

## **Philippines Country Handbook**

This handbook provides basic reference information on the Philippines, including its geography, history, government, military forces, and communications and transportation networks. This information is intended to familiarize military personnel with local customs and area knowledge to assist them during their assignment to the Philippines.

The Marine Corps Intelligence Activity is the community coordinator for the Country Handbook Program. This product reflects the coordinated U.S. Defense Intelligence Community position on the Philippines.

Dissemination and use of this publication is restricted to official military and government personnel from the United States of America, United Kingdom, Canada, Australia, NATO member countries, and other countries as required and designated for support of coalition operations.

The photos and text reproduced herein have been extracted solely for research, comment, and information reporting, and are intended for fair use by designated personnel in their official duties, including local reproduction for training. Further dissemination of copyrighted material contained in this document, to include excerpts and graphics, is strictly prohibited under Title 17, U.S. Code.



---

## CONTENTS

---

KEY FACTS .....	1
U.S. MISSION .....	2
U.S. Embassy .....	2
U.S. Consulate .....	3
U.S. Military Facilities .....	4
Travel Advisories .....	4
Entry Requirements .....	5
Customs Restrictions .....	5
GEOGRAPHY AND CLIMATE .....	6
Geography .....	6
Land Statistics .....	6
Boundaries .....	6
Border Disputes .....	8
Bodies of Water .....	9
Topography .....	10
Cross Country Movement .....	15
Urban Geography .....	16
Environment .....	17
Climate .....	18
Climatic Patterns .....	18
Climatic Phenomena .....	18
Temperatures .....	19
Precipitation .....	19
TRANSPORTATION AND COMMUNICATION .....	22
Transportation .....	22
Roads .....	24
Rail .....	26

---

## Contents (Continued)

---

Air .....	28
Maritime .....	31
Communication .....	33
Radio and Television .....	34
Telecommunication .....	35
Newspapers and Magazines .....	37
Postal Service .....	38
Telecommunication .....	39
CULTURE .....	40
Statistics .....	40
Population Patterns .....	41
Society .....	42
People .....	43
Cultural Attitudes .....	47
Customs and Courtesies .....	49
Languages .....	51
Education and Literacy Rate .....	52
Religion .....	55
Recreation .....	56
Cultural Considerations .....	56
MEDICAL ASSESSMENT .....	57
Disease Risks to Deployed Personnel .....	57
Medical Capabilities .....	60
Key Medical Facilities .....	64
HISTORY .....	66
Early History .....	66
Modern History .....	67
Recent History .....	72
Chronology .....	72

## Contents (Continued)

---

GOVERNMENT AND POLITICS .....	75
Government .....	75
National Level .....	76
Key Government Officials .....	80
Local Level .....	80
Politics .....	82
Political Parties .....	83
Foreign Relations .....	84
International Organizations .....	89
Corruption .....	91
ECONOMY .....	92
Economic Aid .....	92
Economic Statistics .....	94
Resources .....	95
Industry .....	96
Utilities .....	97
Agriculture .....	99
Foreign Investment .....	100
Economic Outlook .....	101
THREAT .....	101
Crime .....	101
Travel Security .....	102
Terrorism .....	103
Drug Trafficking .....	109
Major Intelligence Services .....	110
ARMED FORCES OF THE PHILIPPINES .....	110
Organization .....	110
Mission .....	112
Doctrine and Strategy .....	112

## Contents (Continued)

---

Key Defense Personnel .....	112
Personnel .....	113
Army .....	113
Mission .....	113
Organization .....	115
Facilities .....	116
Training .....	118
Equipment .....	118
Air Force .....	120
Mission .....	120
Organization .....	121
Deployment .....	122
Equipment .....	125
Navy .....	127
Mission .....	127
Organization .....	128
Deployment .....	128
Equipment .....	129
Outlook .....	131
Marine Corps .....	133
Mission .....	133
Organization .....	133
Personnel .....	133
Training .....	133
Capabilities .....	134
Equipment .....	135
Coast Guard .....	135
Mission .....	135
Organization .....	136

## Contents (Continued)

---

Personnel .....	136
Training .....	136
Capabilities .....	136
Equipment .....	136
Paramilitary Forces .....	137
Philippine National Police .....	137

## APPENDICES

---

Equipment Recognition .....	A-1
International Time Zones .....	B-1
Conversion Charts .....	C-1
Holidays .....	D-1
Language .....	E-1
International Road Signs .....	F-1
Deployed Personnel's Guide to Health Maintenance .....	G-1
Individual Protective Measures .....	H-1
Dangerous Plants and Animals .....	I-1
International Telephone Codes .....	J-1

## ILLUSTRATIONS

---

The Philippines .....	x
National Flag .....	1
Philippine Seal .....	2
Manila .....	3
Manila Skyline from Manila Bay .....	4
Manila City Hall .....	5
Southeast Asia .....	7
Spratly Islands .....	9

## Contents (Continued)

---

Lake Taal on Luzon Island .....	10
Topography .....	12
Zebrinae Orchid. ....	15
Manila Street during a Monsoon .....	16
Mudslide .....	17
Manila and Baguio Weather .....	20
Cebu and Davao Weather .....	21
Jeepney .....	22
Transportation .....	23
Rush Hour Traffic in Manila .....	24
Men on Truck .....	25
Bike Traffic in Naga City .....	26
Gil Puyat Station in Manila .....	27
Subic Bay Port .....	35
Philippine Mother with Child .....	44
Filipinos Living on Closed Track .....	49
Filipino Family Dinner .....	51
Linguistic Regions .....	54
Cristo Rey High School .....	55
Naga City Church .....	57
President Gloria Arroyo .....	69
Philippines Administrative Divisions .....	73
U.S. Military Relief Efforts after a Mudslide .....	79
Enlisted Army Rank Insignia .....	119
Army/Air Force Officer Rank Insignia .....	120
Air Force Enlisted Rank Insignia .....	121
Navy Officer Rank Insignia .....	130
Navy Enlisted Rank Insignia .....	131
Police Roadblock at a Manila Hotel .....	137





**The Philippines**



---

## KEY FACTS

---

**Country Name.** Republic of the Philippines (*Republika ng Pilipinas*).  
*Short Form.* Philippines

**Head of Government.** President Gloria Macapagal Arroyo (2001)

**Capital.** Manila

**National Flag.** The Philippines' flag has two equal horizontal bands of color: blue (representing peace and justice) at the top and red (representing courage) at the bottom. A white equilateral triangle on the hoist side represents equality; in its center is a yellow sun with eight rays, representing the first eight provinces. Each corner of the triangle contains a small, yellow, five-pointed star representing the country's three major geographical divisions: Luzon, Visayas, and Mindanao. During wartime, the flag flies upside down with the red band at the top.

**Time Zone.** UTC (formerly GMT) +8 hours (13 hours ahead of Eastern Standard Time)

**Telephone Country Code.** 63

**Population.** 89,468,677 (2006)

**Languages.** Tagalog (Filipino), English (both official)

**Currency.** Philippines peso (PHP). 1 PHP = 100 centavos.



**National Flag**

**Exchange Rate.** 1 PHP = 0.024 \$US1;  
\$US1 = 41.5 PHP (December 2007).

**Credit Cards and Banking.** Major establishments in larger cities accept American Express, Diners Club, MasterCard, and Visa. ATMs are available in major towns and cities, although they sometimes go offline, particularly on the weekends.

**Calendar.** The fiscal year is the same as the calendar year.



---

**Philippine Seal**

---

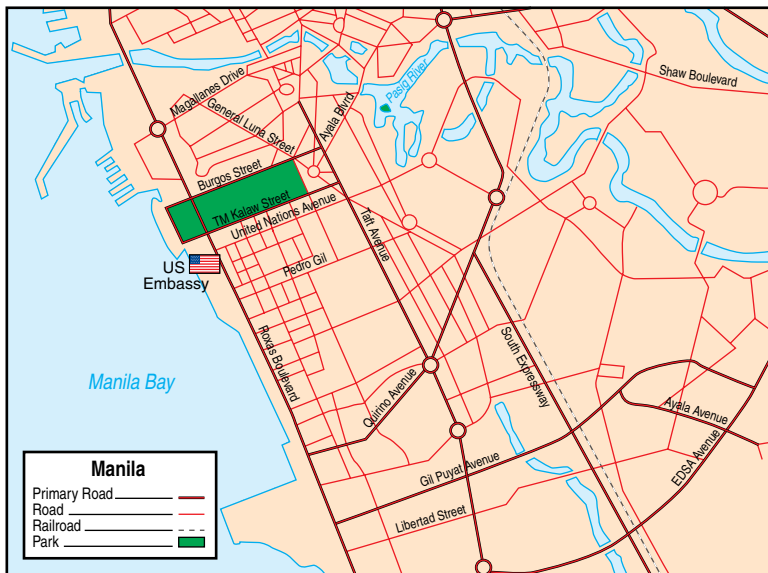
## **U.S. MISSION**

---

### **U.S. Embassy**

The U.S. Embassy in Manila has represented the U.S. government in the Philippines since the nation gained its independence in 1946. The embassy carries out political, administrative, economic, diplomatic, and consular affairs. Political affairs are managed by the Department of State. Military affairs are handled at the Defense Attaché Office. The U.S. Veterans Administration has its only overseas office at the Embassy in Manila for the many American and Filipino veterans residing in the Philippines.

<i>Location</i>	1201 Roxas Boulevard, Ermita 1000, Manila, Philippines
<i>Telephone</i>	63 (2) 528-6300
<i>Fax</i>	63 (2) 522-3242
<i>Email Address</i>	acsinfomanila@state.gov
<i>Internet Address</i>	philippines.usembassy.gov



## Manila

*Mailing Address* 1201 Roxas Boulevard  
Manila, Philippines

*From the United States* PSC 500, Box 26; FPO AP 96515-1000

*Hours* Monday through Friday, 0830 to 1630

## U.S. Consulate

The United States maintains a virtual consulate in Davao. Its purpose is to provide online assistance and support for Americans in Davao and to assist the residents of Davao in their relations with the United States.

*Email Address* UsVirtConDavao@state.gov

*Internet Address* [www.usvirtualconsulatedavao.org.ph](http://www.usvirtualconsulatedavao.org.ph)



**Manila Skyline from Manila Bay.** *Photo by Vanessa David*

### ***U.S. Military Facilities***

The United States does not maintain any permanent military installations in the Philippines. The Philippines government rejected a base renewal agreement with the United States in 1991, which led to the closure of Subic Bay Naval Station and Clark Air Base. The United States continued to provide financial assistance and joint training operations. The Philippines ratified the Visiting Forces Agreement in 1998, which allowed greater military cooperation and permitted Navy ships into Manila. The Joint Special Operations Task Forces Philippines in Mindanao provide counter-terrorism advice under the U.S. Pacific Command.

### **Travel Advisories**

The Department of State urges U.S. citizens to carefully consider the risks of travel to the Philippines. It discourages nonessential travel throughout the country in light of heightened threats to Westerners. Americans must observe vigilant personal security precautions and be aware of the terrorist threat. Americans are strongly encouraged to register with the Consular Section of the U.S. Embassy in Manila.

## **Entry Requirements**

Travelers more than 1 year old must show a yellow fever or typhoid vaccination certificate if they arrive within 6 days of leaving an infected area. Any traveler arriving from a smallpox or plague infected area must show proof of vaccination. Authorities recommend a vaccination against typhoid.

Travelers should check with a health care provider to determine which vaccines are needed. Authorities suggest travelers receive a Japanese encephalitis vaccination if visiting rural farming areas. The risk of malaria is present in some low altitude areas of the Philippines; no malaria risk exists in urban areas or the plains. Health care providers can prescribe antimalarial drugs for those traveling to a location at risk for malaria.

U.S. citizens must have a passport valid for at least 6 months and an onward or return ticket to enter the Philippines. Upon arrival, immigration authorities issue an entry visa valid for 21 days. U.S. citizens planning to stay longer than 21 days must apply for an extension at the Philippine Bureau of Immigration and Deportation.

The Philippines and the United States have no international travel or open border agreements in place.

## ***Customs Restrictions***

The Philippines prohibits importing or exporting firearms, explosives, pornographic material, narcotics and other illegal drugs, gambling articles and machines, and mislabeled or contaminated foodstuffs. Counterfeit and pirated goods are illegal, and bringing those items back to the United States may result in forfeitures and fines. Visitors must declare possession of US\$3,000 or more to

customs authorities. Departing passengers cannot take more than PHP1,000 (US\$21) out of the country.

Visitors may bring 2 liters of alcoholic beverage or tobacco in the amount of 400 cigarettes, 50 cigars, or 250 grams (9 ounces) into the Philippines duty-free.

---

## **GEOGRAPHY AND CLIMATE**

---

### **Geography**

The Philippines is an archipelago (chain of islands) in Southeast Asia consisting of more than 7,000 islands and islets of which approximately 2,000 islands are inhabited. The Philippines is bordered by the South China Sea to the northwest, the Sulu Sea to the southwest, the Celebes Sea to the south, the Philippine Sea to the east, and the Luzon Strait to the north.

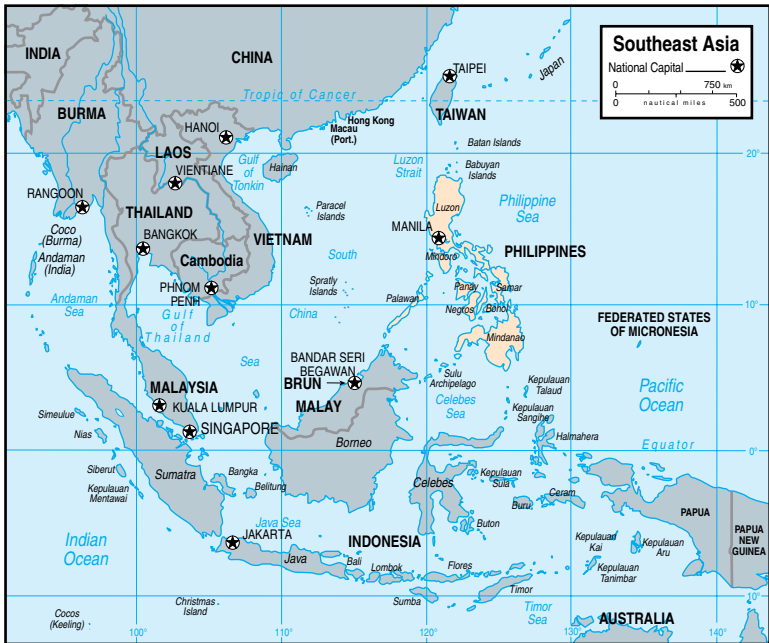
### **Land Statistics**

<i>Total Area</i>	300,000 square kilometers (115,831 square miles)
<i>Water Area</i>	1,830 square kilometers (707 square miles)
<i>Comparative</i>	Slightly larger than Arizona
<i>Coastline</i>	36,289 kilometers (22,549 miles)

### **Boundaries**

The Philippines has no land boundaries. Taiwan is the nearest country to the north, Brunei and Malaysia to the southwest, Indonesia to the south, Vietnam to the west, and China to the northwest. The South China Sea is the Philippines' western border, the Philippine Sea the eastern border, the Sulu and Celebes Seas the southern border, and the Bashi Channel the northern border.





## Southeast Asia

The Philippines' territorial sea claims extend 100 nautical miles off the coastline all around the country under the 1898 Treaty of Paris. A 1978 presidential decree increased the claim to 285 nautical miles into the South China Sea, encompassing the disputed Spratly Islands, known as the Kalayaan (Freedom) Islands in the Philippines. The United States maintains that the claim is excessive, violating international freedom of navigation. The Philippines also claims sovereignty over its continental shelf, extending 200 nautical miles from its coastline, under the United Nations (UN) Convention on the Law of the Sea.

## Border Disputes

The Philippines claims sovereignty over the Spratly Islands, locally known as the Kalayaan (Freedom) Islands. China, Malaysia, Taiwan, and Vietnam make similar claims. At stake are the islands'



**Spratly Islands**

underwater oil and natural gas resources. The 2002 Declaration on the Conduct of Parties in the South China Sea eased tensions in the Spratly Islands, but it fell short of a legal code of conduct. The national oil companies of China, the Philippines, and Vietnam signed a joint accord in 2005 to conduct marine seismic studies in the Spratly Islands.

The Philippines also claims Malaysia's Sabah State. The Sultanate of Sulu was granted this region from the Sultanate of Brunei as a reward for assisting him against his enemies. The Sultanate of Sulu leased Sabah to the British North Borneo Company in 1878 for the sum of 5,000 Malaysian ringgits annually as well as weapons to defend against the Spaniards. In 1920, Sabah was made a British crown colony, and in 1963, the British formally ceded Sabah to Malaysia. In 2003, violent mass deportations of Filipinos residing in Sabah led to more discussions about the claim. Malaysia still pays the annual rent of 5,000 Malaysian ringgits (approximately US\$1,500) to the Sultan of Sulu's heirs.

### ***Bodies of Water***

The Philippines is located within many of Southeast Asia's main bodies of water, the South China Sea, Philippine Sea, Sulu Sea, Celebes Sea, and Luzon Strait. The coastlines of many islands are irregular, with numerous bays, gulfs, and inlets. Manila Bay is the most commercially important because of its naturally sheltered harbor. The largest gulfs, Leyte and Panay, are in the Visayan Islands.

The Philippines' large rivers are generally not navigable, except for short portions. Streams are subject to typhoons and flooding during the monsoon season. The longest river is the Cagayan in north-central Luzon, which flows northward to the sea. Other long rivers in Luzon are the Agno and the Pampanga, which cross the central Luzon Valley. The Chico flows through the Cordillera Cen-



**Lake Taal on Luzon Island.** *Photo by Angelo Juan*

tral in northern Luzon and irrigates the mountainsides. The Pasig, one of Luzon's shortest rivers, flows through Manila, giving it commercial significance. It originates in the island's largest lake, Laguna de Bay, and empties into Manila Bay.

Mindanao has two main rivers. The Mindanao (Rio Grande de Mindanao) receives the waters of the Pulangi. The Agusan flows north into the Bohol Sea.

The largest lake in the Philippines is Laguna de Bay, a freshwater lake 13 kilometers (8 miles) southeast of Manila. Its surface area is 922 square kilometers (356 square miles). Sewage and toxic waste from the surrounding urban areas contaminate its water. Taal Lake, 56 kilometers (35 miles) south of Manila, occupies a huge volcanic crater and contains an active volcano. Lake Lanao is the largest lake in Mindanao and the source of the Agusan River, which exits the lake at the Maria Christina Falls. It is 347 square kilometers (134 square miles) in area.

## ***Topography***

The Philippines lies between Taiwan and Borneo in the Pacific Ocean and South China Sea. It is about 1,850 kilometers (1,150

miles) from north to south and about 1,100 kilometers (684 miles) from east to west. Nearly 3,000 of the more than 7,000 islands are



## Topography

named. The 11 largest islands account for more than 90 percent of the total land area. More than 70 percent of the population resides on the two largest islands, Luzon and Mindanao, which together comprise more than 70 percent of the land area.

The Philippines is divided into three regions: the northern islands of Luzon and Mindoro, the central Visayan and Palawan Islands, and the southern islands of Mindanao and the Sulu Archipelago.

**Luzon and Mindoro.** Luzon, the largest island, has an area of 104,690 square kilometers (40,421 square miles). Three parallel mountain ranges run north to south. The longest range, the Sierra Madre, is on the east coast. To the west is the Cagayan River valley, which separates the Sierra Madre from the western Cordillera Central range. Mountainside rice terraces create deep steps into the slope of the Cordillera Central, often more than 6 meters (20 feet) high. Luzon's highest peak, Mount Pulog, is at 2,930 meters (9,613 feet). The Zambales Mountains are in the westernmost part of Luzon, ending at Manila Bay. The southern end of the island, called the Bicol Peninsula, is mountainous and volcanic. Southeastern Luzon has the low-lying Ragay Hills and a 91-meter (299-foot) deep river gorge.

Luzon has two lowland areas, the Central Plain and the Cagayan Valley. The Central Plain is the largest at 240 kilometers (149 miles) long and 64 kilometers (40 miles) wide. The plain has many swamps because it is only slightly above sea level. The Cagayan Valley has an area of 10,360 square kilometers (4,000 square miles).

Mindoro is the island to the southwest of Luzon. It's land area is 9,736 square kilometers (3,759 square miles). A mountain range runs north to south across the island with coastal plains on either side. The highest peak, Mount Halcon, is 2,587 meters (8,488 feet).

**Visayan and Palawan Islands.** The Visayan island group includes more than half the Philippine islands. Seven of these islands are populated. The group has a total land area of 61,077 square kilometers (23,582 square miles).

<b>Island</b>	<b>Land Area</b>
<i>Samar</i>	13,079 square kilometers (5,050 square miles)
<i>Negros</i>	12,703 square kilometers (4,905 square miles)
<i>Panay</i>	11,515 square kilometers (4,446 square miles)
<i>Leyte</i>	7,213 square kilometers (2,785 square miles)
<i>Cebu</i>	4,421 square kilometers (1,707 square miles)
<i>Bohol</i>	3,865 square kilometers (1,492 square miles)
<i>Masbate</i>	3,268 square kilometers (1,262 square miles)

The easternmost islands of Samar and Leyte are connected by a bridge. They have dense jungle forests. Each has a central mountain range, and southern Samar has rocky hills. Bohol to the southwest is home to the Chocolate Hills, cone-shaped mounds covering 52 square kilometers (20 square miles). They range from 50 to 200 meters (164 to 656 feet) high, and they are covered in vegetation that turns brown in the summer. The rest of the island consists of plateaus. To the west is Cebu, a long, narrow island with a hilly interior. Negros, the island to the west of Cebu, is primarily lowlands. The volcanic rock Tablas Plateau is in the southwest. Negros has one high volcanic mountain range. Panay is the westernmost island in the system. It has a hilly western coast and northern lowlands. To the north is Masbate, which has hilly areas.

Palawan is part of the Calamian Islands in eastern Philippines. The total land area is 11,655 square kilometers (4,500 square miles), 8 to 48 kilometers (5 to 30 miles) wide and more than 442 kilometers (275 miles) long. Mountains run the entire length of the island, surrounded by narrow coastline. The highest peak is 2,085 meters (6,841 feet) high.

Mindanao and the Sulu Archipelago. Mindanao, the country's second largest island, has a total land area of 94,630 square kilometers (36,537 square miles). The Pacific Cordillera range lies on the island's eastern coast. The Agusan River separates it from the Cordillera Central range to the west. Mount Apo in the central mountain system is the highest elevation in the country at 2,804 meters (9,199 feet). The two ranges end in the Bukidnon-Lanao Plateau, which has several deep canyons and extinct volcanoes. The plateau has an elevation of 609 meters (1,998 feet). The Davao-Agusan Trough is a lowland area in the east that floods seasonally. South-central Mindanao has two marshes. Western Mindanao is called the Zamboanga Peninsula, and it is mountainous.

The Sulu Archipelago is southwest between the Zamboanga Peninsula and Indonesia. It contains more than 800 small islands with a total area of about 4,144 square kilometers (1,600 square miles).

**Vegetation.** The natural vegetation in the Philippines consists of tropical rainforests on the eastern side of the archipelago and Palawan and monsoon forests on the western side. The vegetation in the tropical rainforests consists of tropical hardwoods from 40 to 70 meters (131 to 230 feet) high and many varieties of ferns and flowering plants, such as



**Zebrinae Orchid.**

orchids. The mountains of northern Luzon have pine trees. Mangrove forests grow in some coastal bays. Montane forests grow on older volcanoes and along the main mountain chains. Tropical pine forests grow at higher elevations on Luzon and Mind-



oro; freshwater swamps are found at lower locations in Luzon and Mindanao. Lowland forests on the eastern seaboard are regularly raked by cyclones, and these forests are characterized by being lower and denser than unaffected forests. Originally, forests covered more than 90 percent of the Philippines. Today, that number has shrunk significantly to approximately 18 percent, due largely to agricultural policies and methods.

Man-made burn-offs left large grasslands with coarse, sharp cogon and saccharum grasses from 1 to 2 meters (3 to 7 feet) high throughout the islands. Luzon, Mindoro, Negros, Masbate, Panay, and Mindanao have some savannas, grasslands, and short woods. The Philippines' coastline has mangrove and palm swamps.

### ***Cross Country Movement***

Cross-country movement in the Philippines is okay in urban, populated areas and generally limited in rural and mountainous areas. Road conditions range from primary and secondary paved roads in populated areas to footpaths and trails in mountainous areas. The Philippines is prone to natural disasters, such as earthquakes, tsunamis, cyclones, hurricanes, and volcanic eruption. The resulting devastation can cause road closures and impassability due to mud slides, landslides, and flooding. Some bridges are also susceptible to storm damage. Landslides and flash floods also happen during the



**Mudslide**



**Manila Street during a Monsoon.** *Photo by Koldo Hormaza*

rainy season. Volcanic activity sometimes requires evacuations in which authorities will set up danger zone perimeters.

Vehicles intended for cross-country movement should have air conditioning due to safety concerns, hot weather, air pollution, and dust. Weather, road conditions, and flooding require undercoated vehicles outfitted for the tropical climate and equipped with sturdy springs and shocks. U.S.-model car owners should stock spare parts, such as mufflers, tail pipes, belts, and radiator hoses, because they wear out quickly in the humidity and can be difficult to replace.

### ***Urban Geography***

Three-fifths of the Filipino population lives in urban areas, making the cities congested. The largest city, Manila, has an old downtown area, which attracts tourists. The newer suburbs in Manila serve as the financial and business centers. Poor settlements can be found in both the downtown and suburban parts of the city. More than half of the city is residential housing, most of which

is concrete, wood, or a composite of concrete, brick, stone, and wood. Most cities in the Philippines lack adequate infrastructure for their population, affecting transportation, garbage, sewage, energy, and water.

## ***Environment***

The Philippines faces many environmental problems including loss of farmland, deforestation, soil erosion, water and air pollution, waste treatment, and coastal pollution. Poor resource management, land use changes, and population growth are significant factors in the environmental decline.

The Philippines has a high rate of deforestation, 2 percent annually. The government initiated reforms and regulations to slow the rate in the 1970s and 1990s, but illegal logging still depletes the forests. The decreasing forest cover leads to greater soil erosion, particularly during the monsoon season; air pollution; and water pollution. Metro Manila has one of the highest levels of air pollution in the world.

The Philippines is a party to several international environmental conventions including the Vienna Convention for the Protection of the Ozone Layer, the Montreal Protocol on Substances that Deplete the Ozone Layer, and the Marine Dumping Convention. The government has also signed the Kyoto Protocol.

Environmental laws regulate the quality of air and water, manage waste, and establish buffer zones within forests. Authorities do not actively enforce these laws.

## **Climate**

### ***Climatic Patterns***

The Philippines has a tropical climate, remaining hot and humid throughout the year. Monsoons, rain-bearing winds, strongly affect the islands. The monsoons blow from the southwest from about May to October and from the northeast from November to February. Temperatures stay constant from north to south during the year, and seasons consist of wet and dry periods. The western part of the country has two seasons. Summer, the rainy season, begins in May and ends in November. Winter, the dry season in most of the Philippines, begins in December and ends in May. December through February is cool and dry, but March through May is hot and dry. The tropical storm season lasts from June to October with most of the storms coming from the southeast.

### ***Climatic Phenomena***

The Philippines is located in the Ring of Fire, an area prone to earthquakes and volcanic activity. To the east of the islands is the 10,539-meter (34,577-foot) deep Philippine Trench, where one tectonic plate is gradually being forced beneath another, which causes frequent earthquakes in the Philippines. Noticeable earthquake activity occurs somewhere in the Philippines every 2 days. Large submarine earthquakes may cause tsunamis, or large tidal waves, which can strike the coasts.

The Philippines includes about 20 active volcanoes and many inactive volcanoes. The Mayon Volcano on Luzon is the most active, and it erupted in 1993, 2000, and 2001. Mount Pinatubo erupted in 1991 after lying dormant for about 600 years, causing widespread damage on the island of Luzon. Mount Apo, the highest mountain, is an active volcano on Mindanao with three peaks.

Typhoons typically strike the Philippines between the months of June and October. On average, the Philippines has six typhoons per year. The typhoons develop in the western Pacific Ocean and have heavy rains and winds in excess of 160 kilometers per hour (99 miles per hour). Typhoons are heaviest in Samar, Leyte, the eastern Quezon province, and the Batan Islands. Mindanao is generally free from typhoons.

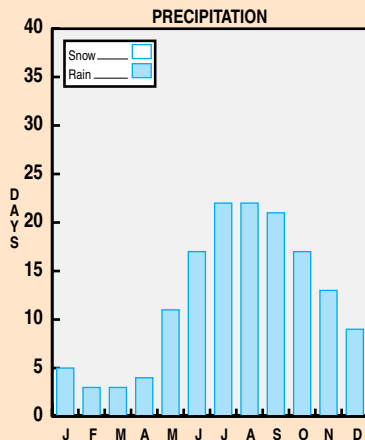
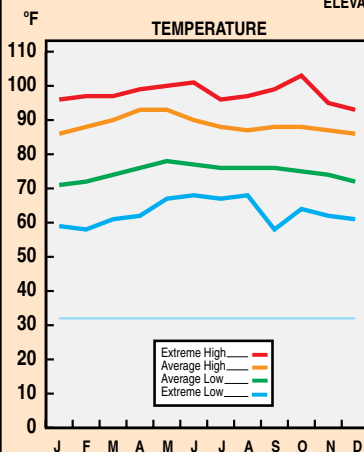
### ***Temperatures***

Most areas of the Philippines have little seasonal variation with average highs and lows of around 31°C (88°F) and 24°C (75°F). Temperatures at sea level rarely fall below 27°C (81°F). Interior valleys and the leeward sides of islands tend to be warmer, while mountain slopes and sides of islands facing the winds are cooler.

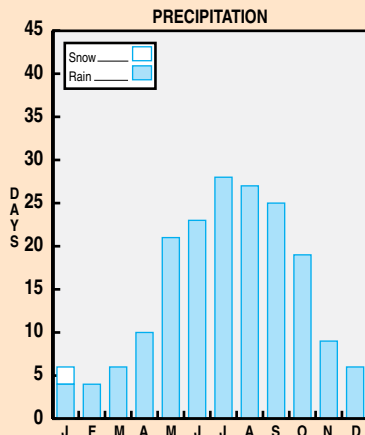
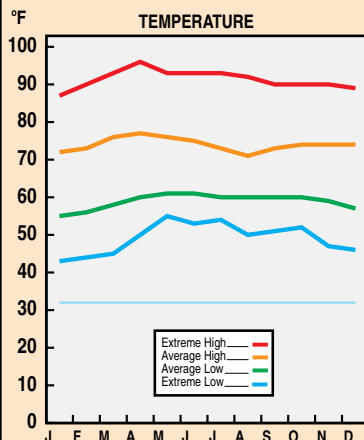
### ***Precipitation***

Rainfall averages about 2,030 millimeters (80 inches) per year with more precipitation in the coastal plains than in the inland valleys. In the western Philippines, most of the rain falls during the summer monsoon, from May to November, when the wind blows from the southwest. Winter, when the wind blows from the northeast, is the dry season, which lasts from December to April. The eastern islands receive the most rainfall during the winter monsoon and have no true dry season. During the wet season, rainfall is heavy in all parts of the Philippines except for an area that extends southward through the center of the Visayan group to central Mindanao and through the Sulu Archipelago. Rain is heaviest along the eastern shores.

**MANILA**  
ELEVATION: 69 FT

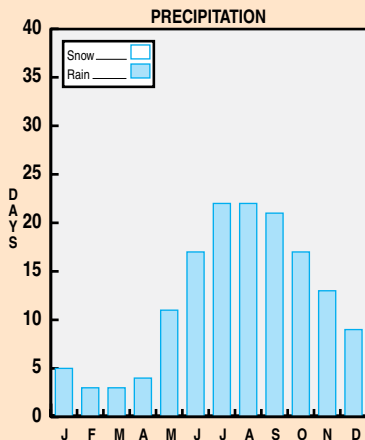
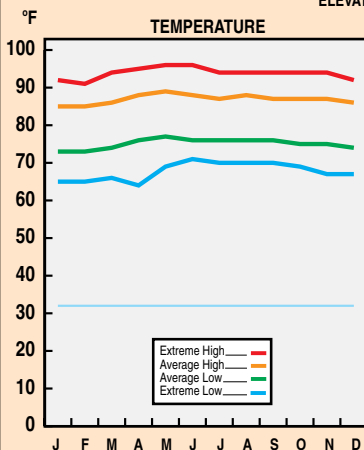


**BAGUIO**  
ELEVATION: 4925 FT

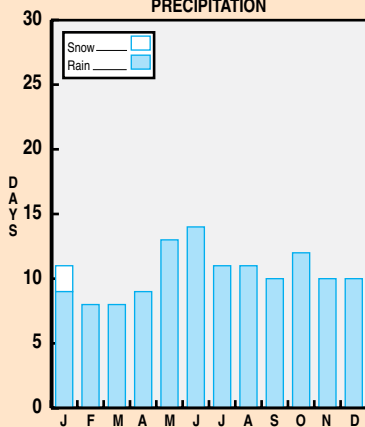
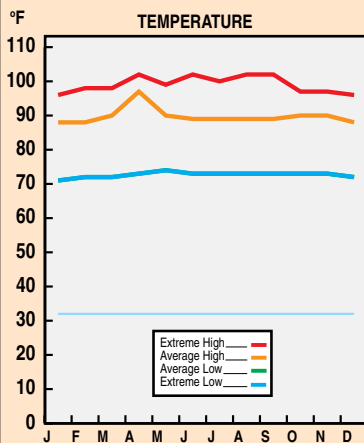


**Manila and Baguio Weather**

**CEBU**  
ELEVATION: 115 FT



**DAVAO**  
ELEVATION: 59 FT



**Cebu and Davao Weather**

---

# TRANSPORTATION AND COMMUNICATION

---

## Transportation

The transportation network is seriously underdeveloped, although the government began several infrastructure projects in the 1990s. Travel within the archipelago is possible by boat, plane, bus, or car. Few visitors rent cars because of the crowded road conditions and unsafe driving habits of the locals. Most rural areas of the country are accessible by car and bus; however, the rural road network is in a state of disrepair. Traffic moves on the right-hand side of the road as in the United States. Travel between the islands is made easier by the many ports that offer ferry and passenger service. However, inter-island ferries are also considered unsafe due to dangerous overcrowding.



---

Rush Hour Traffic in Manila

---



In general, all forms of public transportation are considered poor by Western standards. Roads and ports handle most passenger



## Transportation

and cargo traffic, with air and rail as alternatives. Metro Manila faces serious congestion problems, and authorities are expanding the light rail system.

## **Roads**

The Philippines has 202,860 kilometers (126,051 miles) of roads. Fifteen percent are national, 13 percent are provincial, 12 percent are municipal, and 60 percent are unpaved local access roads called *barangay* roads. Only 20 percent of the network is asphalt or concrete, and half the roads are in poor condition due to overuse, poor construction, lack of maintenance, and frequent natural disasters such as typhoons, monsoons, mud slides, flooding, and heavy rain. The Philippines has 7,517 concrete bridges, many of which are weak or out of service.

Toll roads comprise 165 kilometers (103 miles). The government is upgrading the oldest two, which are the North Luzon and South Luzon Expressways.



**Bike Traffic in Naga City.** *Photo by Christian Razukas*



**Men on Truck.** *Photo by Paul Shaffner*

Roads handle 60 percent of freight and 80 percent of passenger traffic. Road condition is a significant factor in the Philippines' underdevelopment. Lack of investment and the absence of a comprehensive transportation strategy have hampered the development of the roads in the Philippines, but new projects and plans

for a highway and ferry system are signs of increased emphasis on better road infrastructure.

Public transportation is available in many forms, particularly in Metro Manila. Buses and taxis are inexpensive by U.S. standards. Jeepsneys, colorful vehicles resembling World War II-era U.S. Army jeeps, are travel icons in the Philippines. Motorcycles and bicycles with sidecars are helpful when driving along narrow streets in Metro Manila.

## ***Rail***

The government-owned Philippines National Railways (PNR) oversees the country's heavy rail system. It owns 14 locomotives, 18 commuter cars, 2 baggage cars, and 8 trailer cars. Railroads extend 897 kilometers (557 miles), and the main line on the island of Luzon is 440 kilometers (273 miles). PNR uses narrow 1,067-millimeter-gauge (42-inch-gauge) tracks. Large portions of the railroads in the north are in poor condition or are closed. The railroads face problems with capacity, infrastructure, and resources, and PNR consistently operates at a deficit, relying upon government subsidies.

Train schedules tend to be sporadic. Poor performance and management plague the PNR, and the railroad network is limited to Luzon. The government plans to expand and upgrade the railroad network in order to ease transportation congestion and improve the country's infrastructure. Adverse weather has the potential to shut down rail service and render some areas inaccessible.

PNR operates three types of train routes. The 56-kilometer (35-mile) commuter express runs from Manila to Calamba. The 440-kilometer (273-mile) long distance passenger service goes from

Manila to Legaspi. The cargo and freight express also goes from Manila to Legaspi.

The rail network transported 1,721 metric tons (1,897 U.S. tons) of cargo in 2001. Food and livestock accounted for almost half of the freight, but trains also carried large quantities of manufactured goods, machinery, and transport equipment.

Three light rail train (LRT) lines provide transportation in Metro Manila. LRT Line 1 (the Yellow Line) runs north to south parallel to Rizal and Taft Avenues. It is 15 kilometers (9 miles) long and has 18 stations. The northern terminal is located at Monumento, and the southern terminal is at Baclaran.

LRT 2 (the Purple Line), also called *Megatren*, runs east to west from Santolan in Pasig City to Recto in Manila. The track is 13.8



**Gil Puyat Station in Manila**

kilometers (8.6 miles) long and passes 11 stations. It parallels Recto Avenue, Magsaysay Boulevard, and Aurora Boulevard.

LRT 3 (the Blue Line), also called *Metrostar*, forms a half-circle east of LRT 1, following *Epifanio de los Santos Avenue* (EDSA). It is 16.8 kilometers (10.4 miles) long, running from North Avenue to the EDSA and Pasay station.

## **Air**

The Philippines has 87 airports with paved runways. The following are the international airports:

- Ninoy Aquino International Airport (Manila)
- Mactan Cebu International Airport (Cebu Island)
- Diosdado Macapagal International Airport (Manila), formerly Clark International Airport
- Subic International Airport (Luzon)

### **Alternate International Airports**

- Laoag International Airport (Laoag)
- Zamboanga International Airport (Zamboanga City)
- Francisco Bangoy International Airport (Davao, Mindanao)
- General Santos International Airport (General Santos City)

While the international airports are in good condition, the secondary and regional airports are in substandard condition. The Philippines has between 100 and 200 private airfields.

### **Primary Airports**

<b>Airport Name, City/ Coordinates</b>	<b>Runway Dimensions</b>	<b>Runway Surface</b>	<b>Elevation</b>
Bacolod/ 1038N/12255E	1,956 x 30 m (6,416 x 98 ft)	Asphalt	8 m (25 ft)
Baguio/ 1622N/12037E	1,802 x 35 m (5,912 x 115 ft)	Concrete	1,296 m (4,251 ft)

<b>Airport Name, City/ Coordinates</b>	<b>Runway Dimensions</b>	<b>Runway Surface</b>	<b>Elevation</b>
Basa Air Base, Floridablanca/ 1459N/12029E	2,570 x 43 m (8,432 x 140 ft)	Asphalt	46 m (151 ft)
Butuan/ 0857N/12528E	1,966 x 46 m (6,450 x 150 ft)	Concrete	43 m (141 ft)
Cagayan de Oro/ 0824N/12436E	2,454 x 36 m (8,051 x 118 ft)	Asphalt	183 m (600 ft)
Cauayan/ 1655N/12145E	2,100 x 36 m (6,890 x 118 ft)	Concrete	61 m (200 ft)
Clark International/ 1511N/12033E	3,200 x 60 m (10,499 x 197 ft)	Concrete	148 m (486 ft)
	3,200 x 45 m (10,499 x 148 ft)	Concrete	
Cotabato/ 0709N/12412E	1,900 x 30 m (6,234 x 98 ft)	Asphalt	58 m (190 ft)
Daniel Z. Romualdez, Tacloban/ 1113N/12501E	2,138 x 45 m (7,015 x 148 ft)	Asphalt	3 m (10 ft)
Dipolog/ 0836N/12320E	1,912 x 30 m (6,273 x 98 ft)	Concrete	4 m (13 ft)
Dumaguete, Sibulan/ 0920N/12318E	1,870 x 36 m (6,136 x 118 ft)	Asphalt	5 m (16 ft)
Fernando Air Base, Lipa/ 1357N/12107E	1,510 x 45 m (4,954 x 148 ft)	Multi	372 m (1,220 ft)
Fort Magsaysay/ 1526N/12105E	1,600 x 24 m (5,249 x 78 ft)	Asphalt	61 m (200 ft)
Francisco Bangoy International, Davao/ 0707N/12538E	3,000 x 45 m (9,842 x 148 ft)	Asphalt	29 m (95 ft)
General Santos, Buayan/ 0606N/12514E	1,700 x 30 m (5,577 x 98 ft)	Asphalt	9 m (28 ft)
Guiuan/ 1102N/12544E	2,094 x 45 m (6,870 x 148 ft)	Asphalt	2 m (7 ft)
Iloilo/ 1042N/12232E	2,100 x 36 m (6,890 x 118 ft)	Asphalt	8 m (26 ft)
Kalibo/ 1140N/12222E	2,187 x 45 m (7,175 x 148 ft)	Concrete	4 m (13 ft)
Laoag International/ 1810N/12031E	2,780 x 45 m (9,120 x 148 ft)	Concrete	8 m (25 ft)
Legaspi/ 1309N/12344E	2,280 x 36 m (7,480 x 118 ft)	Asphalt	20 m (66 ft)
Mactan Cebu International/ 1018N/12358E	3,300 x 45 m (10,827 x 148 ft)	Asphalt	9 m (30 ft)

<b>Airport Name, City/ Coordinates</b>	<b>Runway Dimensions</b>	<b>Runway Surface</b>	<b>Elevation</b>
Mati National/ 0656N/12616E	1,625 x 32 m (5,331 x 105 ft)	Concrete	48 m (157 ft)
Ninoy Aquino International, Manila/ 1430N/12101E	3,737 x 60 m (12,261 x 197 ft)	Concrete	23 m (75 ft)
	2,258 x 45 m (7,408 x 148 ft)	Concrete	
Ormoc/ 1103N/12433E	1,865 x 36 m (6,118 x 118 ft)	Concrete	25 m (82 ft)
Ozamis/ 0810N/12350E	1,743 x 29 m (5,718 x 95 ft)	Multi	23 m (75 ft)
Pagadian/ 0749N/12327E	1,680 x 30 m (5,512 x 98 ft)	Asphalt	2 m (5 ft)
Puerto Princesa/ 0944N/18845E	2,600 x 45 m (8,530 x 148 ft)	Concrete	22 m (72 ft)
Roxas/ 1135N/12245E	1,890 x 45 m (6,201 x 148 ft)	Concrete	3 m (10 ft)
San Jose/ 1221N/12102E	1,836 x 30 m (6,024 x 98 ft)	Concrete	4 m (13 ft)
Sangley Point Air Base/ 1429N/12054E	2,368 x 46 m (7,769 x 150 ft)	Asphalt	2 m (8 ft)
Subic Bay International/ 1447N/12016E	2,744 x 45 m (9,003 x 148 ft)	Asphalt	20 m (64 ft)
Surigao/ 0945N/12528E	1,708 x 30 m (5,603 x 98 ft)	Concrete	6 m (20 ft)
Tagbilaran/ 0939N/12351E	1,779 x 30 m (5,837 x 98 ft)	Asphalt	12 m (38 ft)
Tuguegarao/ 1738N/12143E	1,967 x 30 m (6,453 x 98 ft)	Concrete	21 m (69 ft)
Zamboanga International/ 0655N/12203E	2,609 x 44 m (8,560 x 144 ft)	Asphalt	10 m (33 ft)

Air Macau flies from Manila to Macau. Air Niugini has a departure from Manila to Port Moresby. Asiana Airlines operates flights from Manila to Inchon and Pusan, from Clark International to Inchon, and from Mactan Cebu to Inchon. Cathay Pacific offers flights from Mactan Cebu and Manila to Hong Kong.



The U.S. Federal Aviation Administration (FAA) certified that the Philippines meets International Civil Aviation Organization (ICAO) standards for civil aviation oversight.

The Philippines' airport security policy specifies that airlines must maintain secure boarding areas. Proof of identity is required, and selected passengers may be questioned or subject to inspection. The Ninoy Aquino International Airport in Manila has eight screening stations with metal detectors, X-ray machines for baggage, and hand-held metal detectors. The airport instituted a policy of frisking all international passengers during the final pre-boarding security check in 2006.

### ***Maritime***

The Philippines has more than 1,000 ports, of which 117 are international. Twelve ports have major cargo and passenger terminals, and 6 of those handle more than 80 percent of public traffic. The Philippines Port Authority administers most of the major public ports, and it has regulatory authority over about 400 private ports, which account for 54 percent of cargo serviced. The Philippines Fisheries Development Authority controls the major fishing wharves. Smaller ports are maintained by local government agencies. Private ports typically service international cargo. Public ports handle domestic cargo and travel. Port navigational aids are in bad condition, safety standards are poor, and many inter-island ships and ferries are old.

The Philippines have 3,219 kilometers (2,000 miles) of navigable waterways, limited to shallow-draft vessels. The Agusan River is navigable by small watercraft 260 kilometers (162 miles) upstream. The Apayao River is navigable by motorboat. The Cagayan River is navigable for small ocean-going ships for 20 kilo-

meters (12 miles) upstream. The Pasig River is navigable by small watercraft. The following ports offer berthing for vessels up to 152 meters (500 feet) in length.

<b>Port Names</b>	<b>Coordinates</b>	<b>Anchor Depth, m/(ft)</b>	<b>Pier Dept, m/(ft)</b>
Aparri	1822N/12138E	20.1 to 21.3 (66 to 70)	1.8 to 3.0 (6 to 10)
Cagayan de Oro	0830N/12440E	23.2+ (76+)	21.6 to 22.9 (71 to 75)
Cebu	1018N/12354E	14.0 to 15.2 (46 to 50)	6.4 to 7.6 (21 to 25)
Davao	0704N/12537E	21.6 to 22.9 (71 to 75)	6.4 to 7.6 (21 to 25)
Iloilo	1042N/12235E	9.4 to 10.7 (31 to 35)	3.4 to 4.6 (11 to 15)
Jolo	0603N/12100E	21.6 to 22.9 (71 to 75)	6.4 to 7.6 (21 to 25)
Legaspi Port	1309N/12345E	23.2+ (76+)	4.9 to 6.1 (16 to 20)
Manila	1435N/12058E	4.9 to 6.1 (16 to 20)	11.0 to 12.2 (36 to 40)
Masbate	1222N/12337E	23.2+ (76+)	12.5 to 13.7 (41 to 45)
Port Ozamis	0808N/12351E	9.4 to 10.7 (31 to 35)	14.0 to 15.2 (46 to 50)
San Fernando	1637N/12019E	23.2+ (76+)	9.4 to 10.7 (31 to 35)
Subic Bay	1448N/12016E	23.2+ (76+)	11.0 to 12.2 (36 to 40)
Tacloban	1115N/12500E	7.9 to 9.1 (26 to 30)	1.8 to 3.0 (6 to 10)
Toledo	1022N/12338E	23.2+ (76+)	4.9 to 6.1 (16 to 20)
Zamboanga	0654N/12204E	21.6 to 22.9 (71 to 75)	4.9 to 6.1 (16 to 20)

Filipino ports handle millions of tons of cargo each year. The petroleum industry, the agriculture sector, the crude mineral industry, the manufactured goods industries, the metal industries, the cement industry, and the transport equipment industry all use the ports. Watercraft docking at the ports includes ferries, fast watercraft, luxury passenger vessels, small passenger vessels, cargo-with-passenger ships, container ships, roll-on/roll-off vessels, oil tankers, and fishing boats. Most port traffic comes from ships traveling along the coast.

Many ferries are in poor condition, overloaded and susceptible to the many storms that rise quickly in the region.



**Subic Bay Port.** *Photo by Ian Dexter Marquez*

Maritime terrorism and piracy are growing concerns in the Philippines. Ferries are known terrorist targets. Small boats traveling between islands are vulnerable to piracy. Two terrorist groups in the Philippines, the Abu Sayyaf Group and the Moro Islamic Liberation Front, have conducted attacks on watercraft. Another group, Jemaah Islamiya, reportedly set up training facilities in the southern Philippines for underwater destruction operations. Southeast Asia has a high incidence of piracy.

## **Communication**

The Philippines has a media-driven society, especially in major urban areas, such as metropolitan Manila. Local and regional satellite television broadcasts are readily available. There are numerous AM and FM radio stations, and print publications are readily available to a literate and generally sophisticated audience. Media competition for the attention of audiences is intense, resulting in

a sensationalistic approach in the reporting of news events. Fiber-optic and satellite networks provide the backbone for communication networks. Submarine cables facilitate international telephone and Internet services. Cell phone usage in the Philippines has increased and there are approximately 43 million cell phone users in the country (2006).

## ***Radio and Television***

The Philippines has more than 900 radio stations. Four stations are shortwave, 375 are AM, and 596 are FM. The Philippines licenses more than 200 broadcasting companies, most of which are commercial. Some prominent radio broadcasters are ABS-CBN, GMA Network, Manila Broadcasting Company, Radio Mindanao Network, and the government-owned Bureau of Broadcast Services. Most stations are in the central regions and eastern Mindanao.

Radio is the most far-reaching medium. About 57 percent of the Filipino population from ages 10 to 64 received information from the radio in 2003 on one of the nation's more than 11 million radios. BBC News and Voice of America are broadcast in the Philippines.

<b>Primary Radio Stations</b>	<b>Frequency</b>	<b>Programming</b>
DZMB-FM Love Radio, Metro Manila	90.7 FM	Music
DWRR-FM, Quezon City)	101.9 FM	Music, news, entertainment
DWSM STAR Radio, Metro Manila	102.7 FM	News, entertainment, talk, education
DWLL Mellow Touch, Manila	94.7 FM	Music
DWLS Campus Radio, Quezon City	97.1 FM	Music
DZRH, Manila	666 AM	News, talk, entertainment
DZMM Radyo Patrol	630 AM	News
DZBB Super Radyo, Manila	594 AM	News
DZAS	702 AM	Religious
DZXL RMN News, Makati City	558 AM	News

The Philippines has 233 television broadcast stations and 6 free-to-air television networks; 5 are commercial and 1 public. Most television stations are located in the central regions. The most popular programs are films, comedies, and entertainment programs. The networks broadcast old U.S. shows and local variety, talk, news, and special event shows.

Cable companies are a major distributor of television programming. There were 1,480 cable networks as of 2006. Satellite direct-to-home television is available, but it is not as popular as cable television.

Sixty-one percent of the population ages 10 to 64 received information from television in 2003. There were 3.7 million televisions in the Philippines. The following primary television stations are all based in Quezon City:

### **Primary Television Stations**

- ABS-CBN (Channel 2)
- People's Television Network (Channel 4)
- Allied Broadcasting Corporation (Channel 5)
- GMA Network (Channel 7)
- Radio Philippines Network (Channel 9)
- Interisland Broadcasting Corp. (Channel 13)

### ***Telecommunication***

The Philippines deregulated its telecommunications industry in 1993, opening the sector to multiple private companies. The Philippines constitution limits foreign ownership of companies to 40 percent. The oldest company is the Philippine Long Distance Telephone Company (PLDT), controlled by stockholders in the Philippines, Hong Kong, and Japan. PLDT owns all of Smart

and part of Piltel. Bayan Telecommunications Incorporated owns local and international providers and a mobile operator. Digital Telecommunications Phils., Incorporated (Digitel), provides international and national fixed line services and mobile telephone services. Eastern Telecommunications Philippines (ETPI) is an international service provider, partially owned by British and Australian companies. Globe Telecom provides comprehensive telecommunications services, and it has German, Singaporean, and Filipino shareholders. Republic Telecommunications (Retelcom) owns several international and local providers.

PLDT operates a nationwide fiber-optic network and a backup microwave network. A group of telecom operators uses another nationwide fiber-optic network, completed in 1999. Some providers have satellite networks. GSM and GPRS second-generation technology dominate the cellular market, but companies are beginning to transition to third-generation technology. As the transition progresses, the second-generation European base stations and switches will have to be replaced.

The Philippines has more cellular telephones than fixed-line telephones. Nearly 33 million Filipinos own cellular phones. Text messaging is popular, and is used for everything from political communication to interactive entertainment. Cell phone users here send an average of 250 million text messages per day, the greatest per capita usage in the world. Fewer than half of all Filipino households have a fixed-line telephone, and most of the fixed lines are in the National Capital Region. Connection times can be long, particularly for local calls. Some telecommunications companies offer telegraph services.

Six cellular service providers operated in the Philippines as of 2005. Digitel is owned by an investment group based in the Philip-

pines. Express Telecom (Extelcom) was the first cellular operator, owned by two Filipino groups and a Luxembourg holding company. Globe Telecom has stockholders in the Philippines, Germany, and Singapore, as does its subsidiary cellular provider Islacom. Piltel and Smart are owned by the PLDT.

Cellular network coverage is limited to Metro Manila, urban areas, and tourist destinations. More than 70 percent of the population lives in a covered network area. GSM and GPRS technology and text messaging dominate the cellular market, but third-generation technology and picture and video messaging are becoming popular.

### **Philippines Telecommunication Statistics (2005)**

Total telephone subscribers	36,373,400
Telephone subscribers per 100 inhabitants	44
Main telephone lines	3,437,500
Main telephone lines per 100 inhabitants	4
Mobile users	32,810,000

### ***Newspapers and Magazines***

The Philippines has a very educated society with the literacy rate exceeding 90 percent. Newspapers, tabloids, and magazines are widely read in urban areas. Major dailies published in the metropolitan Manila area with the widest circulation include the *Manila Bulletin* (conservative, pro-United States), the *Philippine Daily Inquirer* (left of center, anti-United States), and the *Philippine Star* (moderate, neither pro- nor anti-United States). The *People's Journal* is the most popular magazine. There are also many regional newspapers including the *Ilocos Times* in the northern part of the country and the *Daily Zamboanga Times* in the south. The Philippine News Agency service provides wire service to many Philippine news outlets. With the availability of the Internet, many Philippine newspapers are available in online versions, potentially

extending their readership and influence far beyond the nation's boundaries. Furthermore, print media influence is magnified because many radio broadcasts are based on newspaper articles.

Wealthy families and prominent businesses own the major press publications. These owners sometimes use their media outlets to influence public opinion, leading to one-sided reporting. Owners' interests are often tied to government interests. The government owns a group of publications, including two tabloids. Tabloids are more popular than newspapers. Tough competition and a poor economy lead the media to try to top each other for the spotlight. The following publications are all printed in English:

<b>Publications</b>	<b>Frequency</b>	<b>Web Address</b>
Philippine Star	Daily	<a href="http://www.philstar.com">www.philstar.com</a>
The Daily Tribune	Daily	<a href="http://www.tribune.net.ph">www.tribune.net.ph</a>
Philippine Daily Inquirer	Daily	<a href="http://www.inquirer.com.ph">www.inquirer.com.ph</a>
Malaya	Daily	<a href="http://www.malaya.com.ph">www.malaya.com.ph</a>
Manila Bulletin	Daily	<a href="http://www.mb.com.ph">www.mb.com.ph</a>
Manila Times	Daily	<a href="http://www.manilatimes.net">www.manilatimes.net</a>
Business World	M – F plus Saturday online	<a href="http://www.bworld.com.ph">www.bworld.com.ph</a>

### ***Postal Service***

The Philippine Postal Corporation (PhilPost) has 2,312 post offices nationwide. Ninety-five percent of the population receives mail delivered directly to their homes; the remaining 5 percent has mail delivered to a post office box. PhilPost is reliable, although it experiences typical delays during the busy, holiday season. A packaging service is available for guests in most hotels, and an employee will deliver a package to the post office for a few pesos.



International courier services are considered a public utility, so the Philippines constitution requires at least 60 percent Filipino ownership. Some services, including UPS and FedEx, are excluded because they fall under the United States' Air Services Agreement. International delivery services based in the Philippines include JRS Business Corporation, LBC Express, DHL Philippines, and TNT Worldwide Express.

### ***Telecommunication***

Most Internet users have dial-up connections, although broadband is available through ADSL, cable modem, or fixed wireless networks. Service providers generally lease bandwidth from larger international telecommunications companies. The Philippines does not have a national Internet network system, so service providers have to create their own networks by joining lines across the country. International connectivity goes through fiber-optic cables.

Internet access statistics are low for the region because of the relatively high prices for Internet access and the low number of personal computer (PC) owners. Twenty percent of the population aged 10 to 64 received information from a computer or Internet in 2003.

The increasing popularity of personal pre-paid Internet cards and the growing demand for Internet cafes in the cities indicates that the Philippines will experience greater Internet growth in the future. Forty-three percent of Filipinos access the Internet from Internet cafes. The cafes are particularly popular in rural areas where access is inexpensive. The Philippines government does not censor the Internet, giving Filipinos great freedom in using the Internet for any purpose.

## Philippines Internet Statistics (2005)

Total Internet hosts	65,390
Hosts per 10,000 inhabitants	8
Users	4,400,000
Users per 100 inhabitants	5
Total number of PCs	3,684,000
PCs per 100 inhabitants	5

## Communications Satellites

<b>Name</b>	<b>Owner</b>	<b>Launch Date</b>
IntelSat 701	IntelSat	1993
PAS 8	IntelSat	1998
Agila 2 (Mabuhay 1)	Mabuhay Satellite Corporation (Philippines)	1997

---

## CULTURE

---

### Statistics

<b>Population</b>	89,468,677 (2006 estimates)
<i>Growth Rate</i>	1.8%
<b>Birth Rate</b>	24.9 births per 1,000 population
<b>Death Rate</b>	5.4 deaths per 1,000 population
<b>Net Migration Rate</b>	-1.5 migrants per 1,000 population
<b>Life Expectancy at Birth</b>	70.2 years
<i>Male</i>	67.3 years
<i>Female</i>	73.2 years
<b>Age Structure</b>	
<i>0-14 years</i>	35%
<i>15-64 years</i>	61%
<i>65 years and older</i>	4%
<b>Gender Ratio</b>	104 males for every 100 females

## Population Patterns

The Philippines has more than 7,000 islands, but most of the population lives on the 10 largest islands. More than half lives on the island of Luzon, one-fourth lives on Mindanao, and one-fifth lives in the Visayas. Luzon is the 15<sup>th</sup> largest island and the 5<sup>th</sup> most populous island in the world. Located on the island of Luzon are the country's capital, Manila, and Quezon City, which is the most populous city in the Philippines.

### *Population in Major Cities*

<b>City</b>	<b>Island</b>	<b>Population (2000)</b>
Quezon City	Luzon	2,173,831
Manila	Luzon	1,581,082
Caloocan City	Luzon	1,177,604
Davao City	Mindanao	1,147,116
Cebu City	Cebu	718,821
Zamboanga City	Mindanao	601,794
Pasig	Luzon	505,058
Valenzuela	Luzon	485,433
Las Pinas	Luzon	472,780
Antipolo	Luzon	470,866

The Philippines has a high proportion of city dwellers, despite its agricultural economy. Three-fifths of the population lives in urban areas. Metro Manila is the largest urban area, encompassing Quezon City, Manila, and Caloocan. The dense population causes outward migration to more remote places on Luzon outside of Manila. The remaining people live in rural areas, settling in villages (barangays). Large barangays have as many as 1,000 households. Filipinos seeking land move to Mindoro, Palawan, and Mindanao.

## ***Ethnic Density***

<b>Ethnic Group</b>	<b>Percentage</b>	<b>Location</b>
Tagalog	28.1%	Central and southern Luzon
Cebuano	13.1%	Cebu, Bohol, eastern Negros, western Leyte, coastal areas of Mindanao
Ilocano	9%	Coastal areas of northern Luzon
Bisaya	7.6%	Mindanao
Hiligaynon	7.5%	Visayas
Bicol	6%	Luzon
Samaran	3.4%	Visayas
Other	25.3%	Throughout the country

## **Society**

Society in the Philippines is family oriented. Filipinos are taught not to think of themselves, but to think of the family and the community. As a result, it is more common for the citizens to think not in terms of a nation of Filipinos, but in terms of representatives of towns, districts, religious beliefs, and ethno-linguistic backgrounds. The family is the most important social unit, and it includes members of the extended family, even second cousins or godparents. Relatives commonly live close to each other.

Religious traditions have social and spiritual importance in the Philippines. Parents select godparents (*compadre* and *comadre*) for their children at dedication and confirmation ceremonies. This relationship, called *compadrazgo*, makes the godparents part of the child's extended family. Religious holidays such as Easter and patron saint days involve *fiestas*, parades, and street dramas.

Most Filipinos trust the United States and welcome its military presence in the Philippines. A few Filipinos resent their country's dependence on U.S. economic and military aid, and some conduct anti-American protests.

## People

The Philippines has approximately 45 ethno-graphic or ethno-linguistic groups, each with its own characteristics and identity. Ethnic groups in the Philippines identify themselves based on several factors such as shared culture, history, religion, language, and ancestry. The four primary cultural groups in the Philippines are the Christian Malays, the Muslim Malays, the upland tribal groups, and the Chinese minority. Christian Filipinos make up the majority of the population. They are of Malay descent and have

settled in lowland areas. The Muslim Filipinos are also of Malay descent, but their religion and language separates them from the Christian Filipinos. In the Philippines, the term “Filipino” is usually reserved for those who adhere to Christianity, while the term “Moro” (used during Spanish occupation) is used to identify one who adheres to Islam. Muslim Filipinos reside primarily in the southern islands, but they are found throughout the country. The upland tribal groups are more isolated than the Muslim Filipinos are, developing distinct tribal identities and customs. The Chinese have a long history of immigration to the Philippines related to trade, and the Chinese-Filipinos maintain ties to China and their heritage, despite becoming citizens or semipermanent residents and intermarrying with Filipinos.



**Philippine Mother with Child**

<b>Male/Female Ratio</b>	<b>2007 estimates</b>
At birth	1.05 male/female
Younger than 15 years	1.041 male/female
15-64 years	0.994 male/female
65 years and older	0.767 male/female
Total population	0.999 male/female

## ***Ethnic Groups***

Ninety-six percent of Filipinos are of Malay origin. There is also a small presence of Chinese, Japanese, Indians, and Americans. While ethnic identities are blurred among the larger groups, ethnic identity is important in most Filipino groups. Each group has its own dialect, and dialectic identity is sometimes more important than bloodlines.

### **Malay Subgroup Primary Location**

Bicolano	Southeastern tip of Luzon in Bicolandia, or the Bicol region
Cebuano	Cebu, Bohol, eastern Negros, western Leyte, and coastal areas of Mindanao
Ilocano	Lowlands and coastal areas of northern Luzon
Pangasinan	West central area of the island of Luzon along Lingayen Gulf
Pampangan	Central plains of Luzon in the provinces of Pampanga and Tarlac, Nueva Ecija, Bataan, Bulacan, and Zambales
Tagalog	Central plains of Luzon to the islands of Mindoro and Marinduque

### **Christian Malays**

Christian Malays are the largest and most powerful ethnic group. The overall group is quite homogenous, despite linguistic differences, due to centuries of intermarriage and migration between

islands. More than 80 percent of the total population is Roman Catholic, and less than 10 percent is Protestant. The influence and presence of the Roman Catholic Church in the Philippines dates back to 1565, when the Philippines became a Spanish colony.

### **Indigenous Tribes**

There are more than 100 indigenous tribal groups in the Philippines, most of which are small and located in rural areas. These groups have retained their ethnic, linguistic, and territorial identities for all of recorded Filipino history. They lived on the islands prior to the Malay migration. Those who did not assimilate into the Malay population retained a nomadic farming way of life and a traditional indigenous belief system. They comprise a small percentage of the population, living in upland Luzon, Mindanao, Panay, and other islands. They face some discrimination based upon ethnicity and physical appearance.

### **Muslim Malays**

There is a significant distinction between Christian Malays, who make up 92 percent of the population, and Muslim Malays, better known as “Moros,” who make up 4 percent. Muslims in the Philippines form what they call the “Moro Nation,” a collection of 13 ethnolinguistic groups united by Islam and nationalist aspirations. They live primarily in southwestern Mindanao and the Sulu Archipelago, the population of which is 20 percent Muslim. The Moros’ cultural identity resembles the Muslim cultures of neighboring Indonesia and Malaysia, not the Spanish-influenced culture of the majority Christian Malays. Moros have felt marginalized and oppressed by the Christian mainstream for centuries, and they want a territorial homeland in Mindanao and the Sulu Archipelago, their ancestral lands.

The Moro insurgency against the Christian majority and the government is the most significant ethnic conflict in the Philippines. *Bangsamoro* (Moro ethnic identity) is the driving force behind the movement for the separation of the “Moro Nation” of Muslim ethnic groups from the Philippines. The Moros seek autonomy from the government so they can protect their land rights, economic resources, and ethnic identity from the Christian majority in Mindanao. Insurgent groups such as the Moro National Liberation Front (MNLF) and the Moro Islamic Liberation Front (MILF) have conducted an armed struggle against the Philippines’ armed forces in an effort to obtain autonomy. Despite the strong ethnic identity, factionalism among the different ethnolinguistic and insurgent groups remains an obstacle to Moro unity.

The Philippines formed the Autonomous Region of Muslim Mindanao (ARMM) in response to the Moro insurgency in 1990. The ARMM has five provinces: Lanao del Sur, Maguindanao, Sulu, Tawi-Tawi, and Basilan. The government negotiated a 1996 cease fire with MNLF that collapsed in 2001, leading to more attacks. The government is in negotiations with MILF for a peace accord.

### **Chinese Minority**

Chinese immigrants arrived in the Philippines as traders and developed a role in the merchant class. The number of immigrants increased as Spanish rule ended. Chinese have long been accepted as part of Filipino society, and they have assimilated easily, sometimes marrying Filipinos. Unassimilated Chinese have difficulty obtaining citizenship and experience discrimination.

### **Family**

Family plays an important role in society and the social structure as Filipinos, especially women, often rely heavily on their family



as a source of strength and stability. Women's closest friendships come from within the family, and sometimes mothers and daughters make important decisions without male involvement.

A typical family includes the nuclear family as well as aunts, uncles, grandparents, cousins, and honorary relationships such as godparents, sponsors, and close family friends. Children often have several godparents. Family bonds are so close that adults refer to nieces and nephews as their own children and to cousins as sisters and brothers. Relatives live near each other, and children typically do not leave the family home until marriage.

### **Roles of Men and Women**

Men are the household leaders and chief earners in traditional families. Society does not restrict women to home making and childcare, and many choose to work outside the home. They work in most professions and have similar opportunities for success. Women manage family finances and provide primary childcare when they are at home. Male and female children are equally valued.

Women are well-represented in government, and Corazon Aquino became the first woman president when she was elected in 1986. President Gloria Macapagal Arroyo became president in 2001.

Filipino women have equal legal rights with men under the law, although enforcement and practice vary. The influential Roman Catholic Church discourages divorce, but the legal code allows for marriage annulment, which is becoming a common practice.

### **Cultural Attitudes**

There are many different cultural traits in the Philippines that shape the overall cultural attitude of Filipinos. While some cultur-

al traits reflect “surface values,” there are others that reflect “core values” and are common in all Filipinos.

*Bayanihan* is the belief of creating alliances with neighbors and the helping attitude whenever one is in need.

The primary societal welfare system for the Filipino is the family, which explains the close familial ties among the society.

*Pakikisama*, or harmony, in English entails getting along with others to preserve a harmonious relationship.



**Filipinos Living on Closed Track.** *Photo by Koldo Hormaza*

*Utang na Loob*, or debt of gratitude, is owed to a person who has helped one through hardships endured.

### ***Filipino Concept of Shame***

*Hiya* is shame and is a motivating factor behind behavior. It is a sense of social propriety and conforming to societal norms of behavior. Filipinos believe they must live up to the accepted standards of behavior and if they fail to do so they bring shame not only upon themselves, but also upon their family. One indication of this might be a willingness to spend more than they can afford on a party rather than be shamed by their economic circumstances. If someone is publicly embarrassed, criticized, or does not live up to expectations, they feel shame and lose self-esteem.

### ***Customs and Courtesies***

Filipinos are sociable people. The standard greeting is a handshake and a smile, while close friends commonly hug upon meeting. Meeting a person or group of people for the first time is usually a formal event. The eldest or most important is greeted first. Professionals use academic or professional titles or titles of honor and the person's surname until asked to use the person's first name or nickname.

Pointing at someone, beckoning with the index finger, and making direct eye contact are considered rude. Filipinos often walk holding hands or arm-in-arm with relatives and friends of either gender.

Dress standards are liberal, although most Filipinos dress modestly. Shorts and swimwear are not appropriate in public outside of swimming pools. Parties may be formal or casual, so it is best to check with the host. Business attire is corporate casual. For men, this means a button-up shirt with a tie. Suits or a *barong tagalog*, a Filipino long-sleeved shirt worn without a tie, are also



---

### **Filipino Family Dinner**

acceptable. Women wear pant suits and dresses. Appropriate dress is important in the Philippines.

Visitors are expected to bring a gift to their host, and the receiver does not open the gift until after the giver has left. The host's wife is not called the "hostess" as this word has another connotation in the Philippines. Guests should decline invitations to visit, be seated, eat, or drink the first time and accept the second time. Filipinos use a fork and spoon, which are left on the plate after the meal.

Tipping is expected, but the amount is determined by the customer based upon the service provided. Business lunches and dinners usually take place in restaurants. Guests do not order the most expensive item on the menu unless prompted to do so by the host. It is customary to have a drink before the meal and to refrain from business discussions until after the soup or appetizer. The person who extended the invitation usually pays. Visitors use caution in conversation because correcting another person in public when speaking is considered rude. Filipinos place great importance on

---

upholding a reputation and avoiding public humiliation. They do not raise their voices, express anger, or contradict another.

Filipinos are generous people and want to grant requests made of them, so they sometimes say “yes” when they mean “no” or “maybe.” Understanding the flow of the conversation helps to place responses in context. Filipino culture focuses on people, not time. Punctuality is not as important as it is in the United States. A meeting may take place later than the originally scheduled time.

## Languages

The most common spoken languages are English and Filipino, a language based on Tagalog with some Spanish and English words. Filipino is part of formal education, but higher education, government, and commerce use English. Some Filipinos speak Arabic or Chinese Mandarin or Fookein dialects. In addition to their primary language, most Filipinos also speak 1 of more than 100 indigenous languages. The following are the primary native languages.

<b>Language</b>	<b>Users</b>	<b>Region</b>
Bikol	2.5 million	Bicol (parts), Luzon
Cebuano	20 million	Bohol, Cebu, Mindanao (parts), Negros, Visayas
Hiligaynon	7 million	Negros Occidental, Panay, Visayas
Ilokano	8 million	Ilocos, Cagayan Valley, Mindoro, Mindanao
Kapampangan	2 million	Luzon (parts)
Pangasinan	1.2 million	Luzon (parts)
Tagalog	14 million	Luzon (parts), Manila, Mindoro
Waray	2 million	Leyte, Samar

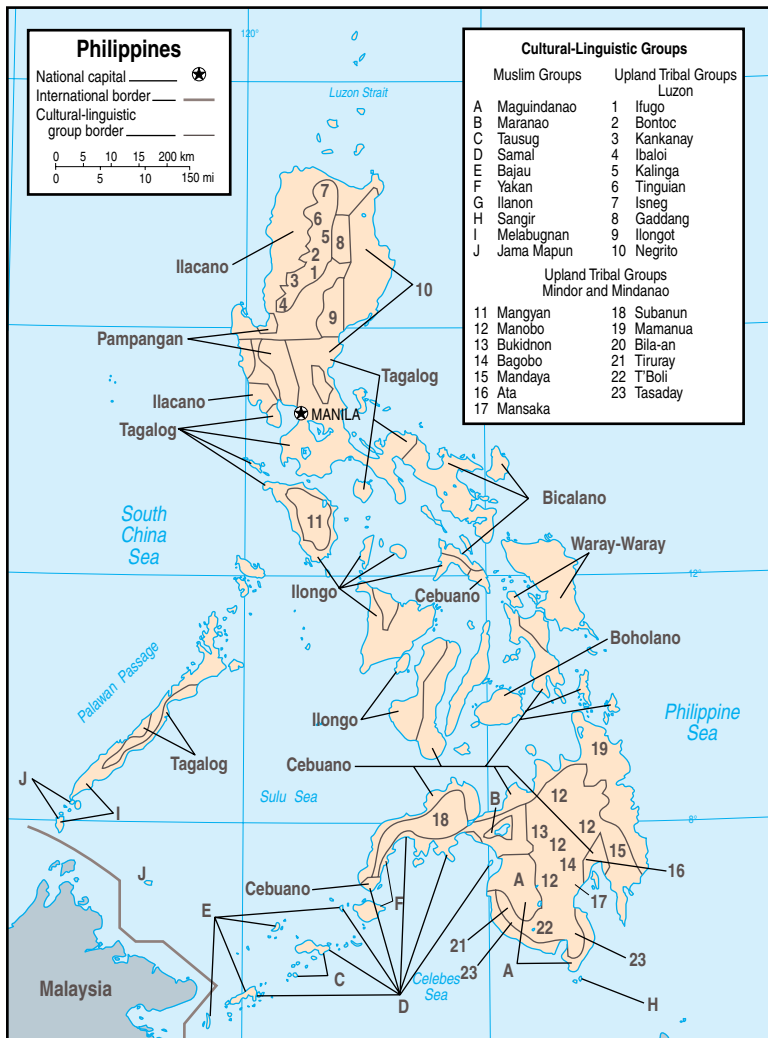
## **Education and Literacy Rate**

The Philippines has one of the highest literacy rates in the region. More than 90 percent of the population older than 10 years is literate. Literacy rates of men and women are nearly equal. Education and literacy are important in the Philippines. Families often sacrifice so children can attend school. Most Filipinos view education as a means of upward mobility.

The Department of Education is responsible for the public school system. Elementary education is a tuition-free, 6-year mandatory program. Secondary education is a tuition-free, 4-year program, but it is not mandatory. Pre-school and kindergarten are available in private schools. The school year runs from June to March to avoid the hot months of April and May. Class sizes range from 20 students to more than 50 in public schools. Some students share books and desks because of budget constraints. Some schools lack electricity, have dirt floors, or flood in the rainy season. Private schools charge tuition, but they have smaller class sizes.

Teachers teach some subjects in Filipino and some in English. Elementary schools teach character-building, Filipino, English, mathematics, civics, history, geography, science, health, arts, and physical education. Secondary education curriculum includes English, Filipino, science, mathematics, social studies, physical education, health, music, values, technology, and home economics.

The male-to-female enrollment ratio is one-to-one. Most children ages 6 to 11 are in elementary with some attending pre-school or kindergarten. About 87 percent of children ages 12 to 15 attend school; two-thirds attend high school, and one-third attends elementary school. Sixty-seven percent of Filipinos ages 16 to 24 attend high school or post-secondary school.



## Linguistic Regions



**Cristo Rey High School.** *Photo By Ange Embuldeniya*

About two million students attend colleges and universities throughout the Philippines. Each province has a state college system with several campus locations. The University of the Philippines, located in Manila, is a public university regarded as the best in the country. Private colleges exist in major municipalities. The University of Santo Tomas in Manila is a private school and the oldest college in the country. English is the primary language of instruction at the college level. Colleges and universities also have large enrollments for advanced degrees, because 4-year degrees may not provide sufficient training for work in the higher levels of government service.

A variety of Filipino and English literature is used to carry on the oral traditions of folklore, the influence of the church, and Spanish and American literature.



## Religion

More than 90 percent of Filipinos adhere to Christianity, making the Philippines the only country in Asia with a majority Christian population. More than 80 percent of the population are Roman Catholics. Less than 10 percent are Protestant. Two Protestant denominations are unique to the Philippines, *Iglesia ni Kristo* (“Church of Christ”) and the Philippine Independent Church.

Muslims constitute the largest non-Christian group in the Philippines, with about 5 percent of the population. Most Muslims are Sunni; only a small percentage are Shi’a. Muslims live throughout the archipelago, but Mindanao and the Sulu Islands are considered their homeland.

Buddhists comprise less than 1 percent of the population. Indigenous religions account for less than 2 percent.



**Naga City Church**

The constitution guarantees freedom of religion; however, Muslims face some discrimination and isolation from the mainstream Christians. The conflict between the Moros and the Christian government is religious in nature, but other important issues are land ownership, political identity, and poverty.

Religious leaders are influential figures in society and politics. Religious leaders and laymen are involved in social welfare issues and non-religious organizations, such as labor unions and trade associations.

## **Recreation**

Popular spectator sports include basketball, cockfighting, and boxing. Filipinos enjoy bowling, playing basketball, and *sipa*, a game where players use the feet, legs, and body to hit a ball back and forth over a net. *Arnis de mano* is a form of martial arts invented by a Filipino in which the competitors use sticks.

Filipinos enjoy going to the cinema. They also like games such as chess, Chinese mahjong, checkers, and dominos.

## **Cultural Considerations**

Filipinos do not embarrass others in public or draw attention to themselves. They place a high importance on “saving face,” or avoiding humiliation, in public. Filipinos are eager to accommodate, and in their eagerness, they may say “yes” when they actually mean “no” or “I’ll think about it.” Filipino culture is more relaxed and people-centered than Western culture is.

Visitors should show the appropriate level of respect for business contacts by following the proper protocol for introduction and by addressing them by their titles. Filipinos generally exchange busi-

ness cards. They frequently conduct business over lunch or dinner, and personal conversation typically precedes business discussion.

Women have achieved notable positions of authority throughout the Philippines, and they have opportunities to succeed in business and politics.

Standard business and government hours are Monday through Friday, 0800 to 1700. Banks are open 0900 to 1500, and some companies hold office hours on Saturdays. Offices close during national holidays. Christian parts of the country shut down during important Christian holidays, such as Easter, and only necessary services may be available.

---

## **MEDICAL ASSESSMENT**

---

### **Disease Risks to Deployed Personnel**

The Armed Forces Medical Intelligence Center (AFMIC) assesses the Philippines as **HIGH RISK** for infectious diseases, with an overall disease risk that will adversely impact mission effectiveness unless force health protection measures are implemented.

The following is a summary of the infectious disease risks in the Philippines. Risk varies greatly depending on location, individual exposures, and other factors. More detailed information is contained in Infectious Disease Risk Assessments, produced by the AFMIC, available online at <http://www.afmic.detrick.army.mil> or <https://www.intelink.gov/afmic/>.

### ***Food- or Waterborne Diseases***

Sanitation is poor throughout the country, including major urban areas. Local food and water sources (including ice) are heavily

contaminated with pathogenic bacteria, parasites, and viruses to which most U.S. service members have little or no natural immunity. Effective disease surveillance does not exist within the country. Only a small fraction of diseases are identified or reported.

If local food, water, or ice is consumed, diarrheal diseases can be expected to temporarily incapacitate a very high percentage of personnel within days. Hepatitis A, typhoid fever, and hepatitis E can cause prolonged illness in a smaller percentage. In addition, viral gastroenteritis (e.g., norovirus) and food poisoning (e.g., *Bacillus cereus*, *Clostridium perfringens*, and *Staphylococcus*) may cause significant outbreaks.

### ***Vector-borne Diseases***

The climate and ecological habitat support large populations of arthropod vectors, including mosquitoes and chiggers. Disease transmission is sustained year-round at elevations below 600 meters, including urban areas. Serious diseases may not be recognized or reported because of the lack of surveillance and diagnostic capability.

Malaria and dengue fever, the major vector-borne risks in the Philippines, are capable of debilitating a high percentage of personnel for up to a week or more. The highest numbers of malaria cases occur in the islands of Luzon, Palawan, and Mindanao. Areas considered to be risk free for malaria include metropolitan Manila and other urban centers, as well as the islands of Bohol, Catanduanes, and Cebu. In contrast, dengue risk is present throughout the country, including urban areas. In addition, Japanese encephalitis occurs countrywide, particularly in rural, rice-growing regions. Other vector-borne diseases occur at low or unknown levels; as a group, these diseases may constitute a potentially serious opera-

tional risk. Personnel exposed to mosquitoes, chiggers, and fleas are at risk during day or night, in both urban and rural areas.

### ***Sexually Transmitted and/or Blood-borne Diseases***

Hepatitis B and HIV/AIDS are reported in the Philippines, especially in commercial sex workers, a high-risk group for sexually transmitted disease worldwide. Heterosexual contact and intravenous drug use are the predominant modes of transmission. Carrier rates for hepatitis B are high. The long-term health impact of these diseases on individuals is substantial. A variety of other sexually transmitted diseases (including chlamydia, gonorrhea, chancroid, herpes, syphilis, and venereal warts) may cause symptomatic infection in a high percentage of personnel who have sexual contact.

### ***Water-contact Diseases***

Operations or activities that involve extensive freshwater contact (lakes, rivers, streams, or other surface water) may result in personnel being temporarily debilitated with leptospirosis and schistosomiasis in some locations. Schistosomiasis is restricted to focal areas in Leyte, Samar, Mindanao, southern Luzon, and the east coast of Mindoro and Bohol Islands. In addition, bodies of surface water are likely to be contaminated with human and animal waste. Activities such as wading or swimming may result in exposures to enteric diseases such as diarrhea and hepatitis via incidental ingestion of water. Prolonged water contact also may lead to the development of a variety of potentially debilitating skin conditions such as bacterial or fungal dermatitis.

### ***Respiratory Diseases***

Tuberculosis rates are high among the local population. Prolonged contact with the local population may result in high tuberculosis

skin test conversion rates, well above the U.S. military baseline. In addition, U.S. personnel may be exposed to a wide variety of common respiratory infections in the local population.

### ***Animal-associated Diseases***

Rabies risk in the Philippines is assessed as well above U.S. levels; dogs are the main rabies reservoir. Personnel bitten or scratched by animals are at high risk of developing rabies in the absence of appropriate treatment. Rare cases of anthrax could occur among personnel exposed to animals, animal products, or undercooked meat. Also, rare cases of Q fever could occur among personnel exposed to aerosols from infected animals. More cases are possible in situations where personnel have heavy exposure to barnyards or other areas where animals are housed.

### **Medical Capabilities**

Medical care in the Philippines is limited compared with the United States and does not meet Western standards. The Philippines faces problems similar to many of its regional neighbors, such as high poverty rates, large rural populations, a vulnerable economy, and challenging geographic conditions. Additionally, conflicts with armed extremists, political intrigue, and scandals contribute to political instability and detract from much needed reforms. The health care system in the Philippines lacks sufficient financial resources. The primary care system is inadequate, costs are high, and there are shortages in qualified practitioners. Health care services generally are better in urban centers. The quality of care ranges from average to worse than average when compared with the standards of other nations in Southeast Asia. However, access to care may rank as better than in some of the poorer or more remote island nations of the region.

## ***Civilian Health Care***

The Philippines decentralized management of health care services in 1991. The Department of Health (DOH) manages regional hospitals, medical centers, tertiary-level hospitals, and specialty hospitals. Local governments are responsible for administering primary health care. Provincial governments manage provincial hospitals, city governments manage city health offices, municipal governments manage rural health units, and barangay (village) and municipal governments manage barangay units. The Philippines' health care system faces inadequate financing and a poorly defined referral system. This creates problems for maintaining infrastructure, modern equipment, and adequate staffing. The lack of services in provincial and district hospitals forces patients to seek care in regional and national hospitals, leading to overcrowding. High costs and physical and socio-cultural barriers make access to health care difficult, especially for the poor.

### **Medical Personnel**

The quality of medical personnel is below Western standards. According to the World Health Organization (WHO), as of 2006 the Philippines had about 11 physicians and 43 nurses per 10,000 people. Although this is comparable to some nations in the region (e.g., Singapore and Malaysia), it is well below the U.S. ratios of 28 and 82, respectively. Additionally, the Philippines is losing its most experienced and qualified medical personnel to emigration, resulting in an acute shortage of providers. The quality of education provided by Filipino medical schools has deteriorated, and current graduates are not well trained. Hospitals are hiring nurses with inadequate training and skills because of nursing shortages.

## **Medical Treatment Facilities**

Most medical facilities are well below Western standards. The Philippines has 651 public hospitals and 1,071 private hospitals. Private hospitals generally provide better care than public hospitals, but much of the population cannot afford private care. Hospital equipment often is antiquated. Public hospitals and clinics use equipment for its entire lifespan, and resources for maintenance are limited. Public hospitals rely on donations from private organizations and foreign governments to buy new equipment and make upgrades. Many hospitals do not have adequate waste disposal procedures and bury untreated waste in landfill sites. Incineration facilities for hospital waste have improved in metropolitan Manila but not in other parts of the country. The Government Service Insurance System (GSIS) is attempting to improve health care services by financing new equipment for accredited hospitals in the private and public sectors.

## **Medical Material**

The pharmaceutical industry is poorly regulated and plagued by problems such as disreputable suppliers, inadequate distribution, and inflated pricing. The Philippines produces some medicines but imports most of the needed raw materials. The government attempts to import cheap but good-quality pharmaceuticals from countries such as China, but generally these medicines are still too expensive for most people. The quality of both local and imported medicines is questionable because of poor oversight.

## **Blood Supply**

The DOH, the Philippine Blood Coordinating Council, and the Philippine National Red Cross (PNRC) work together to ensure the safety of the blood supply. Despite efforts of the DOH and PNRC, the quality of blood screening and the safety of the blood



supply are questionable. Approximately 152 blood banks were located throughout the country as of 2003. The PNRC operates the National Blood Program (NBP) and about half of the blood banks, with the remaining blood banks located in government hospitals. At Philippine General Hospital in Manila, blood screening includes typing, cross-matching, basic serological procedures, and malarial smears. The national blood center in Manila provides clinical laboratory services and maintains a registry of rare blood group types. Storage conditions are adequate in most of these facilities; however, because medical equipment typically is old, it is not known if the storage units have suitable temperature controls.

## ***Military Health Care***

### **Organization and Capability**

The Armed Forces of the Philippines (AFP) consists of the army, navy, air force, marines, and coast guard. The Office of the Surgeon General advises the Chief of Staff AFP on health-related matters and serves as the medical advisor to the Secretary of National Defense.

### **Medical Personnel**

Military medical personnel are generally not as skilled as their U.S. counterparts. Emigration has also compromised the quality and availability of nurses. Many of those who have emigrated are specialists in fields such as orthopedics, neurology, cancer, and infectious diseases.

### **Medical Treatment Facilities**

Military medical facilities are understaffed, poorly maintained, inadequately equipped, and do not meet U.S. standards. The AFP administers 31 infirmaries. The Armed Forces Medical Center in

Quezon City is considered one of the best equipped military facilities in Southeast Asia.

### ***Disaster and Emergency Response Capabilities***

The Philippine Office of Civil Defense (OCD) takes the lead in all disaster relief efforts. The OCD provides both disaster preparation and recovery efforts. The PNRD assists the government during national disasters and armed conflicts. It maintains a radio communications network and warehouses for prepositioning relief supplies. The PNRD has some vehicles used mainly for disaster response, but they also are used for other purposes.

The military's ability to manage large-scale operations in a natural disaster or national emergency is limited. However, all military branches are expected to provide assistance in an emergency. Military support in a national emergency would include air evacuation, search and rescue, transport of relief supplies and personnel, and assistance in restoring power and physical structures.

### ***Social Factors***

Modern medical practices are accepted throughout the Philippines but are not always affordable or otherwise accessible. Those living in rural areas and the poor may be more likely to use traditional medicines or healers. More affluent, health-conscious Filipinos may use also herbals and alternative treatments.

### **Key Medical Facilities**

#### **Manila Hospital Makati Medical Center**

*Coordinates* 14-33-34N 121-00-53E

*Location* 2 Amorsolo Street, Manila

*Phone* 815-9911

<i>Type</i>	700-bed private hospital
<i>Capabilities</i>	<p>Medical – cardiology, emergency medicine, endocrinology, general medicine, infectious diseases, internal medicine, neurology, oncology, pediatrics, psychiatry, pulmonology</p> <p>Surgical – general surgery, neurosurgery, ophthalmology, plastic surgery, urology</p> <p>Ancillary – blood bank, burn unit, cardiac monitors, computed tomography (CT) scanner, electroencephalograph (EEG), helipad, hemodialysis, intensive care unit (ICU), laboratory, pharmacy, ultrasound, X-ray</p>
<i>Comments</i>	Hospital of choice for visiting forces. Ability to provide surge capability for handling mass casualties.

### **Quezon Hospital Saint Luke’s Medical Center**

<i>Coordinates</i>	14-37-24N 121-01-24E
<i>Location</i>	279 East Rodriguez Blvd., Manila
<i>Phone</i>	723-7301
<i>Type</i>	650-bed private hospital
<i>Capabilities</i>	<p>Medical – cardiology, emergency medicine, family medicine, gastroenterology, internal medicine, nephrology, neurology, pathology, pediatrics, physical medicine, radiology</p> <p>Surgical – general surgery, plastic surgery</p> <p>Ancillary – CT scanner, electrocardiograph (ECG), EEG, hemodialysis, lithotripter, magnetic resonance imaging (MRI), surgical laser</p>
<i>Comments</i>	Can be difficult to access because of traffic.

## **Davao Hospital Doctors (also Davao Doctors' Hospital)**

**Coordinates** 07-04-13N 125-36-16E

**Location** Langub Diversion Road, Eastern Mindanao  
(near the intersection of General Malvar Street  
and Mount Apo)

**Phone** Administrative 083-552-3141/4724/2647, ext  
118; emergency department 083-553-3891

**Type** 250-bed private hospital

**Capabilities** Medical – cardiology, general medicine

Surgical – general surgery

Ancillary – CT scanner, ECG color Doppler,  
ECG, EEG, emergency room, endoscope, hemo-  
dialysis unit, laboratory, lithotripter, MRI, neo-  
natal ICU, pediatric ICU, surgical laser, physical  
therapy, respiratory therapy, ultrasound, X-ray

**Comments** Good facility for the area but not up to U.S.  
standards.

---

## **HISTORY**

---

### **Early History**

The original inhabitants of the Philippines archipelago were people of African and Malayan descent, who spread across the islands and formed tribal societies. Indonesian and Arab traders from Malay and Borneo introduced Islam to the Philippines in the 14<sup>th</sup> century. Islam had spread throughout the southern islands by 1500, reaching Mindanao by 1565. The Spanish brought Christianity in 1521 in the first European expedition to the Philippines. After they established their first permanent settlement in 1571, they sought converts through missions work, and Christianity became the principal religion throughout the Philippines.

The geographic location and distribution of the Philippines islands led to its occupation for most of modern history. In 1565, the Philippines was occupied by the Spaniards until 1898 when it was ceded from Spain to the United States after the Spanish-American War. At first ruled by a U.S. military governor, the United States soon recognized the value of Philippines independence and worked to grant full independence as soon as a stable civil government could be established. In 1934, the Tydings-McDuffie Independence Act laid out a plan for full independence in 10 years and established the Commonwealth of the Philippines.

During World War II the Philippines was occupied by Japanese forces from 1942 to 1945. The Japanese tried to win local loyalty through the creation of a “Philippine Republic,” but their brutality spawned widespread resistance movements. Japanese forces surrendered the Philippines on 2 September 1945.

The United States restored civil government to the Philippines after the Japanese surrender, and the Philippines independence was granted on 4 July 1946. Former President of the Senate Manuel Roxas was elected the first president of the Republic of the Philippines. Roxas signed agreements with the United States in 1947 that gave the United States several military bases in the country and economic trading rights in exchange for continued U.S. military aid.

## **Modern History**

The next phase of Filipino history began with the election of Ferdinand Marcos in 1965. During his first term, Marcos began ambitious public works projects and lobbied for increased economic and military aid from the United States. He also limited the Philippines’ involvement in the Vietnam War. Marcos was elected to a second term in 1969. His popularity began to wane as economic

growth slowed. Pressure for land reform fostered a Communist uprising accompanied by assassinations and acts of terror. The rebellion was led by the New People's Army, a Marxist-Leninist party. Several incidents of political violence coupled with the rising insurgency led Marcos to suspend habeas corpus in 1969 as a prelude to declaring full martial law in 1972. During this time, Marcos suppressed civil liberties, arrested thousands of opponents, and broke up guerilla armies.

Growing tensions between Christians and Muslims on the southern island of Mindanao led to partisan political violence. Government-sponsored immigration of Christian Filipinos into sparsely populated Mindanao was strongly opposed by the island's almost entirely Muslim population. Immigration increased throughout the 1950s and 1960s, and as the government provided more opportunities and support for northern settlers, the Muslims found themselves an increasingly impoverished and isolated minority. Marcos' government increased this trend though policies promoting Christian interests in Mindanao. After Marcos declared martial law in 1972, isolated uprisings began when various Muslim groups refused to surrender their weapons. The various groups coalesced into a radical Muslim group called the Moro National Liberation Front (MNLF), which continued insurgency in the southern Muslim areas of the Philippines.

The United States signed an amendment to the 1947 Military Bases Act in 1979. This amendment confirmed Philippines sovereignty over all U.S. military bases, reduced reserved land, and guaranteed continued U.S. support and military aid.

Marcos used this period of martial law to solidify his power. His administration rewrote the constitution and drafted policies intended to neutralize his political opponents. He lifted martial

law in 1981 after winning reelection, but Marcos' opponents challenged the election results as fraudulent.

During the period of martial law, Marcos had arrested his main political rival, Benigno Aquino, who went on a hunger strike while in prison in protest. Health complications from Aquino's hunger strike necessitated medical treatment outside of the Philippines, after which Aquino spent 3 years in self-appointed exile in the United States. He was murdered immediately after his return to the Philippines in 1983. A commission later determined the murder was the result of a military conspiracy. Aquino's death incited increased political opposition.

Marcos faced Aquino's widow, Corazon Aquino, in the 1986 presidential elections. Popular discontent with Marcos led to a growing base of support for Aquino that formed into a political movement known as the People's Power Movement. Millions of rural, working-class, middle-class, and professional supporters joined forces with the nation's Roman Catholic leaders, members of the armed forces, and the business elite in calling for Marcos' removal. The growing political pressure led to the removal of Marcos from power on 25 February 1986 for charges of election tampering and widespread corruption. Corazon Aquino was immediately installed as president.

Aquino was unable to maintain her coalition as she faced a struggling economy and political challenges. She faced several coup attempts as various factions sought to seize control of the government. Despite her loss of popularity and limited success as a leader, she was able to maintain political control.

A series of natural disasters, including severe typhoons and the eruption of Mount Pinatubo in 1991, hindered economic progress. The United States abandoned Clark Air Base after the 1991 volca-

nic eruption buried it in ash. The time limit had also expired in the 1947 Mutual Defense Treaty, which had granted the United States military bases within the Philippines in exchange for protection. The United States attempted to negotiate a new agreement allowing U.S. bases to remain open, but the Philippines Senate rejected the new Military Bases Treaty in 1991, and, after several failed attempts to settle the issue, the United States completely withdrew by the end of 1992.

Aquino succeeded in democratically drafting a permanent constitution, but she decided not to run in the 1992 elections. Her successor, Defense Minister Fidel Ramos, successfully focused on civil order and political reconciliation during his term. Tensions between the original Muslim inhabitants and the state-sponsored Christian settlers in Mindanao were unresolved when Ramos became president. The conciliatory posture of MNLF led to the creation the Moro Islamic Liberation Front (MILF), a more militant splinter insurgency group that amassed 30,000 troops in its bid for an independent Islamic state. Ramos created the Autonomous Region of Muslim Mindanao (ARMM) in 1992. The insurgents were dissatisfied with the ARMM because it consisted of only 5 autonomous municipalities, far short of the promised 14. The creation of the ARMM also failed to account for historic land grievances, and it did little to change the discrepancy in state funding. Faced with growing discontent and violence, Ramos was forced to negotiate with the Moro insurgents. As a result of these negotiations, the government agreed in 1996 to gradually expand the autonomous area to include all 14 municipalities and established a transitional government primarily composed of MNLF leaders. The transitional government quickly proved corrupt, and due to limited funding, entirely dependent upon the mainland government. Little socioeconomic growth resulted from the new system.



Many Muslims considered the system a failure, and these frustrations led to continued insurgent violence.

The Philippines was not as affected by the Asian economic crisis during 1997 to 1998 as were its neighbors. It suffered currency inflation, but economic output continued to rise as it followed a slower development pace set by the International Monetary Fund (IMF). Joseph Estrada, a popular film star, was elected president in 1998. He worked to fight poverty and crime, and he attempted economic reform through amending laws and seeking greater foreign investment. Estrada faced charges of corruption in 2000 and was tried for accepting bribes in an aborted impeachment process. Following months of protests and demonstrations, the military withdrew its support from Estrada, and he was forced to resign in 2001.

Vice President Gloria Macapagal Arroyo, daughter of former President Diosdado Macapagal, immediately took office. Arroyo reached a cease fire with the MILF in 2001, but the agreement remained tenuous until 2003. Also during this period, MNLF broke its 5-year cease fire, and terrorist groups conducted deadly terrorist bombings in the southern islands. The Philippines sought additional U.S. military support to deal with the growing problem, and the kidnapping of Americans by Abu Sayyaf Group (ASG) led to U.S. intervention in 2002. U.S. troops were prohibited from fighting on Filipino soil because of the terms of the Philippine constitution, but they provided training and support. Conflict escalation and a mutiny by 300 members of the military in 2003 led Arroyo to declare a month-long state of rebellion, during which hundreds of military leaders and senators were arrested and tried for treason.

## **Recent History**

Arroyo won a second term in 2004 by a significant margin, but her popularity waned as the election results were challenged by allegations of election fraud. She advocated constitutional change, but reform was impeded by the necessity of dealing with political instability and loss of political support. Arroyo withdrew the Philippines military presence from Iraq in 2004 to meet terrorist demands following the kidnapping of a Filipino truck driver in Iraq. The Philippines troop withdrawal resulted in stronger relations with China because China viewed the troop withdrawal as a move away from the United States.

Arroyo survived an impeachment attempt in 2005 for charges of corruption and election fraud, and she survived a coup attempt in February 2006 during the People Power anniversary. Her 6-year term will end in 2010.

Splinter groups from the MNLF and MILF renewed violent conflict with government forces in the southern islands in 2005 as radicals within both groups broke away after negotiations with the government resulted in peace agreements. Abu Sayyaf Group (ASG) took responsibility for the Manila ferry bombing in 2004 and several other bombings in 2005. Intense military operations in coordination with U.S. forces and MILF have been considerably successful in reducing the size and influence of ASG. U.S. forces assisted in an increased military campaign in 2007 that resulted in the elimination of the leadership of Abu Sayyaf, leaving the group fragmented.

## ***Chronology***

- 1500- Indonesian and Arab traders introduce Islam, which
- 1565 spreads across the archipelago and into Mindanao.
- 1521 Spanish explorers bring Christianity to the Philippines.

- 1902 The United States initiates civil government.
- 1935 The United States begins a 10-year transition to independence for the Philippines. The Philippines becomes a U.S. commonwealth. The first constitution is framed.
- 1941 Japan conquers the Philippines at the start of WWII.
- 1945 Japan surrenders the Philippines to invading U.S. forces.
- 1946 The Philippines becomes independent and is renamed the Republic of the Philippines.
- 1946 The first president, Manuel Roxas, is elected.
- 1947 The Philippines signs a treaty with the United States that gives it military aid and training in exchange for the United States opening military bases in the Philippines.
- 1948 Elpidio Quirino, the vice president, becomes president after the death of Roxas.
- 1953 Nacionalista Party leader Ramon Magsaysay elected president.
- 1957 Vice President Carlos P. Garcia succeeds Magsaysay after his death.
- 1961 Liberal Party candidate Diosdado Macapagal elected president.
- 1965 Nacionalista Party leader Ferdinand Marcos elected president.
- 1969 Marcos becomes the first re-elected Philippines president.
- 1969 The Moro National Liberation Front is founded and begins its violent struggle.
- 1972 Marcos declares martial law to deal with the insurgency.
- 1973 Marcos drafts a new constitution to attain broader powers.
- 1981 Marcos lifts martial law.
- 1983 Marcos' political opponent, Benigno Aquino, is murdered.
- 1986 Disputed election results between Marcos and Aquino's widow end with the People Power Movement, removing Marcos from office. Corazon Aquino becomes president.

- 1989 Aquino survives a coup attempt with U.S. assistance.
- 1991 The Philippines Senate rejects the Military Bases Treaty, the renewal of the 1947 Mutual Defense Treaty.
- 1992 The United States completely withdraws from its military bases in the Philippines.
- 1992 Aquino's defense minister, Fidel Ramos, elected president.
- 1996 The Philippines government reaches the first peace agreement with the Moro National Liberation Front
- 1998 Joseph Estrada, Ramos' is elected president.
- 2000 President Estrada faces the impeachment process after corruption charges.
- 2001 After the Estrada impeachment trial is suspended, the military withdraws support, and Estrada is forced to step down. His vice president, Gloria Macapagal Arroyo, is sworn in as president
- 2001 The Moro National Liberation Front breaks its cease fire agreement.
- 2002 Abu Sayyaf Group, a terrorist group linked to al Qa'ida, conducts bombing attacks in several cities. Its kidnapping of several Americans draws U.S. intervention.
- 2003 The Philippines government signs a cease fire with the Moro Islamic Liberation Front.
- 2003 A brief military mutiny in Manila leads Arroyo to declare a month-long state of rebellion.
- 2004 Arroyo is re-elected to a 6-year term, and she declares her intent to revamp the constitution.
- 2005 MILF breaks its cease fire agreement.
- 2005 Abu Sayyaf Group conducts terrorist bombings in Manila and several southern cities.
- 2006 Arroyo survives a coup attempt during the anniversary of the People Power Movement.

---

## GOVERNMENT AND POLITICS

---

### Government

The Philippines became a self-governing commonwealth protected by the United States in 1935 and then a fully independent nation in 1946. A succession of peaceful administrations followed until Ferdinand Marcos declared martial law in 1972. The declaration allowed him to maintain authoritarian rule over the Philippines until 1986. A military coup and pressure from the United States eventually forced him into exile. The new president was inaugurated, and the republic was restored.

The Philippines adopted a new constitution in February 1987, indicating a return to democracy following Marcos' autocratic rule. This constitution, the fourth in the nation's history, established a federal government headed by a president with a bicameral legislature and an independent judiciary system. This resembles the U.S. government. The key difference is that the Philippines is organized as a unitary republic, whereas the United States is a federal republic. The Philippines national government does not grant much authority to local governments, whereas the individual states in the United States have significant governmental powers.

The Filipino people directly elect the president to a single 6-year term. The constitution limits the vice president to 2 consecutive 6-year terms. The president appoints the members of the Cabinet of Ministers with congressional approval. Senators are elected on an at-large, nationwide ballot for no more than 2 consecutive 6-year terms. The majority of the House of Representatives are elected from apportioned legislative districts. The president appoints the remaining members of the House, who make up 20 percent of

the membership, from party elections of registered political parties. House members serve a maximum of 3 consecutive 3-year terms. The president appoints Supreme Court justices, who serve until they reach 70 years of age. Governors, the leaders of local provinces, are popularly elected.

### ***National Level***

The president cannot dissolve Congress, but Congress may override a presidential veto with a two-thirds majority vote. Cabinet appointments require congressional approval, but only the president may remove a minister. The Supreme Court reviews the constitutionality of presidential decrees.

The president oversees the local government under the constitution. Local governments have little autonomy because the Philippines is a unitary republic. Provinces and regions have power to collect taxes, subject to restrictions from Congress. The Philippines has two autonomous regions, the Cordillera region of Luzon and the Autonomous Region in Muslim Mindanao, which have authority over personal status, property relations, zoning and planning, education, economics, and social development.

### **Executive Branch**

The president holds executive power and is elected to a single 6-year term. The president is also commander-in-chief and head



**President Gloria Arroyo**

of state. Presidential initiatives and programs require congressional support before implementation. Elections are held on the second Monday of May, and inauguration takes place at 1200 on 30 June. A presidential candidate must be a natural-born citizen of the Philippines, at least 40 years old upon Election Day, able to read and write, a registered voter, and a resident of the Philippines for at least 10 years before the election.

The vice president is also elected to a 6-year term and is limited to serving no more than 2 consecutive terms. The vice president must have the same qualifications as the president, and he is elected in the same manner. The vice president may also be appointed as a presidential cabinet member without any legislative confirmation.



**Manila City Hall**

The president of the Philippines is Gloria Macapagal Arroyo, who initially entered office in January 2001 when she succeeded Joseph Estrada following his November 2000 impeachment. Arroyo was then elected to a full 6-year term in 2004 along with her vice president, Noli de Castro. The Cabinet of Ministers consists of the heads of 22 departments and offices, appointed by the president with the approval of the Commission of Appointments. The cabinet carries out the executive functions of the government.

### **Legislative Branch**

Legislative power is vested in the Congress, consisting of a Senate (upper chamber) and a House of Representatives (lower chamber).

The Senate is made up of 24 senators, who are elected at large by qualified voters. A senator serves a 6-year term and cannot serve more than 2 consecutive terms. A senator must be a natural-born citizen of the Philippines, at least 35 years old on Election Day, able to read and write, a registered voter, and a resident of the Philippines for no less than 2 years prior to the election.

The House of Representatives is constitutionally limited to no more than 250 members who are elected from legislative districts apportioned among the provinces, cities, and Manila area. Members are elected for 3-year terms and cannot serve more than 3 consecutive terms. The constitution allows for no more than 20 percent of the members to be appointed by the president from political parties or organizations. A representative must be a natural-born citizen of the Philippines, at least 25 years old on Election Day, and able to read and write. A representative must also be a registered voter in the district where elected, with the exception of appointed members, and a resident of that district for at least 1 year prior to election.



Congress can override presidential vetoes and declare a state of war with a two-thirds majority vote.

## **Judicial Branch**

The Philippines has an independent judiciary with power vested in the Supreme Court and lower courts as established by law.

The Supreme Court serves as the highest court of appeal and is authorized to review the constitutionality of presidential decrees. The Supreme Court is made up of a chief justice and 14 associate justices. A Supreme Court justice must be a natural-born citizen of the Philippines, at least 40 years old, and a judge of a lower court or involved in law practice in the Philippines for at least 15 years. The president selects justices from a list of at least three nominees prepared by the Judicial and Bar Council. Supreme Court justices hold their seats until they reach 70 years of age or become incapacitated and unable to perform their duties. The chief justice of the Supreme Court is Reynato S. Puno, who has served in that capacity since December 2006.

The Supreme Court may be represented in groups of 3, 5, or 7 depending on the case, so the entire court of 14 justices is not required to convene on every occasion. The Supreme Court is only required to convene in full when cases are being heard that involve the constitutionality of treaties, international agreements, presidential decrees, or other regulations.

The lower level court system of the Philippines includes a national court of appeals comprising 17 divisions, local and regional trial courts, and an informal local system charged with settling certain disputes outside the formal court system. The president appoints lower court judges from lists prepared by the Judicial and Bar Council.

In areas of the southern Philippines, there is a separate court system based on *Shari'a* (Islamic law). *Shari'a* has jurisdiction over family and contractual relations among Muslims in the Philippines. Three district magistrates and six circuit judges supervise the Islamic law system. A special court called the *Sandiganbayan* focuses exclusively on investigating criminal and civil cases dealing with graft and corruption committed by public officers and government employees.

The legal code of the Philippines is based primarily on Spanish and Anglo-American law, although Islamic law applies to Muslims in portions of the southern Philippines.

### **Key Government Officials**

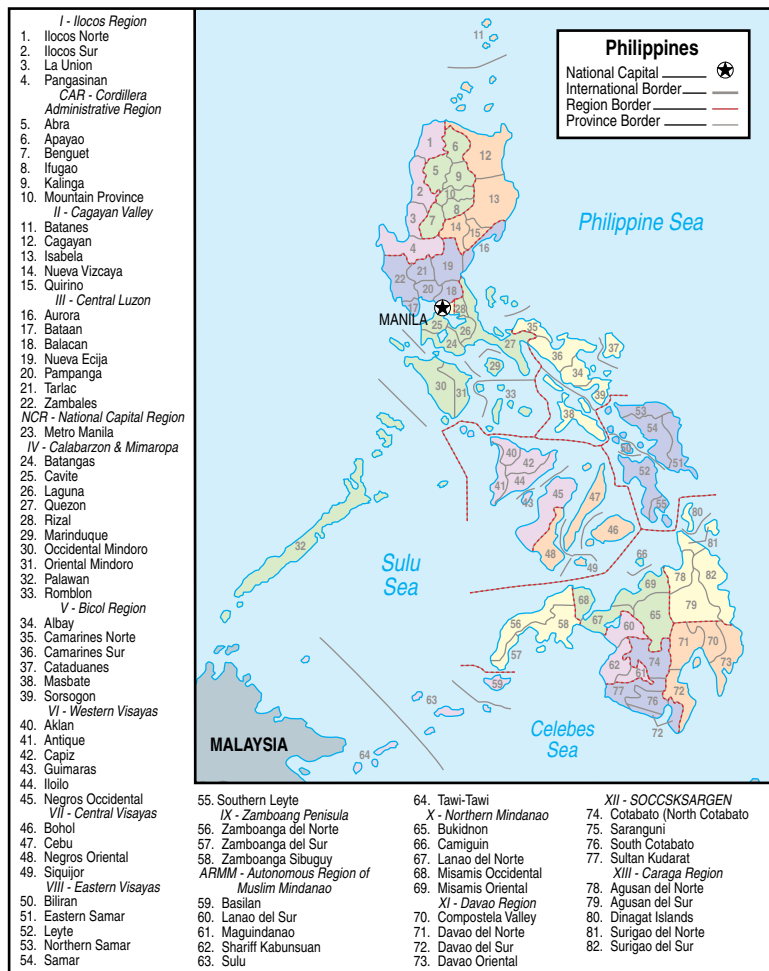
<i>President</i>	Gloria Macapagal Arroyo
<i>Vice President</i>	Noli “Kabayan” De Castro
<i>Secretary for Foreign Affairs</i>	H.E. Alberto G. Romulo
<i>Secretary of National Defense</i>	Gilberto C. Teodoro, Jr
<i>Secretary of Finance</i>	Margarito Teves
<i>National Security Advisor</i>	Norberto Gonzales
<i>Ambassador to the United States</i>	Kristie A. Kenney

### **Local Level**

At the local level, the Philippines is subdivided into provinces, cities, municipalities, and *barangays* (villages). There are also two autonomous regions, Autonomous Region in Muslim Mindanao and the Cordilleras of Luzon.

The president has general supervision over the local government, but elected governors and vice-governors lead the provinces. The constitution limits local officials to 3-year terms, and no official can serve more than three consecutive terms. Local law determines

the terms of office for *barangay* officials. Local governments are responsible for providing for the people's general welfare, secur-



## Philippines Administrative Divisions

ing basic facilities and services, implementing national programs at the local level, and generating and applying resources.

## Politics

The Philippines is a democracy in which citizens elect the president, vice president, and most of the seats in the bicameral legislature. Twenty percent of House members, called sectoral representatives, are presidential appointees. Provincial and local governments also hold elections. The May 2004 presidential election had a voter turnout of 74 percent.

The 1987 constitution allows all citizens of the Philippines to vote once they have reached 18 years of age, have resided in the Philippines for at least 1 year, and have resided in the district where they intend to vote for at least 6 months before the election.

The national government holds elections on the second Monday of May. Presidential elections are every 6 years, and Senate elections are every 3 years. Local elections for the House of Representatives and provincial, city, and municipal seats are conducted on the second Monday in May every 3 years. *Barangay* elections are on the last Monday of October every 3 years. Filipino presidential elections experience high levels of violence and perceived corruption among voters, despite strong voter mobilization and turnout.

Established, wealthy families called oligarchies are an important political force in the Philippines. The oligarchies control the major media outlets, giving them a prominent voice in political debate. These families provide vital support to presidential candidates, who in turn reward members of their supporters' families with positions in the government. Oligarchies use these positions to protect their financial interests and promote their businesses. As a

result, the government makes decisions promoting the interests of the elite, not the majority of Filipinos.

## ***Political Parties***

The Philippines has many active political parties, but most parties are coalitions centered on prominent individuals. Many Filipinos view the political system as irrelevant because there is little that ideologically distinguishes one party from another. Major parties are described below.

### **Lakas-Christian Muslim Democratic Party (Lakas-CMD).**

Lakas-CMD is the ruling party of the Philippines and the party of President Arroyo. It formed a governing coalition with the Liberal Party. It held 100 seats in the House of Representatives as of 2007.

**Liberal Party.** The Liberal Party formed in 1946 after breaking away from the *Nacionalista* Party. It is liberal on most issues. It formed a governing coalition with the Lakas-CMD party. It held 32 seats in the House of Representatives as of 2007.

**Nacionalista Party.** Founded in 1907, it is the oldest political party in the Philippines. It held six seats in the House of Representatives as of 2007.

**Akbayan Citizens' Action Party.** Akbayan supports a progressive reform agenda whose goal is to break the hold of traditional politicians and political parties on Philippines politics. It held three seats in the House of Representatives as of 2007.

**Bayan Muna.** Bayan Muna is the major socialist political party, formed in 1999. It held three seats in the House of Representatives as of 2007.

## ***Foreign Relations***

The geographic location of the Philippines makes it a strategic location for military bases and for economic trade. The United States provides military equipment and training, but treaty amendments limit U.S. troop presence. Foreign trade has increased as the Philippines has shifted toward cooperation with fellow Asian nations. China is the Philippines' third largest trading partner. Many major nations and international organizations such as the UN and the European Union (EU) have taken an interest in developmental collaboration with the Philippines.

The Philippines receives bilateral development assistance from Japan, the United States, Australia, Germany, and China. It receives multilateral assistance from the Asian Development Bank, the World Bank, Association of Southeast Asian Nations, the IMF, and the UN. The largest source of foreign aid is Japan, followed by the Asian Development Bank and the World Bank. Japan gives the Philippines educational aid, food relief, and economic aid. The programs focus on strengthening economic infrastructure and regional development and ensuring environmental conservation. Japan offers loans, grants, and technical assistance.

The United States, through USAID, contributes foreign aid to the Philippines. USAID focuses on combating corruption, promoting governmental responsibility, expanding affordable health care, improving resource management, ensuring access to education, and promoting conflict resolution. Sixty percent of U.S. aid goes to conflict-torn areas in Mindanao.

The Philippines is not an aid donor to other nations. The World Bank provides development loans to the Philippines government to provide for economic growth, better health care, and educational development. The UN gives aid through a combination of

money, food, and human resources. The UN assists in developing macroeconomic stability, social services, just governance, environmental sustainability, and conflict resolution. Germany provides aid for developmental cooperation focusing on economic reform, health care, and resource management. Assistance focuses on the Visayan Islands and Mindanao. Australian aid goes to rural development, economic growth, counterterrorism efforts, and conflict resolution. The EU gives substantial disaster relief aid.

## **United States**

Relations between the United States and the Philippines have remained strong throughout their shared history. The relationship focuses on economics and security. After the U.S. military withdrew from the Philippines in 1991, relations improved and expanded to include greater economic cooperation. The United States, through USAID, funds economic development programs and runs a variety of foreign aid programs.

The United States and the Philippines still have strong security ties that date back to World War II and the 1952 United States-Philippines Mutual Defense Treaty. In 1999, the Philippines Senate approved the Visiting Forces Agreement, which paved the way for extensive joint military exercises. U.S. military aid to the Philippines is greater than to any other Asian nation. The United States approved US\$150 million in counterterrorism assistance for the Philippines. Most of the assistance came in the form of reconditioned military equipment, including a cutter, a cargo airplane, helicopters, rifles, trucks, and night vision goggles.

The United States and the Philippines conduct annual joint training exercises called *BALIKATAN* (Shoulder-to-Shoulder). U.S. armed forces personnel support Philippines soldiers in counterterrorism operations, including field operations against the Abu



**U.S. Military Relief Efforts after a Mudslide.** *Photo by Nasir Khan*

Sayyaf Group. The exercises also involve disaster relief and infrastructure building projects.

The Philippines was designated as a major non-NATO ally of the United States in 2003. The Philippines is an important ally of the United States in the Global War on Terror, and it has ratified all 12 UN counterterrorism conventions.

## **China**

Chinese-Filipino relations, long hindered by territorial disputes, have improved since 2000. Though overlapping claims to the Spratly Islands in the South China Sea led to tension and Chinese military action during the 1990s, growing economic ties have promoted cordial bilateral relations. Since 2000, relations have



moved past territorial issues as China has promised greater foreign aid and economic involvement. Chinese business made large investments in Philippines infrastructure, and Chinese-Filipino trade relations continue to grow. As a member of ASEAN, the Philippines signed the 2002 Declaration of the Conduct of Parties in the South China Sea, a document seeking to maintain the status quo and facilitate discussion on territorial disputes. State-owned oil companies from China and the Philippines signed an economic development treaty known as the Joint Marine Seismic Undertaking to assess the South China Sea.

China supported the Philippines' 2004 troop withdrawal from Iraq. China saw the withdrawal as a move away from the U.S.-Philippines alliance, so it worked to counter its regional rival through better relations with the Philippines. China offered greater economic and security interaction, and, in 2005, the two countries held defense talks.

## **Japan**

Japanese-Filipino relations are primarily based on economics. Japan is one of the Philippines' top trade partners and the largest source of developmental aid and foreign investment. The Philippines received reparations for economic damage during World War II that greatly reduced anti-Japanese sentiment. In 2004, Japan and the Philippines signed a trade agreement promoting economic transactions between the two countries. Japan has many Filipino foreign workers, and it is concluding a broad free trade agreement with the Philippines that includes a program to bring Filipino medical workers to Japan.

## **South Korea**

The Philippines and South Korea have had friendly relations since the Korean War era. Tourism, guest worker programs, and friendly trade relations have closely linked the two countries. The Philippines supports South Korea's policy of reconciliation with North Korea.

## **Germany**

Germany and the Philippines have had diplomatic relations since 1955. The Philippines imports German technology, receives German developmental aid, and discusses human rights issues with the German government. The issue of the Philippines' seizure of an airport built by German financiers in Manila strained relations. The Philippines government seized the airport after its completion but prior to its opening. The Philippines Supreme Court declared the contract with the German company null and void, saying the company did not have the financial capability to complete the project. The German financiers responded by seeking compensation through international arbitration.

## **Association of Southeast Asian Nations**

The Philippines is a proponent of regionalism and a member of the Association of Southeast Asian Nations (ASEAN). The alliance encourages economic, social, and cultural development throughout the region by working together to ensure regional prosperity, stability, and peace. The founding members were the Philippines, Indonesia, Malaysia, Singapore, and Thailand. The Philippines also cooperated with Singapore, Malaysia, and Indonesia to deal with the regional threat of the terrorist organization Jemaah Islamiya.

ASEAN chairmanship rotates annually between member countries in alphabetical order. The Philippines formally assumed the chairmanship in July 2006 and hosted the 12<sup>th</sup> ASEAN Summit in Cebu.

Relations with Malaysia outside of ASEAN became strained due to territorial disputes over Sabah, the northern region of Borneo to the southwest of the Philippines. The Philippines enjoy close economic cooperation with Thailand, and both have bilateral security agreements with the United States. Relations with Indonesia have improved as Indonesia agreed to cease assisting Islamist radicals in Mindanao.

### ***International Organizations***

The Philippines participates in many other international organizations, to include the following:

- Asia Pacific Economic Cooperation
- Asian Development Bank
- International Atomic Energy Agency
- The World Bank
- International Civil Aviation Organization
- International Criminal Court (signatory)
- International Federation of Red Cross and Red Crescent Societies
- IMF
- International Organization for Standardization
- International Telecommunication Union
- UN
- World Health Organization
- World Trade Organization

### **Non-Governmental Organizations**

Government records list 50,000 registered non-governmental organizations (NGOs) in the Philippines, only 3,000 to 5,000 of them are development-oriented. Other types of NGOs are

professional organizations, civic associations, and non-profit groups dedicated to supporting grass roots projects. Some “quasi-NGOs” are also registered as non-profits, but they exist for the profit of an individual or company. These include business-organized NGOs, which function as tax shelters or image enhancers; politician-organized NGOs, which try to qualify for aid money; and entrepreneur-organized NGOs, which are one-time projects.

Filipino NGOs focus on fighting poverty, reforming governance, and following specific developmental visions. They are dependent upon external financing, and they draw from a range of foreign grants and governmental departments to create their operational budgets. A significant portion of their support comes from external financing agencies such as the World Bank and the Asian Development Bank. Most choose to remain small with a staff of fewer than 25, but several larger ones employ several hundred.

The largest NGOs active in the Philippines are the Philippines Business for Social Progress and Philippine Rural Reconstruction, each employing more than 300 staffers. Most developmental NGOs exist within national or regional networks that facilitate communication and coordinate efforts. The largest network is CODE-NGO, which includes 3,000 NGOs. It is divided into four sectors that focus on particular areas of development including urban land reform, credit reform, rural development, and agrarian reform. Many regional networks focus on specific issues, such as microeconomic policies. National-issue-based networks focus on topics such as agrarian reform, debt reform, or environmental concerns. NGOs have locations throughout the Philippines, but are concentrated in Manila and Mindanao.

## ***Corruption***

Corruption is rampant at the national and local levels of government and almost all levels of society. Almost every president has faced corruption charges. Two were forced out of office because of corruption charges. President Gloria Macapagal Arroyo survived two impeachment attempts based on corruption charges. The Philippines was ranked one of the most corrupt Asian nations by the Asian Political and Economic Risk Consultancy. The greatest perceived corruption is within the police force, the customs department, and the legal system. Entrenched business interests in the Philippines government foster corruption in procurement and civil services. Much of the corruption occurs at the local level, particularly in urban areas. Corruption in the public sector is high and has not improved since 2000. Though corruption in private business does exist, it is less pervasive.

Nearly a fourth of Filipinos claim to pay bribes. Bribery has affected the health care sector; lower income patients have a hard time acquiring necessary treatment.

The Philippines government has little effect in its action against corruption. The Office of the Ombudsman has jurisdiction over issues of government corruption, but it is hindered by limited resources. Anti-corruption legislation was passed to reform political financing, change procurement methods, and create more controls on governance. Several specific anti-graft laws were passed in 2003. Private business has become motivated to fight corruption. An alliance of private sector business and religious organizations founded the Coalition Against Corruption in 2004.

---

## **ECONOMY**

---

The Philippines' economy has not grown as rapidly as its neighbors' economies have, and since the 1970s, the Philippines has been surpassed in development by Singapore, South Korea, and Taiwan. The Philippines is one of the poorest countries in the region, despite its significant natural resources.

The under-performance of the economy is linked to economically stunting government trade policies, which include strong protectionism and government restrictions on foreign and domestic investment. Private enterprise makes up most of the economic activity, but the government maintains tight control over natural resources. A low tax rate also contributes to uneven economic development. Recent reforms and a higher value-added tax have had positive effects.

The Philippines economy is based primarily on the service industry, industrial production, and agriculture. Personal consumption is the main economic driver. Since the election of President Arroyo, several newly privatized industries have contributed to economic growth and greater foreign investment. Economic reforms have supported the peso, making it the region's best performing currency in 2007.

Remittances from overseas foreign workers (OFWs) contribute greatly to the Philippines economy. More than 900,000 Filipinos migrate to other countries to take jobs, making the Philippines the third largest recipient of remittances in the world. The families of OFWs use the funds for education, shelter, or savings.

### **Economic Aid**

The Philippines receives US\$1.1 billion in foreign economic aid. Foreign aid comes from Japan, the United States, Australia, Ger-

---

many, China, the Asian Development Bank, the World Bank, and the UN. The largest sources of bilateral foreign aid are Japan and the United States, and the largest source of multi-lateral aid is the Asian Development Bank. Japan gives the Philippines educational aid, food relief, and economic aid through loans, grants, and technical assistance. The United States, through USAID, funds economic development programs and runs an array of foreign aid programs in the Philippines. The World Bank provides development loans to the Philippines government for economic growth, better health care, and educational development. Other sources of aid focus on rural development, economic growth, and conflict resolution, especially in the area of Mindanao. The EU gives substantial disaster relief aid.

### ***Banking Services***

Banks in the Philippines are owned and operated by both the government and private companies. The *Bangko Sentral ng Pilipinas* (Central Bank of the Philippines) is the government's fiscal agent, and it is responsible for supervising the banking system. The Philippine National Bank, the largest commercial bank, is a government institution. Smaller non-banking firms, such as insurance companies, are overseen by the Insurance Commission and the Securities and Exchange Commission. Four of the 10 largest banks are owned and controlled by the government. Standard services offered by banks include checking and savings accounts, ATM access, foreign currency services, retirement savings programs, and commercial and private loans.

Foreign banks provide competition for local banks, but they have only a small market share and limited networks.

## Economic Statistics

<b>GDP-PPP (2007 estimates)</b>	US\$298.9 billion
<i>Real Growth Rate</i>	6.3%
<i>Per Capita</i>	US\$3,300
<b>Inflation Rate</b>	2.8%
<b>Budget Revenues</b>	US\$23.96 billion
<b>Budget Expenditures</b>	US\$25.24 billion
<b>Public Debt</b>	62.3% of GDP
<b>Unemployment Rate</b>	7.9%
<b>Imports</b>	US\$53.96 billion
<i>Commodities</i>	Electronics, mineral fuels, machinery and transport equipment, iron and steel, textile fabrics, grains, chemicals, plastic
<i>Partners</i>	United States 16.3%, Japan 13.6%, Singapore 8.5%, Taiwan 8%, China 7.1% South Korea 6.2%, Saudi Arabia 5.8%, Malaysia 4.1%, Thailand 4.1%, Hong Kong 4% (2006)
<b>Exports</b>	US\$48.38 billion
<i>Commodities</i>	Semiconductors and electronics, transport equipment, garments, copper products, petroleum products, coconut oil, fruits
<i>Partners</i>	United States 18.3%, Japan 16.5%, Netherlands 10.1%, China 9.8%, Hong Kong 7.8%, Singapore 7.3%, Malaysia 5.6%, Taiwan 4.3% (2006)
<b>Labor Force Composition</b>	Agriculture 35.6%, industry 15.1%, services 48.5%



## Resources

The Philippines is rich in natural resources, having large copper, gold, and chromite reserves. It is one of the largest copper producers in the world. Other mineral resources include coal, cobalt, gypsum, iron, nickel, silver, sulfur, limestone, and marble. The Philippines has large amounts of untapped mineral resources, including bauxite, lead, mercury, molybdenum, and zinc. Mining declined as a share of GDP due to fluctuating world market prices, decreased production, and lack of modernization.

The Philippines' wealth of productive land allows growth of large exports of primary commodities, such as fruits and vegetables. There are also extensive high-quality timber resources. Timber exports are decreasing as resources have been depleted by destructive logging techniques and inadequate reforestation.

A substantial amount of the Philippines' natural resources are in the Autonomous Region in Muslim Mindanao. The region has significant oil and natural gas deposits, water supplies, and fertile soil. The conflict between the Moros in Mindanao and the Philippines government is partially due to conflict over who should control the exploitation of these resources. The conflict has hampered development of the natural resources as well.

The Philippines has great potential for extensive hydroelectric development. It had 152 million barrels of oil reserves and produced 25,000 barrels per day in 2004. This did not satisfy the domestic demand of 338,000 barrels per day.

The Philippines faces increasing air and water pollution. Air pollution primarily affects metropolitan areas, particularly Metro Manila, and is the result of industry and consumer fossil fuel usage. Water pollution affects most surface waters and results from

dumped wastewater. Mining has also led to pollution through the creation of solid waste.

## **Industry**

Manufacturing dominates Philippines industry. Industry employs 15.1 percent of the Filipino labor force with manufacturing accounting for 9.2 percent. Construction composes another 5.1 percent; mining and quarrying 0.4 percent; and electricity, gas, and water 0.3 percent. Manufacturing focuses on producing consumer goods. Production consists of processed food and beverages, tobacco, rubber, textiles, clothes and footwear, paints, plywood, paper, paper products, leather products, and transport equipment. Heavy manufacturing industry includes cement, glass, industrial chemicals, fertilizer, iron, steel, and refined petroleum projects.

The textiles and garment industry and the chemicals industry dominate manufacturing. They are the second largest source of export revenue and the largest employer in the manufacturing sector. Many outsourced goods are manufactured within the Philippines, such as various electronic goods and high-end clothing items. Outsourced goods are finished products created from imported unfinished goods. This rapidly growing industry is composed both of production and human resource outsourcing.

More than 60 percent of manufacturing operates out of Manila and the southern Luzon region. In the 1990s, increased access to electrical grids and a rising trade in local goods dispersed industry across other regions. Several regions have become highly specific industrial centers, such as the province of Cavite, where Intel built one of its most productive electronics production facilities. Most rural regions focus on local industries that create handmade goods and on minor agricultural sectors that produce items such as seaweed or mussels. The Philippines government

has worked to lessen industrial concentration in municipal areas by establishing special economic zones in more rural regions, such as the Bataan Free Zone.

A lack of effective governmental regulation has led to concerns that industrial activity is irreversibly damaging the environment. Various sources have called upon the Philippines government to impose regulations to correct the problem. Harsh fines have had some effect in reducing pollution. Regulations exist to ensure fair treatment of workers, minimum wage, maternity leave, and humane working conditions.

## **Utilities**

Thermal sources such as coal and oil produce 65 percent of the Philippines' electric power. The remaining electricity sources are 19 percent hydroelectric, 16 percent geothermal, and the rest solar power, wind, wood, and waste. The Philippines government attempted to boost production of energy from geothermal and natural gas plants in an effort to reduce dependency on oil imports. The Philippines import most of its oil, but it is trying to become self-sufficient through developing its recoverable oil fields.

The Philippines does not have any functional nuclear power plants. The government developed a nuclear power plant in Bataan during the 1980s, but authorities later deemed it inoperable as it was located near major fault lines and the Pinatubo volcano.

The government and private corporations have built many new power plants since 2000, including both natural gas and coal-fired plants. The Korea Electric Power Corporation opened the country's largest power plant in 2002, a natural gas facility in Ilijan. This facility is one of three gas-fired plants intended to satisfy increasing energy demands.

The Philippines aims to reduce foreign oil dependency by increasing its use of alternative fuel sources and retiring older oil-firing power plants. The government built four small hydroelectric plants in Mindanao and a larger hydroelectric facility in Luzon. It restored several plants damaged in natural disasters. This restoration included renovation work on a hydroelectric plant in Itogon, Beguet, and efforts to rehabilitate the power complex in Laguna.

The Philippines has been unable to provide electricity to the entire country due to geographical barriers. As of 2000, almost 20 percent of *barangays* (villages) were without electrical service. Of these, 45 percent were located outside the power grid. The Asian Development Bank is assisting with efforts to link the three main power grids, located in Luzon, Visayas, and Mindanao.

Three main companies provide electrical service in the Philippines. The national power company, Napocor, began privatizing its assets in 2004. Private utility companies distribute electricity. The largest power company, Meralco, serves only Luzon. It ensures electrical coverage for the metropolitan Manila area.

The Philippines is well-suited to developing alternative energy sources, given its volcanic origins. Since 1977, the Philippines has developed geothermal energy production, and it is the world's second largest producer of geothermal energy. This energy source accounts for 16 percent of electrical power in the Philippines. The government plans to expand production and make the Philippines the world's largest producer of geothermal energy.

The Philippines has implemented policies to increase development and use of biofuels in an effort to increase utilization of alternative energy sources. Some solar power programs target supplying rural villages with electricity. The power company BP began the world's largest solar project in the Philippines in

2001. Several wind power projects are under development with one in Northern Luzon beginning operations in 2002. The Philippines plans to construct two biomass plants that convert waste products to energy.

## **Water**

Most piped water supply systems use groundwater as their source, replenished by rain and river seepage. Groundwater accounts for around half of consumed water. Fifty-eight percent of groundwater, the most common source of potable water, is contaminated. Pollution comes from domestic and industrial waste dumping, which seeps into water sources. Every year, contaminated water causes a third of illnesses.

Seventy percent of the population has access to safe drinking water. More than two-thirds of rural Filipinos do not have access to potable water. Seven percent of the population is connected to sewage systems. Open waste disposal is a significant problem in both rural and urban areas. Ninety percent of sewage is not treated or disposed of in an environmentally safe way due to lack of facilities. The Philippines government does not have the resources or manpower to enforce regulations regarding water quality and sanitation. Also, existing infrastructure is not adequate to provide clean water and sanitation to the growing population.

## **Agriculture**

The Philippines is primarily an agricultural country. About 47 percent of the Philippines' land area is agricultural land. It has fertile soil and a year-long growing season. Agricultural products include rice, corn, sugar, coconut products, pork, bananas, pineapple products, aquaculture, mangoes, eggs, poultry, tomatoes, cucumbers, oil palm, rubber, coffee, and cocoa. The most important

are corn, rice, and coconut. Agricultural value is 47 percent crops, 13 percent livestock, 14 percent poultry, and 25 percent forestry and fishing. The Philippines produce a large percentage of the world's coconut and more than a third of the world's copra (dried coconut). The fishing industry concentrates mainly on tuna.

Thirty-six percent of Filipinos are employed in agriculture. Thirty-two percent work in farming, hunting, and forestry, and the remaining 4 percent work in fishing. Agriculture provides almost two-thirds of the rural population with their livelihood. Most farm their own property. One-third of those involved in agriculture are landless workers.

Small rural farms are the main agricultural producers. Human power continues to dominate Filipino agriculture as economies of scale present a barrier to small farm mechanization. Land preparation is still primarily done by animal power, and ancient techniques, such as sun-drying, are still preferred.

## **Foreign Investment**

Despite its protectionist policies and generally inhospitable financial environment, the Philippines labor force and resources attracted a large amount of foreign investment from a diverse range of countries. Japan, the Netherlands, the United States, the Cayman Islands, and Korea were the top sources of foreign direct investment in 2005.

The United States has had a long history of investing in the Philippines and continues to be the largest source of foreign investment with the greatest number of projects. Economic ties between Japan and the Philippines have increased, and the two nations signed a free trade agreement in 2004. Foreign investment is primarily concentrated in manufacturing with the customer service industry

coming in second. Foreign investment is also present in agriculture, mining, gas, water, construction, trade, transportation, storage, communications, finance, real estate, and service.

Around 30 percent of assets in manufacturing and industry were foreign owned in the 1980s. New foreign investment accounted for 2 percent of GDP in 2006.

## **Economic Outlook**

According to economic analysts, the Philippines will continue to enjoy steady growth with drastic improvement or decline unlikely. The service industry will continue to account for most of the economic growth. Continued privatization of several key industries will most likely lead to greater foreign investment and economic growth. Political reform could strengthen investment confidence. Key challenges to further economic growth are the inability to attract greater investment, political instability, security problems, the insurgency, and corruption.

---

## **THREAT**

---

### **Crime**

Crimes similar to those that occur in most major cities in America also occur in Metro Manila. There are routine reports from U.S. personnel, while staying in Manila, of pocket picking, credit card fraud, and other thefts. U.S. personnel should ensure that their credit cards are in sight at all times, due to the increasing practice of credit card fraud. Incidents have been reported that involve the illicit use of an electronic device that retrieves credit card information, including the PIN, from the magnetic strip.

U.S. personnel have also reported incidents of robberies and assaults involving the “date rape drug” (also known as Ativan). The drug is given to unaware individuals usually with food or drink. Be cautious of individuals who are overly friendly and helpful, especially when first arriving in country, because they might be trying to take advantage. Do not accept food or drink from people off the street. U.S. personnel have been targeted in the past for kidnappings and assassinations in various locations throughout the Philippines. U.S. personnel should always exercise caution, sound judgment, and be aware of their surroundings while traveling or working in the Philippines.

There are many choices for traveling in and around the cities but taxis are usually the safest and most efficient way to get around. Buses, light rail systems, “jeepneys,” and motorcycles with cabs attached are also available but tend not to be as safe and reliable as a taxi. When using a taxi service, make sure you insist that the meter is used in lieu of a set price. Taxi drivers will often try to take advantage of Westerners by setting a price for service that is higher than what the metered fare would be.

## **Travel Security**

The Philippines has experienced several terrorist attacks in recent years and will most likely continue to see sporadic attacks for the foreseeable future. Most of the attacks have occurred in the southern region of the country, on Mindanao, but attacks have also occurred in Manila. One incident involved an explosion that sank a superferry in Manila harbor, killing more than 100 people, and another involved an explosion on a bus near the wealthy district of Makati. On Mindanao, attacks have occurred mostly in Christian communities where people most likely congregate such as shopping malls, market places, transportations systems,





**Jeepney.** *Photo by Christian Razukas*

and restaurants. Most attacks have been blamed on Muslim insurgent groups that operate primarily in the south. The military wing of the Communist Peoples Party (CPP), the New People's Army (NPA), operates throughout the country and conducts extortion bombings on business establishments and routinely conducts attacks against Philippine military and police forces. Although rare, U.S. personnel have been targets of terrorist attacks in the past that have resulted in the death of US military personnel. The U.S. State Department warns against all but essential travel throughout the country in light of heightened threats to Westerners. U.S. personnel need to remain vigilant with regard to personnel security.

## **Terrorism**

The transnational terrorist group Jemaah Islamiyah (JI), responsible for numerous bombings in Indonesia and the Philippines,

maintains a presence on Mindanao and in the Sulu archipelago. JI has ties to the al Qaeda organization and is responsible for the 2002 attack on a nightclub known to be frequented by Westerners in Bali, Indonesia. They are also responsible for an attack on the Marriott Hotel in Jakarta, Indonesia in 2003, the Australian Embassy bombing, also in Jakarta, in September 2004, and a second attack in Bali in 2005. Two bombers believed to be responsible for the first Bali bombings, reportedly fled Indonesia and took refuge with the indigenous Moro Islamic Liberation Front (MILF) group on Mindanao in 2003. JI members, along with Abu Sayyaf Group (ASG) leader Khadaffy Janjalani, were believed to have been working with the MILF in conducting several “joint” operations primarily on Mindanao but also as far reaching as Manila. The MILF denies allowing JI and ASG in their territory and has stated that “rouge” MILF commanders were responsible for allowing the terrorists to operate within their territory. As part of an ongoing peace process between the MILF and the Government of the Philippines, the MILF agreed to rid all JI and ASG members from their territory but a few low level JI members are believed to still be present on Mindanao. Several JI leaders and members of the ASG reportedly left Mindanao in 2005 and are currently located in the Sulu Archipelago. An all out effort by the Armed Forces of the Philippines against JI and ASG has resulted in the death of ASG leader Khadaffy Janjalani along with several other key ASG personnel and has kept JI members in the southern Philippines on the run.

## ***Insurgent Groups***

### **Communist People's Party/New People's Army**

The Communist People's Party (CPP) was founded in 1968 and its stated goal was to overthrow of the “reactionary” Philippine govern-

ment and replace it with a “national democracy.” Its militant wing, the New People’s Army (NPA), uses guerrilla warfare tactics to achieve this goal. Although the group is primarily rural-based, the NPA possess an active urban infrastructure capable of carrying out terrorist attacks. They have city-based assassination squads called “sparrow units” that have been used to assassinate politician and other government officials. The NPA routinely targets Philippine security and military forces, politicians, judges, and former NPA members. The NPA operates throughout the country and is considered by the government to be their greatest threat.

The NPA has publicly stated that U.S. personnel who enter their territory will be considered legitimate targets. They espouse anti-U.S. rhetoric and were very instrumental in protesting against U.S. military bases in the early 90s. They have attacked U.S. military interests in the past; killing several U.S. service personnel, most notably U.S. Army Col. James Rowe in April 1989. Since the closure of all U.S. bases in 1992, there has been little activity by the NPA against U.S. interests in the Philippines. Press reports in 1999 and in late 2001 indicated that the NPA was again targeting U.S. troops participating in joint military exercises as well as U.S. Embassy personnel but the threats have not materialized.

The CPP/NPA have an estimated strength of 10,000-15,000 and draw their support mostly from Christian communities. Funding comes mostly through so-called “revolutionary taxes,” which are extorted from local businessmen and politicians. The NPA was designated a foreign terrorist organization in August 2002 by the United States and its founder, Jose Maria Sison is considered a Specially Designated Global Terrorist.

## **Moro National Liberation Front**

The Moro National Liberation Front (MNLF) was founded by Nur Misuari as an advocacy group speaking out for the issues of the “Moro” people. The Philippine government had begun a campaign to migrate Christians from northern areas to Mindanao that resulted in Christians becoming the majority on Mindanao in the late 60s. In the early 70s, Misuari led the MNLF in taking back control of large areas of Mindanao and the Sulu. In 1996, the MNLF signed a peace agreement with the government establishing the Autonomous Region of Muslim Mindanao (ARMM). Nur Misuari was the first governor of the ARMM. There were Muslims groups opposed to the move because it did not include areas of vast natural resources that once belonged to the Muslim people. They believed the MNLF settled for much less than what was rightly theirs and consequently broke from the MNLF to establish the Moro Islamic Liberation Front and the Abu Sayyaf Group.

Nur Misuari lost a subsequent election as governor of the ARMM and, believing the government was behind the candidate who won the election, led an attack against a army base on Sulu that resulted in approximately 100 deaths. He was arrested and is currently in jail on conspiracy charges. He was reinstated as MNLF Chairman in 2007. He has a loyal group of followers advocating his release from prison called the Misauri Breakaway Group or the Misauri Renegade Group. They have been involved in clashes with the AFP, mainly in the Sulu.

## **Moro Islamic Liberation Front**

Under the leadership of Hashim Salamat, the Moro Islamic Liberation Front (MILF) broke from the MNLF in the mid-70s following a failed peace accord with the government. Membership is estimated at 12,000. The MILF called for a fully independent

Muslim state in the southern Philippines and began conducting terrorist attacks toward this goal. Peace negotiations were initiated in the 90s and a cease fire agreement was signed in 2001. Although there have been many violations of the agreement, it remains intact and additional peace talks are underway concerning expanding the autonomous region of Muslim Mindanao. Issues over ancestral domain and natural resources remain problematic. Current MILF Chairman, Murad Ibrahim, continues to deny any relationship with JI. There are elements within the MILF who are do not agree with the current peace negotiations and it is possible that they could form a breakaway group if the MILF signs an agreement they consider unacceptable.

### **Abu Sayyaf Group**

The Abu Sayyaf Group (ASG) operates primarily in the Sulu Archipelago with a stronghold on the Island of Jolo. They also operate in Zamboanga and Malaysia. The group was formed in the 1990's by Abdurajik Janjalani who reportedly fought against the Soviet Union during the war in Afghanistan and met Usama bin Ladin, who reportedly provided funding to Abdurajik Janjalani to form the group. In Arabic, Abu Sayyaf means "father of the sword." ASG has an estimated 200-400 members comprising mostly ethnic Tausug tribesmen from the Sulu Archipelago. Many are former MNLF members who disagreed with the peace agreement between the MNLF and government. Their stated goal is to establish an Islamic state in Western Mindanao and the Sulu.

ASG has been accused of working with Ramzi Yousef, the mastermind behind the first World Trade Center bombings, the 1994 Philippine Airlines Flight 434 bombing, and the foiled 1995 Bojinka Plot to blow up 11 airliners bound for the United States over the Pacific and South China Sea. Yousef spent time in the Philippines

and reportedly worked with the ASG. The money that was to fund Operation Bojinka reportedly came from bin Ladin, JI Operations officer Hambali, and from front organizations operated by Mohammed Jamal Khaifa, bin Ladin's brother-in-law.

As Tausags, or "People of the Sea," the ASG is adept with speed and *banca* boats. They can outmaneuver the AFP, which will rarely pursue an ASG boat. They are familiar with the island chains and take greater risks when traveling on the open seas.

ASG founder Abdurajik Janjalani was killed in 1998 in a fire fight with the Philippine National Police on Basilan Island. His younger brother, Khadaffy Janjalani, assumed leadership of the ASG and the group degenerated into more of a criminal vice ideological group. Most of their activity centers on extortion bombings, kidnap-for-ransom operations, and other criminal activity. In 2003, Janjalani had a falling out with other ASG sub-commanders and left the Sulu for Mindanao. It was on Mindanao where Janjalani reportedly met and worked with members of the terrorist group Jemaah Islaymia. They have been accused by the Philippine government of training together and carrying out joint operations. In 2005, Janjalani returned to Jolo Island with two JI bombers. He was subsequently killed by the AFP; several JI members have been on the run, avoiding AFP capture.

### **Rajah Solaiman Movement**

The Rajah Solaiman Movement (RSM) is one of the more militant groups to have risen out of the "Balik Islam" movement in the Philippines. Balik Islam means "revert to Islam" and is the belief that the original religion of the Philippines was Islam. Members are said to call themselves "reverts" vice converts for this reason. Rajah Solaiman was the name of the Muslim ruler of Maynilad (the name used by inhabitants of the pre-conquest Philippines)

at the time of the Spanish arrival in the 16th century. Balik Islam draws many members from the Christian community and most members believe in furthering their cause through non-violent means. Filipino workers returning overseas from Saudi Arabia and the Gulf are more likely candidates for the more ideological forms of activist Balik-Islam. Some RSM members are believed to have been involved in the Superferry bombing in 2004 and the Valentines Day bombing in 2005. Rajah Solaiman members are active on Luzon (Manila) and also around the region of Zamboanga province on Mindanao, where they act as “couriers” for Abu Sayyaf. Although RSM leader Ahmad Santos was arrested in October 2005, new leadership is beginning to emerge and the group may be reemerging and could become involved in future attacks.

## **Drug Trafficking**

The penalties for the possession, use, or trafficking in illegal drugs in the Philippines are severe, and convicted offenders can expect long jail sentences and heavy fines. The Republic of the Philippines sometimes uses capital punishment for certain drug-related crimes. The Philippines has been a consumer, transit point, and producer of crystal methamphetamine (crystal meth), known locally as *shabu*, and marijuana. Law enforcement officials estimate that the illegal industry earns more than US\$5 billion a year and that there are close to 2 million drug users in the Philippines. Crystal meth is the drug of choice in the Philippines and production has been an increasing problem. Most of it, however, is smuggled in from surrounding countries, primarily China. The Philippines has also become a transshipment point in exporting crystal meth to Japan, Australia, Korea, the United States, Guam, and Saipan. Marijuana sales are estimated to generate more than US\$900 million per year. Marijuana growers typically grow crops in areas inaccessible by vehicle and/or in areas controlled by insurgent

groups, making it difficult to curb production. Corruption within the Philippine government and military, coupled with a lack of effective or well-funded government countermeasures, also make it difficult to stem marijuana production. Although the government is increasing its efforts to combat drug trafficking, seizures in the United States, Guam, and the Philippines indicate that the country continues to be used as a transit point for drugs.

## **Major Intelligence Services**

The Philippines has several intelligence agencies within the police and military forces, including the Intelligence Group, Philippine National Police, Military Intelligence Group, and Intelligence Services of the Armed Forces of the Philippines. The National Intelligence Coordinating Agency (NICA) falls under the Philippine government and is its primary intelligence collection and analysis arm for carrying out overt, covert, and clandestine intelligence programs. The Philippine's National Security Advisor was given responsibility to oversee management and control of the NICA in response to the needs of the president and the National Security Council. The National Bureau of Investigation (NBI) falls under the Department of Justice and is responsible for handling and solving sensational cases that are in the interest of the nation.

---

## **ARMED FORCES OF THE PHILIPPINES**

---

### **Organization**

The Philippine constitution mandates civilian control of the military and establishes the president as the commander-in-chief of the armed forces. The president controls those forces through the secretary of defense. The secretary is by law a civilian and a member of the Philippine cabinet. The secretary of defense exercises



administrative control over the Armed Forces of the Philippines (AFP) and is charged with defense planning and internal security.

The National Security Council, which includes members selected by the president, uses the chief of staff of the armed forces as a technical adviser. Although overall responsibility for national security is vested in the secretary of defense, the National Security Council provides input to the president on military affairs. The vice chief of staff of the armed forces works directly with the secretary of defense as the chief's of staff representative, but the chief and the joint armed forces' headquarters deal directly with the major services.

The AFP consist of a general headquarters and three subordinate services — Philippine Army, Philippine Air Force (PAF), and Philippine Navy (including Marine Corps and Coast Guard) — organized into five unified commands and two special commands. The five unified commands are the Northern Luzon Command, Southern Luzon Command, Visayas Command, Western Command, and Southern Command. In addition, the National Capital Region Command in metropolitan Manila and the Special Operations Command were formed in 1999. These special commands are headquarter elements only. Administrative support to the commands is usually provided by the individual services.

Largely as a result of the U.S. pullout in late 1992 and subsequent cuts in military aid from the United States, Philippine defense spending increased from US\$878 million in 1994 to US\$1.4 billion in 1999. The AFP had planned to reduce its ranks to 85,000 by 1998 to save enough money to pay for an ambitious and desperately needed modernization program. That modernization program, however, has largely been halted due to lack of adequate funding as funds were spent on counterinsurgency operations to

battle the upsurge in hostile activity by Muslim separatist groups, especially in the southern Philippines.

## **Mission**

The mission of the AFP includes territorial defense and internal security. According to the Philippine constitution, the AFP is expected to “uphold national sovereignty, support the constitution, and defend the territory of the Republic of the Philippines against all enemies foreign and domestic; promote and advance national aims, goals, interests, and policies; plan, organize, maintain, develop, and deploy regular citizen reserve forces for national security; and perform such other functions as may be provided by law or assigned by higher headquarters.”

## **Doctrine and Strategy**

Doctrine stresses internal security because of the insurgency and separatist threats that the country has faced in recent years. In the late 1980s, strategists began planning a major modernization of the AFP that would switch emphasis to a more traditional defense against external threats, with responsibility for internal threats going to the Philippine National Police (PNP). This effort has been stalled since 1995 due to the increase in internal security threats posed by Muslim separatist movements.

## **Key Defense Personnel**

<i>Secretary of National Defense</i>	Hermogenes Ebdane
<i>AFP Chief of Staff</i>	LtGen Hermogenes Esperon
<i>AFP Vice Chief of Staff</i>	MajGen Antonio Romero
<i>AFP Deputy Chief of Staff</i>	MajGen Christie Datu
<i>Chief of the Army</i>	LtGen Romeo Tolentino

<i>Cdr. Southern Command</i>	MajGen Gabriel Habacon
<i>Cdr. Western Command</i>	Rear Admiral Tiso Danga
<i>Cdr. Northern Luzon Command</i>	LtGen Bonifacio Ramos
<i>Cdr. Southern Luzon Command</i>	LtGen Alexander Yano
<i>Cdr. Central Command</i>	LtGen Samuel Bagasin
<i>Cdr. National Capital Region Cmd</i>	LtGen Alan Cabalquinto

## ***Personnel***

AFP total active manpower is approximately 110,000. Although the ranks of the AFP were rapidly expanded through selective conscription during the mid-1970s, conscription has not been necessary during the past decade because volunteers have greatly outnumbered available positions. Recruits are drawn from all sections of the country. All recruits must have at least a high school diploma. Senior officers often come from towns and cities, where education standards are higher.

## **Army**











### ***Mission***

The Philippine Army is responsible for defending national territory and, in conjunction with the PNP, maintaining internal security. The Army also has a role in civic action and may be involved in various government-sponsored socioeconomic programs. The primary role of the Philippine Army is to protect the country against communist and rebel military group insurgencies. This role was to be turned over to the PNP as part of an overall defense modernization effort, but that change has not taken place.

The official Philippine Army vision and mission are the same, “by 2020, to have a professional, capable, and responsive army that can be a source of national pride.”

The Philippine Army web site lists the following as the army's functions (goals):

- Organize, train, and equip Army forces for the conduct of prompt and sustained combat operations on land;
- Prepare such units as may be necessary for the effective prosecution of national defense plans and programs and Armed Forces mission, including the expansion of the peacetime army component to meet any emergency;
- Develop, in accordance with the other major services, tactics, techniques, and equipment of interest to the Army on field operations;
- Train, organize, and equip all Army reserve units; and
- Perform such functions as the higher authorities may direct.










<b>Officer</b>					
	<i>Air Force - Blue/Silver Army - Blue/Gold/Green</i>	<b>2nd Lieutenant</b>	<b>1st Lieutenant</b>	<b>Captain</b>	<b>Major</b>
<i>US Equivalent</i>	<b>2nd Lieutenant</b>	<b>1st Lieutenant</b>	<b>Captain</b>	<b>Major</b>	<b>Lieutenant Colonel</b>
<b>Officer</b>					
	<i>Air Force - Blue/Silver Army - Blue/Gold/Green</i>	<b>Colonel</b>	<b>Brigadier General</b>	<b>Major General</b>	<b>Lieutenant General</b>
<i>US Equivalent</i>	<b>Colonel</b>	<b>Brigadier General</b>	<b>Major General</b>	<b>Lieutenant General</b>	<b>General</b>

## Army/Air Force Officer Rank Insignia

## Organization

The Philippine Army operates across all operational unified commands. Its headquarters is located at Fort Bonifacio, Manila. Only two commands belong solely to the Army: the Special Operations Command and the Army Training and Doctrine Command. All other organizations within the Army are spread across the five unified commands when conducting operations. Although Army units are located throughout the Philippines, they are attached to unified commands for operations. Specialized counterinsurgency operations are a function of the elite Army Scout Ranger battalion.

The Philippine Army also has a very small aviation branch, which flies Cessna aircraft in the liaison role. Rather than establishing an

<b>Enlisted</b>					
	<b>Private</b>	<b>Private 1st Class</b>	<b>Corporal</b>	<b>Sergeant</b>	<b>Staff Sergeant</b>
<i>US Equivalent</i>	<b>Private</b>	<b>Private 1st Class</b>	<b>Corporal</b>	<b>Sergeant</b>	<b>Staff Sergeant</b>
<b>Enlisted</b>					
	<b>First Sergeant</b>	<b>Master Sergeant</b>	<b>Senior Master Sergeant</b>	<b>Chief Master Sergeant</b>	
<i>US Equivalent</i>	<b>Sergeant First Class</b>	<b>Master Sergeant</b>	<b>Sergeant Major</b>	<b>Command Sgt Major</b>	

### Enlisted Army Rank Insignia

Army aviation unit to contend with counterinsurgency operations, the AFP integrates Army and PAF ground support operations under the unified commands.

The Philippine Army has approximately 80,000 members. The following are the major army units:

- 9 infantry divisions, each with 3 infantry brigades. (a 10th division is under construction)
- 1 scout ranger regiment, with 5 scout ranger battalions
- 1 light armored brigade
- 8 artillery battalions
- 5 engineer brigades
- 1 construction battalion
- 1 signals unit
- Presidential security group with two counterinsurgency units

## ***Facilities***

The AFP is based by divisional and brigade-level facilities in the following locations:

- 1st Infantry Division – Pulacan, Pagadian City
  - 101st Brigade – Del Pilar, Pinan, Zamboanga del Sur
  - 102nd Brigade – Aurora, Zamboanga del Sur
  - 103rd Brigade – Isabella, Basilan
- 2nd Infantry Division – Calauag, Quezon
  - 201st Brigade – Camp Canuto, Pili, Camarines Sur
  - 202nd Brigade – Daraga, Albay
  - 203rd Brigade – Calaug, Quezon

- 3rd Infantry Division – Jamindan, Capiz
  - 301st Brigade – Tacurong, Sultan Kudarat
  - 302nd Brigade – Camp Fernando, Dingle, Iloilo
  - 303rd Brigade – Aurora, Zamboanga del Sur
- 4th Infantry Division – Camp Evangelista, Cagayan de Oro
  - 401st Brigade – Properidad, Agusan del Sur
  - 402nd Brigade – Iligan City, Lanao del Norte
  - 403rd Brigade – Malaybalay, Bukidnon
- 5th Infantry Division – Gamu, Isabela Province
  - 501st Brigade – Tuao, Cagayan
  - 502nd Brigade – San Pablo, Isabella
  - 503rd Brigade – East Flora, Kalinga
- 6th Infantry Division – Awang, Maguindanao
  - 601st Brigade – Malonngon, Sarangani
  - 602nd Brigade – Ciraca, Cotobato
  - 603rd Brigade – Sultan Kudarat, Maguindanao
- 7th Infantry Division – Fort Magsaysay, Palayan City
  - 701st Brigade – Villamor Air Base, Pasay City
  - 702nd Brigade – Liyang, Pilar, Bataan
  - 703rd Brigade – San Isidro, San Luis, Aurora
- 8th Infantry Division – Camp Lucban, Catbalogan,  
Western Samar
  - 801st Brigade – Catarman, Northern Samar
  - 802nd Brigade – Taft, Eastern Samar
  - 803rd Brigade – Sanat Rita, Western Samar
- 9th Infantry Division – Camp Canuto, Pili, Camrines Sur
  - 901st Brigade – Daraga, Albay
  - 902nd Brigade – Labo, Camrines Norte

- 10th Infantry Division – Camp Panacan, Davao City, Davao (Under Construction)
- 51st Engineer Brigade – Camp Atienza, Libis, Quezon City
- 52nd Engineer Brigade – Camp Natividad, Manolo Fortich, Bukidnon
- 53rd Engineer Brigade – Lapulapu, Cebu
- 54th Engineer Brigade – Manaoag, Pangasinan
- 55th Engineer Brigade – San Gabriel, Davao City
- Special Forces Command – Fort Magsaysay, Palayan City, Nueva Ecija
- Philippine Army Light Armor Brigade – Camp O’Donnell, Capas Tarlac
- Army Training and Doctrine Command – Fort Magsaysay, Palayan City

## ***Training***

The Army intends to shorten training periods to maximize the time soldiers spend with their units. Courses will be structured to prepare personnel for their next assignments, “not merely the next promotion.” This policy also means that many recruits will reach their units under-prepared and often with little opportunity for specialist training before being deployed on operations.

## ***Equipment***

### **Armored Vehicles**

<b>Name</b>	<b>Type</b>	<b>Quantity</b>
Scorpion	Armored reconnaissance vehicle	41
YPR-765 PRI	Armored fighting vehicle	85
Chaimite	Light armored vehicle	20
Simba	Light armored vehicle	150



<b>Name</b>	<b>Type</b>	<b>Quantity</b>
M113A1	Armored personnel carrier	92
V-150 Commander	Armored personnel carrier	79
SAMSON	Armored recovery vehicle	1

### **Artillery**

<b>Name</b>	<b>Type</b>	<b>Quantity</b>
M114	155-mm howitzer (8 in service)	12
M101/102	105-mm howitzer (140 in service)	180
Model 56	105-mm pack howitzer	50
M30	107-mm mortar	40
M29	81-mm mortar	400
M19	60-mm mortar	NA
Philippine M-75	60-mm mortar	NA
Russian ZU 23-2	Twin 23-mm ADA	NA
Chinese Type 85	Twin 25-mm ADA	NA
Chinese Type 65	Twin 37-mm ADA	NA
Chinese Type 59	57-mm ADA	NA

### **Recoilless Guns**

<b>Name</b>	<b>Type</b>	<b>Quantity</b>
M40	106-mm recoilless rifle	NA
M67	90-mm recoilless rifle	NA
M20	75-mm recoilless rifle	NA

### **Small Arms**

<b>Name</b>	<b>Type</b>
M1911A1	0.45-in pistol
P-99	9-mm pistol
M-14	7.62-mm assault rifle
M-16	5.56-mm assault rifle

<b>Name</b>	<b>Type</b>
Galil	5.56-mm assault rifle
FN Minimi	5.56-mm squad automatic weapon
Uzi	9-mm submachinegun
M3A1	0.45-in submachinegun
Ultimax 100	5.56mm light machinegun
FN MAG	7.62mm general purpose machinegun
M-60	7.62mm general purpose machinegun
Browning M2HB	0.50-in heavy machinegun
M203	40-mm grenade launcher
M79	40-mm grenade launcher

### **Army Aviation**

<b>Name</b>	<b>Quantity</b>
Cessna 170	1
Cessna U206A Stationair	2
Beech Queen Air 80	1

### **Rotary Aircraft**

The Army relies on PAF assets. There is an initiative to fund/build a rotary unit in the Army, but little has been done to stand it up.

## **Air Force**

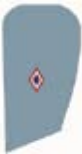








### ***Mission***

The mission of the PAF is to conduct air operations in support of the AFP and the national government. This includes support of AFP ground and naval forces, and participation in AFP civic action programs related to health, welfare, and disaster relief. The PAF is essentially now in a support role to the Philippines ground forces due to the retirement of the F-5 interceptor and inactivation of its associated units. The major combat aircraft in the PAF inventory is the OV-10, which is used in counterinsurgency operations.

The PAF is under-financed and it lacks support facilities; maintenance is a major problem. Largely due to funding shortfalls, the PAF launched a modest modernization program focused on support for ground forces and troop transport. This as well as medical evacuation missions are essential in the fight against Muslim and communist insurgent groups. This will likely remain the PAF's primary mission for the foreseeable future .

## Organization

The PAF has approximately 16,000 personnel organized into four major commands — Tactical Operations Command, Air Logistics

<b>Enlisted</b>					
	<b>Airman</b>	<b>Airman 2nd Class</b>	<b>Airman 1st Class</b>	<b>Sergeant</b>	<b>Staff Sergeant</b>
<i>US Equivalent</i>	<b>Airman</b>	<b>Airman 1st Class</b>	<b>Senior Airman</b>	<b>Sergeant</b>	<b>Staff Sergeant</b>
<b>Enlisted</b>					
	<b>First Sergeant</b>	<b>Master Sergeant</b>	<b>Senior Master Sergeant</b>	<b>Chief Master Sergeant</b>	
<i>US Equivalent</i>	<b>Technical Sergeant</b>	<b>Master Sergeant</b>	<b>Senior Master Sergeant</b>	<b>Chief Master Sergeant</b>	

## Air Force Enlisted Rank Insignia

Command, Air Education and Training Command, and Air Reserve Command. As in the U.S. Air Force, the various commands of the PAF contribute fighting forces to the various unified commands, often in support of ground or naval operations. The PAF also has a search and rescue group.

The Air Force's organization includes:

- 1 attack squadron
- 1 fighter squadron
- 4 counterinsurgency groups
- 3 counterinsurgency helicopter squadrons
- Several transport squadrons, including
  - 1 Presidential Transport squadron
  - 4 Search and Rescue Squadrons

## ***Deployment***

### **Villamor Air Base, Pasay City, Manila:**

- HQ Philippine Air Force
- 520th Air Base Wing
- 250th Presidential Airlift Wing
- 251st Presidential Airlift Squadron
- 252nd Presidential Helicopter Squadron
- 300th Air Intelligence Group
- 505th Search and Rescue Group
- 5051st Search and Rescue Squadron
- 900th Weather Support Group
- 901st Weather Squadron
- 221st Airlift Squadron

## **HQ, Benito Ebuena Air Base, Mactan Island , Cebu:**

- 2<sup>nd</sup> Tactical Operations Wing
- 2<sup>nd</sup> Tactical Operations Group
- 220<sup>th</sup> Airlift Wing
- 222<sup>nd</sup> Airlift Squadron
- 223<sup>rd</sup> Airlift Squadron
- 205<sup>th</sup> Tactical Helicopter Wing
- 5052<sup>nd</sup> Search and Rescue Squadron
- 210<sup>th</sup> Tactical Operations Squadron

## **Edwin Andrews Air Base, Zamboanga City:**

- 3<sup>rd</sup> Tactical Operations Wing
- 9<sup>th</sup> Tactical Operations Group
- 206<sup>th</sup> Tactical Operations Squadron

## **Basa Air Base, Floridablanca, Pampanga:**

- Air Defense Wing
- 7<sup>th</sup> Tactical Fighter Squadron

## **HQ, Maj Danilo S. Atienza Air Base, Sangley Point, Cavite City:**

- 15<sup>th</sup> Strike Wing
- 16<sup>th</sup> Strike Squadron
- 17<sup>th</sup> Strike Squadron
- 18<sup>th</sup> Strike Squadron
- 20<sup>th</sup> Air Commando Squadron
- 106<sup>th</sup> Attack Helicopter Training Squadron

### **Clark Air Base, Angeles City, Pampanga:**

- 600th Air Base Wing
- Air Logistics Support Command
- Air Reserve Command
- 410th Maintenance Wing
- 420th Supply Wing
- 710th Special Operations Wing

### **Antonio Bautista Air Base, Puerto Princesa City, Palawan:**

- 570th Composite Tactical Wing

### **Rajah Buayan Air Base:**

- 101<sup>st</sup> Pilot Training Squadron
- 102nd Pilot Training Squadron

### **Davao Air Base:**

- 5053<sup>rd</sup> Search and Rescue Squadron

### **Wallace Air Station, Paro Point, La Union:**

- 580th Aircraft Control and Warning Wing

### **Loakan Airport:**

- 1<sup>st</sup> Tactical Operations Wing
- 1st Tactical Operations Group

### **Camp Aquino:**

- 3<sup>rd</sup> Tactical Operations Group

### **Camp Olivas:**

- Tactical Air Command Post

### **Lucena City:**

- 4<sup>th</sup> Tactical Operations Group

### **Cauayan Air Base:**

- Tactical Operations Squadron

### **Laoag International Airport:**

- PAF Detachment
- 207<sup>th</sup> Tactical Operations Squadron
- 5056<sup>th</sup> Search and Rescue Squadron

### **Southern Luzon:**

- 209<sup>th</sup> Tactical Operations Squadron

### **Totolan:**

- 208<sup>th</sup> Tactical Operations Squadron
- 211<sup>th</sup> Tactical Operations Squadron

### **Fernando Air Base, Lipa City:**

- 100<sup>th</sup> Training Wing
- 101<sup>st</sup> Primary Flying Training Squadron
- 102<sup>nd</sup> Basic Flying Training Squadron
- 901<sup>st</sup> Weather Squadron
- 443<sup>rd</sup> Field Depot Maintenance Squadron

## ***Equipment***

The following aircraft are in the PAF inventory (aircraft are of U.S. origin unless otherwise noted).

## Fixed Wing Aircraft

<b>Name</b>	<b>Role</b>	<b>Quantity</b>
OV-10A/C Bronco	Counterinsurgency	13
F-27 500 Friendship	Transport	1
F-28 Fellowship	VIP Transport	1
C-130 B/H Hercules	Transport	9
L-100-20 Hercules	Transport	3
6F27-200 Friendship (Netherlands)	Transport	7
N-22B	Transport	5
T-41D Mescalero	Trainer	13
SF260TP Warrior (Italy)	Trainer	12
S-211 (Italy)	Trainer	15
R-172 Hawk XP	Trainer	6
F-28 Friendship 3000	Communications	1
Commander 690A	Survey/Mapping	1
Cessna T210G	Weather Reconnaissance	Unk

## Rotary Aircraft

<b>Name</b>	<b>Role</b>	<b>Quantity</b>
Bell UH-1N Twin Huey	Utility	Unk
Bell Huey (214ST)	Transport	Unk
Bell UH-1H Iroquois	Utility	59
Bell 205A	Utility	5
Sikorsky S-76A	Communications	3
MD 500/520 Defender	Combat	18
Sikorsky S-76 (AUH-76)	Combat	3
SA 330L Puma	Communications	1
Sikorsky S-70A-5 Black Hawk	Communications	1



<b>Name</b>	<b>Role</b>	<b>Quantity</b>
Bell 412 EP	Utility	4
Bell 412SP	Utility	2

## **Navy**

The Philippine Navy is responsible for the protection of the more than 7,100 islands of the Philippines. Navy missions are increasingly in support of ground campaigns — to conduct blockades, transfer troops, and assist in interdiction operations against Muslim/Communist groups. Furthermore, international pressure has called for the Philippines to use its navy in larger role to counter piracy in the region. However, the poor quality and state of repair of the majority of its vessels often leave the Navy at a disadvantage when up against more capable pirate vessels. The Philippines relies on assistance from the United States and the Association of South East Asian Nations (ASEAN) to maintain its naval force.

## ***Mission***

The Navy's mission is to provide defense against intruders at sea; conduct reconnaissance and provide intelligence; train for and conduct amphibious operations; maintain territorial integrity; protect shipping ports and harbors; stop illegal entry, smuggling, and piracy; repatriate illegal entrants; enforce maritime laws; conduct naval operation in support of ground/air forces, and assist the civilian government in national development. The mission of naval aviation is to provide liaison and light support. The Navy and Coast Guard often share common duties.

## ***Organization***

The total active manpower of the Navy is approximately 22,000 including the aviation wing and Marine Corps (PMC). The Philippine Navy is organized into two commands: the Fleet and Marine Corps. In addition, the Navy has 3 naval construction battalions and 26 SEAL teams. A flag officer-in-command exercises operational control of the navy, overseeing the major naval commands (consisting of five forces and two groups) and the six Naval Districts. Navy headquarters is in Cavite, along with most of the fleet.

The 8,700-man Marine Corps comprises three tactical brigades (with ten battalions each) and one support brigade (consisting of an administration battalion and a guard battalion).

## ***Deployment***

Navy command is divided into five regional forces: Naval Forces North, based in San Fernando, La Union; Naval Forces West, Puerto Princesa, Palawan; Naval Forces Central, Cebu; Naval Forces Southern Luzon, Legaspi City, Albay; Naval Forces South, Zamboanga City, and Naval Forces Eastern Mindanao, Davao City.

The Eastern Mindanao command became operational in June 2003. The Navy has been particularly active in southwestern Mindanao and the Sulo Archipelago, where terrorists frequently move between small islands by sea.

Major naval bases are located at La Union, Cebu, Palawan, and Zamboanga City. The Marine Corps is primarily deployed in Mindanao and Palawan.

## ***Equipment***

Most Philippine ships were U.S. Navy ships, acquired through U.S. military assistance programs. Many ships are either inoperable or in need of extensive upgrade. Several programs to modernize the force are underway.

### **Surface Vessels**

<b>Type</b>	<b>Role</b>	<b>Quantity</b>
CANNON Class	Frigate	1
JACINTO Class	Corvette	3
AUK Class	Corvette	2
PCE 827 Class	Corvette	7
AGUINALDO Class	Small Patrol Craft	3
KAGITINGAN Class	Large Patrol Craft	3
JOSE ANDRADA (SEA HAWK) Class	Coastal Patrol Craft	22
CONRADO YAP (SEA HAWK/KILLER) Class	Coastal Patrol Craft	12
CYCLONE Class	Coastal Patrol Craft	1
POINT Class	Coastal Patrol Craft	2
TOMAS BATILO (SEA DOLPHIN) Class	Fast Attack Craft	8
SWIFT MK 3	Coastal Patrol Boat	4
LST (TYPE 542)	Landing Ship Tank	4
BACOLOD (FRANK S BESSON) Class	Landing Ship Vehicle	2
LCM/LCU	Landing Craft Mechanized/Utility	21

The Navy also operates more than 50 miscellaneous patrol craft and approximately 35 support, research, and survey craft. Several











small ships and a yacht are assigned as presidential transports. The operational status of many of the patrol craft is questionable.

## Naval Aviation

Type	Role	Inventory/In Service
177 Cardinal	Communications	2/2
BN2A-21 Islander	Utility	11/7*
BO 105 C	Utility Helicopter	9/5**

Notes: \*Inventory includes two non-operational aircraft that will be upgraded when funds permit.










\*\*Only two craft were reported airworthy in late 2004; the remaining three are expected to be refurbished by 2008.

Officer					
	Ensign	Lieutenant Junior Grade	Lieutenant Senior Grade	Lieutenant Commander	Commander
<i>US Equivalent</i>	<i>Ensign</i>	<i>Lieutenant Junior Grade</i>	<i>Lieutenant</i>	<i>Lieutenant Commander</i>	<i>Commander</i>
Officer					
	Captain	Commodore	Rear Admiral	Vice Admiral	Admiral
<i>US Equivalent</i>	<i>Captain</i>	<i>Rear Admiral Lower Half</i>	<i>Rear Admiral Upper Half</i>	<i>Vice Admiral</i>	<i>Admiral</i>

## Navy Officer Rank Insignia

## Outlook

The PN has initiated a counter-terrorism training program for its Naval Special Warfare Group. The program includes an instructor development course, maritime special operations and close-quarter battle training, along with search and seizure operations, which will be conducted at naval bases in Cavite, Zamboanga, and Davao. The training program is part of the navy's US\$5.1 million share of the US\$30 million counter-terrorism Foreign Military Financing grant from the U.S. government to the Armed Forces of the Philippines. Included in the grant is US\$2.7 million in weapons, speedboats, radios, ammunition, medical equipment, tools and manuals.

Enlisted					
	Seaman	Seaman 2nd Class	Seaman 1st Class	Petty Officer 3rd Class	Petty Officer 2nd Class
<i>US Equivalent</i>	<i>Seaman Recruit</i>	<i>Seaman Apprentice</i>	<i>Seaman</i>	<i>Petty Officer 3rd Class</i>	<i>Petty Officer 2nd Class</i>
Enlisted					
	Petty Officer 1st Class	Chief Petty Officer	Senior Chief Petty Officer	Master Chief Petty Officer	
<i>US Equivalent</i>	<i>Petty Officer 1st Class</i>	<i>Chief Petty Officer</i>	<i>Senior Chief Petty Officer</i>	<i>Master Chief Petty Officer</i>	

## Navy Enlisted Rank Insignia

The Philippine government created the Philippine Armed Forces Modernization Plan (PAMP) to upgrade its limited military capability. The PAMP set the framework for the reorganization, provided additional funding for new military equipment, and transferred the counterinsurgency mission to the Philippine National Police. Budget constraints and the embezzlement of allocated funds have limited efforts to implement this plan. The Philippine government has employed little reform of its own and relies on foreign aid in its modernization efforts. Nevertheless, on 2 January 2006, Philippines president Gloria Macapagal Arroyo approved funding of US\$95 million to modernize armed forces. The AFP requirement is expected to include missile gunboats, offshore patrol vessels, helicopters, reconnaissance aircraft, search-and-rescue medium-lift aircraft and amphibious vehicles.

Among the more notable modernization efforts is the PN's upgrade to its antiquated patrol boat fleet. US\$17.8 million has been targeted to upgrade the Navy's three, 20 year-old JACINTO-Class patrol vessels. These three ships are to be cycled through the upgrade process over 2 years. They underwent the first phase by September 2006. This phase included the overhaul of the 76-mm gun and installation of a MSI Defense Systems 25-mm gun mounting on the stern. Phases two and three are to involve the installation of new propulsion and safety systems.

As part of an agreement to boost defense ties between the Philippines and South Korea, eight GIREOGI Class PC units have been transferred from South Korea; six were transferred on 16 June 1995, and two more on 7 December 2006. GIREOGI is an alternate name for the TOMAS BAATILO/SEA DOLPHIN.

Other developments include the following:

- The announced purchase of unmanned spy planes to help guard the Philippines' extensive maritime borders.

- The likely acquisition by the Philippine Marine Corps of 1956-vintage LVTP-5 tracked landing vehicles from Taiwan.

## **Marine Corps**

### ***Mission***

The mission of the Philippine Marine Corps (PMC) is to conduct amphibious operations in support of the Philippine Navy and other services of the Armed Forces of the Philippines. The Philippine Marines are generally employed in assisting the Philippine Army and Philippine National Police in on-going counterinsurgency operations in the southern Philippines.

### ***Organization***

The PMC is has three tactical brigades, composed of eleven tactical battalions, as well as one support brigade (consisting of an administration battalion and a guard battalion). The PMC headquarters is located at Fort Bonifacio in Manila.

### ***Personnel***

The current strength of the PMC is estimated at 8,700 personnel.

### ***Training***











Philippine Marines are trained at the Marine Corps Training Center (MCTC) Ternate, Cavite. The Basic School (TBS) at the MCTC offers basic courses for newly recruited officers and enlisted personnel. The MCTC is specifically tasked to conduct career and specialization training and to formulate, develop and validate doctrines peculiar to the PMC organization. It conducts basic, specialized and advanced training for infantry, armor, artillery and combat service support personnel. The MCTC also provides spe-

cialized training to other services of the AFP and to Philippine Marine reservists on a regular basis.

The PMC annually rotates one of its battalions back to Fort Bonifacio for re-equipping and retraining for a 6 – 8 month period. The remaining battalions stay deployed throughout the archipelago; primarily in Mindanao, Palawan, and the Sulu archipelago.

## Capabilities

The PMC is capable of conducting COIN operations (their performance in COIN ops have earned them the reputation as a well-disciplined and well-respected force), amphibious operations, di-

Officer					
	2nd Lieutenant	1st Lieutenant	Captain	Major	Lieutenant Colonel
<i>US Equivalent</i>	2nd Lieutenant	1st Lieutenant	<i>Captain</i>	<i>Major</i>	<i>Lieutenant Colonel</i>
Officer					
	Colonel	Brigadier General	Major General	Lieutenant General	General
<i>US Equivalent</i>	<i>Colonel</i>	<i>Brigadier General</i>	<i>Major General</i>	<i>Lieutenant General</i>	<i>General</i>

## Marine Corps Officer Rank Insignia



saster response and relief operations, providing security to naval and vital government installations, riverine operations, anti-piracy operations, and ceremonial functions.

## ***Equipment***

### **Armor**

<b>Type</b>	<b>Role</b>	<b>Quantity</b>
LVTP-5/6 (US)	Personnel Carrier	30
V150/300	Personnel Carrier	Unk
Scorpion	Light tank	41

### **Artillery**

<b>Type</b>	<b>Role</b>	<b>Quantity</b>
M101 105-mm	Howitzer	Unk
M30 107-mm (4.2-in)	Mortar	Unk

Small arms used by the PMC include M-16 assault rifles, M-14 rifles, tactical shotguns, and pistols.

## **Coast Guard**

### ***Mission***

The mission of the Philippine Coast Guard (PCG) is to safeguard the country's vital sea-lanes and enforce all Philippine maritime laws. To accomplish its mission, the PCG is organized under the following five functional categories:

- Maritime Safety Administration (MARSAD);
- Maritime Search and Rescue (MARSAR);
- Marine Environmental Protection (MAREP);
- Maritime Law Enforcement (MARLEN); and
- Maritime Operations (MAROPS).

## ***Organization***

The PCG has been upgraded and placed under the Philippines Department of Transportation and Communication. The 54 PCG stations and 195 PCG detachments are organized under the ten PCG districts in the Philippines. The PCG and the Philippine Navy share common duties; PCG units are placed under the operational control of Philippine Navy commanders when conducting counter-insurgency operations.

## ***Personnel***

There are approximately 3,500 personnel in the PCG.

## ***Training***

Training for PCG personnel is conducted at the PCG Education and Training Command (CGETC) at Farola, Ilocos Sur, Philippines.

## ***Capabilities***

The PCG conducts 24-hour distress monitoring, response and relief activities in aid of persons or vessels in distress at sea, maritime security operations to protect Philippine ports, harbors and coastal waters, regulates the construction of bridges and structures over navigable waterways, supervises salvage operations, regulates regattas and marine parades and conducts inspection of maritime training schools as member of the Maritime Training Council.

## ***Equipment***

- 3 Australian DeHaviland Coast Guard 9202 design
- 15 U.S. SWIFT MK I and II (PCF MKI and MK II)
- 10 U.S. SWIFT MK III (PB MK III)
- 11 Coast guard cutters of various types

## Paramilitary Forces

### *Philippine National Police*

The Philippine National Police (PNP) was established in 1991 from the former Philippine Constabulary-Integrated National Police (PC-INP). The PNP has an active strength of 114,000 supplemented by village security forces, civilian volunteers, and private security guards that number approximately 500,000 personnel. The Philippine National Police operates under the jurisdiction of the Department of Interior and local governments.

The PNP will eventually take over most, if not all, counter-insurgency missions from the Philippine Army and Philippine Marine Corps once the insurgency is contained. The PNP plays a supporting role in COIN ops and are involved in the arrest of alleged insurgents and terrorists.



**Police Roadblock at a Manila Hotel.** *Photo by Christian Razukas*

## **Civilian Armed Forces Geographical Units**

The AFP formed the Civilian Armed Forces Geographical Units (CAFGUs) in the late 1990s and it is used to augment regular AFP units involved in COIN operations. CAFGU personnel include former AFP members, local recruits, and former rebels that were integrated after peace agreements with the Moro Islamic Liberation Front. CAFGU personnel are part – time personnel that receive limited benefits. CAFGU personnel are frequently accused of human rights abuses and some are suspected rebel sympathizers. In 2006 President Arroyo ordered the recruitment of more CAFGU personnel to counter the growing threat from the New People’s Army.

---

## APPENDIX A: EQUIPMENT RECOGNITION

---

### INFANTRY WEAPONS

#### 9-mm Pistol Glock 19



<b>Caliber</b>	9 x 19 mm (Parabellum)
<b>Maximum Range</b>	100 m
<b>Effective Range</b>	50 m
<b>Method of Operation</b>	Recoil
<b>Feed Device</b>	15-round box magazine
<b>Weight Unloaded</b>	0.595 kg
<b>Overall Length x Width x Height</b>	174.0 x 30 x 127 mm (with magazine)
<b>NOTE:</b> will accept Glock 17 magazine (17-round).	

## 9-mm, Pistol Glock P80 (Glock 17)



<b>Caliber</b>	9 x 19 mm (Parabellum)
<b>Maximum Range</b>	100 m
<b>Effective Range</b>	50 m
<b>Method of Operation</b>	Recoil
<b>Feed Device</b>	17-round box magazine
<b>Weight Unloaded</b>	0.661 kg
<b>Overall Length</b>	188.0 x 30 x 131 mm

**NOTE:** 17-round magazine can be used with the Glock 17.

## 0.45-in Pistol M1911A1



<b>Cartridges</b>	0.45 cal. ACP (11.4 x 23 mm)
<b>Method of Operation</b>	Short-recoil, semiautomatic
<b>Feed Device</b>	7-round box magazine
<b>Weight, Empty</b>	1.13 kg
<b>Overall Length</b>	219 mm

**NOTE:** some versions have been chambered for 9- x 19-mm Parabellum or .38-cal Super (9- x 23-mm) cartridges.

## 9-mm Pistol Browning High Power FN 35



<b>Caliber</b>	9.0 x 19.0 mm (Parabellum)
<b>Effective Range</b>	50 m
<b>Method of Operation</b>	Recoil, semiautomatic
<b>Feed Device</b>	13-round box magazine
<b>Weight Loaded</b>	1.06 kg
<b>Overall Length</b>	204 mm



## 5.56-mm Assault Rifle Galil



<b>Cartridge</b>	5.56 x 45.0 mm
<b>Effective Range</b>	300 m
<b>Cyclic Rate of Fire</b>	575 rounds/minute
<b>Method of Operation</b>	Gas blowback, selective fire (semiautomatic, automatic)
<b>Feed Device</b>	35- or 50-round box magazine
<b>Weight Unloaded</b>	4.58 kg
<b>Length</b>	
<b>Stock Extended</b>	990.6 mm
<b>Stock Folded</b>	744.2 mm

## 5.56-mm Assault Rifle M16A1



<b>Cartridge</b>	5.56 x 45 mm
<b>Effective Range</b>	800 m
<b>Maximum Range</b>	3,600 m
<b>Cyclic Rate of Fire</b>	700 rounds/minute
<b>Method of Operation</b>	Gas blowback, direct action, selective fire
<b>Feed Device</b>	20- or 30-round box magazine
<b>Weight Unloaded</b>	3.40 kg
<b>Length</b>	990 mm

## 5.56-mm Assault Rifle M16A2



<b>Cartridge</b>	5.56 x 45 mm
<b>Range</b>	
<b>Maximum</b>	3,600 m
<b>Effective</b>	800 m
<b>Rate of Fire</b>	
<b>Cyclic</b>	700 rounds/minute
<b>Automatic</b>	60 to 80 rounds/minute
<b>Single-Shot</b>	40 to 50 rounds/minute
<b>Operation</b>	Gas blowback, direct action, selective fire (semi-automatic, 3-round burst, automatic)
<b>Feed Device</b>	20- or 30-round detachable box magazine
<b>Weight Unloaded</b>	3.40 kg
<b>Length</b>	1,005 mm

## 7.62-mm Rifle M14



<b>Cartridge</b>	7.62 x 51.0 mm
<b>Range</b>	
<b>Maximum</b>	1,500 m
<b>Effective</b>	350 m
<b>Operation</b>	Gas blowback, semiautomatic fire
<b>Feed Device</b>	20-round box magazine
<b>Weight Unloaded</b>	4.8 kg
<b>Overall Length</b>	1,120 mm, without bayonet

## 0.30-in Carbine M1



<b>Caliber</b>	.30 in
<b>Effective Range</b>	300 m
<b>Method of Operation</b>	Gas, self-loading
<b>Feed</b>	15- or 30-round detachable box magazine
<b>Overall Length</b>	904 mm
<b>Weight Loaded</b>	2.77 kg

## 7.62-mm Automatic Rifle Heckler & Koch Model G3



<b>Cartridge</b>	7.62 x 51 mm
<b>Effective Range</b>	400 m
<b>Maximum Range</b>	2,400 m
<b>Cyclic Rate of Fire</b>	500 to 600 rounds/minute
<b>Method of Operation</b>	Delayed blowback, selective fire
<b>Feed Device</b>	30-round box magazine
<b>Weight Unloaded</b>	4.3 kg
<b>Length</b>	1,025 mm
<b>Overall Length</b>	1,025 mm (fixed butt); 840 mm (retracted butt)
<b>Using the G3:</b>	(1) Put selector switch, located on the left side of pistol grip, to the top position: <b>SAFE</b> . (2) Pull operating handle to the rear. (3) Insert loaded 20-round magazine into magazine well at bottom of receiver. (4) Allow bolt to go home chambering a round. G3 IS READY TO FIRE. (5) Put selector switch to middle position: <b>SEMI</b> or bottom position: <b>AUTO</b> .

## 9-mm Submachinegun Uzi



<b>Caliber</b>	9 x 19 mm
<b>Effective Range</b>	200 m (in semiautomatic mode)
<b>Cyclic Rate of Fire</b>	550 to 600 rounds/minute
<b>System of Operation</b>	Blowback, selective fire
<b>Feed Device</b>	32-round box magazine
<b>Weight Loaded</b>	3.49 kg
<b>Overall Length</b>	640 mm

## 0.45-in Submachinegun M3A1, M3A3



<b>Cartridges</b>	0.45 ACP; 9- x 19-mm Parabellum
<b>Effective Range</b>	200 m
<b>Cyclic Rate of Fire</b>	450 rounds/minute
<b>System of Operation</b>	Blowback, automatic
<b>Feed Device</b>	30-round detachable box magazine
<b>Weight Loaded</b>	3.63 kg
<b>Overall Length</b>	757 mm (stock extended)

**NOTE:** in the M3A1, the cocking handle was replaced by a hole in the bolt to allow the bolt to be pulled back by inserting the right forefinger; the ejection port and cover were enlarged; and a flash suppressor was added (to some).

## 5.56mm Light Machinegun Ultimax 100



<b>Cartridge</b>	5.56 x 45.0 mm (M193 or SS109)
<b>Effective Range</b>	Up to 1,300 m (SS109 round)
<b>Cyclic Rate of Fire</b>	400 to 600 rounds/minute
<b>Method of Operation</b>	Gas blowback, automatic fire
<b>Feed Device</b>	100-round drum; 20- or 30-round box magazine
<b>Weight Empty with Bipod</b>	4.9 kg
<b>Length</b>	
<b>With Butt</b>	1,024 mm
<b>Butt Detached</b>	810 mm

**NOTE:** Reduced recoil and detachable butt make this weapon ideal for use in confined spaces. A sound suppressor for this weapon is manufactured in the Philippines.

## 5.56-mm Light Machinegun Model FN Minimi



<b>Cartridge</b>	5.56 x 45 mm
<b>Effective Range</b>	1,000 m
<b>Cyclic Rate of Fire</b>	700 to 1,000 rounds/minute
<b>Method of Operation</b>	Gas blowback, automatic
<b>Feed Device</b>	200-round disintegrating-link belt or 30-round box magazine
<b>Weight Unloaded</b>	7.1 kg
<b>Length</b>	1,040 mm



## 7.62 mm Light Machinegun FN MAG 58



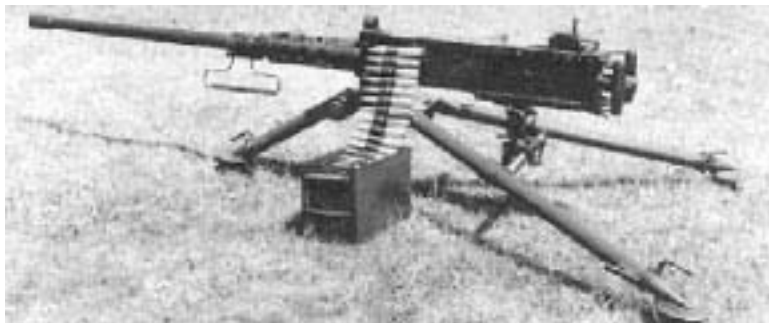
<b>Cartridge</b>	7.62 x 51 mm
<b>Effective Range</b>	1,000 m
<b>Cyclic Rate of Fire</b>	650 to 1,000 rounds/minute
<b>Method of Operation</b>	Gas blowback, automatic
<b>Feed Device</b>	100-round nondisintegrating-link belt
<b>Mount Type</b>	Folding bipod
<b>Weapon Weight Unloaded</b>	11 kg
<b>Length Overall</b>	1,255 mm

## 7.62 mm General Purpose Machinegun M60



<b>Type</b>	General purpose machinegun
<b>Caliber</b>	7.62- x 51-mm NATO
<b>Ranges</b>	
<b>Maximum</b>	3,750 m
<b>Effective Range With Bipod</b>	1,100 m
<b>Effective Range With Tripod</b>	1,800 m
<b>Rate of Fire, Cyclic/Practical</b>	500 to 650 rounds/minute
<b>System of Operation</b>	Gas, automatic
<b>Feed Device</b>	Disintegrating link belt
<b>Weight Loaded</b>	11.1 kg
<b>Overall Length</b>	1.26 m

## 0.50-in. (12.7-mm) Heavy Machinegun Browning M2 HB



<b>Caliber</b>	12.7 x 99 mm
<b>Ranges</b>	
<b>Maximum</b>	6,800 m
<b>Effective</b>	1,500 m
<b>Cyclic Rate of Fire</b>	450 to 600 rounds/minute
<b>Method of Operation</b>	Short recoil
<b>Feed Device</b>	Disintegrating-link belt
<b>Weight</b>	38 kg
<b>Overall Length</b>	1,651 mm

## 0.50-in (12.7-mm) Antimateriel Rifle Barrett Model 82A1, 95



<b>Caliber</b>	12.7 x 99.0 mm
<b>Range</b>	
<b>Maximum</b>	2,000 m
<b>Effective</b>	1,500 m
<b>System of Operation</b>	Short recoil, semiautomatic fire
<b>Feed Device</b>	10-round box magazine
<b>Weight Loaded</b>	
<b>82A1</b>	13.6 kg
<b>95</b>	9.89 kg
<b>Overall Length</b>	
<b>82A1 (shown above)</b>	1,448.0 mm
<b>95</b>	1,143.0 mm

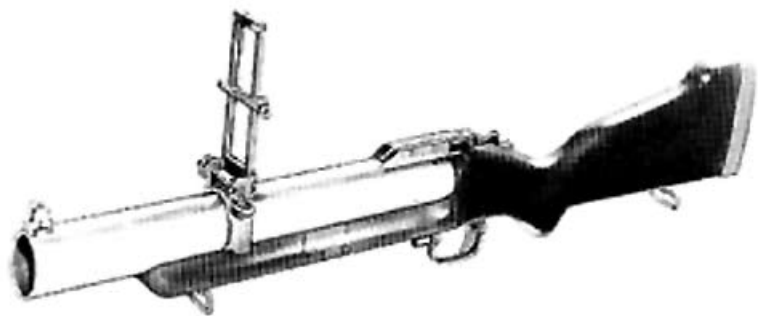
## 40-mm Grenade Launcher M203



<b>Cartridge</b>	40 x 46 mm
<b>Method of Operation</b>	Breech loaded, sliding barrel
<b>Effective Range</b>	Point target 150 m; area target 350 m
<b>Weight (Loaded)</b>	1.63 kg
<b>Overall Length</b>	380 mm

**NOTE:** The M203 grenade launcher was designed for attachment to the M16-series assault rifles. The M203 also can be used as a standalone weapon.

## 40-mm Grenade Launcher M79



<b>Ranges</b>	
<b>Effective, Point Target</b>	150 m
<b>Effective, Area Target</b>	350 m
<b>Maximum</b>	400 m
<b>Method of Operation</b>	Manual, break-open, single shot
<b>Sights</b>	Front, blade; rear, adjustable folding leaf
<b>Weight Unloaded</b>	2.72 kg
<b>Overall Length</b>	737 mm

## ARMOR

### Armored Reconnaissance Vehicle FV 101 Scorpion



<b>Crew</b>	3
<b>Armament</b>	
<b>Main</b>	76-mm rifled cannon
<b>Coaxial</b>	7.62-mm machinegun
<b>Maximum Speed</b>	80 km/h (on water, 6.5 km/h using tracks or up to 9.5 km/h with optional propeller kit)
<b>Range</b>	Up to 866 km
<b>Gradient/Side Slope</b>	60/45 percent
<b>Vertical Obstacle</b>	0.5 m
<b>Trench</b>	2.06 m
<b>Fording</b>	1.07 m, amphibious using flotation screens
<b>Combat Weight</b>	8,070 kg
<b>Overall Length x Width x Height</b>	4.4 x 2.2 x 2.1 m
<b>Fuel Capacity</b>	423 liters of diesel, limited multifuel capability

## Armored Fighting Vehicle YPR-765 PRI



<b>Crew; Passengers</b>	3; 7
<b>Armament</b>	
Main	25-mm automatic cannon
Coaxial	7.62-mm machinegun
<b>Maximum Road Speed</b>	61 km/h
<b>Maximum Water Speed</b>	6.3 km/h
<b>Cruising Range</b>	490 km
<b>Gradient/Side Slope</b>	60/30 percent
<b>Vertical Step</b>	0.635 m
<b>Trench</b>	1.625 m
<b>Fording</b>	Amphibious with preparation
<b>Combat Weight</b>	13,600 kg
<b>Length x Width x Height</b>	5.26 x 2.82 x 2.79 m
<b>Fuel Capacity</b>	416 liters of diesel

## Armored Personnel Carrier M113A1



<b>Crew; Passengers</b>	2; 11
<b>Armament</b>	12.7-mm machinegun
<b>Maximum Speed</b>	58 km/h
<b>Road Range</b>	480 km
<b>Gradient</b>	60 percent
<b>Vertical Obstacle</b>	0.61 m
<b>Trench</b>	1.68 m
<b>Fording</b>	Amphibious
<b>Combat Weight</b>	12,094 kg
<b>Length x Width x Height</b>	4.92 x 3.11 x 2.52 m
<b>Fuel Capacity</b>	360 liters



## Armored Personnel Carrier LAV-150 Commando, LAV-150S



<b>Crew; Passengers</b>	3; 2 to 8
<b>Armament</b>	
<b>Main</b>	20-mm Oerlikon gun
<b>Coaxial</b>	7.62-mm machinegun
<b>Road Range</b>	800 km
<b>Maximum Road Speed</b>	112 km/h
<b>Maximum Water Speed</b>	5.0 km/h
<b>Gradient/Side Slope</b>	60/30 degrees
<b>Vertical Step</b>	0.61 m
<b>Fording</b>	Amphibious
<b>Combat Weight</b>	9,800 kg (Commando); 10,900 kg (-150S)
<b>Length x Width x Height</b>	5.70 x 2.36 x 2.54 m (Commando); 6.27 x 2.39 x 2.69 m (-150S)

## Light Armored Vehicle V-100 Commando Scout (Chaimite)



<b>Crew; Passengers</b>	2; 2 to 6
<b>Armament</b>	
<b>Main</b>	7.62-mm machinegun
<b>Coaxial</b>	7.62-mm machinegun
<b>Maximum Speed</b>	96 km/h
<b>Range</b>	1,287 km
<b>Gradient/Side Slope</b>	60/30 percent
<b>Vertical Obstacle</b>	0.61 m
<b>Trench</b>	1.14 m
<b>Fording</b>	1.2 m
<b>Combat Weight</b>	6,600 kg
<b>Overall Length x Width x Height</b>	5.0 x 2.1 x 2.2 m
<b>Fuel Capacity</b>	212 liters of diesel

## Multipurpose Light Armored Vehicle Simba



**Crew; Passengers**

2; 10 or 12

**Armament**

Turret-mounted 12.7-mm machinegun; variants mount a single or twin 7.62-mm machinegun or 25-mm automatic cannon instead.

**Maximum Speed**

100 km/h

**Range**

660 km

**Gradient/Side Slope**

60/40 percent

**Vertical Obstacle**

0.45 m

**Fording**

1.0 m

**Combat Weight**

11,200 kg

**Overall Length x Width x Height**

5.4 x 2.5 x 2.6 m

**Fuel Capacity**

296 liters of diesel

## Amphibious Armored Assault Vehicle LVTP-7 (AAV7)



<b>Crew; Passengers</b>	3; 25
<b>Armament</b>	12.7-mm machinegun
<b>Maximum Road Speed</b>	64 km/h
<b>Maximum Water Speed</b>	13.5 km/h
<b>Range</b>	482 km
<b>Gradient/Side Slope</b>	60/60 percent
<b>Vertical Obstacle</b>	0.9 m
<b>Trench</b>	2.4 m
<b>Fording</b>	Amphibious
<b>Combat Weight</b>	22,800 kg
<b>Overall Length x Width x Height</b>	7.9 x 3.3 x 3.3 m
<b>Fuel Capacity</b>	281 liters of diesel

## Amphibious Armored Assault Vehicle LVTP-5A1



<b>Crew; Passengers</b>	3; 18
<b>Armament</b>	7.62-mm machinegun
<b>Maximum Road Speed</b>	48 km/h
<b>Maximum Water Speed</b>	10.94 km/h
<b>Gradient/Side Slope</b>	70/60 percent
<b>Vertical Obstacle</b>	0.9 m
<b>Trench</b>	3.65 m
<b>Fording</b>	Amphibious
<b>Combat Weight</b>	37,400 kg
<b>Overall Length x Width x Height</b>	9.0 x 3.6 x 2.9 m
<b>Fuel Capacity</b>	1,726 liters of gasoline

# ARTILLERY

## 155-mm Towed Howitzer M114A1



<b>Crew</b>	11
<b>Range</b>	14,600 m
<b>Rate of Fire</b>	40 rounds/hour
<b>Combat Weight</b>	5,760 kg
<b>Travel Length x Width x Height</b>	7.305 x 2.438 x 1.803 m

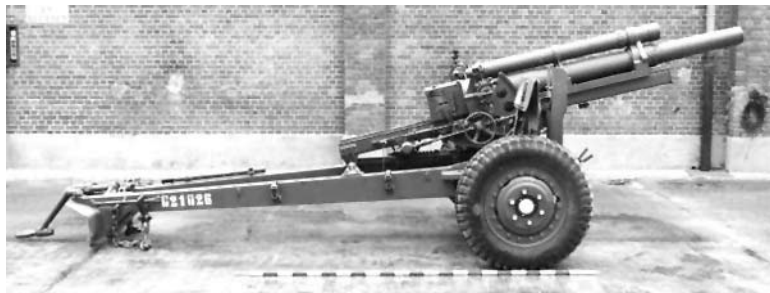
**NOTE:** The M114A1 is almost identical to the M114 shown.

## 105-mm Towed Howitzer M102



<b>Crew</b>	8
<b>Range</b>	11,500 m (15,100 m extended)
<b>Rates of Fire</b>	10 rounds/minute
<b>Burst</b>	10 rounds/minute (first 3 minutes)
<b>Normal</b>	10 rounds/minute
<b>Sustained</b>	3 rounds/minute
<b>Elevation Limits</b>	-5 to +75 degrees
<b>Traverse Limit</b>	360 degrees
<b>Travel Weight</b>	1,363 kg
<b>Travel Length x Width x Height</b>	5.39 x 1.80 x 1.59 m
<b>Prime Mover</b>	6 x 6

## 105-mm Towed Howitzer M101A1



<b>Crew</b>	7
<b>Gun Caliber</b>	105.0 mm x 22.0
<b>Ranges</b>	
<b>Direct Fire</b>	1,000
<b>Indirect Fire, Conventional</b>	11,270 m
<b>Rates of Fire</b>	
<b>Sustained</b>	2 rounds/minute
<b>Normal</b>	3 rounds/minute
<b>Burst</b>	10 rounds/minute for 3 minutes
<b>Traverse Left, Right Limits</b>	22.4, 23 degrees
<b>Elevation Limits</b>	-5 to +66 degrees
<b>Travelling Weight</b>	1,859 kg
<b>Length x Width x Height</b>	5.99 x 2.16 x 1.58 m, traveling mode
<b>Emplacement Time</b>	2 minutes
<b>Displacement Time</b>	3 minutes



## 105-mm Pack Howitzer Model 56 (Italy)



<b>Crew; Section Size</b>	6; 7
<b>Caliber</b>	105.0 mm x 14
<b>Maximum Range</b>	10,222 m (conventional); 13,000 m (extended)
<b>Rates of Fire</b>	
<b>Sustained</b>	2 rounds/minute
<b>Normal</b>	3 rounds/minute
<b>Burst</b>	4 rounds/minute
<b>Elevation Limits</b>	-5 to +65 degrees
<b>Traverse Limits</b>	28 degrees left or right
<b>Travel Weight</b>	1,500 kg
<b>Travel Length x Width x Height</b>	3.77 x 1.5 x 1.9 m
<b>Emplacement/Displacement Time</b>	2 to 3 minutes

## 4.2-in (107-mm) Mortar M30



<b>Crew</b>	6
<b>Range</b>	920 to 6,600 m
<b>Rates of Fire</b>	
<b>Sustained</b>	3 rounds/minute
<b>Normal</b>	9 rounds/minute for 5 minutes
<b>Burst</b>	18 mounds/minute for 1 minute
<b>Elevation Limits</b>	+40 to +65 degrees
<b>Traverse Limits</b>	360 degrees
<b>Ammunition Types</b>	Frag-HE, illumination, and smoke
<b>Weight, Complete</b>	305 kg
<b>Barrel Length</b>	1.524 m
<b>Prime Mover</b>	2-ton truck (mortar not normally towed)

## 81-mm Mortar M29, M29A1



<b>Type</b>	Manportable, smoothbore
<b>Crew; Section Size</b>	2; 5
<b>Ammunition</b>	HE, smoke, illumination
<b>Range</b>	72 to 4,800 m
<b>Rates of Fire</b>	
<b>Burst</b>	30 rounds/minute
<b>Normal</b>	15 to 18 rounds/minute
<b>Sustained</b>	4 to 8 rounds/minute
<b>Elevation Limits</b>	45 to 85 degrees
<b>Traverse Left, Right</b>	5.3 degrees each direction
<b>Weight Empty</b>	43 kg
<b>Tube Length</b>	1,295 mm

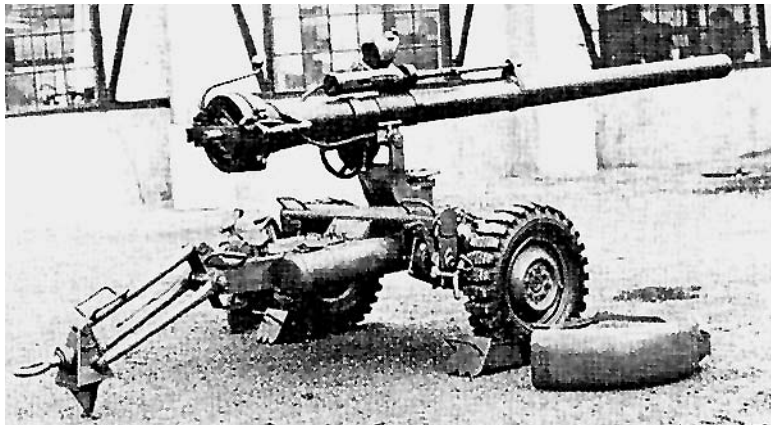
## 60-mm Mortar M19



<b>Crew</b>	3
<b>Caliber</b>	60 mm
<b>Range</b>	100 to 1,800 m
<b>Rates of Fire</b>	
<b>Burst</b>	30 rounds/minute for 1 minute
<b>Normal</b>	18 rounds/minute for 14 minutes
<b>Sustained</b>	8 rounds/minute
<b>Traverse Limits</b>	7 degrees left or right
<b>Elevation Limits</b>	+40 to +85 degrees
<b>Tube Length</b>	818 mm

## ANTIARMOR

### 106-mm Recoilless Rifle M40A1



<b>Caliber</b>	105 mm
<b>Range</b>	6,900 m (indirect fire)
<b>Rate of Fire</b>	5 rounds/minute
<b>Traverse Limits</b>	360 degrees
<b>Elevation Limits</b>	-17 to +22 degrees
<b>Rifle Weight</b>	113.9 kg in firing mode

## 90 mm M67 Recoilless Rifle



**Types of Rounds**

HEAT, HE, and APERS (flechette-filled)

**Ranges**

**Maximum**

2,100 m (self-destruct)

**Effective, Point Target**

450 m

**Rate of Fire**

1 round/6 seconds (not sustainable)

**Armor Penetration**

350 mm with M371A1 HEAT round

**Weight of Launcher**

16.4 kg

**Overall Length of Launcher**

1.35 m

## 75-mm Recoilless Rifle M20



<b>Effective Range</b>	640 m
<b>Rate of Fire</b>	10 rounds/minute
<b>Armor Penetration</b>	230 mm
<b>Weight with Tripod</b>	85.0 kg
<b>Length of Launcher</b>	2,130 mm

## AIR DEFENSE

### 57-mm Towed Twin Air-Defense Artillery Gun Type 59



<b>Crew</b>	8
<b>Ammunition</b>	57- x 348-mm HE-T, APC-T, or PFHE
<b>Ranges</b>	
<b>Tactical Antiaircraft</b>	4,000 m using optical sight; 6,000 m with radar
<b>Maximum Vertical</b>	8,800 m
<b>Maximum Horizontal</b>	12,000 m
<b>Maximum Rate of Fire</b>	105 to 120 rounds/minute
<b>Traverse Limit; Rate</b>	360 degrees; 40 degrees/second
<b>Elevation Limit; Rate</b>	-5 to +87 degrees; 34 degrees/second
<b>Emplacement/Displacement Time</b>	1 to 3 minutes/3 to 5 minutes
<b>Weight</b>	4,780 kg
<b>Travel Length x Width x Height</b>	8.6 x 2.07 x 2.46 m
<b>Platform</b>	4-wheel towed cruciform carriage



## 37-mm Towed Twin Air-Defense Artillery Gun Type 65



<b>Crew</b>	10
<b>Caliber</b>	
<b>Ammunition</b>	37- x 253R-mm HE, HE-T, or AP-T
<b>Ranges</b>	
<b>Tactical Antiaircraft</b>	3,500 m
<b>Maximum Vertical</b>	6,700 m
<b>Maximum Horizontal</b>	8,500 m
<b>Maximum Rate of Fire</b>	320 to 360 rounds/minute, combined
<b>Feed Device</b>	5-round clip
<b>Reload Time</b>	4 to 12 seconds
<b>Traverse Limit; Rate</b>	Unlimited; 18 degrees/second
<b>Elevation Limit; Rate</b>	-10 to +85 degrees; 8.7 degrees/second
<b>Emplacement/Displacement Time</b>	40/50 seconds
<b>Weight</b>	2,700 kg
<b>Travel Length x Width x Height</b>	6.36 x 1.80 x 2.25 m
<b>Platform</b>	4-wheel towed cruciform carriage

## 25-mm Towed Twin Air-Defense Artillery Type 85



<b>Crew</b>	5
<b>Ammunition</b>	25- x 137-mm HEI, HEI-T, APHEI-T, or APDS-T
<b>Ranges</b>	
<b>Tactical Antiaircraft</b>	3,200 m
<b>Maximum Vertical</b>	5,000 m
<b>Maximum Horizontal</b>	7,000 m
<b>Maximum Rate of Fire</b>	1,200 to 1,600 rounds/minute combined
<b>Reaction Time</b>	Approximately 8 seconds
<b>Traverse Limit; Rate</b>	360 degrees; 73.5 degrees/second
<b>Elevation Limit; Rate</b>	-10 to +90 degrees; 53.5 degrees/second
<b>Emplacement/Displacement Time</b>	1/2 minutes
<b>Weight</b>	1,500 kg
<b>Travel Length x Width x Height</b>	4.68 x 2.04 x 2.08 m
<b>Platform</b>	2-wheel carriage

## 23-mm Towed Twin Air-Defense Artillery ZU-23



<b>Crew</b>	5
<b>Caliber</b>	23.0 x 152B mm
<b>Ammunition</b>	API-T, HEI, HEI-T
<b>Ranges</b>	
<b>Tactical Antiaircraft</b>	2,500 m
<b>Maximum Vertical</b>	5,100 m
<b>Maximum Horizontal</b>	7,000 m
<b>Rate of Fire</b>	800 to 1,000 rounds/minute per barrel
<b>Traverse Limit; Rate</b>	360 degrees; 74 degrees per second
<b>Elevation Limit; Rate</b>	-10 to +90 degrees; 54 degrees per second
<b>Weight</b>	950 kg
<b>Length x Width x Height</b>	4.60 x 1.86 x 2.07 m
<b>Platform</b>	2-wheel towed 2A13 carriage or various vehicles

# AIRCRAFT

## SIAI-Marchetti S.211



<b>Role</b>	Training, light attack
<b>Crew</b>	2 tandem
<b>Armament</b>	4x single or twin 7.62-mm machinegun, 4x 12.7-mm machinegun, or (inboard only) 2x 20-mm gun pods; 4x18 50-mm), 4x6 68-mm, 4x7 2.75-in., or 4x6 81-mm rocket launchers, or (inboard only) 2x18 68-mm, 2x12 81-mm or 2x12 100-mm rocket launchers; 4x bombs or practice bombs of up to 150 kg each, or (inboard only) 2x bombs or napalm containers of up to 300 kg; or 4x 74-mm cartridge throwers
<b>Never-Exceed Speed</b>	400 kn
<b>Maximum External Load</b>	660 kg
<b>Maximum Takeoff Weight (armed)</b>	3,150 kg
<b>Basic Weight Empty</b>	1,850 kg
<b>Length x Wingspan x Height</b>	9.53 x 8.46 x 3.73 m

## OV-10A, -10C Bronco



<b>Role</b>	Multipurpose counterinsurgency
<b>Crew; Passengers</b>	2, tandem; with rear seat removed, cargo compartment can accommodate 5 paratroops or 2 litter patients and an attendant
<b>Armament</b>	2x 7.62-mm machineguns; 2x air-to-air missiles; combination of various guns conventional bombs, fire bombs, cluster bombs, rocket pods, smoke tanks
<b>Maximum Level Speed</b>	244 kn, without weapons
<b>Ferry Range with Aux. Fuel</b>	1,200 nmi
<b>Service Ceiling</b>	7,315 kg
<b>Normal Takeoff Weight</b>	4,494 kg
<b>Overload Takeoff Weight</b>	6,552 kg
<b>Basic Weight Empty</b>	3,127 kg
<b>Length x Wingspan x Height</b>	12.67 x 12.19 x 4.62 m
<b>NOTE:</b>	fuselage cargo space has rear door.

## Aermacchi SF.260MP, SF.260 WP, SF.260TP



<b>Role</b>	Training, light attack, reconnaissance
<b>Crew</b>	1 to 3
<b>Armament</b>	1x or 2x 7.62-mm gun pods; 2-in., 2.75-in., 68-mm, or 81-mm rocket launchers; 70-, 120, or 125-kg bombs; 70-mm cartridge throwers
<b>External Equipment</b>	70-mm automatic camera pods, flares, or smoke cartridges
<b>Never-Exceed Speed</b>	235 kn
<b>Ferry Range with Aux. Fuel</b>	926 nmi
<b>Service Ceiling</b>	Up to 5,790 m
<b>Maximum External Load</b>	300 kg
<b>Maximum Takeoff Weight</b>	1,300 kg
<b>Weight Empty, Equipped</b>	830 kg
<b>Length x Wingspan x Height</b>	7.10 x 8.35 x 2.41 m

## F-28 Fellowship 3000



<b>Role</b>	Transport
<b>Crew; Passengers</b>	2; 65
<b>Maximum Cruising Speed</b>	455 kn
<b>Range</b>	Up to 2,200 nmi
<b>Maximum Cruising Altitude</b>	10,675 m
<b>Maximum Payload</b>	8,437 kg
<b>Maximum Takeoff Weight</b>	33,110 kg
<b>Weight Empty</b>	16,965 kg
<b>Length x Wingspan x Height</b>	27.4 x 25.1 x 8.5 m

## C130 B, H



<b>Mission</b>	Tactical transport and multimission
<b>Crew</b>	4 or 5
<b>Passengers</b>	92 troops, 64 paratroopers, or 74 litter patients with 2 attendants (H)
<b>Maximum Cruising Speed</b>	602 km/h
<b>Range with Maximum Payload</b>	3,791 km
<b>Service Ceiling</b>	10,060 m
<b>Maximum Payload</b>	19,356 kg (H)
<b>Maximum Normal Takeoff Weight</b>	70,310 kg
<b>Operating Weight Empty</b>	34,686 kg
<b>Length x Wingspan x Height</b>	29.79 x 40.41 x 11.66 m



## Fokker F27-200 , Maritime Enforcer Mk 1, -500 Friendship



<b>Mission</b>	Short-range transport, maritime patrol
<b>Crew</b>	
<b>F27-200MPA</b>	Up to 6
<b>F27-500</b>	52 in standard layout, up to 60 possible
<b>Passengers (F27-500)</b>	2 to 3
<b>Normal Cruising Speed</b>	259 kn at 6,100 m and 17,237 kg
<b>Range, Standard Mission</b>	
<b>F27-200MPA</b>	2,700 nmi (endurance 10 to 12 hours)
<b>F27-500</b>	935 nmi
<b>Service Ceiling</b>	8,990 m
<b>Maximum Takeoff Weight</b>	Up to 19,731 kg
<b>Manufacturer's Weight Empty</b>	
<b>F27-200</b>	11,213 kg
<b>F27-500</b>	12,243 kg (52 seats)
<b>Length x Wingspan x Height</b>	
<b>F27-200</b>	23.56 x 29.00 x 8.50 m
<b>F27-500</b>	25.06 x 29.00 x 8.71 m

**NOTE:** F27-200 is shown above. Maritime Enforcer has 2 fuselage and 6 underwing attachment points for various stores such as torpedoes, depth bombs, antiship missiles, or auxiliary fuel tanks.

## ASTA N22B Nomad Missionmaster, N22SL Nomad Searchmaster



<b>Role</b>	STOL forward-area support, maritime surveillance, personnel and cargo transport
<b>Crew; Passengers</b>	1 or 2; 12
<b>Armament</b>	4x underwing hardpoints for 277-kg loads each, including gun and rocket pods
<b>Normal Cruise Speed</b>	168 kn
<b>Range</b>	730 nmi at 90% power, standard fuel, reserves for 45-minute hold
<b>Takeoff Run</b>	>183 m
<b>Service Ceiling</b>	6,400 m
<b>Maximum Takeoff Weight</b>	3,855 kg
<b>Basic Weight Empty</b>	2,094 kg
<b>Length x Wingspan x Height</b>	12.57 x 16.51 x 5.54 m

## Rockwell Twin Commander 690A



<b>Role</b>	Transport
<b>Crew; Passengers</b>	1; 6
<b>Maximum Cruising Speed</b>	280 kn at 5,335 m
<b>Economy Cruising Speed</b>	251 kn at 9,450 m
<b>Range with 45-min. Reserves</b>	
<b>At Max. Cruising Power</b>	740 nmi, with maximum payload
<b>At Econ. Cruising Power</b>	1,471 nmi
<b>Service Ceiling</b>	10,060 m
<b>Maximum Takeoff Weight</b>	4,649 kg
<b>Weight Empty, Standard Config.</b>	2,778 kg
<b>Length x Wingspan x Height</b>	13.52 x 14.22 x 4.56 m

## BN2A-21 Islander Utility



<b>Role</b>	Transport
<b>Seats</b>	10
<b>Maximum Cruising Speed</b>	147 kn
<b>Economy Cruising Speed</b>	133 kn
<b>Range with 45-min. Reserves</b>	
<b>At Max. Cruising Power</b>	Up to 903 nmi with extended wings
<b>At Econ. Cruising Power</b>	Up to 1,096 nmi with extended wings
<b>Service Ceiling</b>	4,025 m
<b>Maximum Takeoff Weight</b>	2,993 kg
<b>Weight Empty, Equipped</b>	1,695 kg
<b>Length x Wingspan x Height</b>	10.86 x 14.94 x 4.18 m

## Cessna U206A Stationair



<b>Role</b>	Communications
<b>Seating</b>	6
<b>Maximum Cruising Speed</b>	280 km/h
<b>Range</b>	1,352 km
<b>Service Ceiling</b>	4,785 m
<b>Maximum Takeoff Weight</b>	1,632 kg
<b>Weight Empty</b>	987 kg
<b>Length x Wingspan x Height</b>	8.61 x 10.97 x 2.83 m

## T210G Turbo Centurion



<b>Seating</b>	6, in pairs, including pilot
<b>Maximum Cruising Speed</b>	207 kn at 6,100 m
<b>Range</b>	1,010 nmi (up to 1,390 nmi with long-range tanks)
<b>Service Ceiling</b>	8,840 m
<b>Maximum Takeoff Weight</b>	1,860 kg
<b>Weight Empty</b>	1,052 kg
<b>Length x Wingspan x Height</b>	8.59 x 12.41 x 2.95 m

## Sikorsky AUH-76, S-76A



<b>Mission</b>	Combat, transport
<b>Crew; Passengers</b>	2; 12
<b>Maximum Speed</b>	155 kn
<b>Range</b>	439 nmi
<b>Possible Armament</b>	1x 7.62-mm machinegun can be pintle-mounted in each doorway; single or twin 7.62-mm machinegun pods, 0.50-in. machinegun pods, triple-barrel 20-mm cannon pods, 2.75- or 5-in rocket pods, 68-mm rocket pods, ATGMs, AAMs
<b>Maximum Design Takeoff Weight</b>	5,171 kg
<b>Basic Weight Empty</b>	2,545 kg
<b>Main Rotor</b>	
<b>Number of Blades</b>	4
<b>Diameter</b>	13.4 m
<b>Tail Rotor</b>	
<b>Number of Blades</b>	4
<b>Diameter</b>	2.4 m
<b>Fuselage Length x Width x Height</b>	13.2 x 2.1 x 3.6 m

**NOTE:** H-76 shown above with 20-mm cannon pods.

## SA-330L Puma, IAR-330L Puma



<b>Mission</b>	Attack
<b>Crew/Passengers</b>	2/20
<b>Range</b>	297 nmi
<b>Maximum Speed</b>	139 kn
<b>Service Ceiling</b>	4,800 m
<b>Weapons</b>	20-mm gun, 50- or 70-mm rockets, ATGMs
<b>Main Rotor</b>	
Number of Blades	4
Diameter	15.0 m
<b>Maximum Payload</b>	3,759.0 kg
<b>Basic Weight Empty</b>	3,165.0 kg
<b>Fuselage Length x Width x Height</b>	14.06 x 3.50 x 4.54 m



## S-70A-5 (UH-60A) Blackhawk



<b>Type</b>	Medium-lift transport
<b>Crew; Passengers</b>	2 to 3; 14
<b>Maximum Dash Speed</b>	170 kn
<b>Range</b>	306 nmi
<b>Armament</b>	Provisions for 2x pintle-mounted crew-served weapons (typically, 7.62-mm machineguns)
<b>Cargo or Sling Load Capacity</b>	3,629 kg
<b>Maximum Takeoff Weight</b>	9,185 kg
<b>Main Rotor</b>	
<b>Number</b>	4
<b>Diameter</b>	16.4 m
<b>Tail Rotor</b>	
<b>Number</b>	4
<b>Diameter</b>	3.4 m
<b>Weight Empty</b>	5,118 kg
<b>Fuselage Length x Width x Height</b>	15.4 x 2.4 x 3.8 m

## Bell 412EP, 412SP



<b>Type</b>	Medium-lift utility helicopter
<b>Crew; Passengers</b>	1 or 2; up to 14
<b>Armament</b>	Provisions for door-mounted weapons; unguided rockets
<b>Maximum Dash Speed</b>	140 kn
<b>Range</b>	355 nmi
<b>Basic Empty Weight</b>	3,090.7 kg
<b>Cargo Handling or Sling Load</b>	2,268 kg
<b>Maximum Design Takeoff Weight</b>	5,262 kg
<b>Main Rotor</b>	
Number of Blades	4
Diameter	14.0 m
<b>Tail Rotor</b>	
Number of Blades	2
Diameter	2.6 m
<b>Fuselage Length x Width x Height</b>	12.7 x 2.8 x 3.5 m

## Bell 205, 205A-1 (UH-1H Iroquois)



<b>Type</b>	Medium-lift utility helicopter
<b>Crew; Passengers</b>	2; 11
<b>Maximum Speed</b>	115 kn
<b>Range</b>	270 nmi
<b>Armament</b>	Provisions for door-mounted crew-served weapons
<b>Cargo Handling or Sling Load</b>	1,814.4.kg
<b>Maximum Takeoff Weight</b>	4,309.2 kg
<b>Main Rotor</b>	
<b>Number of Blades</b>	2
<b>Diameter</b>	14.72 m
<b>Tail Rotor</b>	
<b>Number of Blades</b>	2
<b>Diameter</b>	2.59 m
<b>Fuselage Length x Width x Height</b>	17.37 x 2.61 x 3.87 m (with skid)

## MBB Bo 105-C, -CB



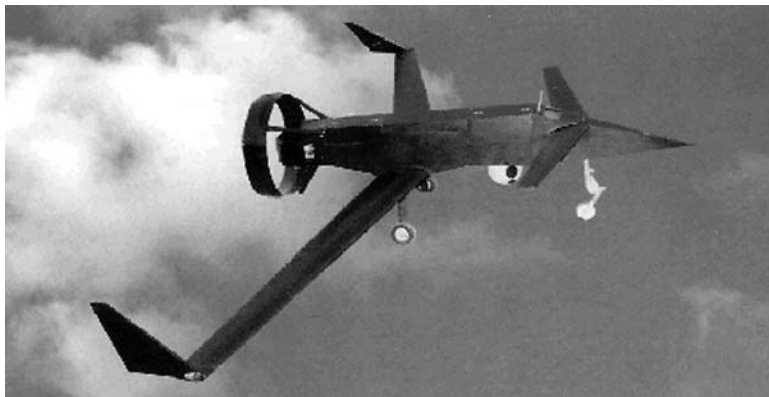
<b>Type</b>	Light lift helicopter
<b>Crew; Passengers</b>	2; 6
<b>Maximum Speed</b>	131 kn
<b>Range</b>	314 nmi at 110 kn
<b>Service Ceiling</b>	5,180 m
<b>Armament</b>	Assorted guns, missiles, or rockets
<b>Basic Weight Empty</b>	1,236.0 kg
<b>Maximum Payload</b>	874 kg
<b>Maximum Takeoff Weight</b>	2,500 kg
<b>Main Rotor</b>	
<b>Number of Blades</b>	4
<b>Diameter</b>	9.84 m
<b>Fuselage Length x Width x Height</b>	8.81 x 2.53 x 3.02 m

## MD 520MG



<b>Mission</b>	Attack, reconnaissance
<b>Crew</b>	2
<b>Maximum Dash Speed</b>	152 kn
<b>Range</b>	320 nmi
<b>Service Ceiling</b>	6,100 m
<b>Armament</b>	2x 12.7-mm machinegun pod; 40-mm grenade launcher; 2x7 2.75-in. rocket launchers
<b>Main Rotor</b>	
<b>Number of Blades</b>	5
<b>Diameter</b>	8.4 m
<b>Tail Rotor</b>	
<b>Number of Blades</b>	2
<b>Diameter</b>	1.4 m
<b>Fuselage Length x Width x Height</b>	7.4 x 0.88 x 2.8 m
<b>NOTE:</b>	derived from the MD 500-series helicopters.

## Unmanned Aerial Vehicle Blue Horizon 2



<b>Mission</b>	Reconnaissance
<b>Maximum Speed</b>	130 kn
<b>Maximum Endurance</b>	16.0 hours at 1,524.0 m
<b>Service Ceiling, Standard Mission</b>	5,486 m
<b>Operational Radius</b>	Over 150 km
<b>Maximum Payload</b>	37.0 kg
<b>Maximum Design Takeoff Weight</b>	150.0 kg
<b>Operating Weight Empty</b>	80 kg
<b>Length x Wingspan</b>	3.2 x 6.0 m

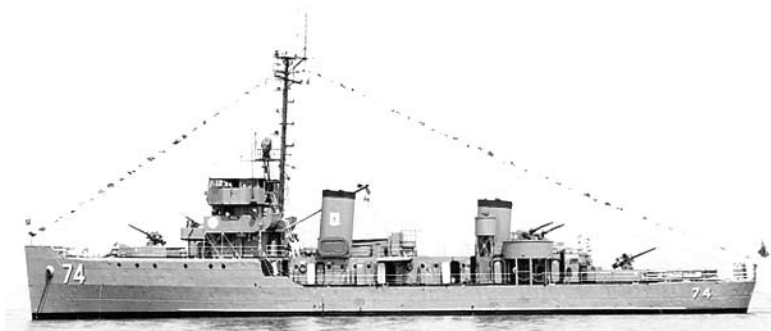
# SHIPS

## CANNON Class PS



Type	Large patrol ship
LOA x Max. Beam x Max. Draft	93.3 x 11.2 x 4.2 m
Displacement	2,022 metric tons
Complement	192
Speed, Full Power	21 kn
Range	10,800 nmi at 12 kn
Guns	2x 12.7-mm machineguns, 3x 76-mm x 50, 3x 40-mm x 60
Fire-Control Radar System	Mk-26 Mod 3 (range only)
Sonar Systems	
Search and Attack	SQS-11A, SQS-17B
Navigation	Echo Sounder

## AUK Class PS



<b>Type</b>	Large patrol ship
<b>LOA x Max. Beam x Max. Draft</b>	67.4 x 9.7 x 3.5 m
<b>Displacement, Full Load</b>	1,270 metric tons
<b>Complement</b>	80
<b>Speed, Full Power</b>	18 kn
<b>Range</b>	5,700 nmi at 16 kn
<b>Armament</b>	
<b>Guns</b>	2x 76-mm x 50, 2x 40-mm x 60, 2x twin 20-mm x 70; or 4x 30-mm and 4x 12.7- mm machineguns
<b>Other</b>	2x 7.2-in. Hedgehog mortar; 3x light torpedoes
<b>Equipment</b>	5-ton boom crane
<b>Surface-Search Radar System</b>	SPS-5B
<b>Sonar Systems</b>	
<b>Search and Attack</b>	SQS-17B
<b>Navigation</b>	Echo sounder



## ADMIRABLE Class PG



<b>LOA x Max. Beam x Max. Draft</b>	56.2 x 10.1 x 2.7 m
<b>Displacement, Full Load</b>	920 metric tons
<b>Complement</b>	85
<b>Speed, Full Power</b>	16 kn
<b>Range</b>	6,800 nmi at 12 kn
<b>Armament</b>	
<b>Guns</b>	1x 76-mm x 50; 2x 40-mm x 60; 4x twin 20-mm x 70
<b>Other</b>	1x 81-mm mortar
<b>Surface-Search Radar System</b>	SPS-53
<b>Navigation Sonar System</b>	DE-721 echo sounder

## PCE 842 (PCE 827) Class PG



<b>LOA x Max. Beam x Max. Draft</b>	56.2 x 10.1 x 4.3 m
<b>Displacement, Full Load</b>	914 metric tons
<b>Complement</b>	85
<b>Speed, Full Power</b>	16 kn
<b>Range</b>	6,800 nmi at 12 kn
<b>Guns</b>	1x 76-mm x 50; 2x single or 3x twin 40-mm x 60
<b>Equipment</b>	5-ton boat boom
<b>Surface-Search Radar System</b>	SPS-50, SPS-21D, CRM-NIA-75 or SPS-53A
<b>Sonar Systems</b>	
<b>Search and Attack</b>	SQS-17A or -17B
<b>Navigation</b>	WQC-2A
<b>NOTE:</b>	The PCE 842 Class is similar to the ADMIRABLE.

## PEACOCK (JACINTO) Class PG



<b>LOA x Max. Beam x Max. Draft</b>	62.6 x 10 x 2.7 m
<b>Displacement, Full Load</b>	763 metric tons
<b>Complement</b>	31
<b>Speed</b>	25 kn
<b>Range</b>	2,500 nmi at 17 kn
<b>Guns</b>	1x 76-mm x 62, 1x 25-mm, 4x 7.62-mm machineguns
<b>Equipment</b>	2x 5.4-m RIBs; 1-ton crane; 4-ton telescopic crane
<b>Navigation Radar System</b>	Bridgemaster E
<b>Navigation Sonar System</b>	MS 45 echo sounder
<b>Weapons Control</b>	Radamec 1500 optronic director

## SAN JUAN Class WPC



<b>Mission</b>	Search and rescue, logistics, coastal patrol
<b>LOA x Max. Beam x Max. Draft</b>	56 x 10.5 x 2.5 m
<b>Displacement, Full Load</b>	540 metric tons
<b>Complement</b>	38 plus 300 rescue berths
<b>Speed, Full Power</b>	24.5 kn
<b>Range</b>	3,000 nmi at 15 kn (economical speed)
<b>Aviation</b>	Platform for 1 helicopter
<b>Equipment</b>	Equipped for firefighting and pollution control
<b>Navigation Radar System</b>	I-band

## CYCLONE Class PC



<b>LOA x Max. Beam x Max. Draft</b>	51.9 x 7.9 x 2.4 m
<b>Displacement, Full Load</b>	354 metric tons
<b>Complement</b>	32
<b>Speed, Full Power</b>	35 kn
<b>Range</b>	2,500 nmi at 12 kn
<b>Armament</b>	
<b>Guns</b>	2x 25-mm x 80, 4x 12.7-mm machineguns, 2x 7.62-mm machineguns
<b>Other</b>	4x automatic grenade launchers
<b>Equipment</b>	1x 11-m RIB with 12.7-mm machinegun
<b>Surface-Search Radar System</b>	Sperry series
<b>Sonar System</b>	Wesmar

**NOTE:** The CYCLONE Class has the following features: 1-inch armor on superstructure; slow-speed loiter capability; and a semi-dry well, boat ramp, and stern gate to facilitate deployment and recovery of a fully loaded RIB while the ship is making way.

## AGUINALDO Class PC



<b>LOA x Max. Beam x Max. Draft</b>	44 x 7.4 x 1.6 m
<b>Displacement, Full Load</b>	236 metric tons
<b>Complement</b>	58
<b>Speed, Full Power</b>	25 kn
<b>Guns</b>	2x 40-mm x 60, 2x 20-mm, 4x 12.7-mm machineguns
<b>Navigation Radar System</b>	Raytheon series

## GIROEGI (TOMAS BATILO) Class PC



<b>LOA x Max. Beam x Max. Draft</b>	33.1 x 6.9 x 2.5 m
<b>Displacement, Full Load</b>	150 metric tons
<b>Complement</b>	31
<b>Speed</b>	38 kn
<b>Range</b>	600 nmi at 20 kn
<b>Guns</b>	1x 40-mm x 60, 1x twin 30-mm x 75, 2x 20-mm x 70, 2x 12.7-mm machineguns
<b>Surface-Search Radar System</b>	Raytheon 1645
<b>Navigation Sonar System</b>	Raytheon F720D echo sounder

## KAGITINGAN Class PC



<b>LOA x Max. Beam x Max. Draft</b>	37 x 6.2 x 1.7 m
<b>Displacement, Full Load</b>	150 metric tons
<b>Complement</b>	30
<b>Speed, Full Power</b>	16 kn
<b>Guns</b>	1x twin 30-mm x 75, 2x 12.7-mm machineguns
<b>Surface-Search Radar System</b>	I-band



## PGM 39 Class



<b>LOA x Max. Beam x Max. Draft</b>	30.5 x 6.6 x 2.6 m
<b>Displacement, Full Load</b>	124.1 metric tons
<b>Complement</b>	30
<b>Speed, Full Power</b>	18 kn
<b>Range</b>	1,500 nmi at 10 kn (economical speed)
<b>Guns</b>	2x 20-mm x 80, 2x 12.7-mm machineguns
<b>Navigation Radar System</b>	Raytheon 1500
<b>Navigation Sonar System</b>	Echo Sounder

## SECOND SCHOOLBOY (CONRADO YAP) Class PB



<b>LOA x Max. Beam x Max. Draft</b>	25.5 x 5.4 x 1.9 m
<b>Displacement, Full Load</b>	74.5 metric tons
<b>Complement</b>	15
<b>Speed, Full Power</b>	38 kn
<b>Range</b>	290 nmi at 20 kn
<b>Guns</b>	1x 40-mm x 60, 2x twin 20-mm
<b>Surface-Search Radar System</b>	Raytheon 1645

## USCG POINT Class WPB



<b>LOA x Max. Beam x Max. Draft</b>	23.5 5.2 x 1.8 m
<b>Displacement, Full Load</b>	66 metric tons
<b>Complement</b>	10
<b>Speed, Full Power</b>	23.5 kn
<b>Range</b>	1,500 nmi at 8 kn (economical speed)
<b>Guns</b>	2x 12.7-mm machinegun
<b>Equipment</b>	Possibly an RIB
<b>Navigation Radar System</b>	AN/SPS-64

## HALTER 78-FT (JOSE ANDRADA) Class PB



<b>LOA x Max. Beam x Max. Draft</b>	23.8 x 6.1 x 1.8 m
<b>Displacement</b>	56 metric tons
<b>Complement</b>	10
<b>Speed, Full Power</b>	28 kn
<b>Range</b>	1,200 nmi at 12 kn
<b>Guns</b>	1x 25-mm x 80, 4x 12.7-mm machineguns, 2x 7.62-mm machineguns
<b>Surface-Search Radar System</b>	SPS-64

## MK III (SWIFT MK III PCF 65) Class WPB



<b>LOA x Max. Beam x Max. Draft</b>	19.8 x 5.5 x 1.6 m
<b>Displacement, Full Load</b>	37.4 metric tons
<b>Complement</b>	8
<b>Speed, Maximum Sustained</b>	30 kn
<b>Range</b>	450 at 30 kn
<b>Guns</b>	2x 12.7-mm machineguns or 1x 40-mm x 60, 2x 7.62-mm machineguns
<b>Surface-Search Radar System</b>	LN-66

## SWIFTSHIPS MK I and II (PCF 50) Class WPB



**LOA x Max. Beam x Max. Draft**

**MK 1** 15.2 x 4.1 x 1.1 m

**MK 2** 15.7 x 4.6 x 1.4 m

**Displacement, Full Load**

**MK 1** 21.3 metric tons

**MK 2** 22.9 metric Tons

**Complement**

6

**Speed, Maximum Sustained**

**MK 1** 29 kn

**MK 2** 24 kn

**Range**

**MK 1** 685 nmi at 16.5 kn (economical speed)

**MK 2** 800 nmi at 9.5 kn (economical speed)

**Armament**

1x 40-mm automatic grenade launcher;

1x single or twin 12.7-mm machinegun

**Navigation Radar System**

Decca 202

**Navigation Sonar System**

DE-721 (MK II)

**NOTE:** MK I shown above.

## MARCELO 46-FT (PCF 46) Class WPB



<b>LOA x Max. Beam x Max. Draft</b>	14 x 4.5 x 1 m
<b>Displacement, Full Load</b>	21.8 metric tons
<b>Complement</b>	8
<b>Speed, Maximum Sustained</b>	36 kn
<b>Range</b>	200 nmi at 36 kn
<b>Guns</b>	1x twin 12.7-mm machineguns, 2x 12.7-mm machineguns
<b>Military Lift</b>	32 embarked troops
<b>Navigation Radar System</b>	Decca 60

## BACOLOD (FRANK S BESSON) Class LST



<b>LOA x Max. Beam x Max. Draft</b>	83.1 x 18.3 x 3.7 m
<b>Displacement, Full Load</b>	4,266 metric tons
<b>Complement</b>	30
<b>Speed, Full Power</b>	11.6 kn
<b>Range</b>	5,500 nmi at 10 kn (maximum sustained speed)
<b>Aviation</b>	Platform for 1x helicopter
<b>Equipment</b>	2x LCVPs on davits
<b>Military Lift</b>	
<b>Embarked Troops</b>	150
<b>Cargo</b>	2,280 metric tons (900 metric tons for amphibious operations)
<b>Fuel</b>	644,000 liters
<b>Surface-Search Radar System</b>	2x SPS-64



## Type 542 LST



<b>LOA x Max. Beam x Max. Draft</b>	100 x 15.3 x 4.3 m
<b>Displacement, Full Load</b>	4,145 metric tons
<b>Complement</b>	140
<b>Speed, Full Power</b>	12.1 kn
<b>Range</b>	2,400 nmi at 9 kn (economical speed)
<b>Guns</b>	Combination of single or twin 40-mm x 60 and twin 20-mm x 70
<b>Aviation Equipment</b>	Flight deck for 1 helicopter 6 LCVPs
<b>Military Lift</b>	
<b>Embarked Troops</b>	137
<b>Cargo</b>	Total 1,230 metric tons
<b>Fresh Water</b>	32 metric tons
<b>Diesel Fuel</b>	310 metric tons
<b>Lubricating Oil</b>	15 metric tons
<b>Radar Systems</b>	
<b>Surface-Search</b>	SPS-21, SPS-53, or other
<b>Navigation</b>	CR-105
<b>Navigation Sonar System</b>	UQN-4 echo sounder
<b>NOTE:</b> Variations exist between units in armament, deck configuration, and external configuration. <i>Lanao del Norte</i> (LT504) shown above.	

## LCU 1466 Class



<b>LOA x Max. Beam x Max. Draft</b>	36.4 x 10.6 x 1.6 m
<b>Displacement, Full Load</b>	366 metric tons
<b>Complement</b>	22
<b>Speed, Full Power</b>	10 kn
<b>Range</b>	1,250 nmi at 5 kn (economical speed)
<b>Guns</b>	1x 20-mm x 70
<b>Military Lift</b>	
<b>Cargo</b>	160 metric tons
<b>Diesel Fuel</b>	11 metric tons

## LCM(6), LCM(8) Classes



### LOA x Max. Beam x Max. Draft

LCM(6) 17.1 x 4.3 x 1.2 m

LCM(8) 22.7 x 6.4 x 1.6 m

### Displacement, Full Load

LCM(6) 56.2 metric tons

LCM(8) 128 metric tons

### Complement

5

### Speed, Maximum Sustained

9 kn

### Range

LCM(6) 130 nmi at 9 kn

LCM(8) 140 nmi at 9 kn

### Guns

LCM(6) 4x 12.7-mm machineguns

LCM(8) 2x 20-mm x 70, 2x 12.7-mm machineguns

**NOTE:** LCM(8) shown above.

## ALAMOSA Class AK



<b>LOA x Max. Beam x Mean Draft</b>	103.2 x 15.2 x 6.4 m
<b>Displacement, Full Load</b>	7,570 metric tons
<b>Complement</b>	85
<b>Speed, Maximum Sustained</b>	11.5 kn
<b>Range</b>	14,500 nmi at 11.5 kn
<b>Guns</b>	2x 12.7-mm machineguns
<b>Equipment</b>	1x 30-ton boom, 1x 20-ton boom, 6x 5-ton booms, 2x 0.5-ton booms
<b>Military Lift</b>	
<b>Cargo, Bale</b>	6,450 m <sup>3</sup>
<b>Cargo, Grain</b>	7,074 m <sup>3</sup>
<b>Cargo, Refrigerated Stores</b>	278 m <sup>3</sup>
<b>Diesel Fuel</b>	350 metric tons
<b>Navigation Radar System</b>	CRM-N1A-75
<b>Navigation Sonar System</b>	Echo sounder

## ACHELOUS Class AR



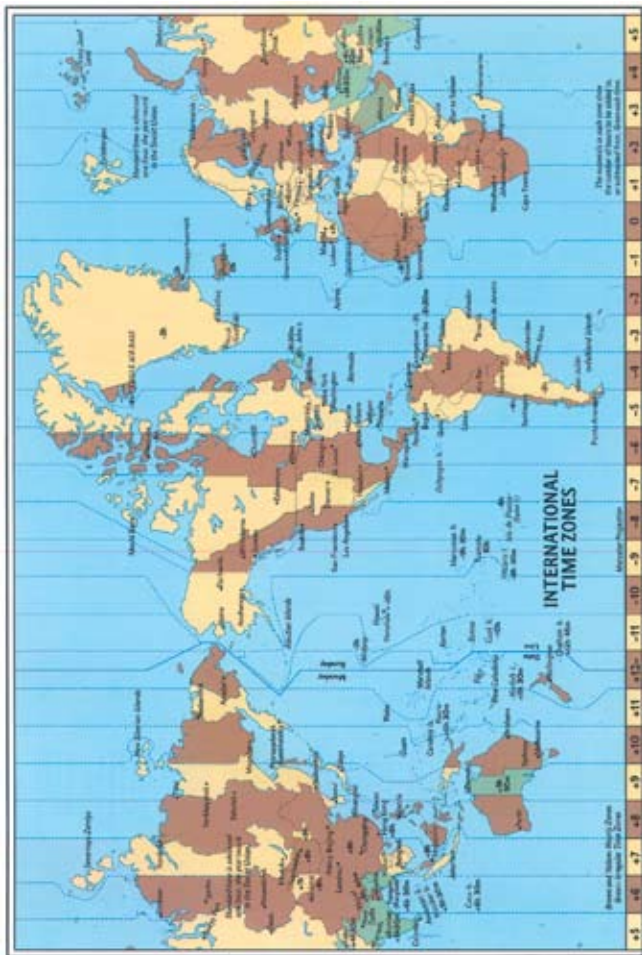
<b>LOA x Max. Beam x Max. Draft</b>	99.9 x 15.3 x 4.8 m
<b>Displacement, Full Load</b>	4,165 metric tons
<b>Complement</b>	190
<b>Speed, Maximum Sustained</b>	11.4 kn
<b>Range</b>	15,000 nmi at 11.4 kn
<b>Guns</b>	2x quad 40-mm x 60
<b>Equipment</b>	2x 11-m LCVPs; 1x 10-ton and 1x 25-ton boom cranes; 1x 60-ton A-frame crane
<b>Military Lift</b>	
<b>Cargo</b>	1,016 metric tons
<b>Fresh Water</b>	657 metric tons
<b>Diesel Fuel</b>	933 metric tons
<b>Lubricating Oil</b>	17 metric tons
<b>Evaporator Capacity</b>	90 metric tons daily
<b>Navigation Sonar System</b>	Echo sounder
<b>NOTE:</b>	has extensive machine shop and spare parts stowage.



---

## APPENDIX B: INTERNATIONAL TIME ZONES

---



## Coordinated Universal Time (UTC)

To use the table, go to the country you are interested in, and add the number of hours corresponding to the United States time zone to the current time. The UTC is also known as Greenwich Mean Time (GMT).

Country	UTC	Eastern	Central	Mountain	Pacific
Afghanistan	+4.5 H	+9.5 H	+10.5 H	+11.5 H	+12.5 H
Albania	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Algeria	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
American Samoa	-11.0 H	-6.0 H	-5.0 H	-4.0 H	-3.0 H
Andorra	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Angola	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Antarctica	-2.0 H	+3.0 H	+4.0 H	+5.0 H	+6.0 H
Antigua and Barbuda	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Argentina	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Armenia	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Aruba	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Ascension	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Australia North	+9.5 H	+14.5 H	+15.5 H	+16.5 H	+17.5 H
Australia South	+10.0 H	+15.0 H	+16.0 H	+17.0 H	+18.0 H
Australia West	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Australia East	+10.0 H	+15.0 H	+16.0 H	+17.0 H	+18.0 H
Austria	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Azerbaijan	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Bahamas	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Bahrain	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Bangladesh	+6.0 H	+11.0 H	+12.0 H	+13.0 H	+14.0 H
Barbados	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Belarus	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Belgium	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Belize	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Benin	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Bermuda	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Bhutan	+6.0 H	+11.0 H	+12.0 H	+13.0 H	+14.0 H



<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
Bolivia	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Bosnia Herzegovina	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Botswana	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Brazil East	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Brazil West	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
British Virgin Islands	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Brunei	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Bulgaria	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Burkina Faso	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Burundi	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Cambodia	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Cameroon	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Canada East	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Canada Central	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Canada Mountain	-7.0 H	-2.0 H	-1.0 H	+0.0 H	+1.0 H
Canada West	-8.0 H	-3.0 H	-2.0 H	-1.0 H	+0.0 H
Cape Verde	-1.0 H	+4.0 H	+5.0 H	+6.0 H	+7.0 H
Cayman Islands	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Central African Rep.	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Chad Republic	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Chile	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
China	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Christmas Island	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Colombia	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Congo	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Cook Island	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Costa Rica	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Croatia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Cuba	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Cyprus	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Czech Republic	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Denmark	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Djibouti	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Dominica	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Dominican Republic	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
Ecuador	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Egypt	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
El Salvador	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Equatorial Guinea	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Eritrea	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Estonia	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Ethiopia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Falkland Islands	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Fiji Islands	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Finland	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
France	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
French Antilles	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
French Guinea	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
French Polynesia	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Gabon Republic	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Gambia	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Georgia	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Germany	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Ghana	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Gibraltar	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Greece	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Greenland	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Grenada	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Guadeloupe	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Guam	+10.0 H	+15.0 H	+16.0 H	+17.0 H	+18.0 H
Guatemala	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Guinea-Bissau	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Guinea	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Guyana	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Haiti	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Honduras	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Hong Kong	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Hungary	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Iceland	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
India	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
Indonesia East	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Indonesia Central	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Indonesia West	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Iran	+3.5 H	+8.5 H	+9.5 H	+10.5 H	+11.5 H
Iraq	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Ireland	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Israel	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Italy	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Jamaica	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Japan	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Kazakhstan	+6.0 H	+11.0 H	+12.0 H	+13.0 H	+14.0 H
Kenya	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Kiribati	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Korea, North	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Korea, South	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Kuwait	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Kyrgyzstan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Laos	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Latvia	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Lebanon	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Lesotho	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Liberia	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Libya	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Liechtenstein	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Lithuania	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Luxembourg	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Macedonia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Madagascar	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Malawi	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Malaysia	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Maldives	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Mali Republic	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Malta	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Marshall Islands	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Mauritania	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
Mauritius	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Mayotte	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Mexico East	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Mexico Central	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Mexico West	-7.0 H	-2.0 H	-1.0 H	+0.0 H	+1.0 H
Moldova	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Monaco	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Mongolia	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Morocco	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Mozambique	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Myanmar (Burma)	+6.5 H	+11.5 H	+12.5 H	+13.5 H	+14.5 H
Namibia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Nauru	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Nepal	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H
Netherlands	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Netherlands Antilles	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
New Caledonia	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
New Zealand	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Newfoundland	-3.5 H	+1.5 H	+2.5 H	+3.5 H	+4.5 H
Nicaragua	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Nigeria	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Niger Republic	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Norfolk Island	+11.5 H	+16.5 H	+17.5 H	+18.5 H	+19.5 H
Norway	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Oman	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Pakistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Palau	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Panama, Rep. of	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Papua New Guinea	+10.0 H	+15.0 H	+16.0 H	+17.0 H	+18.0 H
Paraguay	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Peru	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Philippines	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Poland	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Portugal	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Puerto Rico	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
Qatar	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Reunion Island	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Romania	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Russia West	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Russia Central 1	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Russia Central 2	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Russia East	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Rwanda	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Saba	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Samoa	-11.0 H	-6.0 H	-5.0 H	-4.0 H	-3.0 H
San Marino	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Sao Tome	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Saudi Arabia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Senegal	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Seychelles Islands	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Sierra Leone	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Singapore	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Slovakia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Slovenia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Solomon Islands	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Somalia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
South Africa	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Spain	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Sri Lanka	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H
St. Lucia	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Maarten	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Pierre & Miquelon	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
St. Thomas	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Vincent	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Sudan	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Suriname	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Swaziland	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Sweden	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Switzerland	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Syria	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
Taiwan	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Tajikistan	+6.0 H	+11.0 H	+12.0 H	+13.0 H	+14.0 H
Tanzania	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Thailand	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Togo	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Tonga Islands	+13.0 H	+18.0 H	+19.0 H	+20.0 H	+21.0 H
Trinidad and Tobago	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Tunisia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Turkey	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Turkmenistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Turks and Caicos	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Tuvalu	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Uganda	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Ukraine	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
United Arab Emirates	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
United Kingdom	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Uruguay	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
USA Eastern	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
USA Central	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
USA Mountain	-7.0 H	-2.0 H	-1.0 H	+0.0 H	+1.0 H
USA Western	-8.0 H	-3.0 H	-2.0 H	-1.0 H	+0.0 H
USA Alaska	-9.0 H	-4.0 H	-3.0 H	-2.0 H	-1.0 H
USA Hawaii	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Uzbekistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Vanuatu	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Vatican City	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Venezuela	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Vietnam	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Wallis & Futuna Is.	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Yemen	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Yugoslavia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Zaire	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Zambia	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Zimbabwe	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H

---

## APPENDIX C:

### CONVERSION CHARTS

---

#### When You Know

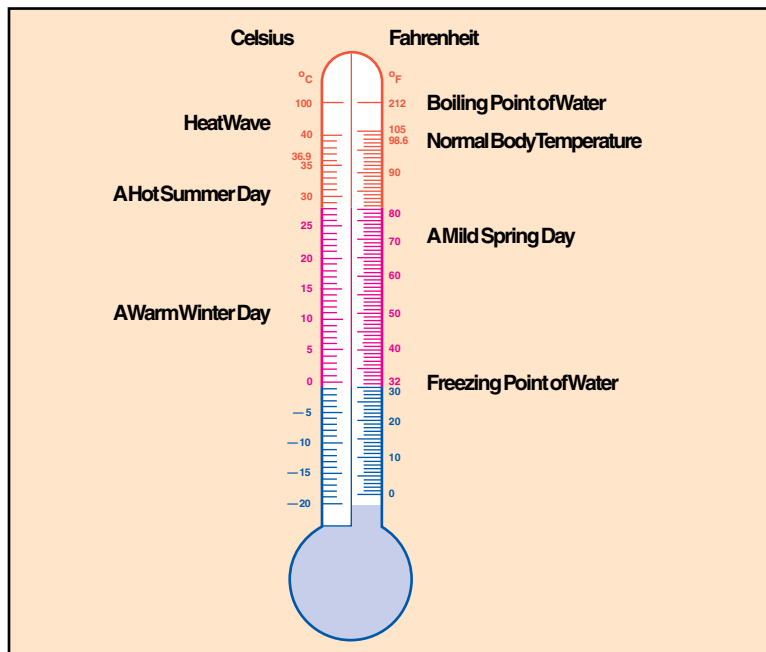
<b>Units of Length</b>	<b>Multiply by</b>	<b>To find</b>
Millimeters	0.04	Inches
Centimeters	0.39	Inches
Meters	3.28	Feet
Meters	1.09	Yards
Kilometers	0.62	Miles
Inches	25.40	Millimeters
Inches	2.54	Centimeters
Feet	30.48	Centimeters
Yards	0.91	Meters
Miles	1.61	Kilometers
<b>Units of Area</b>		
Sq. Centimeters	0.16	Sq. Inches
Sq. Meters	1.20	Sq. Yards
Sq. Kilometers	0.39	Sq. Miles
Hectares	2.47	Acres
Sq. Inches	6.45	Sq. Cm
Sq. Feet	0.09	Sq. Meters
Sq. Yards	0.84	Sq. Meters
Sq. Miles	2.60	Sq. Km
Acres	0.40	Hectares
<b>Units of Mass and Weight</b>		
Grams	0.035	Ounces
Kilograms	2.21	Pounds
Tons (100kg)	1.10	Short Tons
Ounces	28.35	Grams

Pounds	0.45	Kilograms
Short Tons	2.12	Tons
<b>Units of Volume</b>	<b>Multiply by</b>	<b>To find</b>
Milliliters	0.20	Teaspoons
Milliliters	0.06	Tablespoons
Milliliters	0.03	Fluid Ounces
Liters	4.23	Cups
Liters	2.12	Pints
Liters	1.06	Quarts
Liters	0.26	Gallons
Cubic Meters	35.32	Cubic Feet
Cubic Meters	1.35	Cubic Yards
Teaspoons	4.93	Milliliters
Tablespoons	14.78	Milliliters
Fluid Ounces	29.57	Milliliters
Cups	0.24	Liters
Pints	0.47	Liters
Quarts	0.95	Liters
Gallons	3.79	Liters
Cubic Feet	0.03	Cubic Meters
Cubic Yards	0.76	Cubic Meters
<b>Units of Speed</b>		
Miles per Hour	1.61	Kilometers per Hour
Km per Hour	0.62	Miles per Hour



# Temperature

To convert Celsius into degrees Fahrenheit, multiply Celsius by 1.8 and add 32. To convert degrees Fahrenheit to Celsius, subtract 32 and divide by 1.8.



Temperature Chart



---

## APPENDIX D: HOLIDAYS

---

<b>Holiday</b>	<b>Description</b>	<b>Date(s)</b>
Bagong Taon	New Year's Day	1 January
E.D.S.A Revolution	Public holiday referring to the People Power Revolution of 1986	25 February
Maundy Thursday	Commemorates Jesus Christ's institution of the Eucharist, or communion	Thursday before Easter
Good Friday	Day of remembrance of Jesus Christ's crucifixion	Friday before Easter
Easter	Celebrates the resurrection of Jesus Christ from the dead	23 March 2008, 12 April 2009, 4 April 2010, 24 April 2011
Araw ng Kagitingan	Day of Valor (Bataan Day)	9 April
Araw ng Manggagawa	Labor Day	1 May
Araw ng Kalayaan	Independence Day	12 June
National Heroes Day	Holiday commemorating the revolt against the Spanish	Last Sunday in August
All Saints' Day	Annual visit to cemeteries to pay respects to dearly departed	1 November
Bonifacio Day	Honors Andres Bonifacio, one of the chief leaders of the Philippines revolution against Spanish colonial rule.	30 November
Araw ng Pasko	Christmas Day	25 December
Rizal Day	Anniversary of the death of Dr. Jose Rizal, regarded as a national hero for his push for independence from Spain	30 December



---

## APPENDIX E: LANGUAGE

---

### Tagalog Language

The Tagalog language is spoken by 46 percent of the population. It is the basis of Filipino, the national language adopted by the government in 1947 as the medium of communication in schools, businesses, and government. Tagalog (*taga ilog* or river dwellers) came from the people who lived in thriving settlements along the banks of the Pasig River.

#### ***Numbers***

<b>English</b>	<b>Tagalog</b>
One	isa
Two	dalawa
Three	tatlo
Four	apat
Five	lima
Six	anim
Seven	pito
Eight	walo
Nine	siyam
Ten	sampu

#### ***Days of the Week***

<b>English</b>	<b>Tagalog</b>
Sunday	Linggo
Monday	Lunes
Tuesday	Martes
Wednesday	Miyerkoles
Thursday	Huwebes
Friday	Biyernes
Saturday	Sabado

## **Greetings**

### **English**

How are you?

I'm well, thank you.

Good morning.

Good afternoon.

Good evening.

Good-bye.

Thank you.

Welcome.

Yes.

No.

Please.

### **Tagalog**

kumusta po sila?

mabuti po naman.

magandang umaga po.

magandang hapon po.

magandang gabi po.

paalam na po.

salamat.

mabuhay.

oo.

hindi.

paki.

---

## APPENDIX F:

### INTERNATIONAL ROAD SIGNS

---



Crossroads



Maximum speed



No through road



Road narrows



Fallen/falling rock



No entry for  
vehicular traffic



Motorway



Stop and give way



Low flying aircraft or  
sudden aircraft noise



No left turn



One way street



Tourist  
information point



Traffic signals



No u-turn



Cable height  
16' - 6"

Overhead cables,  
Maximum height



Failure of  
traffic light signals



Sharp deviation





---

## **APPENDIX G: DEPLOYED PERSONNEL'S GUIDE TO HEALTH MAINTENANCE**

---

DoD-prescribed immunizations and medications, including birth control pills, should be brought in sufficient quantity for deployment's duration.

Only food, water, and ice from approved U.S. military sources should be consumed. Consuming food or water from unapproved sources may cause illness. Food should be thoroughly cooked and served hot.

Thorough hand-washing before eating and after using the latrine is highly recommended, as is regular bathing. Feet should be kept dry and treated with antifungal powder. Socks and underwear should be changed daily; underwear should fit loosely and be made of cotton fiber.

Excessive heat and sunlight exposure should be minimized. Maintaining hydration is important, as are following work-rest cycles and wearing uniforms properly. Sunglasses, sunscreen (SPF 15 or higher), and lip balm are recommended. Drinking alcohol should be avoided. Personnel with previous heat injuries should be closely monitored.

Uniforms should be worn properly (blouse boots). DEET should be applied to exposed skin and uniforms treated with permethrin; permethrin is not intended for use on skin. Proper treatment and wear of uniform, plus application of DEET to exposed skin, decreases the risk of diseases transmitted by biting insects.

Overcrowded living areas should be avoided. Ventilated living areas and avoiding coughing or sneezing toward others can reduce colds and other respiratory infections. Cots or sleeping bags

should be arranged “head to toe” to avoid the face-to-face contact that spreads germs.

Contact with animals is not recommended. Animals should not be kept as mascots. Cats, dogs, and other animals can transmit disease. Food should not be kept in living areas as it attracts rodents and insects, and trash should be disposed of properly.

Hazardous snakes, plants, spiders, and other insects and arthropods such as scorpions, centipedes, ants, bees, wasps, and flies should be avoided. Those bitten or stung should contact U.S. medical personnel.

All sexual contact should be avoided. Properly used condoms offer some protection from sexually transmitted diseases but not full protection.

Stress and fatigue can be minimized by maintaining physical fitness, staying informed, and sleeping when the mission and safety permits. Alcohol should be avoided as it causes dehydration, contributes to jet lag, can lead to depression, and decreases physical and mental readiness. Separation anxiety, continuous operations, changing conditions, and the observation of human suffering will intensify stress. Assistance from medical personnel or chaplains is available.

## **Additional Information**

### ***Water***

If unapproved water, as found in many lakes, rivers, streams, and city water supplies, must be used in an emergency, the water may be disinfected by:

- Adding calcium hypochlorite at 5.0 ppm for 30 minutes,
- Adding Chlor-Floc or iodine tablets according to label instructions,

- Heating water to a rolling boil for 5 to 10 minutes, or
- Adding 2 to 4 drops of ordinary chlorine bleach per quart of water and waiting 30 minutes before using it.

Either U.S. military preventive medicine or veterinary personnel should inspect bottled water supplies. Bottled water does not guarantee purity; direct sunlight on bottled water supplies may promote bacterial growth.

Water in canals, lakes, rivers, and streams is likely contaminated; unnecessary bathing, swimming, and wading should be avoided. If the tactical situation requires entering bodies of water, all exposed skin should be covered to protect from parasites. Following exposure, it is important to dry vigorously and change clothing.

## ***Rodents***

Rodents should not be tolerated in the unit area; they can spread serious illness. Diseases may be contracted through rodent bites or scratches, transmitted by insects carried on rodents (e.g., fleas, ticks, or mites), or by contamination of food from rodent nesting or feeding. Personnel can minimize the risk of disease caused by rodents by:

- Maintaining a high state of sanitation throughout the unit area
- Sealing openings 1/4 inch or greater to prevent rodents from entering unit areas
- Avoiding inhalation of dust when cleaning previously unoccupied areas (mist these areas with water before sweeping; when possible, disinfect area using 3 ounces of liquid bleach per 1 gallon of water)
- Promptly removing dead rodents; personnel should use disposable gloves or plastic bags over the hands when handling any dead animal and place the dead rodent/animal into a plastic bag prior to disposal

- Seeking immediate attention if bitten or scratched by a rodent or if experiencing difficulty breathing or flu-like symptoms

## ***Insects***

Exposure to harmful insects, ticks, and other pests is a year-round, worldwide risk. The following protective measures reduce the risk of insect and tick bites:

- Use DoD-approved insect repellents properly
- Apply DEET on all exposed skin
- Apply permethrin on clothing and bed nets
- Tuck bed net under bedding; use bed net pole
- Avoid exposure to living or dead animals
- Regularly check for ticks
- Discourage pests by disposing of trash properly; eliminate food storage in living areas
- Cover exposed skin by keeping sleeves rolled down when possible, especially during peak periods of mosquito biting (dusk and dawn); keep undershirts tucked into pants; tuck pant legs into boots

Uniforms correctly treated with permethrin, using either the aerosol spray (reapply after sixth laundering) or Individual Dynamic Absorption (IDA) impregnation kit (good for 6 months or the life of the uniform), will help minimize risks posed by insects. The date of treatment should be labeled on the uniform.

Bed nets should be treated with permethrin for protection against biting insects using either the single aerosol spray can (treating two bed nets) or the unit's 2-gallon sprayer. All personnel should sleep under mosquito nets, regardless of time of day, ensure netting is tucked under bedding, and use poles to prevent bed nets from draping on the skin.

### ***DoD-approved insect repellents are:***

- IDA KIT: NSN 6840-01-345-0237
- Permethrin Aerosol Spray: NSN 6840-01-278-1336
- DEET Insect Repellent: NSN 6840-01-284-3982

### **Hot Weather**

If heat is a threat in the area, personnel should:

- Stay hydrated by drinking water frequently
- Follow work-rest cycles
- Monitor others who may have heat-related problems
- Wear uniforms properly
- Use a sun block (SPF 15 or higher), sunglasses, and lip balm
- During hot weather, wear natural fiber clothing (such as cotton) next to the skin for increased ventilation
- Seek immediate medical attention for heat injuries such as cramps, exhaustion, or stroke. Heat injuries can also occur in cold weather
- Avoid standing in direct sunlight for long periods; be prepared for rapid drops in temperature at night, and construct wind screens if necessary to avoid blowing dust or sand

### ***Sunscreens:***

- Sunscreen lotion: NSN 6505-01-121-2336
- Non-alcohol lotion-base sunscreen: NSN 6505-01-267-1486

## Work-Rest Table

Heat Cat	WBGT Index (°F)	EASY WORK		MODERATE WORK		HARD WORK	
		Work/Rest (min.)	Water Intake (Qt/Hr)	Work/Rest (min.)	Water Intake (Qt/Hr)	Work/Rest (min.)	Water Intake (Qt/Hr)
1	78 – 81.9	NL	1/2	NL	3/4	40/20	3/4
2	82 – 84.9	NL	1/2	50/10	3/4	30/30	1
3	85 – 87.9	NL	3/4	40/20	3/4	30/30	1
4	88 – 89.9	NL	3/4	30/30	3/4	20/40	1
5	> 90	50/10	1	20/40	1	10/50	1

The work-rest times and fluid replacement volumes in the specific heat category sustain performance and hydration for at least 4 hours. Individual water needs will vary  $\pm 1/4$  quart per hour.

NL = no limit to work time per hour. Rest means minimal physical activity (sitting or standing) and should be accomplished in shade.

**Caution:** Hourly fluid intake should not exceed  $1\frac{1}{2}$  quarts. Daily fluid intake should not exceed 12 quarts.

**Note:** MOPP gear adds  $10^\circ$  to WBGT Index.

## Food

High risk food items such as fresh eggs, unpasteurized dairy products, lettuce and other uncooked vegetables, and raw or undercooked meats should be avoided unless they are from U.S. military-approved sources. Those who must consume unapproved foods should choose low risk foods such as bread and other baked goods, fruits that have thick peels (washed with safe water), and boiled foods such as rice and vegetables.

## Human Waste

Military-approved latrines should be used when possible. If no latrines are available, personnel should bury all human waste in pits or trenches.

## Cold Weather

If cold weather injuries are a threat in the area, personnel should:

- Drink plenty of fluids, preferably water or other decaffeinated beverages
- Closely monitor others who have had previous cold injuries
- Use well-ventilated warming tents and hot liquids for relief from the cold. Watch for shivering and increase rations to the equivalent of four MREs per day
- Not rest or sleep in tents or vehicles unless well ventilated; temperatures can drop drastically at night

WIND SPEED		COOLING POWER OF WIND EXPRESSED AS "EQUIVALENT CHILL TEMPERATURE"																				
KNOTS	MPH	TEMPERATURE (°F)																				
CALM	CALM	40	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-55	-60
		EQUIVALENT CHILL TEMPERATURE																				
3 - 6	5	35	30	25	20	15	10	5	0	-5	-10	-15	-20	-25	-30	-35	-40	-45	-50	-55	-60	-70
7 - 10	10	30	20	15	10	5	0	-10	-15	-20	-25	-35	-40	-45	-50	-60	-65	-70	-75	-80	-90	-95
11 - 15	15	25	15	10	0	-5	-10	-20	-25	-30	-40	-45	-50	-60	-65	-70	-80	-85	-90	-100	-105	-110
16 - 19	20	20	10	5	0	-10	-15	-25	-30	-35	-45	-50	-60	-65	-75	-80	-85	-95	-100	-110	-115	-120
20 - 23	25	15	10	0	-5	-15	-20	-30	-35	-45	-50	-60	-65	-75	-80	-90	-95	-105	-110	-120	-125	-135
24 - 28	30	10	5	0	-10	-20	-25	-30	-40	-50	-55	-65	-70	-80	-85	-95	-100	-110	-115	-125	-130	-140
29 - 32	35	10	5	-5	-10	-20	-30	-35	-40	-50	-60	-65	-75	-80	-90	-100	-105	-115	-120	-130	-135	-145
33 - 36	40	10	0	-5	-10	-20	-30	-35	-45	-55	-60	-70	-75	-85	-95	-100	-110	-115	-125	-130	-140	-150
Winds Above 40 MPH Have Little Additional Effect		LITTLE DANGER					INCREASING DANGER Flesh may freeze within 1 minute					GREAT DANGER Flesh may freeze within 30 seconds										

- Dress in layers, wear polypropylene long underwear, and use sunglasses, scarf, unscented lip balm, sunscreen, and skin moisturizers
- Insulate themselves from the ground with tree boughs or sleeping mats and construct windscreens to avoid unnecessary heat loss
- Seek immediate medical attention for loss of sensitivity in any part of the body

## **First Aid**

### ***Basic Lifesaving***

Those caring for injured persons should immediately:

- Establish an open airway
- Ensure the victim is breathing
- Stop bleeding to support circulation
- Prevent further disability
- Place dressing over open wounds
- Immobilize neck injuries
- Splint obvious limb deformities
- Minimize further exposure to adverse weather

### ***Injuries and Care***

#### **Shock**

##### ***Symptoms***

- Confusion
- Cold, clammy skin
- Sweating
- Shallow, labored, and rapid breathing
- Rapid pulse



## *Treatment*

- An open airway should be maintained
- Unconscious victims should be placed on their side
- Victims should be kept calm, warm, and comfortable
- Lower extremities should be elevated
- Medical attention should be sought as soon as possible

## **Abdominal Wound**

### *Treatment*

- Exposed organs should be covered with moist, clean dressing
- Wound should be secured with bandages
- Displaced organs should never be reintroduced to the body

## **Bleeding**

### *Treatment*

- Direct pressure with hand should be applied; a dressing should be used if available
- Injured extremity should be elevated if no fractures are suspected
- Pressure points may be used to control bleeding
- Dressings should not be removed; additional dressings may be applied over old dressings

## *Tourniquet*

**NOTE:** Tourniquets should only be used when an injury is life threatening.

- A 1-inch band should be tied between the injury and the heart, 2 to 4 inches from the injury, to stop severe bleeding; wire or shoe strings should not be used

- Band should be tight enough to stop bleeding and no tighter
- Once the tourniquet is tied, it should not be loosened
- The tourniquet should be left exposed for quick visual reference
- The time that the tourniquet is tied and the letter “T” should be written on the casualty’s forehead

## **Eye Injury**

### *Treatment*

- Embedded objects should not be removed; dressings should secure objects to prohibit movement
- Bandages should be applied lightly to both eyes.
- Patients should be continuously attended.

## **Chest Wound**

### *Symptoms*

- Sucking noise from chest
- Frothy red blood from wound

### *Treatment*

- Entry and exit wounds should be identified; wounds should be covered (aluminum foil, ID card)
- Three sides of the material covering the wound should be taped, leaving the bottom untaped
- Victim should be positioned to facilitate easiest breathing.

## **Fractures**

### *Symptoms*

- Deformity, bruising
- Tenderness
- Swelling and discoloration

## *Treatment*

- Fractured limb should not be straightened
- Injury should be splinted with minimal movement of injured person
- Joints above and below the injury should be splinted.
- If not in a chemical environment, remove clothing from injured area
- Rings should be removed from fingers
- Check pulse below injury to determine blood flow restrictions

## **Spinal, Neck, Head Injury**

### *Symptoms*

- Lack of feeling or control below neck

### *Treatment*

- Conscious victims should be cautioned to remain still
- Airway should be checked without moving injured person's head
- Victims who must be moved should be placed, without bending or rotating victim's head and neck, on a hard surface that would act as a litter (door, cut lumber)
- Head and neck should be immobilized

## **Heat Cramps**

### *Symptoms*

- Spasms, usually in muscles or arms
- Results from strenuous work or exercise
- Loss of salt in the body
- Normal body temperature

## **Heat Exhaustion**

### *Symptoms*

- Cramps in abdomen or limbs
- Pale skin
- Dizziness, faintness, weakness
- Nausea or vomiting
- Profuse sweating or moist, cool skin
- Weak pulse
- Normal body temperature

## **Heat Stroke**

### *Symptoms*

- Headache, dizziness
- Red face/skin
- Hot, dry skin (no sweating)
- Strong, rapid pulse
- High body temperature (hot to touch)

### *Treatment*

- Victim should be treated for shock
- Victim should be laid in a cool area with clothing loosened.
- Victim can be cooled by sprinkling with cool water or fanning (though not to the point of shivering)
- If conscious, victim may drink cool water (2 teaspoons of salt to one canteen may be added)
- Seek medical attention immediately; heat stroke can kill

## **Burns**

Burns may be caused by heat (thermal), electricity, chemicals, or radiation. Treatment is based on depth, size, and severity (degree of burn). All burn victims should be treated for shock and seen by medical personnel.

### **Thermal/First Degree**

#### *Symptoms*

- Skin reddens
- Painful

#### *Treatment*

- Source of burn should be removed
- Cool water should be applied to the affected area

### **Thermal/Second Degree**

#### *Symptoms*

- Skin reddens and blisters
- Very painful

#### *Treatment*

- Source of burn should be removed
- Cool water should be applied to the affected area
- Blisters should not be broken
- A dry dressing should cover the affected area

### **Thermal/Third Degree**

#### *Symptoms*

- Charred or whitish looking skin
- May burn to the bone

- Burned area not painful; surrounding area very painful

### *Treatment*

- Source of burn should be removed
- Clothing that adheres to burned area should not be removed
- A dry dressing should cover the affected area

## **Electrical Burns**

### *Treatment*

- Power source must be off
- Entry and exit wounds should be identified
- Burned area should be treated in accordance with its severity

## **Chemical Burns**

### *Treatment*

- Skin should be flushed with a large amount of water; eyes should be flushed for at least 20 minutes.
- Visible contaminants should be removed.
- Phosphorus burns should be covered with a wet dressing (prevents air from activating the phosphorous)

## **Hypothermia**

### *Symptoms*

- Body is cold under clothing
- Victim may appear confused or dead

### *Treatment*

- Victim should be moved to a warm place
- Wet clothing should be removed; victim should be dressed in warm clothing or wrapped in a dry blanket

- Body parts should not be rubbed
- Victims must not consume alcoholic beverages

## **Frostbite**

### *Symptoms*

- Skin appears white or waxy
- Skin is hard to the touch

### *Treatment*

- Victim should be moved to a warm place
- Affected area should be warmed in 104 to 108° F (40° C) water for 15 to 30 minutes (NOT hot water)
- Affected area should be covered with several layers of clothing
- Affected area must not be rubbed
- Victim must seek medical attention

## **Emergency Life-Saving Equipment**

Equipment may be improvised when necessary. Following is a list of possible uses for commonly found items:

- Shirts = Dressings/Bandages
- Belts, Ties = Tourniquets, Bandages
- Towels, Sheets = Dressings/Bandages
- Socks, Panty Hose, Flight cap = Dressings/Bandages
- Sticks or Tree Limbs = Splints
- Blankets = Litters, Splints
- Field Jackets = Litters
- BDU Shirts = Litters/Splints
- Ponchos = Litters/Bandages
- Rifle Sling = Bandages
- M-16 Heat Guards = Splints





---

## **APPENDIX H: INDIVIDUAL PROTECTIVE MEASURES**

---

### **Security Threats**

Individual protective measures are the conscious actions which people take to guard themselves against physical harm. These measures can involve simple acts such as locking your car and avoiding areas where crime is rampant. When physical protection measures are combined they form a personal security program, the object of which is to make yourself a harder target. The following checklists contain basic individual protective measures that, if understood and followed, may significantly reduce your vulnerability to the security threats overseas (foreign intelligence, security services, and terrorist organizations). If you are detained or taken hostage, following the measures listed in these checklists may influence or improve your treatment.

### ***Foreign Intelligence and Security Services***

- Avoid any actions or activities that are illegal, improper, or indiscreet.
- Guard your conversation and keep sensitive papers in your custody at all times.
- Take it for granted that you are under surveillance by both technical and physical means, including:
  - Communications monitoring (telephone, telex, mail, and radio)
- Photography
  - Search
  - Eavesdropping in hotels, offices, and apartments
  - Do not discuss sensitive matters:

- On the telephone
- In your room
- In a car, particularly in front of an assigned driver
- Do not leave sensitive personal or business papers:
  - In your room
  - In the hotel safe
  - In a locked suitcase or briefcase
  - In unattended cars, offices, trains, or planes
  - Open to photography from the ceiling
  - In wastebaskets as drafts or doodles
- Do not try to defeat surveillance by trying to slip away from followers or by trying to locate “bugs” in your room. These actions will only generate more interest in you. If you feel you are under surveillance, act as naturally as possible, go to a safe location (your office, hotel, U.S. Embassy), and contact your superior.
- Avoid offers of sexual companionship. They may lead to a room raid, photography, and blackmail. Prostitutes in many countries report to the police, work for a criminal organization, or are sympathetic to insurgent or terrorist organizations; in other words, are anti-U.S. Others may be employed by an intelligence service.
- Be suspicious of casual acquaintances and quick friendships with local citizens in intelligence/terrorist threat countries. In many countries, people tend to stay away from foreigners and do not readily or easily make contact. Many who actively seek out friendships with Americans may do so as a result of government orders or for personal gain.

In your personal contacts, follow these guidelines:

- Do not attempt to keep up with your hosts in social drinking.
- Do not engage in black market activity for money or goods.
- Do not sell your possessions.
- Do not bring in or purchase illegal drugs.
- Do not bring in pornography.
- Do not bring in religious literature for distribution. (You may bring one Bible, or Koran, or other religious material for your personal use.)
- Do not seek out religious or political dissidents.
- Do not take ashtrays, towels, menus, glasses, or other mementos from hotels or restaurants.
- Do not accept packages, letters, etc., from local citizens for delivery to the United States.
- Do not make political comments or engage in political activity.
- Do not be lured into clandestine meetings with would-be informants or defectors.
- Be careful about taking pictures. In some countries it is unwise to take photographs of scenes that could be used to make unfavorable comparisons between U.S. and local standards of living or other cultural differences. Avoid taking any photographs from moving buses, trains, or aircraft.

The following picture subjects are clearly prohibited in most countries where an intelligence, terrorist, or insurgent threat is evident:

- Police or military installations and personnel
- Bridges
- Fortifications
- Railroad facilities
- Tunnels

- Elevated trains
- Border areas
- Industrial complexes
- Port complexes
- Airports

## **Detention**

Most intelligence and security services in threat countries detain persons for a wide range of real or imagined wrongs. The best advice, of course, is to do nothing that would give a foreign service the least reason to pick you up. If you are arrested or detained by host nation intelligence or security, however, remember the following:

- Always ask to contact the U.S. Embassy. You are entitled to do so under international diplomatic and consular agreements, to which most countries are signatories.
- Phrase your request appropriately. In Third World countries, however, making demands could lead to physical abuse.
- Do not admit to wrongdoing or sign anything. Part of the detention ritual in some threat countries is a written report you will be asked or told to sign. Decline to do so, and continue demanding to contact the Embassy or consulate.
- Do not agree to help your detainer. The foreign intelligence or security service may offer you the opportunity to help them in return for releasing you, foregoing prosecution, or not informing your employer or spouse of your indiscretion. If they will not take a simple no, delay a firm commitment by saying that you have to think it over.
- Report to your supervisor immediately. Once your supervisor is informed, the Embassy or consulate security officer needs to be informed. Depending on the circumstances and your

status, the Embassy or consulate may have to provide you assistance in departing the country expeditiously.

- Report to your unit's security officer and your service's criminal investigative branch upon returning to the U.S. This is especially important if you were unable to report to the Embassy or consulate in country. Remember, you will not be able to outwit a foreign intelligence organization. Do not compound your error by betraying your country.

## **Foreign Terrorist Threat**

Terrorism may seem like mindless violence committed without logic or purpose, but it is not. Terrorists attack soft and undefended targets, both people and facilities, to gain political objectives they see as out of reach by less violent means. Many of today's terrorists view no one as innocent. Thus, injury and loss of life are justified as acceptable means to gain the notoriety generated by a violent act in order to support their cause.

Because of their distinctive dress, speech patterns, and outgoing personalities, Americans are often highly visible and easily recognized when they are abroad. The obvious association of U.S. military personnel with their government enhances their potential media and political worth as casualties or hostages. Other U.S. citizens are also at risk, including political figures, police, intelligence personnel, and VIPs (such as businessmen and celebrities).

Therefore, you must develop a comprehensive personal security program to safeguard yourself while traveling abroad. An awareness of the threat and the practice of security procedures like those advocated in crime prevention programs are adequate precautions for the majority of people. While total protection is impossible, basic common sense precautions such as an awareness of any local threat, elimination of predictable travel and lifestyle routines, and

security consciousness at your quarters or work locations significantly reduce the probability of success of terrorist attacks.

To realistically evaluate your individual security program, you must understand how terrorists select and identify their victims. Terrorists generally classify targets in terms of accessibility, vulnerability, and political worth (symbolic nature). These perceptions may not be based on the person's actual position, but rather the image of wealth or importance they represent to the public. For each potential target, a risk versus gain assessment is conducted to determine if a terrorist can victimize a target without ramifications to the terrorist organization. It is during this phase that the terrorist determines if a target is "hard or soft." A hard target is someone who is aware of the threat of terrorism and adjusts his personal habits accordingly. Soft targets are oblivious to the threat and their surroundings, making an easy target.

Identification by name is another targeting method gathered from aircraft manifests, unit/duty rosters, public documents (Who's Who or the Social Register), personnel files, discarded mail, or personal papers in trash. Many targets are selected based upon their easily identifiable symbols or trademarks, such as uniforms, luggage (seabags or duffle bags), blatant national symbols (currency, tatoos, and clothing), and decals and bumper stickers.

## **Travel Security**

Travel on temporary duty (TAD/TDY) abroad may require you to stay in commercial hotels. Being away from your home duty station requires increasing your security planning and awareness; this is especially important when choosing and checking into a hotel and during your residence there.

The recent experiences with airport bombings and airplane hijackings suggest some simple precautions:

- You should not travel in uniform outside the continental U.S. on commercial aircraft.
- Before traveling by commercial aircraft, you should screen your wallet and other personal items, removing any documents that could reveal military affiliation (e.g., credit cards and club membership cards). Note that USMC policy requires service members to wear two I.D. tags with metal necklaces while on official business. In addition, service members must carry a current I.D. card at all times. These requirements are valid even while traveling to or through terrorist areas. In view of these requirements, service members must be prepared to remove and conceal these and any other items that could identify them as military personnel in the event of a hijacking.
- You should stay alert to any suspicious activity when traveling. Keep in mind that the less time spent in waiting areas and lobbies, the better. This means adjusting your schedule to reduce your wait at these locations.
- You should not discuss your military affiliation with anyone during your travels because this increases your chances of being singled out as a symbolic victim.
- In case of an incident, you should not confront a terrorist or present a threatening image. The lower your profile, the less likely you are of becoming a victim or bargaining chip for the terrorists, and the better your chances of survival.

### **Hostage Situation**

The probability of anyone becoming a hostage is very remote. However, as a member of the Armed Forces, you should always consider yourself a potential hostage or terrorist victim and re-

flect this in planning your affairs, both personal and professional. You should have an up-to-date will, provide next of kin with an appropriate power-of-attorney, and take measures to ensure your dependents' financial security if necessary. Experience has shown that concern for the welfare of family members is a source of great stress to kidnap victims.

Do not be depressed if negotiation efforts appear to be taking a long time. Remember, chance of survival actually increases with time. The physical and psychological stress while a hostage could seem overpowering, but the key to your well-being is to approach captivity as a mission. Maintaining emotional control and alertness, and introducing order into each day of captivity can ensure your success and survival with honor.

During interaction with captors, maintaining self respect and dignity can be keys to retaining status as a human being in the captor's eyes. Complying with instructions, avoiding provocative conversations (political, religious, etc.), and establishing a positive relationship will increase survivability. Being polite and freely discussing insignificant and nonessential matters can reinforce this relationship. Under no circumstance should classified information be divulged. If forced to present terrorist demands to the media, make it clear that the demands are those of the captor and that the plea is not made on your behalf. You must remember that you are an American service member; conduct yourself with dignity and honor while maintaining your bearing.

Hostages sometimes are killed during rescue attempts; therefore, take measures to protect yourself during such an action. Drop to the floor immediately, remain still and avoid sudden movement; select a safe corner if it offers more security than the floor. Do not attempt to assist the rescuing forces but wait for instructions. After the rescue, do not make any comment to the media until you have been debriefed by appropriate U.S. authorities.



---

## APPENDIX I: DANGEROUS PLANTS AND ANIMALS

---

### Snakes

#### ***Oriental Coral Snake***

##### **Description:**

Adult length is 0.3 to 0.5 meter; maximum of 1.0 meter. Narrow body; diameter the size of a finger. Background color variable; color either russet to

pink, with narrow, widely separated black crossbands and wide cream band across the base of the head, or brown to crimson, with three longitudinal black stripes from head to tail, and a narrow cream headband. Head is small, barely distinct from neck.



pink, with narrow, widely separated black crossbands and wide cream band across the base of the head, or brown to crimson, with three longitudinal black stripes from head to tail, and a narrow cream headband. Head is small, barely distinct from neck.

##### **Habitat:**

Scrub jungles and monsoon forests. Often found near human habitats. Avoids dry terrain.

##### **Activity and behavioral patterns:**

Nocturnal, remaining hidden during the day within humus of forest floor, or beneath logs, stones, and other debris. Occasionally active in early morning.

##### **Venom's effects:**

Likely neurotoxic. Little is known of venom. Few bites recorded. One fatality reported from Nepal.

## ***Banded Long-glanded Coral Snake***

**No Photograph Available**

### **Description:**

Adult length usually 0.3 meter; maximum of 0.5 meter. Background color brown to black above, generally with longitudinal black, yellow, and whitish lines; belly alternately barred black and white. Tail red above and below.

### **Habitat:**

Common in forested areas up to elevations of 1,100 meters.

### **Activity and behavioral patterns:**

Secretive; hides under logs and beneath vegetable litter. When molested, makes no attempt to escape; in defense, raises tail to display brightly colored ventral surface, and writhes and tumbles about.

### **Venom's effects:**

Little known of venom, likely neurotoxic. Cases of envenomation reported.

## ***King Cobra***

### **Description:**

World's largest venomous snake. Adult length usually 3 to 4 meters; maximum of about 5.5 meters. Background color olive, brown, or greenish yellow, becoming darker on tail.

Head scales edged with black. Throat yellow or orange, sometimes with dark markings.

### **Habitat:**

Found in open country, cultivated areas, dense or open forests, bamboo thickets, dense mangrove swamps, and hilly jungles. Of-



ten found near streams. Range extends from sea level up to 1,800 meters elevation. Species widespread but uncommon.

**Activity and behavioral patterns:**

Diurnal and very active. Primarily terrestrial, but sometimes found in trees and water. Constructs elaborate nest of dead leaves and other decaying vegetation. Unlikely to attack unless provoked. When confronted, expands hood and may rise as high as 1.8 meters. When angry, gives deep resonant hiss similar to growl of small dog. Reports of aggressiveness and unprovoked attacks likely untrue.

**Venom's effects:**

Potent neurotoxin. Severe local pain and tenderness almost immediately following bite. Bites uncommon, but usually severe and may be rapidly fatal.

**Habu**

**Description:**

Adult length usually 1.2–1.5 meters; maximum of 2.3 meters. Background color generally pale or dark brown, greenish brown, or olive. Patterned with irregular blotches, varying in shades of green or brown and bordered with yellow or grayish yellow, which may give marbled effect. Head large and triangular; distinct from slim neck.



Patterned with irregular blotches, varying in shades of green or brown and bordered with yellow or grayish yellow, which may give marbled effect. Head large and triangular; distinct from slim neck.

**Habitat:**

Sparsley wooded plains and fields adjacent to forests; bushy, rocky hillsides. Found only on Ryukyu Islands, which include Okinawa

**Activity and behavioral patterns:**

Nocturnal, but may bask during the day. Shelters in lava caves, rodent burrows, and stone walls; may enter houses and barns in

search of rodents. Bold and irritable; strikes with great rapidity and long reach.

**Venom characteristics:**

Potent hemotoxin. Local symptoms may include intense pain, swelling, blistering, bruising, and necrosis. Systemic symptoms may include hypotension, peripheral cyanosis, fever, vomiting, abdominal pain, and impaired consciousness. About 75 percent of deaths occur within 24 hours. Bites are common and fatalities have been recorded.

***Temple Pit Viper,  
Wagler's Pit Viper***

**Description:**

Adult length usually 1.0 meter to 1.3 meters; relatively thick-set snake. Background color green or blue-green. Each scale with black edging. Series of narrow transverse bright yellow or greenish yellow stripes. Disproportionately large head. Top of head black with yellow-green markings. Yellow-green postocular streak edged above with black; labials and chin yellow.



Disproportionately large head. Top of head black with yellow-green markings. Yellow-green postocular streak edged above with black; labials and chin yellow.

**Habitat:**

Lowland forests, in low shrubs and bushes, and small trees, at elevations up to 600 meters.

**Activity and behavioral characteristics:**

Arboreal and primarily nocturnal. Sluggish and docile during day. Rarely strike even when severely threatened.

**Venom's effects:**

Hemotoxic. Symptoms may include immediate bleeding, pain and swelling at site of bite. No deaths recorded.

## ***Sumatran Spitting Cobra***

### **Description:**

Maximum length about 1.5 meters. Background color variable. In some areas, color usually uniform yellow or yellowish green; elsewhere, color uniform jet black with bluish black belly and pale markings on neck and chin.

### **Habitat:**

Tolerates variety of habitats. Common in open plains, jungles, and populated areas.

### **Activity and behavioral patterns:**

Generally nocturnal. Timid; seeks to escape when encountered. When cornered, rears up and spreads hood; bites as last resort. Most dangerous when surprised in close quarters. When biting, tends to hold and chew savagely. Highly developed ability to “spit” venom at intruders; can spit venom several feet.

### **Venom’s effect:**

Potent neurotoxin. Local symptoms may include pain, swelling, and necrosis. If venom enters eyes, may cause immediate burning pain with inflammation and permanent blindness.

## **Dangerous Invertebrates**

### ***Spiders***

Although there are several spider species found in the region that are capable of inflicting a painful bite, including some very large and physically imposing tarantulas, none are known to be life-threatening.



## ***Insects***

There is little specific information of medical importance regarding insects. However, nearly all countries have at least one species of moth having venomous/urticating hairs and/or whose larva (caterpillar) has venomous spines. Some caterpillars are very hairy (such as puss moths and flannel moths) and almost unrecognizable as caterpillars, with long silky hairs completely covering the shorter venomous spines. Others bear prominent clumps of still, venomous spines on an otherwise smooth body. Contact with these caterpillars can be very painful. Some are brightly colored.

Paederus are small (usually 4 to 7 millimeters), slender rove beetles that do not look like typical beetles and have very short wing covers that expose most of their flexible abdomens. When crushed, their body fluid contains an agent that will blister skin on contact. The lesions take about a week to heal and the area remains painful for several weeks. The substance is extremely irritating if it gets into the eyes; temporary blindness has been reported.

## ***Scorpions***

Although scorpions in the region are capable of inflicting a painful sting, none are known to be life-threatening.



## ***Millipedes***

Millipedes do not bite and in general are harmless to humans. However, when handled, some larger millipedes (may be more than 50 centimeters long)

secrete a very noxious fluid that can cause severe blistering upon contact; some can squirt this fluid at least 2 feet.

## ***Centipedes***

Although area centipedes are capable of inflicting a painful bite, none are known to be life-threatening.



## **Dangerous Plants**

### ***Trumpet Creeper***

#### **Mechanisms of toxicity:**

Causes contact (allergic type) and irritant dermatitis.

#### **Comments:**

Woody climbing vine with fluted pink and orange flowers



### ***Wood Nettle***

#### **Other names:**

Moroides, stinger, gympie

#### **Mechanisms of toxicity:**

The leaf edges, stems, stalks and fruit-bearing parts have stiff, sharp, stinging hairs — frequently not conspicuous. On



contact the hair tips break and an extremely irritating liquid is injected into the skin. Light contact results in intense burning pain.

Poses a serious threat to forestry workers and jungle troops. Death was reported regarding a man who contacted the dried bark.

**Comments:**

Tends to be particularly thick in areas of regrowth or replanted forests. Chopping or slashing the bushes can produce prolonged sneezing and intense throat irritation. Light contact tends to be more painful than strong contact — described as tingling interspersed with sharp, stabbing pains accompanied by red inflammation with a large flare area.

***Velvet Bean***

**Other names:**

Cowitch, cowhage, pica-pica, ox eye bean, horse-eye bean.

**Mechanisms of toxicity:**

Many of the species' pods and flowers are covered with irritant hairs (proteolytic enzymes). Can be

dangerous if they become embedded in the eye. Beans tend to be foul tasting, even after thorough boiling, so little danger of ingestion exists.

**Comments:**

Many species are widely naturalized.



***Mango***

**Other name:**

Indica.

**Mechanisms of toxicity:**

The leaves, stem and fruit's skin on this tree contain urushiol and other similar long-chain phenols. Other allergens are also present.



Skin inflammation can occur from eating the fruit with the skin intact. Blisters may be confined to the lips and face, or can be generalized. Climbing the tree can result in severe skin inflammation. There is also immediate hypersensitivity in some individuals. Ensuring the fruit is peeled prior to ingestion can prevent the reaction.



**Comments:**

Genus includes 35 species, usually large trees, primarily in Indo-Malaysia. Frequently found near human dwellings.

These trees grow from 40 to 100 feet, and have lance-shaped leaves. Cultivated varieties have excellent fruit (in some wild-growing plants the fruit is unpleasant) edible raw or cooked. Ground seed is used as a flour; its fruit is used in chutney, pickles, squashes, etc.

***Marking Nut Tree***

**Other names:**

Tar tree, anacardium

**No Photograph Available**

**Mechanisms of toxicity:**

Often occupied by biting ants. Many of the plants have reputations for causing severe contact dermatitis. Anacardium fruit may drip a black, oily resin that hardens like lacquer. The resin can also produce a severe skin inflammation. Toxic principles are similar to mango tree or poison ivy.

**Comments:**

Tree indigenous to India; used to make a liquid used to mark laundry in India and Malaysia. Fleshy swollen basal parts of the fruits are edible.

***Freshwater Mangrove*****Other names:**

Putat, bitung, laut.

**No Photograph Available****Mechanisms of toxicity:**

Saponins and hydrocyanide have been isolated from fruit and seeds. Used as fish poisons in many Pacific islands. Fruit contains a triterpenoid saponin, and the seeds are emetic and have been shown to induce hypoglycemia in rodents.

**Comments:**

Large tree found growing along shorelines; have large (20-38 centimeters long, 10-15 centimeters wide) non-toothed leaves, white to pink flowers (on individual stalks; square in cross section), and one-seeded fruits (9-13 centimeters-long; square in cross-section). Seeds are crushed and used as fish poison by Australian troops and aborigines.

***Shanshi*****Mechanisms of toxicity:**

Contains a number of alkaloids. Causes hallucinogenic effects due to glycosides that have not yet been identified. Has caused death.

**Comments:**

This is a group of deciduous shrubs or small trees with red, yellow, or purple/black berry-like fruit.



Has five one-seeded nutlets. Bark used for tanning, crushed fruit as a fly poison. Used in folk remedies.

## ***Rattlepod***

### **Other names:**

Rattlebox, rattleweed, chilla-goe, horse poison.

### **Mechanisms of toxicity:**

Contains pyrrolizidine alkaloids (monocrotaline, heliotrine, retrosine); can kill. Low-level ingestions can cause lung damage; high levels will damage the liver. Some species have caused toxicity through the contamination of flour or when incorporated in teas.

### **Comments:**

The fruits are inflated dehiscent legumes (pods) with parchment-like walls; the ripe seeds come loose within the pods and rattle when shaken. The flowers are pea-like. Found in open woods, roadsides, margins, sandy soils, and fields.



## ***Manghas***

### **No Photograph Available**

### **Mechanisms of toxicity:**

The seed contains irritant toxins and cardiac glycosides, which can result in severe purging, even death, if eaten.

### **Comments:**

Has a milky sap, formerly used in ordeal poisons and for suicide; also used as a fish poison. Green fruit used in India to kill dogs.

## ***Bulb Yam***

### **Other Name:**

Air potato, wild yam.

### **Mechanisms of toxicity:**

Bulb yam, air potato, and wild yam have tubers that contain diosgenin, a steroidal saponin, the alkaloid dioscorine, and a norditerpene lactone (diosbulbine). They and some other yams are poisonous when eaten raw. Causes gastroenteritis (nausea, bloody diarrhea). Some individuals eat them after special preparation. Has been used to commit murder. Found mainly in the lowlands.



### **Comments:**

A prickly climber with a cluster of tubers just below the soil surface. Considered the chief “famine-food” of the tropical East. Poisonous unless properly prepared. Other species of this genus are good to eat with no special preparation, such as goa yam and buck yam.

## ***Sasswood***

### **No Photograph Available.**

### **Other names:**

Ordealtree, mancona bark, ironwood, camel poison, black bean, Cooktown ironwood.

### **Mechanisms of toxicity:**

Extremely poisonous; the two main species have similar toxicities. Alkaloids of esters and amides of cinnamic acid have been isolated. Most of the alkaloids are esters of diterpenoid carboxylic

acids including cardiotoxic alkaloids. Powerful analgesic to the mucous membranes.

**Comments:**

A fish poison.

***Heliotrope***

**Other names:**

Cherry pie, scorpion's tail, Indian heliotrope.

**Mechanisms of toxicity:**

Contains pyrrolizidine alkaloids. Cause of large epidemics (Afghanistan, India) of illness following ingestion of bread made with flour contaminated with members of this genus. The pathologic effects (Budd-Chiari syndrome) take weeks to months, and death comes slowly over years. Chronic copper poisoning has occurred associated with this plant.



**Comments:**

A large genus of worldwide distribution (250 tropical and temperate trees and shrubs).

***Annual/French Mercury***

**No Photograph Available**

**Other names:**

Dog's Mercury

**Mechanisms of toxicity:**

Native to Europe; entire plant is toxic. Has been mistaken for edible greens. Emetic and purgative. Has proven fatal.

**Comments:**

Dye source; carpeting rhizome herb often characteristic of disturbed woodland.

***Balsam Apple*****Other names:**

Leprosy gourd, bitter gourd, cucumber gourd

**Mechanisms of toxicity:**

Seeds and outer rind of ripe fruit contain a toxalbumin called momordin; the ripe fruit also has an hypoglycemic agent.

Small amounts cause headache, flushing, salivation, dilated pupils, vomiting, diarrhea, abdominal pain. Can kill.

**Comments:**

A slender vine with small yellow flowers. Fruits have a rough outer rind, variable shape but like a gourd, usually yellowish with reddish pulp.

***Pokeweed*****Other names:**

Pokeberry, poke salet.

**Mechanisms of toxicity:**

Mature stems, roots, and berries are poison (sa-



ponins mostly in foliage and roots). Death possible when not prepared properly.

**Comments:**

Young shoot tips, less than 6 inches, are eaten in many cultures, including Canada; requires proper preparation (boiled with water changes; water contains toxic substances — kills snails that carry bilharzia). Dye from berries used to color ink, wine, sweets.

***Chinaberry***

**Other names:**

White cedar, African lilac, bead tree

**Mechanisms of toxicity:**

Yellow globose berry with three to five smooth, black, ellipsoidal seeds; has a resin; all parts have a saponin, triterpene neurotoxins, and a gastrointestinal irritant of uncertain chemical nature. Widely varying genetic variable toxicity. Has killed adults.



**Comments:**

Widely cultivated.

***Strychnine***

**Other names:**

Nuxvomica tree, Snakewood tree

**Mechanisms of toxicity:**

The entire plant, including the seeds, contains the powerfully acting indole alkaloid strychnine, which can kill.

**Comments:**

Genus of 190 different species of trees, shrubs and vines with berry-like fruits, found in most tropical regions. Some have the reputation of having edible fruit despite dangerous seeds. It is a source of curare obtained by stripping



and macerating its bark. Curare, now used as a muscle relaxant, was formerly used as an arrow poison by South American Indians.



---

## APPENDIX J: INTERNATIONAL TELEPHONE CODES

---

Algeria	213	Malta	356
Australia	61	Mexico	52
Austria	43	Morocco	212
Bahrain	973	Netherlands	31
Belgium	32	Nigeria	234
Brazil	55	New Zealand	64
Canada	1	Norway	47
China	86	Oman	968
Cyprus	357	Philippines	63
Denmark	45	Portugal	351
Djibouti	253	Qatar	974
Egypt	20	Republic of Korea	82
Ethiopia	251	Saudi Arabia	966
Finland	358	Senegal	221
France	33	Seychelles	248
Gabon	241	Singapore	65
Germany	49	Somalia	252
Greece	30	South Africa	27
Hawaii	1	Spain	34
Hong Kong	852	Sweden	46
Indonesia	62	Switzerland	41
Iran	98	Syria	963
Iraq	964	Taiwan	886
Ireland	353	Tanzania	255
Israel	972	Thailand	66
Ivory Coast	225	Tunisia	216
Japan	81	Turkey	90
Jordan	962	UAE	971
Kenya	254	United Kingdom	44
Kuwait	965	United States	1
Libya	218	Yemen	967
Madagascar	261	Zambia	260
Malaysia	60	Zimbabwe	263

AT&T (public phones)

0072-911  
or 0030-911

On Base

550-HOME  
or 550-2USA



















