible	Mason Architects, Weitze Research 2010
200600	NAVBASE GUAM	Seawalls – USQ/ Hoover PITI	1947	Not Eligible	Mason Architects, Weitze Research 2010
200069	NAVBASE GUAM	Bulkhead and Seawalls Marina	1948	Not Eligible	Mason Architects, Weitze Research 2010
5820	NAVBASE GUAM	Garbage Disposal Chute	1949	Not Eligible	Mason Architects, Weitze Research 2010
5933	NAVBASE GUAM	SRF Supply / Computer T/S	1949	Unk	All Cold War Themes
256	NAVBASE GUAM	Exchange Retail Store	1950	Not Eligible	Mason Architects, Weitze Research 2010
810	NAVBASE GUAM	Public Quarters Enlisted	1950	Not Eligible	Mason Architects, Weitze Research 2010
811	NAVBASE GUAM	Public Quarters Enlisted	1950	Not Eligible	Mason Architects, Weitze Research 2010
1055	NAVBASE GUAM	Sewage Pump Station #10-800 GM	1950	Not Eligible	Mason Architects, Weitze Research 2010
780XR	NAVBASE GUAM	Cold Storage Building	1950	Not Eligible	Mason Architects, Weitze Research 2010
800 and 900 series (approx 88 units listed)	NAVBASE GUAM	Public Quarters ENL	1950	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
5410	NAVBASE GUAM	Tide Gauge Shed	1950	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
5959	NAVBASE GUAM	Dry Dock Point Substation - 3X333	1950	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
309	NAVBASE GUAM	Operations Storage Warehouse	1951	Not Eligible	Mason Architects, Weitze Research 2010
2078	NAVBASE GUAM	L.P. Air Compressor Building	1951	Not Eligible	Mason Architects, Weitze Research 2010
4917	NAVBASE GUAM	Battery Locker	1951	Not Eligible	Mason Architects, Weitze Research 2010
3201XR	NAVBASE GUAM	General Warehouse 5	1951	Not Eligible	Mason Architects, Weitze Research 2010
4910	NAVBASE GUAM	Electric Power Plant – Steam 45,000 KW	1951	Yes	Mason Architects, Weitze Research 2010

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
4911	NAVBASE GUAM	Power Multi-Complex	1951	Yes	Mason Architects, Weitze Research 2010
319	NAVBASE GUAM	Orote SS-2X10000 - 1X6250	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
4912	NAVBASE GUAM	Piti Main Substation - 116,875 KV	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
5500	NAVBASE GUAM	Harbor Entrance Command Post	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
5930	NAVBASE GUAM	Sierra Dock No.3 S/S 6X100	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
400	NAVBASE GUAM	Administration Building	1951	Not Eligible	Mason Architects, Weitze Research 2010
1	NAVBASE GUAM	Admin/Education Services Building	1952	Not Eligible	Mason Architects, Weitze Research 2010
2	NAVBASE GUAM	NISRA Office	1952	Not Eligible	Mason Architects, Weitze Research 2010
3	NAVBASE GUAM	EM Barracks E7-E9	1952	Not Eligible	Mason Architects, Weitze Research 2010
4	NAVBASE GUAM	Library/Administration	1952	Not Eligible	Mason Architects, Weitze Research 2010
5	NAVBASE GUAM	PSD	1952	Not Eligible	Mason Architects, Weitze Research 2010
6	NAVBASE GUAM	Dispensary/Clinic	1952	Not Eligible	Mason Architects, Weitze Research 2010
Series of 12 units (starting with #8)	NAVBASE GUAM	Enlisted Barracks	1952	Not Eligible	Mason Architects, Weitze Research 2010
17	NAVBASE GUAM	Brig/Admin Office	1952	Not Eligible	Mason Architects, Weitze Research 2010
3202XR	NAVBASE GUAM	General Warehouse – Bulk - 6	1952	Not Eligible	Mason Architects, Weitze Research 2010
SB1	NAVBASE GUAM	MWR Office	1952	Not Eligible	Mason Architects, Weitze Research 2010
19	NAVBASE GUAM	BEQ - Transient	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
20	NAVBASE GUAM	NEX-EM Barracks	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
51	NAVBASE GUAM	Japanese 2-Men Sub World War II	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
5934	NAVBASE GUAM	SRF Welding School T/S-3X150	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
1A	NAVBASE GUAM	Administration Building	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
A5925	NAVBASE GUAM	Staging Warehouse T/S 3X100	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
ECHO-DD	NAVBASE GUAM	Fueling Wharf Echo	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1724DD	NAVBASE GUAM	Hose Rack Shelter/Wharf D/	1953	Not Eligible	Mason Architects, Weitze Research 2010
1728DD	NAVBASE GUAM	Hose Rack Shelter/Wharf E/	1953	Not Eligible	Mason Architects, Weitze Research 2010
1729DD	NAVBASE GUAM	Checkers Shack / Toilet	1953	Not Eligible	Mason Architects, Weitze Research 2010
2116	NAVBASE GUAM	Warehouse #2 - DDGM/SERVMART	1953	Yes	Mason Architects, Weitze Research 2010
1722	NAVBASE GUAM	Sewage Pump Station No. 16-800 GM	1953	Not Eligible	Mason Architects, Weitze Research 2010
3011	NAVBASE GUAM	Transformer Substation	1953	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
DELTADD	NAVBASE GUAM	Fueling Wharf - Delta	1953	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1A	NAVBASE GUAM	Admin Building	1954	Not Eligible	Mason Architects, Weitze Research 2010
102	NAVBASE GUAM	Admin Storage	1954	Not Eligible	Mason Architects, Weitze Research 2010
1725DD	NAVBASE GUAM	Checkers Shack / Toilet	1954	Not Eligible	Mason Architects, Weitze Research 2010
SP1	NAVBASE GUAM	NAVSTA Steam Plant 16.74 MB	1954	Not Eligible	Mason Architects, Weitze Research 2010
800 and 900 series (8 units listed)	NAVBASE GUAM	Public Quarters Enlisted	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
101A	NAVBASE GUAM	NAVFACMAR South Admin Building	1954	Not Eligible	Mason Architects, Weitze Research 2010
2A	NAVBASE GUAM	Steam Plant Building - 16.74 MB	1954	Not Eligible	Mason Architects, Weitze Research 2009
H10	NAVBASE GUAM	Public Quarters Officers - NAVHOSP	1954	Not Eligible	Mason Architects, Weitze Research 2009
H11	NAVBASE GUAM	Public Quarters Officers - NAVHOSP	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1	NAVBASE GUAM	Dental Clinic	1955	Not Eligible	Mason Architects, Weitze Research 2010
4001	NAVBASE GUAM	Beach Bathhouse - GAB GAB	1955	Not Eligible	Mason Architects, Weitze Research 2010

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
6003	NAVBASE GUAM	Security Headquarters	1955	Not Eligible	Mason Architects, Weitze Research 2010
1716DD	NAVBASE GUAM	Drain Pump House	1955	Not Eligible	Mason Architects, Weitze Research 2010
1720DD	NAVBASE GUAM	Defueling – Clarifying Building	1955	Not Eligible	Mason Architects, Weitze Research 2010
3012OP	NAVBASE GUAM	Orote Telephone Exchange Building	1955	Not Eligible	Mason Architects, Weitze Research 2010
B106	NAVBASE GUAM	Family Service Center	1955	Not Eligible	Mason Architects, Weitze Research 2010
P4XR	NAVBASE GUAM	DECA Office	1955	Not Eligible	Mason Architects, Weitze Research 2010
28	NAVBASE GUAM	Quebec Compressed Air Plant	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
H19 – H28	NAVBASE GUAM	Public Quarters Officers	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
H30, H31, H333-48	NAVBASE GUAM	Public Quarters Enlisted	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
H29	NAVBASE GUAM	Public Quarters Enlisted	1955	Not Eligible	Mason Architects, Weitze Research 2009
H32	NAVBASE GUAM	Public Quarters Enlisted	1955	Not Eligible	Mason Architects, Weitze Research 2009
S1716DD	NAVBASE GUAM	Shelter for B1716DD	1955	Not Eligible	Mason Architects, Weitze Research 2010
S1720DD	NAVBASE GUAM	Shelter for B1720DD	1955	Not Eligible	Mason Architects, Weitze Research 2010
2	NAVBASE GUAM	Family Service Center	1956	Not Eligible	Mason Architects, Weitze Research 2010
700, 800, and 900 series (90 units listed)	NAVBASE GUAM	Public Quarters Enlisted	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
705	NAVBASE GUAM	Public Quarters Enlisted (Type D)	1956	Not Eligible	Mason Architects, Weitze Research 2010
721	NAVBASE GUAM	Public Quarters Enlisted (Type E)	1956	Not Eligible	Mason Architects, Weitze Research 2010
3179	NAVBASE GUAM	General Warehouse 3	1957	Not Eligible	Mason Architects, Weitze Research 2010
3180	NAVBASE GUAM	General Warehouse 4	1957	Not Eligible	Mason Architects, Weitze Research 2010
1732DD	NAVBASE GUAM	Guard/Sentry House – Echo Delta	1958	Not Eligible	Mason Architects, Weitze Research 2010
257	NAVBASE GUAM	Exchange Service & Auto Repair Station	1959	Not Eligible	Mason Architects, Weitze Research 2010

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
2134	NAVBASE GUAM	Public Quarters CH Enlisted	1960	Not Eligible	Mason Architects, Weitze Research 2010
7 units starting with #2156	NAVBASE GUAM	Public Quarters, Capehart	1960	Not Eligible	Mason Architects, Weitze Research 2010
3268	NAVBASE GUAM	Navy Museum	1960	Not Eligible	Mason Architects, Weitze Research 2010
2000 series (247 units)	NAVBASE GUAM	Public Quarters CH Enlisted (Capehart)	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2040	NAVBASE GUAM	Temp Services Shop X-99	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2069	NAVBASE GUAM	Temp Services / Transportation Shops	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2134	NAVBASE GUAM	Public Quarters CH ENL	1960	Not Eligible	Mason Architects, Weitze Research 2010
2217	NAVBASE GUAM	Public Quarters Capehart	1960	Not Eligible	Mason Architects, Weitze Research 2010
3187	NAVBASE GUAM	Storage Shed – DDGM	1961	Not Eligible	Mason Architects, Weitze Research 2010
5530	NAVBASE GUAM	Pistol Range - Orote	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2017	NAVBASE GUAM	Bathhouse	1962	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1730DD	NAVBASE GUAM	Inert Gas / Shelter / Warf E/	1963	Not Eligible	Mason Architects, Weitze Research 2010
3183PP	NAVBASE GUAM	Guard House – Polaris Outer	1963	Not Eligible	Mason Architects, Weitze Research 2010
2074	NAVBASE GUAM	Electrical Shop	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2100	NAVBASE GUAM	Shop 71 Sand Storage	1963	Not Eligible	Mason Architects, Weitze Research 2010
131	NAVBASE GUAM	Gate / Sentry (Backgate)	1964	Not Eligible	Mason Architects, Weitze Research 2010
2108	NAVBASE GUAM	Industrial Lab	1964	Not Eligible	Mason Architects, Weitze Research 2010
4918	NAVBASE GUAM	Power Dispatcher Building	1964	Not Eligible	Mason Architects, Weitze Research 2010
4920	NAVBASE GUAM	Utilities Storage	1964	Not Eligible	Mason Architects, Weitze Research 2010
2081	NAVBASE GUAM	Potable Water Shop	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
2102	NAVBASE GUAM	Public Toilet	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
262FI	NAVBASE GUAM	General Storage	1964	Not Eligible	Mason Architects, Weitze Research 2010
22	NAVBASE GUAM	Sandblast / Paint Facility	1965	Not Eligible	Mason Architects, Weitze Research 2010
23	NAVBASE GUAM	Paint Locker	1965	Not Eligible	Mason Architects, Weitze Research 2010
24	NAVBASE GUAM	Public Toilet	1965	Not Eligible	Mason Architects, Weitze Research 2010
25	NAVBASE GUAM	Civilian Cafeteria	1965	Not Eligible	Mason Architects, Weitze Research 2010
26	NAVBASE GUAM	Sewage Pump Station No. 3-800 GM	1965	Not Eligible	Mason Architects, Weitze Research 2010
71	NAVBASE GUAM	Armory	1965	Not Eligible	Mason Architects, Weitze Research 2010
72	NAVBASE GUAM	Warehouse / Storage	1965	Not Eligible	Mason Architects, Weitze Research 2010
75	NAVBASE GUAM	EM Service Club Rumors	1965	Not Eligible	Mason Architects, Weitze Research 2010
1575	NAVBASE GUAM	Fire Station No. 1	1965	Not Eligible	Mason Architects, Weitze Research 2010
1793	NAVBASE GUAM	Maintenance Shop Store (BOS KTR)	1965	Not Eligible	Mason Architects, Weitze Research 2010
3110	NAVBASE GUAM	Comsubron 15 Headquarters	1965	Not Eligible	Mason Architects, Weitze Research 2010
3150	NAVBASE GUAM	Fleet Landing Building	1965	Not Eligible	Mason Architects, Weitze Research 2010
4921	NAVBASE GUAM	Warehouse / Storage	1965	Not Eligible	Mason Architects, Weitze Research 2010
3192PP	NAVBASE GUAM	Transit Shed	1965	Not Eligible	Mason Architects, Weitze Research 2010
5123HP	NAVBASE GUAM	USO Recreation Bldg. / Hoover Piti	1965	Not Eligible	Mason Architects, Weitze Research 2010
3190	NAVBASE GUAM	COMNAVMAR Headquarters	1965	Yes	Mason Architects, Weitze Research 2010
800	NAVBASE GUAM	Heliport	1965	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4405PP	NAVBASE GUAM	Laundromat	1965	Not Eligible	Mason Architects, Weitze Research 2010
20	NAVBASE GUAM	Shop / Admin Building	1966	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
21	NAVBASE GUAM	SRF Shops (Krause Building)	1966	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
372	NAVBASE GUAM	Transportation Equip Maintenance Shop	1966	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
373	NAVBASE GUAM	RTSG Refueling Vehicle Shop	1966	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
27	NAVBASE GUAM	Steam Plant - 20.92 MB	1968	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
258	NAVBASE GUAM	NEX Main Store / NEX Warehouse	1969	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
700	NAVBASE GUAM	Retail - NEX II	1969	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4407PP	NAVBASE GUAM	Lifeguard Shed	1969	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
SB1C	NAVBASE GUAM	Restroom - BQ Complex	1969	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
	NAVBASE GUAM	Sanitary Landfill	1969	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
600	NAVBASE GUAM	Orote Point Bowling Lanes	1970	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
600, 900 and 2200 series (53 units)	NAVBASE GUAM	Public Quarters ENL	1970	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
5120HP	NAVBASE GUAM	USO Bathhouse / Hoover Piti	1970	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
74	NAVBASE GUAM	Hazardous / Flammable Storehouse	1971	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
2018	NAVBASE GUAM	Pool Office	1971	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
5125HP	NAVBASE GUAM	Recreation / Pavilion / Hoover - Piti	1971	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
501	NAVBASE GUAM	Seabee Chapel & Library	1972	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4408PP	NAVBASE GUAM	Cabana 7	1972	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4409PP	NAVBASE GUAM	Cabana 8	1972	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
21	NAVBASE GUAM	Chilled Water Plant	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
32	NAVBASE GUAM	OPS Storage	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
503	NAVBASE GUAM	CPO/Lounge Club	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
519	NAVBASE GUAM	Brigade Administrative Office	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
520	NAVBASE GUAM	Movie Video / 1st Class Lounge	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
521	NAVBASE GUAM	Club - Beehive	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
523	NAVBASE GUAM	CB Fitness Center	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
526	NAVBASE GUAM	NMCB Headquarters / Service Building	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
528	NAVBASE GUAM	Seabee Dispensary	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
529	NAVBASE GUAM	Dining Facility & Commissary	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
537	NAVBASE GUAM	DET CAT Headquarters	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
539	NAVBASE GUAM	DET CAT Storage	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
543	NAVBASE GUAM	C Company Headquarters	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
544	NAVBASE GUAM	B Company Maint Shop / Office	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
545	NAVBASE GUAM	B Company Steel Shops Storage	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
551	NAVBASE GUAM	Back Guard / Sentry Covington	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
555	NAVBASE GUAM	Dental Clinic / Medical Storage	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
559	NAVBASE GUAM	Laundry / Operation Storage	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
1980	NAVBASE GUAM	Charles King Gym	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
2000	NAVBASE GUAM	Bachelor Officer's Quarters - Orote	1973	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
77	NAVBASE GUAM	NEX Laundromat / Game Room	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
94	NAVBASE GUAM	Dive Locker Storage	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
533	NAVBASE GUAM	Generator Shed	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
1981	NAVBASE GUAM	Indoor Theater	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4925	NAVBASE GUAM	Preventative Maintenance Office	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4926	NAVBASE GUAM	Paint Storage Shed	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
5956	NAVBASE GUAM	Electrical Distribution Building - Tank Farms	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4423PP	NAVBASE GUAM	OPS Storage	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
4446PP	NAVBASE GUAM	Site III Outdoor Gear Issue	1975	Unk	Cold War Logistics in support Containment and Vietnam War; Engineering of typhoon-proof buildings
29	NAVBASE GUAM	Acid Storage Building	1976	Unk	Engineering of typhoon-proof buildings
31	NAVBASE GUAM	Wastewater Hose Storage No. 1	1976	Unk	Engineering of typhoon-proof buildings
32	NAVBASE GUAM	Ship Storage - SRF Wharves	1976	Unk	Engineering of typhoon-proof buildings
33	NAVBASE GUAM	Wastewater Hose Storage No. 3	1976	Unk	Engineering of typhoon-proof buildings
56	NAVBASE GUAM	Heating Plant Building - 25.09 MB	1976	Unk	Engineering of typhoon-proof buildings
354	NAVBASE GUAM	Sanitary Landfill Office	1976	Unk	Engineering of typhoon-proof buildings
1792	NAVBASE GUAM	Storage Shed	1976	Unk	Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
1794	NAVBASE GUAM	Sewage Treatment Control Building	1976	Unk	Engineering of typhoon-proof buildings
1795	NAVBASE GUAM	Clarifier Pump House	1976	Unk	Engineering of typhoon-proof buildings
1798	NAVBASE GUAM	Digester Control Building	1976	Unk	Engineering of typhoon-proof buildings
1800	NAVBASE GUAM	Sewage Chlorinator House	1976	Unk	Engineering of typhoon-proof buildings
2071	NAVBASE GUAM	Public Toilet	1976	Unk	Engineering of typhoon-proof buildings
1657F	NAVBASE GUAM	Storage / Shop	1976	Unk	Engineering of typhoon-proof buildings
1740DD	NAVBASE GUAM	Pollution Abatement Equipment	1977	Unk	Engineering of typhoon-proof buildings
H49	NAVBASE GUAM	Public Quarters Enlisted	1977	Unk	Engineering of typhoon-proof buildings
H50	NAVBASE GUAM	Public Quarters Enlisted	1977	Unk	Engineering of typhoon-proof buildings
1657A	NAVBASE GUAM	Admin Office Housing Welcome Center	1978	Unk	Engineering of typhoon-proof buildings
1657B	NAVBASE GUAM	Museum / Memorial Building	1978	Unk	Engineering of typhoon-proof buildings
1657E	NAVBASE GUAM	PW Storage	1978	Unk	Engineering of typhoon-proof buildings
364	NAVBASE GUAM	MHE Maintenance Shop	1979	Unk	Engineering of typhoon-proof buildings
365	NAVBASE GUAM	General Warehouse	1979	Unk	Engineering of typhoon-proof buildings
558	NAVBASE GUAM	Warehouse	1979	Unk	Engineering of typhoon-proof buildings
560	NAVBASE GUAM	Armory	1979	Unk	Engineering of typhoon-proof buildings
561	NAVBASE GUAM	Parts Storage	1979	Unk	Engineering of typhoon-proof buildings
562	NAVBASE GUAM	Vehicle Parts Storage	1979	Unk	Engineering of typhoon-proof buildings
563	NAVBASE GUAM	Vehicle Wash Rack	1979	Unk	Engineering of typhoon-proof buildings
1976	NAVBASE GUAM	Snack Stand – Ebbets Field	1979	Unk	Engineering of typhoon-proof buildings
1984	NAVBASE GUAM	Chapel Center	1979	Unk	Engineering of typhoon-proof buildings
1982A	NAVBASE GUAM	Hobby Shop / Youth	1979	Unk	Engineering of typhoon-proof buildings
1982B	NAVBASE GUAM	Youth Center, Age 5–12 Yrs	1979	Unk	Engineering of typhoon-proof buildings
1983A	NAVBASE GUAM	Childcare Center	1979	Unk	Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
1983B	NAVBASE GUAM	Little Red School House	1979	Unk	Engineering of typhoon-proof buildings
556A	NAVBASE GUAM	Battalion Headquarters	1979	Unk	Engineering of typhoon-proof buildings
556B	NAVBASE GUAM	Battalion Headquarters	1979	Unk	Engineering of typhoon-proof buildings
557A	NAVBASE GUAM	Vehicle Maintenance Shop	1979	Unk	Engineering of typhoon-proof buildings
557B	NAVBASE GUAM	Vehicle Maintenance Shop	1979	Unk	Engineering of typhoon-proof buildings
557C	NAVBASE GUAM	Vehicle Maintenance Shop	1979	Unk	Engineering of typhoon-proof buildings
634F	NAVBASE GUAM	Maintenance Ship	1979	Unk	Engineering of typhoon-proof buildings
30	NAVBASE GUAM	Foundry Shop	1980	Unk	Engineering of typhoon-proof buildings
36	NAVBASE GUAM	Drum Storage Shed	1980	Unk	Engineering of typhoon-proof buildings
78	NAVBASE GUAM	EM Club Storage	1980	Unk	Engineering of typhoon-proof buildings
355	NAVBASE GUAM	Compressed Gas Storage	1980	Unk	Engineering of typhoon-proof buildings
631	NAVBASE GUAM	Disposal Warehouse	1980	Unk	Engineering of typhoon-proof buildings
1985	NAVBASE GUAM	Clipper Landing Restaurant	1980	Unk	Engineering of typhoon-proof buildings
4927	NAVBASE GUAM	Piti SWGR / Substation Shelter	1980	Unk	Engineering of typhoon-proof buildings
5931	NAVBASE GUAM	Orote SWGR / Substation "A" Shelter	1980	Unk	Engineering of typhoon-proof buildings
5966	NAVBASE GUAM	Orote SWGR / Substation "B" Shelter	1980	Unk	Engineering of typhoon-proof buildings
5971	NAVBASE GUAM	Cold Storage SWGR / Substation Shelter	1980	Unk	Engineering of typhoon-proof buildings
6010	NAVBASE GUAM	NRMC SWGR / Substation "A" Shelter	1980	Unk	Engineering of typhoon-proof buildings
6011	NAVBASE GUAM	NRMC SWGR / Substation "B" Shelter	1980	Unk	Engineering of typhoon-proof buildings
4411PP	NAVBASE GUAM	Business Shelter Outside Site 3	1980	Unk	Engineering of typhoon-proof buildings
4433PP	NAVBASE GUAM	Storage Facility - CSS 15	1980	Unk	Engineering of typhoon-proof buildings
695	NAVBASE GUAM	Sewage Pump Station Shed	1981	Unk	Engineering of typhoon-proof buildings
569	NAVBASE GUAM	DET CAT Staging	1982	Unk	Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
3164	NAVBASE GUAM	Weighing Facility	1982	Unk	Engineering of typhoon-proof buildings
38	NAVBASE GUAM	Sewage Hose Cleaning Facility	1983	Unk	Engineering of typhoon-proof buildings
6009	NAVBASE GUAM	Operational Storage / Communications Ctr.	1983	Unk	Engineering of typhoon-proof buildings
39	NAVBASE GUAM	Insulation Shop	1984	Unk	Engineering of typhoon-proof buildings
571	NAVBASE GUAM	Hazardous Material Storage	1984	Unk	Engineering of typhoon-proof buildings
3188	NAVBASE GUAM	Operational Storage	1984	Unk	Engineering of typhoon-proof buildings
40	NAVBASE GUAM	C-400 Miscellaneous Storage	1985	Unk	Engineering of typhoon-proof buildings
267	NAVBASE GUAM	Calcium Hypochlorite Storage BL	1985	Unk	Engineering of typhoon-proof buildings
572	NAVBASE GUAM	Recreation Pavilion	1985	Unk	Engineering of typhoon-proof buildings
575	NAVBASE GUAM	Recreation Pavilion	1985	Unk	Engineering of typhoon-proof buildings
576	NAVBASE GUAM	Recreation Pavilion	1985	Unk	Engineering of typhoon-proof buildings
577	NAVBASE GUAM	Bus Stop	1985	Unk	
1796	NAVBASE GUAM	Bus Stop	1985	Unk	
1798	NAVBASE GUAM	Recreation Pavilion	1985	Unk	Engineering of typhoon-proof buildings
11A	NAVBASE GUAM	Motorcycle / Bike Shed	1985	Unk	Engineering of typhoon-proof buildings
3181A	NAVBASE GUAM	Load / Unload Ramp Shelter	1985	Unk	Engineering of typhoon-proof buildings
4447PP	NAVBASE GUAM	Basketball Court	1985	Unk	Engineering of typhoon-proof buildings
4918A	NAVBASE GUAM	Power Distribution / Maintenance Offices	1985	Unk	Engineering of typhoon-proof buildings
632FI	NAVBASE GUAM	Scrap Operation Office	1985	Unk	Engineering of typhoon-proof buildings
265	NAVBASE GUAM	Gas Station	1986	Unk	Engineering of typhoon-proof buildings
266	NAVBASE GUAM	Gas Station	1986	Unk	Engineering of typhoon-proof buildings
268	NAVBASE GUAM	Gate / Sentry House	1986	Unk	Engineering of typhoon-proof buildings
269	NAVBASE GUAM	Gate / Sentry House	1986	Unk	Engineering of typhoon-proof buildings
525	NAVBASE GUAM	Medical Hazardous Material Storage	1986	Unk	Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
546	NAVBASE GUAM	CNFM Self-Help Shop	1986	Unk	Engineering of typhoon-proof buildings
566	NAVBASE GUAM	Hazardous Flammable Storage	1986	Unk	Engineering of typhoon-proof buildings
578	NAVBASE GUAM	Flammable Storage	1986	Unk	Engineering of typhoon-proof buildings
599	NAVBASE GUAM	Seabee Quarry Repair Shop	1986	Unk	Engineering of typhoon-proof buildings
1964	NAVBASE GUAM	Concession Stand	1986	Unk	Engineering of typhoon-proof buildings
2030	NAVBASE GUAM	AFDM-8 Bus Stop	1986	Unk	
2041	NAVBASE GUAM	Shop 64 Storage	1986	Unk	Engineering of typhoon-proof buildings
2057	NAVBASE GUAM	SRF Divers Storage	1986	Unk	Engineering of typhoon-proof buildings
2061	NAVBASE GUAM	Code 950 – Miscellaneous Storage	1986	Unk	Engineering of typhoon-proof buildings
2062	NAVBASE GUAM	Weight Room	1986	Unk	Engineering of typhoon-proof buildings
2063	NAVBASE GUAM	Hazardous Industrial Facility	1986	Unk	Engineering of typhoon-proof buildings
2075	NAVBASE GUAM	Bus Stop	1986	Unk	
6010	NAVBASE GUAM	Misc Contractor Office	1986	Unk	Engineering of typhoon-proof buildings
6011	NAVBASE GUAM	Misc Storage Building	1986	Unk	Engineering of typhoon-proof buildings
6012	NAVBASE GUAM	Academic Instruction Building	1986	Unk	Engineering of typhoon-proof buildings
270XR	NAVBASE GUAM	Guard / Sentry House-X-ray Compound	1986	Unk	Engineering of typhoon-proof buildings
5126HP	NAVBASE GUAM	USO Recreation Building – Hoover Piti	1986	Unk	Engineering of typhoon-proof buildings
5127HP	NAVBASE GUAM	USO Recreation Building – Hoover Piti	1986	Unk	Engineering of typhoon-proof buildings
5128HP	NAVBASE GUAM	USO Recreation Building – Hoover Piti	1986	Unk	Engineering of typhoon-proof buildings
41	NAVBASE GUAM	Sand Silo	1987	Unk	Engineering of typhoon-proof buildings
282	NAVBASE GUAM	McDonalds Main Base Sumay	1987	Unk	Engineering of typhoon-proof buildings
2019	NAVBASE GUAM	Pool Pavilion	1987	Unk	Engineering of typhoon-proof buildings
2072	NAVBASE GUAM	Filling Station	1987	Unk	Engineering of typhoon-proof buildings
3005	NAVBASE GUAM	Hazardous Waste Storage Shed	1987	Unk	Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
3006	NAVBASE GUAM	Hazardous Waste Storage Shed	1987	Unk	Engineering of typhoon-proof buildings
3007	NAVBASE GUAM	Hazardous Waste Storage Shed	1987	Unk	Engineering of typhoon-proof buildings
4434PP	NAVBASE GUAM	Communications Building Polaris	1987	Unk	Engineering of typhoon-proof buildings
26	NAVBASE GUAM	MWD Kennel	1988	Unk	Engineering of typhoon-proof buildings
367	NAVBASE GUAM	Storage Shed	1988	Unk	Engineering of typhoon-proof buildings
374	NAVBASE GUAM	Filling Station Building	1988	Unk	Engineering of typhoon-proof buildings
632	NAVBASE GUAM	DRMO Nonhazardous Material Storage	1988	Unk	Engineering of typhoon-proof buildings
2031	NAVBASE GUAM	Drydock Maintenance Support Facility	1988	Unk	Engineering of typhoon-proof buildings
2076	NAVBASE GUAM	Guard / Sentry - SRF	1988	Unk	Engineering of typhoon-proof buildings
2077	NAVBASE GUAM	PASS & I.D. Building - SRF	1988	Unk	Engineering of typhoon-proof buildings
5411	NAVBASE GUAM	Hazardous Storage Sumay Marina	1988	Unk	Engineering of typhoon-proof buildings
579 and 580	NAVBASE GUAM	BEQ	1989	Unk	Engineering of typhoon-proof buildings
585	NAVBASE GUAM	BOQ	1989	Unk	Engineering of typhoon-proof buildings
1802	NAVBASE GUAM	Building Plant - Reservoir .50MG	1989	Unk	Engineering of typhoon-proof buildings
2002	NAVBASE GUAM	Hazardous Materials Storage Building	1989	Unk	Engineering of typhoon-proof buildings
2003	NAVBASE GUAM	Fire Protection Valve House	1989	Unk	Engineering of typhoon-proof buildings
5406	NAVBASE GUAM	Hazardous / Flammable Storehouse	1989	Unk	Engineering of typhoon-proof buildings
5412	NAVBASE GUAM	Boathouse	1989	Unk	Engineering of typhoon-proof buildings
5413	NAVBASE GUAM	Boathouse	1989	Unk	Engineering of typhoon-proof buildings
5543	NAVBASE GUAM	Bus Stop Shelter	1989	Unk	Engineering of typhoon-proof buildings
5544	NAVBASE GUAM	Sentry Booth – Ammunition Wharf	1989	Unk	Engineering of typhoon-proof buildings
5545	NAVBASE GUAM	Service Building	1989	Unk	Engineering of typhoon-proof buildings
6013	NAVBASE GUAM	Switching / Substation Building	1989	Unk	Engineering of typhoon-proof buildings

Navy Base Guam

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
22	NAVBASE GUAM	BEQ	1990	Unk	Engineering of typhoon-proof buildings
530	NAVBASE GUAM	Recreation Pavilion	1990	Unk	Engineering of typhoon-proof buildings
531	NAVBASE GUAM	Recreation Pavilion	1990	Unk	Engineering of typhoon-proof buildings
581	NAVBASE GUAM	BEQ "C"	1990	Unk	Engineering of typhoon-proof buildings
582	NAVBASE GUAM	BEQ	1990	Unk	Engineering of typhoon-proof buildings
1977	NAVBASE GUAM	Bus Stop (Across CDC)	1990	Unk	
2000	NAVBASE GUAM	Operational Storage / Warehouse (APRA)	1990	Unk	Engineering of typhoon-proof buildings
3014	NAVBASE GUAM	Transportation Dispatch	1990	Unk	Engineering of typhoon-proof buildings
1973A	NAVBASE GUAM	Scorekeeping Tower	1990	Unk	Engineering of typhoon-proof buildings
583	NAVBASE GUAM	Building E	1991	Unk	Engineering of typhoon-proof buildings
584	NAVBASE GUAM	Building F	1991	Unk	Engineering of typhoon-proof buildings
2014	NAVBASE GUAM	Temporary Hazardous Waste Storage	1991	Unk	Engineering of typhoon-proof buildings
2064	NAVBASE GUAM	OS1 Lumber / Plywood Storage	1991	Unk	Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
380	NAVAL MAGAZINE	MAANOT Water Reservoir	1931	Unk	Pre-Cold War and All Cold War Themes
600NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
602NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
604NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
605NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
606NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
612NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
614NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
615NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
616NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
617NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
618NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
619NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
620NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
621NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
622NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
623NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
625NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
627NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
628NM	NAVAL MAGAZINE	Open Ammunition Storage Pad	1944	Unk	Pre-Cold War and All Cold War Themes
629NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
630NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
631NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
632NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
633NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
634NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
635NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
636NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
638NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
639NM	NAVAL MAGAZINE	Explosives Truck Intransit Holding	1944	Unk	Pre-Cold War and All Cold War Themes
703NM	NAVAL MAGAZINE	Bridge	1944	Unk	Pre-Cold War and All Cold War Themes
705NM	NAVAL MAGAZINE	Bridge	1944	Unk	Pre-Cold War and All Cold War Themes
706NM	NAVAL MAGAZINE	Flagpole	1944	Unk	Pre-Cold War and All Cold War Themes
11XC7	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
23YC1NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
23YC2NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
23YC3NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
23YC4NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
23YC5NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
24YC7NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
24YC8NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
26YC3NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
26YC5NM	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
707NM	NAVAL MAGAZINE	Athletic Field	1945	Unk	Pre-Cold War and All Cold War Themes
777NM	NAVAL MAGAZINE	Vehicular Bridge	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-1	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-2	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-3	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-4	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-5	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-6	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-7	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-8	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
STRGE-9	NAVAL MAGAZINE	OPS Storage	1945	Unk	Pre-Cold War and All Cold War Themes
309NM	NAVAL MAGAZINE	Inert Storehouse	1949	Unk	All Cold War Themes

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
310NM	NAVAL MAGAZINE	Inert Storehouse	1949	Unk	All Cold War Themes
1283	NAVAL MAGAZINE	Raw Water Intake Tunnel	1950	Unk	All Cold War Themes
1280	NAVAL MAGAZINE	Spillway	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1281	NAVAL MAGAZINE	Fena River Dam Screen House	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1282	NAVAL MAGAZINE	Fena Pump Station - 14,400 KG	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
461NM	NAVAL MAGAZINE	Inert Storehouse	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
708NM	NAVAL MAGAZINE	Tennis Court	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
400NM	NAVAL MAGAZINE	Administration Building	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
401NM	NAVAL MAGAZINE	Enlisted Men's Barracks	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
402NM	NAVAL MAGAZINE	NAWMU-1 OPS Admin/Security Storage	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
403NM	NAVAL MAGAZINE	Storage Misc.	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
404NM	NAVAL MAGAZINE	Hazardous and Flammables Storage	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
405NM	NAVAL MAGAZINE	Auto Vehicle Maintenance Shop	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
407NM	NAVAL MAGAZINE	Fire Station - NAVMAG	1952	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
418NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
419NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
420NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
421NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
422NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
423NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
424NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
425NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
426NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
427NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
428NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
429NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
430NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
431NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
432NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
433NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
434NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
435NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
436NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
437NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
438NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
439NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
440NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
441NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
442NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
443NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
444NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
445NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
446NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
447NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
448NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
449NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
450NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
451NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
452NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
453NM	NAVAL MAGAZINE	Magazine High Explosives	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
454NM	NAVAL MAGAZINE	Magazine Fuse Detonator	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
455NM	NAVAL MAGAZINE	Magazine Fuse Detonator	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
456NM	NAVAL MAGAZINE	Magazine Fuse Detonator	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
457NM	NAVAL MAGAZINE	Magazine Fuse Detonator	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
458NM	NAVAL MAGAZINE	Magazine Fuse Detonator	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
459NM	NAVAL MAGAZINE	Magazine Fuse Detonator	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Nuclear Theme
462NM	NAVAL MAGAZINE	Ordnance Operations / Maintenance	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1380	NAVAL MAGAZINE	Bona Springs	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
406NM	NAVAL MAGAZINE	Battery Shop	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
408NM	NAVAL MAGAZINE	Club Silver Dollar	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
480	NAVAL MAGAZINE	NAVMAG Water Reservoir	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
481	NAVAL MAGAZINE	NAVMAG Reservoir Valve Hose	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
464NM	NAVAL MAGAZINE	Police Station (Vacant)	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
465NM	NAVAL MAGAZINE	Ammunition Rework Overhaul	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
580	NAVAL MAGAZINE	FENA Water Treatment PLT-11000 KG	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
581	NAVAL MAGAZINE	FENA Water Pre-Treatment Tank	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
582	NAVAL MAGAZINE	Chemical Ejection Pit	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
583	NAVAL MAGAZINE	Meter and Aerator Pit	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
584	NAVAL MAGAZINE	Influent Control Structure	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
586	NAVAL MAGAZINE	Clearwell Reservoir	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1480	NAVAL MAGAZINE	TUPO Water Reservoir	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
5953	NAVAL MAGAZINE	FENA Filter PLT T/S 3X100	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
585	NAVAL MAGAZINE	Chemical Laboratory Building	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
737NM	NAVAL MAGAZINE	Vehicular Bridge / Concrete	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
837NM	NAVAL MAGAZINE	Fuse / Detonator Magazine	1958	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
729NM	NAVAL MAGAZINE	Mess Hall (Gear Stowage)	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
734NM	NAVAL MAGAZINE	Emergency Gen Building 93.75KV	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
735NM	NAVAL MAGAZINE	Vehicular Bridge	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
736NM	NAVAL MAGAZINE	Vehicular Bridge	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
740NM	NAVAL MAGAZINE	Inert Storehouse	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
742NM	NAVAL MAGAZINE	Spray Paint Building	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
743NM	NAVAL MAGAZINE	Battery Recharge Shop	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
744NM	NAVAL MAGAZINE	Equipment Storage Building	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
745NM	NAVAL MAGAZINE	Plant Building	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
746NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
747NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
748NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
749NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
750NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
751NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
752NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
753NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
754NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
755NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
756NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
757NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
758NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
759NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
760NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
761NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
762NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
763NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
764NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
765NM	NAVAL MAGAZINE	High Explosive Magazine - Bulk	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
766NM	NAVAL MAGAZINE	Inert Storehouse	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
767NM	NAVAL MAGAZINE	Inert Storehouse	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
768NM	NAVAL MAGAZINE	Inert Storehouse	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
769NM	NAVAL MAGAZINE	EM Barracks without Mess	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
772NM	NAVAL MAGAZINE	Vehicular Bridge / Concrete	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
773NM	NAVAL MAGAZINE	Vehicular Bridge / Concrete	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
778NM	NAVAL MAGAZINE	Vehicular Bridge	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
SENTRY1	NAVAL MAGAZINE	Guard House NAVMAG	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
SENTRY2	NAVAL MAGAZINE	Guard House NAVMAG	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
SHED-NM	NAVAL MAGAZINE	Shed / Shelter NAVMAG	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
793NM	NAVAL MAGAZINE	Helicopter Landing Pad	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
836NM	NAVAL MAGAZINE	Small Arms Range Outdoor	1962	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
775NM	NAVAL MAGAZINE	Storage-EOD Boat Shed	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
779NM	NAVAL MAGAZINE	Ammunition Rework / Overhaul	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
780NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
781NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
782NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
783NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
784NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
785NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
786NM	NAVAL MAGAZINE	Magazine Smokeless Power	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
588	NAVAL MAGAZINE	Chemical Feed Building	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1284	NAVAL MAGAZINE	Chlorine Storage Shed	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
835NM	NAVAL MAGAZINE	Paint Locker	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
839NM	NAVAL MAGAZINE	Weapon-Related Battery Storage	1969	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
840NM	NAVAL MAGAZINE	Utility Building	1969	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
799NM	NAVAL MAGAZINE	Inert Storehouse	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
800NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
801NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
802NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
803NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
804NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
805NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
806NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
807NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
808NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
809NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
810NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
811NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
812NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
813NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
814NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
815NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
816NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
817NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
818NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
819NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
820NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
821NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
822NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
823NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
824NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
825NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
826NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
827NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
828NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
829NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
830NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
831NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
832NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
833NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
834NM	NAVAL MAGAZINE	High Explosive Magazine	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
841NM	NAVAL MAGAZINE	Guard House - NAVMAG	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
842NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
843NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
844NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
845NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
846NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
847NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
848NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
849NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
850NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
851NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
852NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
853NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
854NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
855NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
856NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
857NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
858NM	NAVAL MAGAZINE	High Explosive Magazine	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Nuclear Theme
860NM	NAVAL MAGAZINE	Bachelor Housing Detached Building	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
589	NAVAL MAGAZINE		1975	Unk	Engineering of typhoon-proof buildings
859NM	NAVAL MAGAZINE	Bachelor Quarters	1975	Unk	Engineering of typhoon-proof buildings
870NM	NAVAL MAGAZINE	Missile Maintenance / Test Facility	1975	Unk	Engineering of typhoon-proof buildings
862NM	NAVAL MAGAZINE	EOD Crew Blast Shelter	1976	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
900NM	NAVAL MAGAZINE	Inert Storehouse - Momau	1976	Unk	Engineering of typhoon-proof buildings
901NM	NAVAL MAGAZINE	Mine Assembly Plant	1976	Unk	Engineering of typhoon-proof buildings
902NM	NAVAL MAGAZINE	Mine Assembly Plant	1976	Unk	Engineering of typhoon-proof buildings
903NM	NAVAL MAGAZINE	Weapon-Related Battery Storage	1976	Unk	Engineering of typhoon-proof buildings
906NM	NAVAL MAGAZINE	Standby Generator Plant	1976	Unk	Engineering of typhoon-proof buildings
861NM	NAVAL MAGAZINE	Recreation Pavilion	1978	Unk	Engineering of typhoon-proof buildings
871NM	NAVAL MAGAZINE	High Explosive Magazine	1978	Unk	Engineering of typhoon-proof buildings; Nuclear Theme

Naval Magazine

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
872NM	NAVAL MAGAZINE	High Explosive Magazine	1978	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
873NM	NAVAL MAGAZINE	High Explosive Magazine	1978	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
874NM	NAVAL MAGAZINE	High Explosive Magazine	1978	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
875NM	NAVAL MAGAZINE	High Explosive Magazine	1978	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
876NM	NAVAL MAGAZINE	High Explosive Magazine	1978	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
904NM	NAVAL MAGAZINE	Captor Magazine 34XC2	1979	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
905NM	NAVAL MAGAZINE	Captor Magazine 34XC2	1979	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
2NM	NAVAL MAGAZINE	Ammunition Segregation Facility	1980	Unk	Engineering of typhoon-proof buildings; Nuclear Theme
879NM	NAVAL MAGAZINE	Gymnasium	1983	Unk	Engineering of typhoon-proof buildings
880NM	NAVAL MAGAZINE	Basketball Court with Lights	1983	Unk	Engineering of typhoon-proof buildings
866NM	NAVAL MAGAZINE	NAVORDCOM Tower	1984	Unk	Engineering of typhoon-proof buildings
576	NAVAL MAGAZINE	Chlorine Storage	1987	Unk	Engineering of typhoon-proof buildings
1000NM	NAVAL MAGAZINE	Main Guard / Sentry - NAVMAG	1989	Unk	Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Nimitz Hill and Apra Heights

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
100 series (7 units)	NIMITZ HILL	Public Quarters Officers	1945	Unk	Pre-Cold War / All Cold War Themes
110 series (6 units)	NIMITZ HILL	Detached Carport	1945	Unk	Pre-Cold War / All Cold War Themes
4181	APRA HEIGHTS	Water Supplies Storage	1945	Unk	Pre-Cold War / All Cold War Themes
1000NH	NIMITZ HILL	BOQ / Nimitz Hill	1945	Unk	Pre-Cold War / All Cold War Themes
NH312	NIMITZ HILL	Tennis Court Outdoor / Nimitz	1945	Unk	Pre-Cold War / All Cold War Themes
20, 30 and 40 series (20 units)	NIMITZ HILL	Public Quarters Office	1948	Unk	All Cold War Themes
4180	APRA HEIGHTS	Apra Heights Water Reservoir	1949	Unk	All Cold War Themes
10 – 15	NIMITZ HILL	Public Quarters Officers	1950	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
50, 51, 52, 53, 54, 55	NIMITZ HILL	Detached Carport	1950	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1181	NIMITZ HILL	Water Pumping Station - 2200 GM	1950	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1080	NIMITZ HILL	NAVHOSP Water Reservoir	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1081	NIMITZ HILL	Nimitz Hill Water Reservoir	1951	Unk	Cold War Logistics in support of Containment and the Korea and Vietnam Wars; Engineering of typhoon-proof buildings
0 and 10 series (13 units)	NIMITZ HILL	Public Quarters Officers	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
4173	NIMITZ HILL	N/HILL Little League Ball field	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
4000 series (40 units)	APRA HEIGHTS	Rental Housing Civilian	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
4170	APRA HEIGHTS	Apra Heights Little League Ball field	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
	APRA HEIGHTS	Apra Heights Children's Playground	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Nimitz Hill and Apra Heights

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
	NIMITZ HILL	MEMQ NH Children's Playground	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
	NIMITZ HILL	MOQ NH Children's Playground	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
200NH	NIMITZ HILL	Dodds High School - Nimitz	1958	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
293NH	NIMITZ HILL	Conference Center / Open Mess	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
100NH	NIMITZ HILL	Fire Station – Nimitz Hill	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
179NH	NIMITZ HILL	BOQ / Mess / Nimitz Hill	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
295NH	NIMITZ HILL	Top of the Mar	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
4175AH	APRA HEIGHTS	Dodea Grade School	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
4176AH	APRA HEIGHTS	Apra Heights Cupboard	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
116	NIMITZ HILL	Detached Carport	1971	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
202NH	NIMITZ HILL	Dods High School Nimitz	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
590	NIMITZ HILL	Water Pump House	1976	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
4100 series (14 units)	APRA HEIGHTS	Field Grade Officers Quarters	1976	Unk	Engineering of typhoon-proof buildings
4100-4200 series (11 units)	APRA HEIGHTS	Officers Quarters	1976	Unk	Engineering of typhoon-proof buildings
4200 series (35 units)-	APRA HEIGHTS	Field Grade Officers Quarters	1976	Unk	Engineering of typhoon-proof buildings
4300 series (29 units)	APRA HEIGHTS	Public Quarters ENL	1976	Unk	Engineering of typhoon-proof buildings
4100A series (60 units)	APRA HEIGHTS	Family Housing Detached Storage Building	1976	Unk	Engineering of typhoon-proof buildings
5994	NIMITZ HILL	Nimitz SWGR / Substation Shelter	1980	Unk	Engineering of typhoon-proof buildings
4180AH	APRA HEIGHTS	Old Apra Housing Gate Sentry	1986	Unk	Engineering of typhoon-proof buildings

Nimitz Hill and Apra Heights

Facility No.	Location	Facility Name / Function	Year Built	Eligible for NRHP	Source OR Potential Cold War Theme
4181AH	APRA HEIGHTS	New Apra Housing Gate Sentry	1986	Unk	Engineering of typhoon-proof buildings
296NH	NIMITZ HILL	Ready Store Issue / Nimitz	1987	Unk	Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Marbo

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
	MARBO	AF Radar Dome Site T/V	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
6006	MARBO	Mt. St. ST Rosa Radar Dome Site	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
6007	MARBO	Mt. St. Rosa Micro Station T/S	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
	MARBO	Mt. St. Rosa Building No. 71 T/V	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1306	MARBO	Marbo New Substation 1X6250 (130	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Naval Hospital – Guam

Facility No.	Facility Name	Current Function	Year of Construction	Eligible for NRHP	Source OR Potential Cold War Theme
1	Hospital	Hospital	1954	Not Eligible	Mason Architects and Weitz Research 2009
H9	Housing	Married Officers Quarters	1954	Not Eligible	Mason Architects and Weitz Research 2009
H12	Housing	Married Officers Quarters	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
12	Housing	Nurses Quarters	1954	Not Eligible	Mason Architects and Weitz Research 2009
H29	Housing	Married Enlisted Quarters	1955	Not Eligible	Mason Architects and Weitz Research 2009
H32	Housing	Married Enlisted Quarters	1955	Not Eligible	Mason Architects and Weitz Research 2009
2A	Steam Plant	Support/Utility	1954	Not Eligible	Mason Architects and Weitz Research 2009
2B	Fire Station No. 4	Support/Utility	1954	Not Eligible	Mason Architects and Weitz Research 2009
3	BOSC Maintenance Office	Administrative	1954	Not Eligible	Mason Architects and Weitz Research 2009
4	Medical Storage	Support/Storage	1954	Not Eligible	Mason Architects and Weitz Research 2009
5	Garage and Service Station	Support/Transportation	1954	Not Eligible	Mason Architects and Weitz Research 2009
6	NEX Retail Shop	Support/Morale, Welfare & Recreation (MWR)	1954	Not Eligible	Mason Architects and Weitz Research 2009
13	Industrial Hygiene Office	Administrative	1956	Not Eligible	Mason Architects and Weitz Research 2009
16	Gate House	Support/Miscellaneous	1956	Not Eligible	Mason Architects and Weitz Research 2009
17	Covered Storage and Restroom	Support/Miscellaneous	1956	Not Eligible	Mason Architects and Weitz Research 2009
61	Chapel	Support/MWR	1958	Not Eligible	Mason Architects and Weitz Research 2009
63	Flag Pole	Support/Miscellaneous	1954	Not Eligible	Mason Architects and Weitz Research 2009
64	Tennis Court	Support/MWR	1957	Not Eligible	Mason Architects and Weitz Research 2009
70	MWR Fitness Center	Support / MWR	1965	Not Eligible	Mason Architects and Weitz Research 2009

Naval Hospital – Guam

Facility No.	Facility Name	Current Function	Year of Construction	Eligible for NRHP	Source OR Potential Cold War Theme
71	Emergency Generator Building	Support / Utility	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
71B	Diesel Fuel Storage	Support / Storage	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
11	BARRIGADA	Transmitter Building	1948	Unk	All Cold War Themes
95	BARRIGADA	Armed Forces Golf Course	1948	Unk	All Cold War Themes
5908	BARRIGADA	Building 52 Substation No. 1	1950	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
5980	BARRIGADA	Federal Aviation Administration Transmission Building T/S	1950	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
59	BARRIGADA	Admin / MWR Facility	1951	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
	BARRIGADA	Parking Area	1951	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
78	BARRIGADA	Sidewalks	1951	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
	BARRIGADA	Roads / Nonhousing Area	1951	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
55	BARRIGADA	PWC Shops / Fire Station	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
58	BARRIGADA	Operational Storage	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
54	BARRIGADA	PW Shop	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
56	BARRIGADA	PWC Shop	1952	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
4	BARRIGADA	Helix House Low Frequency	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
91	BARRIGADA	AFGC Club House	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
51	BARRIGADA	NCTS Field Shop	1954	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communicaiton Theme
94	BARRIGADA	Golf Cart Maintenance Shop	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
92	BARRIGADA	Helix House	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
50	BARRIGADA	Army Readiness Group	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
64	BARRIGADA	Training Mock-ups	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
62	BARRIGADA	Training Mock-ups	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
61	BARRIGADA	Training Mock-ups	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
65	BARRIGADA	Training Mock-ups	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
63	BARRIGADA	Training Mock-ups	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
90	BARRIGADA	Water Pump Station 170 GM	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings; Communication Theme
	BARRIGADA	Barrigada Housing Sidewalks	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings
	BARRIGADA	Dumpmaster Pads	1955	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
52	BARRIGADA	Transmitter Building	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
	BARRIGADA	Barrigada Reservoir Access Road	1956	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings
	BARRIGADA	Bituminous and Coral Roads	1956	Unk	Cold War Logistics in support of Containment and Vietnam Wars; Engineering of typhoon-proof buildings
76	BARRIGADA	T4 Radio Tower	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
74	BARRIGADA	T2 Radio Tower	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
75	BARRIGADA	T3 Radio Tower	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
	BARRIGADA	AF GLB COMMTR Site T/V	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
680	BARRIGADA	Barrigada Water Reservoir	1956	Unk	Post-Korean War, "New Look," and flexible response – 1954–1964 Vietnam War (1965–1975), the End of Détente and the Cold War – 1976–1991
73	BARRIGADA	T1 Radio Tower	1956	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
96	BARRIGADA	Golf Cart Battery Charging	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1	BARRIGADA	Guam ARNG OMS Shop	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
69C	BARRIGADA	Training Mock-Ups	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
71	BARRIGADA	Training Mock-Ups	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
70	BARRIGADA	Training Mock-Ups	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
	BARRIGADA	EM BRKS/Galley T/V	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
5984	BARRIGADA	Building 52 S/S No.3	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
34	BARRIGADA	Main Substation-2X9375	1966	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
35	BARRIGADA	Standby Power PLT-5,000 KW	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
	BARRIGADA	Standby Generator 5,000 KW	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
5909	BARRIGADA	Building 52 S/S No.2	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
5983	BARRIGADA	Building 51 S/S No.3	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
5982	BARRIGADA	Building 51 S/S No.2 4X1000	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
5981	BARRIGADA	Building 51 S/S No.1 4X100	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
795	BARRIGADA	Antenna/H-1 Inverted Discone	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
776	BARRIGADA	K4 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
723	BARRIGADA	Inverted Discone Antenna J-1	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
773	BARRIGADA	K1 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
482	BARRIGADA	Q1 High Take-Off	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
770	BARRIGADA	J5 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
769	BARRIGADA	J4 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
780	BARRIGADA	H3 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
775	BARRIGADA	K3 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
768	BARRIGADA	J3 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
772	BARRIGADA	J7 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
767	BARRIGADA	J2 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
779	BARRIGADA	H2 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
771	BARRIGADA	J6 Inverted Discone Antenna	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
904	BARRIGADA	High Take-Off Antenna Q-4	1978	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
905	BARRIGADA	High Take-Off Antenna Q-5	1978	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
906	BARRIGADA	High Take-Off Antenna Q-6	1978	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
903	BARRIGADA	High Take-Off Antenna Q-7	1978	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
888	BARRIGADA	Inverted Cone Antenna J-16	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
879	BARRIGADA	Inverted Cone Antenna H-7	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
882	BARRIGADA	Inverted Cone Antenna J-10	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
890	BARRIGADA	Inverted Cone Antenna J18	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
897	BARRIGADA	Inverted Cone Antenna J25	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
880	BARRIGADA	Inverted Cone Antenna J-8	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
896	BARRIGADA	Inverted Cone Antenna J-24	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
889	BARRIGADA	Inverted Cone Antenna J-17	1979	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
5985	BARRIGADA	Barrigada SWGR / Substation Shelter	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
891	BARRIGADA	Inverted Cone Antenna J-19	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
886	BARRIGADA	Inverted Cone Antenna J-14	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
894	BARRIGADA	Inverted Cone Antenna J-22	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
893	BARRIGADA	Inverted Cone Antenna J-21	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
874	BARRIGADA	Inverted Cone Antenna J-27	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
899	BARRIGADA	Inverted Cone Antenna H-8	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings

Barrigada

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
878	BARRIGADA	Inverted Cone Antenna H-6	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
907	BARRIGADA	Microwave Tower B-52	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
876	BARRIGADA	Inverted Cone Antenna J-29	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
875	BARRIGADA	Inverted Cone Antenna J-26	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
885	BARRIGADA	Inverted Cone Antenna J-13	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
881	BARRIGADA	Inverted Cone Antenna J-9	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
892	BARRIGADA	Inverted Cone Antenna J20	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
877	BARRIGADA	Inverted Cone Antenna H-5	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
895	BARRIGADA	Inverted Cone Antenna J-23	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
883	BARRIGADA	Inverted Cone Antenna J-11	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
887	BARRIGADA	Inverted Cone Antenna J-15	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
884	BARRIGADA	Inverted Cone Antenna J-12	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
873	BARRIGADA	Inverted Cone Antenna J-28	1980	Unk	Cold War Communications Theme; Engineering of typhoon-proof buildings
98	BARRIGADA	Golf Course Women's Toilet	1987	Unk	Engineering of typhoon-proof buildings
97	BARRIGADA	Golf Course Men's Toilet	1987	Unk	Engineering of typhoon-proof buildings
1	BARRIGADA	Operations Storage / Warehouse (Barrigada)	1990	Unk	Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
3268OP	FINEGAYAN	SIGSEC Building	1951	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Communications Theme
3	FINEGAYAN	Pesticide Storage Facility	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings;
112	FINEGAYAN	Terminal Equipment Bldg	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings; Communications Theme
C533	FINEGAYAN	Chlorinator Bldg.-45 KG	1953	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings;
131	FINEGAYAN	Admin / Storage	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
134	FINEGAYAN	Barracks Enlisted Men	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
122	FINEGAYAN	Subsistence Building	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
132 & 133	FINEGAYAN	Barracks Enlisted Men	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
116	FINEGAYAN	Shipping / Receiving North Area	1954	Unk	Cold War Logistics in support of Containment and Vietnam Was; Engineering of typhoon-proof buildings; Communications Theme
C115	FINEGAYAN	Steam Plant Building - 12.56 MB	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
121	FINEGAYAN	Fire Station - NCTS	1954	Unk	Cold War Logistics in support of Containment and Vietnam Was; Engineering of typhoon-proof buildings; Communications Theme
143	FINEGAYAN	Water Pumping Station POT 200 GM	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
192 $ 195	FINEGAYAN	Public Quarters Jr. Officer	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
150	FINEGAYAN	Receiver Building	1955	Unk	Cold War Logistics in support of Containment and Vietnam Was; Engineering of typhoon-proof buildings; Communications Theme
191	FINEGAYAN	Public Quarters Jr. Officer	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
114	FINEGAYAN	No Break Gen Shop	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
280	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
111	FINEGAYAN	Administration	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
276	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
262	FINEGAYAN	Public Quarters Enlisted	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
181 & 194 & 185& 189	FINEGAYAN	Public Quarters Jr. Officer	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
271	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
174	FINEGAYAN	Boy and Girl Scouts	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
281	FINEGAYAN	Main Guard / Sentry House - NCTS	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
273	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
278	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
272	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
C-190 & c-177	FINEGAYAN	Public Quarters Jr. Officer	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
275	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
279	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
H34	FINEGAYAN	Public Quarters Enlisted	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
187, 183, 196, 188, 193	FINEGAYAN	Public Quarters Jr. Officer	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
176	FINEGAYAN	Stars & Stripes	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
155	FINEGAYAN	Child Care Center	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
274	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
173, 175	FINEGAYAN	Public Quarters Jr. Officer	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
277	FINEGAYAN	Operations Training Facility	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
171	FINEGAYAN	UEPH	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
170	FINEGAYAN	Reef Club	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
101	FINEGAYAN	Ham Shack	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
369	FINEGAYAN	Bus Stop Shelter	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
C190 and 200 series (13 units)	FINEGAYAN	Public Quarters Enlisted	1962-63	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
450	FINEGAYAN	Self-Help Office	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
209	FINEGAYAN	Swimming Pool Bathhouse	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
451	FINEGAYAN	Contractor Main Shop (RAYTHE)	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
198	FINEGAYAN	Public Quarters Sr. Officer	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
822	FINEGAYAN	Mars Station	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
200	FINEGAYAN	CDAA Bldg / Standby GEN 350 KW	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
197	FINEGAYAN	Public Quarters CO	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
206	FINEGAYAN	Exchange Outlet	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
587	FINEGAYAN	Water Treatment Plant - 200 KG	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
212	FINEGAYAN	BQ Furniture Warehouse	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
207	FINEGAYAN	Library and Education Center	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
489	FINEGAYAN	Admin Storage Building	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
208	FINEGAYAN	Chapel - NCS	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
488	FINEGAYAN	OPS Storage	1965	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
198	FINEGAYAN	Medical Clinic / PSD	1966	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
197	FINEGAYAN	UEPH	1966	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
161	FINEGAYAN	Public Toilet, Andreen Park	1966	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
285	FINEGAYAN	Satellite Communication Ground Station	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
199	FINEGAYAN	Message Switching Center	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
228	FINEGAYAN	Marine Barracks General Purpose	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
230	FINEGAYAN	Bachelor Officer Quarters without Mess	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
286	FINEGAYAN	Seabee Storage	1971	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A700 and A800 series (104 units)	FINEGAYAN	EM Housing Detached Garage	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A700 series (41 units)	FINEGAYAN	Married Enlisted Men's Quarters	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
A1200 series (16 units)	FINEGAYAN	Officers Quarters	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A1200 series, (14 units), A1219	FINEGAYAN	Company Grade Officers Quarters	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
298	FINEGAYAN	Incinerator Exterior	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
297	FINEGAYAN	Admin Office	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
292	FINEGAYAN	Pass / Decal Section Bldg - NCTS	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
295	FINEGAYAN	BEQ Service Building	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
204	FINEGAYAN	PWC Rigger Shop	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
304	FINEGAYAN	Laundromat	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
303	FINEGAYAN	Gas Station / Auto Parts Store	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
305	FINEGAYAN	NEX Service Outlet / Bank	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A1200-A1300 series (15 units)	FINEGAYAN	Company Grade Officers Quarters	1974	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A1300 series (20 units)	FINEGAYAN	SE Quarters	1974	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
151	FINEGAYAN	Typhoon Storage	1974	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A1200 A1300 series (73 units)	FINEGAYAN	Field Grade Officers Quarters	1974	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
A1266	FINEGAYAN	Field Grade Officers Quarters	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
A1311	FINEGAYAN	Field Grade Officers Quarters	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
454	FINEGAYAN	Ocean Surveillance Building	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
467	FINEGAYAN	UPS Building For Classic Wizard	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings;
309	FINEGAYAN	Standby Generator Building	1976	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
369A	FINEGAYAN	NCS Telephone Cable House	1976	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings; Communications Theme
308	FINEGAYAN	Air-Conditioning Plant Building	1976	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
322	FINEGAYAN	Bowling Alley	1977	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
336	FINEGAYAN	PW Shop	1978	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
335	FINEGAYAN	CDAA Chill Water Plant	1978	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings; Communications Theme
A845FG	FINEGAYAN	Youth Center	1979	Unk	Engineering of typhoon-proof buildings
337	FINEGAYAN	Hobby Shop – Arts/Crafts/Auto	1979	Unk	Engineering of typhoon-proof buildings
387	FINEGAYAN	Bus Stop Shelter	1979	Unk	
338	FINEGAYAN	NAVCAMS Gymnasium	1979	Unk	Engineering of typhoon-proof buildings
318	FINEGAYAN	Bandstand Building	1981	Unk	Engineering of typhoon-proof buildings
160	FINEGAYAN	Mini-Golf Course, 18 Hole	1983	Unk	Engineering of typhoon-proof buildings
490	FINEGAYAN	Bus Stop Shelter	1985	Unk	
491	FINEGAYAN	Outdoor Pavilion	1985	Unk	Engineering of typhoon-proof buildings
496	FINEGAYAN	Antenna - Communications	1986	Unk	Engineering of typhoon-proof buildings; Communications Theme
452	FINEGAYAN	Hazardous/ Flammable Storage Building	1986	Unk	Engineering of typhoon-proof buildings
492	FINEGAYAN	Communication Building	1986	Unk	Engineering of typhoon-proof buildings; Communications Theme

Naval Communications Station Finegayan

Facility No.	Location	Facility Name / Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
310	FINEGAYAN	S/B Generator Water Softening Building	1986	Unk	Engineering of typhoon-proof buildings
A846	FINEGAYAN	South Finegayan Housing Bus Station	1986	Unk	Engineering of typhoon-proof buildings
295A	FINEGAYAN	Bike/Motorcycle Parking Shelter	1986	Unk	Engineering of typhoon-proof buildings
A847	FINEGAYAN	South Finegayan Housing Bus Station	1986	Unk	Engineering of typhoon-proof buildings
A848	FINEGAYAN	South Finegayan Housing Bus Station	1986	Unk	Engineering of typhoon-proof buildings
497	FINEGAYAN	UPH Barbeque Pavilion	1986	Unk	Engineering of typhoon-proof buildings
498	FINEGAYAN	Swimming Pool Pavilion	1987	Unk	Engineering of typhoon-proof buildings
453	FINEGAYAN	Self-Help Storage	1988	Unk	Engineering of typhoon-proof buildings
459	FINEGAYAN	90-Day Hazardous Waste Storage Facility	1989	Unk	Engineering of typhoon-proof buildings
198A	FINEGAYAN	Ambulance Shelter	1989	Unk	Engineering of typhoon-proof buildings
299	FINEGAYAN	Document Destructor Building	1990	Unk	Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Naval Communications Station Sasa Valley

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
U-20SV	SASA VALLEY	JP-8 Fuel Storage Tank	1950	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
U19SV	SASA VALLEY	JP-8 Fuel Storage Tank	1950	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
U18SV	SASA VALLEY	JP-8 Fuel Storage Tank	1950	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
U17SV	SASA VALLEY	JP-8 Fuel Storage Tank	1950	Unk	Cold War Logistics in support of Containment and Korea and Vietnam Wars; Engineering of typhoon-proof buildings
1704SV	SASA VALLEY	POL Maintenance Shop	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
L1SV	SASA VALLEY	Oily Waste Water Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U1SV	SASA VALLEY	Turbine Fuel Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U7SV	SASA VALLEY	Turbine Fuel Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U9SV	SASA VALLEY	Diesel Fuel (F76) Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
S3SV	SASA VALLEY	JP-8 Surge Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U14SV	SASA VALLEY	Fuel Oil - Low Sulfur Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
B1SV	SASA VALLEY	Reclaimed Oil Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
S5SV	SASA VALLEY	Turbine Fuel (JP-8) Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
S2SV	SASA VALLEY	Diesel Oil Surge Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U16SV	SASA VALLEY	Fuel Oil - Low Sulfur Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U15SV	SASA VALLEY	Fuel Oil - Low Sulfur Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
S1SV	SASA VALLEY	FSL Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U11SV	SASA VALLEY	Diesel Fuel (F-76) Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Naval Communications Station Sasa Valley

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
U6SV	SASA VALLEY	Turbine Fuel Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U12SV	SASA VALLEY	Fuel Oil - Low Sulfur Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U3SV	SASA VALLEY	JP-8 Storage Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U4SV	SASA VALLEY	JP-8 Storage Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U10SV	SASA VALLEY	Diesel Fuel (F-76) Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U8SV	SASA VALLEY	Turbine Fuel Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
B2SV	SASA VALLEY	Reclaimed Oil	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
R1SV	SASA VALLEY	Recovered Oil Storage Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U2SV	SASA VALLEY	Turbine Fuel Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
S4SV	SASA VALLEY	Turbine Fuel Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
H2SV	SASA VALLEY	Oily Wastewater Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U13SV	SASA VALLEY	Fuel Oil - Low Sulfur Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
U5SV	SASA VALLEY	Unleaded Gas Storage Tank	1954	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1712SV	SASA VALLEY	Transfer Pump House	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1710SV	SASA VALLEY	Tank Truck Load Stand, SAS	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1708SV	SASA VALLEY	Booster Pump House	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1700SV	SASA VALLEY	POL Operations Building - SASA	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1706SV	SASA VALLEY	Storage Locker	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1702SV	SASA VALLEY	POL Operations Office	1955	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1713SV	SASA VALLEY	Electrical Distribution Building	1975	UNK	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Naval Communications Station Sasa Valley

Facility No.	Location	Facility Name/Function	Year Built	NRHP Eligible	Source OR Potential Cold War Theme
1714SV	SASA VALLEY	Electrical Distribution Building –Tank Farm	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1705SV	SASA VALLEY	Guard / Sentry Fuel Farm	1986	Unk	Engineering of typhoon-proof buildings

THIS PAGE INTENTIONALLY LEFT BLANK

Other Navy Locations on Guam

There is only infrastructure and very small structures listed for Harmon and Ritidian. Tanguisson Point has a power station constructed in the early 1970s. Tenjo Valley has a tank farm, and Tiyan comprises a small water station.

Andersen Air Force Base – Evaluated Buildings

Facility No.	Location	Facility Name	Current Function	Year Built	NRHP Eligible	Cold War Theme
	AAFB	Northwest Field	Air field	1945	Yes	World War II
	AAFB	Northfield	Air field	1945	Yes - WWII	Post-Korean War, "New Look," and flexible response – 1954–1964 Vietnam War (1965–1975), The End of Détente and the Cold War - 1976–1991
9020	AAFB	Storage Magazine	Magazine storage – 10 structures	1954	Not Eligible	Yoklavich and Tuggle 2004
9002	AAFB	Munitions Storage and Handling	Munitions Storage and Handing – 2 structures	1955	Not Eligible	Yoklavich and Tuggle 2004
51110	AAFB	Spare Inert Storage	Spare inert storage – 3 structures	1954	Not Eligible	Yoklavich and Tuggle 2004
51150	AAFB	Munitions Support Equipment Maintenance	Munitions support equipment maintenance	1954	Yes	Yoklavich and Tuggle 2004
51250	AAFB	Igloo-type Structures	Munitions storage – 760 ft² - 4 structures	1954	Yes	Yoklavich and Tuggle 2004
51256	AAFB	Igloo-type Structures	Munitions storage - 2,155 ft² - 10 structures	1954	Yes	Yoklavich and Tuggle 2004
8400	AAFB	Igloo-type Structures	Munitions storage - 943 ft² - 4 structures	1954	Yes	Yoklavich and Tuggle 2004
8404	AAFB	Igloo-type Structures	Munitions storage - 1,736 ft² - 65 structures	1954	Yes	Yoklavich and Tuggle 2004
8617	AAFB	Igloo-type Structures	Munitions storage - 2,324 ft² - 44 structures	1955	Yes	Yoklavich and Tuggle 2004
70	Andersen AFB Mt. Santa Rosa	Mars Rad; adjacent a tall antenna	Communications	1956	Not Eligible	Yoklavich and Tuggle 2004

Andersen Air Force Base – Evaluated Buildings

Facility No.	Location	Facility Name	Current Function	Year Built	NRHP Eligible	Cold War Theme
71	Andersen AFB Mt. Santa Rosa	Communications Receiver; adjacent to spherical antenna	Communications	1956	Not Eligible	Yoklavich and Tuggle 2004
72	Andersen AFB Mt. Santa Rosa	ACW Operations Building	Administrative	1956	Not Eligible	Yoklavich and Tuggle 2004
73	Andersen AFB Mt. Santa Rosa	Electric Power Station Building	Support / Utility	1956	Not Eligible	Yoklavich and Tuggle 2004
74	Andersen AFB Mt. Santa Rosa	Radome Tower Building	Communications	1956	Yes	Yoklavich and Tuggle 2004
680	Andersen South	Water Pump Station	Support / Utility	1953	Not Eligible	Yoklavich and Tuggle 2004
27005	Andersen AFB	Andersen Lodge Visitors' Quarters	Housing	1954	Not Eligible	Yoklavich and Tuggle 2004
25003+ 2 others	Andersen AFB	Lodging VAQ	Housing	1955	Not Eligible	Yoklavich and Tuggle 2004
1004+3 2 others	Andersen AFB	Family Housing 1,840 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1008+1 9 others	Andersen AFB	Family Housing 1,890 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1020+2 8 others	Andersen AFB	Family Housing 3,160 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1042+2 4 others	Andersen AFB	Family Housing 1,880 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1044+1 8 others	Andersen AFB	Family Housing 1,630 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1045+4 0 others	Andersen AFB	Family Housing 1,580 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1057+1	Andersen AFB	Family Housing 3,260 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1067+5 others	Andersen AFB	Family Housing 1,930 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
1084	Andersen AFB	Family Housing 1,900 ft²	Housing	1956	Not Eligible	Yoklavich and Tuggle 2004
18040	Andersen AFB	Vehicle Operations	Support / Transportation	1951	Not Eligible	Yoklavich and Tuggle 2004
25023	Andersen AFB	Gift Shop	Support / MWR	1953	Not Eligible	Yoklavich and Tuggle 2004
18002	Andersen AFB	Trend Western Base Supply TMO Household Goods	Support / Miscellaneous	1954	Not Eligible	Yoklavich and Tuggle 2004

Andersen Air Force Base – Evaluated Buildings

Facility No.	Location	Facility Name	Current Function	Year Built	NRHP Eligible	Cold War Theme
18006	Andersen AFB	36th Maintenance Squadron	Support / Maintenance	1954	Not Eligible	Yoklavich and Tuggle 2004
25016	Andersen AFB	Palau Hall	Housing	1954	Not Eligible	Yoklavich and Tuggle 2004
25018	Andersen AFB	Home Traditions Rosewood Shop	Support / MWR	1954	Not Eligible	Yoklavich and Tuggle 2004
27003	Andersen AFB	Andersen Lodge Visitors' Quarters	Housing	1954	Not Eligible	Yoklavich and Tuggle 2004
9000	Andersen AFB	Munitions Maintenance Administration	Administration	1954	Not Eligible	Yoklavich and Tuggle 2004
20010	Andersen AFB	Electrical Support, Env. Support	Support / Miscellaneous	1955	Not Eligible	Yoklavich and Tuggle 2004
22021	Andersen AFB	Defense Commissary Agency	Support / MWR	1955	Not Eligible	Yoklavich and Tuggle 2004
22023	Andersen AFB	Meehan Theater	Support / MWR	1955	Not Eligible	Yoklavich and Tuggle 2004
22024	Andersen AFB	Chapel I	Support / MWR	1955	Not Eligible	Yoklavich and Tuggle 2004
22026	Andersen AFB	AAFES Main Store	Support / MWR	1955	Not Eligible	Yoklavich and Tuggle 2004
23003	Andersen AFB	HQ 13 Air Force	Administrative	1955	Not Eligible	Yoklavich and Tuggle 2004
25002	Andersen AFB	HQ 13 AF Intelligence Directorate	Administrative	1955	Not Eligible	Yoklavich and Tuggle 2004
25024	Andersen AFB	Recreation Center	Support / MWR	1955	Not Eligible	Yoklavich and Tuggle 2004
9040	Andersen AFB	Conventional Munitions Shop	Support / Maintenance	1955	Not Eligible	Yoklavich and Tuggle 2004
17000	Andersen AFB	36th Maint. Group, 36th Contracting Squadron, 36th Logistics Readiness Squadron	Administrative	1956	Not Eligible	Yoklavich and Tuggle 2004
18004	Andersen AFB	36MXS Aerospace Ground Equipment	Support / Maintenance	1956	Not Eligible	Yoklavich and Tuggle 2004
23002	Andersen AFB	36th Communications Squadron	Administrative	1956	Not Eligible	Yoklavich and Tuggle 2004

Andersen Air Force Base – Evaluated Buildings

Facility No.	Location	Facility Name	Current Function	Year Built	NRHP Eligible	Cold War Theme
26000	Andersen AFB	AF Clinic	Support / Miscellaneous	1956	Not Eligible	Yoklavich and Tuggle 2004
51104	Andersen AFB	WRM Storage Facility	Support / Miscellaneous	1954	Not Eligible	Yoklavich and Tuggle 2004

Yoklavich and Tuggle, *Historic Building and Associated Landscape/Viewsheds Inventory and Evaluation for Andersen Air Force Base Guam* (2004).

Andersen Air Force Base – Nonevaluated Buildings

Facility No.	Facility Name	Year Built	NRHP Eligible	Cold War Theme
2552	Test Cell	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
10009	CATM Building	1957	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1100, 1200, 1300, 1400 series (122 units)	Family housing, Capehart	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2620, 2625, 2630, 2635	Hydraulic Fuel Building	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2798	SP Kennel, Canine	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
19013	Hazardous Storage Base	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
19014	Waste Treatment Building	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
19020	Warehouse Supply & Equipment Base	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
23010	HQ Numbered AF	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
23022	Warehouse Supply & Equipment Base	1959	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1000 – 2000 Series (466 units)	Family Housing, Capehart	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1722	FR STN	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2662	Electrical Power STN Building	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
28140	Bldg WTR Support	1960	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18011	RAPCON General	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18020	Maintenance Dock, Fuel System	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Andersen Air Force Base – Nonevaluated Buildings

Facility No.	Facility Name	Year Built	NRHP Eligible	Cold War Theme
18021	Maintenance Dock, L/A	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18022	Compressor Air PLT Building	1961	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2527, 19000, 19035	Hydraulic Fuel Building	1962	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1621	Swimmers Bath House	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
26101	Exchange Service Station	1963	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
26222	Pump Station, LF	1863	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1091	Open Mess, Consolidated	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2403	SP CON Identity	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2510	OPS, Base	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2792	SP Kennel, Support Building	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
17002	TRML Air Passenger	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
17003	HQ AF	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18001	Vehicle Maintenance Shop	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18003	TRML, Air Freight	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
19028	SQ OPS	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
20011	Communications Facility	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings; Communications Theme
25001	Exchange, Service Outlet	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
25005	Gymnasium	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
26001	Medical Storage (WRM)	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
26006	Open Mess, NCO	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1623	Chapel CEN	1964	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2600	EOD	1966	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings

Andersen Air Force Base – Nonevaluated Buildings

Facility No.	Facility Name	Year Built	NRHP Eligible	Cold War Theme
9100	Munitions Maintenance Admin	1966	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
14501-14506	750,000 Barrel Jet Fuel Storage	1967	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1782	Admin Office, NON-AF	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2642	Admin Office, NON-AF	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2820	OPS, Base	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18027	Maintenance Dock, L/A	1968	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1094	Golf Club / House / Equipment	1969	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2705	SHP NAVAID	1969	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2552	SHP Jet Engine Maintenance	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
9008	SHP CONVL, Munitions	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
25014	Air-Conditioning PLT Building	1970	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18015	Control Tower	1971	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
21005	Cold Storage Base	1971	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
17008	SHP NON-DESTR Inspector	1972	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
1624	REF	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2799	BE Maintenance Shop	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
21008	Vehicle Maintenance Shop	1973	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2659	FR Station	1974	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
18035	Vehicle Maintenance Shop	1974	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
9507	Swimmers Bath House	1975	Unk	Cold War Logistics in support of Containment and Vietnam War; Engineering of typhoon-proof buildings
2616	Communications Facility	1976	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings; Communications Theme
18019	TRML Air Freight	1977	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
18025	Storage Liquid Oxygen	1978	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings

Andersen Air Force Base – Nonevaluated Buildings

Facility No.	Facility Name	Year Built	NRHP Eligible	Cold War Theme
2517	OPS Base	1980	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
22002	Central Exchange Warehouse	1980	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
26051	H/Shop Automotive	1980	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
26119	Shop, REFL Vehicle	1980	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
51108	INTCRTD Main Facility	1980	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
2618	Electrical Power Station Building	1981	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
18017	ACFT COR CON	1981	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
18042	Vehicle Maintenance Shop	1981	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
20021	BE Paving Ground Facility	1981	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
21003	Air-Conditioning PLT Building	1981	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings
17004	TRML Flight Service	1983	Unk	Cold War Logistics in support of Containment; Engineering of typhoon-proof buildings

Andersen Air Force Base – Nonevaluated Buildings

Facility No.	Facility Name	Year Built	NRHP Eligible	Cold War Theme
26102	Exchange, Service Outlet	1983	Unk	Engineering of typhoon-proof buildings
27030	Exchange Café Snack Bar	1984	Unk	Engineering of typhoon-proof buildings
9010	Shop, Surveillance Inspection	1985	Unk	Engineering of typhoon-proof buildings
9012	Storage, SEG MAG	1985	Unk	Engineering of typhoon-proof buildings
9014	Storage, SEG MAG	1985	Unk	Engineering of typhoon-proof buildings
9603	Bldg WTR Support	1985	Unk	Engineering of typhoon-proof buildings
18018	Aircraft COR COM	1985	Unk	Engineering of typhoon-proof buildings
21006	NCO Professional Education Center	1985	Unk	Engineering of typhoon-proof buildings
51109	INTCRDT Maintenance Facility	1985	Unk	Engineering of typhoon-proof buildings
51243, 51246, 51247, 51249	Storage Igloo	1985	Unk	Engineering of typhoon-proof buildings
14513, 14514, 14515, 14517	500,00 Barrel Jet Fuel Storage	1986	Unk	Engineering of typhoon-proof buildings
20023	BE Storage CV Facility	1986	Unk	Engineering of typhoon-proof buildings
21012	BE Maintenance Shop	1986	Unk	Engineering of typhoon-proof buildings
25017	DORM AM PP/PCS-STD	1986	Unk	Engineering of typhoon-proof buildings
9106	Compressor Air PLT Bldg	1987	Unk	Engineering of typhoon-proof buildings
17005	Airport TNG Facility	1987	Unk	Engineering of typhoon-proof buildings
22007	BE Storage CV Facility	1987	Unk	Engineering of typhoon-proof buildings
230028	HQ WG	1987	Unk	Engineering of typhoon-proof buildings
25011	DORM AM PP/PCS-STD	1987	Unk	Engineering of typhoon-proof buildings
25006	Arts & Crafts Center	1988	Unk	Engineering of typhoon-proof buildings
22030	Credit Union	1990	Unk	Engineering of typhoon-proof buildings

A.2.3 Commonwealth of the Northern Mariana Islands

There are no listed buildings or structures for the CNMI.

APPENDIX B: PROJECT CONTRIBUTORS

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX B: PROJECT CONTRIBUTORS

Document Preparation

AARCHER, Inc.

- **Jayne Aaron, LEED AP, Architectural Historian, Project Manager**

Education:

- Master of Environmental Policy and Management, University of Denver
- Bachelor of Environmental Design (Architecture and Planning), University of Colorado – Boulder

Ms. Aaron has over 18 years of hands-on experience as a project manager, architectural historian/cultural resources specialist, and NEPA specialist. She has over 15 years of experience managing programs and contracts for federal clients. Ms. Aaron meets the qualifications of the Secretary of the Interior for Architectural Historian. She has been involved in all aspects of section 106 compliance for cultural resources, including the evaluation of numerous military installations and facilities across the country and in the Pacific, U.S. Coast Guard vessels, and other buildings and structures. She has developed HABS/ HAER/HALS documentation for Department of Defense and Department of Energy facilities. She has also designed innovative strategies and management plans to integrate new and existing regulations, policies, and guidance, and cultural and natural resource management activities into single planning and compliance programs, including NEPA, Environmental Justice, and the National Historic Preservation Act, and Native American Graves Protection and Repatriation Act 0f 1990. As part of her compliance responsibilities, Ms. Aaron has participated in consultation and meetings with a variety of stakeholder groups, including state and federal regulators, American Indian tribes, environmental consultants, and the public. She has written public releases, given presentations, responded to public comments, and facilitated meetings for various sized groups. She has also designed and developed training courses, and has taught in educational and training programs.

- Karstin (Kari) Carmany-George, Archeologist, Cultural Resources Specialist

Education:

- M.A., Anthropology, Ball State University
- B.A., American History, Ball State University

Ms. Carmany-George has 12 years of professional cultural resource management experience. She served as the first cultural resource manager for the Indiana National Guard, and in that position, developed an award winning, comprehensive program combining GIS, archaeological field work, and consultation to ensure the agency is able to meet its goal of troop readiness training while maintaining compliance with federal and state laws. Her section 106/110 and NEPA project experience includes, but is not limited to, an expedited section 106 process for the development of a mental hospital's historic district into an urban training center; inventory and evaluation of historic properties (e.g., archaeological sites, sites, structures, buildings, landscapes, and traditional properties); development of management for National Register

eligible properties; use of GIS to streamline resource management and project tracking; development of historic contexts; and development of National Historic Preservation Act agreement documents. Ms. Carmany-George's experience also includes American Indian consultation and consultation with State Historic Preservation Officers and other interested parties.

Ms. Carmany-George has participated in over 400 cultural resource investigations and determinations of effect, in compliance with sections 106 and 110 of the National Historic Preservation Act of 1966, as amended. Ms. Carmany-George meets the Secretary of the Interior's Guidelines for a Qualified Professional Archaeologist, Historian, and Historic Preservationist. She has served as cultural resource lead on dozens of NEPA processes writing cultural resource sections for NEPA categorical exclusion documentation and environmental assessments.

- James D. (Jim) Von Loh

Education:

- M.S./Biology/University of New Mexico
- B.S./Biology/Southern Colorado State College

Mr. Von Loh is a program/project manager and senior ecologist with over 35 years of experience in botany, plant ecology, wetlands, and natural resources analyses. He has successfully managed and produced biological assessments, environmental assessments, environmental impact statements, National Vegetation Inventory Project digital databases and reports that are Federal Geographic Data Committee compliant, wetland findings, site characterizations, RI/FS tasks, and additional NEPA support documentation. He has been responsible for management, technical direction, and quality control of multi-disciplinary teams of up to nine ecologists and GIS specialists for numerous NEPA and natural resource projects. He is/has been responsible for preparation of vegetation classification and mapping projects, including work plan production, conduct of scoping meetings, field data collection, statistical analyses to support vegetation classification via NatureServe, aerial photo-interpretation/image processing of plant community and land use signatures, digital database production, field key production, accuracy assessments, and final report production including appropriate metadata for national parks, monuments, and wildlife refuges, and military facilities within the western United States. He has worked with a variety of government, private, and commercial clients, including over 40 national parks and 15 military facilities.

Micronesian Area Research Center

- Agnes (Annie) E. Griffin

Education:

- B. A. Anthropology, University of the Philippines
- M.A. Anthropology, University of the Philippines

Since March 2006, Ms. Griffin has been a consultant (sole proprietorship) on studies and projects concerning cultural resources management, environmental planning, historic preservation compliance, historical studies, ethnographic studies, traditional cultural properties, and archaeology. From January

1994 to March 2006, Ms. Griffin was employed by the Naval Facilities Engineering Command Pacific (NAVFAC PAC) in Pearl Harbor, Hawai‘i. Ms. Griffin was responsible for ensuring that Navy and Marine Corps activities under NAVFAC PAC's areas of responsibility complied with the requirements of federal historic preservation and cultural resources laws and regulations (i.e., sections 106 and 110, NAGPRA, ARPA) and the overseas environmental guidance document (for overseas activities). Ms. Griffin successfully carried out consultations with stakeholders, and federal and state regulators. In addition to conducting and completing some of the requirements, Ms. Griffin was responsible for overseeing quality assurance (as the Navy's technical representative) of work, studies and reports by contracted historic preservation professionals. From September 1984 to January 1994, Ms. Griffin was employed at Hawai‘i's State Historic Preservation Office as an archaeologist in charge of the county of Maui.

Technical Editing and Formatting

- Wanda Gray Lafferty

Education:

- Internet, Web site, and desktop publishing courses 1996–1998
- Paralegal Certification / Colorado University 1991
- Two years undergraduate study in business management, leadership, and communications / CU Denver Extension 1981–1983

Ms. Lafferty has over 30 years of experience in business communications, marketing development, and convention planning and execution; creating brochures, newsletters, and other marketing materials; editing and document composition of general management plans, environmental impact statements, and environmental assessments; and as corporate paralegal and office administrator for law firms. Her work has included facilitation of Native American Consultation meetings and workshops, preparation of informational materials for public involvement under NEPA, technical editing, and document development. Previously, she designed, created, and maintained a Web site, was responsible for the design and creation of all public relations and media materials, and served as communications and membership director for a legal-based environmental nonprofit organization with a yearly budget of over $2 million; managed convention planning (including booth selection and design), designed and produced all related marketing materials, and was responsible for all travel arrangements and hosting of hospitality suites for an environmentally responsible oil exploration subsidiary of the fifth-largest oil exploration company in the world.

Document Review

- Dr. Sue Goodfellow, Head, Conservation Section, Headquarters, U.S. Marine Corps
- Cecilia Brothers, Cultural Resource Management Specialist, Department of Defense Legacy Resource Management Program

References and Resource Support

- David Lutz, Cultural Resources Specialist, Andersen Air Force Base
- Eric West, Naval Facilities Engineering Command Pacific
- Jackie Sanehira, Naval Facilities Engineering Command Pacific
- Lon Bulgrin, Archaeologist, Naval Facilities Engineering Command Marianas
- Brian Lusher, Historian/Conservator, Naval Facilities Engineering Command