

Botswana Country Handbook

1. This handbook provides basic reference information on Botswana, 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 Botswana.
2. This product is published under the auspices of the U.S. Department of Defense Intelligence Production Program (DoDIPP) with the Marine Corps Intelligence Activity designated as the community coordinator for the Country Handbook Program. This product reflects the coordinated U.S. Defense Intelligence Community position on Botswana.
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Botswana

KEY FACTS

Country Name.

Official Name: Republic of Botswana

Short Form: Botswana

National Flag. The Botswana flag is light blue with a horizontal, white-edged black stripe across the center.

Head of State. President Festus Mogae (since 1 April 1998)

Capital. Gaborone

Time Zone. UTC (formerly GMT) + 2 hours

Telephone Country Code. 267

Population. 1,591,232 (2004)

Languages. English is the official language; however, most of the population speaks Setswana.

Currency. The currency in Botswana is the pula (P). One pula is equal to 100 thebes (t).

Exchange Rate. P6.835 = US\$1 (July 2004)



National Flag



Coat of Arms

U.S. MISSION

U.S. Embassy

Location	Embassy Enclave (off Khama Crescent) Gaborone
Mailing Address	American Embassy PO Box 90, Gaborone, Botswana
Telephone	(+267) 395-3982
Fax	(+267) 395-6947

U.S. Consulate

Location	Embassy Enclave (off Khama Crescent) Gaborone
Mailing Address	American Embassy PO Box 90, Gaborone Attention of the Consular Department
Fax	(267) 318-0232
E-mail	consualargaboro@state.gov



U.S. Embassy Location in Gaborone

Hours Monday through Thursday 0800–1630
Friday 0800–1300
Closed on U.S. and Botswana holidays

Travel Advisories

There are no travel advisories for Botswana.

Entry Requirements

Passport/Visa Requirements

A passport is required for entry and exit. U.S. citizens are permitted to stay in Botswana for up to 90 days before requiring a visa.



U.S. Embassy

Immunization Requirements

There are no required immunizations, but anti-malaria pills are recommended before traveling to Botswana.

Customs Restrictions

Boats, firearms, and ammunition are restricted from entering Botswana. Other items may require approval; see the respective ministries when bringing something to Botswana that may be questionable.

GEOGRAPHY AND CLIMATE

Geography

Land Statistics

Botswana is located in southern Africa, directly north of South Africa. It is a landlocked nation surrounded by Namibia, Zimbabwe, and South



Africa

Africa. Botswana is slightly smaller than the state of Texas. Botswana's total area is 600,370 square kilometers (231,800 square miles) with 15,000 square kilometers (5,791 square miles) of water.

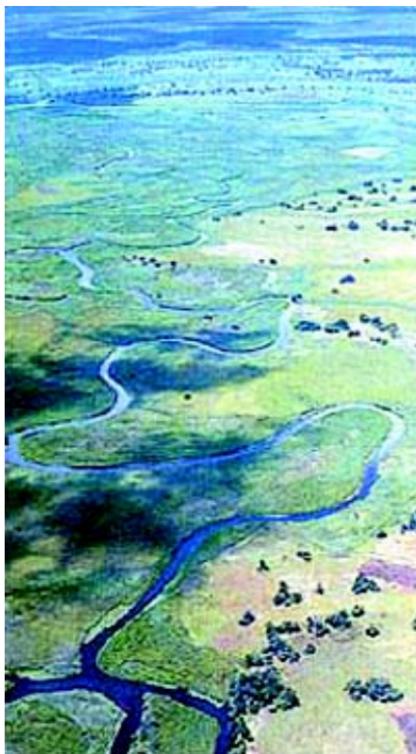
Boundaries

The borders for Botswana, established in 1966, are shared with Namibia to the north and west for 1,360 kilometers (845 miles), Zimbabwe to the

east for 813 kilometers (505 miles), and South Africa to the south for 1,840 kilometers (1,143 miles).

Bodies of Water

Botswana's boundaries are primarily along several rivers. Bodies of water are rare throughout the interior of the country; the rivers along the perimeter provide the country with water. The Chobe River flows along Botswana's northern border, the Nossob and Molopo Rivers along the southwest and southern boundaries respectively. The Marico, Limpopo, and Shashe Rivers flow along the eastern border. The Okavango River in the Northwest corner, flowing from Angola, creates the world's largest inland river delta. The delta is 15,000 square kilometers (5,785 square miles) of wetlands, including water channels, swamps, and lagoons.



Okavango Delta

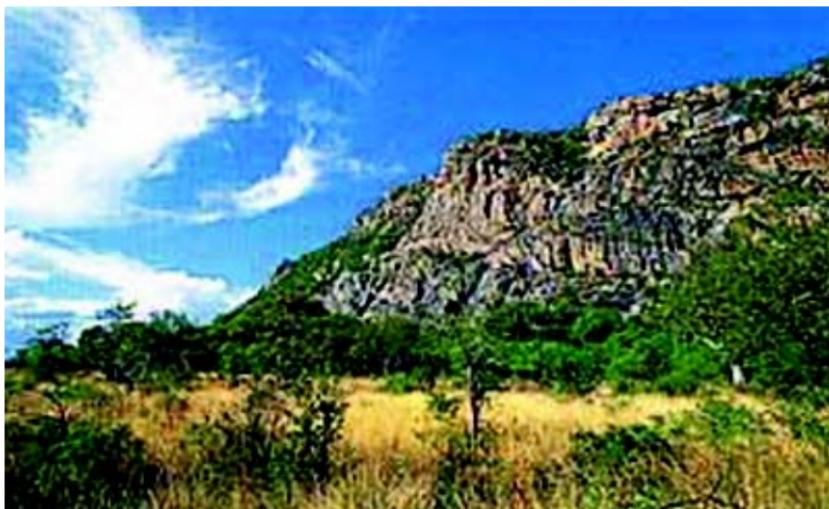
Topography

Botswana lies on the Southern African Plateau, with an average elevation of 1,000 meters (3,300 feet) above sea level. There are three ecological zones: the Central to Southwest belt (dominated by the Kalahari Desert), the Okavango Delta, and the eastern portion of the country. More than 70 percent of the country is covered by the Kalahari Desert (Kgalagadi in Setswana), which is generally flat and sandy. Inselburgs



Chobe River

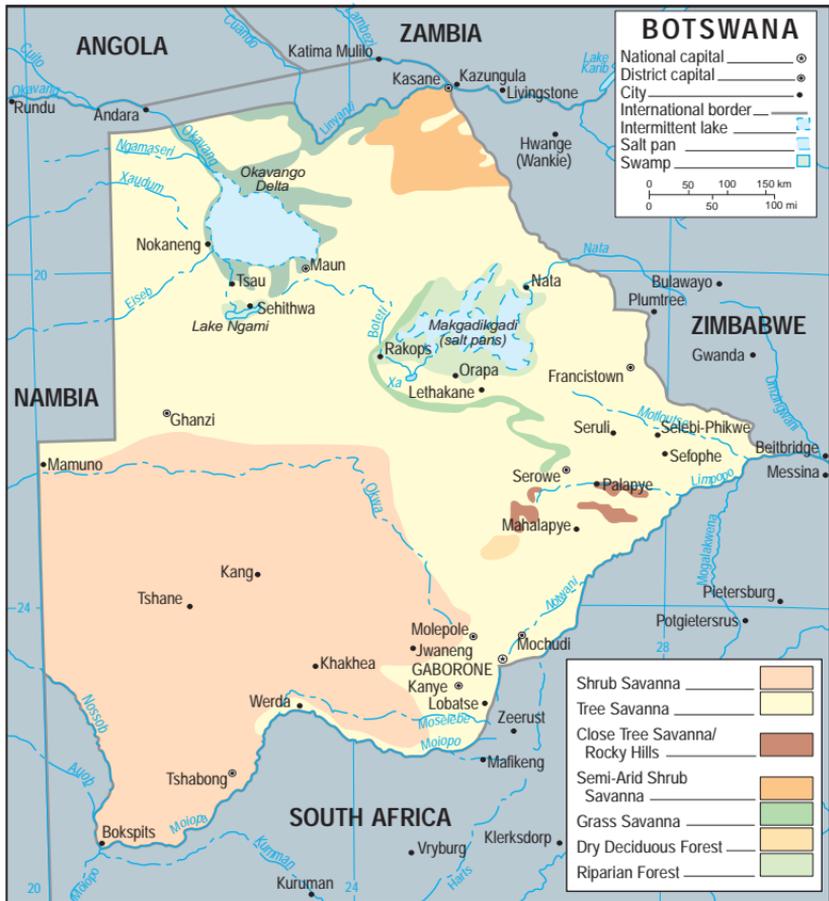
(outcroppings of resistant rock) and koppies (weathered rocks, now blocks) dot the desert. In the north lies the Okavango Delta. The Makgadigadi salt pan is to the west; its 7,000 square kilometers lies between the Okavango Delta and the border with Zimbabwe. The eastern portion



Tsodilo Hills

sand, but areas to the east have varying geography and soil types. The Limpopo River area is dominated by either dry red loam or chalklike sand. Soil fertility varies based on the amount of rainfall received.

Vegetation. With more than 70 percent of Botswana covered by the Kalahari Desert, vegetation is sparse. Prominent vegetation includes



Vegetation

scrub bushes, trees, and grasslands spread over the vast desert. In the eastern agricultural region, the natural vegetation gives way to cultivated fields of cotton, corn, sorghum, and citrus orchards.

Urban Geography

Approximately 80 percent of the population lives in the three major urban areas: Gaborone, Francistown, and Selebi Phikwe. The most developed area in the country is a strip of land along the eastern edge of the country, running north and south between Ramokgwebore and



Gaborone



Francistown

Ramatlabama. Villages outside the major towns have a walled compound containing several rondavets (round, thatched houses) surrounded by the fields and pastures of the village's inhabitants.

The capital, Gaborone, has a population of 170,000 people and experiences the growing pains usually associated with a rapid rise in population. It is considered drab and lacking in an overall plan. The site for the capital was chosen in 1962 due to its proximity to a site on the nearby Notwane River that was suitable for a dam to provide water for the expected influx of people. Gaborone is on the main rail line between Mafeking, South Africa, and Bulawayo, Zimbabwe.

Francistown has 66,000 inhabitants and lies in the northeast near the border with Zimbabwe. It is connected to Gaborone by railroad and a paved road. Originally a gold-mining center, it is the location of the first mine in southern Africa, but industry and commerce have become the major economic activities of the city.

Selebi-Phikwe is in central Botswana, 250 miles northeast of Gaborone. It is connected to the capital by a paved road. It is the third largest city in Botswana and has grown in 30 years from a small village to a city of 50,000 because of the copper and nickel mining nearby.

The towns of Maun and Ghanzi are on the western side of the Kalahari. They are connected to the east by paved roads and airplane flights.

Climate

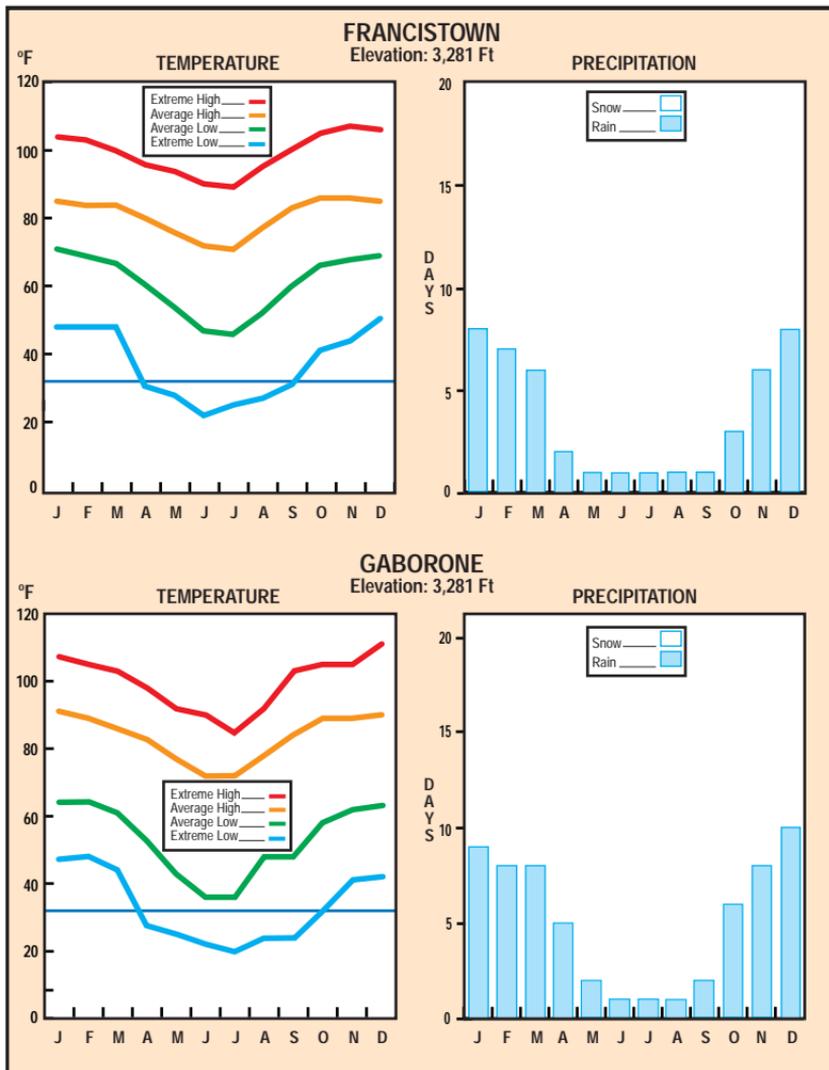
Summer and winter are the two major seasons in Botswana, separated by short transition periods. The summer months are December through March. Summer is also the rainy season. Winter, May through August, is the dry season. The two periods in between, April-May and September-October, have dry days with cooler days than summer, and warmer nights than winter.

Weather

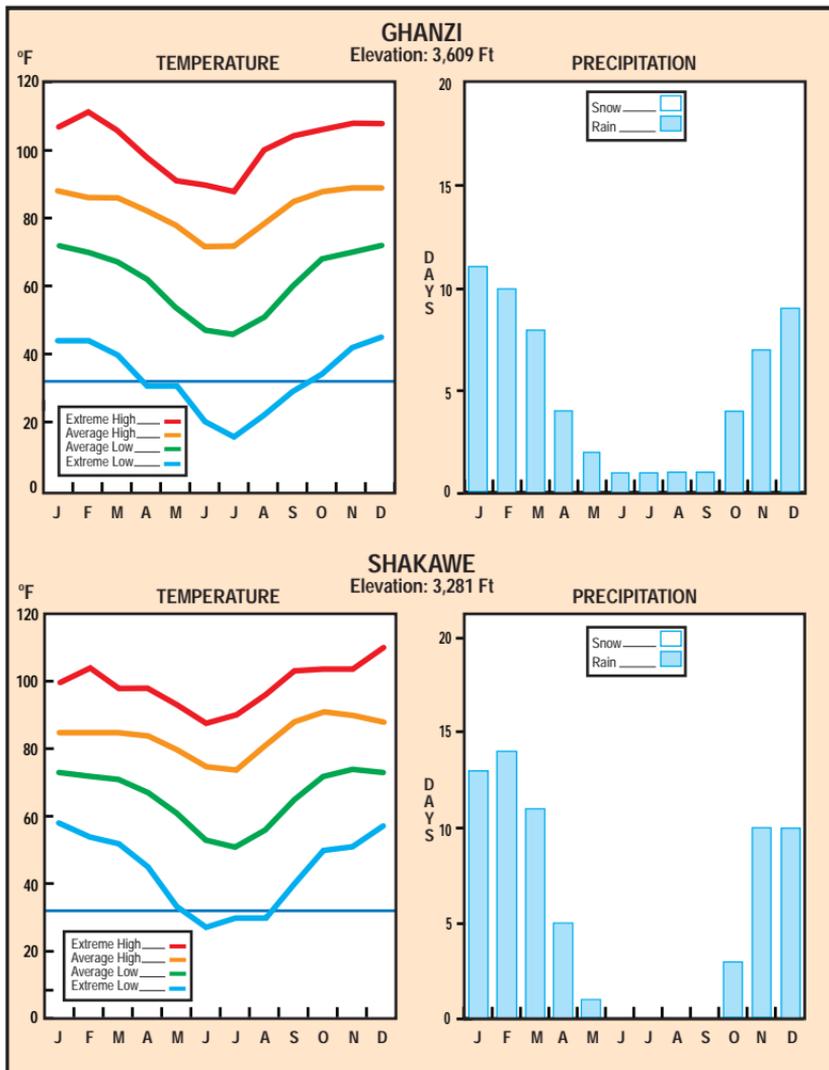
In the summer temperatures average 38°C (100°F) with extreme highs of 44°C (111°F) and upwards. Humidity in the morning ranges from 60 to 80 percent and 30 to 40 percent in the afternoon.

Winter in Botswana yields temperatures around 26°C (80 °F). Morning humidity ranges between 40 and 70 percent, afternoon humidity, between 20 and 30 percent.

The winter receives less than 10 percent of the annual rainfall distinctly making it the dry season, and summer, the wet season. The northern regions of Botswana receive approximately 69 centimeters (27 inches) of rain per year, while the south receives around 23 centimeters (9 inches) of rain per year. There are few permanent water resources located inside Botswana, and droughts are a continual problem.



Francistown and Gaborone Weather



Ghanzi and Shakawe Weather

Environment

Botswana has numerous environmental problems that affect the quality of life. Periodic droughts are a fact of life due to the terrain and atmospheric conditions. August brings a seasonal wind that blows from the west, obscuring visibility. Overgrazing and cattle ranchers' poor land management are causing the Kalahari Desert to expand, which decreases the availability of arable and livable land. Water resources are limited. Botswana's increasing population puts it in conflict with both the environment and neighboring countries, whose own burgeoning populations draw heavily on the region's scarce water resources.

Botswana is home to 164 mammal species, and numerous reptile, bird, and insect species. The large national parks provide a home for wildlife



Leopard in Moremi Game Reserve

and attract tourists. The larger parks include Chobe National Park, Central Kalahari Game Reserve, Moremi Game Reserve, and Kalahari Tran Frontier Park. These parks are well protected, and a safe haven for animals including lions, leopards, buffaloes, giraffe, elephants, rhinoceros, wildebeests, zebras, tortoises, crocodiles, gemsboks, pythons, and several other species of snakes.

Cross-country Movement

The country is fairly flat with occasional small hills and dry river beds. There are no major barriers to cross-country movement. The Kalahari Desert extends over most of the country.

TRANSPORTATION AND COMMUNICATION

Transportation

Roads

Motorists drive on the left side of the road in Botswana. The speed limit is generally 120 kilometers per hour (75 miles per hour) on paved roads, and 60 kilometers per hour (37 miles per hour) in towns. There are paved highways and roads to link settlements with more than 100 people. Roads outside the cities are maintained by the National Department of Roads. Town and city roads are under the jurisdiction of the local government. There are 4,200 kilometers (2,610 miles) of paved roads, 3,641 kilometers (2,262 miles) of gravel roads, 6,268 kilometers (3,895 miles) of dirt roads, and 4,752 kilometers (2,952 miles) of sand tracks through the desert.

The major roads are reasonably well maintained. There is a high accident rate, primarily due to inexperienced drivers with inadequate training exceeding the speed limit, particularly in open country. Head-on collisions and rollovers are common outside Gaborone. Additionally, outside town limits drivers frequently

come across cattle and other large animals that wander onto the roads. For these reasons, it is extremely dangerous to drive at night in rural areas.



Transportation Network

Public transportation in Botswana is erratic. Bus routes connect all of the major towns in Botswana and usually depart when the bus is full, not on a fixed schedule. In Gaborone there are small buses called taxis, which run on fixed routes. Traditional taxis are referred to as special taxis. They are not flagged for service, but are ordered by telephone.

Botswana has three land crossings to Namibia: the Ngoma Bridge, Molembo-Shakawe, and Mamuno-Buitepos. There are buses and mini-buses to Livingstone, Zambia; Victoria Falls, Zimbabwe; and Windhoek, Namibia. There are several crossing points into South Africa, with most traffic passing between either Ramatlabama-Mmabatho, Tlokweng Gate (20 kilometers from Gaborone), or the Lobatse-Zeerust Post. There are other, smaller posts open from 0800 to 1600 along the back roads and river crossings. Connection to Zambia is made by the Kazungula



Road through Chobe National Park



Trans-Kalahari Highway

Ferry over the Zambezi River, which runs from 0600 to 1800. There is bus service between Gaborone and the major cities in Zimbabwe.

Rail

Botswana has 888 kilometers (552 miles) of railroad with a of gauge 1,067 millimeters. A transnational railroad runs between Durban, South Africa, and Bulawayo, Zimbabwe through Labatse, Gaborone, and Francistown. Passenger services are available three times daily. Botswana's main railroad stations are at Lobatose, Ramotswa, Gaborone, Pilane, Mahalupye, Palapye, Serule, Selebi Phikwe, and Francistown.

Botswana's trains are reliable and travel is inexpensive. Tickets are available in three classes: First, second (both with sleeper cars), and economy. Security is not good, especially in economy class. Travelers are advised never to leave their luggage or valuables unattended, even if only to go to the buffet car for a meal.



Gaborone Train Station

Air

The main international airport is in Gaborone. Botswana’s other main airports are in Kasane and Maun. Air Botswana is the nation’s air travel provider. Air Botswana flies to domestic and short-haul international destinations. South African Express Airlines also provides service.

Primary Airports

Airport Name Coordinates/ Elevation	Runway		Condition	Aircraft Capacity
	L x W m (f t)	Surface		
Francistown 21096S 027285E/ 1,000 m (3,283 ft)	2,200 x 30 (7,218 x 98)	Asphalted Concrete	Operational: daylight only	C-141B, C-17, C-130, C-21, C-9, Jeepesen

Airport Name Coordinates/ Elevation	Runway		Condition	Aircraft Capacity
	L x W m (f t)	Surface		
Kasane 17500S 025098E/ 1,002 m (3,289 ft)	2,000 x 30 (6,562 x 98)	Asphalted Concrete	Operational: Daylight, VFR only	C-141B, C-17, C-130, C-9, C-21
Sir Seretse Khama Intl (Gaborone) 24334S 025553E/ 1,005 m (3,299 ft)	3,000 x 45 (9,843 x 148)	Concrete	Operational	C-141B, C-17, C-5, KC-135, C-130, C-21, C-9, Jeepesen

Maritime

Botswana is landlocked; the closest coast is 500 kilometers (311 miles) to the southeast. With the exception of the Okavango, the only perennial rivers are on the borders of the country.

Communication

Radio and Television

Government-owned Radio Botswana broadcasts for 150 hours weekly in English and Setswana. Approximately 252,720 radios were in Botswana in 2000. Botswana has 8 AM stations, 13 FM stations, and 4 shortwave stations.

Government-funded Botswana Television broadcasts on one channel. The Television Association of Botswana relays SABC-TV from South Africa. There were 31,000 televisions in Botswana in 1997.

Telephone

Botswana's telecommunication system is expanding with the growth of mobile cellular service and participation in regional development. Botswana has a small system of open-wire lines, microwave radio relay links, and a few radiotelephone communication stations. Mobile cellular service is growing quickly, and service is provided by two privately owned digital mobile telephone companies. There are two international exchanges and digital microwave radio relay links to Namibia, Zambia, Zimbabwe, and South Africa.

Newspapers and Magazines

The daily newspaper is called *Dikgang tsa Gompiano* (Daily News) and is run by the government. *Dikgana tsa Gompiano* is free to the public. It is printed in English and Setswana. Other periodicals include *Agrinews*, *The Botswana Gazette*, *Botswana Guardian* (weekly), *Business and Financial Times*, *Botswana Advertiser* (weekly), *Northern Advertiser* (weekly), *Government Gazette*, *Kutlano*, *The Midweek Sun*, *Mmegi* (The Reporter), and *The Zebra's Voice*.

Postal Service

The Botswana Post is Botswana's postal service; run by the government, the Botswana Post Headquarters is in Gaborone at the Poso House. There are 17 major post offices nationwide, capable of delivering most of the mail within a day after it is postmarked. Packages mailed within Botswana can weigh up to 20 kilograms (44 pounds) and mailed internationally, up to 10 kilograms (22 pounds).

Satellites

Botswana has access to one communications satellite located over the Indian Ocean.

Internet

Botswana has approximately 60,000 internet users (2002) with 1,920 internet service providers (2003). Botswana's internet country code is .bw. High-speed internet access is available. There are cyber cafes in Gaborone.

CULTURE

Statistics

Population	1,561.973 (July 2004 est.)
Age Structure	(2004 est.)
0–14 years	39.2% (310,282 males;302,452 females)
15–64 years	56.2% (424,613 males; 452,801 females)

<i>65 years and over</i>	4.6% (30,896 males; 40,929 females)
Median age	Overall 19.2; male 18.5; female 19.9
Population Growth	-0.89%
Birth Rate	24.71 births/1,000 population (2004 est.)
Death Rate	33.63 deaths/1,000 population (2004 est.)
Sex Ratio	(2004 est.)
<i>At birth</i>	1.03 Male/female
<i>Under 15 years</i>	1.03 Male/female
<i>15-64 years</i>	0.93 Male/female
<i>65 years and over</i>	0.76 Male/female
<i>Total population</i>	0.96 Male/female
Infant Mortality Rate	69.98 deaths/1,000 live births (2002 est.)
Life Expectancy at Birth	(Years) (2004 est.)
<i>Total population</i>	30.76 (30.99 male/30.53 female)
HIV/AIDS prevalence	37.3% of adults (2003 est.)

Population Patterns

Botswana's population is concentrated in the southern and eastern parts of the country along its border with South Africa and Zimbabwe. A major shift in population from rural areas to cities has taken place over the last decade. Over 80 percent of Botswana's population lives in urban areas. That ratio is expected to increase.

Society

People

Seventy-five percent of the Botswanan people belong to one of eight principal Bantu-speaking tribes related to the Sotho people. These principal tribes are the Kwena, Ngwato, Ngwaketse, Kgatla, Tawana, Lete, Tlokwa, and Rolong. They consider themselves of one ethnic group, Tswana; this is the main reason why Botswana is one of the few countries in Sub-Saharan Africa where tribalism is not a problem.

considered derogatory) live primarily in and around the Kalahari Desert. There are small numbers of Europeans, Indians, and Asians.

Most Botswanans are curious about America and consider most Americans extremely wealthy. People in Botswana have a considerably lower life expectancy than Americans.

Botswana's original ethnic groups were the San and Khoe tribes, which arrived in the region approximately 30,000 years ago. From these tribes, a Bantu-speaking tribe formed around 10,000 years ago, dwelled in the rainforests, and had darker skin pigments. The Tswana tribe broke off from this tribe and migrated south into what is now Botswana. The Tswana settled in the north and east of the country and practiced animal husbandry and subsistence agriculture.

The Khoesan, subdivided into the pastoralist Khoe and the nomadic, hunter-gatherer San, settled in the harsh environment of the Kalahari. They have lived there unchanged for hundreds of years. The San are renowned for their tracking skills, and are experts in herbal medicine. They live on good cattle grazing lands, and ranchers have pressed the Botswanan government to move these tribes either to modern settlements or further into national park lands. The government has bowed to this pressure, citing improved living standards for these people as the main reason for their relocation. In 2002, the Khoesan sued the government to block this relocation.

Family

Family plays an important role in the lives of Botswanans. Different tasks are assigned to different members of the family (usually based on gender). Elders in the family are respected for their wisdom.

Men are the decisionmakers in Botswanan society. Villages are led by a chief, who appoints head men to run the neighborhoods, known as wards. Only adult males are allowed to vote in ward council sessions; women may voice an opinion. The male is the head of the household,



Botswanans

and women are seen as inferior to men. The man is in control of all decisionmaking and legal aspects of the household. Women raise the children, cook, and clean. Women are always under the control of a man, starting with the father, and then changing hands to the husband after marriage. Some women among society are seen as healers and are viewed as being highly spiritual. Women usually marry while still teenagers, and the marriages are arranged by parents.

Education and Literacy Rates

The literacy rate in Botswana is approximately 80 percent. Though lower than that of its neighbors, Botswana has a relatively high literacy rate when compared with most African countries. With a recent shift in population from the village to the city, access to formal schooling has increased for most children. Educational opportunities in rural areas

remain limited and most village children do not attend beyond primary school. Primary school is taught in Setswana and includes traditional singing and dancing. Secondary school and above is taught in English. The University of Botswana in Gaborone, founded in 1982, is the country's primary center for higher education. The University has satellite campuses in Francistown and Maun.

Language

English is the official language of Botswana. Setswana is the native language and is the commonly spoken language. Although there are several different tribes, almost all understand Setswana. English is taught at secondary schools and higher, but primary school is taught in Setswana.



Kalanga Woman

Religion

Religious freedom is protected by the constitution. Botswana's population, by percentage, is split almost evenly between Christians and animists (those who follow the indigenous beliefs). Christianity was brought by British missionaries in the mid-19th century. Indigenous beliefs have been integrated with Christianity to a varying extent by tribe. However, many traditions such as polygamy, initiation rites, passing a widow to a dead man's brother, and rainmaking ceremonies, have not been practices since British rule.

Customs and Courtesies

The concept of community is very important in Botswana. Until recently, most infrastructure such as schools and roads were built through local organizations. Members are expected to work for the community, and the more a person does for their group, the higher their status is within it. For this reason, education, integrity, and generosity are highly valued. Family members with jobs are expected to support those without, and traveling relatives are housed as long as necessary. Botswanans value an absence of conflict, therefore public criticism and raising one's voice in anger are inappropriate.

Handshaking in Botswana is longer and softer than in the United States. When meeting with someone, it is considered impolite to rush into business. In casual conversation feel free to discuss health, family, weather, life in America, sports, music, art, and positive aspects of Botswana. Avoid talking about politics, colonialism, sex, and religion, and criticizing political leaders. People tend to be very affectionate towards others and have no problems kissing, holding hands, and embracing without sexual implications. Americans speak louder than is acceptable in Botswana. If concerned about voice level, match the level of the person with whom you are speaking. Personal space is much closer in Botswana. Stepping back to adjust the space will result in a step closer by the other person to close the gap.

Eye contact is important to be aware of while in Botswana. It is disrespectful to make eye contact with a superior. Visitors must not hold a long gaze at anyone in a position of respect or authority. You will have difficulty making eye contact when talking with a Botswanan, who wishes to show you respect.

If invited to a meal, keep in mind that it is usually communal. Use your right hand to get food. Meals consist of porridge, which is made from sorghum, maize, or millet. Tea made from sorghum is common for breakfast. Seasonal fruits and vegetables are added to the Botswana diet. When eating from a large bowl, eat the portion in front of you and do not take a bigger portion than others. Be sure to leave a small amount of food on your plate to indicate you are full. If you eat everything, it will appear that you are still hungry. On some occasions small gifts are customary; be prepared for this. Refusing a gift can be taken as an insult.

Cultural Considerations

Do not give the okay or thumbs-up signal in Botswana, as these are seen as insults. Do not photograph people, especially women, without first asking permission.

Cattle are seen as a symbol of wealth. Cattle can be the center of music, dance, and festivals. Western dress is accepted and worn in most areas. Business attire for men is a suit and tie, and for women it is a dress or skirt and blouse. Rural dress differs from urban dress. Men wear overalls and hats, and women wear a wrap over their clothes and carry babies in fabric slings on their backs. Women cover their heads with a kerchief. Good hygiene and cleanliness are valued, and both men and women have short hair.

Recreation

Soccer, known as football in Botswana, is the national sport and popular at all levels of competition. Saturday is when Botswanans play soccer.



Golf Course in Gaborone

Track and field events are also popular. Singing and dancing are a part of many recreational events.

MEDICAL ASSESSMENT

Disease Risks to Deployed Personnel

Botswana is assessed as high risk for infectious diseases. Without health protection measures, mission effectiveness will be seriously jeopardized.

Risk varies greatly depending on location, individual exposures, and other factors. Serious diseases may not be recognized or reported due to lack of surveillance and diagnostic capability.

Foodborne and Waterborne Diseases

Sanitation is extremely poor throughout the country. Local food and water sources (including ice) are heavily contaminated with pathogenic bacteria, parasites, and viruses, to which most U.S. service members have little or no natural immunity.

If local food, water, or ice from unapproved sources is consumed, diarrhea can be expected within days. Hepatitis A and typhoid/paratyphoid fever can cause prolonged illness in a smaller percentage of unvaccinated U.S. personnel. Consumption of unpasteurized dairy products and raw animal products increases the risk of diseases such as brucellosis and Q fever. Viral gastroenteritis (e.g., Norovirus) and food poisoning (e.g., *Bacillus cereus*, *Clostridium perfringens*, *Staphylococcus* spp.) may cause significant outbreaks.

Vector-borne Diseases

Malaria is the major vector-borne disease risk in Botswana, capable of debilitating personnel for up to a week or more. In addition, there are various other vector-borne diseases, including Crimean-Congo hemorrhagic fever, rickettsioses, Sindbis, and West Nile fever. As a group, these diseases may constitute a serious risk comparable to that of malaria. Personnel exposed to mosquitoes, ticks, or sand flies are at risk during the day or night, in both urban and rural areas.

Sexually Transmitted Diseases

Gonorrhea, chlamydia, syphilis and chancroid are common, and may affect a high percentage of personnel who have sexual contact, particularly with prostitutes. Carrier rates for hepatitis B are high. A small number (less than 1 percent per month) of personnel having unprotected sexual contact, particularly with prostitutes, could become infected with hepatitis B or HIV. Heterosexual contact is the predominant mode of HIV transmission. Although the immediate impact of HIV/AIDS and hepatitis B on an operation is limited, the long-term health impact on individuals is substantial.

Respiratory Diseases

Tuberculosis rates are high among the local population. In 2002, the World Health Organization (WHO) assessed Botswana as 1 of the 15 countries with the highest TB incidence per capita. Prolonged contact with the local

population may result in conversion rates to tuberculosis skin testing (PPD screening) that may be elevated over the U.S. military baseline.

In addition, deployed U.S. forces may be exposed to a variety of common respiratory infections that occur in the local population, including influenza, pertussis, viral upper respiratory infections, viral and bacterial pneumonia. U.S. military populations living in close-quarter conditions are at risk for substantial person-to-person spread of respiratory pathogens. Influenza is of particular concern, because of its ability to debilitate large numbers of unvaccinated personnel for several days.

Water-contact Diseases

Lakes, rivers, streams, and other surface water may be contaminated with the infectious agents that cause leptospirosis and schistosomiasis. Activities in some locations involving extensive freshwater contact may lead to temporarily debilitating leptospirosis and schistosomiasis.

Animal-contact Diseases

Rare cases of Q fever could occur among personnel exposed to aerosols from infected animals. Significant outbreaks can occur in personnel with heavy exposure to areas where animals are kept. Unpasteurized milk may also transmit infection. Rabies is a potential risk countrywide. Dogs are the main source of human rabies exposure, and infection is usually associated with direct animal contact (bites or scratches).

Medical Capabilities

Botswana's health care system is considered well structured, even though a shortage of trained medical personnel exists. Botswana is assessed to have the best ratio of physicians to population throughout sub-Saharan Africa. Hospitals and clinics are available countrywide, more so in and around larger metropolitan areas. These facilities are fast approaching U.S. standards.

Botswana's estimated total hospital bed capacity is 3,537. Ambulance emergency response is assessed as superior for developing nations, although most ambulances have minimal onboard medical equipment and supplies. The country's road infrastructure is one of the best in Africa. New roads to Namibia, Mozambique, and South Africa enhance disaster evacuation capabilities.



Child Receiving Health Care

Gaborone Private Hospital is the best facility for medical care; it has state-of-the-art equipment and well-trained medical staff who speak French and English. With Ministry of Health assistance, the Botswana Red Cross Society (BRCS) screens blood for HIV and other infectious diseases at its test centers based in Gaborone and Francistown. Although the country has some pharmaceutical companies, most pharmaceuticals are imported from other countries, including India and the United States.

Key Medical Facilities

Gaborone Private Hospital

<i>Coordinates</i>	243745S 0255600E
<i>Location</i>	PLOT 8448 Mica Way, Broadhurst Section
<i>City</i>	Gaborone
<i>Telephone</i>	267-30-19-99 Fax: 267-30-28-04
<i>Type</i>	Private
<i>Bed Capacity</i>	118
<i>Capabilities</i>	Medical — general, internal, pediatric; surgical — general, ICU, GYN; ancillary — laboratory, x-ray, CT scan, ultrasound, pharmacy, 24-hour emergency room, EKG, blood banking.
<i>Comments</i>	Blood is screened for HBV, HIV, hepatitis B and C, all antibodies, and major infectious diseases, and cleared according to International Red Cross standards. Medical staff of 400. Air evacuation (helipad).

Princess Marina Hospital, Gaborone

<i>Coordinates</i>	243920S 0255529E
<i>Location</i>	Between North Ring Road and Notwane Road
<i>City</i>	Gaborone
<i>Telephone</i>	267-35-32-21
<i>Type</i>	Government
<i>Bed Capacity</i>	500

<i>Capabilities</i>	Medical — general, internal, pediatrics; surgical — general, ICU, GYN; ancillary — laboratory, x-ray, pharmacy, 24-hour emergency room, EKG, infectious diseases, blood banking.
<i>Comments</i>	Blood is screened for HBV, HIV, hepatitis B and C, all antibodies, major infectious diseases, and cleared according to International Red Cross standards.

HISTORY

The area of what is now Botswana was originally occupied by the San people about 30,000 years ago. They were followed by the Khoi-khoi and, much later, the Bantu tribesmen from the north. The Bantu, known as Tswana, settled in the eastern edge of the country and in what is now northern South Africa in approximately the 14th century. In the early 19th century, Zulu tribesman from the south pushed some of the Tswana into the Kalahari. As a result of this dislocation, the Tswana regrouped and became more organized. They developed a system of centralized towns and satellite villages, with a village allocated to each clan. The village was under the control of the clan leader, who reported to the king of the nation.

In the mid-1800s, Boer colonists from South Africa, under pressure from British colonists on the coast, pushed north into Botswana, then known as the Transvaal, with the idea of taking over Tswana lands. The Tswana chiefs rejected white rule, sparking violence with the Boers. The British annexed this territory as the Bechuanaland Protectorate in 1877 when the chiefs asked for protection. This started the first Boer War. The Pretoria Convention of 1881 saw the British withdraw from the Transvaal in exchange for Boer allegiance to the British government. In 1882, Boers again moved into Tswana lands and again the Tswana lobbied for British protection. The British, sensing a threat to the overland routes to potential gold in Zimbabwe and a supply of labor for their South African mines, obliged.

The power and influence of the tribal chief diminished near the end of the 19th century due to the influx of colonists and their Christian religion, as well as European technology. A cash economy was firmly in place. The British granted each of the chiefs a tribal reserve in which the chiefs were given authority over all black residents and 10 percent of taxes collected therein.

Economic problems arose in the beginning of the 20th century. An outbreak of hoof and mouth disease wiped out many of the cattle herds. Additionally, South African and Rhodesian (now known as Zimbabwe) corn farmers, being closer to ports, flooded the market with grain, pushing Botswanan farmers out of business. Because of this, between the 1930s and 1960s, 25 percent of Botswana men were working abroad, mostly in mines and on farms in South Africa. In the early 1920s, the British pushed to annex Bechuanaland into the Union of South Africa, but this idea was dropped when it was so strongly opposed by the indigenous population.

Independence

In World War II, 10,000 Botswanans volunteered for the African Pioneer Corps to defend the British Empire. At the end of the war, the heir to the Ngwato tribe's throne, Seretse Khama, left to study in England. While there, he married an Englishwoman, causing a scandal and his exile to Britain from 1950 to 1956. He was allowed to return on the condition that he renounce his claim to the throne. Other young men educated in foreign universities were returning to Africa with ideas about independence and nationalism.

Political parties started to form in the 1950s and 1960s with these first stirrings of nationalism throughout Africa. In 1960, refugees from the Sharpeville Massacre in South Africa formed the Bechuanaland People's Party (BPP). In 1962, Seretse Khama and Quett Masire, a Kanye farmer, formed the more moderate Bechuanaland Democratic Party (BDP). They were soon joined by the chief of the Ngwaketse tribe, Bathoen II. The BDP formulated a schedule for independence and

drafted a new, nonracial constitution to allow a peaceful transfer of power. In 1965, the BDP won 28 of 31 seats in the new parliament, and Khama became Prime Minister. On 30 September 1966, Bechuanaland became the Republic of Botswana and Khama was its first president. Shortly after independence, tribal land rights were transferred to district committees. The rights of white freehold farmers were guaranteed, and foreign investment was encouraged. In these formative years, there was an over-reliance on foreign expertise, which hampered the emergence of native Botswanan traders and trained workers.

Post-Independence

In the years following independence, the BDP was challenged by the BPP and the Marxist-oriented Botswana National Front (BNF). During this time the BDP never lost its grip on power. Khama remained president until his death in 1980, when he was replaced by BDP cofounder and Vice-President Quett Masire. During the 1980s, tensions between the BDP and the opposition BNP grew. The BNP took control of several town councils in the 1984 election due to the discontent over the high level of unemployment. This control at the town level, however, never translated into success at the national level. In the 1989 elections, the BNF took only 3 of 34 seats due to internal struggles, and the BPP lost its only seat. As a result of this dismal showing, the BNP and BPP formed an alliance, agreeing to nominate a single candidate in each constituency, but allegations that the BNF was a movement of national liberation disrupted the coalition.

During the 1990s, the BDP had many corruption scandals. In 1992, Vice-President Peter Mmusi and Minister of Agriculture Daniel Kwelagobe were forced to resign after an investigation into their illegal transfer of land. Both were later reinstated in a victory of the BDP old guard and cattle owners over party modernizers. In 1993, several top government officials, including President Masire, were found to be indebted to the National Development Bank. The sum of the indebtedness was so large that the bank was forced to close offices and lay off workers. Another scandal in 1993 involving the

Botswana Housing Corporation forced the resignation of two other ministers. Although public confidence in the government was low, the people continued to reelect the BDP, mostly because of the disarray of opposition parties and their inability to articulate alternatives. There were incidents of civil unrest during this time, mostly due to the high unemployment rate and general public dissatisfaction. Allegations that the BNF instigated the disturbances were countered by charges that the government used excessive force to quell the disturbances.

Several amendments to the constitution were adopted in 1997. The president was limited to two terms of office, and the vice-president was formally made his successor in the event of the death or incapacitation of the president. The voting age was lowered from 21 to 18, and provisions were made for Botswana living outside the country to vote.

On 31 March 1998, in a ceremony attended by then-President Clinton, Quett Masire retired and handed over the presidency to Festus Mogae, who has ruled the country since. President Mogae has also had to deal with civil unrest, a stagnant economy, environmental challenges such as drought and desertification, and the epidemic of HIV/AIDS.

Chronology of Key Events

- 1806 Hunters and missionaries enter what is today Botswana.
- 1885 Botswana is declared a British protectorate and named British Bechuanaland.
- 1908 British loose interest in Botswana. Throughout the occupation the British unsuccessfully attempt to incorporate the land with neighboring countries through the 1908 Act of the Union.
- 1960–1980 Khama serves as president.
- 1966 On 30 September Botswana wins independence from Britain.
- 1967 Diamonds are discovered at Orapa.
- 1980–1998 Masire serves as president.
- 1998 Mogae begins term as president.

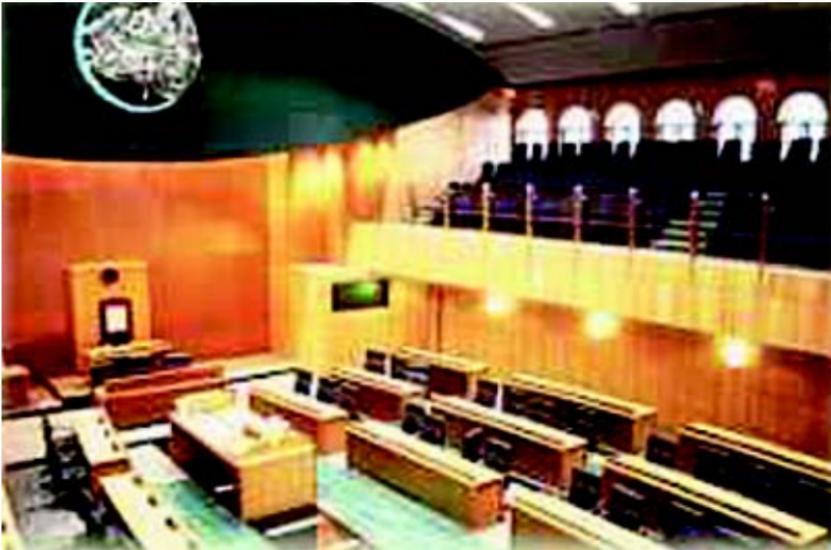
GOVERNMENT AND POLITICS

Government

National Level

The Republic of Botswana has been a parliamentary republic since its independence in 1966. Since that time, three presidents have served Botswana, each selected in a fair, peaceful, and democratic manner. Botswana is one of Africa's most stable democracies.

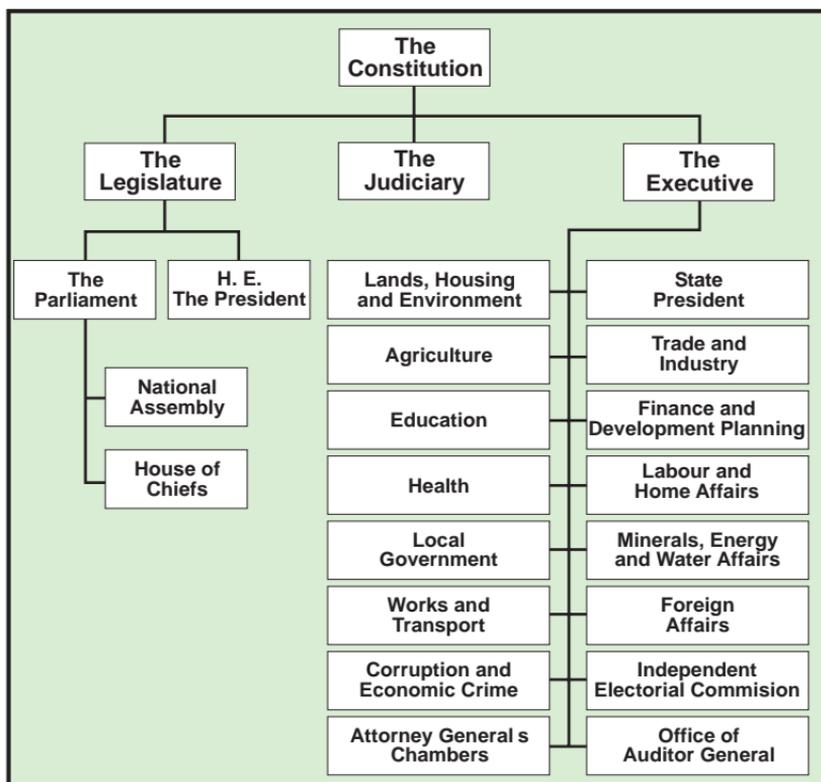
Executive Branch. The president, who is both head of state and head of government, runs the executive branch. The president is the commander in chief of the armed forces, and has the power to declare war, sign peace treaties, and dissolve the parliament. The president is elected by the parliament



Parliament

every 5 years. The president appoints a 15-member cabinet of ministers and a vice-president. He may withhold assent from a bill passed by parliament, but if the same bill is presented again in 6 months, the president must assent or dissolve parliament.

Legislative Branch. Botswana's legislative body is a bicameral parliament; it consists of the House of Chiefs and a National Assembly. Parliament passes laws for the nation, scrutinizes government policy, and monitors the budget. There are 46 seats in the Botswana National



Government Structure



National Assembly Building

Assembly: 40 are elected by popular vote in a first-past-the-post election, 4 are elected by the National Assembly from a list submitted by the president, one is the attorney general, and one is the speaker.

House of Chiefs. The House of Chiefs handles tribal and chieftaincy matters. Bills relating to chieftaincy, as well as alterations to the constitution, must be brought to them. They also are a deliberative body and may make representations to the president on any matter. The House of Chiefs comprises one chief from each of the eight principal Tswana tribes, four chiefs elected by the subchiefs from their ranks, and 3 chiefs elected by the other 12. This group meets annually and as necessary.

Judicial Branch. Botswana has a dual legal system with Roman-Dutch law and customary law. Customary law only applies to tribesman. The

judicial branch of Botswana's government consists of three levels of courts. The lowest are magistrate courts (also known as subordinate and customary courts). Above these courts is the High Court, headed by the Chief Justice, who is appointed by the president. The superior court in Botswana is the Court of Appeal, with jurisdiction in both civil and criminal cases. The Court of Appeal meets twice a year. The supreme judge is the President of the Court of Appeal. Below this judge are several other justices, all are appointed by the president.

Key Government Official

President	Festus Mogae
Vice President	Seretse Ian Khama
Minister of Finance and Development Planning	Baledzi Goalthe
Minister of Foreign Affairs	Lt General Mompoti Merahfe
Minister of Local Government	Michale Tshipinate
Attorney General	Thandu T. C. Skelemani

Local Level

Botswana is divided into ten administrative districts, each controlled by a district commissioner. The districts are Kweneng, Ghanzi, Southeast, Ngwaketse, Kgatleng, Kgalagadi, Northeast, Ngamiland, Chobe, and Central.

Politics

Suffrage

Suffrage is universal beginning at 18 years of age.



President Festus Mogae



Administrative Districts

Political Parties

Botswana is a multiparty democracy, but it has been ruled by the Botswana Democratic Party (BDP) since independence. The BDP holds 26 seats in the National Assembly.

Political Party

Botswana Congress Party
Botswana Democratic Party
Botswana National Front
Botswana Peoples Party
Independence Freedom Party
Botswana Labor Party
Botswana Progressive Union
Botswana Workers Front
Mels Movement of Botswana
Social Democratic Party
United Action Party
United Democratic Front
United Socialist Party

Party Leader

Otlaadisa Koosaletse
President Mogae Festus
Kenneth Koma
Knight Maripe
Motsamai Mpho

Foreign Relations

Botswana, wedged between South Africa and Zimbabwe, has taken a neutral stance in those countries' ongoing disputes. Additionally, the struggles between South Africa under apartheid and the African National Congress (ANC), and Zimbabwe's fight against the Patriotic Front left Botswana vulnerable to intervention from both of these countries. Frequently accused of harboring guerrillas from these two organizations, Botswana was left with the difficult task of keeping South Africa placated for economic reasons (Botswana depends on South African ports for its imports and exports) while trying to project a progressive image to Black Africa and the West. The threat of guerrilla incursions and occasional attacks by South African commandos searching for ANC operatives pushed Botswana to request military aid from the United States and United Kingdom in 1986. Border tensions between South Africa and Botswana remained high until the decline and eventual end of South Africa's apartheid government in the early 1990s. In September 1998 the Prime Minister of Lesotho requested international assistance in quelling internal unrest. Only South Africa and Botswana responded. When parts of the Lesotho Army resisted the ini-

tial South African troop deployment, Botswanan forces had to be used in a peacekeeping role. Botswanan troops were withdrawn in May 1999.

Namibia. Botswana and Namibia are trying to improve relations. In the past, there have been border disputes, particularly over the Caprivi Strip (a section of Namibia that juts into Botswana) and several islands in the Chobe River. Relations were particularly strained in 1994. In 1995 a Joint Permanent Commission of Cooperation Agreement was signed. This agreement, along with the completion of the Trans-Kalahari road, has helped improve the situation. In 1998, Botswana allowed asylum to secessionists in the Caprivi Strip, further straining relations between the two countries. A problem in the future between Botswana and Namibia will be water; Namibia is facing severe shortages. One promising solution, a pipeline to draw water from the Okavango River, will affect the water supply to Botswana. Botswana is concerned about endangering the Okavango Delta. Although Botswana and Namibia are not hostile, tensions can easily escalate between them.

South Africa. Relations have been stressed in the past, because of instability and a weak border in South Africa. Many of these issues have been resolved. In 2000, Botswana and South Africa signed a defense and security agreement regarding a focused effort on drug trafficking and illegal immigration. This agreement, and the strong economic and political ties fostered by their membership in the Southern African Customs Union (SACU) have improved relations between Botswana and South Africa.

Zimbabwe. Botswana has strained relations with neighboring Zimbabwe. Throughout the 1980s a large number of guerillas from the Zimbabwe African People's Union (ZAPU) entered Botswana with a large flow of refugees from Zimbabwe. Recurrent efforts by the Zimbabwean government to have these dissidents deported has forced Botswana to enforce stricter controls on refugees. In the late 1980s, after the political situation in Zimbabwe stabilized, Botswana revoked refugee status for Zimbabweans forcing most to return home. In 2000, relations again became strained as instability increased. Zimbabwe-

ans, fleeing the economic policies of President Robert Mugabe, have strained Botswana's economy.

United States. Botswana has very good relations with the United States. There is frequent contact between U.S. and Botswana Armed Forces. Activities include joint combined exercise training and FLINTLOCK exercises. There are no permanent U.S. facilities in Botswana, but there has been some discussion about a mini status-of-forces agreement modeled on those concluded proponents of the African Crisis Response Initiative, Ghana, Mali, Benin, and Côte d'Ivoire.

International Organizations

Botswana is a member of many international and regional organizations, including: African Development Bank, International Air Transit Association, International Criminal Police Organization (INTERPOL), Non-Aligned Movement Organization of African Unity, Southern African Customs Union, Southern African Development Community, United Nations, European Union (associate member under the Lome Convention), World Customs Organization, and World Trade Organization.

Outlook

Botswana is one of Africa's thriving democracies — its outlook is positive. Its membership in several international organizations and improving relations with bordering countries will enhance its success.

ECONOMY

Statistics

Gross Domestic Product	US\$12.4 billion
<i>GDP Growth</i>	4.7%
<i>GDP Per Capita</i>	US\$7,800
Inflation Rate	6.6%

Debt

US\$325 million (external)

Unemployment

40%

Imports

US\$2.1 billion

Exports

US\$2.5 billion

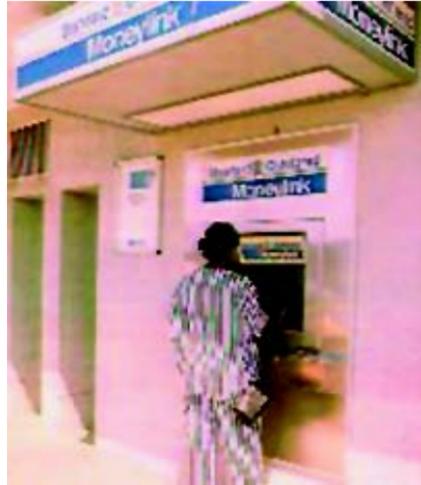
Labor Force

264,000

Currency

The Bank of Botswana is government-owned. It manages the exchange rate, coins money, and develops macroeconomic policies. The commercial banks are Barclays Bank of Botswana, Standard Charter Bank, First National Bank, Bank of Baroda, and Stanbic Bank Botswana.

Visa, MasterCard, American Express, and Diners Club credit cards are widely accepted. ATMs are available in Gaborone, Francistown, Selebe Phikwe, and select other cities in Botswana.



Botswanan Using ATM Machine

Resources

Botswana's primary natural resource is diamonds. Diamonds have been the key to Botswana's economic stability. At current extraction rates, diamonds are expected to last for another 40 years. Although diamond mining supports the nation, accounting for one third of the gross domestic product (GDP), most Botswanans make their living from agriculture. Copper, coal, nickel, soda ash, and potash are mined, but their contribution to the national economy depends on world commodities prices. As a result, these have frequently been mined at cost or even for a loss. The coal that is mined is of low to mid-grade, and nearly all is used domesti-



Bank of Botswana

cally. It is used to generate power in the mines as well as in urban areas to reduce the dependence on scarce wood fuel. The quality of the coal is not sufficient to justify the expense of exporting it.

Industry

Mining, which is done by foreign-owned companies employing indigenous labor, accounts for most of Botswana's industry. Thirty-nine percent of the GDP is from the mining industry. The discovery of one of the world's largest diamond reserves shortly after gaining independence has led to a stable economy. The copper-nickel mines at Selibe Phikwe are important to the economy. They are a major employer of Botswanans. In recent years, Botswana has turned to livestock processing, vehicle manufacturing, and tourism in order to reduce its dependence on mining, with limited success.

Botswana imports foodstuffs, vehicles, textiles, and petroleum products. Botswana's main trading partners are Switzerland, the United States, the



Diamond Sorting

European Union, South Korea, Zimbabwe, and members of the South African Customs Union.

Agriculture

Although the agricultural sector employs a majority of the people, it generates only 4 percent of the GDP. The lack of modern infrastructure, inefficiency, drought, and overgrazing have limited productivity. As a result, Botswana's largest import is foodstuffs. The Kalahari Desert greatly limits Botswana's agriculture potential, but small farms and subsistence farming does exist. Only 0.5 percent of Botswana's land is ara-

ble. This land is primarily in the east along the Limpopo and Shashe rivers. Botswana manages to export sorghum, maize, salt, pulses, peanuts, beans, cowpeas, and sunflower seed. The cattle industry, primarily in the north and south of Botswana, is also a major source of export income. This sector, however, is dominated by a few large-scale owners (10 percent of the population owns 60 percent of the cattle) and has been vulnerable to drought and disease, such as hoof and mouth.

Utilities

Electrical

The Botswana Power Corporation (BPC) is government-owned. BPC was founded in 1970 by an act of parliament, and has continued to provide Botswana with power. Nearly 80 percent of the nation's power is generated at the Morupoule Power Station. Gaborone has an oil-fired power station that produces thermal energy as well. BPC continues to provide electricity to rural areas throughout Botswana. Botswana produces 500 million kilowatts of electricity, all from fossil fuels.

Water

Tap water can be safe to drink in urban areas depending on the source. Anti-malaria pills are not required, but recommended. In the bush, do not drink



Electric Facility

or bathe in stagnant water. The possibility of bilharzias does exist. Do not go near natural water sources at night because wild animals pose a risk.

Foreign Investment

Botswana has received a significant amount of foreign investment. The European Union commission recently allotted \$25 million to the humanitarian crisis in nine southern African countries.

Outlook

In November 2000, a French risk analysis firm rated Botswana as the only country in Africa where the financial, commercial, and political risks for foreign investors and exporters was comparable to Western democracies. The economy, although stable, does not produce enough jobs annually to employ all the young people leaving school, leading to frustration among youth and occasional civil unrest. Rising corruption is also a problem. Additionally, Botswana has one of the highest HIV/AIDS infection rates in the world. This will undoubtedly have a negative affect on the economy, as people are dying in their most productive years, leaving orphaned children to be cared for by relatives or the government. Botswana is planning several large projects to improve infrastructure and the economy. One such project is a north-south water pipeline. Over-dependence on diamonds is one potential problem for Botswana, whose economy can be greatly affected by a change in the market value of precious stones.

THREAT

Botswana is widely credited as being one of the most prosperous and least corrupt states in Africa. The country is the largest gem-quality diamond exporter in the world. It has one of the best public infrastructures on the continent, including sophisticated power and telecommunication facilities. However, Botswana lacks the mature public institutions of

more developed states. In addition, it borders a number of historically troubled countries.

This mixture of assets and deficits has the unintended consequence of making Botswana a lifeboat nation. Thousands of migrants travel through the country every year seeking a better life. Many migrate illegally and unmonitored. Their presence deepens the disparity between Botswana's rich and poor.

A significant criminal element has arisen and is operating in Botswana. This criminal element represents the greatest potential threat to U.S. personnel traveling in Botswana.

Crime

Pocket picking and other low-level property crimes are common. Botswana's rate of violent crime is low, but appears to be growing. There are no indications that U.S. citizens are specifically targeted for violence. However, a number of foreign residents and travelers have been sexually assaulted in recent years. Burglaries of unoccupied or vacant residences, and nighttime robberies of occupied residences, are becoming more common.

Carjackings and street-side robberies also appear to be increasing. Such crimes generally occur as the driver idles at a residence or intersection. Assailants may open a door or smash a window in order to seize visible items or to gain access to the passengers.

A number of large-scale crime organizations operate across Botswana. They include Eastern European, Nigerian, and Angolan syndicates. However, the most prevalent gangs are indigenous, South African, or Zimbabwean. These groups engage in a variety of enterprises, from weapons trafficking to currency smuggling. Independent gangs of wild-life poachers and armed bandits operate along Botswana's borders, particularly on the western border with Namibia.

Attracted to the immense wealth generated within the two countries, transnational crime networks spread from South Africa into Botswana during the 1990s. Botswana has vast, sparsely populated border areas. These areas are very difficult to patrol with the country's limited police forces. Crime syndicates have learned that they can move large numbers of people and illicit goods across the borders with little fear of detection.

Botswana law prohibits the arrest and prosecution of criminal suspects who are less than 18 years of age. Crime networks exploit this law by employing teenagers to conduct most street-level operations.

Automobile theft and carjackings had become a daily occurrence in 2003. South African and Zimbabwean groups operate a number of car theft rings within Botswana. Auto theft rings are known to target sport utility vehicles.

Botswana's first-rate banking and telecommunication sectors accommodate a massive volume of transactions every year. However, poor regulatory controls create a favorable environment for money laundering and related illegal activities.

Counterfeiting and the illegal money trade annually circulate hundreds of thousands in unmonitored currency through Botswana. This provides a low-technology channel through which illicit groups may further launder funds. In a single raid, in 2003, the Gaborone police netted 10,000 bogus notes. The face value of these notes totaled 1 million pula (US\$216,000). Currency gangs trade huge numbers of untraceable pula, rand, British pounds, and U.S. dollars at unfavorable rates. Such activities undercut the official value of Botswana's currency and undermines investor confidence in the economy.

The diamond trade provides Botswana's largest legal foreign income. The trade has been instrumental in funding public infrastructure and other development projects. Botswana participates in international organizations aimed at suppressing illegal diamond trafficking. Government reports suggest that gem smuggling has declined since 2002. However, the illegal diamond trade remains enough of a concern to warrant specialized police squads and a considerable public information campaign.

U.S. personnel are warned not to trade in currency or diamonds with street vendors. Such transactions should only be made within permanent kiosks, banks, and jewelry establishments.

The overabundance of unemployed persons in neighboring countries and high local demand for cheap labor supports large human trafficking networks within Botswana. Thousands of illegal migrants seek work in the country every year. Migrant use of criminal smuggling networks often results in tragedy. For example, 18 Zimbabweans suffocated in a sealed truck container in 1998 while trying to enter the country.

Zimbabwean migration has become a major political issue in Botswana. This issue includes the government's construction of electrified fences along the northern border and numerous accusations of human rights abuses against Zimbabweans.

Pervasive trafficking of women and children is a significant issue. Criminal networks collect victims from other parts of Africa to work as prostitutes and bonded laborers in southern Africa and Asia. The government of Botswana has found the prevalence of child trafficking significant enough to adopt special identification procedures for all children entering the country.

Travel Security

Lack of traffic safety represents a significant threat to travelers in Botswana. As a British Commonwealth nation, the country generally subscribes to British driving standards. For instance, traffic circulates on the left side of the road. However, traffic standards are poorly enforced and often ignored. Erratic stops, sudden lane changes, ignored traffic lights, speeding, and driving while intoxicated result in many deaths every year. U.S. personnel are advised to drive defensively and be particularly attentive around taxis and minibuses.

While the roads in major population centers in Botswana are generally good, driving outside large towns may be dangerous. The combination of long, tedious stretches of two-lane highways, high speed limits, and

poor lighting make night driving on rural highways particularly hazardous. Wildlife, stray livestock, and large numbers of pedestrians on the roadways make fatal accidents a frequent occurrence.

Wildlife migration routes and other sensitive areas are frequently unmarked. African wildlife can be extremely unpredictable. Travelers should avoid contact with native animals unless supervised by a licensed-guide.

Alternative transportation and lodging is extremely limited outside Gaborone, Francistown, and Maun. Travelers should stock vehicles with emergency supplies, be ready to drive in off-road conditions, and be otherwise prepared for the possibility of becoming stranded in a remote area. The price for taxis or other hired transport should be settled with the vendor before departure.

Personnel can telephone the Botswana police 24 hours a day by dialing the numbers provided in local directories. The national police emergency number is 999. Most policemen speak English to some degree. Response times are long, due to limited police resources.

Terrorism

The U.S. Department of State assesses the overall threat of terrorism within Botswana to be low. However, the same conditions that make Botswana a focal point of international crime make it potentially attractive to international terrorist networks. The level and variety of criminal enterprise in Botswana — and particularly the prevalence of human trafficking — would tend to conceal the movement of terrorists and their low-level logistics activities.

Corruption

The Botswana government upholds a well-publicized policy of zero tolerance for corruption. In 2002, the World Bank ranked Botswana among the top 20 developing nations with regard to the country's attempts to control graft by officials. The Switzerland-based World Economic Forum recognized Botswana in 2004 as the least corrupt state in Africa. The nongovernmental organization Transparency International rated

Botswana's quality of governance high alongside countries like Austria, Hong Kong, Finland, and Malaysia. Any requests for the payment of bribes should be reported to the appropriate authorities.

Drug Trafficking

Botswana laws mandate harsh punishments for both the possession and distribution of illegal drugs. Even so, Botswana is a producer, transit point, and consumer nation of illicit drugs. Information on the levels of drug abuse in Botswana is unreliable. Drug enforcement efforts are erratic.

Methaqualone (Mandrax) and cocaine have been reported as the primary substances of abuse in Botswana, but at least half of all drug arrests involve indigenously grown cannabis. Cannabis seizures, in 2002, totaled 148,540 kilograms (327,475 pounds).

Major Intelligence Services

Botswana is distinguished from many African nations by a strong tradition of civilian control over government security. From independence in 1960 until 1977, Botswana fielded no conventional military force. The national police at that time conducted all internal and border security functions.

The structure and subordination of the Security Intelligence Service (SIS) reinforces this tradition. The SIS functions as a component of the national police. The SIS is believed to focus its operations on indigenous and transnational crime organizations. The degree to which it collects against foreign interests is not known.

Opposition Forces

There are no armed opposition groups known to operate within Botswana. Large and violent political demonstrations took place in 1995 and 2000. However, these demonstrations appear to have been spontaneous and are not attributable to any one political organization.

Threat to U.S. Personnel

There is little anti-U.S. sentiment among the general population. The most recent public opposition to U.S. interests was in 2003, when the Botswana Muslim Association staged a peaceful demonstration against U.S. and British operations in Iraq.

The most significant threat to U.S. personnel in Botswana remains crime. Personnel should remain alert for suspicious activity around them, particularly in crowded areas. They should avoid walking alone, particularly at night.

To avoid becoming an easy target for pocket picking, personnel should not use wallets, but keep money, credit cards, and identification in their front pockets. If females choose to use handbags, they should remain fastened shut and held to the front of the body.

Personnel should keep important documents such as passports in a safe place and store copies separately. Do not leave important documents and other valuables inside a parked vehicle.

U.S. personnel should keep vehicle doors locked and windows up at all times. Look for potential criminal activity by taking particular note of the surroundings when preparing to enter or exit a vehicle, or stop at a road intersection.

When faced with the choice of acquiring property or maintaining control of a victim, thieves usually choose the property. Personnel should generally not resist carjackings, robberies, and other property crimes. Victims should surrender the property and escape as soon as possible. Personnel should not fight, but should passively resist any captor's attempts to take them from the initial crime scene. For example, passive action might include a refusal to drive to a separate location, immediately followed by an attempt to leave the vehicle.

Personnel injured during a crime must consider the prevalence of HIV/AIDS and other infectious diseases in Botswana, and seek immediate

medical attention. U.S. personnel involved in a crime should report it immediately to their chain of command, the Botswana authorities, and the U.S. consulate.

ARMED FORCES

The Botswana Defense Force (BDF) traditionally has been dominated by the army; however, the air wing has undergone considerable expansion since 1996. Botswana is landlocked; there is no navy. The Minister of Defense reports directly to the Commander in Chief, who is the president. The Commander, BDF, reports to the Minister of Defense. The Commanders of the Ground Forces and air wing report to the Commander, BDF. Although focused on defense of the country, the BDF recently has taken an interest in participating in peacekeeping missions abroad, as exemplified by the deployment of an infantry battalion to Lesotho in 1998 (Operation BOLELAS). Recent equipment, including light armored vehicles and two U.S. C-130 transports, has been acquired with this interest in mind. The BDF has also participated in peacekeeping missions in Somalia and Mozambique.

Key Personnel

Commander In Chief	President Festus Mogae
Minister of Defense	(Vacant)
Commander, BDF	Lt Gen Louis Fisher
Deputy Chief of Staff—BDF, and Ground Forces Commander	Maj Gen Bakwena Oitsile
Deputy Commander—BDF, and Air Wing Commander	Maj Gen Tebogo Carter Masire

Army

Mission

The mission of the Botswana Ground Forces is to maintain territorial integrity, conduct counterinsurgency and antipoaching operations, and

protect the mineral wealth of the country. This includes regularly patrolling the Caprivi Strip and the Zambezi Valley escarpment.

Organization

The Botswana Ground Forces are organized into three brigades and several army-level units:

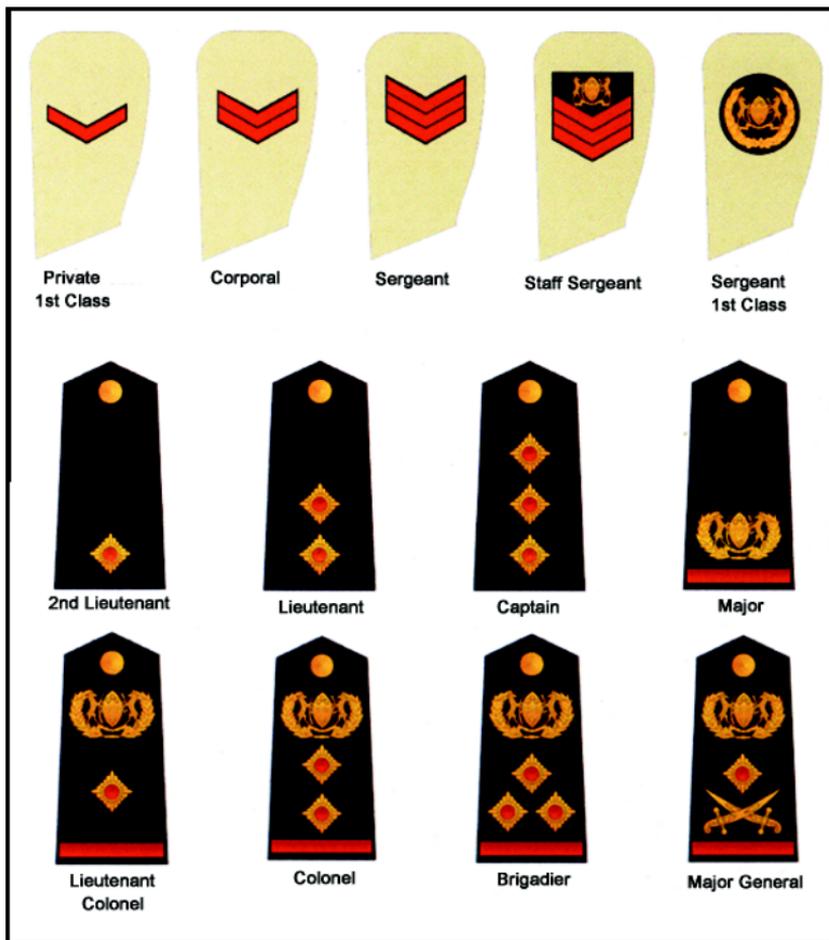
- 1 armored brigade
 - 2 armored regiments
- 2 infantry brigades
 - 4 infantry battalions
 - 1 armored reconnaissance regiment
 - 4 field artillery regiments
 - 2 air defense artillery regiments
- 1 commando/special operations squadron
- 1 engineer regiment
- 1 airborne presidential guard battalion
- 1 signal unit
- 1 logistical support unit

Personnel

The Ground Forces have a strength of approximately 8,500. Most units are at reduced strength, and it is planned that the Ground Forces will grow to 10,000.

Training

Basic training is conducted at the training depot. Advanced training is conducted in Zimbabwe and the United Kingdom, where senior officers attend the Royal Military Academy at Sandhurst, United Kingdom. Botswana also receives International Military Education and Training (IMET) funds from the United States — approximately 30 Botswana officers receive training in the United States each year. The Ground



Rank Insignia

Forces are trained to a high standard, and have won praise from other armies that served with them in United Nations peacekeeping operations. They are competent and disciplined. The Gemsbok National park is used for infantry training and the Ntwetwe salt pans are used for tank training.

Capabilities

Botswana's doctrine is rooted in its British military heritage but adapted for operations in Africa. With the acquisition of new equipment and experience in United Nations peacekeeping operations in Africa (Mozambique, Somalia, and Uganda/Rwanda) in the 1990s, the Botswanan Ground Forces are capable of conducting peacekeeping operations in support of United Nations' policy. It will take time for them to incorporate their new, mechanized equipment, as they have no experience to build upon, and no way to move their heavy armored vehicles long distances.

Disposition

The Ground Forces have bases in Francistown, Gaborone, Ghanzi, Maun, Mmabatho, Selebi-Phikwi and Tshabong.

Equipment

Tanks

Type	Role	Quantity
Scorpion (UK)	Light tank	36
SK 105 (Austria)	Tank destroyer	50

Armored Combat Vehicles

Type	Role	Quantity
V-150 (U.S.)	Recon/command vehicle	12
BTR-60 (Russia)	Armored personnel carrier	30
Spartan	Armored personnel carrier	6
Mowag Piranha III	Armored personnel carrier	UNK

Artillery

Type	Role	Quantity
105-mm Model 56 Pack (Italy)	Pack howitzer	6
105-mm Light Gun (UK)	Gun howitzer	12
120-mm M43 (Russia)	Mortar	6
81-mm L16	Mortar	12

Antitank Weapons

Type	Role	Quantity
84-mm Carl Gustav (Sweden)	Recoilless gun	30
RPG-7	Grenade launcher	UNK
BGM-71 TOW (U.S.)	Antitank guided missile	6

Antiaircraft Weapons

Type	Role	Quantity
20-mm M167 (U.S.)	Antiaircraft gun	8
Javelin (U.K.)	Manportable SAM	6
Strela-2M (SA-7) (Russia)	Manportable SAM	12
Igla (SA-16) (Russia)	Manportable SAM	10

Air Force

Mission

The Botswanan Defense Force Air Wing provides air support for the Botswanan ground forces and the police.

Organization

The Air Wing is organized into three branches: the operational squadrons, air base security, and logistics. There are nine operational squadrons: five transport squadrons, one fighter squadron, one training squadron, and one VIP flight unit.

Squadron	Aircraft	Base
Z1 Squadron	BN-2	Molepole
Z3 Squadron	BN-2	Molepole
Z10 Squadron	C212, C-130	Molepole
Z12 Squadron	BN-2	Molepole
Z21 Squadron	AS350BA, Bell 412SP	Molepole
Z28 Squadron	CF-5A/B	Molepole
Z2 Squadron	BN-2, CN235M	Gaborone
Z7 Squadron	PC-7, A152	Gaborone
VIP Flight	B200, Gulfstream IV, B412EP	Gaborone

Personnel

The Air Wing has a strength of approximately 500, although this number is expected to double with the incorporation of new aircraft.

Training

Ground crew and pilots are trained in the United States, United Kingdom, and South Africa. Several pilots attended flight instruction in Canada following the delivery of CF-5 (Canadian designation CF-116) aircraft in 1996. Flight training is conducted on the forces seven PC-7s.

Capabilities

With the acquisition of CF-5 fighters, the Air Wing obtained a limited capability to defend Botswana airspace from its neighbors. The aircraft of the South African and Angolan Air Forces are superior to those of Botswana, but the air forces of Zambia and Zimbabwe fly older aircraft (MiG-21 and F-7), which are not comparable to the upgraded CF-5. The transport and helicopter forces are inadequate to support the army in a country as large as Botswana.

Disposition

Six squadrons (five transport and one fighter) are based at Mapharangwene, also known as Molepole. The base was built by foreign contractors between 1992 and 1996. Three squadrons (one transport, one training and one VIP transport) are based at Gaborone's Sir Seretse Khama International Airport. The air wing also uses airfields in Francistown and Maun.

Equipment

Type	Role	Quantity
CF-5A (Canada)	Air defense/attack	10
CF-5D (Canada)	Combat trainer	3
PC-7 Turbo Trainer	COIN Trainer	7
C-130B (U.S.)	Transport	3
CN-235M (Spain)	Transport	2

Type	Role	Quantity
C-212-300 (Spain)	Utility Transport	2
G1159 Gulfstream IV	Transport	1
B200 Super King Air	Transport	1
A152 Aerobat	Trainer	1
O-2A Skymaster (U.S.)	Communications/patrol	9
Ecureuil AS 350BA/B	Liaison	7
Bell 412/412EP (U.S.)	Transport	5
Cessna 152	Utility	2

Navy

Botswana has no appreciable maritime force. It does have a small riverine contingent attached to the Ground Forces, which is equipped with several small craft for patrol, antipoaching, and transport missions.

National Police

Mission

The mission of the Botswana police is to protect life and property, prevent and detect crime, repress internal disturbances, maintain public security and tranquility, and bring offenders of the law to justice. The Botswana police can perform military duties as needed by the president.

Organization

The national police force is civilian controlled through the State Presidency Ministry. There are three main divisions, each headed by a divisional com-



Botswana Police



Border Posts

mander, and eight branches. The branches are General Duties branch, Criminal Investigation Department, Special Support Group, Special Branch, Traffic, Telecommunication and Transport, Police College, and Departmental Management. The police may also perform military duties within the country as directed by the President. Botswana’s borders are guarded by units of the paramilitary Mobile Police Unit.

Personnel

In 2003, the total strength of the National Police was approximately 4,700, the Mobile Police Unit, approximately 1,500.

Capabilities

The Botswana police are equipped and trained to handle their tasks. The Mobile Police Unit does not have enough resources to patrol the entire length of Botswana's borders; it is mostly confined to staffing posts at border crossing points.

Disposition

The National police are deployed throughout the country. The Mobile Police Unit staffs border crossing posts.

Equipment

Type	Role	Quantity
Shorland (UK)	Armored Patrol Vehicle	10

Weapons of Mass Destruction

Botswana has no weapons of mass destruction.

APPENDIX A: Equipment Recognition

INFANTRY WEAPONS

7.62-mm FN/FAL



Maximum Effective Range	600 m
Caliber	7.62- x 51-mm NATO
System of Operation	Gas, selective or automatic fire
Length	1.1 m (stock extended) 0.9 m (stock folded)
Feed Device	20-rd steel or light box magazine
Weight (Loaded)	5.17 kg

5.56-mm Galil Assault Rifle



Maximum Effective Range	800 m
Caliber	5.56 mm or 7.62-mm
System of Operation	gas, selective fire
Feed Device	35- or 50-rd detachable box magazine
Weight (Loaded)	3.95 kg (without bipod and carrying handle)

7.62-mm AK-47, AKM



Maximum Effective Range	400 m
Caliber	7.62 x 39 mm
System of Operation	Gas, selective fire
Rate of Fire	Cyclic, 600 rds/min
Overall Length	0.9 m
Magazine Capacity	30-rd detachable box magazine
Weight (Loaded)	4.3 kg

9-mm Sterling MK5



Maximum Effective Range	200 m
Caliber	9- x 19-mm Parabellum
System of Operation	Blowback, selective fire
Overall Length	28 in. (stock extended 19 in. (stock folded).
Feed Device	34-rd curved box magazine
Weight (Loaded)	6 lbs

Using the Sterling SMG: (1) Pull the operating handle to the rear [the bolt will remain to the rear as the weapon fires from an open-bolt]. (2) Engage the safety by moving the change lever [located on the left side of the pistol grip] to the letter S. (3) Insert a loaded 34-rd magazine into the magazine well on the left-side of the receiver, ensuring that it locks in place. (4) Move Safety to letter R for SEMI or A for AUTO. **STERLING IS READY TO FIRE.**

12.7-mm Barrett M82A1 Antimateriel Rifle



Maximum Effective Range	1,800 m
Caliber	12.7 mm x 99 mm (.50-cal. Browning)
System of Operation	Semiautomatic, short recoil cycle
Rate of Fire	Single shot
Overall Length	1.5 m
Feed Device	10-rd box magazine
Weight	12.9 kg

7.62-mm Bren L4



Maximum Effective Range	200 m
System of Operation	Blowback, selective fire
Length	645 mm (stock extended)
Feed	20-, 32-, or 40-rd detachable box magazine
Weight (Loaded)	3.8 kg (loaded)

7.62-mm FN MAG



Maximum Effective Range	1,500 m
Caliber	7.62- x 51-mm NATO
System of Operation	Gas, automatic
Overall Length	1.26 m
Feed Device	Belt
Weight (Loaded)	13.9 kg (with butt stock and bipod)

7.62-mm SGM



Maximum Effective Range	1,000 m
Caliber	7.62 x 54-mm
System of Operation	Gas, automatic
Feed	250-rd pocketed belt
Rate of Fire	Cyclic, 650 rds/min
Length	1.12 m
Weight (Empty)	13.6 kg

120-mm M43 Mortar



Crew	6
Maximum Range	5,700 m
Rate of Fire	12 to 15 rds/min
Combat Weight	280 kg
Length	1.9 m
Width	1.6 m
Height	1.2 m
Bomb Weight	15.4 kg

81-mm L16 Mortar



Weight 38 kg
Maximum Rate of Fire 15 rds/min

Description: The L16 mortar is designed for deployment to a prepared position. It can be broken into three sections for easy transport with a mortar section. It has a finned lower barrel, but its most distinctive feature is its "K" mount.

ARMOR

Scorpion Armored Combat Vehicle



Crew	3
Weight	8,073 kg
Length	4.8 m
Width	2.2 m
Height	2.1 m
Maximum Road Speed	80.5 km/hr
Maximum Road Range	644 km
Armament	76-mm gun (40 rds) 7.62-mm machinegun (3,000 rds)

Description: The Scorpion ACV has five evenly spaced road wheels on either side and a main gun barrel that is short. It is amphibious and can ford up to 1 meter. There are four smoke dischargers on each side of the turret.

SK 105 Light Tank



Crew	3
Type	Tracked
Armament	Main: 1 x 105-mm 105 G1 rifled gun Coaxial: 1 x 7.62-mm machinegun Cupola (optional): 1 x 7.62-mm machinegun
Maximum Speed	70 km/h (7 km/h in reverse)
Maximum Range	500 km
Fuel Capacity	420 liters
Turret Traverse	360°
Combat Weight	17,700 kg
Length	7.7 m (gun forward)
Width	2.5 m
Height	2.5 m
Night Vision	Yes
NBC	Yes
Fording	Amphibious
Gradient	60%
Vertical Obstacle	0.61 m
Trench	1.68 m

V-150 Commando



Crew/Passengers	3 + 2
Type	4 x 4
Armament	TOW or 1 x 90-mm gun w/42 rds and 1 x 7.62-mm coaxial machinegun
Maximum Speed	88 km/h
Maximum Range	643 km
Fording	Amphibious
Gradient	60%
Vertical Obstacle	0.609 m

NOTE: Also know as LAV-150.

BTR-60



Crew	2 + 20 passengers
Armament	Main: 4.5-mm KPVT machinegun Coaxial: 7.62-mm PKT machinegun
Maximum Speed	Road: 45 km/h; Water: 10 km/h
Fuel Capacity	290 liters
Range	500 km
Fording	Amphibious
Gradient	60%
Vertical Obstacle	0.4 m
Trench	2 m
NBC	Yes
Night Vision	Yes
Combat Weight	10,300 kg
Length	7.3 m
Width	3.1 m
Height	1.9 m

Spartan APC



Crew	3 + 4 passengers
Armament	7.62-mm machinegun; possibly HOT, MILAN, or Javelin ATGMs
Maximum Speed	80 km/hr
Fuel Capacity/Type	386 L/gasoline
Range	483 km
Fording	1.067 m; amphibious with preparation
Gradient	60%
Ground Clearance	356 mm
Trench	2 m
Combat Weight	8.1 tons
Length	5.13 m
Width	2.24 m
Height	2.26 m

Mowag Piranha APC



Crew	14
Armament	Various
Maximum Speed	Road: 100 km/h; Water: 10.5 km/h
Range	600 km
Fuel Capacity	200 liters
Length	6 m
Width	2.5 m
Height	1.9 m
Combat Weight	10,500 kg
Night Vision	Optional
NBC	Optional
Fording	Amphibious
Gradient	70%
Vertical Obstacle	0.5 m

NOTE: 6 x 6-wheel version shown—Botswana has 8X8-wheel Piranha

Shorland Armored Patrol Car



Crew	3
Type	4 x 4
Armament	7.62-mm machinegun
Maximum Speed	120 km/h
Fuel Capacity	136 liters
Maximum Range	630 km
Weight	3,600 kg
Length	4.5 m
Width	1.8 m
Height	1.8 m
Fording	0.50 m
Gradient	60%
Vertical Obstacle	0.23 m

ARTILLERY

105-mm M-56 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	1.9 m
Prime Mover	4 x 4

L118 105-mm Light Gun



Crew	6
Maximum Range	17,200 m
Rate of Fire	8 rds/min (for 1 minute)
Weight	1,860 kg

ANTITANK

84-mm M2 Carl Gustav



Caliber	84-mm
Weight	15.2 kg
Length	1130 mm
Ammunition (Maximum Ranges)	HEAT 551 (700 m), He 441B (1,100 m), Smoke 469B (1,300 m), HEDP (1,000 m)
Armor Penetration	>400 m (HEAT 551)

Description: The M2 Carl Gustav is a manportable, recoilless gun designed for multiple purposes including antitank roles. The rear of the gun has a cone-shaped exhaust. It moderately resembles an AT-4 antitank weapon.

RPG-7



Caliber	40-mm (launcher diameter) 85-mm (grenade)
Weight	6.3 kg
Overall Length	1.1 m
Maximum Effective Range	330 m (moving target), 500 m (stationary target)
Rate of Fire	4 to 6 rds/min
Armor Penetration	>300 mm

Using the RPG: (1) Insert grenade tail first into the muzzle of the launcher [Ensure that the small projection mates with the muzzle to line up the percussion cap with the hammer] (2) Remove nose cap, pull safety pin. **RPG IS READY TO FIRE**
(3) Place launcher over shoulder, sight target, squeeze trigger.

WARNING: ENSURE BACKBLAST AREA IS CLEAR.

BGM-71 TOW



Diameter	150 mm
Maximum Range of Fire	4 km
Length of Barrel	1.17 m
Launch Weight	19 kg

AIR DEFENSE

20-mm M167A1 Vulcan



Crew	1
Type	20-mm quad AAG
Ammunition	APT, HPT, TP, HEI, TPT, HEIT
Maximum Range	Antiaircraft: 1,200 m; ground: 2,200 m
Rate of Fire	Cyclic: 1,000 to 3,000 rds/min
Traverse	360°
Feed	Linked ammunition feed system
Weight	1,588 kg
Length	4.906 m
Width	1.98 m
Height	2.038 m
Prime Mover	4 x 4 Jeep or 6 x 6 truck

NOTE: M167A1 version incorporates no fundamental changes from the M167. The Vulcan is a lightweight version of the M163 self-propelled system, but can be towed or transported by helicopter, which makes it more tactically employable.

Javelin SAM System



Crew	2
Maximum Effective Range	5,500 m (helicopters), 4,500 m (jet aircraft)
Minimum Effective Range	300 m
Maximum Effective Altitude	3,000 m
Minimum Effective Altitude	10 m
Combat Weight	8.9 kg (aiming unit) + 15.4 kg (missile in canister)
Length	1.39 m

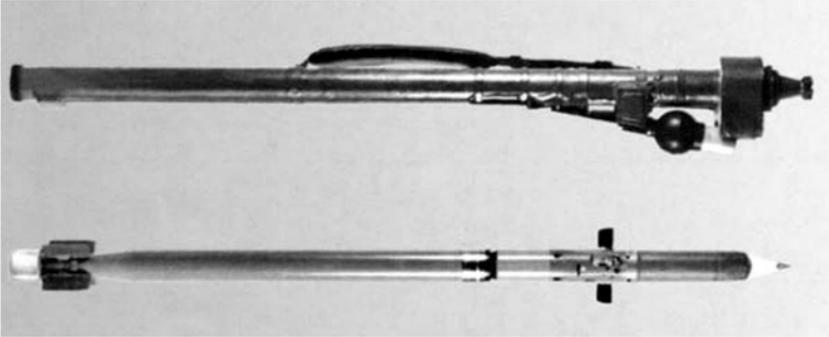
NOTE: Javelin has a secondary, surface-to-surface capability.

SA-7 Strela-2



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

SA-16



Guidance	Passive IR homing Fm tracking logic seeker
Maximum Range	4,500 m (inbound target) 5,200 m (outbound)
Combat Weight	16.65 kg
Length	1.7 m

AVIATION

Bell 412EPI



Mission	Medium multirole helicopter
Crew	1 (+14 passengers)
Main Rotor Diameter	14 m
Fuselage length	12.7 m
Fuselage Height	3.5 m
Maximum Cruising Speed	226 km/h
Maximum Range	744 km

AS 350 Ecureuil VIP Transport



Crew	1 (+ 5 to 6 passengers)
Maximum Cruising Speed	248 km/h
Maximum Range	665 km
Main Rotor Diameter	10.7 m
Length	12.9 m
Height	3.1 m
NOTE: AS 350B3 shown.	

CF-5A/D Tiger III



Role	Light Tactical Fighter (CF-5A)/Trainer (CF-5D)
Armament	2 x 20-mm guns; air-to-air missiles, surface-to-air missiles, and/or bombs.
Wing Span	7.7 m
Length	14.4 m
Weight	3,667 kg
Maximum level speed	M 1.4
Range	2,594 km

C130 B



Mission	Tactical transport and multimission
Crew	4 or 5
Passengers	92 troops, 64 paratroopers, or 74 litter patients with 2 attendants
Range with Maximum Payload	3,791 km
Maximum Cruising Speed	602 km/h (400 mph)
Maximum Payload	19,356 kg (H)
Maximum Normal T-O Weight	70,310 kg
Service Ceiling	10,060 m
NOTE: information shown is for C-130H and may reflect improvements not present on the Indonesian C-130B.	

CN235



Role	Transport
Crew	3
Wing Span	25.8 m
Length	25.4 m
Height	8.2 m
Maximum T/O Weight	16,500 kg
Maximum Speed	455 km/hr
Maximum Range (Max. Payload)	5,003 km (727 km)

CASA C-212-300 Aviocar



Role	STOL utility
Crew	2 +16 troops
Wing Span	19 m
Length	15.2 m
Height	6.7 m
Maximum Speed	359 km/h
Maximum Range	480 km (maximum payload)
Armament	Optional cannon, machine guns, or rocket pods

BN-2A-21



Role	Transport and patrol
Crew	1 + 9 passengers
Wing Span	14.9 m
Length	10.9 m
Height	4.2 m
Maximum T/O Weight	2,995 kg
Operational Speed	280 km/hr km/hr
Maximum Range	2,775 km

NOTE: provisions for rockets or guns.

O-2A Skymaster



Role	Communications and patrol
Crew	2 + 2 passengers
Wing Span	11.6m
Length	9.1 m
Height	2.8 m
Maximum T/O Weight	2,100 kg
Maximum Speed	370 km/hr
Maximum Range	2,288 km

Cessna 152



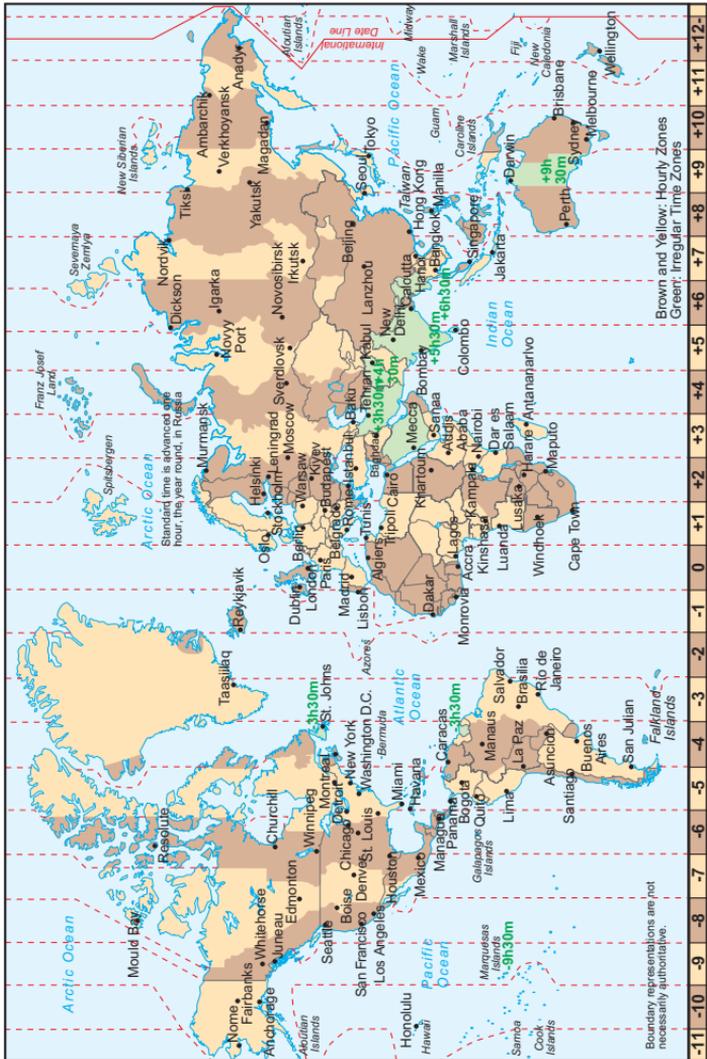
Role	Utility
Crew	2
Wing Span	10 m
Length	7.34 m
Height	2.59 m
Maximum T/O Weight	757 kg
Maximum Level Speed	202 km/hr
Maximum Range	1,000 km (with maximum fuel)

G-1159C Gulfstream IV



Role	Transport, utility
Crew/passengers	3/19
Wing Span	23.72 m
Length	26.92 m
Height	7.44 m
Maximum T/O Weight	32.658 kg
Maximum Cruising Speed	936 km/hr
Maximum Range	6,667 km

APPENDIX B: International Time Zones



Coordinated Universal Time (UTC)

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

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

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

Country	UTC	Eastern	Central	Mountain	Pacific
Djibouti	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Dominica	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Dominican Republic	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Ecuador	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Egypt	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
El Salvador	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Equatorial Guinea	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Eritrea	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Estonia	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Ethiopia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Falkland Islands	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Fiji Islands	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Finland	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
France	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
French Antilles	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
French Guinea	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
French Polynesia	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Gabon Republic	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Gambia	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Georgia	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Germany	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Ghana	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Gibraltar	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Greece	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Greenland	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Grenada	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Guadeloupe	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Guam	+10.0 H	+15.0 H	+16.0 H	+17.0 H	+18.0 H
Guatemala	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Guinea-Bissau	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Guinea	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Guyana	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Haiti	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H

Country	UTC	Eastern	Central	Mountain	Pacific
Honduras	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Hong Kong	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Hungary	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Iceland	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
India	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H
Indonesia East	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Indonesia Central	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Indonesia West	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Iran	+3.5 H	+8.5 H	+9.5 H	+10.5 H	+11.5 H
Iraq	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Ireland	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Israel	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Italy	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Jamaica	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Japan	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Kazakhstan	+6.0 H	+11.0 H	+12.0 H	+13.0 H	+14.0 H
Kenya	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Kiribati	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Korea, North	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Korea, South	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Kuwait	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Kyrgyzstan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Laos	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Latvia	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Lebanon	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Lesotho	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Liberia	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Libya	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Liechtenstein	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Lithuania	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Luxembourg	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Macedonia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Madagascar	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H

Country	UTC	Eastern	Central	Mountain	Pacific
Malawi	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Malaysia	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Maldives	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Mali Republic	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Malta	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Marshall Islands	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Mauritania	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Mauritius	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Mayotte	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Mexico East	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Mexico Central	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Mexico West	-7.0 H	-2.0 H	-1.0 H	+0.0 H	+1.0 H
Moldova	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Monaco	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Mongolia	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Morocco	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Mozambique	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Myanmar (Burma)	+6.5 H	+11.5 H	+12.5 H	+13.5 H	+14.5 H
Namibia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Nauru	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Nepal	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H
Netherlands	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Netherlands Antilles	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
New Caledonia	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
New Zealand	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Newfoundland	-3.5 H	+1.5 H	+2.5 H	+3.5 H	+4.5 H
Nicaragua	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
Nigeria	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Niger Republic	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Norfolk Island	+11.5 H	+16.5 H	+17.5 H	+18.5 H	+19.5 H
Norway	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Oman	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Pakistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H

Country	UTC	Eastern	Central	Mountain	Pacific
Palau	+9.0 H	+14.0 H	+15.0 H	+16.0 H	+17.0 H
Panama, Rep. of	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Papua New Guinea	+10.0 H	+15.0 H	+16.0 H	+17.0 H	+18.0 H
Paraguay	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Peru	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Philippines	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Poland	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Portugal	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Puerto Rico	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Qatar	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Reunion Island	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Romania	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Russia West	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Russia Central 1	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Russia Central 2	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Russia East	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Rwanda	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Saba	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Samoa	-11.0 H	-6.0 H	-5.0 H	-4.0 H	-3.0 H
San Marino	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Sao Tome	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Saudi Arabia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Senegal	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Seychelles Islands	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Sierra Leone	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Singapore	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Slovakia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Slovenia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Solomon Islands	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Somalia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
South Africa	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Spain	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Sri Lanka	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H

Country	UTC	Eastern	Central	Mountain	Pacific
St. Lucia	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Maarten	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Pierre & Miquelon	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
St. Thomas	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Vincent	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Sudan	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Suriname	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
Swaziland	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Sweden	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Switzerland	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Syria	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Taiwan	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Tajikistan	+6.0 H	+11.0 H	+12.0 H	+13.0 H	+14.0 H
Tanzania	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Thailand	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Togo	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Tonga Islands	+13.0 H	+18.0 H	+19.0 H	+20.0 H	+21.0 H
Trinidad and Tobago	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Tunisia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Turkey	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Turkmenistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Turks and Caicos	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Tuvalu	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Uganda	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Ukraine	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
United Arab Emirates	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
United Kingdom	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Uruguay	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
USA Eastern	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
USA Central	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
USA Mountain	-7.0 H	-2.0 H	-1.0 H	+0.0 H	+1.0 H

Country	UTC	Eastern	Central	Mountain	Pacific
USA Western	-8.0 H	-3.0 H	-2.0 H	-1.0 H	+0.0 H
USA Alaska	-9.0 H	-4.0 H	-3.0 H	-2.0 H	-1.0 H
USA Hawaii	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Uzbekistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Vanuatu	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Vatican City	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Venezuela	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Vietnam	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Wallis & Futuna Islands	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Yemen	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Yugoslavia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Zaire	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Zambia	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Zimbabwe	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H

APPENDIX C: Conversion Charts

When You Know

Units of Length	Multiply by	To find
Millimeters	0.04	Inches
Centimeters	0.39	Inches
Meters	3.28	Feet
Meters	1.09	Yards
Kilometers	0.62	Miles
Inches	25.40	Millimeters
Inches	2.54	Centimeters
Feet	30.48	Centimeters
Yards	0.91	Meters
Miles	1.61	Kilometers

Units of Area

Sq. Centimeters	0.16	Sq. Inches
Sq. Meters	1.20	Sq. Yards
Sq. Kilometers	0.39	Sq. Miles
Hectares	2.47	Acres
Sq. Inches	6.45	Sq. Cm
Sq. Feet	0.09	Sq. Meters
Sq. Yards	0.84	Sq. Meters
Sq. Miles	2.60	Sq. Km
Acres	0.40	Hectares

Units of Mass and Weight

Grams	0.035	Ounces
Kilograms	2.21	Pounds
Tons (100kg)	1.10	Short Tons
Ounces	28.35	Grams
Pounds	0.45	Kilograms
Short Tons	2.12	Tons

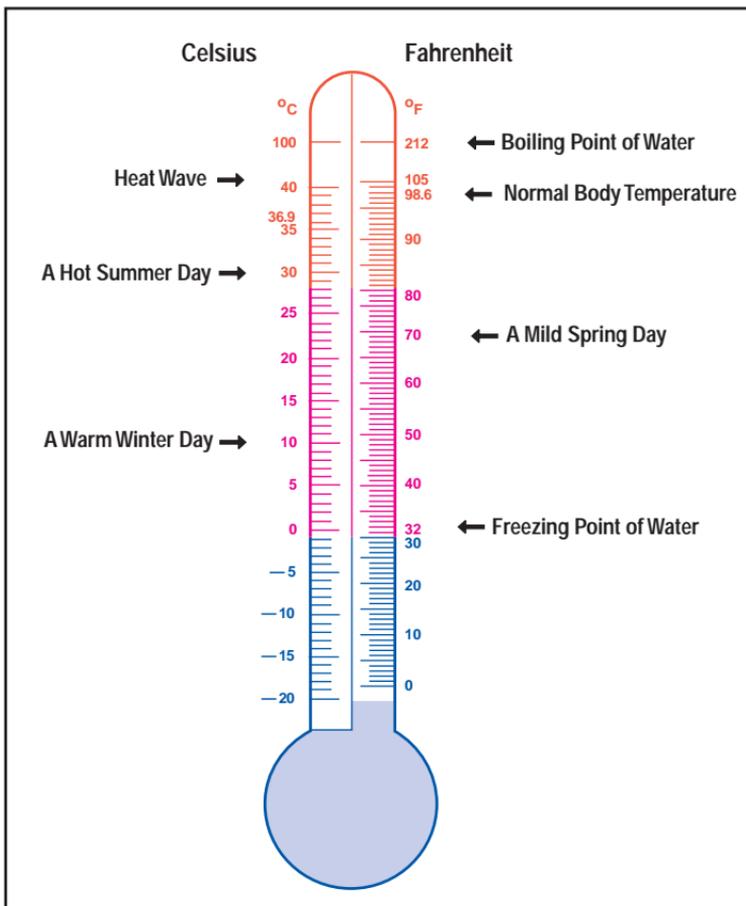
Units of Volume	Multiply by	To find
Milliliters	0.20	Teaspoons
Milliliters	0.06	Tablespoons
Milliliters	0.03	Fluid Ounces
Liters	4.23	Cups
Liters	2.12	Pints
Liters	1.06	Quarts
Liters	0.26	Gallons
Cubic Meters	35.32	Cubic Feet
Cubic Meters	1.35	Cubic Yards
Teaspoons	4.93	Milliliters
Tablespoons	14.78	Milliliters
Fluid Ounces	29.57	Milliliters
Cups	0.24	Liters
Pints	0.47	Liters
Quarts	0.95	Liters
Gallons	3.79	Liters
Cubic Feet	0.03	Cubic Meters
Cubic Yards	0.76	Cubic Meters

Units of Speed

Miles per Hour	1.61	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

1 January	New Year's Day
2 January	Public Holiday
Spring, varied	Good Friday (Friday before Easter)
Spring, varied	Easter Monday (Monday after Easter)
1 May	Labor Day
Spring, varied	Ascension (40 days after Easter)
1 July	Sir Seretse Khama Day (public holiday)
July	President's Day (third Monday and Tuesday)
August	Bank Holiday (first Monday)
30 September	Constitution Effective (1966)
30 September	Independence Day (1966)
25 December	Christmas
26 December	Boxing Day

APPENDIX E: Language

Key Words and Phrase

English	Setswana
Yes	Ee
No	Nnyaa, mma/rra
Hello (to a woman)	Dumela, mma
Hello (to a man)	Dumela, rra
How are you?	Le Kae? O tsogile jang?
Good bye—it is ok	Go saime
Go well	Tsamaya sentle
Stay well	Sala sentle
Thank you	Keitumetse
I do not know	Ga ke itse
Do you speak Setswana?	A o bua Setswana
I speak Setswana just a little	Ke bua Setswana go le gonnye fela
I do not know Setswana	Ga ke bue Setswana
No problem	Ga gona mathata
I am fine	Ke tsogile sentle ke teng
Come in	Tsena(ng) (plural)
Come here	Tla kuario
How much is this?	Ke bo kae?
I don't have any money	Ge ke na madi
What would you like?	O bala eng?/ Orara eng?
I want some water	Ke batla metsi

APPENDIX F: International Road Signs



Crossroads



Maximum speed



No through road



Road narrows



Fallen/falling rock



No entry for
vehicular traffic



Motorway



Stop and give way



Low flying aircraft or
sudden aircraft noise



No left turn



One way street



Tourist
information point



Traffic signals



No u-turn



Cable height
16' - 6"

Overhead cables,
Maximum height



Failure of
traffic light signals



Sharp deviation

APPENDIX G:

Deployed Personnel's Guide to Health Maintenance

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

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

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

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

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

Overcrowded living areas should be avoided. Ventilated living areas and avoiding coughing or sneezing toward others will 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

Heat Cat	WBGT Index (° F)	EASY WORK		MODERATE WORK		HARD WORK	
		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 done in shade if possible.

Caution: Hourly fluid intake should not exceed 1 ½ quarts. Daily 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;

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

- 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.

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.
- ❑ Displaced organs should never be reintroduced to the body.

Bleeding

■ **Treatment:**

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

■ **Tourniquet:**

- ❑ **NOTE: Tourniquets should only be used when an injury is life threatening.**
- ❑ A 1-inch band should be tied between the injury and the heart, 2 to 4 inches from the injury, to stop severe bleeding; wire or shoe strings should not be used.
- ❑ Band should be tight enough to stop bleeding and no tighter.
- ❑ Once the tourniquet is tied, it should not be loosened.

- ❑ The tourniquet should be left exposed for quick visual reference.
- ❑ The time that the tourniquet is tied and the letter “T” should be written on the casualty’s forehead.

Eye Injury

■ Treatment:

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

Chest Wound

■ Symptoms:

- ❑ Sucking noise from chest
- ❑ Frothy red blood from wound

■ Treatment:

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

Fractures

■ Symptoms:

- ❑ Deformity, bruising
- ❑ Tenderness
- ❑ Swelling and discoloration

■ Treatment:

- ❑ Fractured limb should not be straightened.
- ❑ Injury should be splinted with minimal movement of injured person.

- Joints above and below the injury should be splinted.
- If not in a chemical environment, remove clothing from injured area.
- Rings should be removed from fingers.
- Check pulse below injury to determine blood flow restrictions.

Spinal, Neck, Head Injury

■ Symptoms:

- Lack of feeling 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).
- ❑ Seek medical attention 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 (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, Bandage
Towels, Sheets	Dressings/Bandages
Socks, Panty Hose, Flight cap	Dressings/Bandages
Sticks or Tree Limbs	Splints
Blankets	Litters, Splints
Field Jackets	Litters
BDU Shirts	Litters/Splints
Ponchos	Litters/Bandages
Rifle Sling	Bandages
M-16 Heat Guards	Splints

APPENDIX H: Individual Protective Measures

Security Threats

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

Foreign Intelligence and Security Services

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

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

In your personal contacts, follow these guidelines:

- Do not attempt to keep up with your hosts in social drinking.
- Do not engage in black market activity for money or goods.
- Do not sell your possessions.
- Do not bring in or purchase illegal drugs.
- Do not bring in pornography.
- Do not bring in religious literature for distribution. (You may bring one Bible, 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, however, making demands could lead to physical abuse.
- Do not admit to wrongdoing or sign anything. Part of the detention ritual in some threat countries is a written report you will be asked or told to sign. Decline to do so, and continue demanding to contact the Embassy or consulate.
- Do not agree to help your detainer. The foreign intelligence or security service may offer you the opportunity to help them in return for releasing you, foregoing prosecution, or not informing your employer or spouse of your indiscretion. If they will not take a simple no, delay a firm commitment by saying that you have to think it over.
- Report to your supervisor immediately. Once your supervisor is informed, the Embassy or consulate security officer needs to be informed. Depending on the circumstances and your status, the Embassy or consulate may have to provide you assistance in departing the country expeditiously.
- Report to your unit's security officer and your service's criminal investigative branch upon returning to the U.S. This is especially important if you were unable to report to the Embassy or consulate in country. Remember, you will not be able to outwit a foreign intelligence organization. Do not compound your error by betraying your country.

Foreign Terrorist Threat

Terrorism may seem like mindless violence committed without logic or purpose, but it is not. Terrorists attack soft and undefended targets, both people and facilities, to gain political objectives they see as out of reach by less violent means. Many of today's terrorists view no one as innocent.

Thus, injury and loss of life are justified as acceptable means to gain the notoriety generated by a violent act in order to support their cause.

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

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

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

Identification by name is another targeting method gathered from aircraft manifests, unit/duty rosters, public documents (Who's Who or the

Social Register), personnel files, discarded mail, or personal papers in trash. Many targets are selected based upon their easily identifiable symbols or trademarks, such as uniforms, luggage (seabags or duffle bags), blatant national symbols (currency, tatoos, and clothing), and decals and bumper stickers.

Travel Security

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

The recent experiences with airport bombings and airplane 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 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. Complying with instructions, avoiding provocative conversations (political, religious, etc.), and establishing a positive relationship will increase survivability. Being polite and freely discussing insignificant and nonessential matters can reinforce this relationship. Under no circumstance should classified information be divulged. If forced to present terrorist demands to the media, make it clear that the demands are those of the captor and that the plea is not made on your behalf. You must remember that you are an American service member; conduct yourself with dignity and honor while maintaining your bearing.

Hostages sometimes are killed during rescue attempts; consequently, you should take measures to protect yourself during such an action.

Drop to the floor immediately, remain still and avoiding 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.

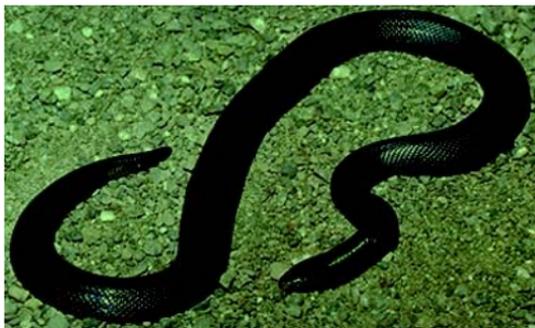
APPENDIX I: Dangerous Animals and Plants

Snakes

Burrowing Asp

Description:

Adult length is usually less than 0.9 meter, and it is a relatively slender snake. Background color varies; it is usually uniform dark purple-brown to black above. Has a short,



conical head, not distinct from the neck. The snout is broad, flattened, and often pointed. Its fangs are well-developed and comparatively large in relation to the size of its head. The eyes are small with round pupils. The tail is short, ending in a distinct spine.

Habitat:

Found in rain forests and savanna. Commonly lives under stones or in burrows.

Activity and behavioral patterns:

May emerge at night, particularly after rain. Quick to strike; likely to bite as soon as it is touched.

Venom's effects:

Venom is primarily hemotoxic. Victims may experience intense local pain, swelling, and in some instances, necrosis.

Boomslang

Description:

Adult length is usually 1.2 to 1.5 meters, and it is a relatively slender snake. Background color can vary from almost uniform black to almost uniform green, with no blotches or distinct markings. It has a short, stubby head and enormous emerald eyes. Its scales are strongly keeled and overlapping.



It has a short, stubby head and enormous emerald eyes. Its scales are strongly keeled and overlapping.

Habitat:

Most common in dry woodland, thorn scrub, savannahs, and swamps bordering or close to streams, rivers, and lakes. Not found in rain forest regions or true desert.

Activity and behavioral patterns:

Diurnal; spends most of its time in trees and shrubs. If surprised, it will attempt to quickly retreat; however, if cornered or restrained, it will inflate its neck and strike.

Venom's effects:

Potently hemotoxic; can cause severe bleeding internally and from mucous surfaces. Deaths have been reported.

Shield-nosed Snake

Description:

Adult length is usually 0.4 to 0.6 meter; it is a thick, heavy-bodied snake in relation to its short length. Background color is usually pale gray-brown, salmon pink, or orange-brown, with a series of brown blotches covering the back and tail. The head and forepart of the body are glossy black. The belly is white to yellow. It can be identified by its prominent nose shield, which it uses to dig.

Habitat:

Found in savanna and sand veld areas, as well as in arid sandy and stony regions.

Activity and behavioral patterns:

Nocturnal. It is usually sluggish, though it is very active after rain. It supposedly plays dead when cornered, but it usually hisses and strikes repeatedly when molested. Does not spread a hood.

**Venom's effects:**

Venom is reportedly primarily neurotoxic.

Bird/Twig/Vine Snake**Description:**

Adult length is usually 0.8 to 1.2 meters, with a maximum of 1.6 meters. It is a very slender snake.

Background color is gray-brown with black and pink flecks. Its tongue is bright red-orange with a black tip. Has a lance-shaped head with large eyes and key-hole-shaped pupils. Its color and pattern make it nearly invisible in scrub brush.

**Habitat:**

Found in savanna and coastal forest.

Activity and behavioral patterns:

Arboreal; it prefers low shrubs, brush, and dead trees. Easily irritated. When threatened, it inflates its neck vertically, displaying a brightly colored hood.

Venom's effects:

Venom is primarily hemotoxic. Fatalities are rare, but they have been reported.

Eastern Green Mamba**Description:**

Adult length is usually 1.8 to 2 meters, with a maximum of 2.5 meters. It is a relatively slender snake with a narrow, coffin-shaped head. Background color is uniformly bright green, and it has a yellow-green belly. The inside of the mouth is white.

Habitat:

Found in coastal bush, evergreen coastal forests, bamboo thickets and, where these have been destroyed, on tea and mango plantations.

Activity and behavioral patterns:

An active, arboreal species; it seldom ventures to ground, and is rarely seen. When cornered, it will threaten and bite.

Venom's effects:

Venom is primarily neurotoxic. Bites are uncommon, but deaths have been reported.



Black Mamba

Description:

Adult length is usually 2.5 to 3 meters, with a maximum of 4.3 meters. It is a relatively slender snake. Background color may be brown, olive brown, dark olive, greenish brown, or black. The inside of the mouth is blue-gray to black.



Habitat:

Found in dry, open woodland and scrub land, especially in areas with rocky outcroppings. Not found in rain forest or desert. Also found in abandoned termite mounds and mammal burrows. Generally found below 1,500 meters in elevation.

Activity and behavioral patterns:

Essentially terrestrial, but climbs trees in search of prey or to seek shelter. Generally shy and elusive; moves off rapidly at the first sign of danger. When threatened, it rears up from the ground and spreads narrow hood. However, if the intruder does not move, it will soon drop to the ground and seek cover. It has an uncertain temper, and is ready to attack if suddenly disturbed or molested. It is particularly aggressive during mating season, which is spring or early summer. It is a very fast-moving snake.

Venom's effects:

The Black Mamba is the most dreaded African venomous snake. Few people survive its bite unless antivenin is administered promptly. Venom is a highly potent neurotoxin.

Egyptian Cobra

Description:

Adult length is usually 1.5 to 2 meters, with a maximum of 3 meters. Background color is usually yellow-gray to brown or blue-black, but can be extremely variable. Belly is yellow with dark blotches. Most specimens have a dark brown or black band across the throat.



Habitat:

Various habitats include flat land, scrubby bushes, grass clumps, irrigated fields, rocky hillsides, old ruins, and areas surrounding villages. Found from sea level to 1,600 meters in elevation. Not found in rain forests or extreme desert conditions.

Activity and behavioral patterns:

Nocturnal; it usually emerges at dusk, but is often seen basking in the sun near its retreat in early morning. It often occupies abandoned rodent burrows or termite mounds. When molested, it will rear and spread an impressive hood measuring up to 12 centimeters in width.

Venom's effects:

Venom is primarily neurotoxic, acting largely on nerves controlling respiratory muscles. Untreated cases may culminate in respiratory failure and death.

Mozambique Spitting Cobra

Description:

Adult length is usually 0.9 to 1.2 meters, with a maximum of 1.5 meters. Background color is generally pale gray to olive-brown black; each scale is edged in black. The belly is salmon pink; there are irregular black crossbands on throat.



Habitat:

Found in open woodlands, plains, savanna, and rocky hillsides. Usually found near water.

Activity and behavioral patterns:

Nocturnal; adults may emerge from shelters to bask during the day, and to forage at night. Young specimens are much more diurnal, and are frequently encountered in the open at any time of day. It reacts to intruders by rearing body and spraying venom.

Venom's effects:

Venom is primarily cytotoxic, and can cause considerable tissue damage; neurotoxic symptoms are generally minor. Fatalities are rare. Neurotoxic symptoms may occur after an unusually large dose of venom. Large specimens can spit venom as far as 2 meters, aiming at the eyes. Venom does not affect unbroken skin, but can cause great pain and possible tissue destruction in the eyes.

Black-necked Spitting Cobra

Description:

Adult length is usually 1.2 to 2.2 meters, with a maximum of 2.8 meters. Body color can vary widely by geographical region, ranging from pinkish-tan in some areas to a uniform black in others.



Habitat:

Found in moist savanna; it shelters in abandoned termite mounds, rodent burrows, or hollow tree trunks.

Activity and behavioral patterns:

Generally nocturnal, though juveniles are active during the day. Although it is terrestrial and fairly aquatic, it is also a good climber. If disturbed, it will attempt to escape; however, when provoked, it will raise up, spread its hood, and spit venom at an intruder's face.

Venom's effects:

Venom is primarily cytotoxic, causing serious local tissue damage. Large specimens can spit venom as far as 3 meters, aiming at the eyes. The venom does not affect unbroken skin, but can cause great pain and possible tissue destruction in the eyes. Venom has caused permanent blindness in humans.

Cape Cobra

Description:

Adult length is usually 1.2 to 1.5 meters, with a maximum of 2.0 meters.

It is a relatively slender snake. Dorsal coloration is extremely variable; it is usually yellow to red-brown, though it is occasionally uniform black. The belly is lighter colored, and it has a glossy, almost plastic appearance.



Habitat:

Arid areas, particularly along rivers and well-drained open areas. Often near human habitations on farms or in partially developed suburbs where it may enter houses to escape the heat of the day.

Activity and behavioral patterns:

Active during day as well as at twilight when it forages for food. Agile and alert; will escape if possible when molested. However, if retreat is impossible, it rears, forms a hood, and strikes out aggressively, even advancing on the intruder.

Venom's effects:

Venom is primarily neurotoxic; most toxic of African cobra venoms. Bites are common, and fatalities often result if untreated.

Puff Adder

Description:

Adult length is usually 0.6 to 1 meter, with a maximum of 1.5 meters; it is a thick, heavily built snake. Background color varies between bright to light yellow, yellow-brown, orange-brown, light



brown, and gray. Belly is yellow-white to gray with black blotches. It has a rough-scaled appearance and an alternating pattern of dark and light chevron-shaped markings.

Habitat:

Most widely distributed venomous snake in Africa; it is encountered almost anywhere, at both low and high elevations, except in rain forests and extreme desert conditions.

Activity and behavioral patterns:

It is diurnal and nocturnal; it is known to bask in early mornings or late afternoons. Comparatively slow-moving and sluggish; it relies on immobility and camouflage to escape detection. Extremely aggressive; when disturbed, it makes a long, deep hissing noise, and will lash out viciously.

Venom's effects:

Many serious bites have been reported, and there have been fatalities. Venom is a potent cytotoxin, attacking tissue and blood cells. Symptoms include extreme pain with swelling, and large blisters in the region of the bite.

Horned Adder

Description:

Adult length is usually from 0.3 to 0.4 meter, with a maximum of 0.5 meter. It is a short, but very thick-set snake. Its background color can be extremely vari-



able, depending on geographical location; background pattern can include dark red, gray-brown, very light gray, buff, and pink. It usually has a single, upright, horn-like scale above each eye.

Habitat:

Usually found in rocky brushland in dry, sandy areas.

Activity and behavioral patterns:

May lay coiled up, half buried in sand; when disturbed, it will hiss fiercely and strike violently.

Venom's effects:

There have been very few bites reported, and no fatalities have been recorded. Venom is primarily cytotoxic; symptoms include swelling and intense pain.

Eastern Rhombic Night Adder

Description:

Adult length is usually 0.4 to 0.6 meter, with a maximum of 1.0 meter; it is a moderately stocky snake. Background color varies from gray to olive to pink-brown, and it is patterned



with gray, black, or brown chevrons or spots. The belly is usually gray, but it may be cream or yellow. It has a solid dark “V” marking on its head.

Habitat:

Found in open woodland, grassland, and savanna near streams, marshes, or other damp areas.

Activity and behavioral patterns:

Snake is nocturnal, but it spends much of its time basking during the day and/or sheltered in trash piles, rock crevices, and other hiding places. It will bite if provoked. When threatened, it will either flatten its head and body or inflate itself with air, make several frantic strikes before making a quick retreat.

Venom’s effects:

Venom is mildly cytotoxic and generally not dangerous, though it will cause acute pain. Bite usually results in local pain, swelling, and lymphadenophy (inflamed lymph nodes). There have been no reliable reports of fatalities.

African Garter Snake

Description:

Adult length is 0.4 to 0.6 meter; a moderately slender snake. Background color is generally uniform black or gray-black. Head indistinct from the neck. Tail short.



Habitat:

Found in coastal forests, high-level grasslands, or arid savannas.

Activity and behavioral patterns:

Nocturnal; spends its days hiding under stones or in burrows. Sluggish, but will bite in self-defense.

Venom’s effects:

Venom is likely neurotoxic. Not considered lethal to man.

Arthropods

Scorpions

There are several species of scorpion in the region capable of inflicting a painful sting, including the *Parabuthus* scorpion.

Spiders

There are several spider species in the region that are capable of inflicting a painful bite, including some very large and physically imposing tarantulas. The following are known to be life-threatening: the Baboon spider, the Black Widow, the Recluse spider, the Crab spider, and the Burying spider.



Insects

Botswana has several species of venomous moths, including puss caterpillars and multiple species of giant silkworm moths; contact with the silkworm moths has caused fatalities. Adults (moths) and larvae (caterpillars) of



most of these species have venomous spines or venomous hairs. Most caterpillars are very hairy, and are nearly unrecognizable as caterpillars. They often have long, silky hairs that completely cover the shorter venomous spines, or have prominent clumps of stiff, venomous spines. Some, but not all, are brightly colored.

Centipedes

Although area centipedes are capable of inflicting a painful bite, none are known to be life-threatening.

Millipedes

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



Plants

African Teak

Other names:

Osage Orange, fustic, bow wood.

Mechanisms of toxicity:

Benzophenones, xanthenes, stilbenes, flavonoids, and tannins are known to the genus. Plant has a milky, bitter sap; yields an orange dye that causes dermatitis.



Comments:

There are 12 separate species found in tropical America, South Africa, and Madagascar.

Panama Tree

Other names:

Castano, tartarum.

Mechanisms of toxicity:

The seeds are edible, but the pods have internal stiff bristles that easily penetrate the skin, causing intense irritation.

Comments:

There are 200 tropical species.



Nettle Tree

Other names:

Ortiga brava, pringamoza.

Mechanisms of toxicity:

Trees and shrubs have powerful stinging hairs; intensity of sting is species-variable. The bushy, tree-



like varieties tend to be more irritating. Any contact between leaves or branches and skin can cause profound burning pain for more than 24 hours. Causes no permanent damage.

Comments:

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

Modikka

No Photograph Available.

Mechanisms of toxicity:

Root is reported to contain prussic acid and a cyanogenic glycoside, which can be destroyed by drying. Also contains a toxalbumin called modeccin, which is a protein-synthesis inhibitor. Roots have been mistaken for edible tubers, especially in situations of scarce food. Ingesting the fruit has caused fatality. Symptoms appearing within one day are mainly due to the hydrocyanic acid; the toxalbumin cause illness a few days later. Used in India as a deworming medicine. Sap is very irritating. Has been used in Africa to commit murder.

Comments:

Some species have been used in Africa as medicinals (e.g., for malaria and leprosy).

Rosary Pea

Other names:

Precatory bean, coral pea, crab's eyes, lucky beans, Paternoster beans.

Mechanisms of toxicity:

Contains several indole alkaloids such as abrine and abrin (a toxalbumin), which can kill. Unchewed seeds are impervious, and will pass through the 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. Symptoms usually appear within one to three days. Rosary pea has a quickly fatal potential (neurotoxin and hemocoagu-



lant), having killed a child who thoroughly chewed one seed. Dermatitis may also be caused by wearing a necklace of stringed beads.

Comments:

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. 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, vomiting, abdominal pain, bloody diarrhea, fever, shock, and coma. Used in South America and Africa in folk medicine.

Bushman's poison

Other name:

Poison tree, wintersweet.

Mechanisms

of toxicity:

Seeds have a high concentration of toxin (cardiac glycosides); fruit pulp contains only traces. Wood extract is easily absorbed through the



skin, and can be mixed with latex from one of the Euphorbia family and gum from Acacia to make arrow poison. It is also used as an ordeal poison. Extracts are applied to prickly fruit and put into the paths of bare-foot enemies to kill. Symptoms of toxicity include pain, nausea, vomiting, abdominal pain, and diarrhea. Has a variable latent period (interval between exposure and symptoms) with cardiac conduction defects and sinus bradycardia; also causes hyperkalemia. Some species cause dermatitis, but this is not a common problem.

Comments:

Plants are dense evergreen shrubs or small trees with a milky sap found in Arabia and tropical eastern and southern Africa. Fruit resembles an olive or small plum, and turns red to purple-black at maturity, with one to two seeds. Fruit exudes a milky sap when cut. Aromatic flowers are tubular, white and pink, and grow in dense clusters in the forks of the leaves.

Sandalwood

No Photograph Available.

Mechanisms of toxicity:

Highly toxic and acrid sap can blind and kill. Smoke from burning wood can cause illness.

Croton**Other names:**

Ciega-vista, purging croton.

Mechanisms of toxicity:

Contact with the toxic resin causes long-lasting vesicular dermatitis. Croton oil, (a “phorbol”) in leaves, stems, and seeds, has cathartic and purgative toxic properties.



Causes severe gastroenteritis, and can cause death; 20 drops are potentially lethal, and oil will blister skin on contact. Many species are covered with hundreds of sticky hairs that cling to skin on contact. Contact with eyes can be very serious.

Comments:

Croton is a woolly-haired annual herb, or evergreen bush, or small tree with smooth ash-colored bark, yellow-green leaves, small flowers, fruit, and a three-seeded capsule. Ciega-vista is a 3-foot high bush found in the underbrush of arid areas. Small, light green flowers, leaves, and stems are covered with nearly-white hairs.

Bitter Apple, Bitter Gourd

No Photograph Available.

Mechanisms of toxicity:

Dried pulp is a drastic purgative that has caused bloody diarrhea, toxic colitis, and death. Chemical nature is 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 is frequently confused as to identification; easy to mistake for harmless plants.

Jimsonweed

Other names:

Thorn-apple, stinkweed,
Devil's trumpet.

Mechanisms of toxicity:

The entire plant is toxic because of tropane alkaloids. Fragrance from the flowers may cause respiratory irritation, and the



sap can cause contact dermatitis. People have been poisoned by consuming crushed seeds that were accidentally included in flour, as well as by using the plant in an attempt to experience a hallucinogenic high. Can kill; in particular, jimsonweed has a quickly fatal potential.

Comments:

Originally called Jamestown weed after the mass poisoning of soldiers who were sent to quell "Bacon's Rebellion" in 1666, and who ate the seeds during a severe food shortage. Jimsonweed is often confused with Angel's Trumpet.

Kamyuye

No Photograph Available.

Mechanisms of toxicity:

Contains latex with a mixture of sesquiterpene alcohols. Has long been used as a medicinal. Used in Africa as a poison. Accidental fatalities have occurred when the bark was used to prepare a medicine for stomach problems.

Comments:

Tropical African aromatic shrub. Source of vanilla-scented oil.

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, milkweed, pencil tree, pencil cactus, rubber euphorbia.



Mechanisms of toxicity:

Plant is an herb, often with colored or milky sap, containing complex terpenes that irritate the eyes, mouth, and gastrointestinal tract. Many species cause dermatitis by direct contact. In some cases, rain water dripping from the plant will contain enough toxic principle to produce dermatitis and keratoconjunctivitis; the toxin 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 thought to have medicinal properties in the first century, and has killed children. Red spurge causes dermatitis. The pencil cactus has an abundant, white, acrid sap that is extremely irritating to the skin; it has caused temporary blindness when acciden-

tally splashed in the eyes, and has killed as a result of severe gastroenteritis after ingestion.

Comments:

The genus contains 2,000 species of extremely variable form; plants may appear as herbs, shrubs or trees, and many are cactus-like. The 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 of illness in Afghanistan and India after ingestion of bread made with flour contaminated with the plant. Pathologic effects (Budd-Chiari syndrome) take weeks to months; causes death after many years. Also causes chronic copper poisoning.

Comments:

A large genus of worldwide distribution; there are 250 tropical and temperate trees and shrubs.



Yellow Heads

No Photograph Available.

Other names:

Woolly-headed gnidia.

Mechanisms of toxicity:

Plant is a shrub or small tree with extremely irritating resin. The root and flower of many species are strongly purgative, and are the source of

the drug radjo. Some species have been shown to contain mezereine (an irritant resin) and daphnine (an alkaloid).

Comments:

There are 140 species from tropical and southern Africa to the Arabian peninsula, and from Madagascar to western India and Sri Lanka.

Physic Nut

Other names:

Purging nut, pinon, tem-pate, Barbados nut.

Mechanisms

of toxicity:

Quickly fatal potential.

Fruit has two or three black, oily, pleasant tasting, poisonous seeds that contain a plant leci-

thin (a toxalbumin called curcin) which, in contrast to many of the toxic lecithins, causes rapid toxicity. Has caused death; ingestion of a single seed causes severe toxicity. Roots and leaves are also toxic. Has intensely cathartic oils that have caused fatal intoxication; some have used the oil for lamps, etc. Bark has been used as a fish poison. Also a skin irritant, as are all euphorbs.



Comments:

There are 170 species of warm and tropical northern American trees or shrubs, usually with red flowers. Naturalized worldwide. Fruit is a three-sided capsule in many species.

Poisonvine

No Photograph Available.

Other names:

Arrow poison plant.

Mechanisms of toxicity:

Seeds have digitalis-like toxins, and are used to make arrow and spear poison in Africa.

Comments:

Genus of 38 tropical species of shrubs. Monkeys have died after eating a few leaves.

Pokeweed**Other names:**

Pokeberry, poke salet.

Mechanisms of toxicity:

Mature stems, roots, and berries are poison (saponins mostly in foliage and roots). Fatal if improperly prepared.

**Comments:**

Young shoot tips, less than 6", are eaten in many cultures, including Canada. Requires proper preparation, to include boiling with water changes; water contains toxic substances. Dye from berries used to color ink, wine, and sweets.

Bologna Sausage Tree**No Photograph Available.****Mechanisms of toxicity:**

Common in South Africa. The powdered fruit is used as medicine for numerous ailments; frequently applied externally. The ripe fruit is a purgative. The fruit can be 12 to 20 inches long and weigh up to 8 pounds. The fruit is regarded as highly poisonous; however, the toxic principles are not clear. Used by various African groups as a sexual excitant and in wound treatment. Often the fruit is added to beer to add intoxicating effect, but this tends to cause headache.

Comments:

A large tree pollinated by bats; the tree has adapted by developing long stalks from which the flowers are suspended, hanging in open air so the bats have easy access.

Poison Ivy**Other names:**

Manzanillo, western poison oak, eastern poison oak, poison sumac, Chinese/ tree, Japanese tallow or wax tree, scarlet rhus, sumac.

**Mechanisms****of toxicity:**

Contains allergenic nonvolatile oils (urushiols) in resin canals; oils are highly sensitizing, causing delayed, type IV sensitivity for some individuals, especially those with hereditary allergies. There is a cross-reaction between the poison ivy species and the cashew-nut, India marking nut, mango, and Japanese lacquer tree saps.

Comments:

All species are deciduous, and the leaves turn red before being shed. Poison ivy is a climbing or trailing vine with trifoliate, alternate leaves that are smooth above and hairy beneath. Poison oak is never a climbing shrub, is alternately three-leafed, and is smooth above and hairy beneath. It is found in disturbed areas and along trails in North America, and is a common source of dermatitis. Poison sumac is a shrub or small tree with 7 to 13 alternate leaflets, and is found in swampy areas of North America. Very few cases of dermatitis are caused by this species because it inhabits isolated areas and few people are exposed to it. Japanese lacquer tree is a large shrub or tree native to India, and cultivated in China and Japan for varnish production. The lacquer is allergenic. It

also bears nuts, from which black ink is made, and which is used to mark laundry in India and Malaysia. Can cause dermatitis. Some individuals suffer intense, debilitating reactions from contact with the sensitizing chemicals.

Strychnine

Other names:

Nuxvomica tree,
Snakewood tree.

Mechanisms of toxicity:

The entire plant, including the seeds, contains the powerfully acting indole alkaloid strychnine, which can be fatal if ingested.



Comments:

Strychnine belongs to a genus of 190 different species of trees, shrubs, and vines with berry-like fruits. These plants are found in most tropical regions. Some have the reputation of having edible fruit despite having dangerous seeds. It is a source of curare, which is obtained by stripping and macerating (chewing) the bark. Curare, now used as a muscle relaxant, was formerly used as an arrow poison by South American natives.

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

