

Colombia Country Handbook

This handbook provides basic reference information on Colombia 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 Colombia.

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 Colombia.

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Colombia

KEY FACTS

Official Name.

Republic of Colombia (Republica de Colombia).

Short Form. Colombia.

Head of State. President Alvaro Uribe Velez (August 2002).

Capital. Bogota.

National Flag. Colombia's flag consists of three horizontal stripes. The yellow upper stripe is twice as wide as each of the other two, which are blue and red.

Time Zone. UTC (formerly GMT) -5 hours.

Population. 43,593,035 (July 2006 est.).

Language. Spanish.

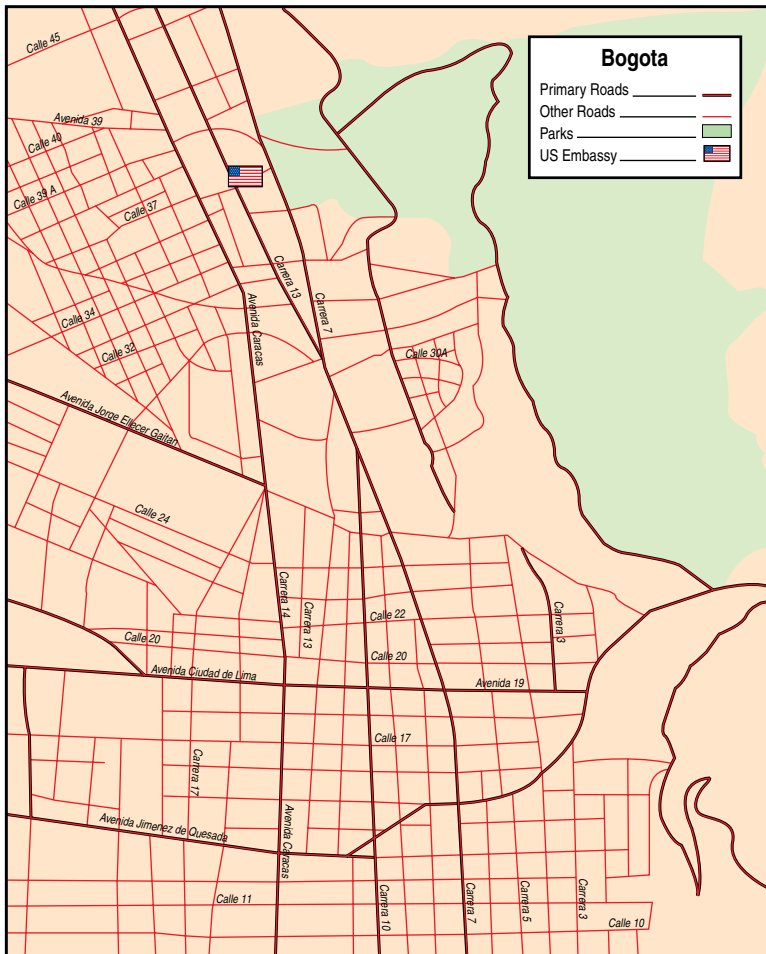
Currency. Colombian peso (COP).

Exchange Rate. US\$1 = 2,432.3 Colombian peso (June 2006).



National Flag

decreased. Three Colombian groups, the Revolutionary Armed Forces of Colombia (FARC), National Liberation Army (ELN), and United Self-Defense Forces of Colombia (AUC) have carried



Bogota Embassy

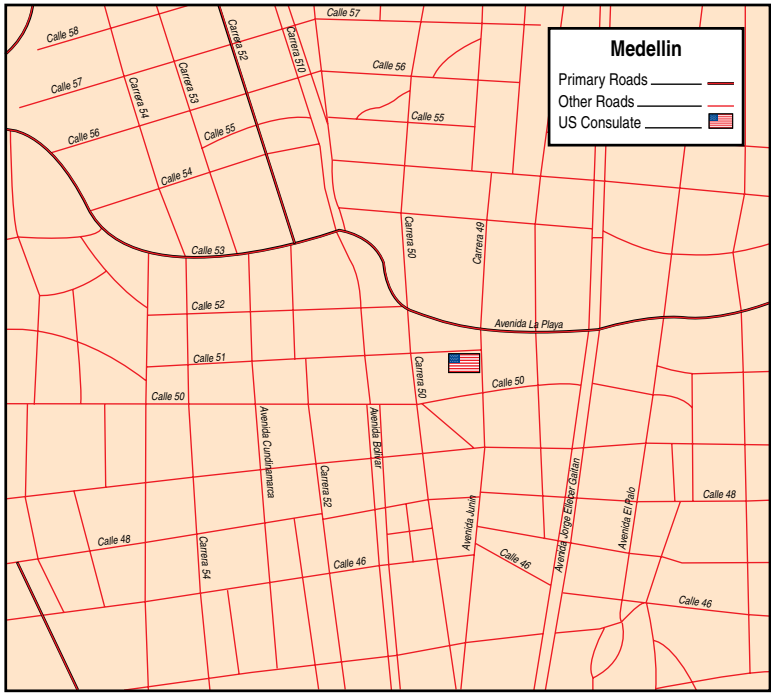


Cali Embassy

out bombings and other attacks against civilians. They have targeted water, oil, gas, and electricity facilities, public recreational areas, and transportation systems.

In 1999, the FARC murdered three kidnapped U.S. citizens. In 2003, a plane carrying five U.S. government contractors crashed in a remote area. Two of the crew members were killed, three were taken and continue to be held hostage. Colombia has a high rate of kidnapping for ransom. It is U.S. policy not to make concessions to or negotiate with kidnappers, so rescue capabilities are limited.

Violence by narcoterrorist groups and other criminal elements continues to affect urban, rural, and border areas. Foreigners are often kidnapping and crime victims. Per the U.S. State Department,



Medellin Embassy

U.S. officials and their families are permitted to travel to major cities by air, but may not use bus transportation in or between cities. They cannot travel by road outside urban areas at night.

Criminals use the drug scopolamine to incapacitate tourists and then rob them. It can be administered in drinks, cigarettes, sweets and gum, and even in powder form blown into the victim's face. The drug can cause unconsciousness and serious medical problems. A common scam includes the approach of an alleged policeman checking for counterfeit money who then confiscates the

visitor's money. Thieves often work in pairs so one can distract the victim while the other commits the crime.

Current information on security conditions is available at 1-888-407-4747. Consular information and caution announcements are available at travel.state.gov.

Entry Requirements

Passport/Visa Requirements

U.S. citizens must show a valid U.S. passport to enter and depart Colombia but do not need a visa for a tourist stay of up to 60 days. Visitors must also show evidence of return or onward travel. If their passports are due to expire within a year, visitors should get new ones before traveling to South America. Many countries will not admit tourists whose passports expire within 6 months or even a year. Travelers who do not have passports stamped on arrival or who remain in Colombia for more than 60 days without the authorization of the Colombian Immigration Agency (*Departamento Administrativo de Seguridad* or DAS) are in Colombia illegally and will be fined. Length of stay is typically determined by the immigration official who stamps the visitor's passport at the point of entry. Normal limits vary between 30 and 90 days.

U.S. citizens whose passports are lost or stolen must obtain a new passport and present it, along with a police report of the loss or theft, to the main immigration office in Bogota to depart Colombia. It is a good practice to keep multiple copies of one's passport on one's person and with travel gear.

Immunization Requirements

Travelers should check with a health care provider to determine which vaccines are needed: hepatitis A (immune globulin), hepati-

tis B, rabies, and typhoid, and booster doses for tetanus, diphtheria, or measles. There is a malaria risk in all rural areas at altitudes below 800 meters (2,624 feet); there is no risk in and around Bogota. Yellow fever vaccination certificates are required for travelers arriving from countries in which yellow fever may be contracted.

Customs Restrictions

Tourists and business travelers are prohibited from bringing firearms into Colombia. The penalty for illegal possession of firearms is 3 to 10 years in prison. Customs procedures upon entering and leaving the country are often a formality, but thorough luggage checks occur, most often at airports. Officials are primarily searching for drugs; prison sentences for drug smuggling can be up to 10 years. The type, quality, and value of items should not be so high as to arouse suspicion that they are being imported for commercial purposes. Personal items such as cameras, camping equipment, and laptop computers should not present a problem. Visitors are sometimes asked to prove that they have US\$20 for each day of their stay.

There is duty-free admission for radios, binoculars, and cameras; 200 cigarettes, 50 cigars, or up to 500 grams of manufactured tobacco; and two bottles of liquor or wine. One can import or export unlimited local currency, but only US\$25,000 in foreign currency. On departure, travelers may be asked to present receipts for emeralds, antiques, gold, and platinum purchased in Colombia.

Credit Cards/Banking

Banks are open Monday through Friday from 0900 until 1500. On the last working day of the month they are open until noon or closed for the day. Foreign currency can be exchanged for Colombian pesos until 1300. Passports must be presented for all

banking transactions. Most banks have automated teller machines (ATM). Travelers should use these machines in crowded, well-lit areas, and withdraw small amounts at a time.

Casas de cambio (authorized money exchange offices) are located in major cities and border towns and change U.S. currency and travelers checks. The transaction is much faster than the paperwork involved in changing money at the bank. It is dangerous to exchange money on the street, as there are counterfeit pesos and U.S. dollar bills in circulation. It is best to get pesos in Bogota or in departmental capitals. Damaged notes are not accepted.

American Express, MasterCard, Visa, and Diner Club cards are accepted almost everywhere. Travelers will be asked, “Cuántas cuotas?” which means in how many monthly payments will they repay, and they should reply, “Una.” (Colombian credit card companies allow their customers to negotiate with vendors as to the number of monthly payments it will take to pay off the debt incurred.) In many cases, exchange rates are more favorable when credit cards are used. It is best for travelers to carry one credit card to make purchases and leave others secured at the hotel.

GEOGRAPHY AND CLIMATE

Geography

Land Statistics

Area

Total 1,138,910 square kilometers
(439,736 square miles)

Comparative Roughly 2/3 the size of Alaska

Water 100,210 square kilometers
(38,691 square miles)

Boundaries

Total 9,212 kilometers (5,724 miles)
Northeast Venezuela 2,050 kilometers (1,274 miles)
Southeast Brazil 1,643 kilometers (1,021 miles)
Southwest Peru 1,496 kilometers (929 miles);
Ecuador 590 kilometers (366 miles)
Northwest Panama 225 kilometers (140 miles)
Coastline Total 3,208 kilometers (1,993 miles);
Pacific Ocean 1,448 kilometers (900 miles);
Caribbean Sea 1,760 kilometers (1,094 miles)

Border Disputes

Colombia has an ongoing dispute with Venezuela over substantial maritime territory off the Guajira Peninsula and in the Gulf of Venezuela, an area referred to by Colombians as the Golfo de Coquibacoa. It is being resolved through bilateral negotiations.

Nicaragua alleges to have sovereignty rights over the islands of San Andres and Providencia off the Caribbean coast of Nicaragua and revived the issue in 2002 with the International Court of Justice at The Hague. Nicaragua also disputes Colombia's ownership of the uninhabited Caribbean islands of Quita Sueno Bank, Roncador Cay, and Serrana Bank.

Bodies of Water

Colombia is the only South American country with coasts on both the Caribbean Sea and the Pacific Ocean. The waters of the Caribbean coast to the northwest are clear and lined with exten-

sive coral reefs. Rich marine life fills the waters of the Pacific Ocean to the west, influenced by the Humboldt Current.



Land Use

The main rivers are the Magdalena (1,540 kilometers [957 miles]) and its major tributary, the Cauca (1,014 kilometers [630 miles]). Both flow northward. The Magdalena flows between the central and eastern cordilleras (mountain ranges), and the Cauca flows between the central and western cordilleras. They join after emerging from the mountains and descend through marshy lowlands to the Caribbean near Barranquilla. The Magdalena is navigable from the Caribbean Sea as far as the town of Neiva, deep in the interior, and has historically been a significant transportation route. The drainage basin of the two rivers covers 260,000 square kilometers (100,000 square miles), or one-fourth of Colombia's surface. Most of Colombia's socioeconomic activity and more than three-fourths of its population is in the basin.

There are no large rivers in western Colombia as the mountains lie close to the coastline. The principal rivers on the Pacific coast are



Cauca River



South America

the Baudo, San Juan, and Patia. There are many large rivers east of the Andes. Many of those are navigable. The Orinoco River flows north along the border with Venezuela; the Guaviare, Arauca, and the Meta Rivers are Orinoco's major tributaries in Colombia.

The rivers south of the Guaviare — the Vaupes, Apaporis, Caqueta, and the Putumayo — flow southeast into the basin of the Amazon, which is the longest river in South America, and the second longest river in the world. It flows through the southernmost part of Colombia to the Atlantic Ocean. This southern region is largely unexplored tropical jungle.

Colombian lakes include Lake Tota, near Bogota, which supports tourism with abundant resources for fishing and boating; Laguna de la Plaza, the largest lake in the north in the Sierra Nevada de Cocuy mountain range (near the Venezuela border); the Laguna Grande de los Verdes; and Lake Fuquene, a shallow lake in the Cordillera Oriental.

The narrow region along the Pacific coast, known as the Pacific Lowlands, is swampy, heavily forested, and sparsely populated. Along the Caribbean coast, the Atlantic Lowlands consist of open, swampy land. The Atrato swamp is a 64-kilometer (40-mile) wide area that adjoins the Panama frontier.

Topography

At 1,138,910 square kilometers (439,736 square miles), including islands in the Pacific Ocean and Caribbean Sea, Colombia is the fourth largest country in South America. Located entirely in the tropics in the northwest corner of the continent, it has striking physical variety.

There are four main geographic regions: the Andean highlands, consisting of the three Andean ranges and the intervening valley lowlands; the Caribbean Lowlands coastal region; the Pacific Lowlands coastal region, separated from the Caribbean Lowlands by swamps at the base of the Isthmus of Panama; and the Eastern Plains, which lie to the east of the Andes Mountains.

In the Andean highlands, the Andes Mountains divide just north of Colombia's southern border with Ecuador into three mountain ranges, or cordilleras: the Cordillera Occidental (western), the Cordillera Central, and the Cordillera Oriental (eastern). The Cordillera Occidental and the Cordillera Central, both composed of crystalline rocks, run parallel to the Pacific coast, extending to the north as far as the Caribbean Lowlands. The Cordillera Occidental has a relatively low elevation with dense tropical vegetation on the western slopes. A pass at 1,524 meters (5,000 feet) above sea level provides the major city of Cali with an outlet to the Pacific Ocean. The Cordillera Central is the highest range with several snow-covered volcanic peaks rising to 5,500 meters (18,045 feet).

There are no plateaus or passes below 3,352 meters (10,997 feet). The Cordillera Oriental, composed of layered rocks over a crystalline core, runs northeastward splitting into an eastern branch, the Sierra de los Andes, and a second branch, the Sierra de Perija, which continues northward and ends at the border with Venezuela. It is the longest of the three systems, covering more than 1,200 kilometers (746 miles). Separating the three principal Andean ranges are Colombia's two major rivers, the Cauca, which flows northward between the western and central cordilleras, and the Magdalena, which divides the central and eastern cordilleras.

The Atlantic Lowlands consist of all Colombia north of an imaginary line extending northeastward from the Gulf of Uraba to Venezuela

at the northern edge of the Cordillera Oriental. The region is triangular; the coastline forms the longest side. Inland from the coastal



Topography

cities are swamps, hidden streams, and shallow lakes that support banana and cotton plantations, small farms, and cattle ranches.

The Pacific Lowlands are a thinly populated region of jungle and swamp with little potential in minerals and other resources. Buenaventura, at the midpoint of the 1,287-kilometer (800-mile) coast, is the only port. To the east, numerous streams run from the neighboring Cordillera Occidental, the peaks of which provide a barrier to rain clouds. This results in heavy rainfall along the coast. The coast's rainforest is dense with a diversity of plant and animal life.

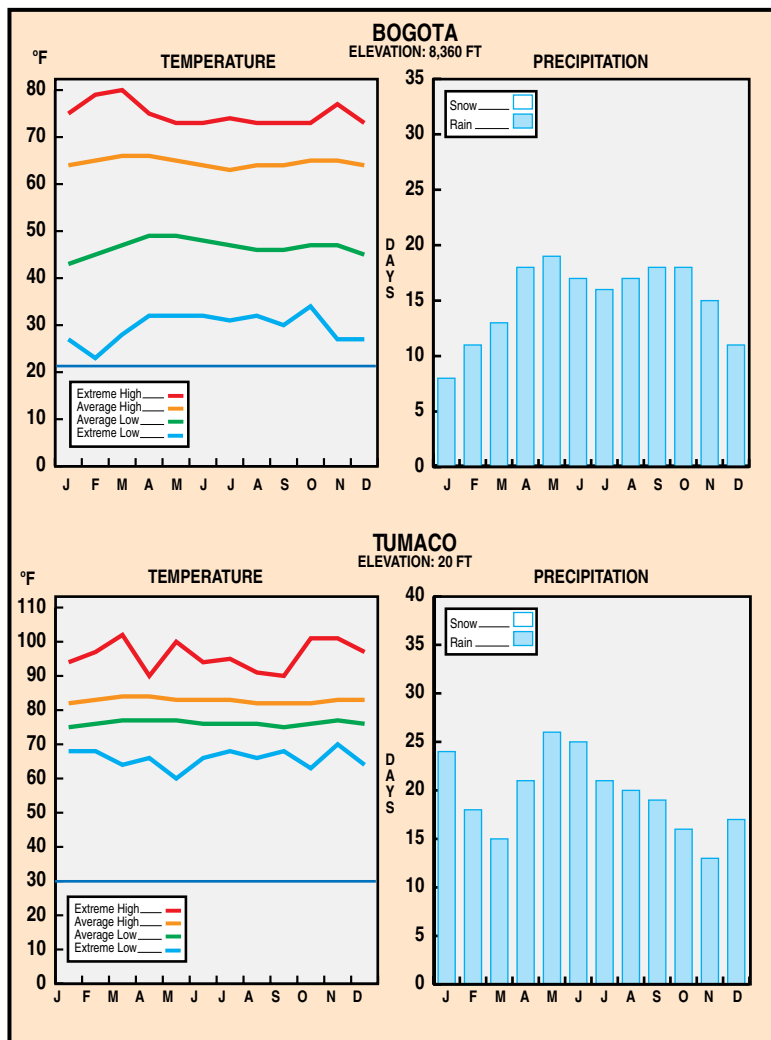
The Eastern Plains (*Llanos Orientales*) to the east of the Andes includes 699,297 square kilometers (270,000 square miles) or three-fifths of Colombia's total area. Many large rivers cross it from east to west, and only a small percentage of the population lives there. This is an area of topographical uniformity with one exception. The Guaviere River separates the Amazon rainforest or *selva* in the south from the largest savanna complex in tropical America.

Climate

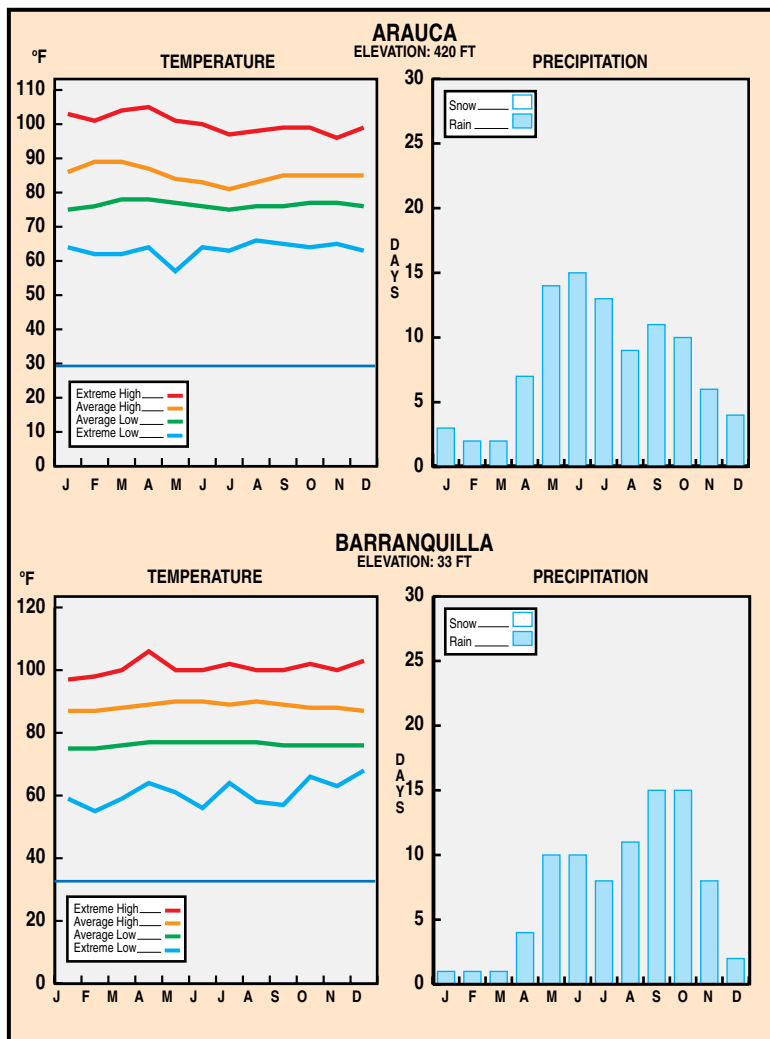
Temperature

The variations in temperature and precipitation are caused primarily by elevation differences. It is very hot at sea level and relatively cold at higher elevations. Bogota's average annual temperature is 12°C (55°F), and the difference between the average of the warmest and coldest months is less than 1°C. The temperature does vary more from night to day, dropping to 5°C (41°F) at night.

The habitable areas of Colombia are divided into three climatic zones. The hottest area, known as *tierra caliente*, extends vertically from sea level to 1,100 meters (3,500 feet). The temperature in this area is usually between 24°C and 27°C (75°F and 81°F) with a



Bogota and Tumaco Weather



Arauca and Barranquilla Weather

maximum near 38°C (100°F) and a minimum of 18°C (64°F). The temperate zone (*tierra templada*) exists in elevations between 1,100 and 2,000 meters (3,500 and 6,500 feet) with an average temperature of 18°C (64°F). At elevations between 2,000 and 3,000 meters (6,500 and 10,000 feet), the cold country (*tierra fria*) has annual temperatures averaging 13°C (55°F). In the high mountain regions or *paramos* above 3,000 meters (10,000 feet), there are very cold temperatures, often between -17 and 13°C (1 and 55°F). There is perpetual snow and ice above 4,600 meters (15,000 feet).

Precipitation

Seasons are determined by changes in rainfall rather than changes in temperature. Precipitation is generally moderate to heavy, with highest levels in the Pacific Lowlands and parts of the Eastern Plains. Most of Colombia has two main wet seasons with heavy daily rainfall (from March to May and September to October) and one or two dry seasons with little or no rainfall (from December to February and June to August). In the northern plains, there is one long wet season from May to October. Overall, the wettest month is October and the driest month is February. Average annual rainfall is 107 centimeters (42 inches). Annual precipitation is more than 760 centimeters (299 inches) in most of the Pacific Lowlands, making it one of the wettest regions in the world.

Phenomena

Colombia lies in the Ring of Fire, an active seismic area that surrounds the Pacific Basin, and is subject to frequent volcanic eruptions and earthquakes. Disasters have included the eruption of the Nevado del Ruiz volcano in 1985, which killed roughly 23,000 Colombians, and a large earthquake in 1999 that measured 6.0 on the Richter scale and killed hundreds. There are periodic droughts. Torrential rains and mudslides can occur throughout the year.

Environment

The main environmental problems are soil erosion and deforestation. Soil erosion has resulted from the loss of vegetation and heavy rainfall, and the soil has been damaged by the overuse of pesticides. Government sources estimate that 65 percent of Colombia's cities could face water shortages by 2015 as a result of land erosion. Deforestation, primarily in the Amazon jungles and the Choco region, has been caused by the commercial exploitation of the forests that cover 45 percent of Colombia. About 908,000 hectares (2,243,700 acres) of natural forest was lost annually in the 1970s to farming, erosion, and the lumber industry, and only 5,000 hectares (12,355 acres) were reforested each year. Some 14,500 hectares (35,830 acres) of forest has been destroyed as a result of the planting of illegal drug crops in national parks. Reforestation rates are low compared with Latin American countries with big timber industries.

Air pollution from vehicle emissions, especially in Bogota, is higher than acceptable standards. Safe drinking water is available to 99 percent of urban dwellers and 70 percent of the rural population. Water quality has declined because of chemicals used in the coca refining process, crude oil spilling into rivers as a result of guerillas sabotaging pipelines, and pesticides. Aerial spraying glyphosate, a toxic herbicide, on illegal drug crops is also a contributing factor. Only a third of Colombia's cities have adequate treatment systems for contaminated water.

The 1991 constitution introduced new environmental legislation, including protected zones. More than 200 were created in the early 1990s, mostly in forest areas and national parks. As a result, the Ministry of the Environment was created in 1993, but merged with the housing and drinking water division of the Ministry of

Economic Development, Housing, and Potable Water in 2003.
 The government is promoting reforestation projects, and there are



Land Use

fiscal incentives for using alternative energy sources, reforestation, and reducing carbon dioxide (CO₂) emissions.

Cross Country Movement

The three Andes mountain ranges that run roughly parallel to the Pacific Ocean create formidable obstacles to cross country movement in Colombia. Frequent flights link significant cities.

The main routes from Bogota to Cali and Manizales must cross the Cordillera Central, the highest range, at 3,250 and 3,700 meters (10,662 and 12,139 feet), respectively. Only the Cali to Buenaventura railway was built to cross the cordilleras. Fortunately, the surrounding countryside is dominated by plateaus that provide good sites for cities, as is the case with Bogota. Stretches of easy surface are interrupted by sharp descents and steep climbs from natural rifts and ravines.

Far north of the longest of the three mountain systems, the Cordillera Oriental, is the Sierra Nevada de Cocuy, the highest peak, which rises to 5,581 meters (18,310 feet). The northernmost region of the range is so rugged that historically it has been easier to maintain communication and transportation toward Venezuela from this area rather than toward Colombia.

The semiarid Guajira Peninsula in the extreme north bears little resemblance to the rest of the region. The Sierra Nevada de Santa Marta in the southern part of the peninsula is 5,775 meters (18,946 feet) high at Pico Cristobal Colon. It is the highest peak in Colombia. The range is an isolated mountain system with slopes too steep for cultivation.

A US\$770-million highway project will be completed by 2009. New and repaired roadways will ease the flow of goods to

Colombia's ports. Most domestic goods move by truck, which is costly because of the poor roads. Frequent landslides make highway maintenance difficult. In addition, security problems threaten certain areas where roadwork is needed. Traffic at the Port of Buenaventura has risen 28 percent since the government launched an offensive against armed insurgents, who once kid-napped truckers along the route. There are roadblocks throughout rural Colombia set up by peasant groups, illegal paramilitaries, and FARC and ELN guerillas.

TRANSPORTATION AND COMMUNICATION

Transportation

Roads

Roads are the primary means of freight and passenger transport in Colombia. Seventy to 80 percent of freight is hauled by road, and 92 percent of passenger travel is by bus. Of the 166,000 kilometers (103,148 miles) of road, only 15 percent is paved and accounts for 70 percent of the primary (national) road network. Traffic is heavily concentrated along roads leading to major cities, ports, and border crossings. An estimated 67 percent of all traffic in Colombia uses 25 percent of the primary network. Toll road concessions are in place along all high traffic corridors. The main highways are the Caribbean, Eastern, and Central Truck highways.

Security and maintenance are the two most pressing issues. Trucks are subject to hazards including theft, falling rocks, and landslides. Rural roads are exceptionally dangerous due to the strong presence of guerillas, paramilitary groups, and criminals who often set up roadblocks. Overall, the road system is deteriorating due to high traffic and lack of maintenance.

Traffic laws are ignored and rarely enforced. Colombian authorities estimate that an accident occurs every 10 minutes, and usu-



Transportation

ally involve pedestrians. City speed limits range from 28 to 37 miles per hour (45 to 60 kilometers per hour). Rural speed limits are usually 50 miles per hour (80 kilometers per hour). Public transportation is not safe as taxis; buses are targeted by criminals. Hourly taxi services or hired cars contacted through major hotels are recommended. Taxis should never be hailed from streets.

Rural areas are often isolated, with a third of the population living an average of 2.5 kilometers (1.6 miles) from primary or secondary roads. Some Amazonian areas have no roads, and access is available only through inland waterways or small airports.

Transmilenio

Transmilenio is the rapid transit bus system of Bogota, which travels in a dedicated bus corridor made by widening existing avenues and bridges. It connects commercial centers in the north and east



Transmilenio



Chivas, a Typical Mode of Public Transportation

with neighborhoods in the south and west. Feeder buses bring passengers from the surrounding areas.

As of 2001, the system included 38 kilometers (24 miles) of dual-median bus lanes and 59 stations. There are 460 red Mercedes and Volvo buses. Express and local service is available from 0500 to 2300 on weekdays. In 2004, the system was transporting 70,000 passengers during the rush hour, nearly 8 percent of commuter traffic. Planned system expansion includes 22 corridors covering 391 kilometers (243 miles) over the next 15 years.

Rail

There are 3,300 kilometers (2,050 miles) of narrow gauge (3,150 kilometers [1,957 miles] of 0.914 meter gauge and 150 kilometers [93.2 miles] of 1.435 meter gauge) in Colombia operated by two concessions. Ferrocarril del Atlantico operates 1,480 kilometers (920 miles) between Bogota and the Port of Santa Marta.

Tren de Occidente holds a 30-year concession for the Pacific line with 490 kilometers (304 miles) linking the cities of Cali, La Virginia, and Armenia to the port of Buenaventura. As of 2005, the line was carrying an estimated 150,000 tons of freight; the target weight is 1,000,000 tons.

There are two coal-dedicated short lines hauling to seaports, accounting for 180 kilometers (112 miles) of track. There are 1,170 kilometers (727 miles) of inactive track. Colombia's road network is in poor condition; repairs scheduled for 2000 have been postponed. The system accounts for 27 percent of freight transport.

Air

Colombia has a well developed air transport system. There are 981 airports, 100 of which are paved. Bogota has a major international air terminal with daily flights to the United States, Europe, and Latin America. Delta, America, and Continental Airlines have routine flights into Bogota from the United States.

Prices vary by season and city but range from US\$900 to more than US\$1,300 round trip per person. Flights on Colombian airlines Avianca and Aeropostal are less expensive ranging from US\$500 to US\$900 round trip. The Colombian government charges a US\$26 departure tax on international travelers.

In the early 2000s, the Colombian civil aviation authority replaced its microwave relay system with a satellite communications network that integrated traffic control, voice, data, weather, air-to-ground, and radio transmissions into a single digital network. Airport facilities need further expansion to handle increased freight and passenger traffic anticipated with the signing of the Free Trade Agreement with the United States.

Primary Airports

Airport Name/City, Coordinates	Runway		
	Dimensions	Surface	Elevation
Ernesto Cortissoz/ Barranquilla 1026N 07315W	3,000 x 45 m (9,842 x 148 ft)	Asphalt	30 m (98 ft)
Alfonso Lopez Pumarejo/ Valledupar 1026N 07315W	2,100 x 30 m (6,890 x 98 ft)	Asphalt	147 m (483 ft)
Los Garzones/Montería 0850N 07549W	1,916 x 35 m (6,285 x 115 ft)	Asphalt	11 m (36 ft)
Camilo Daza/Cucuta 0755N 07230W	2,347 x 45 m (7,700 x 148 ft)	Asphalt	334 m (1,096 ft)
Palonegro/Bucaramanga 0707N 07312W	2,250 x 40 m (7,381 x 131 ft)	Asphalt	1,188 m (3,897 ft)
Santiago Perez/Arauca 0704N 07044W	2,100 x 30 m (6,890 x 98 ft)	Asphalt	128 m (420 ft)
Olaya Herrera/Medellin 0613N 07535W	2,510 x 45 m (8,234 x 148 ft)	Asphalt	1,506 m (4,940 ft)
Matecana/Pereira 0448N 07544W	2,020 x 45 m (6,627 x 148 ft)	Asphalt	1,346 m (4,416 ft)
El Eden/Armenia 0427N 07546W	2,147 x 36 m (7,046 x 118 ft)	Asphalt	1,216 m (3,990 ft)
Eldorado International/Bogota 0442N 07408W	3,800 x 45 m (12,467 x 148 ft)	Asphalt	2,548 m (8,361 ft)
Alfonso Bonilla Aragon International/Cali 0332N 07623W	3,000 x 45 m (9,842 x 148 ft)	Asphalt	964 m (3,162 ft)
Antonio Narino/Pasto 0123N 07718W	2,312 x 40 m (7,585 x 130 ft)	Asphalt	1,814 m (5,951 ft)
Santa Ana/Cartago 0445N 07557W	2,219 x 40 m (7,281 x 131 ft)	Asphalt	908 m (2,979 ft)

Maritime

Seaports handle 80 percent of Colombia's international cargo. The most important ocean ports are Barranquilla, Cartagena, and Santa Marta on the Caribbean coast and Buenaventura on the Pacific coast. The Caribbean ports are used mostly for exports while Buenaventura handles nearly 65 percent of imports.

The ports were initially operated by the state monopoly Colpuertos. In 1990, a new law provided for private regional port societies and concessions. Privatization took 3 years and resulted in a 70-percent to 30-percent split between private and public sectors, with the government retaining ownership of port infrastructure. Port societies are responsible for contracting with port operators for use of the facilities and supervising port use.

Barranquilla. Due to strong river currents and wind conditions, all vessels of more than 200 gross tons must use a pilot for entering, departing, and moving to another berth. Vessels more than 2,000 deadweight tons must use a tugboat for movement within the port. The Colombian navy has 24-hour radar surveillance of the river between the mouth and commercial terminal.

Cartagena. The port of Cartagena is located in the Bay of Cartagena on the north coast of Colombia. Pilot assistance is required for all vessels entering and departing; tugboat assistance is required of all vessels more than 2,000 deadweight tons. Services include bunkers, fresh water, provisions, repairs, dry docks up to 3,600 metric tons dead weight, security services, and inspections. The port handles imports and exports of general cargo, bulk, and containers. There are extensive warehouse facilities and equipment including cranes, stackers, front loaders, containers, truck cams, platforms, and top lifters. There is also a cruise ship terminal. Oil tankers are supported by a specialized platform connected to the shore by

seven submarine pipelines, which are used to receive crude oil and ship fuel oil and aromatics such as benzenes and xylenes. There are also specialized liquid and chemical terminals.

Santa Marta. Santa Marta is a deep-water port with rail lines extending to the docks for direct loading and unloading of cargo. The port is well equipped with 15-, 30-, 50-, and 104-ton land cranes, an 80-ton floating crane, forklifts, top lifters, a side loader, grain suction, fueling containers, and tugboats. There are specialized piers for the loading and discharge of liquid bulk cargo, grain silos, oil tanks, and warehouses. It is managed by the *Sociedad Portuaria de Santa Marta*. A cruise terminal for cruise ships was completed in 2004. There are large warehouses and refrigerated containers. The port was approved to receive textile shipments in 2004. Pilot assistance is required for vessels more than 500 gross tons, and tugboat assistance is required for vessels more than 2,000 gross tons.

Buenaventura. Buenaventura is managed by the *Sociedad Portuaria Regional de Buenaventura S.A.* Pilot assistance is required for vessels more than 500 gross tons. Tugboat assistance is required for all vessels more than 2,000 metric tons deadweight. There is a multipurpose terminal with 14 berths with grain handling facilities (300 metric tons/hour), 67 silos, four warehouses, a specialized pier for loading bulk raw sugar and molasses and one bulk liquid terminal. Equipment includes one Gottwald 100-metric ton mobile crane and two gantry cranes.

Tumaco (0149N 07845W). Tumaco is located on the Pacific coast in Tumaco Bay near the border with Ecuador. Small vessels may enter the harbor, but large tankers must use an offshore berth.

Primary Ports

Port Name, Coordinates	Berthing	Anchor Depth Meters (Feet)	Pier Depth Meters (Feet)
Turbo 0084N 07644W	N/A	17.1-18.2 (56-60)	11-12.2 (36-40)
Covenas 0925N 07541W	Vessels more than 152 m (500 ft)	6.4-7.6 (21-25)	7.9-9.1 (26-30)
Covenas Offshore Terminal 0930N 07544W	Vessels more than 152 m (500 ft)	23.2-over (76-over)	N/A
Cartagena 1025N 07532W	Vessels more than 152 m (500 ft)	14.0-15.2 (46-50)	7.9-9.1 (26-30)
Barranquilla 1058N 07446W	Vessels more than 152 m (500 ft)	7.9-9.1 (26-30)	7.9-9.1 (26-30)
Puerto Prodeco 0119N/07413W	Vessels more than 152 m (500 ft)	20.1-21.3 (66-70)	N/A
Pozos Colorados 0119N 07415W	Vessels more than 152 m (500 ft)	6.4-7.6 (21-25)	N/A
Santa Marta 0115N 07413W	Vessels more than 152 m (500 ft)	23.2-over (76-over)	17.1-18.2 (56-60)
Puerto Bolivar 1215N 07158W	Vessels more than 152 m (500 ft)	23.2-over (76-over)	7.9-9.1 (26-30)
Tumaco 0149N 07845W	Vessels more than 152 m (500 ft)	9.4-10.7 (31-3)	7.9-9.1 (26-30)
Buenaventura 0353N 00774W	Vessels more than 152 m (500 ft)	9.4-10.7 (31-35)	9.4-10.7 (31-35)

Communication

Radio and Television

Colombia has hundreds of commercial AM and FM radio stations that broadcast mainly Latin American music. However, there are stations that broadcast classical music, jazz, and international pop

music. CARACOL runs several networks with varied programming including sports, salsa, and rock.

Major Radio Stations	City
Radio Nacional de Colombia	State run
40 Principales 97.4	Bogota
CARACOL Basica 810 AM (talk)	Bogota
CARACOL Colombia 100.9 FM	Bogota
CARACOL Estereo 99.9 FM (adult contemporary)	Bogota
La Vallenata 104.4 FM	Bogota
Latina Stereo 100.9 FM (Latin Music)	Medellin
Los 40 Principales 97.4 FM (top 40)	Bogota
Radio Munrea 790 AM	Medellin
Radio Uno 1340 AM	Bogota
Radioactiva 97.9 FM (alternative)	Bogota
RadioNet 850 AM (news)	Bogota
Superstacion 88.9 FM	Bogota
Tropicana Estereo 102.9 FM	Bogota
Viva FM 99.9 FM (news)	Bogota

Colombia has government-run and private television stations. CARACOL TV and RCN TV are the leading commercial broadcasters and have the largest audiences. Television is the most popular medium in the country; 92 percent of Colombian households have a television. Typical programming includes international news, sports, and films. Cable and Direct TV services are commercially available and offer international news and feature programming. Movies are very popular, and U.S. movies can be rented.

Primary Television Stations	Type
Cadena Uno	Government operated
Canal A	Government operated
CARACOL TV	Private network
RCN TV Canal 4	Private network
Senal Colombia	Government operated

Telecommunication

Colombia has a modern telecommunication system. There is a nation-wide microwave relay system, a satellite system with 41 Earth stations, a fiberoptic network, and access to 8 submerged cable systems.

Since deregulation went into effect in 1998 the industry has grown rapidly. In 2005, the number of mobile users doubled and penetration reached 50 percent. Landline services have slowed with the coming of mobile telephones. There are many local telephone operators but only three long-distance operators, Colombia Telecom, EPM's Orbitel, and *Empresa de Telefonos de Bogota* (ETB).

Colombia Telecom, the largest fixed-line operator, was privatized in April 2006 with 51 percent ownership going to Telefonica of Spain. ETB and *Empresas Publicas de Medellin* (EPM) created Colombia Movil in 2003, which is the only mobile phone company offering PCS technology. Other leading service providers include Comcel, EmCali, and Telefonica Moviles Colombia.

Colombia Telecommunication Statistics 2005

Total telephone subscribers	18.2 million
Telephone subscribers per 100 inhabitants	40
Main telephone lines	7.8 million
Main telephone lines per 100 inhabitants	17
Mobile users	21.8 million

Internet

ETB, Bogota's largest local telephone operator, has 2 million lines and is the country's largest service provider. There are an estimated 4 million Internet users, half of them in Bogota. Broadband use more than doubled in Colombia during 2005. While cable is the most used technology, it is being challenged by satellite use, which increased from 22 percent in 2004 to more than 35 percent in 2005. Internet cafes are popular, readily available, and priced between US\$2 and US\$3 per hour.

Colombia Internet Statistics 2004

Total Internet Hosts	192,761
Hosts per 10,000 inhabitants	43
Users	4 million
Users per 100 inhabitants	9
Total number of personal computers (PCs)	2.5 million
PCs per 100 inhabitants	6

Newspapers and Magazines

Most major cities in Colombia have daily newspapers. *El Tiempo* is the major daily paper in Bogota and provides good coverage of national and international events. Major U.S. newspapers can be received by subscription but they arrive late. Leading magazines include *Semana*, *Cambio 16*, and *Cromos*. The Latin American versions of *Time* and *Newsweek* are sold in major cities.

Leading Spanish Publications

Publication	Frequency	Web Address
<i>Cambio 16</i>	Weekly	www.cambio16.info/
<i>Cromos</i>	Weekly	www.cromos.com.co/cromos/

<i>El Tiempo (Liberal)</i>	Daily	www.Eltiempo.com/
<i>El Espacio</i>	Daily	www.elespacio.com
<i>El Nuevo Siglo (Conservative)</i>	Daily	www.elnuevosiglo.com.co/
<i>El Colombiano</i>	Daily	www.elcolombiano.com
<i>Vanguardia Liberal</i>	Daily	www.vanguardia.com
<i>La Republica</i>	Daily	www.la-republica.com
<i>Semana</i>	Weekly	www.semana.com.co
<i>El Espectador</i>	Weekly	www.elespectador.com

Postal Service

Postal services in Colombia are provided by ADPOSTAL (National Postal Administration), which held a monopoly on services until 1991. The Ministry of Communications subsequently granted ADPOSTAL a concession to provide domestic and international postal services. Locations and telephone numbers for more than 200 offices are listed on the ADPOSTAL web site at www.adpostal.gov.co/. Services include delivery of letters, cards, magazines, newspapers, pamphlets, and other items without commercial value; certified mail; post office box rentals; telegrams; and other business services. The cost of local delivery for items up to 500 grams (1.1 pounds) is US\$0.52. Airmail costs US\$1.30 for up to 500 grams. Delivery is slow and considered unreliable. Valuable items should be sent through a private carrier such as FedEx, UPS, or DHL. There is also a private air carrier service called Deprisa offered through Summa Airlines.

Satellites

Colombia has seven satellite Earth stations (six Intelsat and one Inmarsat) and three digital switching stations. There is also a domestic satellite system with 41 Earth stations.

CULTURE

The cultures of the interior, the countryside, and the coastal regions comprise diverse regional cultural traditions, with a range of distinct groups with unique customs, accents, social patterns, and cultural adaptations. Regional isolation has marked the character and identity of Colombians. It is more a “nation of nations” than a single united country. Geographic, ethnic, and political factors account for the strength and persistence of regional sentiments.

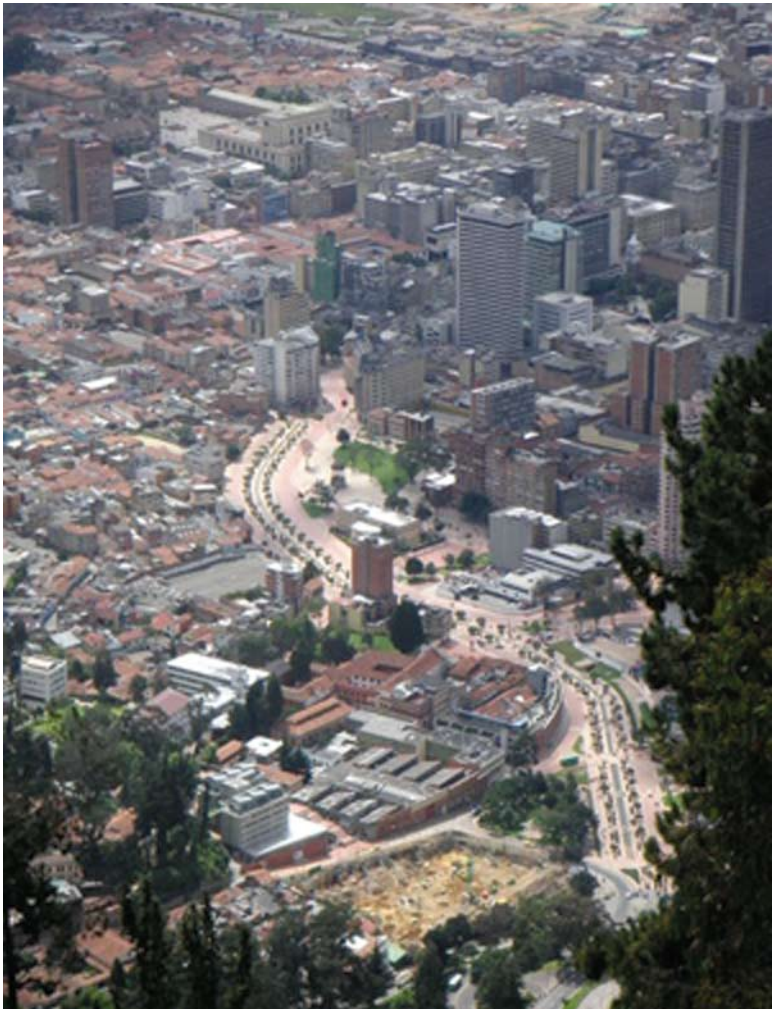
Despite Colombia’s notoriety as one of the most violent places in the world, it has one of the longest standing democratic political systems on the continent. The violence affects much of life and is reflected in many forms including political conflicts, guerilla warfare, drug trafficking, and urban strife.

Colombians are generally considered artistic. Two of the most popular performers on the international Spanish language music scene — Shakira and Carlos Vives — are Colombians, as is one of the most well known Latin American authors, Nobel laureate Gabriel Garcia Marquez.

Bogota’s reputation as a cultural center earned it the nickname, the South American Athens. The official national culture reflects Colombia’s Spanish origins, conservative values, and the church’s moral guidance. The arts are considered important and are supported by private individuals and various foundations. The Bank of the Republic of Colombia supports the world-renowned Museum of Gold.

The artistic expression of Colombia’s regional and ethnic diversity extends to its music. Distinct regional traditions include the *cumbia*, the *vallenato* (played with an accordion), and the *puya* from the Costa (the Atlantic coast); the *mapale* from the Pacific

coast; *la musica llanera* (played on the harp) from the Llanos; and the *carranguera*, the *bunde*, and the *guabina* from the Altiplano.



Bogota. *Photo by Louise Wolff*

Population Patterns

Colombia is the third most populous country in Latin America, after Brazil and Mexico. The population is mostly urban. Most of Colombia's population inhabits the Andean region, which is the center of national, political, and economic power. The region boasts the largest cities: Bogota, Medellin, Cali, and Baranquilla. The Cauca valley with a vast tract of alluvial soil, the Sabana de Bogota, and the Antioquia highlands are centers of economic activity and growth. The Llanos and the Amazonian rainforest to the east make up two-thirds of Colombia's land area but contain only 2 percent of the population, of which one-third is in the department of Meta in the Llanos. New roads down from the Andes and discoveries of petroleum have encouraged more settlements along the margins of this area. Until the 1990s, the more remote areas of the Amazon region were sparsely inhabited by small groups of Native Americans, but coca growers and guerilla groups have since joined them.

The internal conflict has displaced more than 3 million people from rural areas, swelling the main cities. The increasing guerilla violence and the economic recession prompted 1.2 million Colombians to leave the country legally between 1997 and 2001. Many settled in the United States and Spain. Between 2003 and 2004, improvements in the economy and public security encouraged a few to return.

Population growth has declined from 3 percent in the 1960s to less than 2 percent in recent years, and an estimated 1.5 percent in 2006. In 2006, of the 43.6 million people, 30.3 percent were 14 years of age or younger, 64.5 percent were between the ages of 15 and 64, and 5.2 percent were 65 and older.



Population Density

Ethnic Density

Mestizos, of mixed European and Native American descent, make up most of Colombia's middle class and account for more than half the population. Whites account for nearly 20 percent of the population and occupy many of the government and high-level business occupations. Blacks and mulattoes (of black and European descent) make up less than 20 percent of the population, with *zambos* (of black and native American descent) and Native Americans accounting for less than 5 percent. One percent of Colombia's modern population is Native American; most of their ancestors died or vanished after the arrival of the Spaniards.

Society

Although regional differences are gradually disappearing, people are often identified by the administrative region in which they live, and Antioqueños, Santandereanos, Tolimenses, Nariñenses,



Indigenous Colombians. *Photo by Franco Mattioli*

Bogotanos, and Boyacanses are recognized by their dress, diet, and speech. The most socially and economically prominent group is the Antioquenos, who migrated from Antioquia southward along the Cordillera Central and Cordillera Occidental during the 19th century. They grow three-fourths of Colombia's coffee crop and control much of Colombia's trade, banking, and industry. Until the death of drug cartel leader Pablo Escobar in 1993, Antioquenos dominated the drug trade.

Colombian class structure is still based on occupation, wealth, and ethnicity, but with some regional differences. The lower class performs physical labor—Africans, Native Americans, and mixed descent individuals—and have few avenues for social mobility. Although the more highly skilled members of the middle class have professional occupations, they lack the wealth of the upper class. At the top of the upper class is a tiny group of wealthy, traditional families, almost all of whom are pure Spaniards.

The Colombian elite is preoccupied with protecting *abolengo*, family pride and reputation. Family ties are key in business and political life, and it is common for young men and women to follow their parent's footsteps into the political arena. Elite cliques called *rosca*s often act behind the scenes in political and business dealings. Members of the middle class and those who aspire to the upper class must deal with these controlling groups.

Guerilla, paramilitary, military, and drug trafficking groups are engaged in ongoing armed conflict; the noncombatant homicide rate is the highest in the world, and the crime rate is staggering. Factors that have contributed to the violence include the struggle for Colombia's resources (gold, emeralds, land, coal, and petroleum); political and ideological differences; conditions of inequality, injustice, and poverty; and the involvement of other

countries and multinational corporations. Drug trafficking is one of the primary factors behind the strengthening of the guerilla and paramilitary movements.

Colombia has a large internal displacement crisis. The rural population fleeing the conflict has contributed to housing shortages, lack of public services, poverty, and high unemployment in urban areas. Despite Colombia's economic success, two-thirds of Colombians live below the poverty line. About 4 percent of the population owns three-quarters of Colombia's farmland. Only half of the rural population has land to live and work on.

People

Colombians are proud of the rich and diverse culture reflected in their food, music, dance, and art. They are proud of their *rumbero*, "work hard, play hard" spirit. They take great pride in family, and mutual support is important. The individual is important and takes precedence over timetables and punctuality. Honesty, loyalty, and humor are valued traits, and education is respected. Colombians find selfishness, arrogance, and dishonesty distasteful. They have an initial mistrust of outsiders, more as a survival skill than a lack of courtesy.

Colombian Caribbeans, known as *costenos*, are generally receptive to new and different peoples and ideas, and are among the most fun-loving of all Colombians. Music provides a constant backdrop, and dancing, joking, and socializing are highly valued. Residents of the Pacific coast share many of the *costenos'* traits but are decidedly poorer. They are typically referred to according to more local origins, such as *chocoano*, synonymous with "black" throughout much of Colombia, from the state of Choco, or *tumaqueno* from the city of Tumaco.

Ethnic Groups

The population is descended from three racial groups, Native Americans, Africans, and Europeans. Mestizos, of mixed European and Native American descent, account for more than half of the population. European descendants account for 20 percent of the population. African descendants and mulattoes of mixed European and African descent make up less than 20 percent of the population. Zambos (of African and Native American descent) and Native Americans account for less than 5 percent of the population. One percent of Colombia's modern population is Native American.

Mestizos

Prior to the 1940s, the large mestizo population was predominantly a peasant group, concentrated in the highlands where the Spaniards mixed with the women of Native American tribes. Thereafter, mestizos began moving to the cities, where they became part of the urban working class or urban poor. As the character and value system of Colombia formed, notions of color, class, and culture merged to elevate European descendants, subordinate African descendants and Native Americans, allowing upward mobility for mestizos and mulattoes.

Colombians remained conscious of their Spanish heritage. Although Native Americans and African descendants outnumbered mestizos and Europeans in certain regions, they remained minorities. However, mestizos shared the national identity and cohesion that was based on Hispanic identification and emphasized Spanish institutions, particularly the Roman Catholic Church. After Colombia gained its independence, upward mobility was based on individual education, wealth, and culture, rather than on a change in the status of the group.

European

In the first 50 years after the discovery of the Americas, Spaniards began to settle in present-day Colombia, introducing their social system and imposing their values on the indigenous population and the African slaves they imported. They occupied the top level of society in terms of prestige, wealth, and power. Slaves and Native Americans occupied the bottom. Offspring from mixed unions adopted the dominant culture if they were recognized by their Spanish fathers, or remained on the social periphery if they were not.

Europeans occupy high positions in the government, economy, and society. They model their lifestyles, family patterns, and personal relations on European and North American norms and in turn have modeled them to the rest of society. Traditionally, the group emphasized racial and cultural purity and wealth derived from property. Insistence on racial purity varied among regions and sometimes was not as important as light skin and an old, respected Spanish surname. In fact, many people who came from many generations of “European” families were actually descendants of people of mixed ancestry who purchased certificates of ancestry from the Spanish crown. Independence did little to alter the colonial framework of society.

Africans

When there was a shortage of Native American laborers, the Spanish conquistadores brought over Africans in significant numbers, giving Colombia, and neighboring Venezuela, the largest African population in the Spanish-speaking South American countries. Africans were viewed as slaves until the 19th century and as manual laborers thereafter. Segregated economically, geographically, and socially, they remained a minority and on the outskirts of national identity.

In 1958, the government passed a law that denied Africans rights and declared their homelands part of the national preserve. The greatest number lived in the lowland areas on the Caribbean and Pacific coasts and along the Cauca and Magdalena Rivers.

In 1993, the *Ley de Negritudes* (Law of the Blacks) granted Africans rights to their homelands, but it was not until 1996 that Africans received their first land titles. Violence against Africans increased after land titles were granted, and it has continued. Forty percent of the 3 million internally displaced people in Colombia are of African descent. Many have fled the violence near their lands, which contain tropical timber, gold, and the potential for extensive commercial cropping, finding it increasingly difficult to exercise their territorial rights. Violent conflicts have erupted in areas that were regarded as “peace niches” in 1996. Violence and intimidation have been used to displace many under the pretext that they are collaborating with the guerillas.

Tribal Groups

Numerous tribal groups, with a population of 3 million, inhabited the area when the Spaniards arrived. Each group had its own language and culture. The indigenous population was sparse and diverse. It was driven into less accessible and desirable areas or absorbed by the Spanish culture. The Chibcha and the Tairona, together renowned for gold artwork, pottery, and stone houses, roads, and canals, were among the most prominent groups. Most tribes did not survive the colonial period, and only 400,000 tribal peoples from 80 linguistic families remain. Today the Kogi descendants of the Tairona believe their homeland, the higher regions of the Sierra Nevada, is the “Mother” and “Heart of the World,” and themselves to be the guardians of life on earth. The Sierra Nevada rises from the

sunny coasts of the Caribbean tropics to chilly, snow-capped peaks, all in only 30 miles.

The Kogi are very protective of what they consider their sacred space, and the dense jungle is not kind to tourists. Few Colombians dare enter the territory. The Kogi fields have been continuously cultivated for more than 1,000 years.

The Kogi are beginning to learn Spanish in an attempt to understand the Colombian government's laws regarding the Sierra Nevada, which was named a Human and Biosphere Reserve by UNESCO in 1986.



Kogi Family

Family

Family life varies according to region, social class, race, education, and income. Many still live as extended families. Typically, as in other South American countries, the father is considered the head of the household, and the mother is responsible for the home and children. However, an increasing number of women work outside the home. More than one-third of the labor force is women.

Family unity and support are important to Colombians, and family members share their good fortunes with one another. Divorce is rare, largely due to the influence of the Roman Catholic Church. Typically, parents have two to four children. Family members establish

relationships beyond their families through the system of *compadrazgo* (copaternity). At a child's baptism, parents select *compadres* (godparents) who will act as a second set of parents and offer advice and financial support as a child grows.

Traditionally, children live with their parents until they marry, but more are leaving home earlier for education or employment. Adult children often care for a widowed parent. Indigenous peoples who live in the tropical forests build traditional huts with



Kogi Children

palm thatch supported by wooden poles. Many families may share these huts. In contrast, in cities such as Bogota, some families live in high-rise apartment towers or large detached houses in the suburbs. Most Colombians live in less substantial housing; the worst housing conditions are in the shantytowns of Colombia's cities, where so many internally displaced persons fled.

The civil war has turned about 11,000 children into soldiers, one of the highest child soldier population in the world. Mothers fear their sons will be recruited or kidnapped by guerillas or paramilitaries and will join out of desperation or for vengeance for crimes against their families by opposing forces.

Roles of Men and Women

Gender roles have changed as people moved from rural to urban areas, but family and household organization still follows tradition. Men occupy the dominant roles as breadwinners and disciplinar-



Shantytown in Colombia. *Photo by Tom Calendera.*

ians and are responsible for the family's position within the community. Machismo plays an important role in public life. Machismo declares a wife will put her husband's wishes before her own. She is responsible for the children and the household. With more women holding higher-paying jobs, machismo is less dominant in urban areas. However, some upper and middle class women avoid working outside the home to preserve family status, honor, and virtue.

Nearly 70 percent of Colombian women are economically dependent on someone else. Women have assumed visible and important roles in society. Some hold prominent public positions and are considered among the most politically active in Latin America.

Rites of Passage

Children receive the religious rites of the Catholic Church. A baby is baptized within its first year. Families often achieve upward mobility through baptism, which provides the opportunity to choose distinguished godparents who bring prestige to the parents and offer the child social and economic networks.

Arranged marriages are no longer common, especially among the upper middle and upper classes, but men and women are encouraged to marry within their own class. Men and women date whomever they wish, and dating begins at age 14 or 15. Couples usually date for at least a year before marrying. Lower and middle classes strive to marry someone outside of their class. Marriage ceremonies usually follow Catholic traditions, and some couples have both a civil and religious ceremony.

Education and Literacy

Roughly 92.5 percent of Colombians 15 and older can read and write. There are 2 years of preschool, 5 years of primary school,



Classroom on an Indian Reservation. *Photo by Franco Mattioli*

and 6 years of secondary school. Education is compulsory up to age 15. The educational system is highly centralized, and many teachers, particularly in rural areas, are poorly trained.

Secondary education (*educacion media*) begins at age 11. There is no opportunity for vocational training, and industrial and service employers complain of skills shortages. Graduates receive a *bachillerato* (high school diploma).

University registration continues to increase, and the number of students enrolled in technical institutions is rising after a decline between 1998 and 2001. There are 24 public universities, but relations between the universities and industry are weak.

Public spending on education rose from 2.5 percent of GDP at the end of the 1980s to 5 percent of GDP in 2004, one of the highest in Latin America, but it still lags behind standards in countries belonging to the Organization for Economic Cooperation and Development. Primary and secondary education coverage

is relatively high, with an average length of schooling of 7.5 years. Approximately 80 percent of Colombian children enter school.

Internally displaced children face additional hurdles in resuming their education after families are forced to flee their homes. In 2002, the Ministry of Education found that only 10,700 of the 122,200, (8.8 percent), of displaced children in 21 communities were enrolled in school. Parents are required to produce forms of identification that they no longer possess, and the matriculation fee and

school supplies can cost more than 250,000 pesos (US\$100) for the year. Despite legal provisions that require state schools to enroll displaced children, there is often no space available. The government has made efforts to eliminate barriers to education by providing cash incentives for families to keep their children in school.



Colombian Children

Language

Spanish is the official language, and most of Colombia's inhabitants pride themselves on speaking Castilian, the purest form of Spanish. Colombian academics try to keep the language as traditional as possible but *colombianismos* (local terminology and phrases) are common. Spanish is the language of education and commerce, but some people in larger cities also speak English. In the interior, es-

pecially in Bogota, a formal, deliberate, and grammatically correct Spanish is spoken. In contrast, the coastal speech pattern is more relaxed and has a more rapid tempo; *costenos* employ the informal *tu* and address people by their first name. Local accents and other linguistic distinctions vary from department to department. For example, Bogotanos are also known as *rolos* for their particular accent marked by a rolled “r.” Paisas (from the Paisa region) are known as endless and rambling talkers with a list of common sayings and proverbs interspersed in their conversations.

Native Colombians who do not speak Spanish. Native language groups include Arawak, Chibcha, Carib, and Tupi-Guarani. There are nearly 200 indigenous dialects. Some African groups speak dialects that reflect their roots. Many people from the San Andres and Providencia islands in the Caribbean speak Creole. Ethnic languages and dialects share official status with Spanish in certain areas where formal education is bilingual.

Religion

The constitution guarantees freedom of religion, but 90 percent of Colombians are Roman Catholic, while Protestants, Jews, and practitioners of native religions account for the remaining 10 percent of the population.

A trend toward conversion to the Jehovah’s Witness, Mormon, Calvinist, and Lutheran faiths, especially among the poor, has lured nearly 3 million Colombians away from the Catholic Church. Protestants are a minority on the mainland but a majority on San Andres and Providencia islands.

Many indigenous and African peoples retain beliefs from non-Christian traditional religions. In the countryside, indigenous practices and beliefs have been combined with Catholicism.



Main Cathedral in Bogota. *Photo by Louise Wolff*

People pray to a patron saint, whom they consider more accessible than God. Rural villages have a patron saint that they honor each year with a fiesta.

Although society is becoming more secularized, Catholicism remains a significant cultural influence. While Catholic religious instruction is no longer mandatory, it still takes place in most public schools. The Spanish began a process of conversion among the Native Americans in the 16th century, and the establishment of the Catholic Church was a high priority for the colonial government. The church destroyed most indigenous rituals and religious customs. Colombians commonly express their faith with phrases such as *Si Dios quiere* (God willing) and *Que sea lo que Dios quiera* (Whatever God wills).

Recreation

Organized sports are popular. The most widely played and watched is *futbol* (soccer). Cycling, second in popularity, ends each year with the *Vuelta de Colombia* (Tour of Colombia), which covers 2,000 kilometers (1,200 miles) in 12 days.

There are an increasing number of basketball, baseball, and boxing fans. Some Colombians enjoy golf, tennis, water skiing, and polo. *Tejo*, a game derived from the Chibcha Native Americans, is an indigenous sport. The players throw metal disks (called *tejos*) toward a large wooden tray filled with soft earth, sand, or clay and placed 18 meters (59 feet) away. A *bocin* (metal bowl) is in the middle of the tray with a small envelope of *mecha* (gunpowder) placed inside. The goal is to hit the *mecha* with the *tejo* and make it explode.



Children Playing Soccer

Colombians also enjoy gambling, and there are government-sponsored lotteries that fund social programs. Additionally, most cities and towns have a *plaza de toros* (bullrings) and *galleras* (cockfight rings).

Colombians also enjoy attending and dancing in the country's many festivals. One of the most popular dances, the *bambuco*, has its own annual festival in the city of Neiva. People dance *salsa* on the Caribbean coast along with its variants, *cumbia* and *val-lenato*. On the Pacific coast, *bereju* and *patacore* are popular. In Los Llanos, the favorite dance is the *joropo*.

Customs and Courtesies

Greetings

Men commonly shake hands, with everyone on entering or leaving a home or greeting a group. Greeting each individual rather than greeting a group as a whole shows respect and sincerity. Women who are acquainted kiss each other on the cheek but otherwise offer a verbal greeting or handshake. Close friends and relatives often greet each other with an *abrazo* (hug), often accompanied by a kiss on the cheek. Young females or young people of the opposite sex will also kiss each other on the cheek.

In introduction, it is customary to address people by title (*Señor*, *Señora*, *Doctor*, etc.) and surname rather than by first name. Common greetings are *Buenos dias* (Good morning), *Buenas tardes* (Good afternoon), or *Buenas noches* (Goodnight), and *Como esta?* (How are you?). Common parting phrases are *Hasta luego*, and, less formally, *Chao!* and *Nos vemos!* Colombians have a reputation for the longest greeting rituals of all Spanish-speaking South American countries. Conversations begin formally with long inquiries into health, location, and status of the speakers as well

as mutually known acquaintances and friends. The importance of formality can be noted in the honorific title of *doctor/a*, which is widely used when speaking to a social superior, whether that person is a doctor or not. Lawyers, who are common in Colombia, absolutely must be called *doctor/a*. The common use of the phrase *me regala?* (would you give me — as a gift?) is a way of requesting an item or service in a store or when one is a guest.

Colombians commonly have two family names. The second to last name is the father's family name, and the last name is the mother's family name. The father's family name is the official surname. Therefore, Jose Munoz Gomez would be called Senor Munoz.

Gestures

Avoiding eye contact when conversing is considered an insult, as is interrupting or backing away from another person. Smiling is an important sign of good will. One should always cover the mouth when yawning, sneezing, or coughing.

Visitors should never point to someone or use the index finger to call someone to come over. Colombians summon others with the palm down, waving the fingers or the entire hand toward themselves. Moving the edge of one hand back and forth across the back of the opposite hand indicates a business agreement to share profits. Hitting the hand across the opposite elbow may indicate a person is cheap or selfish. The okay gesture, formed by touching the tips of thumb and forefinger, is considered vulgar in Colombia. To demonstrate the height of an animal or object, Colombians extend a hand down and hold it at the appropriate level. To indicate a person's height, they extend a hand palm out and thumb up. To show how long something is, they extend their right arm and mark the appropriate length with the left hand.

People commonly push in lines or crowds, believing they need to be assertive to reach their destination. Eating on the street is not proper. Colombian men may show deference and respect to women and the elderly by offering their seats, opening doors, or offering other assistance. Colombian males may also demonstrate the machismo that exists throughout society. Men will stare at women, use endearing terms, make comments on their physical appearance, and, in some cases, try to make physical contact. Colombian men consider this flattery, rather than sexual harassment.

Cultural Considerations

Visitors should avoid addressing the drug traffic problem and the stereotypes associated with it. Colombians are very sensitive to the issue because only a tiny percentage of the population is involved in drug trafficking. Politics and issues related to human rights are other topics best to avoid. Colombians may be critical of their own social problems but do not appreciate outside interference or criticism. Visitors should be aware that although a sense of humor is important, many Colombians miss the humor in North American jokes.

One should never refer to the United States as America; Colombians are taught that the Americas are one continent and they consider themselves to be Americans. One should always remember that the traveler from abroad has enjoyed greater advantages in life than the typical Colombian minor official and should be friendly and courteous in consequence. One should never be impatient or criticize situations in public and should never assume that any criticism in English will not be understood by Colombians, who speak some English.

Colombians, like most Latin Americans, have a relaxed attitude toward time and often arrive an hour or so late for social occasions. To arrange to meet someone at an exact time, one can say that they want to meet at the desired time *en punto* (o'clock). Time-related terminology has a different interpretation in Colombia and other Latin American countries. *Manana*, literally tomorrow, can mean anytime in the indefinite future. Similarly the word *ahora* (now or in a moment) also has a flexible meaning.

Dress

Colombians admire and follow Western fashion. Colombians view a person's dress as an indicator of status. Urban clothing is conservative but fashionable. Men wear suits, white shirts, and ties in urban areas. Athletic shoes are worn only for physical activity. Suits are generally lighter in color nearer the coast. Dress in rural areas is less fashionable and more informal.

Indigenous people often wear traditional clothing, which can include wraparound dresses, bowler hats, and *ruanos* (ponchos). Weavers work with three types of materials: *fique* (a fine hemp fiber), wool, and cotton. Traditionally, Native Americans wore waist-length *ruanas* that gave them freedom on horseback. Bogota women



Traditional Dress.

Photo by Mario Caravajal

wear stylish *ruanas* over designer dresses, and some businessmen wear simple ones over business suits. *Ruanas* are made in many weights, from very light for the cool climate of the foothills to very heavy for the coldest heights of the Andes, often doubling as blankets.

There are two types of shawls. Some are woven of wool and some of rayon ribbon. A wool shawl is worn instead of a *ruana* usually during the day when the weather is a bit warmer. In hot parts of the country, such as the Caribbean coast, women wear open and lacy *panolones* (rayon-ribbon shawls) in beige, white, or gold for the evening. *Mochilas*, woven bags made of cotton, wool, or *fique*, are deep round shoulder bags with bright stripes or traditional Native American motifs.

Molas are reverse-applique panels that were originally made for blouses but now are sold as wall hangings. Two or more pieces of cotton are laid on top of each other and a design is cut out, edges turned under, and sewn to the layer beneath with fine, almost invisible stitches.

Food

A typical breakfast might consist of *changua* (meat broth, egg, potatoes, cilantro, and scallions) and coffee, which is served with virtually every meal. *Tinto* is the national small cup of black coffee. Another main dish soup is *sopa de pan* (containing bread, eggs, and cheese). Another typical breakfast is *tamales* served with hot chocolate. Between 1200 and 1400, Colombians eat their main meal of the day, called *almuerzo*, which starts with *sopa* (soup) and is followed by the *bandeja* or *plato del dia* (the main course). The main course consists of meat, chicken, or fish, and is served with some or all of the following: rice, potatoes, plantains,



Colombian Market

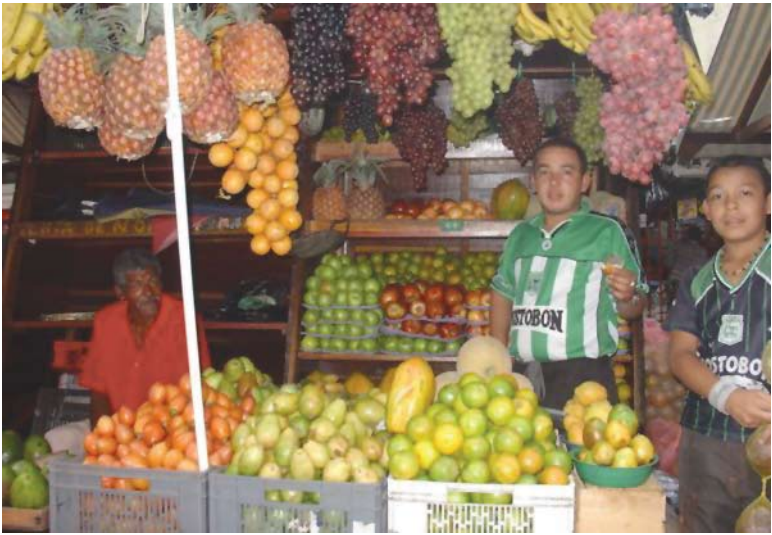
salad, fried egg, beans, and lentils. Fresh fruit juice often accompanies the meal.

Soups are traditional fare. A Bogota specialty, *ajiaco de pollo*, is made with chicken, maize, yucca (manioc), and potatoes and is served with capers, sour cream, and avocado. Seafood soups are popular on the Caribbean coast. On San Andres and Providencia islands, a soup called *rendon* is made with fish and snails cooked in coconut milk with yucca, plantain, breadfruit, and dumplings. *Sancocho* is a popular soup or stew with meat stock (can be fish on the coast) and potato, corn (on the cob), yucca, sweet potato, and plantain, which varies by region.

Other standard dishes include *arroz con pollo* (chicken and rice). Tamales are steamed pies of pork, potato, rice, peas, onion, eggs, and olives folded in maize dough and wrapped in banana leaves (the lat-

ter are not eaten). Tortillas may be wrapped around an egg and fried to make an *arepa de huevo* (pancake with an egg). Rice is often used in dessert. *Arroz con coco*, a very sweet dish of rice cooked with rum and coconut milk, is a favorite. Other desserts include *roscones* (pastries with guava jelly) and *obleas* (wafers spread with a sugar paste.) *Arequipe* is a sugar-based brown syrup used with dessert; *brevas* (figs) with *arequipe* is a popular item for visitors to take home.

Colombia has a variety of fruits unfamiliar in North America: *zapote* (brown eggplant-shaped fruit with orange meat around several seeds), *lulo* (golf ball-sized round fruit with prickly yellow skin and soft meat), *curuba* (oval-shaped fruit with soft yellow peel and orange-colored meat), *mamoncillo* (grape-sized fruit with green skin and red meat), *uchuva* (cherry tomato-sized orange-colored fruit with tomato-like skin), *fraijoa* (fruit with green peel



Fruit Vendor. Photo by Russell Brown

and white meat similar in texture to the guava), *granadilla* (round orange-sized fruit with a hard brown-speckled yellow peel with grey sweet meat), and *mamey* (grapefruit-sized fruit with brown skin and bright yellow meat). They are eaten or made into fruit juices or drinks with milk or bottled water, which are served in hotels, restaurants, and street stalls. Every town has a market with stalls serving food. North American food is readily available, either in fast food outlets or upscale restaurants.

Colombia produces carbonated drinks called *gaseosas*, many incorporating fresh fruit juices. It also produces *ron* (rum), including *Ron Viejo de Caldas* and *Ron Medellin* (dark rums) and *Ron Tres Esquinas* and *Ron Blanco* (white rums). White rum is a typical drink of the Caribbean coast, as is *aguardiente*, an anise-flavored liqueur, which is a favorite in the highlands. In rural areas, *chicha* and *guarapo* are fermented fruit or maize in sugar or *panela* (sugarcane) water. There are many Colombian beer brands, and imported beers are popular.

Interpersonal Relations

Colombians are known for their natural openness and friendliness. The *aquí y ahora* (here and now), the Latin American concept of life, places little importance on the future or past. Therefore, today's best friend may hardly acknowledge his new friend tomorrow. Colombians take great pride in the family, and mutual support is important. Politeness, even if a little overdone, is appreciated.

Everyday life is remarkably open and public. Much of family life takes place in front of the house, in the street, in a bar, or at a market. Colombians may seem indiscreet about their behavior in public places. Couples hug and kiss passionately in parks and in the street. Men consider behavior, which would be sexual harassment

in North America, to be complimentary to women. Colombians may discuss private matters at a volume that allows all present to hear. In fact, noise is a constant companion, and locals seem undisturbed by blaring music in restaurants, buses, and taverns. Portable cassette players and televisions are always at full volume.

MEDICAL ASSESSMENT

Disease Risks to Deployed Personnel

The Armed Forces Medical Intelligence Center (AFMIC) assesses Colombia as High Risk for infectious diseases. Without force health protection measures, mission effectiveness will be seriously jeopardized.

The following is a summary of the infectious disease risks in Colombia. Risk varies greatly depending on location, individual exposures, and other factors. More detailed information is contained in AFMIC's Infectious Disease Risk Assessments.

Food- and Waterborne Diseases

Sanitation varies with location, but typically is well below U.S. standards. Local food and water sources (including ice) may be contaminated with pathogenic bacteria, parasites, and viruses to which most U.S. service members have little or no natural immunity. Diarrheal diseases can be expected to temporarily incapacitate a high percentage of personnel within days if local food, water, or ice is consumed. Hepatitis A 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; significant disease transmission is sustained year-round and countrywide, including urban areas. Dengue fever and malaria are major vector-borne risks in Colombia, capable of debilitating up to 50 percent of personnel for up to a week or more. Dengue fever occurs primarily in urban and periurban areas, whereas malaria transmission is mainly in rural areas. *Plasmodium falciparum*, the more severe form of malaria, accounts for nearly 50 percent of cases. Cutaneous leishmaniasis is also capable of affecting up to 10 percent of personnel exposed to sand fly bites. In addition, a variety of other vector-borne diseases occur at lower or unknown levels.

Water-contact Diseases

Operations or activities that involve extensive water contact may lead to personnel in some locations being temporarily debilitated with leptospirosis. Bodies of surface water also are likely to be contaminated with human and animal waste. Human infection occurs through direct contact of contaminated water or mud with abraded skin or mucous membranes. 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 potentially debilitating skin conditions such as bacterial or fungal dermatitis.

Sexually Transmitted Diseases

The prevalences of HIV and hepatitis virus carriers are both low, but rates are typically higher in prostitutes and intravenous drug users. Though the immediate impact of these diseases on an operation is limited, the long-term health impact on individuals is

substantial. Gonorrhea, chlamydia, chancroid, herpes, venereal warts, and other diseases may affect a large percentage of personnel who have unprotected sexual contact.

Respiratory Diseases

The incidence of active tuberculosis is 50 to 99 per 100,000 population (compared with the U.S. rate of approximately 6 per 100,000 population), and tuberculin skin test conversion rates may be elevated over baseline for personnel with prolonged close exposure to local populations.

Deployed U.S. forces may be exposed to a wide variety of common respiratory infections in the local population. These include influenza, pertussis, viral upper respiratory infections, viral and bacterial pneumonia, and others. U.S. military populations living in close-quarter conditions are at risk for substantial person-to-person spread of respiratory pathogens.

Animal-associated Diseases

Rabies risk is assessed as well above U.S. levels due to ineffective control programs; personnel bitten by potentially infected reservoir species may develop rabies in the absence of appropriate prophylaxis. The circumstances of the bite should be considered in evaluating individual risk; bats or wild carnivores should be regarded as rabid unless proven otherwise. Additionally, rare cases of Q fever could occur among personnel exposed to aerosols from infected animals, with clusters of cases possible in some situations. Significant outbreaks can occur in personnel with heavy exposure to barnyards or other areas where animals are kept. Unpasteurized milk may also transmit Q fever.

Civilian Health Care

The quality of Colombia's civilian health care infrastructure varies widely. Since 1993, the government has established a few social programs that have improved public primary care somewhat, although it still is well below U.S. standards. The best medical care is available in expensive private institutions in the larger urban areas such as Bogota, Cali, Cartagena, and Medellin; in some cases this care reaches U.S. standards. Quality of care declines as one moves away from large urban areas, with access to care becoming poor to nonexistent. Users of the health care system perceive the quality of private health care services to be superior to public health care services. However, some public hospitals have excellent reputations, particularly those with higher technical complexity.

Organizational Effectiveness

The health care system cannot effectively provide for the population's medical needs. High-quality medical facilities are unevenly distributed and are located primarily in larger urban areas. A gloomy economic situation has further hindered health care. The quality of the system is slowly declining because funds that might normally have been allocated to health care have been shifted to support counterdrug and counterinsurgency efforts.

Social Factors

Remote populations rely on traditional medicine, which encompasses a mixture of religion, herbal medicine, and magic. When the government brings modern medicine to underserved areas, the indigenous population generally accepts it.

Medical Personnel Capability

The qualifications of medical personnel usually are good by U.S. standards. Physicians are fully certified, and most physicians have completed training at a recognized medical school in Colombia, a residency at either a Colombian or a foreign hospital, and a fellowship at a teaching hospital abroad. Some physicians have been trained in the United States, and most physicians having received at least part of their training in the United States or England. The training at Colombian medical schools nears U.S. standards.

Quality of Medical Treatment Facilities

The health care infrastructure is below U.S. standards and is deteriorating. A tremendous disparity in quality exists between the private and public health care sectors. Access to adequate care is limited to those with enough money to pay for medical services. Private-sector hospitals and clinics in major cities meet or approach U.S. standards. Most public facilities are crowded, rundown, and lack supplies and repair parts for old equipment. Social security hospitals provide better service than public facilities but still are below U.S. standards. Rural clinics lack medical supplies, pharmaceuticals, and skilled medical personnel; many hospital buildings are decaying. Many publicly funded facilities lack basic support services, such as clean water and reliable electricity. Moreover, poor sanitary practices in rural clinics increase the number of infections related to health care delivery.

Medical Equipment

Shortages of medical equipment and supplies occur throughout the public medical infrastructure, especially in remote areas. Private hospitals in large urban areas are well stocked. However, the country has a sizeable trade deficit in pharmaceuticals, part-

ly because the domestic industry still heavily depends on imports for its raw materials. About two-thirds of the country's approximately 185 blood banks are public. Blood testing standards are not uniformly followed. The Colombian Red Cross Society has blood banks in 10 cities; these blood banks supply over one-fourth of the country's blood needs. The Colombian Red Cross blood banks reportedly provide a high level of service and control standards.

Military Health Care

Medical Personnel Capability

Military medical personnel are generally competent by U.S. standards. Most physicians are locally trained in Colombian medical schools; however, some have been trained outside Colombia, including in the United States. Many of these physicians speak English. Military physicians are required to maintain the same standards as their civilian counterparts.

Quality of Medical Treatment Facilities

Although not equivalent to U.S. standards, military hospitals are better staffed, better equipped, and better supplied than civilian government medical facilities. The military has 17 hospitals, with a total bed capacity of 1,400. The Central Military Hospital, one of the country's largest and best hospitals, treats civilians on a fee-for-service basis or with reimbursement from another agency. The 110-bed Naval Hospital at Cartagena is well equipped, but patients requiring specialty diagnostic and therapeutic procedures are referred to the Central Military Hospital. The navy also has dispensary boats, which provide limited medical services to riverine garrisons.

Disaster and Emergency Response Capability

Disaster response capability is excellent by Latin American standards, though the quality of emergency response services is below that in the United States. Disaster response to the January 1999 earthquake (6.3 on the Richter scale) was deemed efficient and effective; however, the government announced that the situation exceeded its capacity and requested assistance from the international community.

In some facilities, well-organized plans assign specific duties to each staff member, but the plans usually are poorly practiced. The National System for the Prevention and Response to Disasters (DNPAD) coordinates disaster response and reports directly to the Ministry of the Interior. The DNPAD coordinates through a network of agencies, including the Colombian Red Cross, Civil Defense, Ministry of Health, National Police, and scientific agencies that monitor seismic and volcanic activity.

Larger cities have effective ambulance services. Typically, ambulance services are provided by subscription and require prepayment similar to insurance coverage. Most larger hospitals have ambulances for routine transport of patients in nonemergency situations. Traffic congestion may delay timely medical treatment in an emergency.

Casualty Handling

The military's casualty-handling capabilities generally are poor. Casualties in past conflicts experienced inadequate field medical treatment and delayed evacuation. The Central Military Hospital has good mass casualty capabilities and an ambulance service, but care generally is limited to the Bogota area. Colombia has no dedicated aeromedical evacuation assets; however, aircraft are configured for medical evacuation when necessary or available.

Key Medical Facilities

Centro Medico (Clinica) Santa Fe

<i>Coordinates</i>	044143N 0740159W
<i>Location</i>	Calle 116, No. 9-02, Bogota, approximately 13 kilometers from El Dorado Intl Airport.
<i>Telephone</i>	2141080, 2144400
<i>Type</i>	Private, 159 Beds
<i>Capabilities</i>	Medical – general; surgical – general, orthopedic; ancillary – 24-hour emergency room, laboratory, x-ray, all modern equipment necessary for diagnostics and surgery.
<i>Comments</i>	U.S. Embassy uses this facility for medical care. Trauma specialist available 24 hours. Most physicians did postgraduate work in the United States and speak English. Ambulance. No helipad.

Clinica de Marly

<i>Coordinates</i>	043812N 0740354W
<i>Location</i>	Calle 50, No. 9-67, Bogota, approximately 13 kilometers from El Dorado International Airport.
<i>Telephone</i>	249-9171 (Emergency.); 287-1020 (switchboard)
<i>Type</i>	Private, 100 Beds
<i>Capabilities</i>	Medical – general; surgical – general, orthopedic; ancillary – emergency room, laboratory, x-ray.
<i>Comments</i>	U.S. Embassy uses this facility for medical care. Excellent emergency and trauma department. No trauma unit. Ambulance.

University Hospital

<i>Coordinates</i>	032617N 0763314W
<i>Location</i>	Calle 5, No. 36-08, Cali
<i>Telephone</i>	572-048, 573-224, 561-131
<i>Type</i>	Government, 860 Beds
<i>Capabilities</i>	Unknown
<i>Comments</i>	Large hospital; capabilities unknown

Hospital Departmental Universitario de Cartagena

<i>Coordinates</i>	102401N 0753014W
<i>Location</i>	Zaragoncilla sector, Cartagena
<i>Telephone</i>	622-3320
<i>Type</i>	Civilian, 320 Beds
<i>Capabilities</i>	Medical – cardiology, dermatology, endocrinology, epidemiology, gastroenterology, nuclear medicine, radiology; surgical – ophthalmology, ear/nose/throat (ENT), orthopedics, plastic, urology, gynecology; traumatology; ancillary – 2 emergency rooms, 9 operating rooms, laboratory, x-ray, pharmacy, respiratory therapy, computed tomography (CT) scanner.
<i>Comments</i>	Highly rated by Colombian government. Modern. Largest, best nonmilitary hospital on the north coast. Medical evacuation to United States available. Adequate for emergency use. Overcrowded. Sufficient supplies. Staff includes 60 physicians, 44 nurses, 69 nurse's aides, 241 technicians. Ambulance. No helipad.

Hospital Naval De Cartagena

Coordinates 102500N 0753200W

Location In Cartagena near the convention center and the old fortified city

Telephone 665-1073

Type Military, 110 Beds

Capabilities Medical – cardiology, diving medicine (the only reliable hyperbaric chamber in the country that is available to the public), internal medicine, pathology, pediatrics, radiology; surgical – general, obstetrics/gynecology; ancillary – emergency surgery and intensive care (24 hours), trauma center (referral center for military personnel but not a major trauma center by U.S. standards), electroencephalography, endoscopy, CT scanner, thrombolytic therapy, ultrasonography.

Comments Surgical specialists are on call, and response time is usually quick. Some physicians speak English. No permanent translator available. Facility is capable of initial assessment, stabilization, and resuscitation of most medical and surgical emergency cases. Three ambulances equipped with basic equipment. Air transportation by helicopter can be obtained, but it is usually reserved for the military. Also treats civilians, but outpatient care is available only to military personnel.

Clinica Medellin S. A. Sede Centro

Coordinates 061503N 0753352W

Location Calle 54 #46-24, Medellin

Telephone 511-6044

<i>Type</i>	Private, 119 Beds
<i>Capabilities</i>	Medical – cardiology, internal medicine, nuclear medicine, pediatrics; surgical – general, plastic, obstetrics/gynecology, orthopedics; ancillary – emergency room (2 physicians and 5 nurses per shift), 6-bed cardiac care unit, 12-bed intensive care unit, CT scanner, blood bank, lithotripsy, magnetic resonance imaging (MRI), thrombolytic therapy (advanced treatment for heart attack and stroke).
<i>Comments</i>	Major trauma center. Capable of handling major trauma cases and mass casualties. A few physicians and nurses speak English, but the person who answers the emergency telephone speaks Spanish. No translator available.

Central Military Hospital

<i>Coordinates</i>	043758N 0740344W
<i>Location</i>	Transversal 5 No. 49-00, Bogota
<i>Telephone</i>	232-5333 (emer.); 285-2520 (switchboard)
<i>Type</i>	Military, 800-1,200 Beds
<i>Capabilities</i>	General medical and surgical
<i>Comments</i>	Country's best military hospital

HISTORY

Early History

Colombia was first inhabited by Mesoamerican Native Americans who migrated from Central America around 1200 B.C. The Chibchas followed from Nicaragua and Honduras between 400 and 300 B.C., as did the Arawaks from other areas of South America.

The Caribs arrived from the Caribbean islands around 100 B.C. By 1500 A.D., the Chibchas were the predominant group, divided into the Muisca and the Tairona.

Spanish conquistadors arrived in Colombia in 1499. Alonso de Ojeda and his counterpart Rodrigo de Bastidas founded Santa Maria la Antigua de Darien (present day Acandi) and Santa Marta, in 1510 and 1525, respectively. In 1538, explorer Gonzalo Jimenez de Quesada founded Bogota, which became the central city of the Spanish colony called New Granada, and included present day Ecuador and Venezuela.

Colonial society was based on a “purity of blood” system, with Spanish-born elites at the top, colonial-born Spaniards next, mixed Spanish and Native American descent, followed by Blacks and Native Americans. Colonial administration through the viceroyalty (the Spanish king or queen’s delegated authority over the colonies) granted preference to those who were Spanish-born for political appointments.

Agriculture quickly replaced mining as the core of the economy. Native American labor was used extensively, leading to abuses that were prohibited by the church-driven New Laws in 1542. By the 1700s, African slaves were the preferred source of labor.

Racial, religious, and ideological tensions led to a declaration of independence in 1812. South American liberator Simon Bolivar attempted to help New Granada, but abandoned the effort after he found the provinces divided between those who favored central control and those who favored limited government. After New Granada experienced 4 years of Spanish repression, Bolivar returned to liberate the colony in 3 years.

After victory in 1819, leaders of what is now Venezuela, Colombia, and Panama formed a republic named Gran Colombia, with Bolivar serving as president but absent while liberating more colonies further south. Vice President Santander served in Bolivar's place, provoking a number of regional tensions. When Bolivar returned, the government was dealing with multiple revolts. Bolivar attempted to resolve the problem through constitutional reform in 1828, but instead had a major rift with Santander's followers resulting in the dissolution of Gran Colombia in 1829.

The same disputes divided Colombia 20 years later, when the two political views voiced by Bolivar and Santander formed the basis of the Conservative Party (PC) and the Liberal Party (PL). The PC desired the preservation of Catholic influence, authoritarianism, and slavery and the curbing of civil liberties. The PL stood for modernization, economic freedom, decreased executive power, separation of church and state, and civil rights. Civil war raged from the late 1850s until 1862, when the PL defeated the PC.

While the PC maintained unity, the PL experienced internal division over the issue of trade. The *golgotas* (a merchant class) wanted free trade, while the *draconianos* (a manufacturing class) wanted trade barriers. Conflict between these two factions became a common theme of Colombian politics.

In 1884, a coalition of conservatives and *golgota* liberals formed the National Party (also known as Nationalists) and took over the presidency. A group of *golgotas* who disagreed with the move began an armed rebellion, repressed by Nationalist forces in 1886. The Nationalists held a constitutional convention to centralize the nation, resulting in the Constitution of 1886, which remained in effect until the late 1980s.

The PC was divided when historical conservatives protested the severe antiliberalism of the Nationalists. The PL soon divided into peace and war factions in disagreement over how to resolve the political disorder. Against this backdrop, the PL attempted a revolution and sparked the War of a Thousand Days, which lasted from 1899 to 1903, took 100,000 lives, and ravaged the countryside. Too weak to intervene, Colombia experienced a devastating loss when Panama seceded from the republic in 1903, spurred on by the United States.

In the aftermath, General Rafael Reyes was elected president. From 1904 until 1909, Reyes centralized power in the presidency, built a protectionist trade policy, returned the national currency to the gold standard, attracted foreign investment, and warmed relations with the United States.

As Colombia became globally integrated and its economy grew, its workforce also grew and began to unionize. In 1928, the government used the armed forces to put down a strike against the United Fruit Company. Congressman Jorge Eliecer Gaitan harshly criticized the move and became known as a defender of the working class.

Internal conflict in the PC allowed the PL to gain power beginning with President Olaya Herrera in 1930. He was followed by Alfonso Lopez Pumarejo, who made reforms in education, agriculture, and taxation. He lost popular support by strengthening ties with the United States.

In the 1946 presidential election, Gaitan and Mariano Ospina Perez, both of the PC and Gabriel Turbay Abunader of the PL competed for the seat, which went to Ospina. Violence and political rivalry intensified. Under Gaitan's leadership, liberals mobilized to force Ospina into reforms. This movement became known

as *Gaitanism*, characterized by democratic rather than revolutionary political activism.

On 9 April 1948, Gaitan was assassinated in the middle of Bogota, sparking a massive riot known as the *Bogotazo* in which 2,000 people died, and a significant part of Bogota was destroyed. Though authorities regained control of Bogota, the incident marked the beginning of an 18-year period of rural violence known as *la violencia*, in which more than 200,000 people were killed. Ospina became severely repressive, prompting the PL to boycott the 1950 elections, which defaulted to PC candidate Laureano Gomez.

Gomez became unpopular for curtailing civil liberties and failing to control violence, so he handed off power to his designate, Roberto Urdaneta Arbelaez, with instructions to dismiss General Gustavo Rojas Pinilla under suspicion of attempting to undermine the government. Arbelaez refused, and in 1953 his presidency fell to a coup d'etat led by Rojas Pinilla, the only military dictator in Colombian history. His dictatorship was characterized by oppressive and arbitrary rule, which he formalized by abolishing the constitution and replacing it with a mostly self-appointed legislature.

By 1957, most political groups opposed Rojas Pinilla. The PC and PL ceased hostilities and negotiated an alliance to remove Rojas Pinilla from power. The result of this effort was a coalition named the National Front. The Sitges and San Carlos agreements between the two parties states that PL and PC presidents would alternate, elected by a National Congress. Student protests, prominent military resignations, strikes, and riots eventually forced Rojas Pinilla to step down in 1957 and flee to Spain. Colombians approved the agreements in a national referendum in 1958, and the National Front began a 16-year period of peaceful, though politically stagnant, rule.

In 1964, leftist students founded the National Liberation Army (ELN), a Cuban-inspired guerilla group. Two years later, a branch of the Communist Party of Colombia (PCC) known as the Revolutionary Armed Forces of Colombia (FARC) began conducting guerilla operations.

Violence led to growing dissatisfaction with the performance of the National Front. In 1970, the National People's Alliance (known as Anapo) presented Rojas Pinilla as a candidate for the presidency. Misael Pastrana Borrero was declared the victor by only 65,000 votes, and many questioned the legitimacy of the results. In 1972, a guerilla organization named the 19th of April Movement (M-19) emerged in protest of the 1970 election, which they believed had been won by Rojas Pinilla.

From 1970 until 1982, Colombia phased out the National Front and transitioned to an open political system. The drug trade increased exponentially, coffee demand (a staple of the Colombian economy) decreased, party identity declined, and the economic gap between the masses and elites widened.

In 1978, President Julio Cesar Turbay Ayala (PL) declared a state of siege against drug and guerilla groups. Despite this effort, guerilla activity increased. In 1979, M-19 guerillas broke into a military arsenal and stole 5,000 weapons.

In 1984, President Belisario Betancur (PC) brokered a peace deal with FARC and M-19 with an amnesty program. The ELN rejected the deal, and M-19 pulled out a year later. In 1985, M-19 guerillas stormed the Palace of Justice in Bogota, killing 115 people including 11 Supreme Court justices. M-19 renewed the cease-fire agreement in 1989 and transitioned into a political party. Negotiations with FARC were unsuccessful; FARC operatives broke the truce in 1990.

Colombia approved a new constitution in 1991 to reshape government institutions, thus reestablishing the vice presidency and creating new cabinet agencies including an inspector general and a constitutional court.

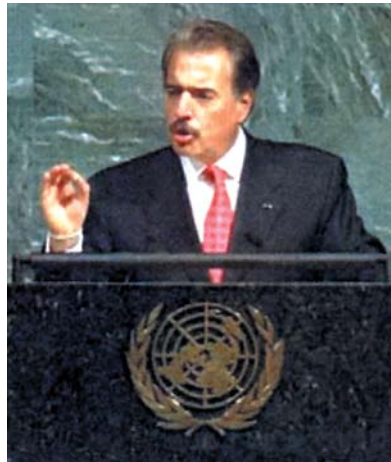
Recent History

In 1998, Andres Pastrana Arango (PC) brokered a peace deal with FARC by ceding a land area the size of Switzerland to FARC to serve as a neutral zone for negotiations. This strategy proved ineffective: Guerillas continued mounting attacks and producing coca until 2002, when Pastrana ordered the military to retake the area.

Pastrana revealed “Plan Colombia,” his program for development, and sought assistance from the international community. The plan involved anti-drug efforts, economic revitalization measures, civil rights protections, and refugee aid measures.

Security problems persisted, and in 2002, Alvaro Uribe Velez (independent) was elected on a national security platform. In 2003, the Colombian Self-Defense Forces (AUC) agreed to demobilize 20,000 members, and thousands of other paramilitaries agreed to disarm. Uribe signed the Justice and Peace Law in 2005, allowing paramilitaries to turn in illegal assets in exchange for lesser sentences.

Uribe has experienced mixed results with the ELN and



Andres Pastrana Arango

FARC. ELN has intermittently negotiated and violated agreements; FARC has refused all offers. However, violence was reduced sharply after vigorous law enforcement efforts.

Reelected by a wide margin in May 2006, Uribe continues to face security challenges. However, his national security program has met with wide success.

Chronology

Date	Event
1899-1903	“War of a Thousand Days;” 120,000 people die in civil war.
1948	Assassination of Jorge Eliecer Gaitan sparks <i>Bogotazo</i> riot.
1948-57	<i>La Violencia</i> : rural violence kills 250,000-300,000.
1958	National Front Forms to restore order.
1965	National Liberation Army (ELN) founded.
1966	Revolutionary Armed Forces of Colombia (FARC) founded.
1971	M-19 guerilla organization founded..
1978	President Julio Cesar Turbay Ayala cracks down on drug traffickers.
1982	President Belisario Betancur brokers first peace deal with guerillas.
1985	Palace of Justice stormed by M-19 guerillas; 11 judges, 90 others die.
1989	M-19 reaches peace deal; becomes a political party.
1991	New constitution promotes civil liberties.
1993	Medellin Cartel leader Pablo Escobar shot to death by authorities.

- 1998** Andres Pastrana Arango (PC) elected, begins talks with guerilla groups.
- 1998** Pastrana cedes Switzerland-sized land plot to FARC for cease-fire.
- 1999** Major earthquake kills 1,000.
- 2000** Pastrana's "Plan Colombia" brings U.S. foreign aid, anti-drug efforts.
- 2002** Pastrana breaks off peace talks with guerilla groups after hijacking.
- 2002** Alvaro Uribe Velez elected on platform to return security to Colombia.
- 2003** United Self Defense Forces of Colombia (AUC) begin disarming.
- 2004** FARC guerilla leader Ricardo Palmara captured and jailed.
- 2005** Dispute with Venezuela over FARC leader captured in Venezuela.
- 2005** New law allows guerillas to lay down their arms for lesser sentences.
- 2005** Peace talks begin with ELN.
- 2006** Colombia and United States reach free trade deal.
- 2006** President Alvaro Uribe Velez wins second term.

GOVERNMENT AND POLITICS

Government

Colombia is a republic and a multi-party democracy. The government is divided into executive, legislative, and judicial branches. Although there is a system of checks and balances, the executive branch dominates the government structure.

National Level

Executive Branch

The president is the chief of state and the head of government. He and vice president are elected by popular vote to a 4-year term; as of 2005, the president can be elected to only one consecutive term. In the last election, (May 2006), President Alvaro Uribe Velez was re-elected with 62 percent of the vote. The president is assisted by the cabinet consisting of members from the two dominant parties the Liberal Party (PL), and the Conservative Party (PC) and independents.



President Alvaro Uribe Velez

Legislative Branch

The legislative branch is a bicameral congress consisting of a Senate (*Senado*) with 102 seats and the house of representatives (*camara de representantes*) with 166 seats. All members are elected by popular vote to 4-year terms. Senators are elected by a nationwide ballot. Representatives are elected by district within departments. The congress meets twice annually although the president can call a special session.

Judicial Branch

The judicial branch consists of four courts: the Supreme Court of Justice, the Council of State, the Constitutional Court, and the Superior Judicial Council. The Supreme Court of Justice is the highest court of criminal law. It rules on civil, criminal, and labor

issues and oversees district, circuit, municipal, and lower courts. The 24-member court is selected by their peers from nominees of the Superior Judicial Council and appointed to 8-year terms. The Council of State is the highest court of administrative law. The 10-member court is also selected by their peers from nominees of the Superior Judicial council and appointed to 8-year terms. It evaluates acts and decrees from executive agencies. The 9-member Constitutional Court rules on the constitutionality of laws, amendments to the constitution, and international treaties. The 13-member Superior Judicial Council oversees the civilian judiciary. Judges are elected by three sister courts and Congress to 8-year terms. Specialized circuit courts deal with specific crimes such as narcotics and terrorism.

Local Level

Colombia is divided into 32 departments: Amazonas, Antioquia, Arauca, Atlantica, Bolivar, Boyaca, Caldas, Caqueta, Casanare, Cauca, Cesar, Choco, Cordoba, Cundinamarca, Guainia, Guaviare, Huila, La Guajira, Magdalena, Meta, Narino, Norte de Santander, Putumayo, Quindio, Risaralda, San Andres y Providencia, Santander, Sucre, Tolima, Valle del Cauca, Vaupes, and Vichada. Bogota represents the capital district. Departments are subdivided into nearly 1,100 municipalities each with its own mayor. In addition, self-governing indigenous territories may be created.

Local government consists of governors, mayors, council members, and local administrative board members elected directly by the citizens. Governors serve a single 4-year term. All departments elect an assembly and a corporation, which oversees the governors. Mayors serve a single 4-year term. Department, district, and municipal comptrollers oversee fiscal matters. Bogota , as a separate district, elects its own representative who may be re-elected.



Administrative Divisions

Politics

Colombia has been dominated by a two-party democratic system since the mid 1800s. Clashes between conservatives and liberals of the Spanish ruling class were often violent, driven by small subgroups interested in maintaining power. After three military interventions, the parties established a power sharing agreement (the National Front). Between 1958 and 1974, the Colombian Social Conservative Party and the Liberal party were the only legally recognized political parties and alternated control of the presidency, with equal representation in judicial, legislative, and administrative offices. The National Front disbanded in 1974, and Colombia returned to an electoral process generally considered free and fair.

Political Parties

Colombia has 60 formally recognized political parties, most of which do not hold seats in either house of congress. The Liberal Party (PL) and Social Conservative Party have dominated politics since the mid 1800s. New parties can be formed but must gain at least 2 percent of the vote in elections for the house of representatives and for the senate. All parties must have at least 50,000 votes in the general election to maintain an official status. Parties failing to meet this requirement are automatically dissolved.

Leading Political Parties

Clandestine Communist Party of Colombia (PCC) Holds traditional Marxist beliefs; combined with FARC to form the Patriotic Union.

***Colombian
Conservative Party (PC)***

Favors strong central government and close relations with the Catholic Church. Other religions are not well tolerated. Social class and privileges are supported. It holds 18 senate seats and 30 house seats.

***Alternative Democratic
Pole (PDA)***

Leftist party formed through the political alliance of the Independent Democratic Pole and Democratic Alternative. It won 11 senate seats and 9 house seats in the 2006 election.

Liberal Party (PL)

Favors strong local governments and separation of church and state in addition to supporting the social and economic needs of the majority. It holds the largest number of seats in Congress, with 17 in the Senate and 36 in the House of Representatives.

***Social National Unity
Party (PSUN)***

Formed by supporters of Alvaro Uribe Velez in an attempt to unite all Uribe supporters as a single group. The party won 20 senate seats and 29 house seats in the 2006 election.

Foreign Relations

Colombia's neighbors have similar concerns regarding the ongoing conflict between guerrilla and paramilitary groups, drug traffickers, and the Colombian government. Nearly all are concerned that the conflict will spill over the borders into neighboring countries and impact national security. Those countries that have made

substantial efforts to eradicate drug crops fear that added pressure and military presence will drive drug traffickers across their boundaries and back into rural areas. The flow of refugees across borders to escape the violence is an issue that has brought added tension, as has the use of aerial spraying of illegal crops.

Brazil

Brazil has pursued diplomatic and political means for conflict resolution. Its goal is to establish regional stability through mediation. Brazil's fear is that increased combat will cause an overflow of conflict, refugees, and coca farmers into adjacent regions. In response, it has increased its military presence along its borders.

Ecuador

Tensions have risen between Colombia and Ecuador, which has closed its main border crossing with Colombia every night since 2002 to prevent Colombian guerrillas and paramilitary groups from asserting control over border communities. In 2003, tensions rose again amid claims that the Ecuadorian military sold a rocket launcher to Colombian guerrillas, who used it in an attack against Colombian security forces. In 2004, the capture of Simon Trinidad, a senior member of FARC, in Quito increased Ecuador's fear that Colombia's conflict would spill over its borders and threaten the country's security. Ecuador has since placed additional visa restrictions on Colombians wanting to enter the country.

Panama

Panama is concerned about security in the Darien jungle region along the Colombian border. Guerrilla and paramilitary groups are known to have crossed into Panama. There have been hijackings and instances of arms smuggling. The countries' presidents met in March 2005 to discuss the effects of the civil conflict.

Peru

Peru fears spillover from Colombia's conflict and anti-narcotics activities. Peru made great progress in destroying cocoa crops and fears Plan Colombia will drive producers back into the country.

Venezuela

Relations with Venezuela were strained following the kidnapping of Rodrigo Granda, "foreign relations" minister for FARC, resulted in the suspension of bilateral agreements and the withdrawal of the Venezuelan ambassador from Colombia. Relations were re-established in February 2005 when President Uribe met with Venezuelan President Hugo Chavez.

Other issues of concern are the border dispute over the waters in the Gulf of Venezuela, the presence of undocumented Colombians in Venezuela, and the activities of Colombian drug traffickers.

European Union

Colombia's relations with the European Union (EU) are mainly through regional initiatives with the Andean Community, Rio Group, and EU-Latin America and Caribbean Summits. This includes the Rome Declaration, the Political Dialogue and Cooperation agreement, and the EU-CAN High Level Specialized Dialogue on Drugs. Assistance has been mainly humanitarian aid and support for reconciliation in the form of human rights protection and aid for internally displaced people.

United States

The United States was one of the first countries to establish diplomatic ties with Colombia in 1822. Although many agreements have been signed including those on environmental protection, civil aviation, chemical control, and maritime ship boarding, the

core of U.S. policy is anti-narcotics and anti-terrorism. Relations with Colombia improved when the United States committed support for Plan Colombia (2000-2005), which increased counter narcotics capabilities and provided support for human rights, humanitarian aid, and economic and judicial reforms. The Andean Counterdrug Initiative (ACI) is the primary U.S. program, which supports Plan Colombia. ACI provided nearly US\$3 billion between 2000 and 2005.

The United States continues to cooperate with President Uribe. A free trade agreement was signed in 2006, and ACI funding was approved for 2006. In return, Colombia expects to strengthen its democracy by promoting human rights, rule of law, economic development, and security against narcotics trafficking and terrorism.

International Organizations

Colombia participates in many international organizations, to include the following:

- Andean Pact
- United Nations
- Economic Commission for Latin America and the Caribbean
- International Atomic Energy Agency
- International Bank for Reconstruction and Development
- International Labor Organization
- International Maritime Organization
- International Monetary fund
- Organization of American States
- Rio Group
- World Health Organization
- World Trade Organization

ECONOMY

Colombia began liberalizing its economy in the early 1990s. Despite high public debt and inflation between 1999 and 2002, its economy has been recovering since 2003 as a result of higher oil prices and strong manufacturing exports. Confidence in President Alvaro Uribe Velez led to a huge increase of capital investment in 2003, the first in 7 years.

Conflict continues to hold back economic potential. Guerrillas destroy oil pipelines and steal oil, although the government's heightened security has led to fewer attacks on oil infrastructure. Reduction of public debt, increased exports, improved security, and higher petroleum prices have helped the economy recover. The unemployment rate decreased from 18 percent in 2001 to 10.2 percent in 2005. Coffee prices also recovered from previous lows as the Colombian coffee industry pursued new markets.

Colombia has transitioned into a free market economy with important commercial and investment ties to the United States. It has vast natural resources and minerals and exports agricultural and manufactured products. However, it is also the largest exporter of illegal drugs in Latin America, estimated at US\$5 billion per year. Other illegal industries are contraband, counterfeit clothing, books, CDs, video cassettes, and theft of fuel.

Statistics (2005)

Gross Domestic Product	US\$122.3 billion
Growth Rate	5.1%
Per Capita	US\$2,100 (2004)
Inflation Rate	5.0%
Debt	US\$37 billion

Unemployment Rate	10.2%
Imports	US\$18 billion
Exports	US\$19 billion
Labor Force	US\$20.5 million

Resources

Colombia has substantial natural gas and coal reserves and is the largest producer of coal in Latin America. Other natural resources include oil, gold, ferrous nickel, and emeralds. Mining, especially for coal and oil, is an important export-oriented activity and provides 5 percent of GDP.

Industry

Colombia's industries include mining, manufacturing, and power sectors. The main industrial centers are Bogota, Medellin, Cali, and Barranquilla. Major industries include oil, coal, natural gas, textiles and clothing, footwear and leather products, processed foods and beverages, paper products, chemicals, cement, gold, and emeralds. These sectors are vital to Colombia's economy, accounting for 32 percent of GDP in 2004.

Natural gas reserves are estimated at 127.6 billion cubic meters (4,505.6 cubic feet) in 2005, and production was 6.1 billion cubic meters (216.7 cubic feet) in 2003. These reserves stretch across 18 basins; however, only seven are producing natural gas. The Llanos basin holds most of the gas reserves, but the Guajira basin has the most production. Chevron is the largest natural gas producer in Colombia. The three main natural gas pipelines are Ballena-Braccancabermaja, Barrancabermeja-Nevia-Bogota, and the Mariquita-Cali line. Tumaco, Cartagena, and Covenas are major oil and gas seaports.

Oil exploration and production is another important industry. In 2005, oil production was estimated at 512,400 barrels per day, and



Colombia Industry



Colombian Woman Weaving. *Photo by Mario Caravajal*

oil reserves were around 1.4 billion barrels. Colombia consumes half of the oil produced and exports the rest. The United States is the main importer of Colombian oil. The Andes foothills and the eastern Amazon jungles account for the majority of crude oil production. The Cusiana/Cupiagua complex, operated by British Petroleum, is the largest oil field in Colombia. Cano-Limon, the second largest, is operated by Occidental Petroleum.

There are five major oil pipelines in Colombia, four of these connect production fields to the Caribbean terminal at Covenas. The Ocesa pipeline is 804 kilometers (500 miles) long and transports oil from the Cusiana and Cupiagua fields. The others are Cano-Limon pipeline, 740 kilometers (460 miles) long, and the smaller Alto Magdalena and Colombia oil pipelines. TransAndino pipe-

line transports crude from the Orito field in the Putumayo basin to the Pacific port of Tumaco. Oil pipeline attacks have decreased since 2002, but a bombing of the Cano-Limon pipeline in February 2006 stopped production for several weeks.

Ecopetrol, the state-owned hydrocarbon company, owns Colombia's five major refineries. It had a refining capacity of 285,900 barrels per day in January 2006. This capacity is not enough to supply domestic demand, thus Colombia must import petroleum products. In 2004, Colombia increased exploration and found 32 million barrels of new reserves. Output has increased due to the 21 new exploratory wells and 6,767 kilometers (4,205 miles) of seismic exploration of offshore blocks in the Pacific Ocean and Caribbean coast. Colombia is expected to become a net importer of oil by 2011.

Colombia produced 52.5 million tons of coal in 2003. Cerrejon Zona Norte, operated by a consortium of Anglo American Plc., BHP Billiton, and Glencore International, is the largest coal mine



Colombian Oil Refinery

in Latin America and the largest open-cast coal mine in the world. It consists of a railroad, an integrated mine, and coastal export terminal. Most of the coal production infrastructure is on the Caribbean coast so most exports go to Europe, North America, and Latin America. An expansion of the Panama Canal would allow Colombia to export coal to Asia.

Manufacturing provided 14 percent of GDP in 2005. This included manufacturing of textiles and garments, chemicals, cement, and processed beverages. Colombia's service industry comprised 54 percent of GDP in 2004. Financial services, retail commerce, transportation and communication services are among the largest sectors. Tourism has remained low, 2 percent of GDP, due to Colombia's reputation for crime and violence.

Export industries are diverse and include petroleum, coffee, coal, ferrous nickel, gold, bananas, cut flowers, emeralds, cotton products, sugar, and textiles and garments. Petroleum and petroleum products accounted for 26 percent of exports in 2005. Coal accounted for 12 percent, and coffee for 7 percent. Given Colombia's natural resources, its imports consist mostly of machinery and transportation equipment, consumer products, paper products, chemicals and fuels. Colombia's main trading partner is the United States. In 2005, Colombia exported 41 percent of all products to the United States, and it imported 29 percent. Other important trading partners are Venezuela, Mexico, members of the Andean Community (Ecuador, Bolivia, and Peru), and the European Union.

Farming

Given its diverse climate and geography, Colombia's major crops include coffee, cacao, bananas, cut flowers, sugarcane, corn, and tobacco. Cattle raising is another important activity, mostly performed in the eastern plains. In 2005, agriculture, livestock, and



Coffee Plantation. *Photo by Shaun McRae*

fishing represented 14 percent of GDP; coffee (7 percent) and flowers (4 percent) were Colombia's most significant agricultural exports. The United States, Colombia's largest trade partner, imports coffee (7 percent), flowers (5 percent), and bananas (2 percent).

As of 2005, agricultural area was 458,987 square kilometers (177,216 square miles). Of this, arable land and permanent crops comprised 8 percent, while the rest was pasture. Only 23 percent of land used for crops was irrigated.

Colombia is a net exporter of agricultural products and mostly imports maize, wheat, and soybean products to complement its food supply. In 2003, agricultural exports as a percent of total exports were 22 percent, and agricultural imports accounted for 12 percent of all imports.



Colombia Livestock

Photo by Franco Mattioli

Utilities

Public and privately-owned companies share the electricity sector. There are about 36 companies in the generation sector. EMGESA is the largest, controlling 25 percent of generating capacity. Colombia has 90 power plants and produced 50.4 billion kWh in 2003. The San Carlos, Guavio, and Chivor hydroelectric plants are the largest in the country. CODENSA is the largest distributing company and serves more than one million customers in Bogota and the surrounding areas. The transmission system consists of two grids; one serves the Atlantic coast and the other the interior, with inter-connectors between both. Interconexion Electrica (ISA) controls 70 percent of the system. Distribution facilities have billing delays and frequent outages. As of 2004, 42 percent had poor infrastructure. Overall, power is unreliable in parts of the country, but the Atlantic region experiences the most supply interruptions.

Electricity accounted for 13 percent of energy consumption in 2001. Seventy-six percent of electricity generation comes from hydroelectricity; the rest comes from coal and natural gas. Most of the hydroelectric plants rely on yearly rainfall, because they lack multiyear storage capacity. Droughts cause power rationing so the government has encouraged construction of coal and natural gas power plants as an alternative.



Electric Plant

The electricity sector has been the target of attacks, leading to investment shortages and increased blackouts. In 2005, ISA reported 227 attacks against its towers. Colombia exports surplus power to Ecuador and has initiatives to increase electricity trading with Venezuela.

Water

In 2003, 97.4 percent of urban and 66 percent of rural dwellers had access to improved water sources. Although the Colombian government has taken steps to protect its natural resources, Colombian water quality is declining from overuse of pesticides. Domestic use accounts for 50 percent of all water use and agriculture for 46 percent. Only 19 percent of arable land is irrigated.

The water sector is fully decentralized, with 1,300 water utilities operating as of 2004. Forty of the largest municipal water providers serve 55 percent of the population.

As of 2004, 70 percent of water suppliers provided sewerage services but only 327 treatment plants were in operation, amounting to 16 percent of waste water volume. Half of these plants were not in operation due to bad maintenance or lack of sewerage infrastructure. Areas outside large urban centers have inadequate service and bad disinfection of drinking water. Twenty-three of the largest cities receive water of drinkable quality. Almost 60 percent of samples in the rest of Colombia failed minimum quality standards because small municipalities lack the funds to purchase chlorine for disinfection or the technical capacity to treat water.

Foreign Investment

Foreign direct investment in 2004 totaled US\$3.1 billion. The United States is the largest foreign direct investor in Colombia, focusing on mining, manufacturing, and oil sectors.

As part of the liberalization process, Colombia has opened its industries for foreign investment, with most sectors allowing 100-percent investment. Industries closed to foreign investment include defense and national security, real estate, and disposal of hazardous wastes. To limit capital flight and speculation, foreign investment must be kept in Colombia for at least 1 year. Additionally, all foreign investment must be registered with the central bank.

During the 1990s and early 2000s, Colombia's petroleum sector was significantly liberalized. This led to an increase in exploration and production contracts from hydrocarbon industries. Colombia signed more than 50 oil exploration and production agreements between 2004 and 2005, totaling US\$350 million in oil investments. Colombia's improved security has contributed to international investment interest. Since 2003, attacks against oil infrastructure have decreased.

Outlook

Colombia's economy is recovering. Its trade deficit is negligible because import and export quantities are almost equal. However, Colombia continues to suffer from high public debt. The reelection of President Alvaro Uribe Velez in 2006 eased fears of radical economic changes. He is expected to continue free market policies and the demobilization of the paramilitaries, as well as reduce fiscal spending and create social programs to reduce poverty. Since high oil prices are essential to Colombia's future growth, a drop in oil prices would adversely affect the economy. Colombia's oil production has been decreasing since 1999, so the government has focused on acquiring investment agreements to improve oil infrastructure and technology. After 2 years of negotiations, the United States and Colombia signed a free-trade agreement in 2006, but it was not expected to take effect until 2007.

THREAT

Crime

Armed robbery and other violent crimes are common in major cities. Use the ATMs only during daylight hours and only inside shopping malls or other protected locations. Be on the lookout for anyone who may be watching or following you, and be aware that robbery victims have been shot and killed while resisting. Robbery of people hailing taxis on the street is also a serious problem in the major cities (especially in Bogotá). Only use taxis that have been dispatched to your location.

Due to the high risk, U.S. Government employees in Colombia are prohibited from taking buses anywhere in the country. They are also forbidden to drive outside many urban areas, and cannot

drive on roads outside of urban areas at night. Passengers at El Dorado International Airport have reported having their luggage and passports stolen.

Travel Security

Travel to Colombia can expose visitors to considerable risk. During the past 2 years, kidnappings and other violent crime have decreased markedly in most urban areas, including Bogotá, Medellín, Barranquilla, and Cartagena; nevertheless, Colombia continues to have a high rate of kidnapping for ransom. Approximately 370 kidnappings committed by terrorist groups and for-profit kidnap gangs were reported to authorities in 2005. No one can be considered immune. Victims have included journalists, missionaries, scientists, human rights workers, business people, tourists, and small children. Personal travel by U.S. military personnel to Colombia requires advance approval by the U.S. embassy, but non-military U.S. Government employees do not need Embassy approval for private travel.

Terrorism

Colombia has endured insurgency for 43 years, and the conflict continues. Tens of thousands of Colombians have died, hundreds of thousands have been displaced. The conflict between leftist insurgent groups and government security forces has become the greatest internal security threat in Colombia. Colombian security forces control most urban areas, interstate highway systems, economic assets such as railroads and oil pipelines, and most major transportation facilities. However, guerrilla groups continue to create chaos for security forces throughout Colombia's rural areas. It is estimated that the Colombian government has a presence in 60 percent of the country, leaving the rest under insurgent control.



Terrorist

Colombian military and police forces are engaged in armed conflict with guerrilla groups, resulting in casualties for both sides. Peace negotiations with the insurgents have been slow or non-existent, as neither side is willing to make concessions.

FARC

The FARC is a Marxist insurgent group that claims to represent the poor of Colombia. One of the world's oldest surviving insurgencies and the largest in Latin America, the FARC originated during *La Violencia*, though it was not formally organized until the 1960s. The FARC's charter members and supporters were primarily from the Communist Party of Colombia, and the new insurgency group may have had ties with communist Cuba and other communist nations. When the FARC lost financial sup-



FARC Training

port from the former Soviet Union in 1990, it sought the narcotics industry to fund its activities. Manuel Marulanda, a.k.a. “Sureshot,” (Tirofijo) was one of the original Communist Party members in Colombia that helped create the FARC, and still leads the group.

In the 1960s and 70s, the FARC was in armed conflict with Colombian military and police forces. In the mid-1980s, the FARC agreed to a truce with the government and entered the political mainstream. It established a political party called Union Patriótico (UP). An estimated 3,500 UP members were killed in the ensuing years, presumably by the government or right-wing interest groups. The FARC’s truce with the government ended in 1987. In the 1990s, the FARC became more involved in the drug trade following the breakup of the Cali and Medellín cocaine cartels. The FARC now has a business relationship with the mini-cartels and



FARC Guerillas

drug lords in Colombia. They impose “taxes” on the drugs grown or transited through FARC-controlled territory. It is estimated that more than half of the FARC’s annual income is drug money and a third is from kidnapping ransoms. Finally, the guerrillas forcibly recruit Colombia’s indigenous people, adolescents, and the country’s poor into insurgent organizations. Many peasants are left with the choice of either joining the insurgency or losing their land or lives in the conflict.

The FARC’s presence is felt throughout Colombia but particularly in Putamayo, Cuaca, Caqueta, Guaviare, Meta, Choco, Santander, and Antioquia departments. FARC military fronts (60 to 100 troops) typically engage Colombian army and police outposts in rural areas and along rivers. The FARC also sets up roadblocks in the countryside to extort money from motorists, kidnap business leaders and tourists, and Colombian government and military personnel.

The FARC is believed to have approximately 12,000 trained guerrillas or active supporters. President Uribe takes a hard-line approach to bring the FARC to the negotiating table. His tactic has

not had significant results but has led to FARC counterattacks throughout 2006. The FARC wanted to swap 60 political hostages for convicted FARC prisoners with the Colombian government. These plans were officially stopped after a car bomb exploded in front of the military university in Bogotá. President Uribe declared to focus on recovering the hostages through military force.

ELN

The ELN (Ejercito de Liberacion Nacional) is the second largest insurgent organization in Colombia. It formed in the 1960s with intellectuals and students studying in Cuba. The founders of the ELN posed a serious threat to the Colombian government for the first several years of existence. They are primarily a rural-based, Marxist insurgent group that employs terrorist tactics on key economic assets in northern Colombia. Most of their financial resources are obtained through extortion of multinational coal mining and



ELN Soldiers



ELN Guerillas

oil companies; kidnapping ransoms; and protection money from industrialists, businessmen, cattlemen, coca, and poppy farmers. Affluent residents of Bogotá, Villavicencio, Medellín, Cali, and Cucuta are being targeted more frequently as opportunities for profitable kidnappings in the countryside dwindle. The ELN has dwindled down to 3,000 armed members. The group has lost a major foothold in the Antioquia province and maintains a minimal presence in the Middle Magdalena Province. The ELN spokesman was temporarily let out of prison to convince the ELN commander to explore the peace option. There have been several peace talks in Cuba, and in October 2006, the ELN announced that they have agreed upon a formal framework for peace. Although many peace talks have failed in the past, the ELN will use the AUC as an example of how they too can lay down arms and take advantage of the government's amnesty.

Paramilitaries

Several right-wing paramilitary groups formed in the early 1980s to protect Colombian villages and wealthy land owners, including some drug traffickers, from leftist guerrilla attacks. The primary mission of these paramilitaries was to fight and destroy leftist insurgent groups like the FARC and ELN. However, many paramilitary fronts, locally referred to as *paras*, had also terrorized ordinary Colombian peasants perceived to be insurgency supporters. Some of the worst human rights abuses and massacres in Colombia were perpetrated by these paramilitary groups. Several paramilitary fronts entered rural Colombian villages with lists of suspected insurgent sympathizers. These people were executed and used as a warning that insurgency support would not be tolerated. The Colombian government declared these groups illegal at the end of the 1980s, but cooperation between the Colombian military and the paramilitaries was evident. There was also speculation that a minority of these paramilitary groups were composed



Paramilitary Training



Paramilitary Unit

of retired, active duty and reserve members from the Colombian military. However, it is a crime in Colombia to support or associate with a paramilitary organization. There has been no direct evidence linking Colombian security forces with the paramilitaries. Any involvement between the two was done by individuals and not by official echelons or commands within the Colombian military. At best these individuals are only guilty of inaction when paramilitary atrocities occur.

Several paramilitary groups organized in early 1997 into one centralized faction called the United Self-Defense Groups of Colombia (AUC—Autodefensas Unidas de Colombia). The AUC's previous leader, Carlos Castano, reportedly was drawn into the conflict 20 years ago when his father was kidnapped and killed by FARC members. However, Castano resigned from leading the AUC in June 2000 and was later replaced by Salvatore Mancuso. There were

at least 5,000 militia members in the AUC and it was the largest and most fierce paramilitary organization in Colombia. Like their leftist guerrilla rivals, the paramilitaries also benefited from the drug trade; the *paras* “tax” drug revenue. Neither Colombia nor the international community officially recognized the AUC and other paramilitary groups. Now, more than 30,000 paramilitaries have handed over their weapons. They initially claimed to have 20,000 members but the demobilizations have resulted in more people coming forward claiming to be paramilitaries.

There are still an estimated 2,000 paramilitaries under arms among groups that have remained outside the peace process altogether. International opinion and the United Nations have condemned the leniency of the amnesty legislation, as have many domestic human rights groups. There are concerns that demobilized paramilitaries are returning to criminal activities, having been granted immunity for their former crimes.

Drug Trafficking

Despite the break up of Colombia’s larger cartels, the cocaine and heroin trade remains, as guerillas and hundreds of mini-cartels have taken their place. The narcotics industry thrives on the conflict. Guerrilla leaders claim they are fighting for socialist ideals and are committed to reforming the Colombian government. Many scholars and Colombian people believe, however, that the insurgent movements have incited violent power struggles that fight for control of the lucrative drug-producing industry. The drug trade and other criminal activities like kidnapping, extortion, and smuggling are financing the guerrilla movements. These transnational issues pose a severe threat to Colombian and Andean Ridge stability, as well as to U.S. interests in the region.



Confiscated Drugs

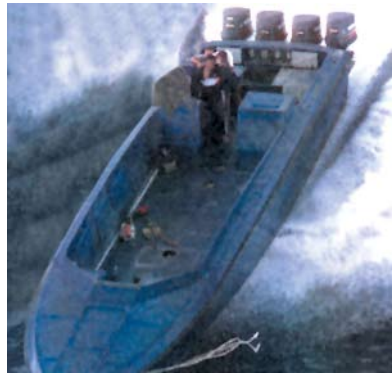
The drug industry affects every facet of society in Colombia, from the rural farmers who grow the coca to the government's highest officials who are corrupted by the industry. The Drug Enforcement Agency estimates that Colombia produces 75 percent of the world's cocaine. More than 85 percent of the cocaine and 65 percent of the heroin found in the United States is of Colombian origin. Most of these drugs are smuggled to the U.S. via Mexico, Central America, and the Caribbean. The Colombian government, the U.S., and other nations have invested billions of dollars over the last few years to curb the drug flow.

Despite the severity of Colombia's drug production and trafficking trade, coca cultivation has dropped more than 15 percent nationwide. The purity of heroin seized at major U.S. ports of entry has sharply declined from 87 percent pure in 2000 to 68 percent pure in 2005, suggesting a decrease in Colombian heroin production, and more

than 390 drug traffickers have been extradited to the United States over the past 4 years.

During the past year, Colombia has continued to expand its aggressive efforts against drug trafficking. With U.S. assistance, Colombian forces were able to spray more than 160,000 hectares (395,367 acres) of coca. Another 40,000 hectares (98,840 acres) of coca were manually eradicated. For the

first time, manual and aerial eradication operations were conducted in key national parks and indigenous reserves that were once safe havens for the FARC. In addition, Colombian and U.S. interdiction activities resulted in the seizure of more than 150 metric tons of cocaine and cocaine base in 2006, and the Colombian government extradited several key drug traffickers and FARC leaders for trial.



Drug Runners

Transnational Drug Effects

United States

Colombia is a major supplier of heroin and largest producer of cocaine smuggled into the U.S. The United States is a major supporter in the War against Drugs and provides military equipment and funds to Colombia through PLAN Colombia.

Europe

Several European nations have pledged money toward Plan Colombia, but support is wavering. Colombian drug traffickers, meanwhile, have found a lucrative and widening market in

Europe. European tourists and NGO missions in Colombia may be targets for future kidnapping or extortion.

The Uribe government has launched an advertising campaign in Europe designed to raise awareness regarding the ways Europe's increasing illegal drug use directly finances death and environmental destruction in Colombia.

Mexico

Former Mexican President Vicente Fox described drug trafficking as a severe threat to Mexico's national security. Mexico's anti-drug efforts are undermined by corruption, weak police and criminal justice institutions, budget limitations, and severe poverty. Mexico's drug cartels are entrenched and well organized; their tactics emphasize intimidation and corruption of public officials. As much as 60 percent of the Colombian cocaine arriving in the United States comes through Mexico.

In 2006, President Felipe Calderon vowed to get tough on the Mexican drug cartels. He unleashed his military in the Tijuana and Monterrey States, as well as the Michoacan State (his hometown). His actions against the violent drug cartels in Michoacan lowered the average homicide rate 40 percent.

Panama

Panama is a major transshipment point for drugs smuggled from Colombia. Panama's location, largely unpatrolled coastlines, advanced infrastructure, underdeveloped judicial system, and well developed financial services sector make it a crossroads for transnational crime, such as drug trafficking, money laundering, arms sales, and alien smuggling. Panama's canal, containerized seaports, the Pan American Highway, an active international airport, and

numerous uncontrolled airfields provide organized crime groups almost unlimited transportation options through the country.

The civil war in Colombia has been spilling across the Panama border for several years. The inhospitable, densely forested border region is ideal for smuggling arms and drugs. Colombian guerrillas have clashed with Panamanian National Guard troops several times since 1996. Some guerrillas found refuge in Panama's Darien region, briefly taking control of a border settlement. Panama has had no standing army since 1989.

There has been talk of building a road connecting the Darien Gap, but the Panamanian government has rejected the idea. They believe that constructing a road in the Darien province would destabilize the eco-system, and can introduce a security hazard in the already FARC-penetrated jungles.

Venezuela

Venezuela is a major transshipment area for Colombian cocaine and heroin. Most of the drugs come overland and leave concealed on ships, cargo planes, and airline passengers destined for the United States and Europe. Drugs also are transported on small private airplanes and boats. Some of the drugs are processed in Colombian labs using chemicals from Venezuelan sources.

The volume of illicit drugs moving through Venezuela is increasing; the number of suspected drug flights traveling from Venezuela to Haiti, the Dominican Republic, and other points in the Caribbean more than doubled in 2006.

Colombian guerrillas have also been using Venezuela as a refuge for years, straining relations between the two countries. Significant Venezuelan military resources have deployed to the border. Venezuela is not a major drug-producing country, but cor-

ruption and lax financial regulations make it attractive to money launderers. Colombian drug lords have used Venezuelan banks, savings and loans, currency exchanges, stock brokerages, the real estate market, and casinos to launder money.

Venezuela is susceptible to violence spill over from leftist guerillas and from waves of refugees fleeing areas of conflict. Also, the strained relations between current President Hugo Chavez and the United States damage U.S. initiatives in Colombia.

Ecuador

Ecuador's porous borders with Peru and Colombia make it a major transit country for cocaine and heroin destined for the United States and Europe. Cocaine is trucked into Ecuador on the Pan American Highway, consolidated, and exported from Ecuador's Pacific ports. Couriers also smuggle cocaine and heroin on flights from Quito and Guayaquil. Cocaine seizures in Ecuador increased from 3 metric tons in FY 2004 to 34 metric tons in FY 2005, and more than 45 metric tons were seized in FY 2006.

Ecuadorian territory has been used by the FARC to launch attacks, while several guerrilla camps have been found on the Ecuadorian side of the border. Quito is concerned about the flow of refugees over the border, the spread of drug crops and the U.S. aerial eradication of coca crops, which has caused environmental damage and public health scares on the Ecuadorian side of the border. Under the Andean initiative proposed by the Bush administration, Ecuador will receive further aid to bolster its border with Colombia.

Peru

Although Peru is the world's second largest producer of cocaine, it has maintained good relations with Colombia, and has assisted in securing the border with Colombia.

Brazil

Brazil does not produce significant amounts of illegal drugs, but is a major transit country for coca base moving from the Andean Ridge into Colombia for processing. Illegal drugs also pass through Brazil on their way to the United States, and Brazil is a major producer of precursor chemicals. Major transit areas are its river ports, Atlantic seaports, and vast western region. Brazil formed a major surveillance program in response to the Colombian situation and has greatly reinforced its military presence in the border regions to prevent guerrilla incursions.

Brazil is now the second biggest consumer of illegal drugs after the United States and, therefore, a big market for Colombian cocaine. To counter this, the Brazilian military has set up a task force called Operation Cobra, which concentrates on border activity with Colombia by increasing the military presence in the area.

Cuba

Although Cuba is not a major transshipment point for drugs, the waters between Cuba and the Bahamas are regularly traversed by drug traffickers, a fact confirmed by the U.S. Coast Guard through cooperation with Cuba's border guard. These two forces have worked together on several occasions to apprehend smugglers.

Haiti

Haiti is a key conduit for drug traffickers transporting cocaine from South America to the United States and, to a smaller degree, Europe. Haiti has approximately 1,125 miles of unprotected shoreline, numerous uncontrolled seaports and clandestine airstrips, a thriving contraband trade, weak democratic institutions, a

renascent police force that has a history of cooperating with drug traffickers, a dysfunctional judiciary system and official corruption. These factors contribute to the frequent use of Haiti by drug traffickers as a strategic transshipment area.

Other Caribbean Nations

South American cocaine, mostly from Colombia, moves regularly from Venezuela, Suriname, Guyana, and French Guiana through most of the islands of the Lesser Antilles on its way to the United States and Europe. Colombian drug traffickers have infiltrated many of the Caribbean island nations, establishing their own infrastructure and contracting the services of local criminal organizations. The Cayman Islands' large offshore banking system, which offers strict confidentiality, has long been used by money launderers. Nearly 600 banks operate on the islands, including several of the world's largest, and more than 44,000 international businesses are registered there. Drugs also reportedly pass through the Caymans on their way to the United States and elsewhere, but the amounts are relatively small.

Plan Colombia

U.S. aid provided UH-1 helicopters and logistical equipment for the Colombian Army's new counter drug battalions. These battalions seek to locate and destroy drug labs and illicit coca fields. Also, the government plans to seize the lucrative southern Colombian drug-producing region, currently under insurgent control. Military funding under Plan Colombia will also benefit Colombian naval and marine riverine units tasked with locating and destroying drug labs along Colombia's river systems. The plan funds alternative crop production programs for coca farmers, reform measures for Colombia's judiciary and police forces, and funding for the continuation of U.S. counter

drug efforts in the region. The Colombian government hopes to contribute US\$4 billion and lobby internationally for additional support. Most European nations are hesitant to pledge monetary support for fear of contributing to more violence between the military and insurgency. The plan theoretically focuses on combating drug traffickers and cultivation methods, though some have concerns that the plan will benefit counterinsurgency operations as well.

Projection

Despite its problems, Colombia has a long history of being one of the most democratic and politically stable countries in Latin America. Its professional military forces do not get involved in national politics and are loyal to democratic processes. However, in the short term, Colombian immigration

to the United States and other Latin American countries will continue to rise as a result of the violence. Criminal and terrorist threats to U.S. personnel remain high in all parts of the country. The FARC opposes U.S. military involvement in Colombia and claims that Plan Colombia is an unattainable endeavor. The FARC also faces a dilemma of how to prevent U.S. support to Plan Colombia without provoking a forceful U.S. response. Colombia has been successful in disbanding the paramilitaries, and may attain a peaceful disbanding of the ELN. The government presence in the rural area has increased and is evident in Colombia's decreased violence.



Counter-drug Seal

ARMED FORCES

Organization

Traditionally, the Colombian military has been apolitical. It has rarely intervened in national politics. The military sees itself as the ultimate guarantor of national stability. Defense decisions are channeled to the president through the minister of national defense, who is the most senior Army officer. The Superior Council of National Defense, composed of other cabinet-level ministers and the armed forces chief of staff, assists the minister. Officers from the capital region form a second advisory body, known as the High Military Council. The individual services are highly autonomous, and each maintains its own command structure headed by a powerful commander general. The commanders general act as advisors to the Superior Council of National Defense. The president is the commander-in-chief of the armed forces.

Mission

During the 1960s and 1970s, the Army was preoccupied with the communist insurgency and was slow to react to the narco-trafficking problem in the 1980s, due in part to the perception that it was a civil-police problem. The Army, as the preeminent military institution, has considerable experience in counterinsurgency operations. It has combated the insurgency, but has been less successful against the drug cartels. Reasons include corruption within the Army and the cartels' alliances with certain insurgent groups. The military must fight the cartels' private armies, as well.

Capability

Overall, the Colombian military, although suffering from corruption and a lack of resources, is capable of effective counterinsurgency or defending the country against any of its neighbors.

Personnel

Conscription

Upon completion of service with any military branch or with the national police, conscripts are given a reservist service card (*tarjeta de reservista*), an indispensable document for identification throughout the individual's life. Conscription is carried out by lottery, but the affluent tend to successfully evade obligatory service. NCOs drawn from promising candidates are screened by an officer board and required to pass an examination in academic and practical military subjects. Upon meeting minimum requirements, the individual is appointed to the lowest NCO grade. There is little chance for NCOs to attain commissioned officer status. The officer corps is drawn almost exclusively from the Colombian middle class, while the enlisted are drawn mostly from the rural and urban poor. Individuals 15 to 50 years-old may volunteer for service with the army or navy, but parental permission is required for those under 18. The military relies on universal 1 year conscription for 18-year-old males, with the exception of students.

Training and Education

The Military Cadet School is the Army's service academy. It has a rigorous training program ranging from 3 to 5 years in length, depending on the applicant's previous academic background. Specialization fields include economics, engineering, international law, and diplomatic studies. Further Army training at the

Escuela de Lanceros (Lancers School) provides a year of counterinsurgency instruction, and each Army branch offers a 40-week training program required for promotion to captain. The Naval Academy offers a 4-year program for prospective naval, marine, or merchant marine officers. Navy cadets spend nearly a year at sea on a Navy training ship. The Air Force Cadet School concentrates on technical training.

All service officers are eligible to attend the Superior War College (*Escuela Superior de Guerra*). The completion of the 1-year command and general staff course is required for promotion to lieutenant colonel. The Higher Military Studies Course (*Curso de Altos Estudios Militares*) is required of all majors or lieutenant commanders before they are considered eligible for general staff assignments. Completion of a national security policy course and several international affairs courses are required for promotion to flag officer. The rigorous officer-training program contrasts with the relative lack of similar training for NCOs, exacerbating the social distance between the officer corps and the enlisted.

Defense Headquarters Locations

Ministry of National Defense	Centro Administrativo Nacional (CAN), Apartado Aereo, Bogotá
Army	Comandante del Ejercito, Commando Ejercito Colombiana, CAN, Apartado Aereo, Bogotá.
Navy	Comandante de la Armada, ARC, Commando Armada Colombiana, CAN, Apartado Aereo, Bogotá.
Air Force	Comandante Fuerza Aerea Colombiana, Commando Fuerza Aerea Colombiana, CAN, Apartado Aereo, Bogotá.

Army

Mission

The Colombian Army conducts military operations to defend and maintain sovereignty, independence and territorial integrity with the goal of generating an environment of peace, security and development which guarantees the constitutional order of the nation.

Organization

The Army consists of 7 divisions, which, in turn, are divided into 25 regional and mobile brigades (locations shown where available):

First Division

AOR: Bolivar, Sucre, Magdalena, Atlantico, La Guajira and Cesar Departments

HQ: Santa Marta, Magdalena

Brigades:

2nd Inf Bde (HQ: Santa Marta, Magdalena)

4th Inf Bn “Gen Antonio Nariño” (Barranquilla)

5th Inf Bn “Gen José María Córdova” (Santa Marta)

2d Eng Bn “Col Francisco Javier Vergara y Velasco” (Malambo)

2d MP Bn (Barranquilla)

2d Combat Service Support Bn (Barranquilla)

6th High Mountain Bn

2d Counterguerrilla Bn (Valledupar)

Rural GAULA Anti-Kidnapping Group Santa Marta

Rural GAULA Anti-Kidnapping Group Barranquilla

10th Inf Bde, HQ: Valledupar

6th Inf Bn “Cartagena”

2d Mech Group “Col Juan Jose Rondon”

Medium Armored Group “Gen Gustavo Matamoros d’Costa”

2d Artillery Bn “La Popa”
10th Field Artillery Bn “Santa Barbara”
2d Energy and Road Plan Bn
3d Energy and Road Plan Bn
10th USPC Bn “Cacique Upar”
GAULA Anti-Kidnapping Group Cesar
GAULA Anti-Kidnapping Group La Guajira

Second Division

AOR: Boyaca, Santander, southern Bolivar and southern Cesar Departments

HQ: Bucaramanga

Brigades:

Fifth Inf Bde (HQ: Bucaramanga)
14th Inf Bn “Capt Antonio Ricuarte” (Bucaramanga)
40th Inf Bn “Col Luciano D’elhuyar” (San Vicente de Chucuri, Santander Dept)
5th Artillery Bn “Capt Jose Antonio Gallan” (Socorro, Santander)
5th Eng Bn “Col Francisco Jose de Caldas” (Bucaramanga)
5th CSS Bn “Mercedes Abrego” (Bucaramanga)
7th Energy and Road Plan Bn (Barrancabermeja, Norte de Santander)
2d AAA Bn “Nueva Granada” (Barrancabermeja)
Infantry Bn “Reyes”
18th Inf Bde (HQ: Arauca)
18th Air Cavalry Grp “Gen Gabriel Reveis Pizarro” (Saravena, Arauca)
18th Eng Bn “Gen Rafael Navas Pardo” (Tame, Arauca)
18th ASPC Bn “Subteniente Rafael Arajona” (Arauca)
24th Counterterrorist Bn “Heroes de Pisba” (Fortul, Arauca)
27th CT Bn (Arauca)
30th CT Bn “Capitan Nelson Dario Bedoya” (Arauca)
49th CT Bn “Heroes de Taraza” (La Esmeralda, Arauca)

1st Energy and Road Plan BN “Gen Juan Jose Neira” (Samore)
30th Inf Bde (HQ: Cucuta, Norte de Santander)
Inf BN “Francisco de Paula Santander”
Inf BN “Garcia Rovira”
Mechanized Group “GMAZA”
30th Svc Bn
10th Energy and Road Plan Bn
46th Counterguerrilla Bn (Tibu)
5th Mobile Bde
27th Svc Company
43d CT Bn “Heroes de Gameza”
44th CT Bn “Heroes del Rio Iscuande”
45th CT Bn “Heroes de Majagual”
47th CT Bn “Heroes de Tacines”
38th Svc Company
95th CT Bn
96th CT Bn
97th CT Bn
98th CT Bn

Divisional Assets:

Plan Meteoro
“Marte” Anti-Explosives Group
7th Special Forces Group (SFG)
8th SFG

Third Division

AOR: Caldas, Valle del Cauca, southern Choco, Quindio, Narino and Risaralda Departments

HQ: Cali, Valle del Cauca

Brigades:

3d Inf Bde (HQ: Cali)

7th Inf Bn (Popoyan)
8th Inf Bn (Cali)
9th Inf Bn (Pasto)
3d Cav Gp (Ipiiales)
3d Arty Bn (Buga)
3d Eng Bn (Palmira)
3d MP Bn (Cali)
3d CSS Bn (Cali)
3d CG Bn (Mobile Unit)
GAULA Anti-Kidnapping Group Valle (Cali)
8th Inf Bde (HQ: Armenia)
22d Inf Bn (Batalla de Ayacucho” (Manziales)
23d Inf Bn “Vencedores” (Cartago)
8th Arty Bn “San Mateo” (Pereira)
8th Eng Bn “Fancisco Javier Cisneros” (Armenia)
8th CSS Bn “Cacique Calarca” (Armenia)
8th CG Bn “Quimbaya”
GAULA Anti-Kidnapping Group Risaralda
29th Inf Bde (HQ: Popoyan)

Fourth Division

AOR: Meta, Casanare, Guaviare, Vaupes, Guaviare, Guainia, southern Cundinamarca, southern Boyaca Departments

HQ: Villavencencio, Meta

Brigades:

7th Inf Bde (HQ: Villavencencio)
16th Inf Bde (HQ: Yopal, Casanare)
44th Inf Bn “Coronel Ramon Nonato Perez”
16th Mech Cav Gp “Rebeiz Pizarro”
16th ASPC BN “Teniente William Ramirez Silva”
GAULA Anti-Kidnapping Group Casanare

23d CG Bn “Heroes de Rondon”
29th CG Bn
63d CG Bn “Batalla de Cachiri”
28th Inf Bde

Fifth Division

Brigades:

1st Inf Bde (HQ: Tunja, Boyaca)
1st Inf Bn “Bolivar”
2d Inf Bn “Sucre”
1st Cav GP “Paez”
1st Arty Bn “Bogota”
Eng Bn “Caldas”
1st CSS Bn “Cacique Tundama”
6th Energy and Road Plan BN
1st CG Bn “Los Muiscas”
2d High Mtn BN “General Santos Gutierrez Prieto”
GAULA Anti-Kidnapping Group Boyaca
6th Inf Bde (HQ: Ibague, Tolima)
16th Inf Bn “Patriotas”
18th Inf Bn “Coronel Jaime Rooke”
6th CG Bn “Pijaos”
6th CSS Bn “Francisco Antonio Zea”
GAULA Anti-Kidnapping Group Tolima
13th Inf Bde (HQ: Bogota)
37th Inf Bn ‘Guardia Presidencial’
38th Inf Bn ‘Miguel Antonio Caro’
39th Inf Bn ‘Sumapaz’
1st High Mtn Bn ‘Lt Col Antonia Aredondo’
13th Cav Gp ‘Gen Ramón Arturo Rincón Quiñones’
10th Cav Gp ‘Tequendama’
13th Arty Bn ‘General Fernando Landazábal Reyes’

13th Eng Bn ‘General Antonio Baraya’
13th MP Bn ‘General Tomás Cipriano de Mosquera’
15th MP Bn ‘Bacatá’
1st CSS Bn ‘Manuel Murillo Toro’
13th CSS Bn ‘Cacique Tisquesuzá’
13th CG Bn ‘Cacique Timanco’
GAULA Anti-Kidnapping Group Cundinamarca

Sixth Division

AOR: Caquetá, Putumayo and Amazonas Departments

Brigades:

12th Inf Bde, (HQ: Florencia, Caquetá)
34th Inf Bn “Juanambu” (Florencia)
35th Inf Bn “Heroes de Guepi” (Larandia)
36th Inf Bn “Cazadores” (Puerto Rico)
12th Eng Bn “General Liborio Mejia (Florencia)
12th CSS Bn “Fernando Serrano” (Florencia)
12th CG Bn “Chaira” (Florencia)
GAULA Anti-Kidnapping Group Caqueta (Florencia)
27th Inf Bde, (HQ: Mocoa, Putumayo)
25th Inf Bn “Gen Roberto Domingo Rico Diaz” (Villagarzon)
49th Jungle Inf Bn “Juan Bautista Solarte Obando” (La Tagua)
59th CG Bn “Mayor Bayardo Prada Ojeda” (La Hormiga)
9th Energy and Road Plan BN “Gen Jose Maria Gaitan” (Santana)
11th Energy and Road Plan BN “Capt Oscar Giraldo Restrepo”
(Puerto Asis)
27th CSS BN (Mocoa)
26th Jungle Bde, (HQ: Leticia, Amazonas)
50th Jungle Inf Bn “General Luis Acevedo Torres” (Leticia)
74th CG BN “CT Ricardo Escobar Tovar” (Leticia)
26th CSS BN “Sgt Segundo Nestor Ospina Melo” (Leticia)
13th Mobile Bde, (HQ: Santana)

Seventh Division

AOR: Antioquia, Córdoba and Choco Departments

Brigades:

4th Inf Bde, HQ: Medellin

11th Inf Bde, HQ: Monteria, Cordoba

11th Mobile Bde, HQ:

14th Inf Bde, HQ: Puerto Berrío, Antioquia

17th Inf Bde, HQ: Maporita, Antioquia

NOTE: All GAULA anti-kidnapping groups are task organized from the Colombian National Police.

Key Personnel

President of the Republic Alvaro Uribe Velez

Minister of Dr. Juan Manuel Santos

National Defense

Commanding General of the Armed Forces MajGen Freddy Padilla de Leon

Commander of the Army General Marion Montoya Uribe



















Command Sergeant Major of the Army CSM Eduardo Antonio de la Cruz

The Colombian Army has 180,000 active duty personnel, including 63,000 conscripts and Army reserves number 54,700. Colombia still conscripts soldiers with 24 months' service for those conscripted. Minimum age for enlistment or induction is 18 years.

Training

Colombian Army schools are divided into “*Escuelas de Formacion*” (Basic Schools) and “*Escuelas de Capacitacion*” (Specialization

or Service Schools). Basic schools include the *Escuela Militar de Cadetes* (Military Cadet School), *Escuela Militar de Suboficiales* (NCO Academy) and *Escuela Militar de Soldados Profesionales* (Professional Soldiers' School).

Enlisted					
	Dragonate	Soldado Distinguido	Cabo Tercero	Cabo Segundo	Cabo Primero
<i>U.S. Equivalent</i>	<i>Basic Private</i>	<i>Private</i>	<i>Private First Class</i>	<i>Corporal</i>	<i>Sergeant</i>
Enlisted					
	Sargento Segundo	Sargento Vice Primero	Sargento Primero	Sargento Mayor	
<i>U.S. Equivalent</i>	<i>Staff Sergeant</i>	<i>Sergeant First Class</i>	<i>Master Sergeant</i>	<i>Sergeant Major</i>	
Officers					
	Subteniente	Teniente	Capitan	Mayor	Teniente Coronel
<i>U.S. Equivalent</i>	<i>2nd Lieutenant</i>	<i>1st Lieutenant</i>	<i>Captain</i>	<i>Major</i>	<i>Lieutenant Colonel</i>
Officers					
	Coronel	Brigadier General	Mayor General	General	
<i>U.S. Equivalent</i>	<i>Colonel</i>	<i>Brigadier General</i>	<i>Major General</i>	<i>Lieutenant General</i>	

Colombia Army Rank Structure

The Military Cadet School is the Army's service academy. It has a rigorous training program ranging from 3 to 5 years in length, depending on the applicant's previous academic background. Specialization fields include economics, engineering, international law, and diplomatic studies. Further Army training at the *Escuela de Lanceros* (Lancers School) provides a year of counterinsurgency instruction, and each Army branch offers a 40-week training program required for promotion to captain. All service officers are eligible to attend the Superior War College (*Escuela Superior de Guerra*). The completion of the year-long command and general staff course is required for promotion to lieutenant colonel. The Higher Military Studies Course (*Curso de Altos Estudios Militares*) is required of all majors or lieutenant commanders before they are considered eligible for general staff assignments. Completion of a national security policy course and several international affairs courses are required for promotion to flag officer.

Specialization or Service Schools include the following:

- Infantry
- Cavalry
- Lanceros (Ranger equivalent)
- Artillery
- Communications
- Engineer
- Civil-Military Relations
- Parachute (Airborne)

Equipment

The Army's primary individual infantry weapon is the Israeli Galil (both 5.56 mm and 7.62 mm variants). Submachine guns include

Madsen Models (M46, M50, and M53), the Walther MP-K, and the U.S.-manufactured MAC-10.

*Armor **

Number	Type
12	M8 Greyhound Mod (6 x 6) TOW tank destroyer
80	M113 APC
76	EE-11 Urutu APC
20	M8 ARV
120	EE-9 (Cascavel) ARTMortars
200	120-mm Brandt
148	U.S. 107-mm, M30
20	81-mm, M1
420	60-mm, M19

Artillery

Number	Type
80	105-mm M101 towed howitzers
50	77-mm M116 towed howitzer
36	105-mm, gun howitzer

Antiaircraft

Number	Type
30	M1A1 air -defense guns
32	40-mm L70 air-defense guns
36	37-mm GDF air-defense gun system

*The M3A1 Stuart light tank has been removed from service.

Air Force

The Air Force (Fuerza Area Colombiana - FAC) is headquartered in Bogotá and has 11,925 personnel. It is organized into tactical strike, support, transport, training, and maintenance components, with a primary mission of ground support during counterinsurgency operations.

Mission

The FAC exercises and supports the control and use of the airspace and leads air operations to contribute to the defense of the sovereignty, the independence, the territorial national integrity, and the constitutional order. The FAC also conducts reconnaissance, preparation of the battlefield, bombing, and air support missions.

Organization

The FAC is organized into the following major commands: Air Combat Commands 1 through 6 (Comando Aereo de Combate-CACOM), Air Maintenance Command (Comando Aereo de Mantenimiento-CAMAM), Military Air Transport Command (Comando Aereo de Transporte Militar-CATAM), Caribbean Air Group (Grupo Aereo del Caribe-GACAR), Eastern Air Group (Grupo Aereo del Oriente-GAORI), and the Military Aviation School (Escuela Militar de Aviacion-EMAVI). Other units include the Officer Training School (*Escuela de Suboficiales-ESUFA*), Military Air Institute (*Instituto Militar Aeronautico-IMA*), and SATENA (*Servicio de Aeronavigacion a Territorios Nacionales*).

Major Commands and Units

The FAC's principal air base is German Olano Military Air Base, Palenquero; two Mirage V fighters squadrons are stationed there. Other bases include El Dorado International Airport (Bogotá), Luis Gomez (Apiay), Ernest Cortissoz (Barranquilla), and Marco Fidel Suarez (Cali).

Personnel

The FAC, headquartered in Bogotá, has 11,925 personnel (1,525 officers, 2,398 NCOs, 4,762 soldiers, 3,240 civilians). The Chief of Staff of the Air Force is Gen Jorge Ballesteros Rodriquez

Training

Officer cadets must successfully complete the four-year course of the Air Force Academy at Cali (*Escuela Militar de Aviacion 'Marco Fidel Suarez'*) before commissioning in the rank of Second Lieutenant. The successful completion of other courses at the Air Force Staff College (*Instituto Militar Aeronautico 'Capitán José Edmundo Sandoval'*) is required at various stages of officers' careers prior to promotion to higher rank or appointment to the Air General Staff. The Air Force NCO School, (*Escuela de Suboficiales 'Capitan Andres Maria Diaz Venero'*), is located in Madrid, Cundinamarca, with all other training establishments being located in Cali. The FAC's main training areas are Cali (for fixed-wing aircraft) and Melgar (for helicopters).

Equipment

Colombia has a limited indigenous aviation industry and imports all of its combat aircraft. The large number of helicopters provides support to the Colombian Army. Most of the FAC aircraft are U.S.-made.

Role	Type	Total
Air Defense/Attack	Mirage 5COA	10
Air Defense/Attack	Kfir C7	11
COIN	A-37B Dragonfly	21 ¹
COIN	EMB-314 Super Tucano	4 ²
COIN	Turbo AC-47	6
COIN	OV-10A Bronco	8
Combat Helicopter	MD-500/530	12
Surveillance	SA 2-37B	5
Tanker-Transport	707-373C	1
Transport	C-130B/H Hercules	7

Role	Type	Total
Transport	Arava 201	1
Transport	CN-235M	3
Transport	C-212-200/300	4
Transport	EMB-120ER Brasilia	3
Transport	F28 Fellowship 3000C	1
Communications	F28 Fellowship 1000	1
Communications	EMB-110P1A Bandeirante	2
Communications	PA-34R Seneca	2
Communications	PA-31T Turbo-Cheyenne II	1
Communications	PA-31 Navajo	1
Communications	208B Caravan	4
Communications	210N Centurion	1
Communications	550 Citation II	1
Communications	King Air C90	1
Communications	King Air 300	1
Communications	Commander 680V	1
Communications	Commander Jetprop 980	1
Communications	Commander Jetprop 1000	1
Utility	EL-1 Gavilán 358	4
Utility Helicopter	UH-1H Iroquois/Huey II Conversions	20
Utility Helicopter	Bell Model 212	12
Utility Helicopter	UH-60A/L Black Hawk	22
Utility Helicopter	Bell 412	2
Utility Helicopter	Bell 205	6
Trainer Helicopter	Enstrom F-28 C	12
Armed Trainer	EMB-312 Tucano	12

Role	Type	Total
Trainer	T-37B/C	12
Trainer	T-41D Mescalero	10
Trainer	T-34A Mentor	12
Trainer	F28F Falcon	1
Trainer	Mirage 5COD	2
Trainer	Kfir TC7	1
Historical	OH-13 Sioux	1
Survey	Commander Jetprop 1000	1
Sport Flying	PT-17 Kaydet	2
Glider	IS-28B2	4

Missiles

Air-to-Air	Python III
Air-to-Air	R 530
Air-to-Air	Shafrir

¹⁷Active, 7 Storage, 7 Withdrawn from service

²⁵ordered. Delivery to begin in 2006.

Doctrine
















Operational and tactical doctrines are predominantly of U.S. origin, although some Israeli influence was acquired as a by-product of the purchase of Kfir and Arava aircraft. This could change with the purchase of the Brazilian Super Tucano.

Modernization

Colombia's Air Force modernization is driven by long-running multiple counter-insurgency campaigns, principally against the narco-trafficking associated FARC movement, the Revolutionary Armed Forces of Colombia, and has been largely facilitated by generous US support in the form of 'Plan Colombia'. In terms

of aircraft, this has meant the acquisition of some 100 helicopters for the army, air force and national police, including nearly 75 UH-60 Black Hawks. Other US acquisitions include air-to-air radar-equipped Cessna Citations similar to those operated by the U.S. Department of Homeland Security and additional gunship versions of Basler Turbo DC-3s.

More recently, Colombia ordered 25 Embraer EMB-314 Super Tucano light attack aircraft for the FAC in a contract worth

Enlisted						
	Tecnico Cuarto	Tecnico Tercero	Tecnico Segundo	Tecnico Primero	Tecnico Subjefe	Tecnico Jefe
<i>U.S. Equivalent</i>	<i>Airman</i>	<i>Senior Airman</i>	<i>Staff Sergeant</i>	<i>Technical Sergeant</i>	<i>Master Sergeant</i>	<i>Sr Master Sergeant</i>
Officers						
	Subteniente	Teniente	Capitan	Mayor	Teniente Coronel	Coronel
<i>U.S. Equivalent</i>	<i>2nd Lieutenant</i>	<i>1st Lieutenant</i>	<i>Captain</i>	<i>Major</i>	<i>Lieutenant Colonel</i>	<i>Colonel</i>
Officers						
	Brigadier General	Mayor General	General			
<i>U.S. Equivalent</i>	<i>Brigadier General</i>	<i>Major General</i>	<i>Lieutenant General</i>			

Colombia Air Force Rank Structure

US\$235 million. The Super Tucano aircraft will provide a much-needed helicopter escort and strike capability, replacing old and increasingly difficult-to-maintain OV-10s and A-37s. The contract includes a comprehensive logistics and training package with a full flight simulator. The first four aircraft are slated for delivery by the end of 2006, another 10 in 2007 and 11 in 2008.

Navy

Mission

The role of the Colombian Navy is defined as: the surveillance of coastlines and river frontiers; the guarding of sea routes; fishery protection; and the support of the economic development of the country.

The mission has recently been redefined as “the defeat of narco terrorist groups and establishment of democratic security for citizens,” reflecting the increasing role that the navy has taken in the counterinsurgent war. In 2003 the navy seized more than 43 tons of cocaine.

The Coast Guard service was founded in 1979, as an auxiliary service to the navy. It is mainly involved in the prevention of smuggling, particularly of narcotics. It works very closely with the U.S. Navy and Coast Guard and receives regular intelligence from them. The U.S. Coast Guard has given a 64-m vessel to the Colombians, which will patrol the Pacific. The Coast Guard now has manpower strength of over 1,500. Ships of the coast guard have a red and yellow diagonal stripe on the hull.

Organization

The commander-in-chief of the navy is responsible to the general commanding the armed forces. He is assisted by a deputy, who is also chief of naval operations, an inspector general and a General

Staff to which the Atlantic and Pacific Naval Forces, the two river forces commands, the marines, the naval air arm and coast guard are all subordinate.

The Navy is divided into six directorates or headquarters:

- Headquarters of Human Development
- Headquarters of Logistic Operations
- Headquarters of Naval Materiel
- Marine Infantry Command
- Headquarters of Naval Operations
- Headquarters of Naval Intelligence

Colombia is divided into five naval zones, which embrace four operational commands. Functionally, the navy is organized as a frigate flotilla, a submarine flotilla, a patrol craft flotilla, a logistic support flotilla and a hydrographic and oceanographic flotilla. Elements of these flotillas are divided between the naval zones and operational commands and rarely, if ever, function as single entities. There are also a Marine Corps, a naval air arm and a coast guard, which function under naval control.

The Colombian Navy has significantly increased its inshore and riverine patrol force with 10 river patrol craft being constructed within the country, type Nodriza, built in Cartagena, four of which are now operational.

Deployment

The navy divides the country into five zones. These zones do not correspond to military or air regions.

- The 1st Naval Zone (HQ Cartagena) comprises the Atlantic coast and San Andrés and Providencia islands;

- The 2nd Naval Zone (HQ Bahia Malaga) comprises the Pacific coastal area;
- The 3rd Naval Zone (HQ Puerto Leguizamo) comprises the river systems of the west and south;
- The 4th Naval Zone (HQ Bogotá) comprises the eastern river system;
- The 5th Naval Zone (HQ Bogotá) is a purely administrative entity; it only comprises the capital.

For operational and administrative purposes, the navy is organized into the Atlantic Naval Force, with its headquarters at Cartagena; the Pacific Naval Force, based at Bahia Malaga; the Southern Naval Force based at Puerto Leguizamo (Putumayo province); the command of San Andrés and Providencia, two of Colombia's Caribbean islands. Added to these are the separate commands of the Marines, Naval Aviation and the Coast Guard.

The navy's principal base is Cartagena, on the Atlantic coast. It has three floating docks of between 700 and 6,700 tons, a slipway and a synchrolift. There are lesser naval stations at Barranquilla, Covenas, Corozal and Turbo. Other bases are located at Buenaventura, which is being expanded, on the Pacific coast, Palanquero, on the Magdalena River, Leguizamo, on the Putumayo, and Puerto Carreño, on the Meta River, which forms the frontier with Venezuela. In this region, the marines maintain outposts at Puerto Ospina and Puerto Asis. The navy also has smaller bases at Leticia, Providencia, Turbo, Bahia Solano, Tarapaca and Barrancabermeja. A new naval base for the HQ Naval Force Pacific is to be built at Bahia Malaga, to the north of Buenaventura. All major repairs are carried out at Cartagena.

There are Advance River Posts (Puesto Fluvial Avanzado-PFA) for the Riverine Brigade at: Arauca (PFA 42), Matuntugo (PFA 21),

Rio Sucio (PFA 22), Nueva Antioquia (PFA 43), Puerto Lopez (PFA 41), San Jose de Guaviare (PFA 51), Tres Esquinas (PFA 61), and El Encanto (PFA 63).

Personnel

Navy Size: The Colombian Navy (Armada Nacional) numbers 28,000 (including 4,800 reservists), including 23,000 marines, 100 serving in Naval Aviation, and 500 in the Coast Guard.

Training

















Officer cadets pursue a 5-year course at the Almirante Padilla Naval School at Cartagena, before commissioning in the rank of ensign. The course of the Command and Staff School, also located at Cartagena, must be successfully completed to qualify for promotion to flag rank or to gain a staff appointment. Ratings receive their training at the Recruit Training Center and the Naval Technical School, which are also located at Cartagena. The marines maintain a training school at Cartagena and an amphibious warfare school at Coveñas.

Most training takes place in the vicinity of Cartagena, but there is also instruction in Barranquilla and Coveñas on the Caribbean coast, Tumaco on the Pacific seaboard and river combat training in Puerto Leguízamo on the border with Peru.

Capabilities

The Coast Guard is most directly involved in the interdiction of illegal drugs and works very closely with US authorities in the interception of suspect vessels in Colombian waters. There are six Coast Guard stations: Punta Espada, Cartagena, Turbo, Tumaco, Buenaventura and Santa Marta. Four new stations are planned at

San Andrés, Providencia, Rioacha and Bahía Solano. The coast guard fleet now comprises three ocean patrol craft, 12 coastal patrol ships and some 45 high-speed launches.

Enlisted					
	Marinero Segundo	Marinero Primero	Suboficial Tercero	Suboficial Segundo	Suboficial Primero
<i>U.S. Equivalent</i>	<i>Seaman 2nd Class</i>	<i>Seaman 1st Class</i>	<i>Petty Officer 3rd Class</i>	<i>Petty Officer 2nd Class</i>	<i>Petty Officer 1st Class</i>
Enlisted					
	Suboficial Jefe	Suboficial Jefe Tecnico			
<i>U.S. Equivalent</i>	<i>Chief Petty Officer</i>	<i>Master Chief Petty Officer</i>			
Officers					
	Teniente de Corbeta	Teniente de Fragata	Teniente de Navio	Capitan de Corbeta	Capitan de Fragata
<i>U.S. Equivalent</i>	<i>Ensign</i>	<i>Lieutenant Junior Grade</i>	<i>Lieutenant</i>	<i>Lieutenant Commander</i>	<i>Commander</i>
Officers					
	Capitan de Navio	Contra-Almirante	Vice-Almirante	Almirante	
<i>U.S. Equivalent</i>	<i>Captain</i>	<i>Rear Admiral</i>	<i>Vice Admiral</i>	<i>Admiral</i>	

Colombia Navy Rank Structure

Equipment

Naval Ships

Type	Role	Quantity
<i>Pijao, Tayrona</i> (209 TYPE 1200)	Attack Submarine (SS)	2
<i>Intrepido, Indomable</i> (COSMOS Type)	Midget Submarines (SSM)	2
TYPE FS 1500 (ALMIRANTE PADILLA)	Frigate (FF)	4
LAZAGA	Patrol Craft (PC)	2
CORMORAN	Patrol Craft (PC)	1
ASHEVILLE	Patrol Craft (PC)	1
ARAUCA	River Gunboat (PC)	3
CHEROKEE	Patrol Craft (PC)	3
SWIFTSIPS 110-FT	Patrol Craft (PC)	3
BENDER 116-FT	Patrol Craft (PC)	2
SWIFTSIPS 105-FT	Patrol Craft (PC)	2
MK III (JAIME GOMEZ)	Coastal Patrol Craft (WPB)	2
ROTORK 412	Inshore Patrol Craft (PB)	2
MK II (RIO)	River Patrol Craft (PBR)	15
DELFIN	River Patrol Craft (PBR)	20
PIRANHA 22	River Patrol Craft (PBR)	30
<i>Gorgona</i>	Survey Ship (AGS)	1
<i>Quindio</i>	Survey Ship (AGS)	1
FERROSTAAL	Support Ship (AGOR)	2
Various	Support Ship (YDT/YAG)	5
LCU 1466	Landing Craft (LCU)	8
<i>Mayor Jaime Arias</i> (ARD 28)	Repair Dock (YRD)	1

Type	Role	Quantity
Various	River Tug (YTL)	15
Various	River Tug (YTL)	2
GLORIA	Training Ship (AXT)	1
MK III	Patrol Boat (PB)	2
POINT	Patrol Boat	4
Various	Patrol Craft	30
HERNANDEZ (NODRIZA)	River Support Boat	4
Interceptor	Go Fast Interdiction	1
RELIANCE	Large Patrol Craft	1
ISLAND	Patrol Boat	1
Mini Troop Carriers	Armored Troop Carriers	9

Naval Aircraft

Type	Role	Quantity
Cessna U206	Observation/training	3
ENSTRON helicopter	Training	2
Rockwell Commander 500	Communication	3
Piper PA-31 Navajo	Communication	4
Piper PA-28 Cherokee	Communication	2
Beech King Air 300	Communication	1
Eurocopter BO 105CB	Communication	2
CASA 235	Maritime Patrol Aircraft	2
AS-555 Fennec helicopter	Interdiction; Search and Rescue	2
BO 105 Helicopter	SAR; Patrolling	2
Bell 212 Helicopter	Close Fire Support; Riverine Interdiction	1
Gavilan 358	Reconnaissance	1

Approximately 28,000 personnel serve in the Navy, including 23,000 marines. Major ships include four West German-built FS 1500-Class frigates, QUITO SUENO-Class fast-attack craft (ex-U.S. ASHEVILLE Class), ARAUCA-Class river gunboats, and other Colombian-built patrol craft. The Navy also has two German-built TYPE 1200 diesel-electric and two Italian-built TYPE SX-506 midget submarines. Naval aviation has four MBB-105C ASW helicopters, four A-37 Dragonflies, and some fixed-wing trainers (Aero Commanders, Piper Cherokee). The Colombian Navy operates from three coastal bases: Cartagena on the Caribbean coast and Buenaventura and Malaga on the Pacific coast. Several river patrol bases have been established including Puerto Leguizamo, Barrancabermeja, Puerto Carreno, Leticia, Puerto Orocué, and Puerto Inirida.

The Navy has two fleets, one for each coastline (Pacific and Caribbean). Along with the Marines, the Navy is organized into four major commands with headquarters at:

Caribbean Coast Command	Cartagena
Pacific Coast Command	Buenaventura
Western River Forces Command	Puerto Leguizamo
Eastern River Forces Command	Puerto Orocué

Coast Guard

In November 1991, a Coast Guard was created under the control of the Navy. The Coast Guard (COLCG -- Cuerpo de Guardacosta) has 1,500 personnel. The Coast Guard's role is to detect and prevent all illegal activities within the offshore economic zone. Its primary mission is to prevent drug trafficking in coastal and harbor areas. The Navy has transferred some patrol craft to the Coast Guard (but naval personnel still retain control). The COLCG has sole search and rescue responsibility.

A network of 24 Coast Guard stations is being established to increase surveillance along Colombia's Atlantic and Pacific coasts. Four stations (Buenaventura, Bahia Solano, Cartagena and Turbo) are already in full operation. According to Colombian Navy officials, the bases at San Andreas Island station will primarily be used to interdict drug smugglers, piracy, and illegal trafficking of natural resources. Several patrol craft, communications equipment and surveillance devices, including radar, will be installed at each base.

Equipment

Type	Role	Quantity
ASHEVILLE	Fast Attack Craft	1
SWIFTSHIPS 105-FT	Large Patrol Craft	2
DELFIIN	Coastal Patrol Craft	3
PBR MK II	River Patrol Craft	14
LCU	Landing Craft Utility	8

















Marine Corps

Mission

The primary mission of the Colombian Marine Corps (COLMAR, also Cuerpo de Infanteria de Marina and Naval Infantry) includes naval base security, counterinsurgency, counterdrug, and riverine operations. The marines are also heavily involved in all aspects of security on Colombia's coastline to include defensive counterintelligence operations. Rivers are the primary means of transport for drug traffickers and insurgents. Therefore, riverine forces are integral to Colombia's counterdrug and counterinsurgency strategy.

Organization

The COLMAR is organized into a single division composed of three marine brigades, one marine infantry brigades and two ma-

Enlisted					
	Marinero Segundo Infateria de Marina	Marinero Primero Infateria de Marina	Suboficial Tercero Infateria de Marina	Suboficial Segundo Infateria de Marina	Suboficial Primero Infateria de Marina
<i>U.S. Equivalent</i>	<i>Seaman 2nd Class</i>	<i>Seaman 1st Class</i>	<i>Petty Officer 3rd Class</i>	<i>Petty Officer 2nd Class</i>	<i>Petty Officer 1st Class</i>
Enlisted					
	Suboficial Jefe Infateria de Marina	Suboficial Jefe Tecnico Infateria de Marina			
<i>U.S. Equivalent</i>	<i>Chief Petty Officer</i>	<i>Master Chief Petty Officer</i>			
Officers					
	Teniente de Corbeta	Teniente de Fragata	Teniente de Navio	Capitan de Corbeta	Capitan de Fragata
<i>U.S. Equivalent</i>	<i>Ensign</i>	<i>Lieutenant Junior Grade</i>	<i>Lieutenant</i>	<i>Lieutenant Commander</i>	<i>Commander</i>
Officers					
	Capitan de Navio	Contra-Almirante	Vice-Almirante	Almirante	
<i>U.S. Equivalent</i>	<i>Captain</i>	<i>Rear Admiral</i>	<i>Vice Admiral</i>	<i>Admiral</i>	

Colombia Marine Corps Rank Structure

rine riverine brigade. The approximate strength of the COLMAR is 23,000 personnel. There is also one special forces group, and a Hometown Marine program consisting of approximately 1,300 Marines. The Hometown Marine program places Marines in their respective towns, to provide security in areas not frequented by traditional Marine units.

The primary marine unit or force used to combat drug trafficking in Colombia is the riverine brigade. The riverine brigade's mission is primarily to guarantee free navigation to legitimate river traffic and assist in the maintenance of public order. It also conducts precursor chemical and drug interdiction, dismantles laboratories, and gathers intelligence in support of these operations. Additionally, riverine forces seek to counter guerrillas' use of rivers.

The riverine brigade is composed of five infantry battalions, a command element, a navy component, and a headquarters and service component, and has a total strength of 3,000 personnel. The brigade covers 8,000 of the 15,774 kilometers of inland waterways. There are 25 riverine combat elements (RCE) with 100 boats at 7 advance riverine bases that comprise the brigade. Plans for the riverine brigade include the addition of 23 RCEs with 92 patrol boats, 10 support ships, 6 aircraft, additional training facilities, and established and upgraded bases.

Disposition

COLMAR Locations

Headquarters Marine Corps (COLMAR), Bogotá

1st Marine Brigade (BRIM-1), Sincelejo

1st Marine Infantry Battalion (BAFIM-1), San Andres

2nd Marine Infantry Battalion (BAFIM-2)

3rd Marine Infantry Battalion (BAFIM-3), Malagana

5th Marine Infantry Battalion (BAFIM-5), Corozal
Marine Training Base (BEIM), Covenas
1st Marine Riverine Brigade (BRIFLIM), Bogotá
Marine Riverine Battalion 20 (BAFLIM-20), Turbo
Marine Riverine Battalion 30 (BAFLIM-30), Yati
Marine Riverine Battalion 40 (BAFLIM-40), Puerto Carreno
Marine Riverine Battalion 50 (BAFLIM-50), Inirida
Marine Riverine Battalion 60 (BAFLIM-60), Puerto Leguizamo
2nd Marine Riverine Brigade (BRIFLIM-2), Buenaventura

The Marine Riverine Battalion 10 (BAFLIM-10), Guapi Marine Riverine Battalion 70 (BAFLIM-70), Tumaco Marine Riverine Battalion 80 (BAFLIM-80), are located in Buenaventura

Equipment

Use of heavy equipment such as armor and artillery is limited in the COLMAR due to the focus on riverine operations. Thus, amphibious and heavy lift capabilities in the Marine Corps are non-existent.

Police Forces

Mission

In addition to crime fighting, police responsibilities include narcotics interdiction, some counterinsurgency work, civic action in rural areas, riot control, traffic regulation, supervision of public recreation areas, security at gold and emerald mines, administration and provision of guards for the prison system, and manning the fire departments.

Personnel

Colombia's principal law enforcement organization is the National Police, with an estimated strength of 100,000 personnel. Of this

number, 1,800 are assigned to the Counter narcotics Department (Dirección Antinarcoótico, DANTI).

Capabilities

Special units include the Radio Patrol Group, the Anti-mugging Group, Private Surveillance Group, Highway Police, Tourist Police, Juvenile Police, Railroad Police, the Operational Group against Extortion and Kidnappings, and the *Carabineros* (a rural force charged with a counterinsurgency mission). Other organizations include the Judicial Police (*Dirección de la Policía Judicial Investigación*), the Administrative Security Department (*Departamento Administrativo de Seguridad - DAS*), and the Customs Service (*Servicio de Aduana*). The DAS is involved in the national antinarcootics campaign including criminal investigations and preparation of court cases. The DAS is also the principal organization enforcing national security laws. Additional duties include screening and maintaining records on foreigners entering Colombia and helping to enforce immigration laws. The DAS has investigative and intelligence collection responsibilities.

Disposition

The major police jurisdictions are divided along the country's administrative departments, with the departmental commander answering to the national police director general and the departmental governor as well.

Uniforms

The *Carabineros* have a uniform distinct from other National Police officers.

Equipment

The police have an air section that uses 30 light helicopters and 1 HS-748 aircraft.

Enlisted						
	Cabo Segundo	Cabo Primero	Sargento Segundo	Sargento Viceprimero	Sargento Primero	Sargento Mayor
<i>U.S. Equivalent</i>	<i>Private</i>	<i>Private 1st Class</i>	<i>Sergeant</i>	<i>Staff Sergeant</i>	<i>First Sergeant</i>	<i>Sergeant Major</i>
Enlisted						
	Partrullero	Subintendente	Intendente	Subcomisario	Comisario	
<i>U.S. Equivalent</i>	<i>Patrolman</i>	<i>Sub-Superintendent</i>	<i>Superintendent</i>	<i>Sub-Commissioner</i>	<i>Commissioner</i>	
Officers						
	Subteniente	Teniente	Capitan	Mayor	Teniente Coronel	Coronel
<i>U.S. Equivalent</i>	<i>2nd Lieutenant</i>	<i>1st Lieutenant</i>	<i>Captain</i>	<i>Major</i>	<i>Lieutenant Colonel</i>	<i>Colonel</i>
Officers						
	Brigadier General	Mayor General	General			
<i>U.S. Equivalent</i>	<i>Brigadier General</i>	<i>Major General</i>	<i>General</i>			

Colombia Police Rank Structure

APPENDIX A: EQUIPMENT RECOGNITION

INFANTRY WEAPONS

5.56-mm Assault Rifle M16A2



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

5.56-mm M4 Carbine



Cartridge	5.56 x 45 mm
Maximum Range	3,600 m
Effective Range	
Area Target	600 m
Point Target	500 m
Cyclic Rate of Fire	700 to 900 rounds/minute
Method of Operation	Gas, direct action, selective fire
Feed Device	20- or 30-round detachable box magazine
Weight, Unloaded	2.68 kg
Length	760 to 840 mm (extendable stock)

5.56-mm Assault Rifle Galil



Cartridge	5.56 x 45 mm
Effective Range	300 m
Cyclic Rate of Fire	575 rounds/minute
Operation	Gas blowback, selective fire (semiautomatic and automatic)
Feed Device	35- or 50-round detachable box magazine
Weight Unloaded	4.58 kg
Length	744.2 or 990.6 mm (extendable stock)

7.62-mm Carbine Model SKS



Cartridge	7.62 x 39 mm
Range	
Effective	400 m
Maximum	1,500 m
Operation	Gas blowback, semiautomatic fire
Feed Device	10-round box magazine (nondetachable)
Weight Unloaded	3.9 kg
Overall Length	1,021 mm (folding bayonet not extended)

7.62-mm Rifle M14



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

7.62-mm Assault Rifle G3



Cartridge	7.62 x 51.0 mm
Range	
Maximum	2,400 m
Effective	400 m
Cyclic Rate of Fire	500 to 600 rounds/minute
Operation	Retarded gas blowback, selective fire (semiautomatic and automatic)
Feed Device	20-round box magazine
Weight Loaded	5.1 kg
Length	1,025 mm

7.62-mm Assault Rifle AKM



Cartridge	7.62 x 39 mm
Range	
Effective	300 m
Maximum	2,500 m
Rate of Fire	
Cyclic	640 rounds/minute
Single-Shot	40 to 60 rounds/minute
Operation	Gas blowback, semiautomatic fire
Feed Device	30-round box magazine
Weight Unloaded	3.143 kg
Length	876.0 mm

7.62-mm Assault Rifle AK-47



Cartridge	7.62 x 39 mm
Range	
Effective	300 m
Maximum	400 m
Rates of Fire	
Cyclic	600 rounds/minute
Single-Shot	40 rounds/minute
Operation	Gas blowback, semiautomatic fire
Feed Device	30-round box magazine
Weight Unloaded	4.3 kg
Length	870.0 mm

9-mm Submachinegun Madsen Model 53



Cartridge	9 x 19.0 mm
Effective Range	100 m
Cyclic Rate of Fire	500 to 550 rounds/minute
Operation	Gas blowback, selective fire (semiautomatic and automatic)
Feed Device	32-round box magazine
Weight Unloaded	3.198 kg
Length	780.0 mm

9-mm Submachinegun Uzi



Cartridge	9 x 19.0 mm
Effective Range	200 m (in semiautomatic mode)
Cyclic Rate of Fire	550 to 600 rounds/minute
Operation	Blowback, selective fire
Feed Device	32-round box magazine
Weight Loaded	3.49 kg
Overall Length	640 mm

9-mm Submachinegun Walther MP-K



Cartridge	9.0 x 19.0 mm
Range	
Maximum	1,600 m
Effective	125 m
Cyclic Rate of Fire	550 rounds/minute
Operation	Gas blowback, selective fire
Feed Device	32-round box magazine
Weight Unloaded	2.8 kg
Length	368.0 mm

0.45-in or 9-mm Submachinegun Ingram Model 10 (MAC-10)



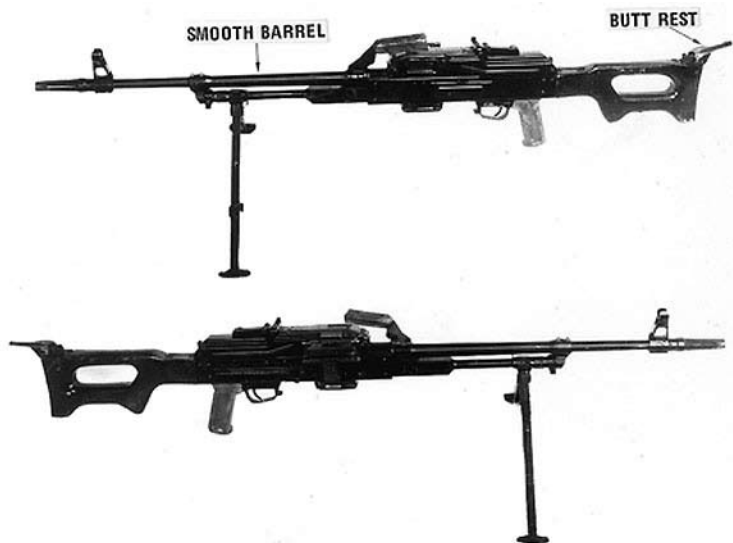
Cartridge	0.45 in x 22.8 mm or 9.0 x 19.0 mm, depending on variant
Cyclic Rate of Fire	1,100 to 1,150 rounds/minute
Operation	Gas blowback, selective fire
Feed Device	30- (0.45 in) or 32-round (9 mm) box magazine
Weight Unloaded	2.84 kg
Length	269.0 mm (548 mm with stock extended)

7.62-mm Light Machinegun RPK



Caliber	7.62 x 39 mm
Range	
Maximum	2,500 m
Effective	800 m
Rate of Fire	
Cyclic	650 rounds/minute
Automatic	120 to 150 rounds/minute
Single-Shot	40 to 60 rounds/minute
Operation	Gas, selective fire
Feed Device	40-round box magazine, 30-round box magazine (from AK-47/AKM), or 75-round drum magazine
Weight Unloaded	4.90 kg
Overall Length	1,035 mm

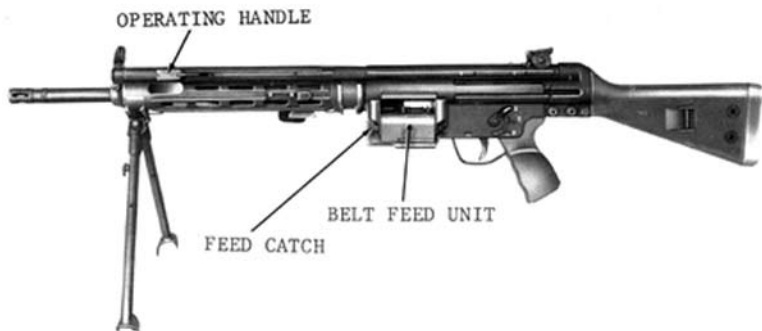
7.62-mm General Purpose Machinegun PK Series



Caliber	7.62 x 54R mm
Effective Range	1,000 m
Cyclic Rate of Fire	650 to 720 rounds/minute
Operation	Gas, automatic
Feed Device	25-round metallic-link belts, joined, in 100- or 250-round box
Weight Unloaded	8.4 kg
Length Overall	1,173 mm

NOTE: PK and PKM light machinegun, with bipod, are the basic models. The PKS and PKMS, mounted on a tripod, are heavy machineguns. PKT is a PK modified for use as a coaxial machinegun. PKB is a PKT modified for pintle mounting.

7.62-mm General Purpose Machinegun HK21



Caliber	7.62 x 51 mm
Effective Range	1,200 m
Cyclic Rate of Fire	900 rounds/minute
Operation	Delayed gas blowback, selective fire (single-shot or automatic)
Feed Device	100-round disintegrating link belt; 20-round magazine or 80-round drum with adapter
Weight Unloaded	8.31 kg
Overall Length	1,030 mm

7.62 mm M60 General Purpose Machine Gun



Caliber	7.62- x 51-mm
Ranges	
Maximum	3,750 m
Effective, with Bipod	1,100 m
Effective, with Tripod	1,800 m
Rate of Fire	
Cyclic	500 to 650 rounds/minute
Practical	200 rounds/minute
Operation	Gas, automatic
Feed Device	Disintegrating link belt
Weight Loaded	11.1 kg
Overall Length	1.26 m

0.50-in Antimateriel Rifle Barrett Model 82A1



Cartridge	12.7 x 99.0 mm
Maximum Range	2,000 m
Effective Range	1,500 m
Operation	Short recoil, semiautomatic fire
Feed Device	10-round box magazine
Weight Loaded	13.6 kg
Overall Length	1,448 mm

0.50-in Heavy Machinegun Browning M2HB



Cartridge	0.50-in Browning (12.7- x 99-mm)
Maximum Range	6,765 m
Effective Range	Over 1,500 m
Cyclic Rate of Fire	450 to 600 rounds/minute
Operation	Short recoil, selective fire
Feed Device	100-round disintegrating-link belt
Weight Loaded	38 kg
Overall Length	1.656 m

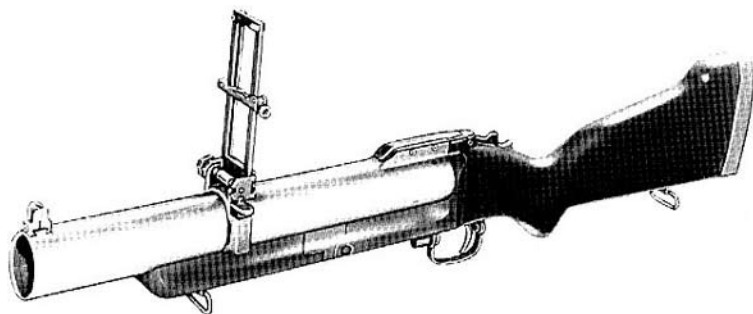
40-mm M203 Grenade Launcher



Grenade Size	40 x 46 mm
Range	
Effective, Point Target	150 m
Effective, Area Target	350 m
Maximum	400 m
Operation	Breech loaded, sliding barrel
Weight Loaded	1.63 kg
Overall Length x Width	380 x 84 mm

NOTE: The M203 grenade launcher was originally designed for attachment to the M16-series assault rifles. The M203 can be used attached to an M16 assault rifle or M4 carbine (shown), or as a standalone weapon attached to a modified stock.

40-mm M79 Grenade Launcher



Grenade	40 x 46 mm low-velocity grenade (HE-Frag, AP, smoke, flare, stun, CS/CN, signal)
Range	
Effective, Point Target	150 m
Effective, Area Target	350 m
Maximum	400 m
Operation	Break-open; single shot
Sights	Front, blade; rear, folding leaf, adjustable
Weight Loaded	2.95 kg
Overall Length	737 mm
NOTE: Superseded in U.S. by M203.	

40-mm Grenade Launcher HK69



Grenade	40 x 46 mm low-velocity grenade (HE-Frag, AP, smoke, flare, stun, CS/CN, signal)
Effective Range	400 m
Single-Shot Rate of Fire	20 to 25 rounds/minute
Operation	Single action, single shot
Feed Type	Manual
Weight Empty	2.62 kg
Overall Length	463 mm (683 mm with extended butt)

ARMOR

EE-9 Cascavel 6x6 Armored Gun System



Type	Armored fighting vehicle
Crew	3
Maximum Speed	100 km/h
Road Range	880 km
Armament	
Main	90-mm rifled gun
Coaxial	7.62-mm machinegun
Antiaircraft	7.62-mm or 12.7-mm machinegun (optional)
Gradient/Side Slope	60/30 percent
Vertical Step	0.6 m
Fording	1 m
Combat Weight	13,400 kg
Length x Width x Height	5.2 x 2.6 x 2.68 m
Fuel Capacity	390 liters
Smoke Laying	Yes

Armored Personnel Carrier M113A1



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

Armored Personnel Carrier EE-11 Urutu



Crew; Passengers	3; 10
Armament	12.7-mm machinegun
Maximum Speed	100 km/h
Road Range	850 km/h
Gradient/Side Slope	60/30 percent
Vertical Obstacle	0.6 m
Fording	Amphibious
Combat Weight	14,000 kg
Length x Width x Height	6.1 x 2.65 x 2.13 m
Fuel Capacity	380 liters of diesel

NOTE: The EE-11 can also be fitted with a 7.62-mm machinegun and 60-mm mortar, 20-mm cannon, 25-mm cannon, or 90-mm gun. When used for cargo, the EE-11 can carry a 2,000-kg payload.

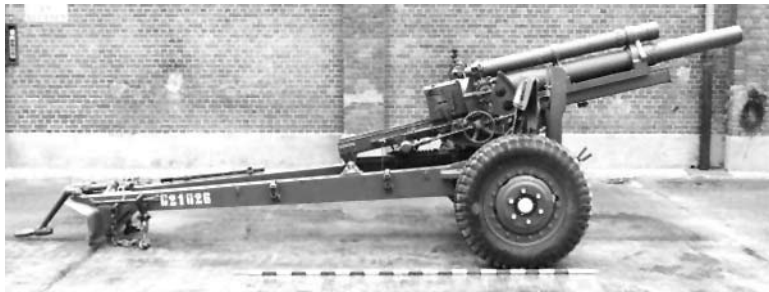
Armored Reconnaissance Vehicle M-8



Crew	4
Armament	37-mm rifled gun and 12.7-mm machinegun
Range	560 km
Maximum Speed	90 km/h
Gradient	60 percent
Vertical Step	0.3 m
Fording	0.6 m
Combat Weight	5,700 kg
Length x Width x Height	5.0 x 2.5 x 2.2 m
Fuel Capacity	212 liters of gasoline

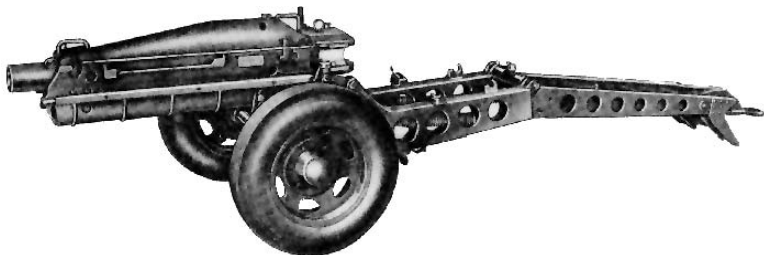
ARTILLERY

105-mm Towed Howitzer M101A1



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

75-mm Pack Howitzer M116 (M1A1)



Range	400 (direct fire) to 8,797 m
Rate of Fire	
Burst	16 rounds/minute for 30 seconds
Normal	5 rounds/minute for 10minutes
Sustained	150 rounds/hour
Elevation	-5 to +45 degrees
Traverse Left and Right	3.0 degrees, each direction
Combat Weight	537 kg
Length x Width, Travel Mode	3.20 x 1.27 m

120-mm Towed Rifled Mortar MO-120-RT, RT-61



Range	1,100 to 8,350 m
Ammunition Types	Frag-HE (PR 14, PR PA), IR illumination
Burst Rate of Fire	18 rounds/minute
Elevation Limits	+40 to +85 degrees
Traverse Limits	7.5 degrees left or right
Travel Weight	582 kg
Travel Length x Width	2.70 x 1.55 m
Emplacement/Displacement Time	Less than 2 minutes
Prime Mover	VAB M120 (variant of VAB APC)

NOTE: a range of 13,000 m is possible with the PR PA rocket-assisted projectile.

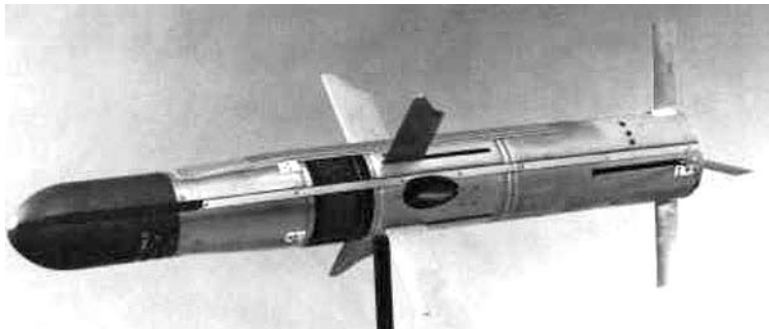
4.2-in (107-mm) Mortar M30



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

ANTIARMOR

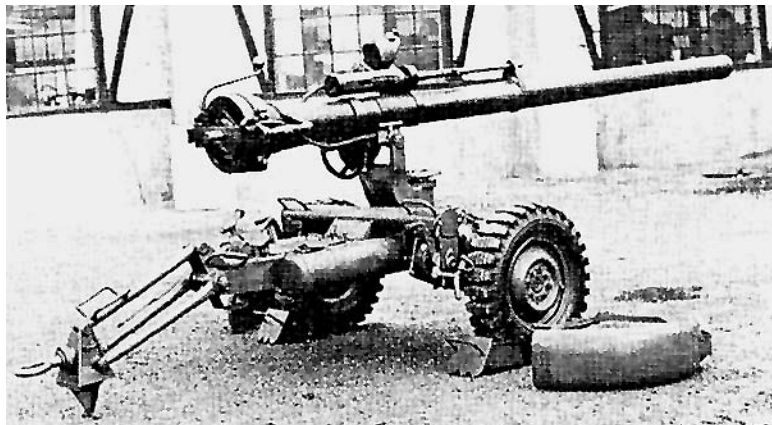
Heavy Antitank Guided Missile BGM 71A TOW



Missile Launch Weight	18.9 kg
Diameter x Wingspan x Length	0.147 x 0.46 x 1.16 m
Warhead	3.9 kg HEAT
Effective Range	65 to 3,750 m
Guidance	Optically tracked, wire guided
Armor Penetration	600 mm

NOTE: launch system can be crew-portable, vehicle-mounted, or helicopter-carried.

106-mm Recoilless Rifle M40A1



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

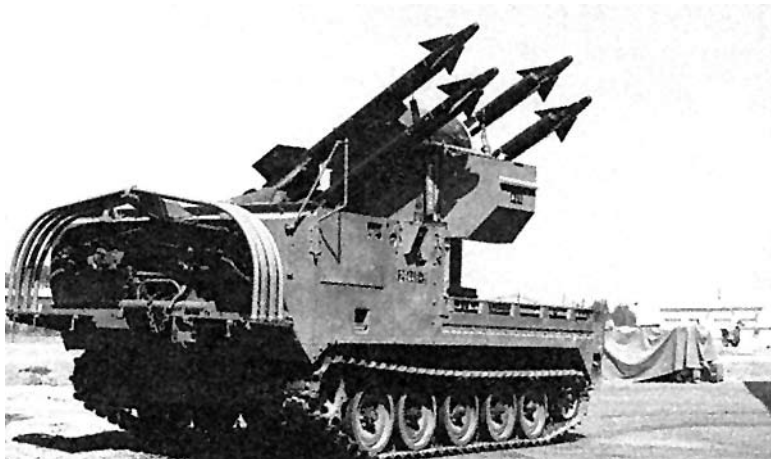
75-mm Recoilless Rifle M20



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

AIR DEFENSE

Self-propelled Surface-to-Air Missile System Chaparal



Type	Self-propelled, low-altitude surface-to-air missile system
Crew	4
Number of Missiles	4 ready, 8 reserve
Effective Range	500 to 9,000 m
Effective Altitude	15 to 3,000 m
Warhead	12.6-kg HE blast-fragmentation
Guidance	Proportional navigation with passive IR homing
Fuze	Proximity
Missile Launch Weight	86.2 kg
Wingspan	0.63 m
Missile Length x Diameter	2.91 x 0.127 m
Platform	
Maximum Speed	67.2 km/h
Range	504 km
Gradient/Side Slope	60/30 percent
Vertical Obstacle	0.62 m
Trench	1.68 m
Fording	Amphibious with preparation
Combat Weight	13,024 kg
Overall Length x Width x Height	6.06 x 2.69 x 2.68 m

40-mm Towed Air Defense Artillery System Bofors L/70



Crew	5
Caliber	40 x 365R mm
Ammunition Types	APC-T, APFSDS, HCHE, HE-T, MP-T, PFHE Mk2, 3P
Range	
Tactical Antiaircraft	2,500 m (optical) or 4,000 (radar)
Maximum Vertical	7,800 m
Maximum Horizontal	12,600 m
Rate of Fire	240 to 300 rounds/minute
Traverse Limits; Rate	360 degrees; 85 degrees/second
Elevation Limits; Rate	+5 to +90 degrees; 45 degrees/second
Weight	5,150 kg
Length x Width x Height	7.29 x 2.23 x 2.35 m
Platform	4-wheel cruciform carriage or ship-mounted

40-mm Towed Antiaircraft Gun M1A1



Crew	4 to 6
Ammunition Types	APT, HE-T, HEI-T, TP-T
Range	
Tactical Antiaircraft	2,742 m
Maximum Vertical	4,661 m
Maximum Horizontal	4,753 m
Rate of Fire	60 rounds/minute
Traverse Limit	360 degrees
Elevation Limits	-11 to +90 degrees
Weight	2,656 kg
Length x Width x Height	5.7 x 1.8 x 2.0 m
Platform	4-wheel carriage with outriggers

12.5-mm Quad Antiaircraft Machinegun M55



Crew	4
Ammunition Types	AP, API, API-T, Ball, Incendiary, Training
Range	
Maximum Vertical	1,000 m
Maximum Horizontal	1,500 m
Rate of Fire per Barrel	
Cyclic	450 to 550 rounds/minute
Practical	150 rounds/minute
Traverse Limit	360 degrees
Elevation Limits	-10 to +90 degrees
Travel Weight	1,338 kg
Length x Width x Height	2.89 x 2.09 x 1.61 m
Platform	2-wheel M20 trailer; M8 armored car in Colombia

AIRCRAFT

Mirage 5COA, 5COD



Role	Ground attack (both), training (5COD)
Crew	1 (5COA) or 2 tandem (5COD)
Armament	2x 30-mm guns in fuselage and 454-kg bombs, air-to-surface missiles, air-to-air missiles, or additional guns
Maximum Level Speed, 12,000 m	1,268 kn
Ferry Range with 3 External Tanks	2,158 nmi
Combat Radius	with 907-kg bomb load
High-Low-High	700 nmi
Low-Low-Low	350 nmi
Service Ceiling at Mach 1.8	17,000 m
Maximum External Stores	4,000 kg
Maximum Takeoff Weight	13,700 kg
Weight Empty	7,050 kg
Length x Wingspan x Height	15.55 x 8.22 x 4.5 m

Kfir C7, TC7



Role	Strike, ground attack, fighter
Crew	1
Armament	2x 30-mm cannons and 9 hardpoints (5 under fuselage and 2 under each wing) for combination of 1,000-lb bombs, 500-lb bombs, AAMs, ASMs, rocket launchers, cluster bombs
Maximum Level Speed, Sea Level	750 kn
Combat Radius	
High-Altitude Intercept	419 nmi
Combat Air Patrol	476 nmi
Ground Attack	640 nmi
Stabilized Ceiling	17,680 m (in combat configuration)
Maximum External Stores	6,085 kg
Maximum Takeoff Weight	16,500 kg
Weight Empty	7,285 kg
Length x Wingspan x Height	15.7 x 8.2 x 4.6 m
NOTE: C7 can carry updated electronic warfare systems and deliver smart weapons.	

Cessna A-37B Dragonfly



Mission	Ground Attack Fighter
Crew	2 (side-by-side)
Armament	
Permanent	7.62-mm machinegun mounted under forward fuselage and 4 pylon stations under each wing
Typical	2x 394-kg, 1x 272-kg, and 1x 227-kg bombs under each wing
Other External Stores	Various conventional bombs, fire bombs, rocket pods, gun pods, and flare launcher mounted under wings
Maximum Level Speed	440 kn
Range with Maximum Payload	399 nmi
Service Ceiling	12,730 m
Maximum Takeoff Weight	6,350 kg
Weight Empty	2,817 kg
Length x Wing Span x Height	8.62 x 10.93 x 2.70 m

Cessna 318B (T-37B), 381C (T-37C)



Mission	Primary trainer (T-37B); armed trainer, reconnaissance (T-37C)
Crew	2 (side-by-side)
Equipment	(T-37C)
Armament	2x 250-lb bombs or 4x Sidewinder missiles; Associated equipment includes computing gunsight and gun camera
Reconnaissance	Various cameras can be mounted in fuselage.
Maximum Level Speed	349 kn
Range	738 nmi (5-percent reserves, at 7,620 m)
Service Ceiling	9,115 m
Maximum Takeoff Weight	3,402 kg
Length x Wing Span x Height	8.92 x 10.30 x 2.80 m

NOTE: data provided for T-37C.

Embraer EMB-312 Tucano



Type	Armed Trainer
Role	Counterinsurgency
Crew	2, tandem
Armament	Two hardpoints under each wing for 0.30-in machineguns, bombs, or rockets
Maximum Cruising Speed	222 kn
Ferry Range	1,798 nmi
Service Ceiling	9,150 m
Maximum External Stores Load	1,000 kg
Maximum Takeoff Weight	
Clean	2,550 kg
With External Stores	2,800 kg
Basic Weight Empty	1,870 kg
Length x Wingspan x Height	9.86 x 11.14 x 3.40 m

EMB-314 Super Tucano



Type	Armed Trainer
Role	Counterinsurgency
Crew	2, tandem
Armament	2x wing-mounted 12.7-mm machineguns; provisions for 20-mm cannon pods, bombs, cluster bombs, air-to-air missiles, and rockets.
Speed	
Maximum Level	301 kn
Maximum Cruising	286 kn
Economy Cruising	228 kn
Ferry Range	1,495 nmi
Service Ceiling	10,670 m
Maximum External Stores Load	1,500 kg
Maximum Takeoff Weight, Clean	3,190 kg
Basic Weight Empty	2,420 kg
Length x Wingspan x Height	11.42 x 11.14 x 3.90 m

T-34A Mentor



Mission	Primary trainer and light strike
Crew	2
Armament	Up to 544 kg on 4 underwing hardpoints including LAU-32 or LAU-59 rocket pods, Mk 81 bombs, SUU-11 Minigun pods, BLU-10/B incendiary bombs, and AGM-22A wire-guided antitank missiles
Maximum Cruising Speed	396 km/h
Range	Up to 1,311 km
Service Ceiling	Over 9,145 m
Maximum Takeoff Weight	2,494 kg (strike role)
Length x Wingspan x Height	8.75 x 10.16 x 2.92 m

NOTE: Data are for T34C-1 Turbo Mentor. T-34A and B have a standard piston engine. Primary trainer shown.

OV-10A Bronco



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

Boeing 707-373C



Role	Communications
Passengers	Up to 219 in transport configuration
Maximum Level Speed	545 kn
Range with Max Fuel	5,000 nmi (standard passenger load)
Service Ceiling	11,885 m
Maximum Payload	40,324 kg (cargo)
Maximum Takeoff Weight	151,315 kg
Basic Operating Weight Empty	64,000 kg (cargo configuration)
Length x Wingspan x Height	46.61 x 44.42 x 12.93 m

ERJ-145LR (Long Range)



Role	Transport
Crew; Passengers	2 plus flight observer and flight attendant; 50
High Cruising Speed	450 kn
Range with Reserves	1,620 nmi
Maximum Certified Altitude	11,275 m
Passenger Payload	1,640 kg
Maximum Payload	5,800 kg
Maximum Takeoff Weight	22,000 kg
Operating Weight Empty	12,100 kg
Length x Wingspan x Height	29.87 x 20.04 x 6.76 m

F-28 Fellowship 1000C, 3000



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

C130 B, H



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

CN-235-200, -235M



Type	Transport
Role	Maritime surveillance
Crew	3; 51 troops or 46 paratroops in transport configuration
Equipment	Search radar, FLIR; 3 attachment points under each wing for external loads, including weapons
Operational Speed	210 kn
Range	2,000 nmi
Service Ceiling	7,315 m
Maximum External Stores Load	3,500 kg
Maximum Takeoff Weight	15,800 kg (235-200), 16,000 kg (235M)
Operating Weight Empty	8,800 kg
Length x Wingspan x Height	21.40 x 25.81 x 8.18 m

C-212-200, C-212-300M Aviocar



Type	Twin-turboprop STOL utility aircraft	
Crew; Passengers	2; 26	
Armament	2x machinegun pods; 2x rocket launchers or 1x launcher and 1x machinegun pod; and hardpoints on sides of fuselage (250-kg capacity, each)	
	200 Series	300 Series
Maximum Cruising Speed	197 kn	191 kn
Range with Maximum Payload	220 nmi	450 nmi
Service Ceiling	8,535 m	7,925 m
Maximum Payload	2,700 kg	2,700 kg
Maximum Takeoff Weight	7,700 kg	7,700 kg
Operating Weight Empty	4,400 kg	4,400 kg
Length x Wingspan x Height	15.15 x 19.00 x 6.30 m	16.15 x 20.28 x 6.60 m

Basler Turbo-67 (BT-67), AC-47T (DC-3 Conversion)



Role	Transport
Crew; Passengers	2; 40 paratroops
Maximum Cruising Speed	210 kn
Range with Standard Fuel Tanks	950 nmi
Service Ceiling	7,076 m
Maximum Payload	4,990 kg
Maximum Takeoff Weight	13,041 kg
Operating Weight Empty	7,159 kg
Length x Wingspan x Height	19.63 x 28.9 x 5.20 m

Fairchild Dornier 328-110



Role	Transport
Crew; Passengers	2 and cabin attendant; 33
Maximum Operating Speed	270 kn
Maximum Cruising Speed	335 kn
Range at Max. Cruising Speed	900 nmi
Design Cruising Altitude	7,620 m
Maximum Payload	3,690 kg
Maximum Takeoff Weight	13,990 kg
Operating Weight Empty	8,920 kg
Length x Wingspan x Height	21.28 x 20.98 x 7.24 m

550 Citation II Business Jet



Role	Transport
Crew; Passengers	2; 10
Cruising Speed	385 kn
Range for Typical Mission	1,760 nmi
Maximum Certified Altitude	13,105 m
Maximum Takeoff Weight	6,396 kg
Operating Weight Empty	3,504 kg
Length x Wingspan x Height	14.39 x 15.90 x 4.57 m

EMB-120ER Brasilia



Role	Transport
Crew; Passengers	2; 30
Maximum Level Speed	327 kn
Long-Range Cruising Speed	270 kn
Range with Maximum Payload	850 nmi plus reserve
Service Ceiling	Up to 9,750 m, depending on engines
Maximum Payload	3,340 kg
Maximum Takeoff Weight	11,990 kg
Operating Weight Empty	7,560 kg
Length x Wingspan x Height	20.07 x 19.78 x 6.35 m

EMB-110P1A Bandeirante



Role	Transport
Crew; Passengers	2; 18 (with quick-change cabin provision)
Maximum Level Speed	248 kn
Economy Cruising Speed	181 kn
Range with Maximum Payload	About 858 nmi
Service Ceiling	Over 6,500 m
Maximum Payload	1,633 kg
Maximum Takeoff Weight	5,670 kg
Operating Weight Empty	3,516 kg
Length x Wingspan x Height	15.10 x 15.33 x 4.92 m

Beechcraft King Air C90



Role	Communications
Crew; Passengers	2; 6 in standard configuration
Maximum Level Speed	249 kn
Range with Maximum Payload	191 nmi
Service Ceiling	8,809 m
Maximum Takeoff Weight	4,581 kg
Basic Operating Weight	3,193 kg
Length x Wingspan x Height	10.82 x 15.32 x 4.34 m

PA-31T Cheyenne II



Crew; Passengers	2;4 to 6
Cruising Speed	283 kn at 3,350 m
Range	Up to 1,510 nmi
Service Ceiling	9,630 m
Maximum Takeoff Weight	4,082 kg
Operational Weight Empty	2,276 kg
Length x Wingspan x Height	10.57 x 13.01 x 3.89 m

PA-31-310 Navajo C



Seating	6 to 8
Maximum Level Speed	227 kn
Economy Cruising Speed	About 200 kn
Range	Up to 1,065 nmi
Service Ceiling	8,015 m
Maximum Takeoff Weight	2,948 kg
Weight Empty	1,810 kg
Length x Wingspan x Height	9.94 x 12.40 x 3.96 m

Piper PA-34R Seneca



Role	Communications
Seating	6
Maximum Level Speed	196 kn
Range	Up to 990 nmi
Maximum Ceiling	7,620 m
Maximum Takeoff Weight	2,154 kg
Weight Empty	1,362 kg
Length x Wingspan x Height	8.72 x 11.85 x 3.02 m
NOTE: PA-34-220T Seneca III shown.	

Twin Commander 690C, 695, 695A; Jetprop 840, 980, 1000



Mission	Transport
Crew; Passengers	1; 7
Maximum Cruising Speed	290 to 310 kn, depending on variant
Range with 45-min. Reserves	1,780 to 2,080 km depending on variant
Maximum Ceiling	9,450 to 10,670 m, depending on variant
Maximum Takeoff Weight	4,683 to 5,080 kg, depending on variant
Length x Wingspan x Height	13.10 x 15.89 x 4.55 m

Rockwell Commander 680V



Crew/Passengers	2/7
Normal Cruising Speed	210 kn
Range	1,400 nmi
Service Ceiling	7,300 m
Weight Empty	2,005 kg
Length x Wingspan x Height	13.52 x 14.22 x 4.56 m

NOTE: the Commander 680 is very similar to the Commander 690 shown.

Cessna 208B Caravan



Role	Cargo transport
Maximum Cruising Speed	175 kn
Range	Up to 1,163 nmi
Service Ceiling	6,950 m
Payload	1,587 kg
Maximum Takeoff Weight	3,969 kg
Length x Wingspan x Height	11.46 x 15.88 x 4.52 m

EL-1 Gavilán 358



Role	Utility transport, reconnaissance
Crew; Passengers	1 to 2; 6 or 4 stretchers and 1 attendant in ambulance
Maximum Level Speed	140 kn
Economy Cruising Speed	126 kn
Range with 45-min. Reserves	945 kn
Service Ceiling	6,860 m
Armament	Some equipped with 2x 7.62-mm machineguns
Maximum Payload	488 kg (30 min fuel, 75 percent power)
Maximum Takeoff Weight	2,041 kg
Operating Weight Empty	1,270 kg
Length x Wingspan x Height	9.53 x 12.80 x 3.73 m

Soloy (Cessna) U206G Stationair 6B



Role	Communications
Seating	6
Maximum Level Speed	151 kn
Range	721 nmi
Service Ceiling	4,785 m
Maximum Takeoff Weight	1,632 kg
Weight Empty	987 kg
Length x Wingspan x Height	8.61 x 10.97 x 2.83 m

Cessna 210N Centurion



Seating	6, in pairs, including pilot
Maximum Cruising Speed	169 kn
Range	1,010 nmi (up to 1,390 nmi with long-range tanks)
Service Ceiling	4,875 m
Maximum Takeoff Weight	3,850 kg
Weight Empty	1,007 kg
Length x Wingspan x Height	8.59 x 12.41 x 2.95 m

Arava 201



Type	STOL light transport
Crew; Passengers	1 to 2; 24 troops or 16 paratroops and 2 dispatchers
Maximum Speed	175 kn
Range with 45-min. Reserves	140 nmi (with maximum payload)
Service Ceiling	7,620 m
STOL Takeoff Run	293 m
Maximum Payload	2,313 kg
Maximum Takeoff Weight	6,804 kg
Length x Wingspan x Height	13.03 x 20.96 x 5.21 m

NOTE: electronic warfare configurations are available for the Arava 201.

Schweizer SA 2-37A, -37B, RG-8A



Mission	Multisensor surveillance, communication relay
Crew	2 side by side
Maximum Cruising Speed	130 kn
Endurance	Up to 12 hours
Service Ceiling	5,490 m
Possible Surveillance Equipment	LLTV, FLIR, cameras
Maximum Mission Payload	340 kg
Length x Wingspan x Height	8.46 x 18.75 x 2.36 m
NOTE: SA 2-37 overflight is inaudible at 610 m over land and 183 m over water when flying at 22 percent of maximum power.	

Enstrom F-28 C F28F Falcon



Type	Light utility helicopter
Crew; Passengers	1; 2
Maximum Level Speed	97 kn
Economy Cruising Speed	89 kn
Range	240 nmi
Endurance	3:30
Maximum Takeoff Weight	1,179 kg
Operational Weight Empty	712 kg
Main Rotor	
Number of Blades	3
Diameter	9.75 m
Fuselage Length x Width x Height	8.56 x 1.55 x 1.85 m

MD 530F Lifter



Mission	Reconnaissance
Crew; Passengers	2; 2 to 5
Maximum Dash Speed	152 kn
Range	206 nmi
Maximum Payload	907.2 kg
Maximum Design Takeoff Weight	1,406.2 kg (1,701 kg with external load)
Main Rotor	
Number of Blades	5
Diameter	8.4 m
Fuselage Length x Width x Height	7.5 x 1.4 x 2.5 m

MD-500E



Mission	Reconnaissance
Crew; Passengers	2; 2 to 5
Maximum Dash Speed	152 kn
Range	255 nmi
Maximum Payload	907.2 kg
Maximum Design Takeoff Weight	1,360 kg (1,610 kg with external load)
Main Rotor	
Number of Blades	5
Diameter	8.1 m
Fuselage Length x Width x Height	7.3 x 1.4 x 2.6 m

MBB Bo 105-C, -CB



Type	Light lift
Crew; Passengers	1; 6
Maximum Speed	100 kn
Range	267 nmi
Service Ceiling	3,200 m
Armament	Assorted guns, missiles, or rockets
Basic Weight Empty	1,139.0 kg
Maximum Payload	970 kg
Maximum Takeoff Weight	2,200 kg
Main Rotor	
Number of Blades	3
Diameter	11.02 m
Fuselage Length x Width x Height	12.84 m

AS555 Fenec



Role	Assault
Crew; Passengers	1; 5
Maximum Speed	150 kn
Range with Standard Load	375 nmi
Service Ceiling	3,800 m
Armament	20- or 7.62-mm gun pods, 68- or 70-mm rockets torpedo, AAMs
Basic Weight Empty	1,448 kg
Maximum Takeoff Weight	2,600 kg
Main Rotor	
Number of Blades	3
Diameter	10.7 m
Fuselage Length x Width x Height	10.9 x 1.9 x 3.14 m

Bell 205, UH-1H (Huey)



Mission	Multirole transport, SAR, and utility.
Crew; Passengers	1 to 2; 11 to 14 troops
Armament	Possible guns, rockets
Maximum Dash Speed	110 kn
Range	250 nmi
Service Ceiling	3,840 m
Maximum Takeoff Weight	4,309 kg
Main Rotor	
Number of Blades	2
Diameter	14.72 m
Tail rotor	
Number of Blades	2
Diameter	2.6 m
Weight Empty	2,237 kg
Fuselage Length x Width x Height	12.62 x 2.6 x 4.2 m
NOTE: Many upgrades exist to improve performance or service life, or to add features to meet specific mission requirements.	

Bell 210, UH-1H-II (Huey II)



Mission	Multirole transport, SAR, and utility.
Crew/Passengers	1 to 2/11 to 14 troops
Armament	Provisions for door-mounted crew-served weapons; rockets, missiles, mines possible
Maximum Dash Speed	130 kn
Maximum Level Speed	110 kn
Range	364 nmi
Service Ceiling	4,905 m
Maximum Vert. Takeoff Weight	Internal 4,762.8 kg, external 5,080.3 kg
Weight Empty	2,237 kg
Main Rotor	
Number of Blades	2
Diameter	14.6 m
Tail rotor	
Number of Blades	2
Diameter	2.6 m
Fuselage Length x Width x Height	12.9 x 2.61 (with skid) x 4.15 m
NOTE:	modifications may exist to meet specific mission requirements.

Bell 212, UH-1N



Type	Utility transport helicopter
Crew; Passengers	1 or 2; 13 or 14
Maximum Speed	130 kn
Range	270 nmi
Armament	Provisions for door-mounted crew-served weapons; possibly rockets
Sling Load	2,268 kg
Maximum Takeoff Weight	5,080 kg
Main Rotor	
Number of Blades	2
Diameter	14.6 m
Tail Rotor	
Number of Blades	2
Diameter	2.6 m
Fuselage Length x Width x Height	17.4 x 2.9 (including skids) x 4.0 m

NOTE: Many upgrades exist to improve performance or service life, or to add features to meet specific mission requirements.

Bell 412, CH-146



Type	Medium-lift utility
Crew; Passengers	1 or 2; 13 or 14
Armament	Provisions for door-mounted weapons; unguided rockets
Maximum Speed	140 kn
Range	355 nmi
Basic Empty Weight	3,090.7 kg
Sling Load	2,268 kg
Maximum Takeoff Weight	5,261 kg
Main Rotor	
Number of Blades	4
Diameter	14.0 m
Tail rotor	
Number of Blades	2
Diameter	2.6 m
Fuselage Length x Width x Height	12.7 x 2.8 x 3.5 m
NOTE:	Many upgrades exist to improve performance or service life, or to add features to meet specific mission requirements.

S-70A-41, UH-60A/UH-60L Blackhawk



Type	Medium-lift transport
Crew; Passengers	2 to 3; 14
Maximum Dash Speed	170 kn
Range	306 nmi
Armament	Provisions for 2x pintle-mounted crew-served weapons (typically, 7.62-mm machineguns)
Cargo or Sling Load Capacity	4,082 kg (UH-60L)
Maximum Takeoff Weight	9,979 kg (10,659 kg with external load)
Main Rotor	
Number	4
Diameter	16.4 m
Tail Rotor	
Number	4
Diameter	3.4 m
Weight Empty	5,118 kg
Fuselage Length x Width x Height	15.4 x 2.4 x 3.8 m

SHIPS

FS-1500 (ALMIRANTE PADILLA) Class FF



LOA x Max. Beam x Max. Draft	99.1 x 11.3 x 3.6 m
Displacement, Full Load	2,100 metric tons
Speed	28 kn
Range	4,000 nmi at 14 kn
Complement	146
Aircraft	Bo-105 or Bell 412
Armament	
Missile Systems	MM 40 Exocet
Guns	1x 76-mm x 62-69, 1x twin 40-mm x 70-70,
Other weapons	A244S Torpedos
Radar Systems	
Surface Search	MR-160A
Fire Control	TRS-3200
Sonar Systems	Echo Sounder, Hull mounted

ARAUCA Class PM



LOA x Max. Beam x Max. Draft	48.5 x 7 x 1.1 m
Displacement, Full Load	280 metric tons
Speed	13 kn
Range	1,890 nmi
Complement	41
Armament	1x 20-mm x 70 gun, 2x 76-mm x 50-34 (open) guns

ASHEVILLE Class WPC



LOA x Max. Beam x Max. Draft	50.1 x 7.3 x 1.7 m
Displacement, Full Load	259 metric tons
Speed	35 kn
Range	1,700 nmi at 16 kn
Complement	30
Aircraft	Helicopter flight deck
Armament	1x 76-mm x 50 gun, 2x twin 12.7-mm x 90 mm machineguns
Surface Search Radar System	Raytheon 3100
Navigation Sonar Systems	Echo Sounder

BENDER 116-FT Class WPB



LOA x Max. Beam x Max. Draft	35.4 x 7.6 x 2.1 m
Displacement, Full Load	131 metric tons
Speed at Full Power	28 kn
Range at Economical Speed	2,000 nmi
Complement	25
Armament	1x 25-mm x 80 gun, 1x 25-mm x 80-96 gun, 2x 12.7-mm machinegun
Sonar Systems	Unknown surface search

BENDER 40-FT Class PB



LOA x Max. Beam x Max. Draft	12.4 x 2.9 x 0.6 m
Displacement, Full Load	20 metric tons
Speed	30 kn
Range	500 nmi at 15 kn
Complement	5 plus 12 troops
Guns	1x 40-mm x 10; 1x 12.7-mm, 2x 7.62-mm, 1x twin 12.7-mm machineguns
Surface Search Radar System	Raytheon 1900
NOTE:	can be transported by aircraft.

BOSTON WHALER PIRANHA 22 Class PB



LOA x Maximum Beam	6.8 x 2.3 x m
Displacement, Full Load	2 metric tons
Speed	35 kn
Complement	3
Guns	1x 12.7-mm and 2x 7.62-mm machineguns or 1x twin 12.7-mm machinegun
Surface Search Radar System	AN/SPS-66

CHEROKEE Class PS



LOA x Max. Beam x Max. Draft	62.6 x 12 x 5.1 m
Displacement, Full Load	1,670 metric tons
Speed	16.5 kn
Range	16,840 nmi at 8.7 kn
Complement	87
Guns	1x 76-mm x 50-22
Radar Systems	
Surface Search	AN/SPS-5B
Navigation	DECCA-505
Navigation Sonar System	AN/UQN-1 SERIES

CORMORAN Class WPC



LOA x Max. Beam x Max. Draft	56.6 x 7.6 x 2 m
Displacement, Full Load	374 metric tons
Speed	34 kn
Range	2,500 nmi at 15 kn
Complement	32
Guns	1x 40-mm x 70-600, 1x 20-mm x 85-BO1
Surface Search Radar System	RAYTHEON-1620

DELFIN Class WPB



LOA x Max. Beam x Max. Draft	8.7 x 2.6 x 0.6 m
Displacement, Full Load	5.2 metric tons
Speed	40 kn
Complement	4 plus 8 troops
Guns	1x 12.7-mm and 2x 7.62-mm machineguns
Navigation Radar System	Raytheon R-40X
Navigation Sonar System	Echo Sounder

DILIGENTE Class PB



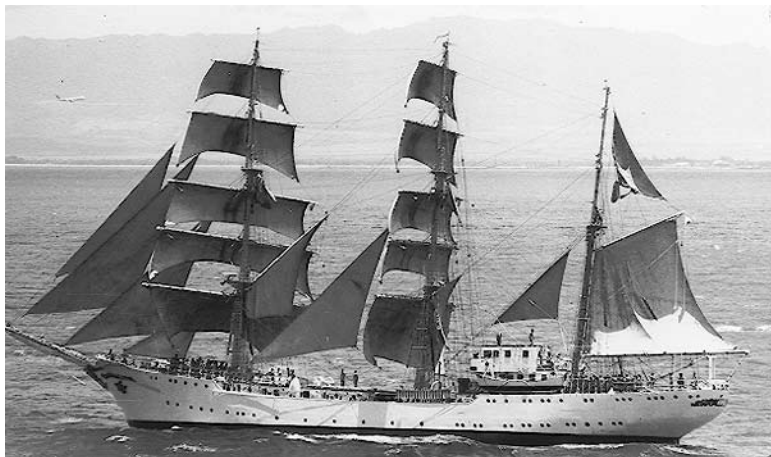
LOA x Max. Beam x Max. Draft	14.6 x 4 x 1.7 m
Displacement, Full Load	35 metric tons
Speed	6.3 kn
Complement	10
Guns	2x 12.7 mm machineguns, most also have 1x 7.62-mm machineguns

FERROSTAAL Class AGOR



LOA x Max. Beam x Max. Draft	50.3 x 10 x 4 m
Displacement, Full Load	1,157 metric tons
Speed	13 kn
Range	16,000 nmi at 11.5 kn
Complement	37
Navigation/Surface Search Radar System	DECCA-1229 RM
Navigation Sonar System	ECHO SOUNDER

GLORIA Class ATX



LOA x Beam x Draft	76x 10.6 x 4.5 m
Displacement	1,300 metric tons
Speed	10.5 kn
Complement	135 plus 400 troops
NOTE:	can be used as a troop transport

GORGONA Class AGOR



LOA x Max. Beam x Max. Draft	41.2 x 9 x 2.9 m
Displacement, Full Load	574 metric tons
Speed	13 kn
Complement	45
Guns	2x 12.7-mm machineguns

LAZAGA Class PC



LOA x Max. Beam x Max. Draft	58.1 x 7.6 x 4.9 m
Displacement, Full Load	400 metric tons
Speed	30 kn
Range	2,400 nmi at 15 kn
Complement	25
Guns	1x 40-mm x 70-315, 2x 20-mm x 85-BO1, 2x 12.7-mm machineguns
Radar Systems	
Navigation	RAYTHEON-1620
Fire Control	WM-20

LCM(8) Class LCM



LOA x Max. Beam x Mean Draft	22.6 × 6.4 × 3 m
Displacement, Full Load	97.5 metric tons
Speed	12 kn
Complement	5
Military Lift	54 metric tons or 150 troops

LCU 1466A (MORROSQUILLO) Class LCU



LOA x Max. Beam x Max. Draft	36.4 x 10.7 x 1.6 m
Displacement, Full Load	366 metric tons
Speed	10 kn
Complement	14
Armament	1x 12.7-mm machinegun, 1x 60-mm mortar
Military Lift	152 metric tons or 300 troops

LUNEBURG Class AGP



LOA x Max. Beam x Max. Draft	104.1 x 13.2 x 4.2 m
Displacement, Full Load	3,483 metric tons
Speed at Full Power	17 kn
Range	3,200 nmi at 14 kn (max. sustained speed)
Complement	78 to 110
Guns	2x twin 40 mm x 70
Capacities	
Ammunition	205 metric tons
Fresh Water	131 metric tons
Refrigerated Stores	267 cubic meters
Spare	100 metric tons

MIDNIGHT EXPRESS 39-FT Class WPB



Overall Length	11.9 m
Displacement, Full Load	7 metric tons
Maximum Sustained Speed	70 kn
Complement	4

MK III (JAIME GOMEZ) Class WPB



LOA x Max. Beam x Max. Draft	19.8 x 5.5 x 1.6 m
Displacement, Full Load	41.6 metric tons
Speed	30 kn
Range	500 nmi at 30 kn
Complement	5
Armament	
Guns	2x 12.7-mm and 1x twin 7.62-mm machineguns
Other	1x Mk 19 grenade launcher
Navigation Radar System	LN-66
Navigation Sonar System	Echo Sounder

MK II (RIO) Class PBR



LOA x Max. Beam x Max. Draft	9.8 x 3.5 x 0.6 m
Displacement, Full Load	8.1 metric tons
Speed	30 kn
Complement	4
Armament	
Guns	1x twin 12.7-mm and 1x 7.62-mm machineguns
Other	1x 60-mm mortar.
Radar Systems	
Navigation	Raytheon 1500A
Surface-Search	Raytheon 1900

NOTE: These units are built of fiberglass-reinforced plastic. They have V-form bottoms and waterjet propulsion. They can turn 180 degrees in their own wake while at full power. Vital crew areas are protected with ceramic armor.

RELIANCE Class PS



LOA x Max. Beam x Max. Draft	64.2 x 10.4 x 3.2 m
Displacement, Full Load	1,129 metric tons
Speed	18 kn
Range	6,100 nmi at 14 kn
Complement	75
Aircraft	Platform for one medium helicopter
Guns	2x 25-mm x 87, 2x 12.7-mm machineguns
Surface Search Radar System	Furuno SPS-73

ROTORK 412 Class LCVP



LOA x Max. Beam x Max. Draft	12.7x 3.2 x 0.7 m
Displacement, Full Load	9 metric tons
Speed	25 kn
Complement	4
Guns	1x 12.7-mm and 2x 7.62-mm machineguns
Military Lift	4 metric tons or 8 troops
Surface Search Radar System	Furuno-series

NOTE: mainly used as a river patrol craft.

SWIFTSHIPS 105-FT Class PC



LOA x Max. Beam x Max. Draft	32.3 x 7.2 x 2.1 m
Displacement, Full Load	110.7 metric tons
Speed	30 kn
Range	2,400 at 15 kn
Complement	10
Guns	1x twin 12.7-mm x 90 machinegun
Surface Search Radar System	FR-1011
Navigation Sonar System	Echo Sounder

SWIFTSHIPS 110-FT Class PC



LOA x Max. Beam x Max. Draft	33.5 x 7.3 x 1.8 m
Displacement, Full Load	99.1 metric tons
Speed	23 kn
Range	1,800 nmi at 15 kn
Complement	19
Guns	1x 40-mm x 60, 1x 12.7-mm and 2x 7.62-mm machineguns
Capacities	
Fresh Water	3.4 metric tons
Diesel Fuel	30.6 metric tons
Surface Search Radar System	FR-1011
Navigation Sonar System	Echo Sounder

SWIFTSHIPS 45-FT LCVP



LOA x Beam x Draft	13.9 x 3.6 x 0.6 m
Displacement	17 metric tons
Speed	22 kn
Range	600 nmi at 22 kn
Complement	4
Guns	2x 12.7-mm and 2x 7.62-mm machineguns
Surface Search Radar System	Raytheon 40

USCG POINT WPB



LOA x Max. Beam x Max. Draft	25.3 x 5.2 x 1.8 m
Displacement, Full Load	69 metric tons
Speed	23.5 kn
Range	1,500 nmi at 8 kn
Complement	10
Guns	2x 12.7-mm machineguns
Radar Systems	
Surface Search	Hughes/Furuno SPS-73
Navigation	SPS-64

VARGAS Class PC



LOA x Beam x Draft	38.4 x 9.5 x 1.0 m
Displacement	308 metric tons
Speed	9 kn.
Complement	14 plus 82 troops
Armament	2x 40-mm grenade launchers; 2x 12.7-mm and 2x 7.62-mm machineguns
Aircraft	Platform for small helicopter

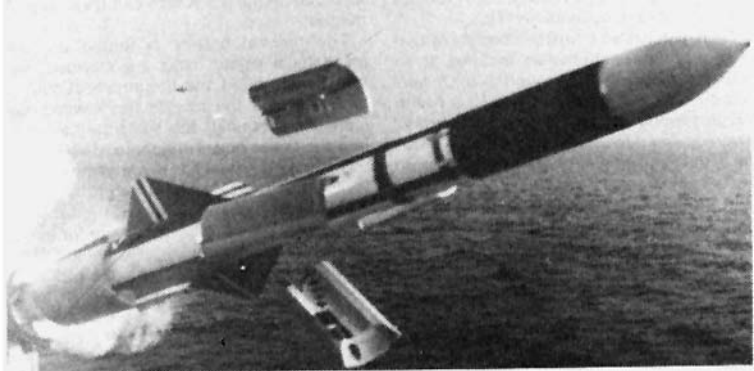
Midget Submarine



Length x Width	23 x 4 m
Displacement	
Surfaced	58 metric tons
Dived	70 metric tons
Speed	
Surfaced	11 kn
Dived	6 kn
Range	
Surfaced	1,200 nmi
Dived	60 nmi
Complement	4
Mines	Mk 21 and Mk 11
Equipment	2x swimmer delivery vehicles
Surface Search Radar System	

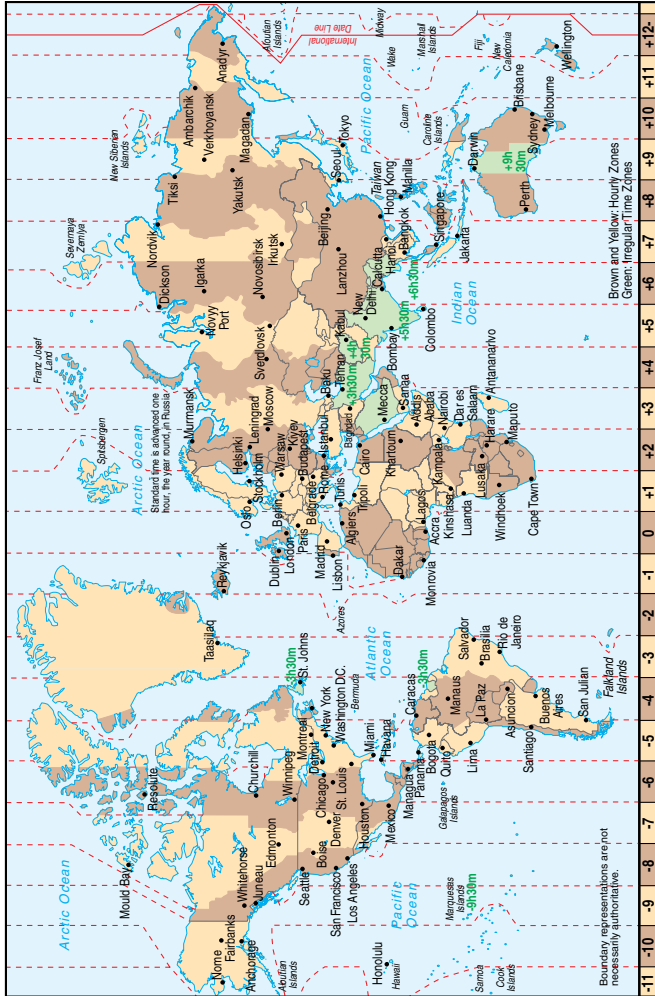
MISSILES

Antiship Missile MM40 Exocet



Range	2 to 40.5 nmi
Warhead	165-kg fragmentation
Seeker	Active radar
Fuze	Delayed-impact and proximity
Weight	875 kg
Wingspan	1.13 m
Length x Diameter	5.8 x 0.35

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

Country	UTC	Eastern	Central	Mountain	Pacific
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

Country	UTC	Eastern	Central	Mountain	Pacific
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

Country	UTC	Eastern	Central	Mountain	Pacific
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

Country	UTC	Eastern	Central	Mountain	Pacific
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

Country	UTC	Eastern	Central	Mountain	Pacific
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

Country	UTC	Eastern	Central	Mountain	Pacific
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

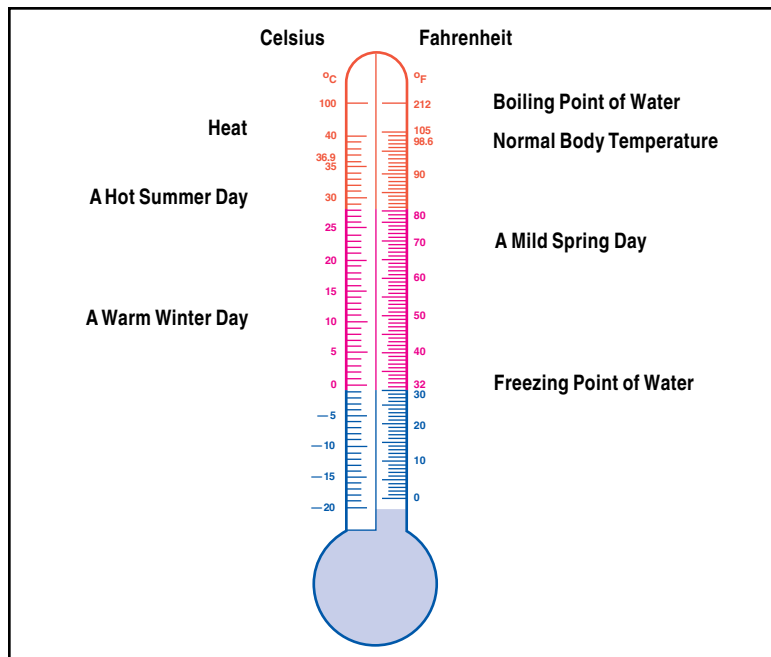
When You Know

Units of Length	Multiply by	To find
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
Units of Area		
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
Units of Mass and Weight		
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

Units of Volume	Multiply by	To find
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
Units of Speed		
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

National Holidays

January 1	New Year's Day
January 6 or the following Monday	Feast of the Epiphany
March 19 or the following Monday	Saint Joseph's Day
Date varies (March/April)	Holy Thursday
Date varies (March/April)	Good Friday
May 1	Labor Day
June 19, varies	Corpus Christi
June 30 or following Monday	Saints Peter and Paul Day
July 20	Independence Day
August 7	Battle of Boyaca
August 15	Feast of the Assumption
October 12	Race Day
November 1	All Saints' Day
November 11	Independence of Cartagena
December 8	Feast of the Immaculate Conception
December 25	Christmas Day

APPENDIX E: LANGUAGE

Common Words and Phrases

English	Spanish
Yes	Sí
No	No
Please	Por favor
Thank you	Gracias
Thank you very much	Muchas gracias
You're welcome	De nada
Excuse me!	Con permiso!
Sorry!	Lo siento!
Good morning / Good day	Buenos días
Good afternoon	Buenas tarde
Good evening / Good night	Buenas noches
How are you doing?	Cómo está?
How is it going?	Cómo le va?
Very well, thanks.	Muy bien, gracias.
And you?	Y usted?
Pleasure to meet you.	Mucho gusto en conocerle.
I speak a little Spanish.	Yo hablo un poco de español.
What's your name?	Cómo se llama?
My name is	Me llamo ...
Where are you from?	De dónde es usted?
I am from the United States.	Yo soy de los Estados Unidos.
Are you here on vacation?	Está aquí de vacaciones?
Yes. I'll be here for three weeks.	Sí. Yo estaré aquí por tres semanas.
Are you here alone?	Está solo(a)?
I'm here with my friends.	Estoy aquí con mis amigos
When can I call you?	Cuándo puedo llamarle?
Tomorrow afternoon.	Mañana por la tarde.

Where shall we meet?
Shall we go to the ...
I'll be back later.
See you later.
Good-bye!

Dónde nos encontramos?
Vamos a la ...?
Vuelvo mas tarde.
Hasta luego.
Adiós!

Personal Pronouns and Relatives

English

I / We
You (informal / formal)
He / She / They (male / female)
My or Mine (male & female)
Your / Yours (informal; masc./fem)
Your / Yours (formal; masc./fem)
His / Hers / Theirs
Man / Woman
Friends (male / female)
Boyfriend / Girlfriend
Family
Relative
Children
Husband / Wife
Father / Mother
Son / Daughter
Brother / Sister
Grandfather / Grandmother
Uncle / Aunt
Cousin (male / female)
Nephew / Niece

Spanish

Yo / Nosotros
Tú / Usted
Él / Ella / Ellos / Ellas
Mi / Mío (Mía)
Tu / El tuyo / La tuya
Su / El suyo / La suya
Su / Su / Suyo / Suya
Hombre / Mujer
Amigos / Amigas
Novio / Novia
Familia
Pariente
Hijos
Esposo / Esposa
Padre / Madre
Hijo / Hija
Hermano / Hermana
Abuelo / Abuela
Tío / Tía
Primo / Prima
Sobrino / Sobrina

Dining at a Restaurant

English

Breakfast

Lunch / Dinner

Can you bring me ...?

Fork / Knife / Spoon

Plate / Cup / Glass / Napkin

Could we have a table?

Could you bring me a menu, please?

Can you recommend a good restaurant?

I'm hungry / thirsty.

I would like something to eat/drink.

Non-smoking area.

The bill (check), please.

What do you recommend?

I would like ...

Beer

Beer (Draft)

Bread

Butter

Cake

Cheese

Chicken

Coffee

Desserts

Eggs

Fish

Food

Fruit

Meat

Milk

Spanish

Desayuno

Almuerzo / Cena

Puede traerme ...?

Tenedor / Cuchillo / Cuchara

Plato / Taza / Vaso/ Servilleta

Puede darnos una mesa?

Puede traerme una carta, por favor?

Puede recomendarme un buen restaurante?

Tengo hambre /sed.

Yo quisiera algo para comer/beber.

Prohibido de fumar.

La cuenta, por favor.

Qué me recomienda?

Yo quisiera ...

Cerveza

Cerveza de barril

Pan

Mantequilla

Pastel

Queso

Pollo

Café

Postres

Huevos

Pescado

Comida

Fruta

Carne

Leche

Orange Juice
Potatoes
Rice and Beans
Salad
Shrimp
Salt and Pepper
Soup
Steak
Sugar
Tea
Vegetables
Water
Wine

Jugo de naranja
Patatas (Papas)
Arroz y Frijoles
Ensalada
Camarones
Sal y Pimienta
Sopa
Bistec
Azúcar
Té
Legumbres (Vegetales)
Água
Vino

Directions and Places

English

Is it near here?
It's not very far.
How do you get there?
Is it within walking distance?
Is it ...?
Near / Far
Here / There
North / South
East / West
Left / Right
Straight / Forward
Up / Down
How do I get to ...?
Where is the?
Airport
Apartment

Spanish

Está cerca de aquí?
No está muy lejos.
Cómo se va allí ?
Se puede ir caminando?
Es ...?
Cerca / Lejos
Aquí / Allí /Allá
Norte / Sur
Este / Oeste
Izquierda / Derecha
Siga derecho
Arriba / Abajo
Cómo puedo ir a ...?
Dónde está ...?
Aeropuerto
Apartamento

Bakery	Panadería
Bank	Banco
Bar	Bar
Beach	Playa
Building	Edificio
Church	Iglesia
City / Town	Ciudad / Pueblo
Downtown	El Centro
Fire Station	Estación de bomberos
Hospital	Hospital
Hotel	Hotel
House	Casa
Laundry	Lavandería
Library	Biblioteca
Movie Theater	Cine
Night Club	Club Nocturno
Office	Oficina
Park	Parque
Pharmacy	Farmacia
Police Station	Comisaría / Estación de policía
Post Office	Correo
Restaurant	Restaurante
Store	Tienda
Street / Road	Calle / Camino
Supermarket	Supermercado

Colors

English	Spanish
What color is it?	De qué color es?
Is it ...?	Es ...?
Light...	...claro
Dark...	...oscuro

Black	Negro
Blue	Azul
Brown	Marrón
Green	Verde
Grey	Gris
Orange	Naranja
Pink	Rosado
Purple	Violeta
Red	Rojo
White	Blanco
Yellow	Amarillo

Days of the Week and Time

English	Spanish
What day is it today?	Qué día es hoy?
the Week	La Semana
the Day	El Día
the Date	La Fecha
Sunday	domingo
Monday	lunes
Tuesday	martes
Wednesday	miércoles
Thursday	jueves
Friday	viernes
Saturday	sábado
Last week	La Semana pasada
Next week	La Próxima semana
Weekend	El Fin de semana
Yesterday / Today / Tomorrow	Ayer / Hoy / Mañana
The day before yesterday	Anteayer
Now / Later	Ahora / Mas tarde
In the morning / afternoon	de (en) la mañana / de (en) la tarde

During the day	Durante el día
In the evening / at night	de (en) la noche
What time is it?	Qué hora es?
Hours / Minutes / Seconds	Horas / Minutos / Segundos
It's one o'clock.	Es la una.
It's two o'clock.	Son las dos.
Five past three	Son las tres y cinco.
Ten to four	Son las cuatro menos diez.
Noon / Midnight	Mediodía / Medianoche

Year, Months and Seasons

English	Spanish
the Year	El Año
This Year	Éste año
Last year	El Año pasado
Next year	El Próximo año
the Months	Los Meses
January / February	enero / febrero
March / April	marzo / abril
May / June	mayo / junio
July / August	julio / agosto
September / October	septiembre / octubre
November / December	noviembre / diciembre
Seasons	Estaciones del año
Spring / Summer	La Primavera / El Verano
Autumn / Winter	El Otoño / El Invierno

Numbers

English	Spanish
Number	Número
22	Veintidos
Zero (0)	Zero

23	Veintitres
One (1)	Uno (counting);
30	Treinta
One (1)	Un(mas.)/una(fem.)
40	Cuarenta
Two (2)	Dos
50	Cinquenta
Three (3)	Tres
60	Sesenta
Four (4)	Cuatro
70	Setenta
Five (5)	Cinco
80	Ochenta
Six (6)	Seis
90	Noventa
Seven (7)	Siete
100	Cien / Ciento
Eight (8)	Ocho
101	Ciento uno
Nine (9)	Nueve
102	Ciento dos
10	Diez
110	Ciento y diez
11	Once
120	Ciento y veinte
12	Doce
200	Dos cientos
13	Trece
500	Quinientos
14	Catorce
1,000	Mil
15	Quince

10,000	Diez mil
16	Dieciséis
100,000	Cien mil
17	Diecisiete
1,000,000	Un million
18	Dieciocho
First	Primero
19	Diecinueve
Second	Segundo
20	Veinte
Third	Tercero
21	Veintiuno

Security and Combat Situations

English

Answer the question!
 Does anyone speak English?
 Do you understand?
 Do you have weapons?
 Don't move!
 Come with me!
 Follow me!
 Follow our orders!
 Give me your weapon!
 Halt!
 Hands up!
 Hurry up / Slow down!
 I do not speak English.
 I do not understand.
 Keep away! Not a step further!
 Lay down your weapon!
 Lie down!

Spanish

Responda!/Contesta la pregunta!
 Alguien habla inglés?
 Entiende?
 Tiene armas?
 No se mueva!
 Venga conmigo!
 Sígame!
 Obedesca las ordenes!
 Deme su arma!
 Pare!
 Manos arriba!
 Apúrese / Mas despacio!
 No hablo inglés.
 No entiendo.
 Pare ya!
 Ponga el arma en el suelo!
 Échese al suelo!

Line up!	Póngase en fila!
Move!	Ande!/Muevase!
Move back!	Para atrás!
Open fire!	Abre Fuego!
Stay where you are!	Quédese donde está!
Stop or I will shoot / fire!	Pare o tiro!
Surrender!	Ríndase!
You are a prisoner.	Usted es prisionero.

Interrogation and Identification

English	Spanish
Are you carrying a weapon?	Está usted armado?
Come here!	Venga acá!
Come with me!	Venga conmigo!
Do you have any explosives?	Tiene explosivos?
Do you have any identification papers?	Tiene algun(os) documento(s) de identificación?
Do you need medical attention?	Necesita atención médica?
Don't be frightened!	No tenga miedo!
I don't understand.	No entiendo.
Please, speak more slowly.	Por favor, hable más despacio.
Wait here.	Espere aquí.
We must search this place.	Tenemos que registrar este lugar.
We must search you.	Tenemos que registrarlo.
We want to help you.	Queremos ayudarle.
Were you in the armed forces?	Estaba en las fuerzas armadas?
Where are you from?	De dónde es usted?
Where do you serve?	Dónde sirve?
Where is your unit?	Dónde está su unidad?
What group / unit do you belong to?	A que grupo /unidad pertenece?
What is your date of birth?	Cuál es su fecha de nacimiento?
What is your name?	Cuál es su nombre?

What is your occupation?	Cuál es su profesión?
What is your place of birth?	Dónde nació?
What is your rank / title?	Cuál es su rango / título?
What nationality are you?	De que nacionalidad es usted?
Who is in charge?	Quién es el encargado?
Who is your leader?	Quién es su líder?

Professions and Occupations

English	Spanish
What do you do?	Cuál es su profesion?
I am a ...	Yo soy ...
Commander	Comandante
Dentist	Dentista
Doctor	Médico
Driver	Chofer
Farmer	Granjero
Fisherman	Pescador
Government employee	Empleado de gobiern
Guard	Guardia
Housewife	Ama de casa
Laborer	Trabajador
Marine (Corps)	Infantería de Marina
Mechanic	Mecánico
Officer	Oficial
Pilot	Piloto
Policeman	Policía
Sailor	Marinero
Salesman	Vendedor
Soldier	Soldado
Student	Estudiante
Teacher	Profesor(a)

Civil Affairs and Refugee Operations

English

Are there any dead?

Come one at a time!

Do you have food?

Do you have water?

Do you need help?

Do you need...?

Clothing

Food

Medicine

Protection

Shelter

Shoes

Water

Don't be afraid.

Don't push. We have plenty of food.

Form a line!

How many are sick?

How many children do you have?

We are Americans.

We have food / water.

What happened?

Where are you going?

Where is your family?

You are next.

Spanish

Hay algún muerto?

Vengan uno a uno!

Tiene comida?

Tiene agua?

Necesita ayuda?

Necesita ...?

Ropa

Comida

Medicina

Protección

Refugio

Zapatos

Agua

No tenga miedo.

No empuje. Tenemos suficiente comida.

Formen una línea!

Cuántos están enfermos?

Cuántos hijos tiene?

Somos americanos.

Tenemos comida / agua.

Qué pasó?

A dónde va?

Dónde está su familia?

Usted es el próximo.

Map Terminology and Terrain

English

Atlantic Ocean

Bay

Beach

Spanish

Océano Atlántico

Bahía

Playa

Border	Frontera
Bridge	Puente
Canyon	Cañon
Cave	Cueva
Coast	Costa
City / Town	Ciudad / Pueblo
Current	Corriente
Dam	Represa
Dirt Road	Carretera
East / West	Este / Oeste
Forest	Bosque
Harbor (Port)	Puerto
High-water mark	Marea alta
Hill	Colina
House	Casa
Island	Isla
Lake	Lago
Line of Latitude / Longitude	Línea de latitud / longitud
Main road	Camino principal
Map	Mapa
Meadow	Prado
Meridian	Meridiano
Mountain	Montaña
North / South	Norte / Sur
Orchard	Huerto
Path	Caminito
Park	Parque
Paved Road	Carretera pavimentada
Peninsula	Península
River	Río
Road (Street)	Camino / Calle
Rock	Piedra

Sand	Arena
Sand dunes	Dunas
Sea (Ocean)	Mar
Surf	Resaca
South America	América del Sur/Sudamérica
Swamp	Pantano
Tree	Árbol
Tunnel	Túnel
Valley	Valle
Village	Aldea
Wall	Muro/Pared
Water	Agua
Waves	las

METOC and Weather Terminology

English	Spanish
the Weather	Tiempo
Weather forecast	Pronóstico del tiempo
Weather Chart	Carta del tiempo
Weather Map	Mapa meteorológico
Do you think it's going to ...?	Piensa que va a...?
Clear sky	Cielo claro
Clouds	Nubes
Cloudy	Nublado
Fog	Neblina
Ice	Hielo
Hot / Cold / Warm	Caliente (Calor) / Frío / Tibio
Lightning	Relámpago
Moon	Luna
Overcast	Encapotado
Precipitation	Precipitación
Rain	Lluvia

Sky	Cielo
Stars	Estrellas
Sun	Sol
Temperature	Temperatura
Thunder	Trueno
Thunderstorm	Tormenta
Warm front / Cold front	Frente caliente / frente frío
Wind	Viento
Wind direction	Dirección del Viento
Wind speed	Velocidad del Viento

Military Vocabulary and Service Specific Terms

English	Spanish
Ammunition	Municiones
Antenna	Antena
Armed Forces	Fuerzas armadas
Armed Personnel	Personal armado
Barb wire	Alambre de púas
Barracks	Barracas
Barrel (gun)	Cañón
Bullets	Balas
Base	Base
Battle	Batalla
Briefing	Reunión de información
Camp	Campamento
Cannon	Cañón
Car (Automobile)	Carro
Chemical warfare	Guerra química
Combat	Combate
Commander	Comandante
Communications	Comunicaciones
Compass	Compás

Danger	Peligro
Danger, High Voltage	Peligro, Alto-voltaje
Flag	Bandera
Flagpole	Asta de bandera
Friend / enemy	Amigo / Enemigo
Group / Unit	Grupo / Unidad
Guard	Guardia
Hand-to-hand fighting	Combate mano-a-mano
Headquarters	Quartel-general
Helicopter	Helicóptero
Identification Papers	Documentos de identificación
Infrared Laser Rangefinder	Telémetro láser de infrarroja
Instructor	Instructor
Intelligence	Inteligencia
Intelligence Officer	Agente de inteligencia
Knife / Bayonet	Cuchillo / Bayoneta
Leader	Líder
Machine gun	Ametralladora
Magazine (weapon)	Peine
Map	Mapa
Military Police	Policía militar
Mission	Misión
Officer	Oficial
Open fire!	Abre fuego!
Patrol	Patrulla
Position	Posición
Prisoners	Prisioneros
Restricted area (no entry)	Area Restringida / Prohibida entrada
Radio	Radio
Radar antenna	Antena de radar
Reconnaissance	Reconocimiento
Retreat	Retirada

Rifle	Rifle
Rope	Soga
Semiautomatic pistol	Pistola semi-automática
Special Forces	Fuerzas Especiales
Target	Blanco
Train	Tren
Truck	Camión
Uniform (military)	Uniforme
War	Guerra

Army Specific Terms

English	Spanish
Anti-tank rocket launcher	Lanzacohetes antitanque
Armored personnel carrier	Vehículo blindado
Army	Ejército
Artillery	Artillería
Grenade launcher	Lanzador de granada
Hand Grenade	Granada de mano
Infantry	Infantería
Mine field	Campo minado
Mortar	Mortero
Parachute	Paracaídas
Paratrooper	Soldado paracaidista
Rocket Launcher	Lanzacohetes
Sleeping bag	Saco de dormir
Soldier	Soldado
Stronghold (fortification)	Fortaleza
Tank	Tanque
Tent	Tienda
Trigger	Gatillo

Navy Specific Terms

English	Spanish
Aircraft carrier	Portaviones
Anchor	Ancla
Boat	Barco
Bow / Stern	Proa / Popa
Crew	Tribulación
Deck	Cubierta
Destroyer	Destructor
Flight deck	Cubierta de aterrizaje
Frigate	Fragata
Guided-missile cruiser	Crucero misil teledirigido
Hatch	Escotilla
Hull	Casco
Inflatable boat (RIB)	Bote inflable (El Zodiac)
Landing craft	Lancha de desembarco
Life raft	Balsa salvavidas
Marine (Corps)	Infantería de Marina
Minesweeper	Buscaminas
Navy	Marina de guerra
Periscope	Periscopio
Port / Starboard	Babor / Estribor
Sailor	Marinero
SCUBA diver	Hombre rana/Buzo de escafandra autónoma
Ship	Barco
Shipyard	Astillero
Submarine	Submarino
Torpedos	Torpedos
Warship	Buque de guerra

Air Force Specific Terms

English	Spanish
Air intake	Entrada de aire
Aircraft	Nave aérea
Air Force	Fuerza Aérea
Airfield	Campo de aterrizaje
Airplane (propeller)	Avion de hélice/Aeroplano
Cockpit (cabin)	Cabina del piloto
Cockpit canopy	Cubierta de la cabina
Combat aircraft	Avión de combate
Control stick	Palanca de mando
Control tower	Torre de control
Ejection seat	Asiento eyectable
Fighter-Bomber	Avión de caza-bombardero
Flaps	Alerones
Jet	Jet
Jet engines	Motores de reacción
Missile(s)	Misil
Pilot	Piloto
Runway	Pista de aterrizaje
Tarmac (Apron)	Pista
Taxiway	Pista de taxi
Terminal building	Terminal de pasajeros
Transport aircraft	Avión de transporte
Wing	Alas

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 will re-

duce 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 (such as 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 prior to 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; and
- 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-can method (reapply after sixth laundering) or with the 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 method (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; and
- Avoid standing in direct sunlight for long periods; be prepared for sudden 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° 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;
- 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; and
- Seek immediate medical attention for loss of sensitivity in any part of the body.

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 reflect 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.

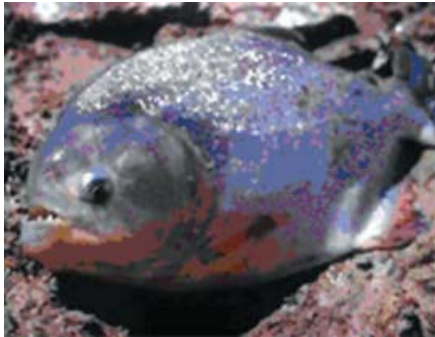
During interaction with captors, maintaining self respect and dignity can be keys to retaining status as a human being in the captor's eyes. Complying with instructions, avoiding provocative conversations (political, religious, etc.), and establishing a positive relationship will increase survivability. 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

Piranhas

Piranhas, lethal fish found throughout the drainage system of the Amazon River, are attracted to blood or open wounds. A school of piranhas can reduce a man or large animal to a skeleton in a few hours.



Electric Eels

Electric eels are also located in the Amazon River drainage system. This sluggish creature feeds in shallow, clear water. The largest are said to measure up to 9 feet with an average of 3 to 5 feet. Not a true eel, this fish finds its



prey by radar pulses. Its electric shock can render a man in the water unconscious and could lead to drowning.

The Candiru

The candiru is a small, translucent, eel-like fish that is a member of the catfish family. Only a pencil's thickness and 1 to 2 inches long, these tiny scourges enter the swimmer's urethra. The best protection

from these tiny fish is satisfactory covering. Its danger comes from its spines which can make removal very painful. They can also cause inflammation or hemorrhaging, leading to the victim's death.

Leeches

Leeches are slender and worm-like, 1 to 4 inches in length, with suckers at both ends. They are found in freshwater ponds and lakes and in brackish waters of mangrove swamps throughout Colombia.



Vampire Bats

Vampire bats live off the blood of their victims. While small (2 to 4 inches in length, with a wingspan of 8 to 12 inches), the bats have lance-like, razor-sharp teeth. The danger is not in the bite, but in the transfer and spread of infection. The bat may carry rabies.

Also found in southern Colombia's river and swamp areas are caimans (smaller relatives of crocodiles) and several species of poisonous frogs.



Snakes

Andean Black-backed Coral Snake

Description:

Adult length usually 0.3 to 0.6 meter, maximum of 1.1 meters. Dorsally, usually uniformly black, except for a pale (usually yellow) ring around the neck; some specimens also have two to eight pale rings around the body, usually toward the tail. Ventrally, black with numerous yellow blotches; the tail mostly bright orange-red, with one or two narrow black bands.



Habitat: Most common in wetter forested areas at elevations of 100 to 1,500 meters.

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Most common in wetter forested areas at elevations of 100 to 1,500 meters.

Activity and behavioral patterns:

May raise and curl tail when disturbed. Coral snakes are usually nonaggressive; most bites occur during attempts to capture it.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Clark's Coral Snake

No Photo Available

Description:

Maximum adult length usually about 0.7 meter. Top of head black; posterior yellow ring narrows mid-dorsally, may be incomplete. Body pattern consists of very broad red rings (usually including

some black pigment) separated by broad black rings that are narrowly bordered with yellow (rybyr).

Habitat:

Primarily rain forest; has been found along river banks in drier areas transitional between tropical wet and tropical dry forest. Found at elevations up to 700 meters.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Regal Coral Snake

Description:

Adult length usually 0.6 to 0.8 meter, maximum of 1.5 meters. Most of head is red; the body has a series of broad, red rings separated by series of three black and two white rings (rbwbwbr).



Habitat:

Wetter forested areas, usually at elevations of less than 1,500 meters; reported up to 2,300 meters in Colombia.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Pygmy Coral Snake

No Photo Available

Description:

Adult length usually about 0.2 to 0.4 meter. Head black with a white ring just behind the eyes. Neck red. Body with broad red rings separated by a series of three black and two white rings (rbwbwbr), the middle black ring of each set usually is somewhat broader than the outer two, and the white scales are usually outlined with black.

Habitat:

Semiarid and seasonally dry areas, including lower mountainous forest, dry tropical forest, thorn forest, and savannas, at elevations up to 900 meters.

Activity and behavioral patterns:

Appears to be abundant throughout its range and is often seen around human habitations. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Reportedly too small to be a serious threat. Coral snake venom is primarily neurotoxic.

Dumeril's Coral Snake

No Photo Available

Description:

Adult length usually 0.5 to 0.7 meter. Body pattern variable; usually consisting of very broad red rings separated by a series of moderately broad black rings narrowly bordered with yellow (ry-byr). In some specimens, the red bands are much duller, appearing blended with darker pigment, and the yellow bands are nearly non-existent.

Habitat:

Lower mountain area, wet forest, tropical rainforest, tropical dry forest, and thorn forest; often found near rivers in less humid areas. Usually found at elevations under 600 meters, but has been reported up to 2,150 in Colombia.

Activity and behavioral patterns:

No data; reportedly responsible for many coral snakebites in its range. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Slender Coral Snake**No Photo Available****Description:**

Adult length usually 0.5 to 0.6 meter, maximum of 1.0 meter; a very slender coral snake. Front of head black, with a white ring just in front of the eyes; rear of head and neck red. Body pattern consisting of broad red rings separated by a series of three black and two white rings (rbwbwbr), the middle black ring wider than the outer two, and the white rings only slightly narrower than the outer black rings.

Habitat:

Wetter forested areas, usually near waterways, at elevations up to 400 meters.

Activity and behavioral patterns:

Locally common around human habitation. Will defend itself aggressively. Will flatten itself, raise and curl its tail, then strike and bite violently while thrashing from side to side with such force that it sometimes raises itself off the ground.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Hemprich's Coral Snake**Description:**

Adult length usually 0.5 to 0.6 meter; maximum of 0.9 meter. Front of head black, followed by a very broad orangish ring; neck black. Body pattern unique



for the genus, consisting of narrow orange to orange-yellow rings separated by a series of three very broad black rings and two very narrow white rings (obwbwbo).

Habitat:

Forests along or near rivers, including rain forest and lower cloud forest; usually found among leaves lying on the forest floor. Most common in lowlands; has been found at elevations up to 1,000 meters.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Venezuelan Coral Snake**No Photo Available****Description:**

Adult length usually 0.5 to 0.6 meter; records of specimens 1.0 to 1.5 meters from Colombia exist. Head with snout varying from nearly

grey white to nearly all black; the remainder of the head is red. The body pattern consists of broad red to rusty red rings separated by a series of three narrow black and two moderately broad yellowish rings (rbybybr), the red and yellow rings often stippled with black.

Habitat:

Lower cloud forest, tropical leafy forest, tropical thorn woodlands, forests situated along watercourses, and grassy plains. Commonly encountered in open or semi-open secondary growth and pasture. Found at elevations up to 1,400 meters.

Activity and behavioral patterns:

Likely nocturnal. Will vigorously defend itself, and reportedly is a major source of coral snakebite in its range. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Langsdorff's Coral Snake

No Photo Available

Description:

Adult length usually 0.4 to 0.6 meter; maximum of 0.8 meter. Appearance is variable; the body pattern usually consists of moderately broad red rings alternating with narrower rings of yellow or brown or black, each ring separated from the next by a very narrow white ring (often reduced to a series of dots). The red rings often are so blended with black they appear black rather than red.

Habitat:

Wetter forested areas at elevations up to 1,500 meters.

Activity and behavioral patterns:

Likely nocturnal. Will vigorously defend itself, and reportedly is a major source of coral snakebite in its range. Coral snakes

are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Carib Coral Snake

No Photo Available

Description:

Adult length varies from 0.3 to 0.9 meter. Extremely variable in appearance; may appear entirely black dorsally, bicolored (black, with a series of very narrow to narrow whitish or yellowish rings), or tricolored [broad red rings, alternating with narrower, white/yellow-bordered black rings (rybyr)].

Habitat:

Most common in lower mountain area, wet forest, and lowland rainforest; found at elevations up to 1,700 meters.

Activity and behavioral patterns:

Active during daytime on forest floor. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Putumayo Coral Snake

No Photo Available

Description:

Adult length usually 0.6 to 0.8 meter. Head mostly black, with a yellowish ring at the head-neck juncture. Body pattern consists of alternating broad yellowish (often obscured with black pigment)

and black rings, the yellow rings usually a little less broad than the black rings.

Habitat:

Tropical rain forest at elevations up to 100 meters.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Santander Coral Snake

No Photo Available

Description:

Adult length usually 0.5 to 0.6 meter. Head black, with a yellow crescent-shaped band posteriorly. Body pattern consists of broad red rings separated by a series of three black and two yellow rings (rbybybr). In each set, the middle black ring is wider than either the outer black rings or the yellow rings.

Habitat:

Dry tropical forest, lower mountain area dry forest, and lower mountain area humid forest. Found at elevations of 1,000 to 1,750 meters.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Amazonian Coral Snake

No Photo Available

Description:

Adult length usually 0.8 to 1.1 meters; maximum of 1.6 meters. Head with area in front of eyes usually whitish with scattered black pigment, followed by a red ring (sometimes incomplete dorsally) and a black ring. Dorsal body pattern usually consists of moderately broad red rings separated by a series of three black rings and two whitish (often with considerable black pigment) rings (rbwbwbr). The black rings are usually somewhat narrower than the red rings. The whitish rings often appear bright yellow on the underside of the snake.

Habitat:

Primarily forest floors in tropical rainforest, but also found around human habitations and in savanna/gallery forest areas in the llanos in eastern Colombia; most common in humid areas close to water. Found at elevations up to 1,200 meters.

Activity and behavioral patterns:

Reportedly can be highly irritable; its mouth is large enough to bite even through moderately thick clothing.

Venom characteristics:

The venom is a potent neurotoxin; this species is one of the most dangerous coral snakes in South America.

Colombian Coral Snake

No Photo Available

Description:

Adult length usually 0.2 to 0.3 meter. Body pattern consists of alternating narrow black and white bands; the tail has alternating red and black bands.

Habitat:

Tropical rainforest at elevations up to 100 meters.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

South American Coral Snake**No Photo Available****Description:**

Adult length usually 0.6 to 0.9 meter; maximum of 1.5 meters. Front of head black, with a narrow white ring in front of the eyes; remainder of head is red. Body pattern consists of moderately broad red rings separated by a series of three black and two white (or yellow) rings (rbwbwbr); the width of the black rings is quite variable, that of the white rings less so.

Habitat:

Most common in savannas, forested areas, rocky regions, and lowland flood plains, including cleared areas and near human habitations. Found at elevations up to 1,000 meters.

Activity and behavioral patterns:

Will bite if disturbed. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Venom has strong neurotoxic activity with postsynaptic effect. Bites have caused human fatalities in Brazil and Colombia.

Red-tailed Coral Snake

No Photo Available

Description:

Adult length usually 0.6 to 0.8 meter, maximum of 1.2 meters; a slender coral snake. Snout usually black; the remainder of the head bright orange/red. Body pattern consists of alternating pale (may be white, cream, pink, or red) and black rings. Pale rings often speckled with black. The tail has alternating black and red/orange rings.

Habitat:

Lower mountain area wet forest, cloud forest, and secondary areas, including coffee groves. Found at elevations up to 2,400 meters.

Activity and behavioral patterns:

Active during the day and often found around human habitation. A major cause of coral snakebite in its range; will vigorously defend itself, and bites have resulted in human deaths. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Venom is primarily neurotoxic with postsynaptic effect.

Cauca Coral Snake

No Photo Available

Description:

Adult length usually less than 0.9 meter. Bicolored. Snout is black; remainder of the head and body with alternating red (sometimes quite dull) and black rings. The initial ring on the head is sometimes yellow.

Habitat:

Wetter forested areas at elevations of 100 to 1,750 meters.

Activity and behavioral patterns:

No data. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Central American Coral Snake**No Photo Available****Description:**

Adult length may exceed 1.0 meter. Quite variable; may be bicolored or tricolored. Head black, usually with a yellow (red in bicolored specimens) ring of variable width at about the midpoint. Body pattern usually consists of relatively broad red (may be quite dull) and black rings (the red rings often much broader than the black ones) usually separated by narrower yellowish rings (in tricolored specimens).

Habitat:

Lowland rainforest, dry forest, thorn forest, lower cloud forest, and lower mountain area dry forest. Found at elevations up to 1,600 meters.

Activity and behavioral patterns:

Abundant in its range. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Venom has myonecrotic toxins, and neurotoxins with presynaptic and postsynaptic effect; has caused human fatalities.

Steindachner's Coral Snake**Description:**

Maximum adult length about 0.9 meter. Top of head entirely black. Dorsal body pattern tricolored but subdued; alternating relatively broad reddish and black rings are separated by much narrower

yellowish rings (rybyr), the red and yellow rings heavily blended with black. Ventrally, the pattern is of alternating broad pale yellow and narrower black rings.

Habitat:

Wetter forested areas at elevations up to 1,800 meters.

Activity and behavioral patterns:

Raises tail when disturbed. Coral snakes are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

Coral snake venom is primarily neurotoxic.

Aquatic Coral Snake

No Photo Available

Description:

Adult length usually 0.8 to 1.0 meter; maximum of 1.3 meters; a relatively heavy-bodied coral snake. The snout is compressed, the head is swollen posteriorly, and the eyes and nostrils are situated more dorsally than those of other coral snakes. Head mostly red, with scales outlined with black pigment; a narrow black ring at the rear of the head is followed by a narrow yellow neck ring. The body pattern consists of relatively broad red rings (usually speckled with black), alternating with a series of three black and two yellow rings (rbybybr), the outer black rings of each triad are much narrower than the middle one, and about equal to the yellow rings.

Habitat:

Lowland wetter forested areas at elevations up to 600 meters; primarily along streams, rivers, and other bodies of water.

Activity and behavioral patterns:

An active swimmer; can remain submerged for extended periods of time. Primarily nocturnal, but may be active during the day. Flattens body, curls and raises tail when disturbed. Coral snakes

are usually nonaggressive; most bites occur during attempts to capture the snake.

Venom characteristics:

A potent neurotoxin; venom has myonecrotic toxins, and a neurotoxin that appears to primarily affect cranial nerve centers.

Eyelash Palm Pit Viper

Description:

Adult length usually less than 0.6 meter; a moderately slender snake with a prehensile tail. Background color and markings are extremely variable. Most specimens have a background color of green, olive green, or gray-green, finely blended with black; a pure yellow phase



is found from Honduras through Panama. Although all specimens have erect scales above their eyes (“eyelashes”), these are usually less conspicuous in snakes from Ecuador and Colombia.

Habitat:

Most common in tropical moist forest, wet subtropical forest (cloud forest), and mountain area wet forest. Usually found in shrubs, trees, and vine tangles close to rivers and streams. Found at elevations up to 2,650 meters in Colombia.

Activity and behavioral patterns:

Primarily arboreal and diurnal. Characteristically coils with mouth wide open when disturbed. Usually nonaggressive, but reportedly can be quick to bite when disturbed.

Venom characteristics:

Venoms primarily are hemotoxic, but also may contain neurotoxic components. Specific antivenins are not produced.

Two-striped Forest Pit Viper**Description:**

Adult length usually less than 0.5 to 1.0 meter; a relatively slender snake with a prehensile tail. Overall pale green to pale bluish-green, head speckled with



black, body sometimes with variable (usually paired) blotches, but always with a longitudinal thin yellow line separating the lateral scales from the ventral scutes.

Habitat:

Lowland rainforest, especially near waterways, at elevations up to 2,650 meters.

Activity and behavioral patterns:

Arboreal, slow-moving.

Venom characteristics:

Primarily hemotoxic. Envenomation has resulted in human deaths.

Andean Forest Pit Viper**No Photo Available****Description:**

Adult length usually less than 0.4 to 1.0 meter, average 0.6 to 0.7 meter; a relatively slender snake. Body overall dark to medium green, with darker dorsal bands; these bands often with pale mar-

gins. Head usually with two parallel black lines extending from near the eye to the corner of the mouth.

Habitat:

Most common in forested areas at elevations up to 500 to 3,000 meters.

Activity and behavioral patterns:

Arboreal.

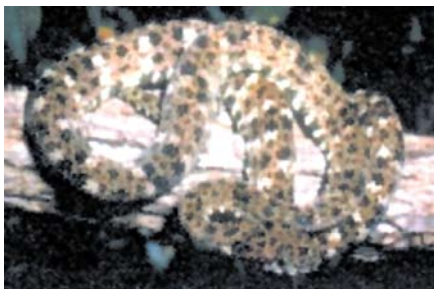
Venom characteristics:

Primarily hemotoxic.

***Speckled Forest
Pit Viper***

Description:

Adult length usually less than 1.0 to 1.5 meters; a relatively slender snake with a prehensile tail. Background color usually varies from lavender gray to yellow



green. The body pattern is extremely variable, but nearly all specimens have prominent white blotches at the juncture of the lateral scales and ventral scutes. Head usually with a spear-point-shaped dark marking extending from the eye to the corner of the mouth.

Habitat:

Most common in lowland and foothill forests at elevations up to 1,900 meters.

Activity and behavioral patterns:

Arboreal; usually encountered in primary forest or forest edge situations, in vines and low vegetation. Difficult to see because of cryptic coloration.

Venom characteristics:

No specific data; however, the large size and long fangs of this snake make it potentially dangerous. Venom is primarily hemotoxic.

Terciopelo**Description:**

Adult length usually less than 1.2 to 1.8 meters; maximum of 2.5 meters; a moderately slender snake. Background color and patterns are highly variable, but many specimens have what appears to be a series of Xs down the back. Snout is markedly pointed.

**Habitat:**

Found at elevations about sea level to about 1,300 meters in northern areas of its range to about 2,700 meters in southern areas. Most common in tropical rainforest and tropical evergreen forest. Where it is found in drier habitats, it likely is restricted to the vicinity of rivers and other water sources.

Activity and behavioral patterns:

Terrestrial, but occasionally in bushes and low trees. Nocturnal; often will seek prey near human habitations and in or near cultivated areas. Excitable and unpredictable when disturbed; it is easily provoked to strike. It moves very rapidly, reverses direction abruptly, and defends itself vigorously. Extremely dangerous and often fatal.

Venom characteristics:

Carries a large supply of potent venom that is primarily hemotoxic and cytotoxic; envenomation can result in systemic internal bleeding and local tissue destruction.

Chocoan Forest Pit Viper

No Photo Available

Description:

Adult length usually less than 1.0 to 1.5 meters; the tail relatively long. Background color usually pale brown to greenish-tan, darker pale-bordered dorsal blotches may coalesce with lateral blotches to form irregular bands. Top surface of head primarily tan, symmetrically patterned with dark brown. Head and fangs are relatively long.

Habitat:

Most common in wetter forested areas at elevations up to 2,300 meters.

Activity and behavioral patterns:

No specific data; likely semiarboreal.

Venom characteristics:

No specific data; however, the large size of this snake makes it potentially dangerous. Venom is primarily hemotoxic.

Lancehead

Description:

Adult length usually 0.8 to 1.0; maximum of 2.0 meters; a moderately heavy-bodied snake. Overall color and body patterns are extremely variable, but most specimens have a



dorsal body pattern consisting of a series of distinct light-edged, dark crossbands or triangles that make a rectangular to trapezoidal pattern on each side of the body. The head lacks any distinct markings on the upper surface.

Habitat:

Lowlands at elevations up to 1,300 meters drained by the Amazon River. Prefers damp locales in association with creeks, lakes, or rivers; also has been found in cultivated areas and around human habitations, including weedy urban lots.

Activity and behavioral patterns:

Primarily terrestrial, but will climb at least 4 meters above the ground in vegetation. Nocturnal. Tends to live near humans.

Venom characteristics:

Potent venom that is primarily hemotoxic and cytotoxic; envenomation can result in systemic internal bleeding and local tissue destruction.

Brazil's Lancehead**Description:**

Adult length usually 0.7 to 0.9 meter; can exceed 1.4 meters; a moderately stout snake. Background color usually varies from coppery brown to pale gray; body usually paired



dorsolateral palebordered darker blotches that may meet dorsally forming irregular bands. The upper surface of the head usually is a uniform pinkish-tan to pinkish-gray; the dark stripe extending from the eye to the corner of the mouth, typical of most Latin American vipers, usually is indistinct or absent.

Habitat:

Most common in Amazonian primary forests at elevations up to 500 meters; appears restricted to a humid, leaf-litter habitat.

Activity and behavioral patterns:

Nocturnal; can be aggressive and will strike if molested.

Venom characteristics:

Reportedly feared by Amerindians in southern Colombia. Venom is primarily hemotoxic and cytotoxic; envenomation can result in systemic internal bleeding and local tissue destruction.

Small-eyed Lancehead**No Photo Available****Description:**

Adult length usually 0.4 to 0.7 meter, maximum of 1.4 meters; a slightly stocky snake. Background color usually brown to straw to gray, with alternating light and dark, roughly triangular to trapezoidal, lateral blotches that often meet dorsally to form irregular bands. The top of the head lacks any distinct markings. Overall, a relatively dull-colored snake.

Habitat:

Most common in lower mountain area wet forest and cloud forest at elevations up to 1,300 meters.

Activity and behavioral patterns:

No data.

Venom characteristics:

Venom is hemotoxic and cytotoxic; envenomation can result in systemic internal bleeding and local tissue destruction.

Dusky Lancehead**No Photo Available****Description:**

Adult length estimated at 0.5 to 0.8 meter; a moderately stout snake. Background color usually dark, the dorsum usually uni-

formly brown. Although it has a pattern of bands on the body, this pattern is obscure on most specimens.

Habitat:

Most common in tropical moist and wet forest, usually near rivers, at elevations of at least 2,500 meters.

Activity and behavioral patterns:

No data.

Venom characteristics:

There are no reports of human envenomation by this species. Venom is primarily hemotoxic and cytotoxic; envenomation can result in systemic internal bleeding and local tissue destruction.

***Neotropical
Rattlesnake***

Description:

Adult length estimated at 1.0 to 1.8 meters; a relatively stout rattlesnake with a prominent spinal ridge along the body, most evident on the front part



of the body. Both the background color and body pattern are extremely variable; however, in nearly all specimens, the frontmost dorsolateral dark (darker than the background color) blotches on the body are extended rearward into prominent stripes.

Habitat:

Primarily semiarid regions and drier openings in more humid environments. Not found in rainforest. Most common at elevations of less than 700 meters, has been found at elevations up to 2,000 meters in Colombia.

Activity and behavioral patterns:

Most active during twilight and early morning hours. Will move away from humans if allowed to do so, but it will assume a defensive coil and strike if cornered or startled. In the defensive position, it will raise the head and front one-third of the body high off the ground, with the neck and head bent, and face its antagonist.

Venom characteristics:

Reportedly the most dangerous snake in the region. Has both hemotoxic and neurotoxic components, varying among the subspecies. The venom of the species in South America has myotoxic and neurotoxic components; bites have a relatively high case fatality rate. Local tissue damage and swelling is minimal, but the myotoxic component causes extensive skeletal muscle necrosis.

Bushmaster**Description:**

Adult length usually 2.0 to 3.6 meters; longest venomous snake in the Americas. Prominent ridge along the backbone, especially noticeable on the front one-half of the body. Background color usually reddish-brown, yellowish-tan, or pinkish-tan. Dorsal body pattern usually a series of dark brown to black diamond-shaped blotches; the lateral corners of those blotches usually containing a small patch of paler scales. Head broadly rounded, usually tan, brown, or black on top.



Habitat:

Primarily in forested areas that receive at least 2,000 millimeters (and usually more than 4,000 millimeters) of rainfall annually; may occur along rivers in drier regions. Often found near large, buttressed trees or fallen logs. Found in South America at elevations up to 1,800 meters.

Activity and behavioral patterns:

Active from dusk to dawn, when they are most likely to respond quickly to disturbance (often inflating neck and vibrating tail rapidly). The southeastern Costa Rican population reportedly is highly aggressive whenever disturbed.

Venom characteristics:

Envenomation results in intense pain, swelling, and necrosis (tissue death, often extensive) around the bite site, sometimes followed by gangrene. Even when antivenin is used bites can be fatal.

Cope's Lancehead**No Photo Available****Description:**

Adult length up to 1.5 meters. Background color very dark olive, body has thin yellowish zig-zag line on each side, forming a series of broad V's whose apices are opposite or slightly juxtaposed dorsally.

Habitat:

Seasonally dry lower mountain area forest at elevations of about 1,500 meters.

Activity and behavioral patterns:

No data.

Venom characteristics:

Specific data are lacking. Bothrops venom is primarily hemotoxic and cytotoxic; envenomation can result in systemic internal bleeding and local tissue destruction.

Lansberg's Hog-nosed Pit Viper**Description:**

Adult length usually 0.3 to 0.5 meter; maximum of 0.9 meter. A moderately slender pit viper with an upturned snout. Most



specimens have a thin, pale (white to tan) line down the middle of the back. Background color is quite variable, but the overall appearance usually is of alternating dark and light bands, or alternating light and dark rectangles dorsally. The pattern may be obscure or absent in very pale specimens, and entirely orange individuals have been collected in northern Colombia.

Habitat:

Primarily lowland arid and semiarid belts of thorn forest and dry tropical forest; also found in humid coastal and foothill forests of eastern Panama at elevations up to 1,000 meters.

Activity and behavioral patterns:

Nocturnal; most active during local wet seasons. Relatively lethargic, usually coils tightly when disturbed.

Venom characteristics:

Venoms predominantly are hemotoxic with necrotic (tissue-destroying) factors. Most species have relatively low venom yield, and envenomation usually has mild to moderately severe effects. There are no specific antivenins manufactured.

Amazonian Hog-nosed Pit Viper

No Photo Available

Description:

Adult length usually 0.4 to 0.5 meter; maximum of 0.8 meter. A moderately stout pit viper with an upturned snout. A darker ground color alternates with patches of paler scales, often resulting in a banded appearance, the bands becoming more contrasting toward the tail.

Habitat:

Rainforest or very humid tropical forest, usually near water, in leaf litter of elevated ground. Found at elevations up to 1,000 meters.

Activity and behavioral patterns:

When disturbed, adults tend to move about vigorously, but appear reluctant to strike.

Venom characteristics:

Venoms predominantly are hemotoxic with necrotic (tissue-destroying) factors. Most species have relatively low venom yield, and envenomation usually has mild to moderately severe effects. There are no specific antivenins manufactured.

Rain Forest Hog-nosed Pit Viper

Description:

Adult length usually 0.3 to 0.6 meter. A moderately stout pit viper with an upturned snout. Background colors include tan, brown,



reddish-brown, yellowish-brown, grayish-brown, and gray. Most specimens have a narrow reddish line down middle of the back,

and a dorsal pattern of rectangular patches of alternating colors — some specimens gray, with row of small black rectangular patches on either side of middorsal stripe.

Habitat:

Primarily lowland rainforest and mountain area wet forest at elevations of less than 900 meters; has been found up to 1,900 meters in Colombia.

Activity and behavioral patterns:

Active day and night. Mostly terrestrial, but can be found climbing in shrubs or small trees. Frequently found coiled in patchy sunlight in leaf litter (very hard to see because of coloration and small size).

Venom characteristics:

Venom may be more toxic than usual for the genus; human fatalities have been attributed to its bite. Venoms predominantly are hemotoxic with necrotic (tissue-destroying) factors. Most species have relatively low venom yield, and envenomation usually has mild to moderately severe effects. There are no specific antivenins manufactured.

Arthropods

Insects

Adults (moths) and larvae (caterpillars) of most of these species have venomous spines or venomous/urticating hairs. Usually, the caterpillars either are very hairy (for example, puss moths/flannel moths) and almost unrecognizable as caterpillars, with long, silky hairs completely covering the shorter venomous spines, or bear prominent clumps of stiff, venomous spines. Some, but not all, of these caterpillars are brightly colored. Fatalities allegedly have occurred from contact with giant silkworm moths.

Rove beetles likely occur, based on regional data. These small (usually 4 to 7 millimeters), slender rove beetles do not look like typical beetles; they have very short wing covers that expose most of their very flexible abdomen. When crushed, their body fluid contains a contact vesicant that will blister skin. The lesions take about a week to heal and the area remains painful for 2 weeks. The vesicant is extremely irritating if get into eyes; temporary blindness has been reported.

Scorpions

There are several species of scorpions capable of inflicting a painful sting. No specific information on life-threatening species is available.

Spiders

Although there are several species of spiders, including some very large and physically imposing tarantulas capable of inflicting a painful bite, only the huntsman spiders are capable of inflicting a life-threatening bite.



Centipedes

Although centipedes capable of inflicting a painful bite occur, none of them 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 millimeters long) secrete a very noxious fluid that can cause severe blistering upon contact with tender skin; a few are capable of squirting this fluid a distance of at least 2 feet.

Plants

Agave

Other Name(s):

Century plant, maguey

Mechanism(s) of toxicity/injury:

American species are inedible; irritating sap.

Comments:

Many species (family has 650 species of tropical and subtropical regions — widely cultivated, thick-stemmed plants with confusing, controversial taxonomy). Leaves are long and narrow with spiny edges. Uses include cultured ornamentals, medicinals, food sources [cooked in tortillas; heart (bud) is edible], source of pulque (a fermented beverage) or mexal (a type of brandy), used as fiber source (paper-making).



White Snake Root

Other Names(s):

Fall poison, richwood

Mechanism(s) of toxicity/injury:

Entire plant is extremely toxic with tremetol (a highly toxic complex alcohol) and several glycosides. “Milk sickness” results from drinking milk from a cow with the weed in its diet.



Slow onset of symptoms (>24 hours); nausea, vomiting, tremors, jaundice, anuria, prostration. Has killed; was a major cause of death in the early 1800s. Liver and kidney degeneration.

Comments:

A perennial herb of roadsides, fields, open woods, and pastures. There are many similar, white-flowered species and it requires expertise to identify them. Modern milk-processing eliminates danger from consuming milk.

Blistering Ammania

Photo not available

Mechanism(s) of toxicity/injury:

Found mostly in wet places; has an extremely acrid sap that produces intense pain and blistering on contact with skin

Comments:

Often confused with loosestrife plants in the primrose family.

Cashew

**Mechanism(s)
of toxicity/injury:**

The red or yellow fruit has a shell that contains a brown, oily juice. Will blister skin on contact (oils used to scarify the skin for tribal markings), and on ingestion will cause severe gastroenteritis. Fumes resulting from the roasting process are irritating to eyes and face. Tar from the bark causes blistering and is used in poison arrows in Africa.



Comments:

The toxin is removed in a heating process before the nuts are freed. Yellow to purple fruit is edible.

Ackee**Other Names(s):**

Arbre fricasse

Mechanism(s) of toxicity/injury:

Fruit wall, seeds and immature or spoiled white aril contain a water soluble liver toxin. Death has resulted from severe hypoglycemia. Used as a fish poison.

**Comments:**

A tree growing to 40 feet. Fruit consists of three black seeds embedded in a white waxy aril in a reddish pod. Sometimes grown for the mature edible fruit. Red fruit splits at maturity. Ripe fruits used in traditional island (Jamaica) cooking.

Osage Orange**Photo not available****Other Names(s):**

African teak, fustic, bow wood

Mechanism(s) of toxicity/injury:

Has a milky, bitter sap; yields orange dye that causes dermatitis.

Comments:

12 species found in tropical America, South Africa, and Madagascar.

Angel's Trumpet

Photo not available

Mechanism(s) of toxicity/injury:

Seed pods with numerous tiny seeds. People have been poisoned through consumption of crushed seeds accidentally included in flour. Can kill.

Comments:

Used by Indians to worm hunt- ing dogs, and as a plant to prevent insects from destroying other cultivated plants. Native to South America.



Indian Laurel

Other Names(s):

Mastwood, domba oil, pinnay oil

Mechanism(s) of toxicity/injury:

Cream-colored, resinous sap irritating to the skin and eyes; globose fruit contains one large poisonous seed. Sap is toxic. Leaves contain cyanide.

Comments:

Erect, dense, low-branched tree having leathery smooth



leaves (to 15 cm) and white flowers with four petals. Native to tropical Asia — originally from India (a common shade tree in Malaysia) and the Pacific islands. Seeds dispersed by bats and the sea.

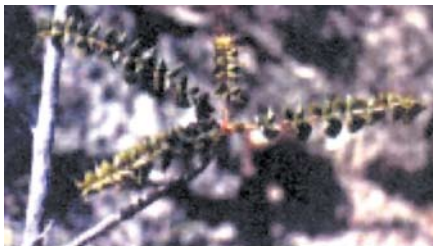
Guao

Mechanism(s) of toxicity/injury:

Several species cause dermatitis. Potential allergic manifestations similar to poison oak/ivy.

Comments:

Twenty tropical American species of shrubs or small trees have long leaf stems with few or no branches. Often the leaves are spiny and clustered at the ends of the branches; flowers are small and greenish.



Croton

Other Names(s):

Purging croton, ciegavista

Mechanism(s) of toxicity/injury:

Long-lasting vesicular dermatitis results from contact with the toxic resin. The cathartic and purgative properties of the toxins causes severe gastroenteritis, even death; 20 drops poten-



tially lethal (the oil applied externally will blister the skin). Many members covered with hundreds of sticky hairs that cling to the skin if contacted. Contact with the eyes can be very serious.

Comments:

A woolly-haired annual herb, evergreen bush, or small tree with smooth ash-colored bark, yellowish-green leaves, small flowers, fruit, and three-seeded capsule. Also seen as a 3-foot-high bush found in the underbrush of arid areas. Small light-green flowers, leaves, and stems are covered with nearly white hairs.

Rattlepod

Other Names(s):

Rattlebox, rattleweed, chilla-goe, horse poison

Mechanism(s) of toxicity/injury:

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 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.



Shanshi

Mechanism(s) of toxicity/injury:

Hallucinogenic effects.
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.



Dalechampia

Photo not available

Mechanism(s) of toxicity/injury:

Some species with stinging glands. Irritant dermatitis.

Spurge Laurel

Other Names(s):

February daphne, merezon, mezereon.

Mechanism(s) of toxicity/injury:

Bark, leaves, and fruit contain toxic agents. Whole plant is toxic. Resin is acrid; has been used in the past as pepper substitute, with fatal consequences. Vesicular dermatitis when skin contact is made (extract used by beggars to induce skin lesions to arouse pity).

Comments:

A very dangerous ornamental. A folk remedy for many symptoms (“dropsy,” “neuralgia,” snakebite, etc.).

Jimsonweed

Other Names(s):

Thorn-apple, stinkweed, devil's trumpet.

Mechanism(s) of toxicity/injury:

The whole plant is toxic. Fragrance from the flowers

may cause respiratory irritation, and the sap can cause contact dermatitis. People have been poisoned through consumption of crushed seeds accidentally included in flour; also through attempting to experience the hallucinogenic “high.” Has a quickly fatal potential.



Comments:

Originally called Jamestown weed because of the historic mass poisoning of soldiers sent to quell “Bacon’s rebellion” in 1666; they ate the seeds because of a severe food shortage.

Pigeonberry

Photo not available

Other Names(s):

Golden dewdrop

Mechanism(s) of toxicity/injury:

Underground parts contain toxins. Berries and leaves have a saponin that causes sleepiness, fever, and seizures; deaths of children are on record. Dermatitis when handled.

Comments:

Tree or shrub with many yellow to orange globular juicy fruits with few seeds. Small flowers are light blue or white. Native to tropical America. Grown as an ornamental shrub in tropical and subtropical areas of the world.

Mole Plant

Other Names(s):

Caper spurge, Mexican fire plant, milkweed; red spurge, poison spurge, cat's milk, wartwort, sun spurge; candelabra cactus; Indian spurge tree, milkwood, pencil tree, pencil cactus, rubber euphorbia.



Mechanism(s) of toxicity/injury:

Herbs, often with colored or milky sap, irritate the eyes, mouth, and gastrointestinal tract, and many cause dermatitis by direct irritation. In some cases, rain water dripping from the plant will contain enough toxic principle to produce dermatitis and keratoconjunctivitis; can blind. Some contain urticating hairs (skin contact breaks off ends and toxic chemicals are injected). The caper spurge has killed those who mistook the fruit for capers. The Mexican fire plant was known for medicinal properties in the first century and has killed children. Red spurge causes dermatitis. The pencil cactus has an abundant, white, acrid sap extremely irritating to the skin; has caused temporary blindness when accidentally splashed in the eyes, and has killed as a result of severe gastroenteritis after ingestion.

Comments:

Genus contains 2,000 species of extremely variable form; may appear as herbs, shrubs or trees — many are cactus-like. Fruit is usually a capsule opening in three parts, each one seeded; sometimes a drupe.

Heliotrope

Other Names(s):

Cherry pie, scorpion's tail,
Indian heliotrope.

Mechanism(s) of toxicity/injury:

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) develop slowly but are ultimately fatal. Chronic copper poisoning has occurred associated with this plant.



Comments:

A large genus of worldwide distribution (250 tropical and temperate trees and shrubs).

Beach Apple

Other Names(s):

Manchineel, manzanillo

Mechanism(s) of toxicity/injury:

Fruits have been confused with crabapples, resulting in serious poisoning, even death. Symptoms occur 1



to 2 hours after ingesting the fruit or leaves. Oral irritation with

subsequent gastroenteritis, bloody diarrhea. Also causes severe dermatitis.

Comments:

A coastal tree cultured as a windbreak.

Bulb Yam

Other Names(s):

Air potato

Mechanism(s) of toxicity/injury:

Bulb yam, air potato, and wild yam have tubers that are poisonous when eaten raw. Causes gastroenteritis (nausea, bloody diarrhea). Some eat them after special preparation. Another species is a prickly climber with a cluster of tubers just below the soil surface. Poisonous unless properly prepared. Has been used to commit murder. Found mainly in the lowlands.



Comments:

Other species of this genus are safe to eat with no special preparation (goa yam, buck yam).

Jaborandi Plant

Photo not available

Mechanism(s) of toxicity/injury:

Twenty-two tropical American species with alkaloids (mainly pilocarpine). Pilocarpine causes miosis, increased salivation, dia-

phoresis, bronchospasm (increased airway resistance, bronchial smooth muscle tone, and bronchial secretions), pulmonary edema, cardiovascular instability (bradycardia, decreased BP), increased intraocular pressure.

Sandbox Tree

Other Names(s):

Huru, bombardier

Mechanism(s) of toxicity/injury:

The toxins include hurin and huratoxin. Hurin is a plant lectin and inhibits protein synthesis in the intestinal wall (causes, after a delay of several hours, nausea, vomiting, and diarrhea). Huratoxin is presumed to be the irritating agent in the sap, which causes dermatitis and keratoconjunctivitis. Used as a fish poison.



Comments:

A tree that grows to 60 feet; bears a woody fruit resembling a small pumpkin. When dry, the fruit pod explodes with considerable force (dangerous to handle when dry) and makes a popping sound, hence the common name, bombardier tree.

Cowitch Cherry

Mechanism(s) of toxicity/injury:

Genus in tropical America, especially the Caribbean; trees and shrubs, sometimes with stinging hairs.



Comments:

With careful handling, many of this plant's parts are cooked and eaten.

Barbados Nut**Other Names(s):**

Physic nut, purging nut, pinon, tempate

Mechanism(s) of toxicity/injury:

Fruit has two or three black, oily, pleasant tasting, poisonous seeds (also toxic roots and leaves) containing a plant lectin which, in contrast to many of the toxic lectins, causes toxicity rapidly (has caused death — severe toxicity can follow ingestion of a single seed); also has intensely cathartic oils (some have used the oil for lamps, etc.); has caused fatal intoxication. Bark has been used as a fish poison. Also a skin irritant (hairs), as are all euphorbs.

**Comments:**

170 species of warm and tropical northern American trees or shrubs, usually with red flowers. Naturalized worldwide. fruit is a three-sided capsule in many species.

Tapioca**Other Names(s):**

Manioc, cassava, yuca

Mechanism(s) of toxicity/injury:

Several varieties, some containing a toxin that is heat labile. Bitter or sweet casava cannot be distinguished other than by taste. Bitter casa-

va is poisonous when eaten raw. Cooking (with several changes of water) eliminates the toxic principle (requires special preparation).

Comments:

Genus includes almost 100 species (trees, shrubs, and herbs) in tropical and warm Americas; some varieties are a significant food source. Same subfamily as Croton. Shrubby tree 3-5 feet high. Widely cultivated. Large tuberous roots rich in starch.



Chinaberry

Other Names(s):

White cedar, African lilac, bead tree

Mechanism(s) of toxicity/injury:

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.

Pokeweed**Other Names(s):**

Pokeberry, poke salet

Mechanism(s) of toxicity/injury:

Mature stems, roots, and berries are poison (saponins mostly in foliage and roots). Death possible when not prepared properly.

**Comments:**

Young shoot tips eaten in many cultures; requires proper preparation (boiled with water changes; water contains toxic substances — kills snails that carry bilharzia). Dye from berries used to color ink, wine, and sweets.

Velvet Bean**Other Names(s):**

Cowhage, cowitch, pica-pica, ox eye bean; horse-eye bean

Mechanism(s) of toxicity/injury:

Many of the species' pods and flowers are covered with irritant hairs. 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.

Black Nightshade

Other Names(s):

Black or deadly nightshade, common nightshade; horse nettle; bitter-sweet; Jerusalem cherry; nipple fruit; quena, potato bush, wild tomato; apple of Sodom; white-edged nightshade.



Mechanism(s) of

Toxicity/injury:

The fruit of the Jerusalem cherry is a black berry; the fully ripe berries are eaten; unripe berries contain solanine alkaloids, which can cause gastroenteritis, weakness, circulatory depression. Can kill.

Comments:

Approaching 2,000 species of herbs, vines, or shrubs covered with small star-shaped hairs. Perfect white, yellow, or blue flowers. Berries have dry or juicy pulp and several seeds. Genus includes a number of food staples (potatoes, tomatoes, and eggplant).

Poison Ivy

Other Names(s):

Manzanillo, western poison oak, eastern poison oak, poison sumac, Chinese/Japanese lacquer tree, Japanese tallow or wax tree, scarlet rhus, sumac

Mechanism(s) of toxicity/injury:

All contain allergenic nonvolatile oils known as urushiols in the resin canals; these oils are highly sensitizing (delayed, type IV sensitivity) for some individuals

**Comments:**

All species are deciduous, and the leaves turn red before being shed. Poison ivy is a climbing or trailing vine with trifoliate, alternate leaves smooth above and hairy beneath. Poison oak is never a climbing shrub, alternately three-leafed, smooth above and hairy beneath. Found in disturbed areas and along trails in North America and is a common source of dermatitis. Poison sumac is a shrub or small tree with 7 to 13 alternate leaflets, and is found in swampy areas of North America. Very few cases of dermatitis are caused by this species because it inhabits isolated areas and few people are exposed to it. Some individuals suffer intense, debilitating reactions from contact with the sensitizing chemicals.

Peppertree**Other Names(s):**

Peruvian mastic tree, Brazilian peppertree, Christmas berry, Florida Holly, broadleafed peppertree.

Mechanism(s) of toxicity/injury:

All parts contain urushiol triterpene. Volatile resin



on skin or in eyes as a result of simply cutting branches has caused severe dermatitis, facial swelling, and keratoconjunctivitis. Used for medicinal purposes and as an additive in pepper. Very strong gastrointestinal irritant.

Comments:

Used in many medicinal decoctions and as treatment for skin disorders (e.g. warts). Many children have been poisoned from eating the fruits.

Yellow Oleander

Other Names(s):

Nerifolium, lucky nut, be-still tree

Mechanism(s) of toxicity/injury:

Contains cardiac glycosides in all parts; seeds have particularly high concentrations. Signs and symptoms of toxicity begin with numbness

and burning in the mouth, dry throat, dilated pupils, abdominal pain, nausea and vomiting, diarrhea, slow irregular heartbeat, hypertension, seizures, coma, and death. The sap can cause skin and eye irritation.

Comments:

A shrub, usually 1 meter (3 to 4 feet) tall, or sometimes a small tree up to 10 meters (30 feet) tall. Native to tropical America, but has been imported as an ornamental to tropical and subtropical regions. The seeds are used in India for murder.



Trumpet Plant

Other Name:

Chalice vine

Mechanism(s) of toxicity/injury:

The whole plant is toxic with tropane alkaloids.



Comments:

Climbing or erect woody vines with large, showy, yellow or cream-yellow flowers with a trumpet shape. Fruit is fleshy, long berry. Source of some hallucinogens.

Castor Oil Plant

Other Names(s):

Castorbean

Mechanism(s) of toxicity/injury:

Used to make a feed supplement; a lectin (ricin — also classed as a toxalbumin), which is a highly toxic chemical, and some glycoproteins with allergenic activity have resulted in serious poisoning. Factors making this a high-risk plant threat are:



the attractive nuts with a hazelnut-like taste; ricin is stable in the presence of gastric enzymes; the fact that 2-6 seeds can be fatal; and the seeds are used to make necklaces, requiring a hole to be bored in the nut, allowing the possibility of toxin to reach the skin

and enter the body through minor abrasions. Poisoning becomes evident after several hours — nausea, vomiting, and diarrhea.

Comments:

The seeds of this ancient plant have been found in Egyptian graves dating as far back as 4000 B.C. Cultivated worldwide for 6,000 years for producing castor oil.

Popcorn Tree

Other Names(s):

Chinese tallow tree,
hinchahuevos

Mechanism(s) of toxicity/injury:

The latex is toxic and has been used as an arrow poison in Central America; causes contact dermatitis. Unripe berries can cause gastrointestinal upset with nausea and vomiting.



Comments:

The popcorn tree is native to China and Japan, but widely cultivated in warm areas. The fruit is a three-lobed capsule that falls away, leaving white seeds.

Panama Tree

Photo not available

Other Names(s):

Castano, tartargum

Mechanism(s) of toxicity/injury:

Edible seeds, but pods are internal stiff bristles that easily penetrate skin causing intense irritation.

Comments:

200 tropical species

Scarlet Wisteria**Other Names(s):**

Corkwood tree, bagpod, purple sesbane, false poinciana, rattlebush

Mechanism(s)**of toxicity/injury:**

All parts are poisonous; most poisonings due to use in herbal teas. Causes Budd-Chiari syndrome. Seeds contain saponins. Up to 24 hours after ingestion, nausea and vomiting occur, with abdominal pain, abnormal accumulation of serous fluid in the abdominal cavity, abnormal enlargement of the spleen, severe diarrhea, hemolysis (red blood cell destruction), respiratory failure, and death.

**Comments:**

Deciduous shrub or small tree with drooping, red-orange flowers in axillary clusters; June-September. Fruit is a legume with partitions between seeds. Native to South America.

Nettle Tree**Other Names(s):**

Ortiga brava, pringamoza

Mechanism(s) of toxicity/injury:

Trees and shrubs with powerful stinging hairs. The intensity of sting delivered by these plants is species-variable. The bushy, tree-like varieties tend to be more irritating.



Any contact between leaves or branches and skin can result in profound burning pain that can last for more than 24 hours. There is no permanent damage.

Comments:

There are 35 native species in tropical and southern Africa, and tropical America. Often used as hedges or local medicinals.

Snakewood**Other Names(s):**

Nuxvomica tree, strychnine tree, curare tree

**Mechanism(s) of toxicity/injury:**

The whole 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. A South American species, 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.

Milkweed

Photo not available

Other Name(s):

Crown flower

Mechanism(s) of toxicity/injury:

Sap with extremely irritating effect on the eyes; also causes an allergic type contact vesicant skin reaction.



Comments:

Poisonings have resulted in death.

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
