El Salvador Country Handbook

1. This handbook provides basic reference information on El Salvador, 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 El Salvador.

2. This product is published under the auspices of the U.S. Department of Defense Intelligence Production Program (DoDIPP). This handbook has been published as a joint effort within the Department of Defense (DoD). This product reflects the coordinated U.S. Defense Intelligence Production Community position on El Salvador.

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

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National Capital
Department Capitals
Cities
International Borders
Roads
0 10 20 30 40 km
0 10 20 30 mi
Pacific Ocean
14°
13°
90°
89°
88°

El Salvador

KEY FACTS

Official Name. Republic of El Salvador

Country Code. SLV

Head of State. President Francisco Guillermo Flores Perez, elected in 1999

Capital. San Salvador

National Flag. Three equal horizontal bands of blue, white, and blue (from top to bottom) with the national coat of arms centered in the white band.

Time Zone. GMT- 6 hours; one hour behind U.S. Eastern Standard Time

Language. The country's primary language is Spanish. Some Amerindians continue to speak Nahua (the native Indian language of the Pipil tribe). English is widely understood in business, academic, and political circles only.

Currency. The national monetary unit is called the colon, which is expressed by a cent sign before the amount. Coins are minted in 5, 10, 25, 50, and 100.

Exchange Rate. 1 colon = 100 centavos; US$1 = 8.750 colones. Money can be changed at all banks and *Casas de Cambio* in downtown San Salvador or at the airport.

Electricity and Voltage. Mostly 110 volts AC; 60 hertz American style 2-pin plugs are common.

National Flag

U.S. MISSION

U.S. Embassy

Ambassador. Rose M. Likins (as of 9 August 2000)

Location. Final Boulevard, Santa Elena, Urbanizacion Santa Elena, Antiguo Cuscatlan, San Salvador, El Salvador

Mailing Address. Unit 3116, APO AA 34023

Embassy Telephone. 011 (503) 278-4444

Consular Telephone. 011(503) 278-6000

Fax. 011(503) 278-6011

E-Mail. www.usinfo.org.sv for more information

Official Website. www.sansalvador.state.gov

U.S. Consulate

The Consulate is located in the U.S. Embassy, San Salvador. The Consular Section is open for U.S. citizen services from 0800 to 1130 on normal embassy working days.

Entry Requirements

Passport/Visa Requirements

A valid passport and visa are required for entry into El Salvador by all visitors except other Central American nationals, who need only a passport. A visa is valid for a single entry within 90 days of issue. Travelers may be asked to present proof of U.S. employment and adequate finances for their visit at the time of visa application or upon arrival in El Salvador. An exit tax must be paid, either in Salvadoran colones or U.S. dollars, when departing the country from Comalapa International Airport in La Paz.

.S. Embassy

The ACS Section accepts applications for U.S. passports Monday through Friday from 0800 to 1130, and the passports are returned the next business day. The passport fees are US$40 for minors, US$60.00 for adults, and US$40 for adults renewing a passport. The passport fees can also be paid for in Salvadoran colones. Departure tax is US$24.65 (including immigration tax). Children under 2 years are exempt, but do need to pay the immigration tax.

Customs Restrictions

Customers must be in country at the time of customs clearance. The following goods may be imported into El Salvador without incurring a customs duty: 200 cigarettes or 50 cigars, 2 liters (2.12 quarts) of alcoholic beverages, up to 6 units of perfume, and gifts to the value of US$500. There are restrictions on the import and export of fruits, vegetables, plants, and animals. Used household goods and personal effects are usually dutiable for foreign citizens. Tourists can avoid paying duties by obtaining a bank guarantee for the amount at which Customs evaluates the shipment. The guarantee should be renewed every 6 months and will permit Customs to collect duties on the items

not being re-exported when the tourists leaves the country. Salvadoran citizens returning after more than 3 years abroad may import duty-free used or new household goods up to a maximum of US$15,000 of the cost, insurance and freight value. Customs will tax anything in excess of this amount. Importing weapons, ammunitions, and pornographic materials is prohibited.

Aviation Safety Oversight

The U.S. Federal Aviation Administration (FAA) has assessed the government of El Salvador's Civil Aviation Authority as Category 2—not in compliance with international aviation safety standards for the oversight of El Salvador's air carrier operation. While consultations to correct the deficiencies are ongoing, any of El Salvador's air carriers with existing routes to the United States will be permitted to conduct limited operations subject to heightened FAA surveillance.

American Airlines operates daily flights from London Heathrow to El Salvador via Miami and Washington. United Airlines operates flights from London Heathrow to El Salvador via Washington.

GEOGRAPHY AND CLIMATE

Geography

El Salvador is the smallest Spanish-speaking country in the Western Hemisphere; total land area is 21,040 square kilometers (8,206 square miles). It is roughly rectangular in shape, with 545 kilometers (338 miles) of land boundaries and 307 kilometers (190 miles) of coastline on the Pacific Ocean. It is the only Central American country without a Caribbean coastline. It is bordered by Guatemala to the northwest, Honduras to the northeast, and the Pacific Ocean to the south.

El Salvador lies in one of the most seismologically active regions on earth. The country is situated atop three large tectonic plates, which accounts for

Central America

the area's frequent earthquake and volcanic activity. El Salvador can be divided into three general topographic regions: the hot, narrow Pacific coastal belt, the central plateau (altitude 610 meters or 2,001 feet), and the northern lowlands, formed by the wide Lempa River Valley. El Salvador has several lakes, the largest being Ilopango, Guija, and Coatepeque. The Lempa, the most important of some 150 rivers, rises in Guatemala and runs south through El Salvador into the Pacific.

The Pacific Ocean borders El Salvador to the south. Conditions in this rugged, hilly to mountainous country are generally unfavorable for most military activities. The beaches are restricted by partly encumbered approaches and difficult access to the interior. Steep, dissected slopes mainly support patches of deciduous brush, interspersed with numerous areas of tree-dotted grasslands. Forests are extensive in the

northern mountains and adjacent to the poorly drained area along much of the coast. The landscape is cut by numerous broad, steep banked streams, which are deep, torrential, and subject to overflow during the rainy season. The land in El Salvador is 90 percent volcanic in origin. The country's topography is rough and irregular due to continuous volcanic activity. Two volcanic mountain ranges, a central one parallel to the Pacific and a northern one along the border with Honduras, traverse almost the entire length of the country.

Topography

El Salvador is the smallest independent state on the Western Hemisphere mainland. Most of El Salvador is situated on a plateau about 600 meters

Topography

(1,968 feet) above sea level on the Pacific slope of the Central American *cordillera*. Mountain ranges running from east to west divide El Salvador into three distinct regions: a hot, narrow Pacific coastal belt on the south, a subtropical central region of valleys and plateaus, where most of the population lives, and a mountainous northern region.

Almost all usable farmland is cultivated. Nearly 300 rivers flow across El Salvador toward the Pacific Ocean. El Salvador's highest point is approximately 2,700 meters (8,856 feet) above sea level. El Salvador is in a very unstable geological zone and is subject to many earthquakes and volcanic eruptions. Ninety percent of the land is of volcanic origin.

Environment

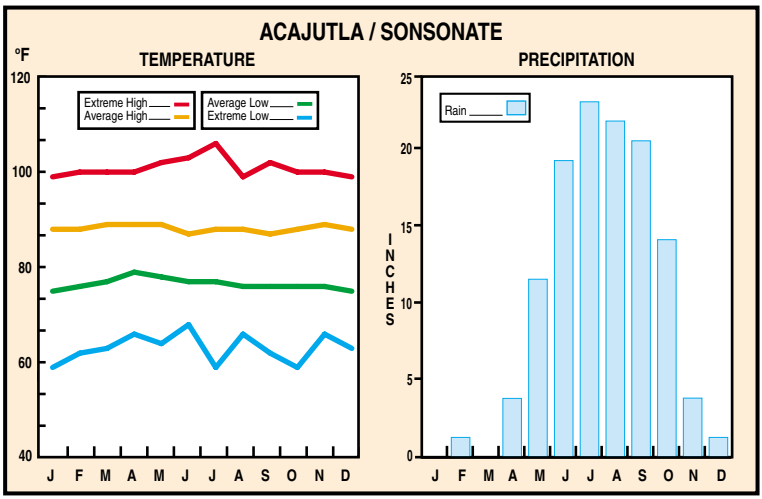
Most of El Salvador's rainforests have been cut down in order to create xmore farm land. This has led to topsoil erosion and desertification in many areas. Commercial timber harvesting has caused further destruction in the highlands, which has diminished the natural habitats of most mammals.

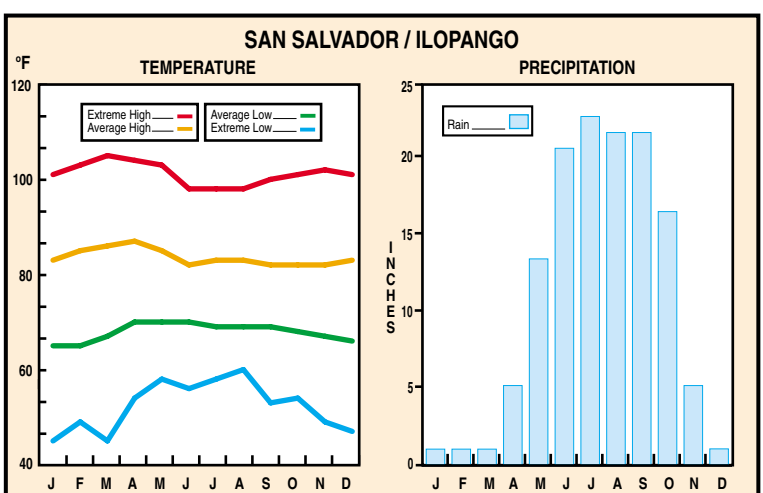
Pesticide poisoning poses a major problem. High concentrations of DDT have been found in cows' milk, mothers' milk, and beef. Water quality has been degraded due to the dumping of trash, untreated sewage, and toxic waste into waterways.

Climate

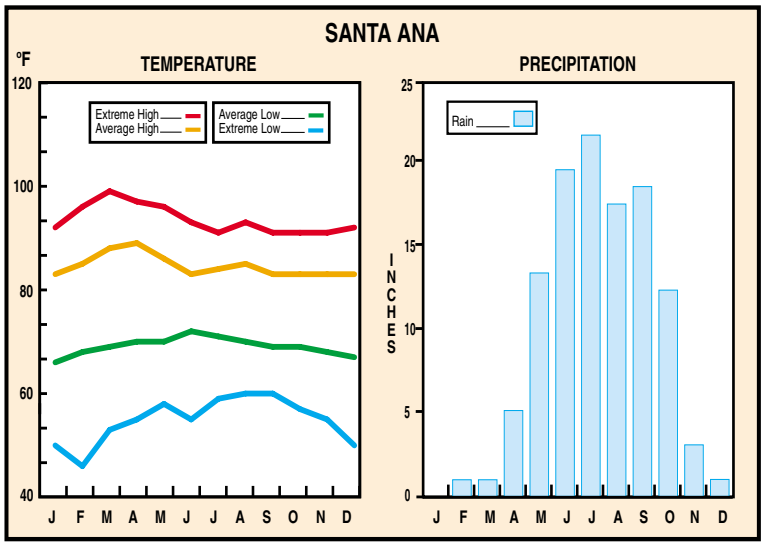
El Salvador, exposed entirely to the Pacific Ocean, is located 14 degrees north of the Equator in the tropical zone. In the elevated interior parts of the country, climate is moderated by elevation, resulting in a warm rather than hot climate. Average temperatures are between 23 and 32°C (73 to 90°F).The country has two distinct seasons.

The wet season is from May to October when light, variable winds, high humidity, cloudy skies, and heavy rains known as *temporal*





Acajutla/San Salvador Weather



Santa Ana Weather

(storm) occur. Mildew may be severe during the wet season when humidity remains high.

The dry season is from November to April when favorable weather occurs as a result of the prevailing northeasterly trade winds. The significant climatic variances are due to elevation differences and are found in three climatic regions: the Pacific Lowlands, which has a hot damp climate; the Central Highland, which has a mild temperate-zone climate; and the Northern Mountains, where daytime temperatures are moderately warm and nighttime temperatures are cool. Temperatures vary with elevation and show little seasonal change.

Hurricanes and tropical storms form to the south of El Salvador. El Salvador is rarely subjected to the damaging tropical storms that form

over the Pacific Ocean, and is usually protected from the hurricanes that form in the Gulf of Mexico.

The rainfall of El Salvador is characterized as tropical, and is closely related to the movement of the trade wind belt. The average annual rainfall is 1,820 millimeters (73 inches).

TRANSPORTATION AND COMMUNICATION

Transportation

Roads

El Salvador's highways are a primary means of transportation. There are 1,500 kilometers (930 miles) of paved (bituminous) highways, 4,100 kilometers of gravel road, and 4,400 kilometers of earth road in the 10,000-kilometer- (6,200-mile-) road network. The road system is considered adequate, with the conditions of main road networks ranging from fair to good. Lack of maintenance due to the civil war and natural disasters have caused road deterioration. The Pan American Highway links El Salvador with Guatemala in the northwest and Honduras in the southeast. In 1991, registered motor vehicles numbered about 160,000, half of which were passenger cars. Poor local driving habits, badly maintained roads, and missing road signs make driving on secondary roads hazardous, particularly at night. Interior roads are not paved and are usually impassable during the rainy season.

In 1998, Hurricane Mitch damaged more than 300 kilometers (186 miles) of major highways and 2,664 kilometers (1,652 miles) of secondary roads, about 30 percent of El Salvador's road network. Although all major highways are now open, movement is slowed by one-way traffic at some river crossings and washed-out areas. Up to 20 bridges were damaged or destroyed. The two Bailey Bridges over the Rio Lempa, the primary means of crossing the Rio Lempa, were washed away, essentially eliminating ground transportation to the eastern third of the country.

Rail

The condition of Salvadoran railroads is considered poor. The country has 602 kilometers (373 miles) of domestic rail lines (0.914-meter guage) of which 459 kilometers (285 miles) are privately owned and 143 kilometers (90 miles) are owned by the government. Only 542 kilometers are in use.

There are rail connections to Puerto Barrios, Mexico, and Guatemala, enabling El Salvador to ship goods to and from Caribbean ports. The entire rail system is narrow gauge and single track. Daily service is available only between Acajutla and San Salvador. Trains on the other two routes operate from one to four times weekly. Two of the rails move

Transportation Network

freight from the ports of Acajutla and La Union, while the third line moves cement. Passenger service operates in the densely populated region between San Salvador and Acajutla.

In recent years, rail conditions in the country have degraded to the point at which trains can travel no faster than 40 kilometers (25 miles) per hour and in some places, only 5 to 10 kilometers (3 to 6 miles) per hour.

Air

El Salvador has two airfields capable of sustaining air operations and providing strat-lift capability for civilian and military transportation needs. El Salvador International (Comalapa) Airfield, 29 kilometers (18 miles) southeast of San Salvador at Comalapa, handles most national and international services and all air cargo and is the principal aerial port of entry (APOE) and the only airfield suitable for supporting C-5 aircraft. The airfield supports GRUPOTACA, a privately owned international airline, and El Salvador's Air Force. The other major airfield is Ilopango, located 6.4 kilometers (4 miles) east-southeast of San Salvador. Ilopango is the headquarters for El Salvador's Air Force and is suitable for C-130 aircraft. There are numerous airfields around the country used for agriculture and emergency landings; El Salvador depends on domestic airlines to link remote areas, those accessible only by light aircraft in rugged terrain, void of road and rail infrastructure.

El Salvador International Airfield

This airfield is a multi-use international airport, supporting commercial passenger, air cargo, and military operations. The airfield is evaluated as the best commercial airport in Central America and is a hub for airline operations in the region. El Salvadore International is the main fixed-wing operating base for the El Salvadoran Air Force. It has an asphalt runway, 3,201 meters- (10,499 feet-) long by 45 meters- (148 feet-) wide.

Operational Capability: 18 C130s, 76 C-15s, or 188 A-37s could be parked with adequate clearance and taxi space on a combined total apron area of 83,989 square meters (933,212 square feet).

Ilopango Airfield

Daylight operations only; unsuitable for C-141B, C-5, C-17, KC-10, KC-135; restrictions imposed.

Los Commandos Airfield

Capable of supporting light transport aircraft.

Tamarindo Airfield

Daylight operations; VFR only; unsuitable for C-141B, C-5, KC-10, KC-135, and C-130.

Casas Nuevas Airfield

Daylight operations; VFR only; unsuitable for C-141B, C-5, KC-10, KC-135, C-9, and C-21 aircraft. The runway will not support a C-130 at full weight capacity.

Golfito Airfield

Daylight operations; VFR only; unsuitable for C-141B, C-5, KC-10, KC-135, C-9, and C-21 aircraft. Not suitable for C-130 at full weight capacity.

Maritime

Commercial navigation along the rivers of El Salvador is almost nonexistent. The country's largest river, Rio Lempa, connects a network of more than 150 smaller streams that serve local transportation and commerce. The river is navigable only through short, disconnected reaches by small, shallow draft vessels.

Ports

El Salvador has five seaports, two of which handle nearly all of the country's seaborne trade. The two largest ports are Acajutla Port Facility, which is the most important due to its all-weather dock facilities, and Cutuco in La Union Port Facility; both are located on the Pacific coast. The main Atlantic port used by El Salvador is in Santo de Castilla, Guatemala. Cargo from this port is shipped overland by road or rail.

Salvadoran ports are shallow and cannot accommodate either a fully laden Fast Sealift Ship (FSS) or Large, Medium-Speed RO/RO (LMSR) vessel. Commercial fishing is concentrated at Acajutla, La Libertad, Puerto El Triunfo, and La Union. All port infrastructure and supporting facilities are assessed to be in good condition unless otherwise stated.

A port's military cargo capacity is the average amount of military cargo that can be discharged from ship to wharves/berths and cleared from the port (via rail, road, or inland waterway) during a 24-hour period, of which 20 are considered effective cargo-moving hours. The capacity describes a logistic re-supply effort during an extended period (three days or more), taking into account operating delays that normally limit cargo-handling operations.

Acajutla

The Acajutla port facility is the largest in El Salvador and is the country's main logistical lifeline. Most exports and imports are shipped through Acajutla. It is located on the Pacific coast approximately 85 kilometers (53 miles) southwest of the capital. The port is served by a two-lane, bituminous-treated road, which intersects with the Pan America highway, and a single track, narrow-gauge (.914 meter) rail line connecting Acajutla to San Salvador. This port is a coastal breakwater port with no specific anchorage area. Cargo vessels usually anchor about 1.9 kilometers (1 mile) northwest of the breakwater and tankers remain underway, within VHF range. The tides rise about 1.8 meters (6 feet) at springs and 1.5 meters (5 feet) at neaps. The water depth is over 15 meters (49 feet). Acajutla is a general cargo port equipped to handle breakbulk, liquid-bulk, drybulk, roll-on/roll-off, and containers.

La Union

The La Union port facility at Punta Gorda is in southeast El Salvador on the northwestern arm of the Gulf of Fonesca. It is located about 2 kilometers (1 mile) east-southeast of the city of La Union and about 0.6 kilometer (.4 mile) southeast of the La Union port facility at Cutuco. A 2-lane, bituminous road provides a link to nearby La Union. The nearest major

airport is El Salvador International, about 29 kilometers (18 miles) southeast of San Salvador. The port no longer handles cargo.

La Libertad

The Libertad port facility is located 20 kilometers (12miles) southwest of San Salvador. The facility is a single-pier fishing port, which has been closed to commercial shipping since 1976. Its pier is still intact but in poor condition.

El Triunfo

El Triunfo is a shallow-water coastal port with good shelter, located in southeast El Salvador, 13 kilometers (8 miles) north of the Bay of Jiquilisco's entrance. It is a small loading and fishing port for the town of Jiquilisco.

Punta Gorda

Punta Gorda is a natural coastal port. Approach to the port is from the south through the Gulf of Fonesca. Access is through a natural channel situated between the Zacate coral reef, off the isle of Zacatillo and Punta Chiquirin; the channel is approximately 300 meters- (984 feet-) wide, with a depth of 6.5 meters (21.3 feet). Shoals lie alongside the channel. Pilotage is not compulsory, but is recommended. Tides rise about 3 meters (10 feet) at springs and 2 meters (6.5 feet) at neaps. Currents are fairly regular except during the rainy season. Off Punta Chiquirin, the ebb current sometimes runs at a rate of 3 knots. The prevailing winds are usually light. Designated anchorage is available about 2.7 kilometers (1.6 miles) south of Punta Chiquirin in depths of 11-13 meters (36-43 feet); there is additional anchorage within the bay.

Communication

Radio and Television

El Salvador's radio stations operate from 0500 to 2300. Several FM stations broadcast in stereo. Shortwave reception is good for English and Spanish Voice of America broadcasts. El Salvador has four commercial stations that transmit programming at least 16 hours per day. Government-owned channels, 8 and 10, are used for educational and informational broadcasting.

Telephone and Telegraph

Telephone and telegraph service is available throughout El Salvador. Offices of state-owned telephone service, ANTEL, offer long distance telephone service, telegraph, telex, and fax services to most countries. Direct long-distance dialing is available to the United States and most of the world. Pay phones cost 10 centavos. All three major phone companies in the United States have operator service from El Salvador: AT&T (access 800-1785), MCI (access 800-1767), and AT&T Direct (requires local coin payment). A worldwide cable service is available through the Salvadoran telecommunications system. Local cable telegram rate is 1.75 colones per word to anywhere in the United States. Fax service is also available in most major hotels.

In May 2000, Telemovil awarded Nortel Networks a contract to install a fixed wireless access network with capacity for 50,000 cellular subscribers. The network is capable of carrying voice, data, and internet services.

Newspapers and Magazines

In 1995, there are six daily newspapers published in El Salvador, with a total circulation of approximately 300,000. San Salvador has four leading newspapers, *La Prensa Grafica, El Diario de Hoy, Diario Latino,* and *La Noticia.* U.S. newspapers are available in the country. Print and broadcast journalists are able to freely and regularly criticize the government without censure.

Postal Service

Mail service in El Salvador is unpredictable. Airmail letters usually take about 2 weeks to reach the United States or Europe. Packages take approximately the same time, but have a good chance of disappearing. Post office service in El Salvador is from 0900-1600, Monday to Friday.

Internet

Internet access is readily available throughout the country. Net Sat Express (web site: http://www.netsatx.net) and Pointe Communications (web site: http://www.telscape.com) are service providers.

CULTURE

The people of El Salvador are known for their hospitality. They love their country and are proud of its accomplishments. Having recently endured a 12-year civil war, Salvadorans generally try to be optimistic about the future. Their lives revolve around the family as the primary social, economic, and political unit.

Population Patterns

El Salvador's population is approximately 6,122,000, with nearly 90 percent Mestizo (mixed Spanish and Indian), 1 percent Indian (Amerindian), and 9 percent Caucasian, mostly of Spanish descent.

Education and Literacy Rates

The Ministry of Education and Culture oversees the country's school system and formal/informal education programs. It also fosters art and cultural activities. Primary education is free, compulsory, and is based on the U.S. system, although enforcement of primary school attendance is difficult and truancy levels are high. The literacy rate is 71.5 percent of those 15 and older. During the civil war, state universities were closed and occupied by the military. The government, however, encouraged the establishment of private universities, which are now popular among the middle class. El Salvador's National University campus, closed from 1980-1984, operates with approximately 30,000 students.

Religion

Approximately 94 percent of the population is Roman Catholic and about 3 percent are Protestant. There are several active Protestant missions throughout the country, including Baptist, Lutheran, Latter-Day Saints, and Adventist denominations. In addition, there are about 7,800 Amerindian tribal religionists. The 1962 constitution guarantees religious freedom and exempts churches from taxation.

Customs and Courtesies

Greetings

A handshake is the customary greeting, but sometimes a slight nod of the head is also used. Children also appreciate having adults shake their hands. The use of titles shows respect, which is expected when greeting the elderly.

Gestures

It is considered poor manners to use extensive hand or head gestures in conversation or to express feelings. Yawns should be avoided or covered with the hand. It is not appropriate to point fingers or feet at anyone. Only close friends should be beckoned with a hand wave.

Food

The country has numerous Chinese, Mexican, Italian, French, and native restaurants, plus several fast food chains. Fresh vegetables are available throughout the year. Locally grown vegetables include potatoes, beets, carrots, lettuce, and cauliflower. A variety of fruits, such as tomatoes, papayas, bananas, pineapples, and watermelons are available as well. All fruits and vegetables should be thoroughly washed in safe water before they are eaten. Diseases of greatest risk to non-indigenous personnel are gastoenteric, usually associated with poor-quality drinking water and unwashed fruits and vegetables.

Business Hours

Commercial hours usually run from 0800 to 1200 and from 1400 to 1700. The traditional siesta, from 1200 to 1400, is still popular in El Salvador. Shopping hours are from 0900-1200 and 1400-1800 Monday to Saturday.

Recreation

The eastern coast is renowned for its beaches. Surfing is popular, with the biggest waves rolling at Punta Roca and Los Cobanos beaches.

Canoeing and whitewater rafting is available on some of the rivers. Visitors also fish, sail, and race boats at private clubs. Organized cultural tours to archaeological sites, as well as hiking expeditions to the volcanoes, lakes, and parks can be booked from private operators.

MEDICAL ASSESSMENT

Disease Risks to Deployed Personnel

Food- or Waterborne Diseases

Diarrheal diseases caused by bacteria, protozoa, and viruses are the greatest risk to deployed forces. Risk from hepatitis A, which many Salvadorans contract during childhood, is moderate to high. Risk of typhoid and paratyphoid fevers is countrywide and year-round.

Insect-, Tick-, and Miteborne Diseases

Dengue fever and malaria pose the greatest risks, primarily from May through October. Other insect- and tick-borne diseases likely to be a risk include Eastern equine encephalitis, Venezuelan equine encephalomyelitis, leishmaniasis, and Chagas' disease.

Animal-associated Diseases

Leptospirosis, spread primarily by rat urine, brucellosis, rabies, and anthrax are all risks. Human rabies cases increased during the mid- to late-1990s with dogs being the primary source of human infection.

Respiratory Diseases

Acute respiratory infections are a risk, particularly in crowded living conditions. The incidence of tuberculosis increased in the early to mid-1990s, with the incidence among populations displaced by civil unrest reportedly three times higher than the overall national average.

Sexually Transmitted and/or Blood-borne Diseases

Sexually transmitted diseases including gonorrhea, hepatitis B/D, syphilis, and HIV/AIDS are a risk. Heterosexual contact is the primary source of infection for HIV/AIDS.

Medical Capabilities

El Salvador has one of the lowest quality health care systems in Central America, and recent earthquakes have lessened the likelihood than any improvement will be realized in the near term. Health care coverage is estimated to be available to less than 50 percent of the population. Shortages of personnel, pharmaceuticals, disposable supplies, blood, and diagnostic equipment are common.

The country's best public and private medical treatment facilities are in San Salvador; private hospitals provide the best health care. The most qualified physicians have received training in Canada, the United Kingdom, or the United States. Not all physicians are trained to Western standards. Most clinical specialties are well represented within San Salvador. There is some English-speaking capability in the better health care facilities.

Limited, small-scale emergency medical services can be provided within the country.

Most medical material is imported from Japan, Latin American countries, the United States, and Western Europe. Numerous international agencies donate pharmaceuticals to El Salvador, including the Pan American Health Organization, the United Nations Children's Fund (UNICEF), Project Hope, US Agency for International Development (USAID), International Red Cross, and the Knights of Malta. The blood supply is unsafe, and blood supplies are at a critically low level because of relief efforts associated with the January and February 2001 earthquakes.

Key Medical Facilities

Central Military Hospital

Geo Coordinates	134304N/0891258W
Location	Avenida Bernal, Residencial San Luis
City	San Salvador
Telephone	274-0036, 274-1820
Type	Military
Capabilities	Has 300 beds; cardiology, orthopedic surgery, traumatology, anesthesiology, obstetrics and gynecology, pediatrics, emergency room, operating room, critical care unit, intensive care unit, limited burn unit, trauma unit, laboratory, x-ray, pharmacy, physical therapy, hemodialysis, blood bank.
Comments	Definitive treatment facility for military personnel with capabilities similar to those of some of the best civilian facilities within San Salvador. Accepts civilian patients for a fee.

Diagnostic and Emergency Hospital

Geo Coordinates	134230N/0891210W
Location	21 a. Calle Poniente y 2a
City	San Salvador
Telephone	25-9422; Fax: 26-3465, 25-2604
Type	Private
Capabilities	Has 100 beds; cardiology, endocrinology, neurology, cardio-thoracic surgery, ENT-related surgery, neurosurgery, ophthalmology-related surgery, orthopedic surgery, plastic surgery, emergency medicine, anesthesiology, obstetrics, gynecology, radiology, pediatrics, 24-hour ambulance and emergency services, 4 operating rooms, intensive care unit, trauma unit, laboratory, x-ray, small pharmacy, blood bank, CT scan, ultrasound, mammography, and hemodialysis.
Comments	U.S. Embassy recommends this facility be used for emergencies.

HISTORY

In 1524 Pedro de Alvarado conquered the country of El Salvador with a force from Mexico. He joined the region to the Captaincy-General of Guatemala. The small number of Spanish settlers intermarried with the Indians and established large agricultural and cattle-raising estates in the fertile valleys of the volcanic uplands. El Salvador joined the other Central American countries in declaring its independence from Spain in 1821. It resisted confederation with Mexico, and Guatemalan troops sent to enforce the union were driven out of the country. During this period El Salvador petitioned the U.S. Congress for statehood to avoid annexation by Mexico, but the prospect ended with the death of Mexican Emperor Augustin Iturbide in 1823.

Political violence, revolution, dictators, military governments, and civil strife marked El Salvador's first century. Added to these internal difficulties were frequent periods of conflict with neighboring countries.

The first quarter of the 20th century was relatively peaceful and a degree of political stability was achieved, but the prospect of democratic reforms led to a military coup in 1931. From 1931 until 1980, every president but one was an army officer. A constitution was adopted in 1961, and in presidential elections held the same year, Adalberto Rivera of the *Partido de Conciliacion Nacional* assumed power. Rivera encouraged the development of light industry and supported the nation's participation in the Central American Common Market. A brief but bitter war was fought with Honduras in 1969. El Salvadoran troops pushed 30 kilometers (19 miles) into Honduras before an Organization of American States- (OAS-) sponsored cease-fire halted hostilities.

In 1972 Jose Napolean Duarte, of the Christian Democratic Party (PDC), opposed the military candidate for presidency. Duarte was denied election by fraud and sent into exile. Pressure for reform came from armed leftist factions, and the right unleashed "death squads" to

intimidate and eliminate any who attempted to introduce violent change to the country. By the late 1970s, the situation had escalated into civil war. Guerrillas consolidated under the Farabundo Marti National Liberation Front (FMLN), and right-wing violence increased. Between 1979 and 1989 approximately 45,000 civilians were killed in government/insurgent fighting. The combined death toll for civilians and combatants was 75,000. In 1979 a coup brought the previously exiled Duarte to power as president. He oversaw the drafting of a new constitution and was legitimately elected in 1984.

During most of the 1980s, the government, assisted by military advisors and large quantities of economic and military aid from the United States, worked to suppress the guerrillas and restore the country's battered economy. However, the activities by left- and right-wing death squads hampered these efforts. An imminent economic collapse was averted by direct U.S. financial assistance. The revelation of President Duarte's terminal cancer, and corruption in the ranks of the PDC, led to the National Republican Alliance party's (ARENA) Alfredo Christiani winning the 1989 election and assuming the presidency amidst allegations that he was closely tied to the death squads. Many feared the worst as Christiani assumed power. However, he was able to bring the FMLN to discussions with the government. After 11 years of conflict it became clear that neither side could defeat the other by force. Negotiations began, and following a lengthy series of discussions, the FMLN and the government established a permanent peace agreement in 1992. In return for the FMLN's military demobilization, the government agreed to reduce its armed forces by half and to civilianize the police force. Paramilitary groups were banned and land reform was initiated.

In the run-up to elections scheduled for 20 March 1994, violence continued to jeopardize the country's democratic future. At the beginning of March, the front-runner for President was Armando Calderón Sol of ARENA. His opponent was Ruben Zamora, leader of an alliance between the Democratic Convergence, a center-left umbrella group, and the FMLN. However, neither candidate won a majority. A run-off elec-

tion held on 23 April 1994 gave the victory to Calderón, who received 70 percent of the votes and took office on 1 June 1994.

While some of the reforms outlined in the peace agreement were implemented (most notably the land-transfer program), many Salvadorans consider the current situation to be no better than it had been before the civil war. Unemployment, poverty, disgruntled ex-combatants, and a proliferation of guns in the country led to high homicide rates and caused approximately 20 percent of Salvadorans to live abroad.

Nationwide parliamentary and local government elections in March 1997 produced an uncharacteristic win for the left in El Salvador. The ruling right-wing ARENA lost considerable ground to the country's former left-wing rebels, FMLN. Hector Silva took the mayoral elections in San Salvador, as the FMLN won 7 of the 14 state capitals. In addition, the FMLN almost emerged from the elections as the biggest party in the 84-seat Legislative Assembly. It gained 16 seats (as of the date of this publication, it holds 28), while ARENA lost 9 (as of the date of this publication, it holds 29).

In 1998, Hurricane Mitch caused significant damage to the country. Most of the damage occurred in the eastern third of the country and along the coast, especially in the departments of Usulutan and San Miguel. These two departments make up about 20 percent of El Salvador's territory and contain 14 percent of its population.

El Salvador held presidential elections on 7 March 1999, with ARENA candidate Francisco Flores, taking 51.4 percent of the vote. His closest rival, Facundo Guardado, took 29 percent of the vote. President Flores took office on 1 June 1999.

On 29 March 2000, Flores urged his Central American neighbors to resolve the border conflicts that threatened the region's fragile peace and its efforts at economic cooperation. El Salvador, Honduras, and Nicaragua had all clashed over territorial differences in the Gulf of Fonseca, a Pacific inlet shared by the three countries.

Hurricane Mitch Damage

El Salvador signed a free trade agreement with Mexico, Guatemala, and Honduras on 29 June 2000. Under the deal, more than 60 percent of Salvadoran exports would be tariff-free to the three countries, while Mexico would lift most of its barriers on imports in January 2001. However, key products such as coffee, sugar, and bananas were excluded.

El Salvador approved a controversial bill on 8 July 2000, which would establish an U.S. anti-narcotics base (Forward Operation Location) in the country to intercept drug trafficking along the Pacific coast. After a lengthy debate in Parliament, President Francisco Flores pushed through legislation to allow U.S. military personnel to operate the new listening post. The bill was approved despite the fierce opposition of the former Marxist rebels. The former guerillas feared that the vague wording of the legislation would open the door to future U.S. military intervention.

In early August 2000, hemorrhagic dengue fever killed at least 36 people in El Salvador. The Salvadoran Ministry of Health reported more than 15,700 cases of dengue fever. Because the disease reached epidemic proportions and the Ministry of Health had limited resources, El Salvador requested international medical and monetary assistance. President Flores declared a national emergency on 12 September 2000 and appealed to the international community for aid. A team of 14 Cuban doctors arrived in El Salvador on 25 October, bringing with them 100 pieces of fumigation equipment to fight the outbreak. Open communication from the Salvadoran Ministry of Health, USAID, and the US MILGRP resulted in a U.S. medical assessment team in the country.

On 13 January 2001 a major earthquake touched off a mudslide that buried the middle-class neighborhood of Las Colinas, a suburb of San Salvador. Many shacks in surrounding impoverished shantytowns also collapsed. Flores had refused to listen to environmentalists who tried to block further development of Las Colinas' sandy, unstable hillsides; 1,200 people died and 250,000 were left homeless.

Chronology of Key Events

1821	Independence from Spain
1824	Independence from Mexico as part of the United Provinces of Central America
1839	National Independence
1841	Republic established
1876-1906	War with Guatemala
1969	"Soccer War" with Honduras
1980	El Salvador-Honduras border peace treaty signed.
1992	Peace accord signed in Mexico City. International Court of Justice issues ruling on the El Salvador-Honduras border dispute and grants most of the land in dispute to Honduras.
1994	First post-civil war elections

arthquake Damage

1996	El Salvador and Honduras sign agreement that establishes procedures for settling remaining details of border disputes.
1997	Taiwan signs agreement to boost trade with El Salvador.
1998	International aid effort mounted in response to Hurricane Mitch.
1999	Border treaty signed with Honduras. El Salvador continues to negotiate affiliation to North America Free Trade and to encourage Taiwanese investments.
2001	The conversion of official currency from colones to American dollars is implemented. January earthquakes cause significant damage to the country.

GOVERNMENT AND POLITICS

Government

Key Government Officials

President	Francisco Guillermo Flores Perez
Vice President	Carlos Quintanilla Schmidt
Minister of Foreign Affairs	Maria Eugenia Brizuela de Avila
Minister of Finance	Juan Jose Daboub
Minister of the Economy	Miguel Lacayo
Minister of Education	Ana Evelyn Jacir de Lovo
Minister of Defense	Major General Antonio Martinez Varela
Minister of Justice and Public Security	Francisco Beltran Galindo
National Police Director	Mauricio Sandoval

Executive Branch

The executive branch consists of the president and vice president, who are elected for a single, non-renewable 5-year term. The president is commander-in-chief of the armed forces and is responsible for the annual budget, appointing diplomatic officials, and supervising the police.

Legislative Branch

The legislative branch consists of a unicameral assembly composed of 84 deputies apportioned among the various departments according to population. Deputies are elected for 3-year terms and must be at least 25 years of age. The assembly levies taxes, regulates the money supply, ratifies treaties, and is empowered to override a presidential veto by a two-thirds vote.

Judicial Branch

The legal system is based on Spanish law, but traces of common law can also be found. A new constitution was adopted 20 December 1983, written by the constituent assembly. The highest court is the supreme court. Judicial review of legislative acts takes place in the supreme court. The court system includes justices of the peace, courts of the first instance, intermediate level appellate courts, and the supreme court - the latter made up of 13 judges who are selected by the legislative assembly. The supreme court can be considered the head of the judicial branch and is also responsible for appointing judges below the appellate level.

Local Government

El Salvador is divided into 14 departments, each with a governor appointed by the president. The country has 262 municipalities, which are administered by mayors and municipal councils elected for 3-year terms by popular vote. Traditionally independent in their local functions, municipalities may be limited in their activities by the departmental governor.

Politics

The constitution permits any party collecting 3,000 signatures by September of the year preceding the election to register. This leads to a proliferation of minuscule parties. However, any party failing to gain 5 percent of the vote gains no representation.

Administrative Divisions

Political Parties

National Republican Alliance (ARENA): formed in 1981; led by Alfredo Cristiani.

Farabundo Marti National Liberation Front (FMLN): formed in 1980; Facundo Guardado, general coordinator.

Christian Democratic Party (PDC): formed in 1960; Rene Aguiluz, secretary general; title in dispute.

National Conciliation Party (PCN): formed in 1961; Ciro Cruz Zepeda, secretary general.

Democratic Convergence (CD): Ruben Zamora, secretary general.

Popular Labor Party (PPL): formed in 1997; Jose Ernesto Villanova, secretary general.

Liberal Democratic Party (PLD): formed in 1994; Kirio Waldo Salgado, president.

Social Christian Union (USC): formed in 1997; Abraham Rodriguez, president; composed of the Social Christian Renovation Party (PRSC), the Unity Movement (MU), and the MSN.

Democratic Party (PD): formed in 1995; Ana Guadeloupe Martinez, president.

***Movimiento Autentico Cristiano* (MAC):** formed in 1988; centrist; led by Julio Adolfo Rey Prendes.

***Partido Popular Salvadoreno* (PPS):** formed in 1966; right wing; led by Francisco Quinonez Avila.

***Partido Accion Democratica* (PAR):** formed in 1981; center-right; led by Ricardo Gonzalez Camacho.

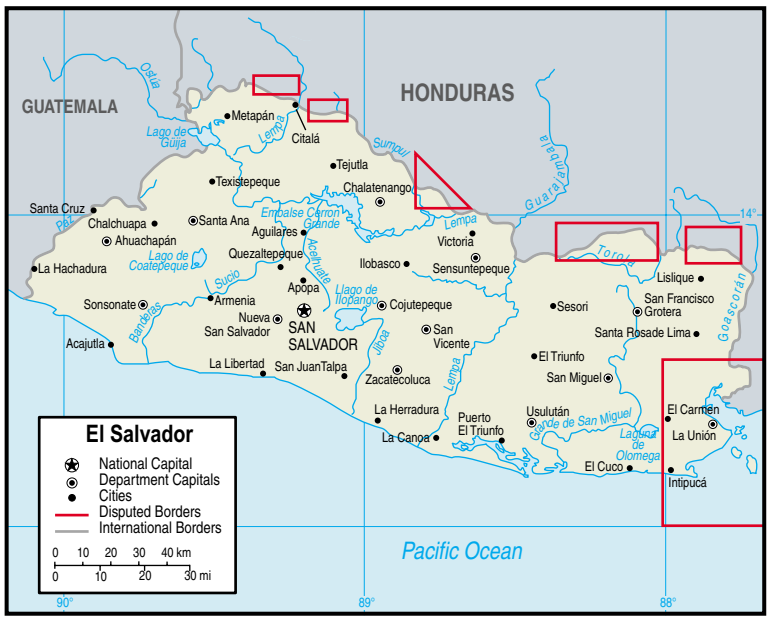
Suffrage

Universal suffrage was inaugurated in 1950 for all citizens more than 18 years old. However, voting in El Salvador has been a source of great controversy. During the 1980s, the government made voting compulsory, while the guerrillas insisted the citizens should not "collaborate" with the system by casting their votes.

Foreign Relations

United States

El Salvador has historically maintained close ties with the United States. During the civil war in the 1980s, United States provided substantial military assistance, trainers, and advisers for the counter-insurgency war.



El Salvador/Honduras Areas of Dispute

Bordering Countries

El Salvador and Honduras have been involved in border disputes for more than a century. While tensions may occasionally rise in the Bolsones areas, they are not likely to result to military conflict. The land boundary dispute with Honduras was mostly resolved by the September 1992 International Court of Justice (ICJ) decision; with respect to the maritime boundary in the Golfo de Fonseca, ICJ referred to an earlier agreement and advised that some tripartite resolution among El Salvador, Honduras, and Nicaragua would likely be required.

Alliances and Organizations

El Salvador is a member of the OAS, a signatory of the Rio Treaty, and a member of the United Nations. The capital of San Salvador is the per-

manent headquarters site of the Organization of Central American States. El Salvador is also a member of the World Trade Organization and is pursuing regional free trade agreements. As an active participant in the Summit of the Americas process, El Salvador chairs a working group on market access under the Free Trade Area of the Americas. El Salvador maintains its closest ties with other Central American countries, which still account for one-quarter of all the country's foreign trade. Oil imports from Venezuela account for a large percentage on the country's imports.

ECONOMY

El Salvador has a diversified economy. The upper class traditionally controls most of the country's wealth, and there are serious problems of poverty and hunger. Although 26 percent of the country's land is cultivated, much of what is grown is designated for export. El Salvador's economy relies heavily on agriculture, which employs approximately 40 percent of the work force and provides one-quarter of the GDP. The principal crop is coffee, which is the main export earner. Other important crops are cotton, sugar, beans, and rice. The manufacturing sector, based largely on food and beverage processing, accounts for 20 percent of the GDP and 15 percent of employment. The 1992 Peace Accord established political stability for foreign investment and continued economic growth.

As of the date of this publication, the Salvadoran economy is showing signs of settling into a growth pattern. The government is financing infrastructure development at a rapid rate. Four-lane highways, new electronics, clothing factories, and petroleum refineries have begun to appear throughout the country as result of this financing. However, El Salvador estimates that its level of growth through 2001 will help the country recover to its pre-1978 economic level.

Statistics

GDP (Per Capita):	US$13.2 billion
External Debt:	US$3.8 billion
Major Imports:	Raw materials, consumer and capital goods, fuels, petroleum, and foodstuffs.
Major Exports:	Coffee, sugarcane, shrimp, textiles, chemicals, and electricity.
Inflation Rate:	1.30 percent
Labor Force:	2.35 million
Unemployment Rate:	7.70 percent

Resources

Industry

El Salvador has a strong industrial base. The industrial sector plays a secondary role in the country's economy, and it is the most developed in Central America. The country's factories produce textiles, leather goods, clothing, processed food, tobacco, furniture, wood and metal products, and chemicals. The leading region of industry is in the city of San Salvador. Also, the country has coffee-processing plants, sugar mills, bakeries, and it produces petroleum products, vegetable oils, fats, confectionery, dairy products, soaps, candles, matches, and organic fertilizers.

Manufacturing

The manufacturing sector in El Salvador, based largely on food and beverage processing, accounts for 20 percent of the GDP and 15 percent of employment. The industrial sector has shifted since 1993 from a domestic orientation to include free zone (*maquiladora*) manufacturing for export. *Maquila* exports have led the growth in the export sector and, in the recent years, have made a major contribution to the Salvadoran economy.

Fishing

The fishing industry, which centers on shrimp, has undergone significant development since 1957. The best coastal fishing grounds are off

the southeastern sector. Scale fish include freshwater robalo, sea bass, mullet, mackerel, swordfish, and red-mouth; its tuna industry has been operating since 1963.

Agriculture

El Salvador's economy is heavily dependent on agriculture, which employs approximately 40 percent of the work force and provides 25 percent of the GDP. The main crop and main export is coffee. Other important crops are cotton, sugar, corn, oilseeds, beans, cereal, vegetables, fruits, rice, sorghum, beef and dairy products.

Foreign Aid

The United States has long been the main aid supplier. During the civil war, 75 percent of the aid received was spent on weapons to fight FMLN insurgent forces. Currently, the focus is to achieve national reconciliation by funding rebuilding and refugee resettlement programs. The World Bank and Inter-American Development Fund have also directed hundreds of millions of dollars into El Salvador.

THREAT

External

At present there is no threat to El Salvador's territorial borders, although there are occasional incidents on the border with Honduras.

Crime

The U.S. Department of State assesses the criminal threat in El Salvador as critical. Violent and petty crimes are prevalent throughout El Salvador. U.S. citizens are often victims. Visitors should avoid carrying valuables in public places. Armed assaults and car jackings are especially frequent on roads outside the capital where police patrols are infrequent. Armed bands routinely ambush vehicles on the major highways and conduct assaults

using automatic weapons in the major cities. Criminals frequently use fragmentation grenades in their attacks. Criminals have been known to follow travelers from international airports to private residences where they carry out assaults and robberies. Criminals can become violent quickly, especially when victims are slow to surrender valuables. Frequently, victims who argue with assailants or refuse to give up their valuables are shot. Most crimes and assaults in greater San Salvador occur during the crowded early-morning and early-evening rush hours. The rate of violent crime also increases between 1700 and 0100, especially during the weekend. Criminal gangs of former insurgents arm themselves with grenades and either AK-47 or M-16 assault rifles and dress in camouflage uniforms. These gangs normally operate in groups of 8 to 15, and routinely conduct kidnappings, thefts, assaults, and vehicle hijackings.

Terrorism

The United Nations-sponsored peace accords signed in January 1992 ended the civil war that had plagued El Salvador since the late 1970s. The years of armed conflict between Salvadoran government forces and the FMLN devastated the Salvadoran economy. Salvadoran military and police forces have undergone drastic force reductions and restructuring while the FMLN demobilized. The threat to U.S. personnel in El Salvador is now more of a criminal, rather than terrorist, nature.

Insurgency Groups

During the Civil War, most insurgent activity revolved around the communist FMLN organization. Now a legitimate political party, the FMLN is no longer considered insurgent. However, during the transition to peace in 1992, not all members of the FMLN saw truce as the road to their envisioned victory. As a result, splinter groups of ex-combatants began to operate independently. These groups are criminal in nature, often using ambush-style guerrilla tactics to make a living. These tactics include armed theft, extortion, and weapons or narcotics trafficking. Today, these criminal groups operate in remote areas of the countryside.

Farabundo Martí National Liberation Front

The FMLN was established in October 1980 as an umbrella organization of five paramilitary groups: *Fuerzas Armadas de Resistencia Nacional* (FARN - Armed Forces of National Resistance [SLV]), the People's Revolutionary Army (ERP), the Communist Party of El Salvador (PCES), the Central American Workers' Revolutionary Party (PRTC), and the *Fuerzas Populares de Liberación - Farabundo Martí* (FPL). The organization was initially under the leadership of Salvador Cayetano Carpio, a former Secretary General of the Salvadoran Communist Party, between 1940 and 1969. Following Carpio's death in Managua, the ERP leader, Joaquín Villalobos, gradually emerged as the first among equals within the FMLN's five-man National Revolutionary Directorate. Since 1992, the FMLN has operated as a political party, having laid down its arms in return for a reduction in the armed forces, the removal of some military human rights violators, and the creation of a civilian police force.

Salvadoran Revolutionary Front (FRS)

The FRS is comprised of both former members of the FMLN and ex-members of the ESAF. The FRS targets the National Civil Police (PNC) and former revolutionaries, and also has demonstrated the capability to conduct assassinations and assaults. The FRS may have been responsible for firing automatic weapons into a Salvadoran military base camp near Montecillo, San Miguel Department, where U.S. troops were stationed in March 1995. U.S. soldiers did not return fire, nor did the incident cause any injuries.

Vigilante Organizations

There are several vigilante organizations in El Salvador, including the Black Shadow Group and the Provisional Anti-Criminal Executive Command. These vigilante groups are characterized as traditional, pro-rightist death squads, which summarily execute criminals and drug dealers. They rarely pose a terrorist threat to U.S. military personnel.

Drug Trafficking

Member of Vigilante Group

El Salvador is a transshipment point for Colombian-produced cocaine destined for the United States and Europe. El Salvador's role in the transshipment of cocaine to the United States has increased because of drug enforcement successes in Guatemala. In 1993, El Salvador's National Assembly passed a long-awaited drug control bill. Under the new anti-drug legislation, an Executive Anti-drug Unit was authorized as the anti-narcotics division of the new PNC. That year, approximately 8.1 metric tons (8.9 tons) of cocaine was seized, representing a 254 percent increase over 1991. In the first 10 months of 1995, only 62 kilograms (137 pounds) of cocaine was seized. This probably indicates a detection problem and should not be construed as a cessation of drug transshipment activity.

Mines

El Salvador endured civil strife for 12 years; in that period, 20,000 landmines were laid in rural areas. The principal locations of concentrated mines were in the Guazapa volcano area, the San Miguel volcano area, and Chalatenango Province. These landmines were a serious public safety threat and prevented the use of arable land for agriculture in some areas. Mine clearance in El Salvador was declared completed in January 1994, but probably did not account for all of them.

ARMED FORCES

Organization

The President is commander-in-chief of the armed forces. He is assisted by the chief of the general staff and the minister of defense and public safety. The chief of the general staff has operational control of the army, air force, and navy.

Minister of Defense
Major General Varela

Personnel

Under the 1992 Peace Accord, the size of the armed forces was reduced from 60,000 to approximately 26,000 active duty personnel. Several infantry battalions, the National Intelligence Directorate, the Treasury Police, and the National Guard were disbanded to meet the force reductions agreed to in the accord. The peace agreement also limits the army's mission to protecting the republic from foreign attack and gives the internal security mission to the newly organized PNC.

Key Military Personnel

Commander-in-Chief	President Francisco Flores Perez
Minister of Defense	Major General Juan Martinez Varela
Army Chief of Staff	Brigadier General Hector Antonio Gutierrez Velasquez
Air Force Chief of Staff	Colonel Milton Antonio Andrade Cabrera
Navy Chief of Staff	Captain Jose Misael Vanegas Fonseca
Defense Attache to the U.S.	Colonel Richard Nazario

Weapons of Mass Destruction

El Salvador possesses delivery systems suitable for use with chemical or biological munitions. El Salvador has not signed the Geneva Protocol, but did sign the Inter-American Peace Conference Accords, which ban chemicals in war (1986). It signed, but did not ratify, the Biological Weapons Convention.

Army

Mission

The Salvadoran Army is organized primarily for national defense rather than internal security. The mission of the El Salvadoran Army (ESAF) is to defend the national sovereignty and territory of the republic, to assist in maintaining internal order during states of emergency, and to contribute to public works projects. The Army is also tasked to support the national civilian police.

Organization

El Salvador's Army has approximately 15,000 personnel, including 4,000 conscripts. The army is organized into six military zones, each composed of one to three departments. Force structure is focused on 6 infantry brigades, each with two or three 680-man battalions. Each battalion contains four companies (three line and one combat support). The infantry brigade headquarters includes a headquarters company and a combat service support battalion.

The artillery brigade consists of an air defense and two field artillery battalions. The mechanized cavalry regiment has 2 mechanized battalions (each with 2 APC squadrons) and an armored squadron. The Combat Engineer Command consists of 2 engineer battalions. Special operations units are under the Special Forces Command (*Commando de Fuerzas Especiales*) and include the parachute battalion, a naval commando company (control of this 12-man unit was removed from the Navy), an anti-

terrorist commando company, and three company-sized long-range reconnaissance patrol units.

There is also a Special Security Brigade, consisting of 4 MP battalions and 2 frontier guard battalions and support units. Other units are the Presidential Battalion, the Logistical Support Command, and a signal battalion. Also, a tri-service (Army, Air Force, and Marine) Special Forces Command exists under the Army's operational control. This command consists of an army commando company, a marine commando company, an air force paratroop battalion (at 50 percent strength), one, or possibly two, long-range reconnaissance groups, also administratively part of the air force, and a small unit of naval combat swimmers.

The major military bases are at or near:

- El Paraiso,
- La Libertad,
- San Jose,
- San Francisco de Gotera.
- San Miguel,
- San Salvador,
- San Vicente,
- Sitio del Nino,
- Usulutan,
- Zacatecoluca,

Personnel

El Salvador Army personnel strength is approximately 23,000, including officers, enlisted troops, and 3,000 civilian administrative personnel. While the officer corps is highly professional, most enlisted troops are 1-year volunteers with little experience and limited training. The exception is the Special Forces Command, which only accepts troops after completion of their first year of enlistment elsewhere. Because of this, the Special Forces Command has the most highly trained and motivated personnel.

El Salvador has compulsory military service for all males between 18 and 60 years old. After serving 18 months of service, usually from age 18 or 19, conscripts revert to an active reserve status until age 30. From age 30 to 60, reservists are assigned to second-line territorial service. Generally, enlisted members of the Salvadoran Army are between 18 to

Military Disposition

40 years old, NCOs are 24 to 30 years old, and company- and field-grade officers are 24 to 38 years old.

Uniforms

Army personnel wear a brown dress uniform and a casual uniform (dark brown pants, light color shirt and shoulder rank). The woodland fatigues have been replaced by simpler, locally made woodland-pattern uniforms. The Special Forces Command has its own dress standards. The Parachute Battalion wears standard woodland fatigues with maroon berets. The Anti-Terrorist Company wears black fatigues with a green beret, and the long-range recon units wear desert-style fatigues with black berets.

Training

All officers of the Army, Navy, and Air Force receive basic training at the *Escuela Militar Capitan General Gerardo Barrios* at San Salvador. Special skills (MOS) training is taught at the *Escuela de Armas y Servicios* for both officer and enlisted ranks, while advanced officer training is provided at the *Escuela de Comando y Estado Mayor Manuel Enrique Araujo*. Both of these institutions are in San Salvador.

Newly enlisted personnel attend a 12-week basic skills training course. NCOs receive training in the areas of promotion advancement, reconnaissance, commando skills, and supply duties.

After completing basic training, enlisted troops receive on-the-job training at their units. At the end of their first year of enlistment, those soldiers considered superior are sent to the Advanced Individual Training offered by specialized schools (intelligence, engineer, special forces).

The Special Forces School transferred from San Francisco Gotera to La Union where the basic training center and training areas are located.

Equipment

Note: Unless otherwise stated, equipment is of U.S. origin.

Armor

Type	Role	Quantity
AML-90 (FRA)	APC	10
M-113	APC	14
66 UR-416 (DEU)	APC	8
M-37B1	APC	40

Artillery

Type	Role	Quantity
105-mm M-101	Towed Howitzer	24
105-mm M-102	Towed Howitzer	36
105-mm M-56FH (YUG)	Towed Howitzer	18

Type	Role	Quantity
120-mm UBM-52 (YUG)	Mortar	60
81-mm (YUG)	Mortar	300
60-mm	Mortar	Unk

Antitank

Type	Role	Quantity
90-mm (M-67)	Recoiless Gun	400
106-mm	Recoiless Gun	20
66-mm LAW	Antitank Rocket	Unk

Air Defense Weapons

Type	Role	Quantity
20-mm M-55 (YUG)	Antiaircraft Gun	36
20-mm Ramta TCM-20	Antiaircraft Gun	4

Infantry Weapons

Type	Role	Quantity
M-16	Rile	43,000
Galil	Assault Rifle	Unk
MP5 (DEU)	Submachine Gun	Unk
M60	Machine Gun	Unk
40-mm M-203	Assault Rifle/ Granade Launcher	Unk
9-mm	Pistol	8,000

Air Force

Mission

The Salvadoran Air Force (FAS) officially provides close air, logistical, and operational support to other services as well as patrols borders and territorial waters. The primary mission is to maintain the sovereignty of El Salvador's airspace. Specific missions include close air

support, troop transport, re-supply, disaster relief, and counter-drug operations. A lack of qualified personnel and poor aircraft maintenance reduces mission performance.

Organization

The air force commander exercises operational control over two air brigades and reports directly to the Chief of the Joint General Staff of the Armed Forces. The 1st Air Brigade is located at Ilopango Air Base, the main base, and the 2nd Air Brigade is located at Comalapa Air Base. Air force headquarters and the Flight Training (Basic and Advanced) School are located at Ilopango. There are airstrips at San Miguel, Ahuachapan, Sonsonate, Zacatecoluca, San Vicente, Chalatenango, and Usulutan.

Personnel

The Air Force had approximately 1,100 personnel; they were forced to decrease personnel strength to comply with the Peace Accords. In response, the Air Force has streamlined its operations by consolidating assets at its two bases.

Training

All training for FAS is carried out at Ilopango. Officers receive basic training at the *Escuela Militar Capitan General Geraldo Barrios* located in San Salvador. Pilots receive flying training at the *Escuela de Avician Militar.* Specialty training for officers and other ranks is provided by the *Escuela de Armas y Servicos,* located at San Salvador, or the *Escuela de Especialization,* located at Ilopango. Most officers receive additional training abroad.

The Air Force has difficulty fulfilling its mission because of a shortage of trained pilots and a lack of flight training time. Aircraft availability is reduced by a lack of spare parts and poor maintenance.

Equipment

Unless otherwise noted, aircraft listed below are of U.S. origin.

Fixed Wing

Type	Role	Quantity
Cessna A-37 Dragonfly	Ground Attack	10
Douglas AC-47	Ground Attack	2
Rallye 235 G5 Guerrier (FRA)	Ground Attack	3
Fairchild C-123	Transport	2
0-2A Super Skymaster	Transport	13
C-130 Hercules	Transport	1
IAI-201 Arava (ISR)	Transport	3
Fairchild C-123K Provider	Transport	2
Dornier 28 (FRA)	Transport	12
Douglas DC6 Liftmaster	Transport	1
Magister CM-170 (FRA)	Trainer	3
Cessna 0-2A	Trainer	12
Cessna T-41A Mescalero	Trainer	2

Rotary Wing

Type	Quantity
UH-1H/UH-1M	5
Hughes 500E	2
Hughes 500D	3
MDH 500D	3

Air Defense Weapons

Type	Role	Quantity
20-mm M55A2	Antiaircraft Gun	6

Navy

Mission

The primary mission of the El Salvador Navy is to enforce El Salvador's economic exclusion zone and to protect the country's maritime

resources and sovereignty. The Navy has been shifting toward a maritime law enforcement role, emphasizing counter-drug operations, but lacks adequate funding. The Navy also performs contraband control checks and verifies fishing permits. Additional naval missions include riverine operations, search and rescue, disaster relief, environmental conservation and protection, as well as transportation of the civilian population. There is also a naval detachment to protect Salvadoran fishermen from Guatemalan naval forces.

Organization

The Commander of the Navy has direct control over El Salvador's naval forces. He reports to the Chief, Joint General Staff, who answers to the Minister of Defense, who answers to the president. The current Navy commander is Captain Jose Misael Vanegas Fonseca. The FNES is headquartered at San Salvador and primarily based at La Union. the main bases are La Union, Acajutla, la Libertad, and Puerto el Triunfo, Lake Guija.

The Navy has no deepwater capability, which prevents it from providing an effective defense of the coastline or territorial waters. Its main duties are counterdrug and fishery protection.

Personnel

Strength is reportedly between 800 and 1,075. A naval infantry contingent of about company size accounts for 150 personnel of the total and there are also support troops.

Training

Enlisted navy personnel receive 15 weeks of basic training conducted by the naval staff at La Union. A small navy training school at La Union provides enlisted technical instruction. Training covers military and mechanical skills and emphasizes on-the-job training. Many specialists, particularly mechanics and communications personnel, enter the Navy directly from civilian life, bypassing the regular basic training program. A commissioning program exists for senior enlisted personnel. Training for

the Marine Company emphasizes small-unit operations. The United States also provides advanced training to selected naval officers. San Salvador and La Union are the main naval training areas.

Deployment

Naval activities consist of rotating one or two craft from the Jiquilisco Bay area to Puerto El Triunfo. The Navy also maintains one 30-meter (100-foot) Camcraft anchored at Acajutla, which leaves port only on orders from the Combined Staff. Twice a year another Camcraft deploys to La Libertad to support rescue operations during national holidays. The rest of the fleet operates from La Union and patrols mostly in the Gulf of Fonseca.

Equipment

The naval logistics system is headquartered in San Salvador; however, the supply section at La Union is responsible for ordering all patrol boat parts and supplies for the Navy. A stock control card system has been implemented at La Union to improve efficiency in ordering supplies.

The Navy is equipped with a variety of coastal and river patrol craft:

Barracks at Punta Roca Naval Base

Surface Fleet

Type	Quantity
Point-Class (Ex-USCG) PM-12	1
Protector 32-m Class	1
Cam Craft Type (GC6,7,8)	3
Swiftships 77-ft Commercial Cruiser Class (GC-11)	1
Swiftships 65-ft Class (GC-10)	1
Protector-Class (River Patrol Class) PBR	8
Piranha-Class (River Patrol Class) PBR	4
Rodman 800 Class (PBR)	11
Landing Craft LCM	3
Boston Whalers	unk

Marines

The Salvadoran Naval Infantry Infantry Company is part of a non-existent Marine battalion that is currently staffed only by an executive officer. There are no other Marine companies in the battalion.

The army formed its first Marine unit (Marine Commando Company) in 1982. In 1985, with the assistance of the U.S. advisors, a Marine battalion was formed. The battalion was subsequently deactivated following the signing of the peace accords in 1992. During the 1980-1992 Conflict, Salvadoran Marines conducted combat operations in the coastal area of El Salvador, in the area south of Usulutan, and near Jiquilisco Bay and Jaltepeque inlet. The army formed the new Marine Infantry Company in February 2000.

Mission

The wartime mission of the Salvadoran Marines is to conduct combat operations on the coast. Secondary missions include search and rescue operations, humanitarian assistance, environmental protection, and counter-drug operations.

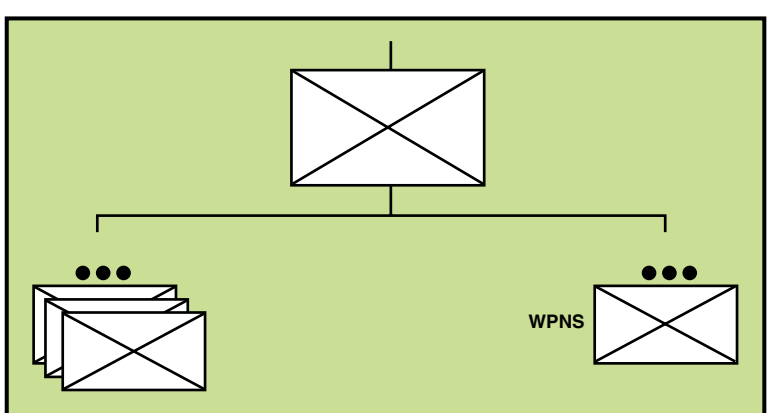
Organization

The Marine Infantry Company is based at the Punta Roca Naval Station, La Union. The marine company is composed of a 5-man headquarter element, and three 31-man rifle platoons, as well as one weapons platoon.

Each rifle platoon is composed of three 10-man squads and commanded by a second lieutenant platoon leader (an NCO currently commands one platoon). The headquarter element includes the Commander, medic, messenger, and radio operator. A marine sniper armed with an M-14 rifle is assigned to each squad.

Personnel

The Marine Infantry Company has approximately 90 personnel although it authorized 5 officers and 140 enlisted personnel. The average marine is 25 years old with a 6th-9th grade education. The marines live in open bay barracks on Punta Roca Naval Facility in La Union.



Salvadoran Marine Infantry Organization

Training

Salvadoran Marines received their basic training in Punta Roca Naval Facility. The current members of the Marine Infantry Company have at least 18 months of military experience. The marines conduct daily training and field exercises and spend 1 week per month in the field and 1 week per 4-month period on the rifle range.

Uniforms

El Salvador Marines wear locally produced woodland pattern camouflage uniforms with the shirt tucked into the trousers and U.S. Marine- or U.S. Army-style patrol caps. Those marines who can, buy and wear U.S. style battle dress uniforms.

Marine Infantry Patch

Equipment

M-60 Machine gun	6
60-mm Mortar	4
M-14 Rifles w/o scopes	6

Small Arms

Salvadoran enlisted Marines carry M16A1 rifles and the officers carry CAR-15 carbines and Browning high-power pistols.

Boats and Crafts

Navy LCM-8 landing craft
40-foot patrol boats
17/20-foot civilian fishing craft

Communication Equipment

Marine units use PRC-77 FM radios. The headquarters element uses RF-3090 radios. The units have no encryption capability or handheld radios.

Capabilities

The marine company has no amphibious warfare, riverine operations, or special operations capabilities.

Police Forces

Organization

The formation of the police force resulted from the peace agreement ending the war. The PNC falls under the Ministry of Public Security. The PNC is divided into five sub-regions: metropolitan, west, center, midcenter, and east. The five regions have delegations or major police stations in the following cities:

- San Salvador,
- Soyapango,
- Ilopango,
- Ciudad Delgado,
- Santa Tecla,
- Sonsonate,
- Ahuachapan,
- Santa Ana,
- Chalatenango,
- Sensuntepeque,
- San Vicente,
- Zacatecoluca,
- Usulutan,
- San Miguel,
- San Francisco de Gotera, and
- La Union.

The chief of police has overall responsibility for supervising the PNC. The PNC falls under the Ministry of Public Security and is composed of an advisory group, a control unit, a judicial coordination section, a communications coordination section, an internal audit unit, an internal affairs section, and a criminal scientific investigation unit. Under each of these sections are two sub-directorates: operations and administration. The operations directorate includes public security, criminal investigations, border matters, finance, arms and explosives, VIP protection, environmental issues, counter-drug, and traffic. The administrative directorate includes a planning and budgeting division, management division, infrastructure division, information services, and logistics division.

Mission

The PNC provides civilian law enforcement to the nation, maintains internal security and serves as a counterbalance to the armed forces.

Personnel

There are approximately 13,000 police officers, of those approximately 11,000 are actual agents. The border division totals approximately 240 people. The end-strength for the police is projected to be 20,000 officers. While most personnel are former FMLN fighters and sympathizers, the police force has demonstrated support for the government and the military. The Anti-Narcotics Division is the counterdrug element of the police and has an assigned strength of 250 personnel. It was a relatively

National Police Officers

Explosive Division Personnel Disarming a Bomb

effective unit until 1995 when it was incorporated into the PNC in accordance with 1992 Peace Accords.

The *Grupo De Reaccion Policial* (GRP - the National Civilian Police SWAT team) followed the riot squad. They were outfitted with goggles covering their faces and ballistic vests. There are 16 members in the SWAT team, including one team leader.

Uniforms/Ranks

National Civil Police personnel wear black fatigue uniforms similar to utilities. The Police Career Law provides for promotion by merit, with at least two years of prior duty for basic positions, and three years for mid and executive-level positions. The ranks are as follows:

Basic level: officer, corporal, and sergeant.

Executive level: sub-inspector, inspector, and chief inspector.

Superior level: sub-commissioner, commissioner, commissioner general, sub-director general, and director general.

National Police Patch

Training

All police training takes place at the National Public Security Academy. Police officers must be high school graduates and must attend a six-month course before joining the force. Weapons qualifications take place at Los Planes de Renderos, under the instruction of GRP members. Courses at the basic level trained 350 candidates each month for 6-month training classes during the first two years of the overall training effort. For executive positions, 120 cadre are trained each year and instruction will last a year. Foreign instructors will provide training in police ethics, human rights, report writing, and the psychology of criminality. The military and the PNC have conducted joint anticrime operations in the rural areas of El Salvador.

Deployment

The PNC is deployed in 7 of the 14 national departments as well as 6 populous urban centers in San Salvador. In the future, the PNC will be deployed in the departments of La Paz and Cuscat, increasing PNC coverage to 9 departments.

Equipment

Small arms are the primary weapons for the police officers with exception of the SWAT unit, which has specialized equipment to conducts

Police Dispersing Striking Transportation Workers

their operations. The SWAT team weapons consist of Heckler and Koch MP-5K submachine guns with side folding stocks, three MP5-A3 submachine guns, three Galil rifles with open sights, three Galils mounting telescopic sights, and three carrying SIG 3000 sniper rifles. Other equipment includes: MD 520N Hudges and UH-1H helicopters, Caravan I Floatplanes, Enaer Pillan aircraft, and river boats.

Special Forces

Mission

The Special Forces Command located at the Ilopango Air Base, Municpality of Ilopango, was created on 6 February 1993 as a major command in which all special operations units in the ESAF were integrated. The command does not provide troops for any of the anti-crime plans (Guardian, Grano de Oro, etc.), however, it is on constant standby and alert for an emergency situation if needed by the PNC, the ESAF, or the joint task patrols.

Organization

Special Forces is a strategic unit organized under the command and control of the Chief of the Joint Staff. The command consists of a command section, the executive officer's section, a staff section, and a special advisory section. Unlike the other commands, the Special Forces command has no responsibility to recruit first year soldiers. All soldiers are volunteers who have served their initial years in other units. The command has 5 subordinate sections plus the SOF assets of the Navy, Marines, and Air Force.

Army SOF

The Army Special Forces Command has 3 operational units, a garrison unit, and a Special Forces school. An Airborne Battalion supports the SOF. Army SOF units have been trained by United States military trainers in the execution of their primary missions of direct action and interdiction.

Navy and Marine Corps SOFs consist of 3 small units of a commando company, a boat handling company, and a security company. Their primary mission is unconventional warfare.

There are currently no air force units specifically assigned to SOF, however, the Air Force does support SOF missions.

The SOF command has the primary missions of conventional operations, direct action, special reconnaissance, and anti-terrorism, with the secondary missions of search and rescue, counter drug, counter terrorism, and humanitarian relief. These capabilities are limited by mobility factors since the unit relies on the other services to provide transportation. It must fulfill any mission issued by higher headquarters in order to contribute to the attainment of national political objectives.

APPENDIX A:
Equipment Recognition

INFANTRY WEAPONS

9-mm H&K MP5

Maximum Effective Range	200 m
Caliber	9-mm
System of Operation	Delayed blowback, selective fire
Overall Length	680 mm (stock fixed or extended)
Feed Device	30-rd detachable box magazine
Weight (Loaded)	3.07 kg

9-mm Uzi

Maximum Effective Range	200 m
Caliber	9-mm
System of Operation	Blowback, selective fire
Overall Length	650 mm (stock extended)
Feed Device	32-rd detachable box magazine
Weight (Loaded)	3.6 kg

.30 M1 Carbine

Maximum Effective Range	300 m
Caliber	.30 caliber U.S. M1 Carbine
System of Operation	Gas, self-loading (M1) selective fire (M2 and M3)
Overall Length	904 mm
Feed Device	15- or 30-rd detachable box magazine
Weight (Loaded)	2.77 kg

7.62-mm M14

Maximum Effective Range	1000 m
Caliber	7.62-mm x 51
System of Operation	Gas, selective fire
Overall Length	1.12 m
Feed Device	20-rd detachable box magazine
Weight (Loaded)	5.1 kg

7.62-mm G3

Maximum Effective Range	600 m
Caliber	7.62-mm x 51
System of Operation	Delayed blowback, selective fire
Overall Length	1025 mm
Magazine Capacity	20-rd detachable box magazine
Weight (Loaded)	753 g

M1919

Maximum Effective Range	1000 m
Caliber	.30 caliber or 7.62-mm
System of Operation	Automatic
Feed	Belt fed

.50 cal. Browning M2HB

Maximum Effective Range	1,500 m (effective)
Caliber	.50 caliber Browning (12.7-mm x 99)
System of Operation	Short recoil
Overall Length	1.651 m
Feed Device	100-rd disintegrating link belt
Weight (Loaded)	38 kg

M5A1 Stuart Light Tank

Crew	4
Armament	1 x 37-mm high-velocity gun 1 x 7.62-mm coaxial MG 1 x 7.62-mm bow-mounted MG
Night Vision	No
NBC Capable	No
Maximum Road Range	100 miles
Maximum Road Speed	34 mph
Combat Weight	33,907 lbs

AML-90

Crew	3
Configuration	Wheeled (4 x 4)
Armament	1 x 90 mm gun w/20 rds 1 x 7.62 mm MG w/2,000 rds 2 smoke grenade launchers on either side of turret with 16 grenades
Night Vision	Optional
NBC Capable	Optional
Maximum Range	600 km (Road)
Maximum Speed	90 km/h
Fuel Capacity	156 liters
Combat Weight	5,500 kg
Height	2.07 m
Length	5.11 m (gun forward)
Width	1.97 m
Fording	1.1 m (amphibious w/kit)
Gradient	60%
Vertical Obstacle	0.3 m
Trench	0.8 m

UR-416

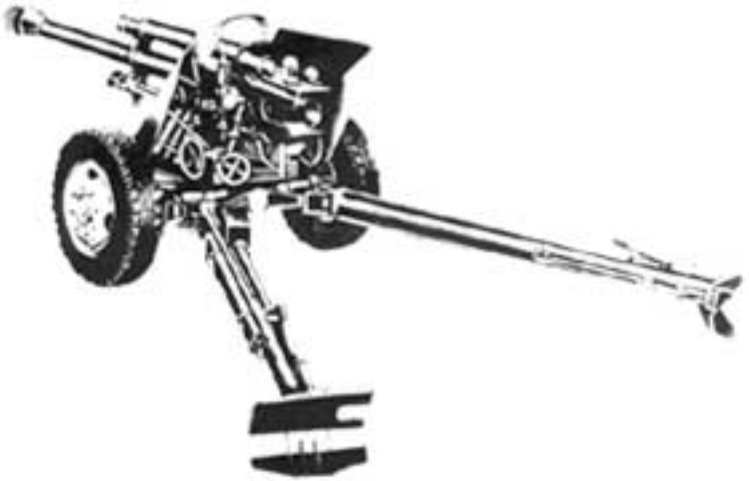
Crew	2 + 8
Configuration	4 x 4
Armament	
Main	1 x 7.62-mm MG
Armor	Unk
Night Vision	Optional
NBC Capable	No
Maximum Road Range	600 to 700 km
Maximum Road Speed	81 km/h
Fuel Capacity	150 liters
Fording	1.3 m
Gradient	70%
Vertical Obstacle	0.55 m
Combat Weight	7,600 kg
Height	2.25 m
Length	5.1 m
Width	2.25 m

ARTILLERY

M101

Crew	8
Maximum Range	11,270 m
Rate of Fire	10 rds/min
Combat Weight	2,030 kg
Length	5.991 m
Width	3.65 m
Height	3.124 m
Prime Mover	6 x 6

M-56 105-mm Pack Howitzer



Crew	7
Maximum Range	10,575 m
Rate of Fire	3 rds/min
Combat Weight	1,290 kg
Length	4.8 m
Width	2.9 m
Height	1.93 m
Prime Mover	4 x 4

ANTIAIRCRAFT

Ramta TCM-20 20-mm

Crew	4
Maximum Range	5,700 m
Rate of Fire (Per Barrel)	650 rds/min
Combat Weight	1,350 kg
Length	3.27 m (traveling)
Width	1.7 m (traveling)
Height	1.63 m (traveling)

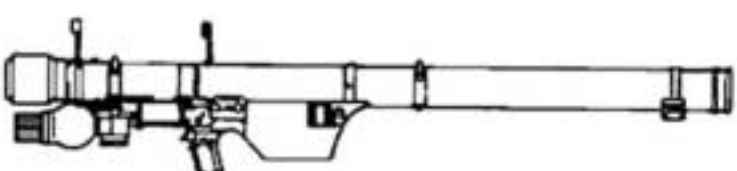
M55 A2 20-mm

Crew	6
Maximum Range	5,500 m
Rate of Fire (Per Barrel)	700 rds/min
Combat Weight	1,100 kg
Length	4.3 m (traveling)
Width	1.27 m (traveling)
Height	1.47 m (traveling)

SA-7

Crew	1
Maximum Range	3,200 m
Combat Weight	9.15 kg
Length	1.49 m

SA-14



Guidance	Passive IR homing FM tracking logic seeker
Maximum Range	2,000 m (approaching jet) 4,500 m (approaching prop A/C or helicopter)
Combat Weight	16 kg
Length	1.5 m

Cessna A-37B Dragonfly

Crew	2
Armament	Assorted guns, rockets, or bombs
Maximum Speed	440 kts
Maximum Range	878 nm
Wingspan	10.93 m
Height	2.70 m
Length	8.62 m

Cessna O-2A Skymaster

Crew	1
Armament	Assorted rockets, missiles, and gun pods
Maximum Speed	172 kts
Maximum Range	545 nm
Wingspan	11.63 m
Length	9.07 m
Height	2.79 m

CAMCRAFT-Type PC

Complement	10
Armament	1 x Oerlikon 20-mm or 1 x 12.7-mm MG 2 x 7.62-mm MGs 1 x 81-mm mortar
Maximum Speed (kts)	25.0 full power
Displacement (t)	100 full load
LOA/Beam/Draft m (f)	30.5 x 6.4 x 1.5; (100 x 21 x 4.9)

ASMAR PROTECTOR-Type PC

No Photo Available

Complement	16
Armament	2 x Oerlikon 20-mm
Maximum Speed (kts)	20.0 full power
Displacement (t)	107 full load
LOA/Beam/Draft m (f)	32.7 x 6.7 x 2; (107.3 x 22 x 6.6)

POINT-Class PC

No Photo Available

Complement	10
Armament	2 x 12.7-mm MGs
Maximum Speed (kts)	22.0 full power
Displacement (t)	67 full load
LOA/Beam/Draft m (f)	25.3 x 5.2 x 1.8; (83 x 17.2 x 5.8)

NOTE: No Graphic available

SWIFTSHIPS 77 FT-Class PC

Complement	7
Armament	2 x 12.7-mm MGs (aft MG combined w/81-mm mortar)
Maximum Speed (kts)	26.0 full power
Displacement (t)	48 full load
LOA/Beam/Draft m (f)	23.5 x 6.1 x 1.5; (77.1 x 20 x 4.9)

SWIFTSHIPS 65 FT-Class PC

Complement	6
Armament	1 x Oerlikon 20-mm gun 1 or 2 x 12.7-mm MGs 1 x 81-mm mortar
Maximum Speed (kts)	23 full power
Displacement (t)	36 full load
LOA/Beam/Draft m (f)	20 x 6 x 1.5; (65.6 x 18.3 x 5)

PIRANHA-Class PBR

Complement	5
Armament	2 x 12.7-mm MGs 2 x 7.62-mm MGs
Maximum Speed (kts)	26.0 full power
Displacement (t)	8.2 full load
LOA/Beam/Draft m (f)	11 x 3.1 x 0.5; (36 x 10.1 x 1.6)

PROTECTOR-Class PBR

Complement	4
Armament	2 x 12.7-mm MGs 2 x 7.62-mm MGs
Maximum Speed (kts)	28.0 full power
Displacement (t)	9 full load
LOA/Beam/Draft m (f)	12.3 x 4 x 0.4; (40.4 x 13.4 x 1.4)

MERCOUGAR Riverine Craft PBR

No Photo Available

Armament	2 x 7.62-mm MGs
Maximum Speed (kts)	40.0 full power

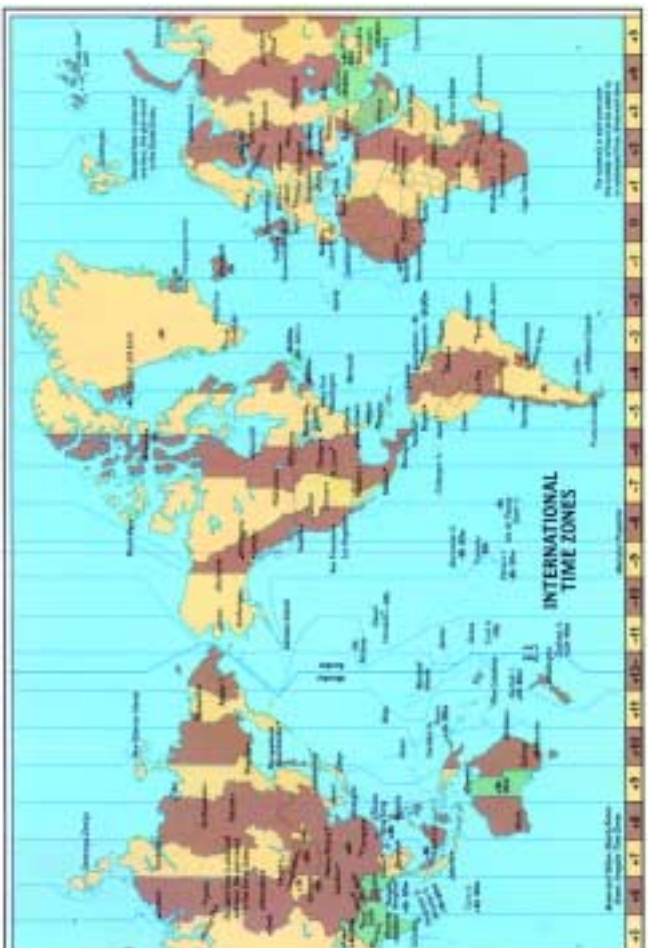
RODMAN 800-Class PBR

Complement	3
Armament	1 x 7.62-mm MG
Maximum Speed (kts)	28.0 full power
LOA/Beam/Draft m (f)	8.9 x 3 x 0.8; (29.2 x 9.8 x 3.6)

LCM

Complement	6
Armament	2 x 12.7-mm MGs 2 x 7.62-mm MGs
Maximum Speed (kts)	15.0 full power
Displacement (t)	45 full load
LOA/Beam/Draft m (f)	21.5 x 4.6 x 1.6; (64.7 x 14 x 5)

APPENDIX B:
International Time Zones



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

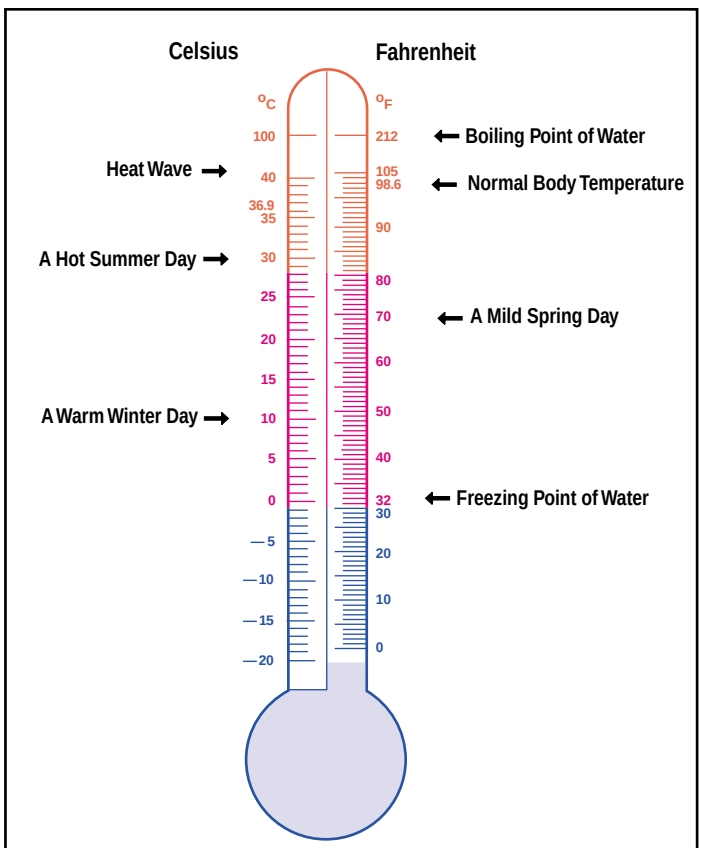
Units of Volume	Multiply by	To find
Milliliters	0.20	Teaspoons
Milliliters	0.06	Tablespoons
Milliliters	0.03	Fluid Ounces
Liters	4.23	Cups
Liters	2.12	Pints
Liters	1.06	Quarts
Liters	0.26	Gallons
Cubic Meters	35.32	Cubic Feet
Cubic Meters	1.35	Cubic Yards
Teaspoons	4.93	Milliliters
Tablespoons	14.78	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	Km 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

Date	Event
1 January	New Year’s Day
1 May	Labor Day
4 May	Corpus Christi
21 July	Martyrs' Day
15 September	Independence Day
12 October	Columbus Day
1 November	All Saints Day
2 November	All Souls Day
25 December	Christmas Day

APPENDIX E:
Language

Spanish

Security and Combat Situations

English	Spanish
Halt!	Pare!
Keep away! Not a step further!	Pare ya!
Stay where you are!	Quédese donde está!
Stop or I will shoot / fire!	Pare o tiro!
Hands up!	Manos arriba!
Don't move!	No se mueva!
Follow our orders!	Obedesca!
Does anyone speak English?	Alguien habla inglés?
Do you understand?	Entiende?
I do not speak English.	No hablo inglés.
I do not understand.	No entiendo.
Surrender!	Ríndase!
Open fire!	Abre Fuego!
Do you have weapons?	Tiene armas?
Answer the question!	Responda!
Give me your weapon!	Deme su arma!
Lay down your weapon!	Ponga el arma en el suelo!
Come with me!	Venga conmigo!
Follow me!	Sígame!
Hurry up / Slow down!	Apúrese / Mas despacio!
Move!	Ande!
Lie down!	Échese al suelo!
Line up!	Póngase en fila!
Move back!	Para atrás!
You are a prisoner.	Usted es prisionero.

Interrogation and Identification

English	Spanish
Come here!	Venga acá!
Don't be frightened!	No tenga miedo!
We want to help you.	Queremos ayudárle.
Do you speak Spanish?	Habla español?
Do you speak English?	Habla ingles?
Please, speak more slowly.	Por favor, hable más despacio.
I don't speak...	No hablo...
I don't understand.	No entiendo.
Do you need medical attention?	Necesita atención médica?
Are you carrying a weapon?	Está usted armado?
We must search you.	Tenemos que registrarlo.
Do you have any explosives?	Tiene explosivos?
We must search this place.	Tenemos que registrar este lugar.
Come with me!	Venga conmigo!
Wait here.	Espere aqui.
Do you have any ID papers?	Tienedocumento(s)deidentificación?
What is your name?	Cuál es su nombre?
Where are you from?	De dónde es usted?
What is your date of birth?	Cuál es su fecha de nacimiento?
What is your place of birth?	Dónde nació?
What nationality are you?	De que nacionalidad es usted?
What is your occupation?	Cuál es su profesión?
Were you in the armed forces?	Estaba en las fuerzas armadas?
What is your rank / title?	Cuál es su rango / título ?
What group / unit do you belong to?	A que grupo /unidada pertenece?
Where do you serve?	Dónde sirve?
Where is your unit?	Dónde está su unidad?
Who is in charge?	Quién es el encargado?
Who is your leader?	Quién es su líder?

English	Spanish
Answer the question!	Responda!
Be quiet!	Silencio!

Continents, Countries, and Nationalities

English	Spanish
Where are you from?	De dónde es usted?
What nationality are you?	De que nacionalidad es usted?
I am from...	Yo soy de....
Europe	Europa
North America	América del Norte (Norteamérica)
South America	América del Sur (Sudamérica)
Bolivia	Bolivia
Brazil	Brasil
Canada	Canadá
Colombia	Colombia
Portugal	Portugal
Peru	Perú
Russia	Rusia
United States	Los Estados Unidos
Canadian	Canadiense
American (man/ woman)	Americano / Americana

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

English	Spanish
Fisherman	Pescador
Government employee	Empleado de gobierno
Guard	Guardia
Housewife	Ama de casa
Laborer	Trabajador
Marine (Corps)	Infantería de Marina
Mechanic	Mecánico
Messenger	Mensajero
Officer	Oficial
Pilot	Piloto
Policeman	Policía
Sailor	Marinero
Salesman	Vendedor
Shop keeper	Tendero
Soldier	Soldado
Student	Estudiante
Teacher	Profesor(a)

Civil Affairs and Refugee Operations

English	Spanish
Don't be afraid.	No tenga miedo.
We are Americans.	Somos americanos.
Do you need help?	Necesita ayuda?
Do you need medical attention?	Necesita atención médica?
How many are sick?	Cuántos están enfermos?
Are there any dead?	Hay algún muerto?
What happened?	Qué pasó?
Where are you from?	De dónde es usted?
Where are you going?	A dónde va?
Where is your family?	Dónde está su familia?
Are you married?	Está casado?

English	Spanish
How many children do you have?	Cuántos hijos tiene?
Do you have food?	Tiene comida?
Do you have water?	Tiene agua?
Do you need...?	Necesita ...?
Food	Comida
Water	Agua
Medicine	Medicina
Protection	Protección
Shelter	Refugio
Clothing	Ropa
Shoes	Zapatos
We have food / water.	Tenemos comida / agua.
Form a line!	Formen una línea!
Come one at a time!	Vengan uno a uno!
You are next.	Usted es el próximo.
Don't push. We have plenty of food.	No empuje. Tenemos suficiente comida.
Go home!	Vayase a su casa!

Maritime Refugee Operations

English	Spanish
Where did you sail from?	De que puerto salió?
How many days have you been at sea?	Cuántos días estuvo al mar?
Is your engine working?	Su motor funciona?
How many people are in the boat?	Cuántas personas hay en el barco?
Have you met any other ships?	Encontró otros barcos?
You must have an escort.	Debe tener una escolta.
We will take you aboard ship.	Vamos a llevarle a bordo.
We are going to / to the ...	Vamos a / a la ...
We will get there in ...days.	Vamos a llegar allá en ...dias.
Where is the latrine?	Dónde está la letrina?

English	Spanish
The latrine is to the right / left / straight ahead.	La letrina está a la derecha/ a la izquierda / en frente.

Map Terminology and Terrain

English	Spanish
Atlantic Ocean	Océano Atlántico
Bay	Bahía
Beach	Playa
Border	Frontera
Bridge	Puente
Canyon	Cañon
Cave	Cueva
Coast	Costa
City / Town	Ciudad / Pueblo
English	Spanish
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	Linea de latitud / longitud
Main road	Camino principal
Map	Mapa
Meadow	Prado
Meridian	Meridiano
Mountain	Montaña

English	Spanish
North / South	Norte / Sur
Orchard	Huerto
Path	Caminito
Park	Parque
Paved Road	Carretera pavimentada
Peninsula	Península
River	Rio
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
Water	Agua
Waves	Olas

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

English	Spanish
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
Temperture	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

Medical Phrases, Terms, and Parts of the Body

English	Spanish
I need a doctor.	Necesito un médico.
Is there a doctor here?	Hay un médico aquí?
I am a doctor.	Soy médico.
I am a corpsman / medic.	Soy médico.
I am a dentist.	Soy dentista.
Nurse	Soy enfermera.
Do you need help?	Necesita ayuda?
I will examine you.	Voy a examinarlo.
Are you injured?	Está herido?
Are you in pain?	Tiene dolor?

English	Spanish
Are you sick?	Está enfermo?
What is wrong with you?	Qué le pasa?
Where does it hurt?	Dónde le duele?
How long have you been sick?	Hace cuánto tiempo que está enfermo(a)?
I am going to help you.	Voy a ayudarle.
Don't be afraid.	No tenga miedo.
Calm down.	Cálmese.
Can you walk / stand / sit?	Puede caminar / pararse / sentarse?
Are you taking any medicine?	Está tomando medicina?
Do you have any allergies?	Tiene alergias?
How old are you?	Cuántos años tiene?
Do you have ...?	Tiene ...?
Do you need ...?	Necesita ...?
I must take you to the hospital.	Voy a llevarlo al hospital.
I must give you a shot.	Voy a ponerle una inyección.
I will take an X-ray.	Voy a tomar un rayo-X.
Open your mouth.	Abra la boca.
You need to take these.	Necesita tomar estos.

Medical Terms

English	Spanish
Antibiotics	Antibióticos
Bandage	Vendaje
Bed / Blanket / Pillow	Cama / Manta (Frazada) / Almohada
Blood / Bleeding	Sangre / Sangramiento (Noun) , Sangrando (verb)
Breathing (deep / shallow)	Respiración (profunda / superficiál)
Broken	Quebrado (Partido)
Bruise	Contusión (Morado)
Burn(s)	Quemadura(s)
Choke	Atragantar

English	Spanish
Clean	Limpio(a)
Cough / Cold	Tos / Resfriado (Catarro)
Critical / Serious	Crítico / Serio
Dead	Muerto(a)
Dehydration	Deshidratación
Diarrhea	Diarrea
Disinfectant	Desinfectante
Fever	Fiebre
Heat Stroke	Insolacíon
Ice	Hielo
Infection	Infección
Medicine	Medicina
Nausea / Vomiting	Náusea / Vómito
Pain	Dolor
Shock	Postración
Shot / Injection	Inyección
Sore / wound	Dolorido / Herida
Stretcher	Camilla
Temperature	Temperatura
Unconscious / Conscious	Inconsiente / Consiente

Parts of the Body

English	Spanish
Arm	Brazo
Back	Espalda
Bone	Hueso
Ear	Oreja
Eyes	Ojos
Face	Cara
Fingers	Dedos
Foot	Pie

English	Spanish
Hand	Mano
Head	Cabeza
Heart	Corazón
Leg	Pierna
Mouth	Boca
Muscle	Músculo
Neck	Cuello
Nerve	Nervio
Ribs	Costillas
Spine	Columna vertebral
Shoulder	Hombro
Stomach	Estómago
Teeth	Dientes

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

English	Spanish
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	Misíon
Officer	Oficial
Open fire!	Abre fuego!
Patrol	Patrulla
Position	Posicíon
Prisoners	Prisioneros
Restricted area (no entry)	Area Restringida /Prohibida entrada

English	Spanish
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	Camíon
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

English	Spanish
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

English	Spanish
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
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

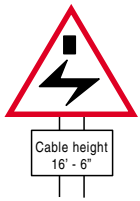
No left turn

One way street

Tourist information point

Traffic signals

No u-turn



Overhead cables, Maximum height

Failure of traffic light signals

Sharp deviation

APPENDIX G:
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, Koran, or other religious material for your own 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 U.S.
- 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 or terrorist/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, 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 easy targets.

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 hijacking suggest some simple precautions:

- You should not travel on commercial aircraft outside the continental U.S. in uniform.
- Prior to traveling by commercial aircraft, you should screen your wallet and other personal items, removing any documents (that is, credit cards, club membership cards, etc.) which would reveal your military affiliation.

  NOTE: Current USMC policy requires service members to wear two I.D. tags with metal necklaces when on official business. Also, the current I.D. card must be in possession at all times. These requirements include travel to or through terrorist areas. In view of these requirements, the service member must be prepared to remove and

conceal these and any other items which would identify them as military personnel in the event of a skyjacking.

- 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 it 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 profile you present, the less likely you will become a victim or bargaining chip for the terrorists, and your survivability increases.

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 experienced while a hostage, could seem overpowering, but the key to your well-being is to approach captivity as a mission. Maintaining emotional control, alertness, and introducing order into each day of captivity will 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. Com-

plying 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; consequently, you should take measures to protect yourself during such an action. Drop to the floor immediately, remain still and avoid any 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 H:
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 reduce colds and other respiratory infections. Cots or sleeping bags should be arranged "head to toe" to avoid the face-to-face contact that spreads germs.

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

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

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

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

Additional Information

Water

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

- Adding calcium hypochlorite at 5.0 ppm for 30 minutes;
- Adding Chlor-Floc or iodine tablets according to label instructions;
- Heating water to a rolling boil for 5 to 10 minutes; or
- Adding 2 to 4 drops of ordinary chlorine bleach per quart of water and waiting 30 minutes before using it.

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

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

Rodents

Rodents should not be tolerated in the unit area; they can spread serious illness. Diseases may be contracted through rodent bites or scratches, transmitted by insects carried on rodents (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;
- 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

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

The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specific heat category. Individual water needs will vary +/- (plus/minus) 1/4 qt/hr.
NL = no limit to work time per hour. Rest means minimal physical activity (sitting or standing) and should be accomplished in shade if possible.
Caution: Hourly fluid intake should not exceed 1 ½ 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 or 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
- Remember that loss of sensitivity in any body part requires immediate medical attention.

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

First Aid

Basic Lifesaving

Those caring for injured persons should immediately:

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

Injuries and Care

Shock

- Symptoms:
  - Confusion
  - Cold, clammy skin
  - Sweating
  - Shallow, labored, and rapid breathing
  - Rapid pulse
- Treatment:
  - An open airway should be maintained.
  - Unconscious victims should be placed on their side.
  - Victims should be kept calm, warm, and comfortable.
  - Lower extremities should be elevated.
  - Medical attention should be sought as soon as possible.

Abdominal Wound

- Treatment:
  - Exposed organs should be covered with moist, clean dressing.
  - Wound should be secured with bandages.
  - Organs that have been displaced should never be reintroduced to the body.

Bleeding

- Treatment:
  - Direct pressure with hand should be applied; a dressing should be used if available.
  - Injured extremity should be elevated if no fractures are suspected.
  - Pressure points may be used to control bleeding.
  - Dressings should not be removed; additional dressings may be applied over old dressings.
- Tourniquet:
  - **NOTE: Tourniquets should only be used when an injury is life threatening.**
  - A 1-inch band should be tied between the injury and the heart, 2 to 4 inches from the injury, to stop severe bleeding; wire or shoe strings should not be used.
  - Band should be tight enough to stop bleeding and no tighter.
  - Once the tourniquet is tied, it should not be loosened.
  - The tourniquet should be left exposed for quick visual reference.
  - The time that the tourniquet is tied and the letter "T" should be written on the casualty's forehead.

Eye Injury

Treatment:

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

Chest Wound

Symptoms:

- Sucking noise from chest
- Frothy red blood from wound

Treatment:

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

Fractures

Symptoms:

- Deformity, bruising
- Tenderness
- Swelling and discoloration

Treatment:

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

Spinal, Neck, Head Injury

Symptom:

- Lack of feeling and/or control below neck

Treatment:

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

Heat Injuries

Heat Cramps: Symptoms

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

Heat Exhaustion: Symptoms

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

Heat Stroke: Symptoms

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

Treatment:

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

Burns

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

Thermal/First Degree: Symptoms

- Skin reddens
- Painful

Treatment:

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

Thermal/Second Degree: Symptoms

- Skin reddens and blisters
- Very painful

Treatment:

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

Thermal/Third Degree: Symptoms

- Charred or whitish looking skin
- May burn to the bone
- Burned area not painful; surrounding area very painful

Treatment:

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

Electrical Burns

Treatment:

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

Chemical Burns

Treatment:

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

Cold Injuries

Hypothermia: Symptoms

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

Treatment:

- Victim should be moved to a warm place.
- Wet clothing should be removed; victim should be dressed in warm clothing or wrapped in a dry blanket.
- Body parts should not be rubbed.
- Victims must not consume alcoholic beverages.

Frostbite: Symptoms

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

Treatment:

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

Emergency Life-Saving Equipment

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

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

APPENDIX I:
Dangerous Animals and Plants

Snakes

Cantil

Description:
Adult length usually 0.8 to 1.4 meters; a heavy-bodied snake. Body color is quite variable, but most specimens have a series of alternating pale and darker transverse bands, often separated by thin white lines; all have two distinct lines of pale scales on each side of head: one just above eye level, the other just above the jaw line.

Habitat:
Most frequently found in seasonally dry scrub forest and large grassy plains containing scattered trees. Mainly nocturnal; often shelters in crevices or under rocks.

Activity and behavioral patterns:
Aggressive when provoked; will strike repeatedly.

Venom's effects:
Primarily hemotoxic; fatalities and extensive necrotic effects reported.

Central American Coral Snake

No Photograph Available

Description:
Maximum adult length may exceed 1 meter. Quite variable; may be bicolored or tricolored. Head black, usually with a yellow (red in bicolored

specimen) 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:
Found in lowland rain forest, dry forest, lower cloud forest and lower montane dry forest at elevations of up to 1,600 meters.

Activity and behavioral patterns:
This species is the major cause of coral snakebites in Central America. Usually non aggressive; most bites occur during attempts to capture.

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

Jumping Pit Viper

Description:
Adult length usually 0.4 to 0.9 meter; an extremely stout-bodied snake. Its background color is usually varying shades of gray or brown, often with pinkish, reddish, or purplish undertones; dorsum usually has a series of darker, roughly diamond-shaped markings. Older specimens become almost entirely dark.

Habitat:
Most often found in forested areas, including tropical rain forest and lower cloud forest.

Activity and behavioral patterns:
Nocturnal; usually slow-moving and non aggressive, but may make a wide-open mouth display when disturbed, and can strike effectively up

to half its body length. Terrestrial, usually found coiled on the forest floor, but may climb a short distance up trees.

Venom's effects:
Primarily hemotixic and relatively mild; many snakebite victims reportedly have experienced only localized pain and swelling, with no permanent damage.

Guatemalan Palm Pit Viper

Description:
Adult length usually 0.6 to 0.7 meter; a moderately slender snake with a prehensile tail. Background usually green to bluish-green, usually with no distinctive patterning. Side of the head lacks a postocular dark stripe.

Habitat:
Most often found in lower montane wet forest/moist forest at elevations of 500-2,000 meters.

Activity and behavioral patterns:
Arboreal and diurnal. Usually not aggressive and remain quietly coiled in vegetation, but will strike if brushed against or touched.

Venom's effects:
There is no specific data available. Venoms of this genus primarily are hemotoxic, but also may contain neurotoxic components. Specific antivenins are not produced.

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. The majority of specimens have a background color of green, olive green, or gray-green, finely suffused with black; a pure yellow phase occurs from Honduras through Panama. Although all specimens have erect scales above their eyes that resemble eyelashes. These are usually less conspicuous in snakes from Ecuador and Colombia.

Habitat:
Most often found 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 non aggressive, but reportedly can be quick to bite when disturbed.

Venom's effects:
There is no specific data available. Pit viper venom is primarily hemotoxic, but also may contain neurotoxic components. Specific antivenins are not produced.

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 from sea level to 1,300 meters in northern areas of its range, and to 2,700 meters in southern areas. Most often found in tropical rainforest and tropical evergreen forest. In drier habitats, stays mainly near rivers and other water sources.

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

Venom's effects:
Carries a large supply of venom that is potent, and primarily hemotoxic and cytotoxic; bite can result in systemic internal bleeding and local tissue destruction.

Godman's Montane Pit Viper

Description:
Adult length usually 0.4 to 0.6 meter; moderately stout. Background highly variable, but usually a fairly dark snake overall.

Habitat:

Most often found in lower montane wet forest and cloud forest, lower montane dry forest—mainly among pine-oaks, and high montane forest and meadows at elevations of 1,600-3,200 meters.

Activity and behavioral patterns:

Diurnal/nocturnal; often encountered crawling or coiled along forest paths. Somewhat aggressive; can vigorously defend itself.

Venom's effects

No specific data available. Although bites may result in considerable swelling, they reportedly are not dangerous; no fatalities recorded.

Neotropical Rattlesnake

Description:

Adult length usually 1 to 1.8 meters; a relatively stout snake 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 found in semiarid regions and drier openings in more humid environments. Not found in rainforest. Most often found at elevations of less than 700 meters, but has been found at elevations up to 1,000

meters in Costa Rica, 2,000 meters in Mexico and Colombia, 2,300 meters in Peru and 2,800 meters in Venezuela.

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 its head and front third of its body high off the ground, neck and head bent, and face its antagonist.

Venom's effects
Reportedly the most dangerous snake in the region. Has hemotoxic and neurotoxic components, varying among the subspecies. Primarily hemotoxic in Mexican and Central American races, the venom of South American species has myotoxic and neurotoxic components; bites have a relatively high fatality rate. Local tissue damage and swelling is minimal, but the myotoxic component causes extensive skeletal muscle necrosis.

Slender Hog-nosed Pit Viper

Description:
Adult length usually 0.4 to 0.5 meter; maximum of 0.8 meter. It is a relatively slender pit viper with an upturned snout. Its background colors include tan, brown, gray and grayish-brown, with a narrow white, yellow or rust brown middorsal line bisecting a series of roughly rectangular, dark brown to blackish dorsal blotches.

Habitat:
Found in seasonally dry forests, including tropical dry and arid forest, subtropical dry forest, and the drier portions of tropical moist forests, at elevations up to 1,000 meters.

Activity and behavioral patterns:

Most frequently encountered at night; most active during local rainy seasons. Alert and quick to strike, but no fatalities have been recorded.

Venom's effects:

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

Arthropods

Scorpions

Although scorpions in the region are capable of inflicting a painful sting, none of them are known to be life-threatening.

Insects

There is little specific information of medical importance regarding insects. However, nearly all countries have at least one species of moth having venomous/urticating hairs and/or whose larva (caterpillar) has venomous spines. Some caterpillars are very hairy (such as puss moths and flannel moths) and almost unrecognizable as caterpillars, with long silky hairs completely covering the shorter venomous spines. Others bear prominent clumps of stiff, venomous spines on an otherwise smooth body. Contact with these caterpillars can be very painful. Some are brightly colored.

Spiders

Although there are several spider species found in the region that are capable of inflicting a painful bite, including some very large and physically imposing tarantulas and huntsman spiders, none are known to be life-threatening.

Centipedes

Although many area centipedes can be found that are capable of inflicting a painful bite, none of them are known to be life-threatening.

Millipedes

Millipedes do not bite and are generally harmless to humans. However, when handled, some larger millipedes (may be more than 50 millimeters) secrete a very noxious fluid that can cause severe blistering upon contact; some can squirt this fluid at least 2 feet.

Plants

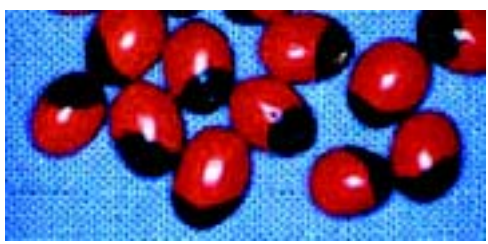
Blistering Ammania

Photo not available

Mechanisms of toxicity:
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.

Rosary Pea



Common names:
Precatory bean, jequerity bean, coral pea, crab's eyes, lucky beans, Paternoster beans.

Mechanism of toxicity:
Several indole alkaloids such as abrine and abrin (a toxalbumin) — can kill. The unchewed seeds are impervious and will pass through the GI tract without harm. Seeds are attractive and frequently used to make rosaries, necklaces, etc. Poison can be absorbed through breaks in the skin if integrity of the hull is compromised; for example, while stringing beads for a necklace. Onset of toxicity usually in one to three days. Rosary pea is documented to have a quickly fatal potential (neurotoxin and hemocoagulant), having killed a child who thoroughly chewed one seed. Dermatitis may also occur from wearing a necklace of stringed beads.

Comments:
The genus includes 17 species of slender, twining vines with a woody base supported by other plants or a fence. Fruit is a dehiscent pod; inside the pod are three to five glossy, red and black seeds (used by many as ornaments). Note: Rosary pea seeds are black at the site of attachment (hilum) and are easily confused with the much less toxic Mexican Rhynchosia (piule). The colors are reversed in piule seeds. Symptoms of toxicity include nausea and vomiting with abdominal pains, bloody diarrhea, fever, shock, coma. Used in South America and Africa in folk medicine.

Cohosh/Baneberry

Other names:
White, black, and red cohosh/baneberry, Doll's eyes Grapewort, Snakeberry, Necklace weed.

Mechanism of toxicity:
All parts contain an innocuous glycoside that is metabolized to form the aglycone protoanemonin, a volatile, irritant oil. As few as six berries have caused severe symptoms (gastroenteritis, hematuria, and occasional circulatory collapse) for many hours. Handling can cause irritant dermatitis with vesiculation, severe eye irritation; ingestion can result in death.

Comments:
Perennial herbs having a berry-like fruit. Found in fields, deciduous forests, and roadsides.

Bitter apple, bitter gourd

No Photograph Available

Mechanisms of toxicity:
Dried pulp is a drastic purgative that has caused bloody diarrhea, even toxic colitis and death; chemical nature unclear.

Comments:
Has a thick tap-root and numerous coarse, sprawling, branched stems up to 18 feet long. Leaves are longer than they are wide and have stiff hairs on both surfaces. Tend to be most abundant in dry inland areas. Botanical literature frequently confused as to identification; easy to mistake for harmless plants.

African Teak

Other names:
Osage Orange, fustic, bow wood.

Mechanisms of toxicity:
Benzophenones, xanthones, stilbenes, flavonoids, and tannins known to the genus. Has a milky, bitter sap; yields orange dye that causes dermatitis.

Comments:
12 species found in tropical America, South Africa, and Madagascar.

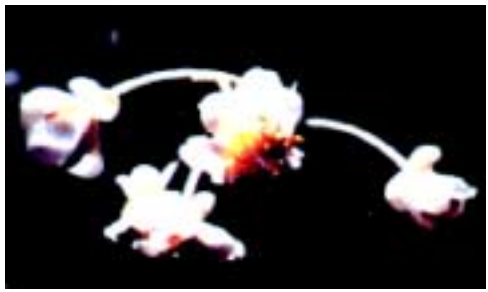
Agave

Other names:
Century plant, maguey

Mechanisms of toxicity:
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).

Indian Laurel



Other names:
Mastwood, domba oil, pinnay oil

Mechanism of toxicity:
Cream-colored, resinous sap irritating to the skin and eyes; globose fruit contains one large, poisonous seed. Sap is toxic. Leaves contain cyanide and a saponin.

Comments:
Erect, dense, low-branched tree having leathery smooth leaves (to 15 centimeters) and white flowers with 4 petals. Native to tropical Asia -- originally from India (a common shade tree in Malaysia) and the Pacific islands. Seeds are dispersed by bats and the sea.

Cashew

Mechanisms of toxicity:
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; 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.

Crownflower

Other Name:
Milkweed

Mechanism of toxicity:
Sap from this plant can have an extremely irritant effect on the eyes; it also causes an allergic type contact vesicant skin reaction. The active principles include calcium oxalate, a proteolytic enzyme, digitalis-like glycosides, and an unidentified allergen.

Comments:
Flowers are candied by Chinese in Java. Has been used as an arrow poison to kill in Africa. Roots used as chew-sticks in Africa.

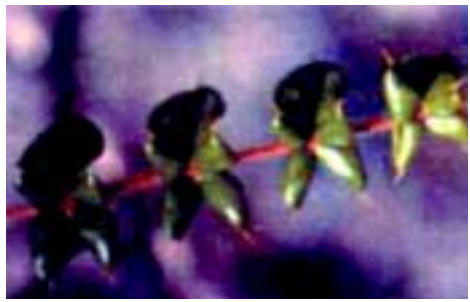
Elephant's ear

Other names:
Taro, calo, dasheen, eddo, black caladium.

Mechanism of toxicity:
Leaves and roots contain calcium oxalate crystals, or raphides, which boiling renders harmless. Wide variation in concentration from plant to plant. GI irritant; painful stinging and burning of the lops and mouth recedes slowly; accompanied by dysphonia and dysphagia.

Comments:
One of the most commonly cultivated food plants in Polynesia. Young leaves and tubers edible; rich in starch; good substitute for the potato. Used for making poi in Hawaii.

Guao



Mechanism of toxicity:

Several species cause contact dermatitis. A member of the Anacardiaceae family with potential allergic manifestations similar to its relatives semecarpis (Marking nut tree), Rhus (Poison Ivy) and Anacardium (Cashew).

Comments:

20 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.

Bulb Yam

No Photograph Available

Other Name:
Air potato, wild yam

Mechanisms of Toxicity:
Bulb yam, air potato, and wild yam have tubers that contain diosgenin, a steroidal saponin, the alkaloid dioscorine, and a norditerpene lactone (diosbulbine). They and some other yams are poisonous when eaten raw. Causes gastroenteritis (nausea, bloody diarrhea). Some eat them after special preparation. A prickly climber with a cluster of tubers just below the soil surface. Considered the chief "famine-food" of the tropical East. Poisonous unless properly prepared. Has been used to commit murder. Found mainly in the lowlands.

Comments:
Other species of this genus are good to eat with no special preparation, such as goa yam and buck yam.

White Snake Root

Other names:
Fall poison, richwood

Mechanisms of toxicity:

Entire plant is extremely toxic with tremetol (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 (less than 24 hours); nausea, vomiting, tremors, jaundice, anuria, prostration. 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.

Shanshi

Mechanism of toxicity:

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.

Ackee

Mechanism of toxicity:
Fruit wall, seeds and immature or spoiled white aril contain hypoglucin A (a water-soluable liver toxin). Inhibits gluconeogenesis. Death has resulted from severe hypoglycemia. Used as a fish poison.

Comments:
Has a tree which grows to 40 feet. Fruit consists of three black seeds imbedded in a white, waxy aril in a reddish pod. Sometimes grown for the mature edible fruit. Red fruit splits at maturity. Ripe fruits used for traditional (Jamacia) cooking. Must be properly selected and prepared.

Jaborandi Plant

No Photograph Available

Mechanism of toxicity:
22 tropical American species with Alkaloids (mainly pilocarpine), which cause miosis, increased salivation, diaphoresis, bronchospasm (increased airway resistance, bronchial smooth muscle tone, and increased secretions), pulmonary edema, cardiovascular instability and increased intraocular pressure.

Croton

Common names:
Ciega-vista,
purging croton.

Mechanism of toxicity:
Long-lasting vesicular dermatitis results from contact with the toxic resin. The cathartic and purgative properties of the toxins (croton oil, a "phorbol," in leaves, stems, and seeds) causes severe gastroenteritis, even death; 20 drops potentially 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:
Croton is a wooly-haired annual herb, or evergreen bush, or small tree with smooth ash-colored bark, yellowish-green leaves, small flowers, and fruit.

Dalechampia

No Photograph Available

Mechanisms of toxicity:
Some species with stinging glands cause irritant dermatitis.

Comments:
A member of the Euphorbeacea family. Common in Mexico.

Spurge Laurel

Other names:

February daphne, merezon, mezereon.

Mechanisms of toxicity:

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

Common names:

Thorn-apple, stinkweed, Devil's trumpet.

Mechanism of toxicity:

The entire plant is toxic, due to the presence of tropane alkaloids. 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." Can kill. In particular, jimsonweed 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. Jimsonweed is often confused with Angel's Trumpet.

Pigeonberry

Other name:
Golden dewdrop

Mechanism of toxicity:
Underground parts contain dioscorine (an alkaloid), diosgenin (a steroidal saponin), diosbulbine (a diterpene lactone). 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.

Trumpet Creeper

No Photograph Available

Mechanism of toxicity:
Causes contact (allergic type) and irritant dermatitis.

Comments:

Woody climbing vine with fluted pink and orange flowers.

Mole Plant

Other names:
Caper spurge, Mexican fire plant, milkweed, red spurge, poison spurge, mala mujer, cypress spurge, cat's milk, wartwort, sun spurge, candelabra cactus, Indian spurge tree, milkwood, pencil tree, pencil cactus, rubber euphorbia.

Mechanisms of toxicity:
Herbs, often with colored or milky sap, containing complex terpenes; 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:
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:
Cherry pie, scorpion's tail, Indian heliotrope.

Mechanisms of toxicity:

Contains pyrrolizidine alkaloids. Cause of large epidemics (Afghanistan, India) of illness following ingestion of bread made with contaminated flour. The pathologic effects (Budd-Chiari syndrome) take weeks to months, and death comes slowly over years. Chronic copper poisoning has occurred associated with this plant.

Comments:
A large genus of worldwide distribution (250 tropical and temperate trees and shrubs).

Panama Tree

Other names:
Castano, tartargum.

Mechanisms of toxicity:
Edible seeds, but pods are internal stiff bristles that easily penetrate skin, causing intense irritation.

Comments:
200 tropical species.

Beach Apple

Other names:
Manchineel, manzanillo

Mechanism of toxicity:
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.

Physic Nut

Common names:
Purging nut, pinon, tempate, Barbados nut.

Mechanism of toxicity:
Quickly fatal potential. Fruit has two or three black, oily, pleasant tasting, poisonous seeds (also toxic roots and leaves) containing a plant lecithin (a toxalbumin called curcin) which, in contrast to many of the toxic lecithins, 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 north American trees or shrubs, usually red flowers. Naturalized worldwide. Fruit is often a 3-sided capsule.

Sandbox Tree

Other names:
Huru, bombardier

Mechanism of toxicity:
The toxins include hurin and huratoxin. Hurin is a plant lecithin 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.

Buck Thorn

Other names:
Calderonii, tuilldora, coyotillo.

Mechanism of toxicity:
Poisonous; associated with weakness, muscle paralysis. Slow onset; fruit contains toxins that are anthraquinone glycosides, which have caused paralysis. Leaves are also poisonous. The fruit is eaten, despite its toxicity.

Comments:
Grows in dry regions and never near the Atlantic coast. Used as timber.

Mango

Other name:
Indica

Mechanism of toxicity:
The leaves, stem and fruit's skin on this tree contain urushiol and other similar long-chain phenois. Other allergens are also present. Dermatitis can occur from eating the fruit with the skin intact. Blisters may be confined to the lips and face or generalized. Climbing the tree can result in severe dermatitis. There is also immediate hypersensitivity in some individuals. Peeling the fruit prior to ingestion can prevent the reaction.

Comments:
The genus includes 35 species, usually large trees, primarily in Indomalaysia. Frequently found near human dwellings. These trees grow from 40 to 100 feet, and have lance-shaped leaves. Cultivated varieties have excellent fruit (in some wild-growing plants the fruit is unpleasant) edible raw or cooked. Ground seed is used as a flour; its fruit used in chutney, pickles, squashes, etc.

Trumpet Plant

Other name:
Chalice vine

Mechanism of toxicity:
The entire 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 a fleshy elongated berry. Source of sacred hallucinogens in Mexico.

Popcorn Tree

Other names:
Chinese tallow tree; hinchahuevos

Mechanisms of toxicity:
The latex is poison and has been used as arrow poison in Central America; causes contact dermatitis. Unripe berries can cause nausea and vomiting.

Comments:
Native to China and Japan but cultivated widely in warm areas. The fruit is a three-lobed capsule that falls away, leaving white seeds.

Tapioca

Other names:
Manioc, cassava, yuca

Mechanism of toxicity:
Several varieties, some containing a toxin that is heat labile. Bitter or sweet casava cannot be distinguished other than by taste. Bitter casava 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) of tropical and warm Americas; some varieties are very important as a food source. Same subfamily as Croton. Shrubby tree 3-5 feet high. Widely cultivate. Large tuberous roots rich in starch.

Chinaberry

Other names:

White cedar, African lilac, bead tree

Mechanism of toxicity:

Yellow globose berry with three to five smooth, black, ellipsoidal seeds; has a resin; all parts contain a saponin, triterpene neurotoxins, and a gastrointestinal irritant of uncertain chemical nature. Widely varying genetic variable toxicity. Has killed adults. Widely cultivated.

Velvet Bean

Other names:

Cowitch, ox eye bean, cowhage, pica-pica, horse-eye bean.

Mechanism of toxicity:

Many of the species' pods and flowers are covered with irritant hairs containing proteolytic enzymes. These 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.

Pokeweed

Other names:
Pokeberry, poke salet.

Mechanism of toxicity:
Mature stems, roots, and berries are poison (saponins mostly in foliage and roots). Death possible when not prepared properly.

Comments:

Young shoot tips, less than 6", eaten in many cultures, including Canada; requires proper preparation (boiled with water changes; water contains toxic substances — kills snails that carry bilharzia). Dye from berries used to color ink, wine, sweets.

Peppertree

Other names:

Peruvian mastic tree, Brazilian peppertree, Florida Holly, broad-leafed peppertree, Christmas berry

Mechanism of toxicity:

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.

Castor Oil Plant

Other Name:
Castorbean

Mechanism of toxicity:
Used to make a feed supplement; a lecithin, which is a highly toxic chemical, and some low-molecular weight glycoproteins with allerenic activity have resulted in serious poisoning. Factors making this a high-risk plant threat are its attractive nuts with a hazelnut-like taste; presence of a highly toxic ricin in high concentration (2-6 seeds can be fatal); and the stability of the ricin in the presence of gastric enzymes. The seeds are used to make necklaces, requiring the boring of a hole through the seed and breaking the otherwise impermeable coat. This allows the possibility of toxin to reach the skin and enter the body through minor abrasions. Poisoning becomes evident after several hours.

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.

Scarlet Wisteria

Other names:

Corkwood tree, bagpod, purple sesbane, false poinciana, rattlebush

Mechanism of toxicity:

All parts are poisonous; most poisonings due to use in herbal teas. Causes Bud-Chair 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, molasses (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:

Rootage bravo, pringamoza.

Mechanism of toxicity:

Trees and shrubs with powerful stinging hairs. The intensity of sting delivered by these plants varies. 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:

35 native species in tropical and southern Africa, and tropical America. Often used as hedges or local medicinals.

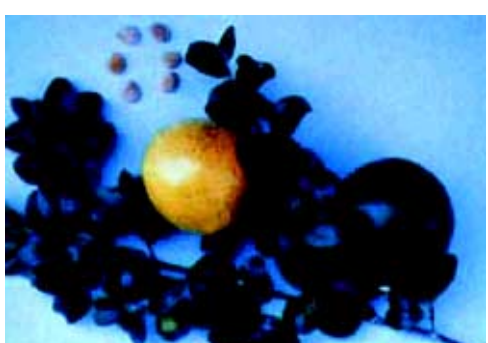
Black Nightshade

Other Name:
Deadly nightshade, common nightshade, horse nettle, bittersweet, Jerusalem cherry, nipple fruit, quean, wild tomato, apple of Sodum, white-edged nightshade.

Mechanism of toxicity:
The fruit of the Jerusalem cherry is a black berry; the fully ripe berries are eaten; unripe berries contain solanine alkaloids, which can cause gastroeritis, weakness, circulatory depression. Can kill

Comments:
Approaching 2,000 species of herbs, vines, shrubs covered with small star-shaped hairs. Perfect white, yellow, or blue flowers. Berries have dry or juicy pulp and several seeds.

Strychnine



Other names:
Nuxvomica tree,
Snakewood tree

Mechanism of toxicity:
The entire plant, including the seeds, contains the powerfully acting indole alkaloid strychnine, which can kill.

Comments:
Genus of 190 different species of trees, shrubs and vines with berry-like fruits, found in most tropical regions. Some have the reputation as having edible fruit despite dangerous seeds. It is a source of curare

obtained by stripping and macerating its bark. Curare, now used as a muscle relaxant, was formerly used as an arrow poison by South American Indians.

Yellow Oleander

Other names:
Peruviana, lucky nut, be-still tree.

Mechanism of toxicity:
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, vomiting, diarrhea, slow irregular heartbeat, hypertension, seizures, coma and death. The sap can cause skin and eye irritation.

Comments:
A shrub, usually 1 meter tall, or sometimes a small tree up to 10 meters. Native to tropical America but has been imported as an ornamental to tropical and sub-tropical regions. Its leaves and flowers resemble those of *nerium oleander*, except peruviana flowers are yellow with a pink tinge, as opposed to nerium, which are white, pink and cream. Seeds have been used in India to murder.

APPENDIX J:
International Telephone Codes

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

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