## Mongolia Country Handbook

1. This handbook provides basic reference information on Mongolia, 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 Mongolia.

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 Mongolia.

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Mongolia

## **KEY FACTS**

Country Name. Mongolia

Former Name. Outer Mongolia, Mongolian People's Republic

Head of State. President Natsagiyn Bagabandi Prime Minister. Nambaryn Enkhbayar

Capital. Ulaanbaatar

**National Flag.** Has three equal, vertical bands of red (hoist side), blue, and red. Centered on the hoist-side red band in yellow is the national emblem, *soyombo*, which represents fire, sun, moon, earth, water, and includes, the symbol for yang and yin.

**Time Zone.** UTC (formerly GMT) +8; UTC +7 in the western provinces.

**Population.** Mongol (predominantly Khalkha) 85 percent, Turkic (of which Kazakh is the largest group) 7 percent, Tungusic 4.6 percent, and other (including Chinese and Russian) 3.4 percent.

Languages. Mongolian; also Turkic, Russian, and Chinese

Religions. Tibetan Buddhism, Muslim, and shamanism

**Currency.** Mongolian tugrik (MT). 1 MT = 100 mongo. **Exchange Rate.** US\$1 = MT1,102 (October 2003) **Calendar.** Western



## **U.S. MISSION**

#### U.S. Embassy

Location	Northeast part of Ikh Toiruu (Big Ring) Road, near the Tuul River				
Mailing Address	U.S. Embassy Mongolia, P.O. Box 1021,				
	Ulaanbaatar-13, FPO AP 96521-0002				
Telephone	976-1-329095 or 329606				
Fax	976-1-320776				
Hours	Monday through Friday from 0900 to 1300, and from 1400 to 1800. Closed on all American and Mongolian holidays. Non-emergency assistance is available on Monday. Wednesday, and Friday				
	from 1400 to 1600				
Embassy web site	www.us-mongolia.com				

#### **Travel Advisories**

There are no serious travel advisories for Mongolia. Common street crime and theft are the most serious threat to foreigners. The majority in Mongolia is very poor and, might be tempted to steal foreign-made goods. Pocket picking and using razor blades to slit open bags are common in crowded public places in Ulaanbaatar. Violent crime is increasing; it is no longer advisable to walk alone in the city after dark. Caution should be observed in all crowded or public areas. Travelers who witness pocket picking attempts should not confront the thieves, thieves may become violent. Thieves dressed as or claiming to be police officers, especially in the area of Sukhbaatar Square, have robbed foreigners.

### **Entry Requirements**

### Passport/Visa Requirements

Visitors must have a valid passport and entry/exit visa for travel to Mongolia. The embassy recommends that visitors obtain an appropri-



#### U.S. Embassy in Ulaanbaatar

ate entry/exit visa prior to travel, however, visas may be obtained at the international airport in Ulaanbaatar and at train stations on the Russian and Chinese borders. Two photographs and a processing fee of US\$50 are required. Those who plan to stay in Mongolia for more than 30 days, must register with the police at the Citizens' Information and Registration Center. Visitors who stay longer than the time allowed by their visa can be stopped at departure, denied exit, and fined. For current information on visa issuance, fees, and registration requirements, travelers should contact the Embassy of Mongolia at 2833 M Street, N.W., Washington, D.C. 20007, telephone: (202) 333-7117 or http://www.mongolianembassy.us.

Travelers arriving or departing from Mongolia through China should also be aware of Chinese visa regulations. American citizens are not permitted to travel through China without a visa. For more information, contact the Embassy of the People's Republic of China, 2300 Connecticut Avenue, N.W., Washington, D.C. 20008, Tel: (202) 328-2500 or www.china-embassy.org. or see the Consular Information Sheet for China.

### Immunization Requirements

Travelers should be current on routine vaccinations such as tetanus, diphtheria, measles, and varicella (chickenpox), and should also receive Hepatitis A and Typhoid vaccines. For those who will be exposed to many local people, immunization from Hepatitis B and meningoccal is recommended. The rabies vaccination is advised for personnel who will work closely with animals.

### **Customs Restrictions**

Visitors to Mongolia are prohibited from bringing pornography, drugs, and expensive imports into the country. Importation of any firearm or ammunition requires prior approval from the government of Mongolia. For more information, contact the Embassy of Mongolia at 2833 M Street, N.W., Washington, D.C. 20402, tel: (202) 333-7117. Customs officials will thoroughly search bags belonging to departing personnel, as Mongolia is attempting to keep paintings, statues, and minerals from leaving the country. One should not attempt to take antiques, Buddha images, or rare furs out of Mongolia. The customs declaration signed upon entry will be required upon exit.

## Criminal and Drug Penalties

U.S. citizens in Mongolia are subject to that country's laws and regulations, which are quite different from U.S. laws, and do not offer the same protections available to the individual under U.S. law. Punishment for breaking the law in Mongolia can be harsher than in the United States for similar offenses. Those who break the law, even unknowingly, may be expelled, arrested, or imprisoned. In Mongolia, penalties for possession, use, or trafficking in illegal drugs are harsh, and convicted offenders can expect jail sentences and heavy fines.

## **GEOGRAPHY AND CLIMATE**

### Geography

### Land Statistics

Mongolia is in northern Asia. It is a landlocked country situated between Russia and China. With an area of 1.57 million square kilometers (606,176 square miles), Mongolia is slightly smaller than Alaska.

#### **Boundaries**

Mongolia's northern border with Russia is 3,485 kilometers (2,165 miles) long, and its southern border with China is 4,677 kilometers (2,906 miles) long. Mongolia has no border disputes with its neighbors.

#### **Bodies of Water**

The country contains hundreds of lakes, the largest being Uvs-Nuur, covering an area of 3,350 square kilometers (1,293 square miles); Hovs-



**Mountains and Steppe** 



#### Mongolia

gol, covering 2,620 square kilometers (1,012 square miles); and Khara Us-Nuur, covering 1,852 square kilometers (715square miles). Lake Hovsgol is also the largest fresh-water lake in Central Asia. The three major rivers are the Orkhon 1,124 kilometers- (698 miles-) long, the Kherlen 1,090 kilometers- (677 miles-) long, and the Selenge 539 kilometers- (335 miles-) long.

### Topography

The geography of Mongolia is diverse. From north to south it can be divided into four areas: mountain-forest steppe, mountain steppe, semidesert in the extreme south, and the Gobi desert, which covers 30 percent of the entire territory. Mongolia has three major mountain ranges. The Altai, which is the longest range and has the highest mountains, extends along with the Hangayn mountain range from northwest to southeast. The third range, the Hentiyn, is located in northeast Mongolia, and has the lowest peaks of the three mountain ranges. There is very little farmland or forest, and the majority of land is pasture. Natural resources include oil, coal, copper, molybdenum, tungsten, phosphates, tin, nickel, zinc, wolfram, fluorspar, gold, silver, and iron.

#### Land Use

Grasslands	45.8 percent
Barren/sparsely vegetated	24.6 percent
Open shrub lands	13.8 percent
Croplands	5.7 percent
Bodies of water	1.0 percent
Other	9.1 percent

#### **Major Cities**

**Ulaanbaatar.** (Population 773,700) The largest city in Mongolia is also its industrial and transportation hub. The city was founded in 1778. In 1924 after the Soviet revolution, it was named Ulaanbaatar, which means Red Hero. Ulaanbaatar is on the Tuul River and is surrounded by mountains. The city center is consists of Soviet-style buildings and





apartment complexes. Surrounding the city are suburbs of *ghers* (a traditional, circular, felt tent, in which some Mongolians live).

**Darhan.** (Population 84,800) Founded in 1961, Darhan is the second largest city in Mongolia. The city was modeled after Soviet-style construction, and was planned as an alternate industrial center to Ulaanbaatar. Darhan is a 9-hour train ride from Ulaanbaatar. A sizeable Russian population still lives in Darhan.

**Erdenet.** (Population 73,900) Erdenet is Mongolia's third largest city. A large copper mine employs many of its citizens and provides the majority of Mongolia's hard currency earnings. Erdenet is a 14-hour train ride from Ulaanbaatar. A sizeable Russian population lives in Erdenet.

### Cross-Country Movement

Operational movement is challenging due to unpaved roads and difficult terrain throughout much of Mongolia. The steppes and desert in south and central Mongolia provide open, flatter terrain, whereas terrain in the mountainous and forested areas of the north and west is unsuitable for movement. Extremely cold temperatures in winter could make it a challenge to keep vehicles operating properly.

### Climate

Mongolia has long, cold, dry winters, and short, warm summers. There is very little rainfall, and dust storms often occur in the spring. Grassland fires are common.

Winter usually lasts from mid-October until April, with the coldest period between mid-December and mid-March. Snowfall usually occurs between mid-October and mid-April. There are some regions, especially in the northwest, where the temperature falls between to  $-40^{\circ}$  and  $-50^{\circ}$ C ( $-40^{\circ}$  and  $-58^{\circ}$ F). In the Gobi Desert, it drops to about -  $40^{\circ}$ C ( $-40^{\circ}$ F).

Humidity is generally low (47-73 percent), especially in winter, and because of the dry air, the cold is less noticeable. Moreover, the cold

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Altay and Baruun Urt Weather



Dalanzadgad and Ulaanbaatar Weather

weather is accompanied by almost continuous blue sky and sunshine. In Ulaanbaatar, the number of sunny days ranges from 220 to 260 per year.

### Environment

Animal and plant species in Mongolia represent the diversity of the land and climate. Mongolia's vegetation varies greatly throughout the country. Some unique regional animal species include the Saiga antelope, the jerboa (an Asian rat), the Altai snowcock, the Altai osman (fish), and the Mongolian grayling (fish). There are several threatened species of plants and animals in Mongolia, such as the snow leopard, which is poached for its fur. In association with the United Nations, Mongolia is developing a conservation program to protect threatened areas.

Many policies of the former communist government damaged the environment in Mongolia. Rapid urbanization, industrialization, and agricultural processes have caused problems such as lack of fresh water resources, air pollution in Ulaanbaatar, deforestation, overgrazing, and soil erosion. These environmental problems affect the pastures on which livestock graze, thus affecting the livelihood of many Mongolians.

Mongolia has signed the following international environmental agreements: Biodiversity, Climate Change, Kyoto Protocol, Desertification, Endangered Species, Environmental Modification, Hazardous Wastes, Law of the Sea, Nuclear Test Ban, and Ozone Layer Protection.

## TRANSPORTATION AND COMMUNICATION

## Transportation

### Roads

Mongolia has 49,250 kilometers (30,603 miles) of road, of which 1,674 kilometers (1,040 miles) are paved. Most paved roads are in the cities. Principal routes include the north-south highway connecting



#### Gobi Desert

Ulaanbaatar with Erenhot at the Chinese border, and Kyakhta at the Russian border. The east-west highway links Ulaanbaatar with Choybalsan in the east, and Olgiy in the west. Bus service exists in major cities and towns, and in Ulaanbaatar there is a trolley line. The poor condition of Mongolia's roads and highways hampers development of the economy. However, Mongolia has plans to overhaul the road network, based on projected foreign investment.

Public transportation is unsafe. Road conditions are poor, and roadside assistance is almost non-existent. Driving in Mongolia is extremely difficult, as the roads are not well-maintained, and there is a shortage of traffic lights and signs. There are more automobiles than the capital city can handle, and there are many unskilled drivers on the roads. There are some taxis in Ulaanbaatar, but most people simply wave down a vehicle and negotiate a price with the driver. Public transportation within the



Transportation Network



#### **Difficult Driving in Mongolia**

capital, which includes a subway system, is extensive, cheap, and generally reliable, but is also very crowded. There are few paved roads outside of the capital, and driving can be hazardous, particularly after dark.

#### Rail

Mongolia has 1,815 kilometers (1,128 miles) of 1.524-meter, broadgauge track. It is the same gauge used in the former Soviet Union, but is incompatible with the 1.435-meter gauge track used in China. When crossing the border into China, passengers stop, debark, and switch to compatible rail cars. Major rail lines include the Ulaanbaatar Railroad, which connects Ulaanbaatar with Naushki, Russia, in the north, and with Erenhot, China, in the south. The eastern line connects Choybalsan with Borzya, Russia. Another line links the Trans-Siberian Railway with Beijing. Branch lines run from Darhan to the Sharin Gol coalfield; from Salhit, near Darhan, to Erdenet; from Bagahangay to the Baga Nuur coal mine; and from Har-Ayrag to the Bor Ondor fluorite mines. Railroads account for almost all import-export transportation. Mongolia is implementing railroad upgrade projects, primarily with World Bank and Japanese government assistance. The government is seeking



**Subway Station** 

to introduce a rolling stock management system, a petroleum transshipment facility at Zamiin-Uud, a passenger coach depot, and a diesel engine maintenance project.

### Air

Mongolia's only international airport is 15 kilometers (9 miles) from the capital city of Ulaanbaatar. There are more than 80 smaller airports in Mongolia. Mongolia's national airline is Mongolian Airlines (MIAT), which is responsible for 95 percent of all air transportation in Mongolia. MIAT owns a fleet of 17 aircraft consisting of 1 AIRBUS 310, 2 Boeing B727-200, 9 AN-24, 2 AN-26, and 3 Mi-8 helicopters. Mongolian Airlines is a member of International Air Transportation Association, and has bilateral interline traffic agreements with more than 30 airlines.

There are some general safety and reliability concerns regarding domestic flights operated by the national airline MIAT. There have been instances of insufficient seat belts and overcrowding on aircraft; visitors should deplane and wait for another flight if this occurs.

				Runway	
			Runway	Surface/	
Airport	Coordinates	Elevation	L x W (m)	Condition	Capacity
Buyant Ukhaa	47 50 35N	1,339 m	1,999 x 40	Asphalt/	C-130, C-141,
(Ulaanbaatar)	106 45 59E			Good	C-17, C-5, KC-
					10, KC-135
Choybalsan	48 09 01N	756 m	3,000 x 40	Concrete/	C-130, C-141,
	114 39 59E			Good	C-17
Nalaikh	47 44 18N	1,446 m	2,813x 45	Concrete/	C-130, C-141,
	107 22 26E			Fair	C-17, C-5, KC-
					10, KC-135
Saynshand	44 59 13N	935 m	2,808 x 32	Concrete/	C-130, C-141,
	110 10 29E			Fair	C-17

### Maritime

Mongolia has no seaport facilities.

#### Inland Waterways

Mongolia has 397 kilometers (247 miles) of navigable waterways that are mainly accessed through the Hovsgol Nuur and the Selenge Moron (lakes), which are only passable during 5 months of the year. These water routes are used to transport grain, agricultural machinery, industrial equipment, lumber, consumer goods, and fuel.

## Communication

## Radio

Mongolia has nine FM, seven AM, and four shortwave radio stations. The British Broadcasting Corporation (BBC), Voice Of America (VOA), and Radio Moscow shortwave programming are available. The BBC broadcasts in English 24 hours a day on FM channel 103.1. Most local programming is in Mongolian and Russian.

## Television

There are three television stations: MongolianTV, UBTV, and Eagle TV. Mongolian television programming is sequential color and memory (SECAM), one of three main television standards throughout the world, and is not compatible with Western televisions. Multi-system televisions and VCRs are widely available in Mongolia, and are competitively priced. The BBC, CNN, and several other English-language television broadcasts are available via commercial cable services, and by satellite dish. Eagle TV, a Mongolian-American broadcaster serving Ulaanbaatar, replays CNN news and ESPN programs. Star Cable Network is also available, and contains a movie channel, a U.S. program channel, a sports channel, and others. Armed Forces Network (AFN) is also available in U.S. Embassy housing.

### **Telecommunication**

Mongolia has national and international telephone capabilities. There are 104,000 main phone lines, or 4 phone lines per 100 people in Mongolia. The telephone country code is (976). The local area codes are: Ulaanbaatar, 1; Darhan, 37; Erdenet, 35; and Khovd, 43.

Fax service is available at hotels and in the central post office.

Mobicom is a mainstream company for mobile phone service in Mongolia that covers Ulaanbaatar, Darhan, Erdenet, Selenge, and Zamyn Uud. There are many new mobile phone service companies in Mongolia.

## Internet

Internet access is available in Ulaanbaatar at business centers (often located in hotels), cybercafés, and at the telephone exchange in Suhkbaatar Square. Internet service providers include MagicNet, Micom, and Bodicomputers.

## Newspapers and Magazines

The main newspapers include Udriin Sonin, Unuudur, and Zasgiyn Gazryn Medee. The daily papers are: Ardyn Erkh, Government News,

Ulannbaatar, and Unmedor. Two papers are published every 10 days, they are Open Chronicles and Business Times. Two English-language newspapers, the Mongolian Messenger and the UB Post, are published weekly. They contain news, cultural opportunities, and interviews with Mongolian officials. There is also an English-language news summary, *The E-Mail Daily News*, delivered daily via internet and a weekly news service, Mongolia This Week. There are a few international, English-language periodicals, such as the Economist, available locally. However, they are expensive, and a regular supply is not guaranteed. There are no international English-language newspapers available locally.

### Postal Services

The Mongolian Post system is nationally owned and operated. Airmail abroad can be very slow. There is express mail and DHL Worldwide Express service in Ulaanbaatar.

### Satellites

Mongolia uses the Intersputnik and Asiasat I communication satellites.

## CULTURE

## Society

Mongolian culture, though it has changed much in recent years, is still closely tied to the traditions of their nomadic ancestors. Many Mongolians, still live in *ghers*, and tend livestock. Modern changes have been made in the capital Ulaanbaatar, where there is a stark contrast between old and new. Modern apartment buildings are often seen next to traditional *ghers*.

The Mongolian people have a deep respect for nature and animals, with great value placed on horses and horsemanship.



### Gher

### **Statistics**

Ethnic groups	Mongol 85%, Turkic 7%,
	Tungusic 4.6%, other 3.4%
Population	2,712,315
Birth Rate	21.39 births/1,000 population
Death Rate	7.18 deaths/1,000 population
Infant Mortality Rate	57.16 deaths/1,000 live births
Growth Rate	1.42 percent
Life Expectancy at Birth	
Total	63.81 years
Male	61.63 years
Female	66.09 years
Age Structure	
0-14 years	30.7 percent
15-64 years	65.7 percent
65 years and over	3.6 percent

## **Education and Literacy Rates**

Formerly subsidized by Soviet money, the education system is now under Mongolian control, and facing budget hardships, but Mongolia is trying to improve educational standards. Primary and secondary education are universal and tuition-free, with students attending school from ages 7 to 18. There are 29 state and 40 private universities in Mongolia, mostly in the capital city. The literacy rate is 99 percent for men and women more than 15 years old.

### Language

Mongolian is most closely related to Turkish. There are several dialects of Mongolian, the most common of which is Khalkha, spoken by more than 90 percent of the country. The traditional Mongolian script, which looks similar to Arabic with the characters written vertically instead of horizontally, was replaced by Russian Cyrillic characters in 1944. The Mongolian parliament voted in 1991 to revive the old script. The process is slow, since most citizens never learned the old script. Russian was once the main second language in Mongolia; however, English and German are becoming increasingly popular.

## Religion

The predominant religion in Mongolia is Tibetan Buddhism. A small percentage of people also practice Islam and shamanism. During communist rule, religion was suppressed and replaced with Marxist ideology. In 1990, full freedom of religion was restored, and there was a large revival in the practice of Buddhism. Christianity has also gained adherents, since the 1990s.

## Recreation

The three national sports of Mongolia are horseback riding, wrestling, and archery. Each year in mid-July, the country hosts a *Naadam*, or sports competition, in Ulaanbaatar, in which athletes compete in the three sports. People enjoy sledding in winter, and basketball is a very



#### **Buddhist Temple**

popular sport among young Mongolians. In rural areas, people enjoy playing games, cards, and music.

#### **Customs and Courtesies**

#### Greetings

Male visitors to Mongolia will be welcomed with a firm handshake. Mongolian men do not shake hands with female visitors; rather, they will offer a slight bow. When in a formal situation, or meeting someone for the first time, the appropriate verbal greeting is *Ta sain baina uu*? (How do you do?) Less formal verbal greetings are *Sain uu* (Hello) or *Sonin yutai ve*? (What's new?) In rural areas, people greet one another by sharing tobacco products and asking about their livestock or the weather. Mongolian people have a given name and a patronymic name. The given name should be used when addressing a Mongolian; the patronymic



#### Festival

name is rarely used except to distinguish two people with the same name. When addressing someone, a respectful title often follows the given name, acknowledging a person's rank, seniority, or profession. A teacher might be addressed as *Cholontsetseg bagsh* (teacher Cholontsetseg), or an elder as *Sukh guai* (Mr. Sukh). *Guai* is also used for women.

## Visiting

Visiting is common in Mongolia, which has a long tradition of hospitality. It is polite to bring a small gift when visiting. In the city, the host greets a guest at the door. In rural areas, the host greets a guest outside the *gher*. When entering a *gher*, visitors should move around to the left. During a formal visit, the host sits opposite the entrance; women sit to the left, men to the right. The host may serve tea with milk, *airag* (fermented mare's milk), or vodka. Business or professional meetings are quite formal, especially the initial meeting. After shaking hands, businessmen exchange business cards. One should not write on or immediately put the business card of a Mongolian aside; rather, it should be studied for a moment. In official meetings, the Mongolian host will give a welcoming speech. The visiting delegation's leader should also deliver a similar, but shorter speech. One should be prepared to provide a translator during meetings. Meeting etiquette demands that counterparts of equal rank will be seated opposite each other, and that only equals will address equals. Ranks, titles, and other significant information should be translated in advance for the hosts. Professional meetings in Mongolia allow smoking. If this is bothersome, one should ask politely to open a window, but one should not ask people to stop smoking. Those who smoke should offer to share cigarettes. Beverages served in meetings are mineral water and a salty tea called suutei tsai, a drink foreigners may need time to become accustomed to. The host will adjourn the meeting.

## Dining

Mongolian food is more similar to Russian than Chinese cuisine. Mutton is a dietary staple, along with cheese, butter, and rice. The main family meal is served in the evening. Although some eat with chopsticks, Western style utensils are also available. Beverages served with meals typically include tea and vodka. At restaurants, meals are served in European style, and tipping is unnecessary.

## Dress

Mongolians prefer to wear European dress, especially in the city. Young men and women wear jeans and Western-style jackets. Traditional costumes are seldom worn in urban areas, as the clothes of central Mongolia and Ulaanbaatar are most popular. In the coldest weather, urban men and women wear heavy coats, fur hats, and leather boots. Outside the cities, a *deel* (traditional Mongolian gown or tunic) is more common. For both men and women, the *deel* has a sash, embroidered cuffs, and designs, though the men's *deel* is less intricate. During the coldest Mongolians weather. line their deel with sheep's or lamb's wool. In western Mongolia, hats, scarves, and other items are added to traditional dress

For professional meetings in civilian attire, business suits are the norm. Visitors should make an effort to keep a professional and wellkept appearance, as Mongolians associate



Traditional Costumes

good grooming with self-respect. Women visitors should dress in a conservative fashion. Mongolians take great pride in modesty.

### Social Etiquette

In Mongolia, it is inappropriate to use the left hand to make gestures. When passing something (such as a dinner plate) to a Mongolian, one should use both hands, or the right hand supported by the left. Pointing with the index finger is considered a threat; one should use the entire hand to point. When beckoning to someone, the palm of the hand should face the ground. Legs should not be crossed, or direct eye contact made with an elder; one should not yawn in the presence of elders. Women in Mongolia often cover their mouths when they laugh. Mongolians do not like to be touched by strangers, though unavoidable contact, such as in a crowded area, is not considered offensive. It is disrespectful to kick another person's foot, even by accident; it is customary to immediately shake hands with the person you kicked as an apology. Men are admired for their strength and skill. Women are appreciated for their humility and fertility.

## MEDICAL ASSESSMENT

## Infectious Disease Risks to Deployed Personnel

Mongolia is an intermediate risk country for infectious diseases. Without force health protection measures, mission effectiveness could be seriously jeopardized.Risk varies greatly depending on location, individual exposures, and other factors.

### Food- and Waterborne Diseases

Sanitation varies with location, but even in major urban areas is typically well below U.S. standards. Local food and water sources (including ice and dairy products) may be contaminated with pathogenic bacteria, parasites, and viruses to which most U.S. service members have little or no natural immunity.

If local food, water, ice, or dairy products from unapproved sources are consumed, diarrheal diseases can be expected to temporarily incapacitate a high percentage of personnel within days. Hepatitis A, typhoid fever, brucellosis, and hepatitis E can cause prolonged illness in a smaller percentage of U.S. personnel exposed to contaminated food or water sources.

### Vectorborne Diseases

During warmer months of May to September, the climate and ecological habitat support insect vectors, including ticks, fleas, and sand flies, with variable rates of disease transmission. Plague infections occur sporadically, mostly in people exposed to wild marmots or their fleas. Crimean-Congo hemorrhagic fever, sandfly fever, Lyme disease, leishmaniasis, and other vector-borne diseases also are likely present. Many of these diseases may be more common than officially reported due to the lack of medical surveillance and diagnostic capability countrywide.

Individually, most of these vector-borne diseases have the potential to affect only a small percentage of personnel. However, the combined risk is higher, and many of these diseases have the potential to cause prolonged illness and death in some cases.

### Sexually Transmitted and/or Bloodborne Diseases

Gonorrhea, chlamydia, and other infections are common, and may affect a high percentage of personnel who have sexual contact, particularly with prostitutes. Hepatitis B is a high risk, and HIV/AIDS also occurs. Though the immediate impact of hepatitis B and HIV/AIDS on an operation is limited, the long-term health impact on individuals is substantial.

## Soil-Contact Diseases

Rodents (field mice, rats, and voles) in rural areas shed potentially severe hemorrhagic fever viruses. These viruses can be transmitted through the inhalation of dust contaminated with rodent urine or excrement. Direct exposure to soil or dust in rodent-infested areas may result in personnel being incapacitated for prolonged periods with hemorrhagic fever with renal syndrome (kidney failure).

## Water-Contact Diseases

Lakes, rivers, streams, or other surface water in rural areas may be contaminated with leptospirosis. Operations or activities that involve extensive water contact may result in personnel being temporarily debilitated.

## **Respiratory Diseases**

Sporadic outbreaks of meningococcal meningitis occur year round (peak from November to March), and are associated with crowded living conditions. Tuberculosis rates are estimated at between 100 and 300 cases per 100,000 population (10 to 30 times the overall U.S. rate). Prolonged contact with the local population may result in elevated conversion rates to tuberculosis skin testing (PPD screening); PPD screening to detect latent infection may be warranted. Influenza epidemics also occur, particularly in winter months.

## Animal-Associated Diseases

Human cases of anthrax occur sporadically, and outbreaks among livestock are common. Human cases of rabies occur in rural areas countrywide; the major sources are wild dogs, wild camels, and wolves. Human Q fever cases also occur, primarily in rural areas. Sporadic cases of these diseases may occur among U.S. personnel with direct exposure to animals or through consumption of contaminated meat or milk.

## **Medical Capabilities**

Mongolia's health care is far below U.S. standards. Most medical facilities are poorly manned, equipped, and supplied. The World Health Organization ranks the quality of Mongolia's health care in the lowest 25 percent worldwide, a figure that is comparable to neighboring countries. The most capable medical facilities are in Ulaanbaatar.

Emergency medical and ambulance services are available in Ulaanbaatar through a central dispatch system; however, the system is unreliable. Personnel are poorly trained and ambulances are under-equipped. Emergency medical and ambulance services are not available outside of the city limits because of the inadequate transportation system.

No clinics or hospitals cater to foreigners or provide a Western standard of care. The government of Mongolia prefers foreigners to use General Hospital Number 2 in Ulaanbaatar. Most health care providers speak Mongolian or Russian.
Mongolia has little capability to produce medical materiel. Russia provides most supplies. Over-the-counter drugs and pharmaceuticals are in short supply. Domestically produced medicines seldom meet U.S. standards, and difficulty may be encountered in translating information on packaging to determine U.S. dosage equivalencies.

The blood supply is not safe. Although large urban facilities have blood banks, the blood should not be used because of deficiencies in sterile technique and refrigeration, as well as out-of-date HIV test kits.

## Key Medical Facility

#### **General Hospital Number 2**

Alternate Name	Second General Clinical Hospital
Coordinates	47-55-08N 106-56-14E
Location	49 Peace Avenue
City	Ulaanbaatar
Telephone	50-230, 50-295
Туре	Government
Beds	250
Capabilities	Medical — general, internal, cardiology, dermatol- ogy, gastroenterology, infectious disease, neurol- ogy, pathology, pediatrics, psychiatry, radiology; surgical — general, anesthesiology, cardiovascular, ear/nose/throat (ENT), obstetrics and gynecology (OB/GYN), ophthalmology, orthopedic, proctol- ogy, thoracic, urology; ancillary — 24-hour emer- gency room, 6-bed intensive care unit, blood bank, laboratory, pharmacy, x-ray.
Comments	Government-designated facility for use by foreigners and diplomatic community. Good care is available, but severe supply shortages limit available procedures. Staff is competent and friendly. No computerized tomography (CT) scanner.

## HISTORY

The name Mongolia first appeared in Chinese writings in the Tang dynasty (618-907 AD). From that time until the late 12th century, the Mongolians remained a loose federation of clans. In 1203 AD, the infamous Genghis (also known as Chinggis) Khan consolidated the clans and created the first Mongolian empire. Genghis Khan, and then his grandson Kublai Khan, expanded the Mongolian empire, conquering all of China, then most of Asia and European Russia. At the height of the Mongolian empire, its territory stretched from Korea to Hungary, and south as far as Vietnam. Kublai Khan established the Yuan dynasty (1279-1368 AD), and was made famous in Europe by Marco Polo's tales of adventure from Asia. The Yuan dynasty civilized its conquered territories, building roads, canal systems, a postal system, and introducing the use of paper currency. Despite their efforts, the Mongolians had great difficulty in maintaining control of their vast empire. Faced with rebellion from the conquered territories, as well as internal power struggles among clans, the Yuan dynasty began to decline in power.

With the end of the Yuan dynasty, the Mongolian empire began to disintegrate. The Ming dynasty ousted the Mongolians from China in 1368, after which there were decades of civil war and decentralized rule with failed attempts to re-unify the empire. In 1644, the Manchu Chinese conquered China and gained allegiance from the Mongolians that lasted until 1911. Mongolian rulers seized the opportunity to shed Chinese control while China was involved in civil war. With Russian aid, Mongolia claimed full independence, with a theocratic ruler, they called the Living Buddha. However, while Russia was going through its own civil war, the Chinese gained a military foothold in Outer Mongolia (present day Mongolia) in 1919. (Inner Mongolia has been part of China since the 1750s.) In 1921, one faction in the Russian Civil War, the White Army, expelled the Chinese. The White Army was ultimately defeated by the Soviet Army. The Soviet Army also aided the Mongolian leaders. Together, Mongolian and Soviet forces recaptured the capital and reclaimed the country. Mongolia became the second communist country in the world and re-named itself the Mongolian People's Republic in 1924. Under the direction of the Soviet Union, Mongolia conducted a harsh campaign of abolishing religion in favor of communist ideology.

During World War II, Japan invaded eastern Mongolia. The Soviet-Mongolian Army defeated the Japanese in 1939, and signed a peace treaty that defined the border between Mongolia and Japanese-held Manchuria. After the war, the Soviet Union allowed Mongolia to shift its focus from the solidification of ideological support to increasing development, building infrastructure, and increasing relations with other countries. In 1961, Mongolia joined the United Nations. Also in the 1960s, tensions grew between the Soviet Union and China. Mongolia then signed an agreement with the Soviet Union that allowed Soviet troops to station themselves along the Mongolian border with China.

When the Soviet Union collapsed, Soviet influence, dominance, and financial assistance disappeared. In the late 1980s, Mongolia was able to re-establish good relations with China. In 1990, the Mongolian people began demanding democracy. Mongolia held its first free, democratic elections in July 1990. A new, democratic constitution was implemented in 1992, and in 1993, the first free election for president took place.

In 1996, the Mongolian people elected the first non-communist government. Since then, the main goals of the government have been to privatize industry, modernize infrastructure, and develop solid political and economic ties to Asian and Western countries such as the United States, China, and Russia. To further this effort, Mongolia hosted a UN regional disarmament conference for the first time in 1999, and attended talks hosted by Russian president Boris Yeltsin the same year. Due to the Asian economic crisis, Mongolia has suffered setbacks to the growth of their economy, but their economic situation is improving with the help of a stable government that has been in place since 2000.

# Chronology of Key Events

1197	Genghis Khan unites the Mongols.
1209-1215	Mongols conquer south to Beijing, west to Lake Balkash.
1220-1226	Mongols conquer Southwest Asia; invade Europe and China.
1231	Mongols invade Korea.
1240-1480	Mongols establish control over Russia.
1279-1368	Yuan dynasty; established by Kublai Khan.
1400-1454	Civil war ends Mongol unity.
1466	Dayan Khan reunites most of Mongolia.
1480-1502	Muscovites end Mongol control of Russia.
1571	Mongols end 300-year war with China.
1691	Much of Mongolia absorbed into China's Qing dynasty.
1750s	China divides Mongolia into two parts, Outer (northern)
1011	Mongolia and Inner (southern) Mongolia.
1911	Establishes outcomous theoretic government
1021	With the aid of Pussian Soviet troops, Mongolia drives
1921	out Russian White Army forces and declares indepen-
	dence: limited monarchy proclaimed.
1924	Mongolia adopts Soviet-style communist government.
1939	Mongolian-Soviet forces defeat Japanese attack.
1946	China recognizes Mongolia's independence.
1961	Mongolia admitted to the United Nations.
1986	Mongolia signs long-term trade agreement with China.
1987	Diplomatic relations established with the United States.
1990	Popular demonstrations demand reform and democracy.
1990	Constitution amended to allow for a multi-party system
1000	and democratic elections.
1990	First democratically elected parliament takes office.
1993	First direct presidential election.
1996	Election of first non-communist government.
2000	Election of the former communist Mongolian Peoples Revolutionary Party (MPRP); formation of new govern- ment by Prime Minister Enkhbayar.

# **GOVERNMENT AND POLITICS**

### Government

## National

The government of Mongolia is a constitutional democracy. The president is nominated by parties in the State Great Hural (parliament) and elected by popular vote for a 4-year term. The last presidential election took place in May 2001. The parliament approves the cabinet members that are recommended by the prime minister.

Following legislative elections, the leader of the majority party or majority coalition is usually



President Natsagiyn Bagabandi

elected prime minister by the parliament. The last such election was held in August 1999.

## Legislative Branch

Mongolian parliament, the State Great Hural, has 76 seats. Its members are elected by popular vote to serve 4-year terms.

## Judicial Branch

The legal system is a blend of Russian, Chinese, Turkish, and Western systems of law. It combines aspects of a parliamentary and presidential system. The constitution is ambiguous about judicial review of legislative acts.

The supreme court serves as an appeals court for peoples' and provincial courts, but rarely overturns the verdicts of lower courts. The General Council of Courts nominates the supreme court judges for approval by the parliament.

#### Key Government Officials

Chief of State	President Natsagiyn Bagabandi
Minister of Defense	Jugderdemidiin Gurragchaa
Minister of Finance and Economy	Chultemiin Ulaan
Minister of Food and Agriculture	Darjaagiin Nasanjargal
Minister of Foreign Affairs	Luvsangiin Erdenechuluun
Minister of Justice and	
Internal Affairs	Tsendiin Nyamdorj
Chairman of the State Great Hural	Sanjbegziin Tomor-Ochir

#### Local

Mongolia is divided into administrative divisions of 21 provinces (*aymguud*; the singular is *aymag*) and 1 municipality (*hot*). The one municipality is Ulaanbaatar and the provinces are: Arhangay, Bayanhongor, Bayan-Olgiy, Bulgan, Darhan Uul, Dornod, Dornogovi, Dundgovi, Dzavhan, Govi-Altay, Govi-Sumber, Hentiy, Hovd, Hovsgol, Omnogovi, Orhon, Ovorhangay, Selenge, Suhbaatar, Tov, and Uvs.

### Politics

## Political Parties

- Mongolian Conservative Party (MCP)
- Mongolian National Democratic Party (MNDP)
- Mongolian Social Democratic Party (MSDP)
- Mongolian Democratic New Socialist Party (MDNSP)
- Mongolian Democratic Renaissance Party (MDRP)
- Mongolian People's Revolutionary Party (MPRP)
- Democratic Union Coalition (DUC) (including MNDP and MSDP)
- Mongolian Republican Party (MRP)





- Mongolian United Heritage Party (UHP) (includes the United Party of Herdsman and Farmers, Independence Party, Traditional United Conservative Party, and Mongolian United Private Property Owners Party)
- Mongolian United Private Property Owners Party
- United Party of Herdsman and Farmers
- Traditional United Conservative Party

# Suffrage

Voting rights are extended to all Mongolian citizens 18 years of age and older. Mongolians vote directly for members of parliament.

## Foreign Relations

The chief priority of Mongolia's foreign policy is to safeguard its national security and vital interests by political and diplomatic means. Its goal is to create a favorable global environment for Mongolian economic, scientific, and technological development. Maintaining friendly relations with the Russian Federation and the People's Republic of China is a priority of Mongolia's foreign policy, though the disintegration of the world socialist system and the Soviet Union has dramatically changed Russian-Mongolian relations. Mongolia also aims to strengthen its position in Asia and to participate in the political and economic integration process of the region.

Mongolian foreign policy also includes maintaining friendly relations with developed countries such as the United States, Japan, and the Germany. Relationships with industrialized countries and the United Nations provide opportunities for access to financial and economic assistance, including the International Monetary Fund, the World Bank, and the Asian Development Bank. Mongolia is hoping to increase export resources, and help to develop an economic infrastructure.

#### Asia

Relations with China began to improve in the mid-1980s when consular agreements were reached, and cross border trade contacts expanded. In

1989, China and Mongolia exchanged visits of foreign ministers. In May 1990, a Mongolian head of state visited China for the first time in 28 years. The cornerstone of the Mongolian-Chinese relationship is a 1994 Treaty of Friendship and Cooperation, which codifies mutual respect for the independence and territorial integrity of both nations. The two foreign ministers exchanged visits in 1997, as did the leaders of the two countries' parliaments. President Jiang Zemin visited Mongolia in July of 1999.

Mongolia is expanding its relationships with Japan and South Korea. The Mongolian prime minister visited Japan in March 1990, and Prime Minister Obuchi reciprocated with a visit to Mongolia in July 1999. Japan has provided more than US\$100 million in grants and loans since 1991, and has coordinated international assistance to Mongolia. Diplomatic relations were established with South Korea in 1991, and during the Mongolian president's visit, seven agreements and treaties were signed, providing the legal basis for further expansion of bilateral relations. Japan is Mongolia's largest bilateral aid donor. In 2001, President Bagabandi made state visits to India and Nepal.

#### Russia

After the collapse of the Soviet Union, Mongolia developed relations with the new independent states. Links with Russia and other republics were essential to the stabilization of the Mongolian economy. There were difficulties in coordinating with the new republics, as they were experiencing the same political and economic restructuring as Mongolia. However, despite these difficulties, Mongolia and Russia successfully negotiated a 1991 Joint Declaration of Cooperation and a bilateral trade agreement. This was followed by a 1993 Treaty of Friendship and Cooperation establishing a new basis of equality in the relationship. Mongolian President Bagabandi visited Moscow in 1999, and Russian President Vladmir Putin visited Mongolia in 2000 in order to sign the 25-point Ulaanbaatar Declaration, reaffirming Mongol-Russian friendship and cooperation on numerous economic and political issues.

#### **United States**

The U.S. government recognized Mongolia in January 1987, and established its first embassy in Ulaanbaatar in June 1988; it formally opened in September of that year. There have been several visits by U.S. officials to Mongolia. Secretary of State Madeline Albright visited Mongolia in May 1998, and Prime Minister Enkhbayar visited Washington in November 2001. The United States sought to assist Mongolia's movement toward democracy and market-oriented reform, and to expand relations with Mongolia culturally and economically. The United States granted Mongolia most-favored-nation status, and has supported Mongolia's transition to political democracy and a market economy. In 1989 and 1990, a cultural accord, Peace Corps accord, consular convention, and Overseas Private Investment Corporation (OPIC) agreement were signed. A trade agreement was signed in January 1991, and a bilateral investment treaty in 1994. As of 2001, the U.S. Agency for International Development (USAID) has provided more than US\$100 million in technical assistance and training for Mongolia's democratic and economic reform program.

#### International Organizations/Treaties

Mongolia participates in the following: Asian Development Bank (ADB), Association of Southeast Asian Nations (ASEAN) observer status, Customs Cooperation Council (CCC), United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations Food and Agriculture Organization (FAO), Group of 77 (G-77), International Atomic Energy Agency (IAEA), International Bank for Reconstruction and Development (IBRD), International Civil Aviation Organization (ICAO), International Confederation of Free Trade Unions (ICFTU), International Fund for Agricultural Development (IFAD), International Federation of Red Cross and Red Crescent (IFRCS), International Labor Organization (ILO), International Monetary Fund (IMF), International Criminal Police Organization (Interpol), International Olympic Committee (IOC), International Telecommunication Union (ITU), Organization for the Prohibition of Chemical Weapons (OPCW), United Nations (UN), Universal Postal Union (UPU), World Health Organization (WHO), World Intellectual Property Organization (WIPO), and World Trade Organization (WTO).

## Outlook

Despite recent popular demonstrations, the Mongolian government remains strong, and will likely stay in power until the next elections. A controversial land privatization bill successfully passed into legislation, which marks further transition from a collective economy.

US\$4.7 billion
2%
US\$1,770
12%
20%
US\$614.5 million
34% Russia, 21% China, 12% Japan,
9% South Korea, 4% United States
US\$466.1 million
59% China, 20% United States,
10% Russia, 2% Japan

Mongolia is a developing country that is striving to attract investment and achieve growth. Mongolia was heavily subsidized by the Soviet Union, and found itself in a difficult position when the Soviet state collapsed in the late 1980s. Mongolia rapidly changed its economy from a Soviet-model to an open system, but continues to struggle with modernization. The problems in the Mongolian economy lie with a weak banking system, federal budget deficits, and a lack of solid infrastructure. Inflation has been a problem in the past, but has remained around 10 percent for several years. The tugrik has been relatively stable versus the dollar for the past two years. Poverty and unemployment are problems that the Mongolian government is striving to overcome.

## Industry

The major industries in Mongolia include mining (coal, copper, molybdenum, fluorspar, and gold), oil, construction materials, food and beverages, and animal products.

## Agriculture

Most of the population makes a living from herding livestock. The main agricultural products are wheat, barley, potatoes, forage crops, sheep, goats, cattle, camels, and horses.

#### Resources

Mongolia gets all of its electricity from fossil fuel power. Severe fuel shortages and problems with central heating and electrical systems may cause seriously reduced heating levels and power outages in Ulaanbaatar and the cities of Darhan and Erdenet during the winter months. Smaller towns in the countryside may have no heat or electricity at all during these months.

### Utilities

The standard electrical voltage of Mongolia is 220V, 50 cycles/second, and is supplied via Russian-style electricity outlets. The connector pins are round, usually with a diameter of 4 millimeters, so pushing modern German 5 millimeter plugs into Mongolian sockets will break the socket. The best way to use Western devices is to use adapters. Electricity is available in the major cities of Mongolia as well as in *aïmag* centers (business centers) and larger villages; in the countryside, however, solar-driven batteries are extremely useful. Brown-outs (unstable electricity supply) and black-outs occur at irregular intervals.

# Outlook

Mongolia has made great strides toward becoming a modern economy, and continues to seek additional foreign direct investment to help with modernization. The country's excellent literacy rates and broad access to education will provide a valuable workforce for the future. Mongolia's GDP is expected to grow by 5 percent in 2003. Mongolia has also privatized the Trade and Development Bank, and has created additional opportunities for foreign investment, which will likely increase the amount of aid coming into the country.

# THREAT

### Crime

Street crime is on the rise in Mongolia, with robberies and muggings becoming more common, particularly in Ulaanbaatar. Illegal drug trafficking is a problem but it is not yet considered a major risk. There are 50 criminal gangs that operate across the Russian-Mongolian border. They engage in various crimes, to include extortion, smuggling, and drug trafficking. The criminal gangs arrange for passage of drugs from Southeast Asia through Mongolia and Russia to Western Europe.

### Terrorism

The overall terrorist threat level in Mongolia is low. There are no extreme political, religious, or insurgent groups operating in Mongolia. However, violent organized criminal groups in the region may use terrorist type tactics to resolve personal or business disputes. There is no known indigenous or transnational terrorist threat to U.S. interests in Mongolia.

## Corruption

Corruption is an increasing problem for Mongolia. Low salaries make government officials prone to accepting bribes, especially in the judiciary branch. Many civil servants demand bribes for routine services such as issuing licenses and permits. The Mongolian government passed anti-corruption laws in 1996, and is attempting to update the laws with more severe penalties. The Mongolian public is becoming less tolerant of corruption. In April 2002, 6,000 protestors demonstrated against corruption in Bagabandi's government.

## **Regional and Internal Threat**

There are no extreme political, religious, or insurgent groups in Mongolia. VioleWorkers inciting civil unrest remains the primary internal threat to Mongolia's security. Religious intolerance against Islamic and Buddhist groups is a challenge to the central government. Transnational organized crime groups, especially Russian and Chinese, are a growing concern for the Mongolian government. The Russian mafia is known to use violence — including assassinations and bombings — to settle personal and business disputes with its competitors. Corrupt Chinese businessmen who have moved into Mongolia are also becoming a problem for the government.

## Threat to U.S. Personnel

Mongolians have a relatively positive view of Americans. U.S. personnel will not likely be targeted for violence. However, the perception of Westerners as being wealthy increases the likelihood that U.S. personnel will be targeted for petty theft.

# **ARMED FORCES**

## Organization

The 1992 constitution made the president of Mongolia the commanderin-chief of the Mongolian Armed Forces (MAF). The army is subordinate to the parliament; however, the minister of defense has daily control of the armed forces. The MAF is divided into five groups: general purpose troops, air defense forces, construction corps, civil defense forces, and mobilization reserves. The Ministry of Justice controls the border troops and internal troops, which fall under the ministry of defense during wartime. The border forces are responsible for border security, and the internal troops are responsible for protecting significant installations.

The general purpose troops are the core of the armed forces, and are tasked to defend the country. The air defense forces are to protect the air space of Mongolia as well as defend vital economic and administrative centers from enemy attack. The construction corps' responsibility is to lead construction activities in peacetime and in war. The civil defense forces are to be ready to provide relief and rescue in case of war, natural disasters, and industrial accidents. The mobilization reserves augment the armed forces in the event of war.

The minister of defense is the highest-ranking military post, followed by the first vice minister of defense, and the armed forces chief of staff. The president appoints each of these positions.

#### Strategy and Doctrine

When the Soviet Union collapsed and Mongolia lost its principle supporter, the Mongolian parliament approved a new military doctrine called the Law on the Defense of Mongolia, which shifted the focus from an offensive reaction capability in support of the Soviet Union, to a strictly defensive plan for border security, civil defense, and nation building. In April 1998, Mongolia's National Security Council approved in principle a new national military doctrine, the Fundamentals of State Defense Policy. The doctrine is based on creating a more flexible territorial defense system with enhanced responsibility going to local officials.

Now that it is free of Soviet dominance, Mongolia prefers diplomacy over military action. Mongolia's official defense policy declares that Mongolia will not take up arms against another country first and, unless invaded, it will not engage in any war or conflict. Mongolia will not enter into any military bloc if its independence is not threatened. No foreign military force may enter, cross, or be stationed in Mongolia without express permission from the Mongolian government. However, Mongolia will fulfill its obligation to the UN by supplying observers and participating in conflict mediation.

## Personnel

## Key Personnel

Chairman of the National Security Council	President Natsagiyn Bagadandi
Secretary of the Security Council	
of Mongolia	Ravdangiyn Bold
Minister of Defense	Jugderdemindiin Gurragchaa
<b>Chief of the General Staff Mongolian</b>	
Armed Forces	Tserenbaljirin Dashzeveg
State Security Directorate	Jamsrangiyn Enhnasan
<b>Border Troops Directorate</b>	General Palam Sundev

## Conscripts

Conscription is one year for males aged 18-28 years. At peak strength, Mongolian forces were estimated to number 35,000 to 50,000, but due to economic difficulties, personnel strength has been reduced to 7,650.

## Training

In a report marking the 80th anniversary of the Mongolian armed forces in March 2001, the Mongolian defense ministry stated that its military officers are now studying in military institutes in 20 countries, including Russia, China, the United States, Germany, the United Kingdom, Turkey, South Korea, India, and Japan. More than100 officers have graduated in the past 5 years.

Although conscripts are trained in Mongolia, the armed forces are looking to Russia, China, South Korea, and Japan for training opportunities for their junior and senior commanders. On 17 October 2000, Mongolia and Russia signed a memorandum calling for closer military cooperation. In February 2001, 25 Mongolian border guard cadres started training in Russia's Federal Border Service's Khabarovsk Military Institute. All training expenses over the 5-year course will be paid by Russia.

In January 2000, the Mongolian president initiated large-scale training of Mongolian military personnel and border guards in the respective institutions in China. China and Mongolia then signed an intergovernmental agreement to give the Mongolian defense department US\$1 million worth of material assistance. The aid will be used to build military housing and to reinforce material resources for training Mongolian military specialists.

In September 2000, Mongolia participated for the first time, in the military exercises in the Central Asian region. The exercise involved Uzbekistan, Tajikistan, and Kazakhstan. In May 2001, a Mongolian military delegation participated in Operation COBRA GOLD, an annual joint United States-Thailand multi-lateral military exercise.

#### Future Requirements

In August 1999, President Bagabandi issued a decree requiring the ministry of defense to report before the end of 1999 on the progress of military modernization over the previous two years, together with its plan for a second phase of reforms.

The second phase of Mongolia's military modernization, to be implemented by 2005, is intended to focus on three main areas: implementation of a new doctrine based on territorial defense, which is now being developed; preparation of armed forces elements to begin participating in UN-sponsored peacekeeping missions; and development of plans to modernize military equipment.

In April 2001, Russia and Mongolia made an agreement in which Russia would upgrade the old Soviet-made arsenals of the Mongolian army, especially Mongolia's air defense systems and helicopters.

Mongolia Air Force Enlisted Rank Insignia	Bayldagch	Ahlah Bayldagch	I Baga Turuuch	Turuuch	Ahlah Turuuch	
U.S. Equivalent	Private	Private 1st Class	Junior Sergeant	Sergeant	Senior Sergeant	Master Sergeant
Mongolia Air Force Officers Rank Insignia	Baga Deslegch	& & <u>Jesegch</u>	Ahlah Deslegch	©	RESERVE Hushuuch	www.
U.S. Equivalent	Junior Lieutenant	Lieutenant	Major	Captain	Major	Lieutenant Colonel
ا المحمد محمد محمد المحمد محمد		•••				
Huranda	Hushuuch General	Deslegch General	Huranda General	Armu General		
Colonel	Major General	Lieutenant General	Colonel General	Army General	<b>^</b>	
Mongolia Army Enlisted Rank Insignia	Bayldagch	Ahlah Bayldaqch	Baga Turuuch	Turuuch	Ahlah Turuuch	® *****
U.S. Equivalent	Private	Private 1st Class	Junior Sergeant	Sergeant	Senior Sergeant	Master Sergeant
Mongolia Army Officers Rank Insignia	Baga Deslegch	& & sesese Deslegch	(B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	Ahmad	kushuuch	© Sector
U.S. Equivalent	Junior Lieutenant	Lieutenant	Major	Captain	Major	Lieutenant Colonel
Huranda	Hushuuch General	Deslench General	Huranda General	Armu General	Marshal	
0.1	Major Conoral	Lightenant Corcerd	Colonal Concerd	Army Conoral	Conoral of the Arm	

Military Insignia

### Army

The Mongolians People's Army's strength is 6,850 with 4,000 conscripts. The army comprises seven infantry brigades, four armor brigades, and one artillery brigade. The Mongolian army is small but flexible. In the event of an invasion by one of its neighbors, it would try to contain the conflict until the arrival of foreign assistance. In November 1998, it was reported that the Mongolians People's Army was transitioning to a professional service with the introduction of voluntary service. Servicemen serve on a voluntary basis for 2 years, and are paid US\$26–38 monthly. Bases are located in Ulaanbaatar, Choybalsan, Altay, Hovd, Olgiy, and Ulaangom.

#### Equipment

#### Armor

Туре	Role	Quantity
T-62	Main battle tank	150
T-54/T-55	Main battle tank	400
BRDM-2	Reconnaissance vehicle	100
BMP-1	Infantry fighting vehicle	300
BTR-60	Armored personnel carrier	50
BTR-40	Armored personnel carrier	100
BTR-152	Armored personnel carrier	150

#### Artillery

Туре	Role	Quantity
160-mm	Mortar	30
120-mm	Mortar	48
82-mm	Mortar	96
122-mm D-30	Field gun	120
130-mm M-46	Field howitzer	48
152-mm M1937	Field howitzer	24
76-mm	Field gun	24
122-mm BM-21	Multiple rocket system	135

Туре	Role	Quantity
85-mm D-44	Antitank gun	60
100-mm T-12	Antitank gun	24
RPG-7	Rocket launcher	120

#### Air Force

The air force is a small component of the armed forces. It has two squadrons of MiG-21D/F FISHBED aircraft, and one squadron of Mi-24 HIND D attack helicopters, all of which are kept on one air base. The air force is estimated to have 800 personnel, with 100 pilots who are mainly employed in Mongolia's civil air fleet. Air force units are subordinate to the chief of the general staff; they share military intelligence and logistical support with the land forces. Unit organization is based on Soviet models, with local adaptation for the lack of equipment. Mongolia's air force is in need of funding for maintenance, repair, and aircraft operation. Due to budget shortfalls, pilots are afforded little time in the air, and they tend to train only during daytime and in good weather.

#### Equipment

#### **Fixed-Wing**

Туре	Role	Quantity
MiG-21/FISHBED	Fighter	6
MiG-21U	Fighter/Training Aircraft	3
An-2	Transport	12
An-24	Transport	16
An-26	Transport	3
Rotary		
Туре	Role	Quantity
Mi 24/HIND	Multi role Helicopter	12

- JPC	KOIC	Quantity
Mi-24/HIND	Multi-role Helicopter	12
Mi-8	Transport Helicopter	1

## **Paramilitary Forces**

The total strength is 12,500 personnel with 8,000 in border troops, 1,000 internal security troops (two regiments), 2,700 construction troops, and 800 civil defense troops.

## Border Troops

The Ministry of Defense controls the border troops. They are organized into seven regiments, each of which controls several border posts. Men between the ages of 18 and 28 can sign up for 12 months of service in the border troops instead of the army or the air force.

## Equipment

Туре	Role	Quantity
An-24 COLT	Transport aircraft	3
Mi-8	Helicopter	5
BTR-60	Armored personnel carriers	unknown

## Internal Security Troops

The internal security troops, with 1,000 personnel, fall under the command of ministry of public security. They have the task of national law enforcement, frontier protection, railway security, and border control.

## National Police

General law and order and criminal investigation are responsibility of the national police, which mainly operates in larger cites and urban areas. The force has 500 personnel members. Paramilitary forces are responsible for the remaining law enforcement and security duties.

### Weapons of Mass Destruction

Mongolia possesses no nuclear, biological, or chemical weapons.

## **INFANTRY WEAPONS**

5.45-mm PSM



Effective Range Caliber System of Operation Overall Length Feed Device Weight (loaded) 40 m 5.45 x 18-mm Blowback, double action 155 mm 8-round detachable magazine 510 g

#### 7.62-mm Tokarev



Effective Range Caliber System of Operation Overall Length Feed Device Weight (loaded) 40 m 7.62 x 25-mm Short recoil, semiautomatic 196 mm 8-round box magazine 846 g

#### 9-mm Makarov



Effective Range Caliber System of Operation Overall Length Feed Device Weight (loaded) 25 m 9 x 18-mm Blowback, self-loading, double action 161 mm 8-round detachable box magazine 810 g

## 7.62-mm AK-47/AKM



Rate of Fire **Overall Length** Magazine Capacity Weight (Loaded)

880 mm 30-rd detachable box magazine 4.3 kg

## 7.62-mm Dragunov SVD



Maximum Effective Range Caliber System of Operation Overall Length Magazine Capacity Weight (Loaded)

800 m 7.62 x 54-mm Gas, semiautomatic 48.2 in. 10-rd, staggered row detachable box magazine 9.5 lbs

### 5.45-mm RPK-74



Cartridge Rate of Fire

Effective Range System of Operation Overall Length Magazine Weight (Empty) 5.45 x 39-mm Cyclic: 6500-650 rds/min Practical: 150 rds/min 460 m Gas, selective fire 1.082 m 45-, 40- or 30-round box magazine 9 kg

7.62-mm SGMT



Rate of Fire Effective Range System of Operation Overall Length Magazine Capacity Weight (Empty) 7.62 x 54R Cyclic: 650 rds/min 1,000 m Gas, automatic 1.12 m 250-round pocketed belt 13.6 kg

**NOTE:** Picture shown is the basic SGM. Mongolia uses the basic SGM rifle, fitted for use on armored personnel carriers.

#### 5.45-mm AKSU-74



Maximum Effective Range Caliber System of Operation Overall Length Magazine Capacity Weight (Loaded) 500 m 5.45 x 39.5-mm Gas, selective-fire 730 mm 30-rd, curved box magazine 3.2 kg

#### 7.62-mm PKT



Cartridge Rate of Fire

Effective Range System of Operation Overall Length Magazine Capacity 7.62- x 54R
Cyclic: 650-720 rds/min
Effective: 250 rds/min
1,000 m
Gas, open bolt, fully automatic, belt fed
1.173 m
250-round non-disintegrating metallic belt or
100-round assault magazine
9 kg

Weight (Empty)

**NOTE:** Picture shown is the PKS, which is the basic PK mounted on a tripod. Mongolia uses the basic PK rifle, fitted for use on armored personnel carriers.

# ARMOR

T-54/55



Crew	4
Armament	Main: 1 x 100-mm D-10T2S rifled gun w/43-rds; Coaxial and bow: 7.62-mm SMGT MGs w/3,500-rds; Antiaircraft: 127-mm DShK w/500-rds
Maximum Speed	50 km/h
Maximum Range	460 km (650 km w/long range tanks)
Fuel Capacity	960
Combat Weight	36,000 kg
Length	9 m
Width	3.76 m
Height	3.03 m
Night Vision	Yes
NBC	Yes
Fording	1.4 m
Gradient	60%
Vertical Obstacle	0.8 m
Trench	2.7 m



4
1 x 115-mm 2A20 gun w/40 rds
1 x 7.62-mm PKT coaxial MG w/2,500 rds
45.5 km/h
450 km
675 liters
40,000 kg
9.33 m
3.3 m
2.39 m
Yes
Yes
1.4 m
60%
0.8 m
2.85 m

#### BMP-1



## BRDM-2



Crew/Passengers	4
Туре	4 x 4
Armament	1 x 14.5-mm KPVT w/500 rds
	1 X 7.62-mm PKV1 W/2000 rds
Maximum Speed	100 km/h
Maximum Range	750 km
Fuel Capacity	290 liters
Combat Weight	7,000 kg
Length	5.75 m
Width	2.35 m
Height	2.31 m
Night Vision	Yes
NBC	Yes
Fording	Amphibious
Gradient	60%
Vertical Obstacle	0.4 m
Trench	1.25 m

## BTR-40



Crew/Passengers	2 + 8
Туре	4 x 4
Armament	1 x 7.62-mm SGMT w/1,250 rds
Maximum Speed	80 km/h
Maximum Range	285 km
Fuel Capacity	120 liters
Combat Weight	5,300 kg
Length	5 m
Width	1.9 m
Height	1.75 m
Night Vision	No
NBC	No
Fording	0.8 m
Gradient	60%
Vertical Obstacle	0.47 m
Trench	0.7 m

#### **BTR-60**



Crew/Passengers
Туре
Armament
Maximum Speed
Maximum Range
Fuel Capacity
Combat Weight
Length
Width
Height
Night Vision
NBC
Fording
Gradient
Vertical Obstacle
Trench

2 + 16 8 x 8 1 x 7.62-mm PKT MG w/2,000 rds 80 km/h 500 km 290 liters 10,300 kg 7.56 m 2.82 m 2.31 m Yes Yes Amphibious . 60% 0.4 m 2 m

## BTR-152



Crew/Passengers	2 + 17
Туре	6 x 6
Armament	1 x 7.62-mm SGMT w/1,250 rds
Maximum Speed	75 km/h
Maximum Range	600 km
Fuel Capacity	300 liters
Combat Weight	8,950 kg
Length	6.55 m
Width	2.32 m
Height	2.36 m
Night Vision	No
NBC	No
Fording	0.8 m
Gradient	55%
Vertical Obstacle	0.6 m
Trench	0.69 m
# ARTILLERY

## 130-mm M-46 Field Gun



Crew	8
Maximum Range	27,150 m
Sustained Rate of Fire	5-6 rds/min
Length	11.7 m
Width	2.5 m
Height	2.6 m
Weight (Combat)	7,700 kg
Prime Mover	MT-LB, ATT-T or heavy 6x6 truck

**NOTE:** Long barrel; pepperpot muzzle brake; large spades rest on trails; large limber used in travel; sweptback shield; towed out-of-battery.

#### 122-mm D-30



Crew Maximum Range Rate of Fire **Combat Weight** Length Width Height Prime Mover

7

15,400 m (conventional) 21,900 m (RAP) 7 rds/min 3,210 kg 5.4 m 1.95 m 1.66 m 6 x 6 truck

# 122-mm BM-21Multiple Rocket System



13,700 kg
7.4 m
2.7 m
2.9 m
75 kph
20,500 m
Smoke, HE, HE-CI

**NOTE:** Mounted on URAL-375D 6x6 chassis; 40 tubes arranged in 4 banks of 10 tubes each; has a distinctive rear fender design; carries a spare tire at the rear of the cab; troop seats forward of the rear wheels; blast shields not fitted as on other MRLs; exhaust and muffler mounted under front bumper; pallet and mount tarped in transit.

# 120-mm M-43 Mortar



Crew	6
Maximum Range	5,700 m
Rate of Fire	15 rds/min
Combat Weight	280 kg
Length	1.854 m
Width	1.62 m
Height	1.206 m
Bomb Weight	15.4 kg

## 160-mm M43 Mortar



7
5,150 m
3 rds/min
1,170 kg
3.03 m
1.77 m
1.41 m
6 x 6 truck

## ANTITANK

#### 100-mm T-12



Role	
Crew	
Maximum Range	

Max Rate of Fire Elevation/Depression Traverse Combat Weight Length Width Height Smoothbore anti-tank gun 6 APFSDS: 3,000 m (direct) HEAT: 5,955 m (direct) HE: 8,200 m (indirect) 14 rds/min +20/-6° 27° 2,750 kg 9.48 m 1.795 m 1.565 m

## 85-mm D-44 Field Gun



Crew Caliber Max Range Rate of fire Combat Weight Length Width Ammunition Towing Vehicle 8 85-mm 15,650 m 15-20 rds/min 1,703 kg 8.34 m 1.78 m AP-T, AT-T, and HVAP-T 6x6 truck

## RPG-7



Type Launch Weight Length Caliber Warhead Maximum Range Portable rocket launcher 7 kg 950 mm 40-mm 2.6 kg; HEAT, piezoelectric fuse 330 m/500 m (moving/stationary targets)

NOTE: AG-72 is actually an RPG-7 with a bipod and 10AG-7V optical sight unit.

## **AIR DEFENSE**

## SA-7 GRAIL (STRELA-2)



Role Range Guidance Warhead Manportable surface-to-air missile system 3.7 km IR HE

NOTE: SA-7b; STRELA-2M/A electronic block in seeker is miniaturized.

## 57-mm S-60



Crew
Maximum Range
Rate of Fire
Combat Weight
Length
Width
Height

7 12,000 m (horizontal) 8,800 m (vertical) 100 - 120 rds/min 4,500 kg 8.6 m 2.054 m 2.46 m

#### 37-mm M1939



Crew Length Width Height Weight Gun Caliber Ammuntion Feed Rate of fire Tactical AA range 5 to 8 5.94 m 1.90 m 2.08 m 2,353 kg 37 x 253mm FRAG-T, AP-T 5-rd Clip 160-180 rds/min 2,500/4,000 m

# 14.5-mm ZPU-2 (Twin)



Crew	5
Maximum Range	8,000 m (horizontal) 5,000 m (vertical)
Rate of Fire (Per Barrel)	150- 600 rds/min
Combat Weight	649 kg
Length	3.87 m
Width	1.37 m
Height	1.09 m

## 14.5-mm ZPU-4 (Quad)



Crew
Maximum Range
Rate of Fire (Per Barrel)
Combat Weight
Length
Width
Height

#### 5

8,000 m (horizontal) 5,000 m (vertical) 150 - 600 rds/min 1,810 kg 4.53 m 1.72 m 2.13 m

#### 37-mm M1939



Crew Maximum Range Rate of Fire (Per Barrel) Combat Weight 3 - 6 6,700 m (vertical) 9,900 m (horizontal) 120 rds/min 2,676 kg

# AIRCRAFT

Mi-24 Hind



Type Crew	Twin-turbine gunship/transport helicopter 4
Armament	1 x 4-barrel 12.7-mm MG mounted in chin turret Assorted rockets, missiles, gun pods
Payload	8 combat troops
Maximum Speed	172 kts
Maximum Range	243 nm
Rotar Diameter	17.30 m
Length	17.51 m
Height	3.97 m

# Mi-8 Hip



Type Crew	Twin-turbine multipurpose helicopter 3
Armament	1 x 12.7-mm MG in nose
Payload	26 combat troops or 4,000 lb (internal) 3,000 lb (external)
Maximum Cruising Speed	
Normal AUW	121 kt (225 km/h; 140 mph)
Max AUW	113 kt (210 km/h; 130 mph)
Maximum Range	
w/ Standard Fuel	307 nm (570 km; 354 mi)
w/ Auxiliary Fuel	531 nm (985 km; 612 mi)
Rotar Diameter	21.29 m
Length	25.33 m
Height	5.54 m

### MiG-21



Type Armament

Maximum Speed Maximum Range Wingspan Length Height Single-seat multirole fighter 1 x twin-barrel 23-mm GSh-23 gun w/200 rds 4 x pylons for weapons or drop tanks M2.05 1,100 km; with external tanks: 1,800 km 7.15 m 15.76 m 4.10 m

# An-2 Transport Plane



Туре	Single-engine, general purpose biplane
Crew	1 (easily convertible to carry passengers or transport)
Payload	1,500 kg
Max Speed	253 km/h)
Range	905 km
Length	12.95 m
Height	4.20 m
Max Take-off Weight	5,500 kg

## An-24/26 Transport



Туре	Twin-turboprop short-range transport
Crew	3 (plus up to 52 passengers)
Payload	1,500 kg
Max Speed	450 km/h
Max Range (with max fuel)	2,400 km
Length	23.53 m
Height	8.32 m
Max Take-off Weight	21,000 kg

**NOTE:** Designed to operate from airfields of limited size, with paved or natural runways; can be fitted with rocket-assisted take-off units to allow operation with full load of cargo.

# APPENDIX B: International Time Zones



B-1

# Coordinated Universal Time (UTC)

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

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

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

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

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

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

Country	UTC	Eastern	Central	Mountain	Pacific
Rwanda	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Saba	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Samoa	-11.0 H	-6.0 H	-5.0 H	-4.0 H	-3.0 H
San Marino	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Sao Tome	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Saudi Arabia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Senegal	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Seychelles Islands	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
Sierra Leone	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Singapore	+8.0 H	+13.0 H	+14.0 H	+15.0 H	+16.0 H
Slovakia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Slovenia	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Solomon Islands	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Somalia	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
South Africa	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Spain	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Sri Lanka	+5.5 H	+10.5 H	+11.5 H	+12.5 H	+13.5 H
St. Lucia	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
St. Maarteen	-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

Country	UTC	Eastern	Central	Mountain	Pacific
Turkey	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
Turkmenistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Turks and Caicos	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
Tuvalu	+12.0 H	+17.0 H	+18.0 H	+19.0 H	+20.0 H
Uganda	+3.0 H	+8.0 H	+9.0 H	+10.0 H	+11.0 H
Ukraine	+2.0 H	+7.0 H	+8.0 H	+9.0 H	+10.0 H
United Arab Emirates	+4.0 H	+9.0 H	+10.0 H	+11.0 H	+12.0 H
United Kingdom	+0.0 H	+5.0 H	+6.0 H	+7.0 H	+8.0 H
Uruguay	-3.0 H	+2.0 H	+3.0 H	+4.0 H	+5.0 H
USA Eastern	-5.0 H	+0.0 H	+1.0 H	+2.0 H	+3.0 H
USA Central	-6.0 H	-1.0 H	+0.0 H	+1.0 H	+2.0 H
USA Mountain	-7.0 H	-2.0 H	-1.0 H	+0.0 H	+1.0 H
USA Western	-8.0 H	-3.0 H	-2.0 H	-1.0 H	+0.0 H
USA Alaska	-9.0 H	-4.0 H	-3.0 H	-2.0 H	-1.0 H
USA Hawaii	-10.0 H	-5.0 H	-4.0 H	-3.0 H	-2.0 H
Uzbekistan	+5.0 H	+10.0 H	+11.0 H	+12.0 H	+13.0 H
Vanuatu	+11.0 H	+16.0 H	+17.0 H	+18.0 H	+19.0 H
Vatican City	+1.0 H	+6.0 H	+7.0 H	+8.0 H	+9.0 H
Venezuela	-4.0 H	+1.0 H	+2.0 H	+3.0 H	+4.0 H
Vietnam	+7.0 H	+12.0 H	+13.0 H	+14.0 H	+15.0 H
Wallis & Futuna 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
13 January	Adoption of new constitution
January / February	Lunar New Year
8 March	International Women's Day
1 June	Mothers and Children's Day
11-13 July	National Day Naadam Festival
26 November	Mongolia Republic Day

# APPENDIX E: Language

Double vowels in a word represent an accent on that syllable.

English	Phonetic Pronunciation
Yes	tiim
No	ügüi
Thanks	bayarlaa
Excuse Me	uuchlaarai!
Good Bye	bayartai
Hello	sain bainuu (literally how are you?)
Fine, how are you?	sain ta sain bainuu
Fine	sain bainaa
What is your name?	Tany ner khen be?
My name is	Minii ner
What country are you from?	Ta yamar ulsaas irsen be?
I'm from	Bi ulsaas irsen.
How old are you?	Ta kheden nastai ve?
I am years old.	Bi nastai.
Are you married?	Ta urgalsanuu?
No, I am not.	Ügüi, bi urgalaagüi.
Yes, I'm married.	Tiimee, bi urgalsan
Do you speak English?	Ta angilar yairdaguu?
Could you speak more slowly?	Ta jaal udaan yarinuu?
I understand.	Bi oilgoj bain.
I don't understand.	Bi oilgokhgüi bain
How can I get to?	Bi yaaj yavakh ve?
How much is it to go to?	yavakhad yamar üntei ve?
Where is the?	Khaan bain ve?
What time does leave/arrive?	Kheden tsagt yavakh/irekh ve?
Train station	galt tergenii buudal
Bus station	avtobusny buudal

#### English

Bus stop Trolley-bus stop Ticket office Directions What is this? Square Street Suburb North South East West **Behind**/after In front/before To the left To the right Straight ahead Where is the nearest ? Bank Post office Department store Hotel Market When will it open? When will it close? Khezee khaakh ve? I'd like to change some money. **Health and Emergencies** Help! Stop!

#### **Phonetic Pronunciation**

avtobusny zogsool trolleibusny zogsool biletiin kass

En yamar ve? talbai gudamj düüreg khoid/umard urd/ömön züün/doron baruun/örnöd khoin/ard omon baruun tiish züün tiish chigeeree Oirkhon khaan bain ve? bank shuudangiin salbar ikh delgüür zochid buudal zakh Khezee ongoikh ve? Khezee khaakh ve? Jorlong khaan baidag ve? Bi möng solimoor bain.

Tuslaarai! Zogs!
English	Phonetic Pronunciation
Call a doctor!	Emch duudaarai!
Call an ambulance!	Türgen tuslamj duudaarai!
Call the police!	Tsagdaa duudaarai!
I am ill.	Bi övchtei bain.
Please take me to a hospital.	Namaig emnelegt khürgej ögnüü?
Could you help me please?	Ta nadad neg tus bolooch?
I'm sorry.	Uuchlaarai!
Days of the week	
Sunday	buten sain odor
Monday	neydex odor
Tuesday	xoyordox odor
Wednesday	gurawdax odor
Thursday	dorowdox odor
Friday	twadax odor
Saturday	zuryaadax odor
Numbers	
10	arav
20	xori
30	guc
40	doc
50	tawi
60	jar
70	dal
80	naya
90	yor

## APPENDIX F: International Road Signs



## 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 spraycan 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

		EAS WOR	Y XK	MODER WOR	ATE K	HARD WORK			
Heat Cat	WBGT Index ( <sup>o</sup> F)	Work / Rest	Water Intake (Qt/Hr)	Work / Rest	Water Intake (Qt/Hr)	Work / Rest	Water Intake (Qt/Hr)		
1	78 – 81.9	NL	1/2	NL	3/4	40/20 min	3/4		
2	82 - 84.9	NL	1/2	50/10 min	3/4	30/30 min	1		
3	85 - 87.9	NL	3/4	40/20 min	3/4	30/30 min	1		
4	88 - 89.9	NL	3/4	30/30 min	3/4	20/40 min	1		
5	> 90	50/10 min	1	20/40 min	1	10/50 min	1		

The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specific heat category. Individual water needs will vary +/- (plus/minus) 1/4 qt/hr. NL = no limit to work time per hour. Rest means minimal physical activity (sitting or standing) and should be done in shade if possible. **Caution:** Hourly fluid intake should not exceed 1 <sup>1</sup>/<sub>2</sub> quarts. Daily intake should not exceed 12 quarts. Note: MOPP gear adds 10<sup>o</sup> to WBGT Index.

## Food

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

## Human Waste

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

### **Cold Weather**

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

- Drink plenty of fluids, preferably water or other decaffeinated beverages;
- Closely monitor others who have had previous cold injuries;
- Use well-ventilated warming tents and hot liquids for relief from the cold. Watch for shivering and increase rations to the equivalent of four MREs per day;
- Not rest or sleep in tents or vehicles unless well ventilated; temperatures can drop drastically at night;
- Dress in layers, wear polypropylene long underwear, and use sunglasses, scarf, unscented lip balm, sunscreen, and skin moisturizers;
- Insulate themselves from the ground with tree boughs or sleeping mats and construct windscreens to avoid unnecessary heat loss; and
- Remember that loss of sensitivity in any body part requires immediate medical attention.

WIN SPE	id Ed		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	- <del>9</del> 0	-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					INCREASING DANGER GREAT DANGER Flesh may freeze within 1 minute Flesh may freeze within 30 seconds																	

## First Aid

## Basic Lifesaving

Those caring for injured persons should immediately:

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

## **Injuries and Care**

## Shock

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

#### ■ Treatment:

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

## Abdominal Wound

- Treatment:
  - □ Exposed organs should be covered with moist, clean dressing.
  - □ Wound should be secured with bandages.
  - **D** 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, Bandages Towels, Sheets = Dressings/Bandages Socks, Panty Hose, Flight cap = Dressings/Bandages Sticks or Tree Limbs = Splints Blankets = Litters, Splints Field Jackets = Litters BDU Shirts = Litters/Splints Ponchos = Litters/Bandages Rifle Sling = Bandages M-16 Heat Guards = Splints

## APPENDIX H: Individual Protective Measures

## Security Threats

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

## Foreign Intelligence and Security Services

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

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

In your personal contacts, follow these guidelines:

- Do not attempt to keep up with your hosts in social drinking.
- Do not engage in black market activity for money or goods.
- Do not sell your possessions.
- Do not bring in or purchase illegal drugs.
- Do not bring in pornography.

- Do not bring in religious literature for distribution. (You may bring one Bible, 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

## Dangerous Snakes

## Siberian Pit Viper

#### **Description:**

Adult length usually 0.6 to 0.7 meter; maximum of 0.9 meter. Moderately stout snake. Background color pale gray, olive, or dark brown; dark crossbands with light olive or pale yellow intervals between them. Belly mod-



erately dark with indistinct spots and flecks of brown or gray. Dark stripe behind the eye with white line above. Head is narrow with flattened top; distinct from neck. Has an upturned snout.

#### Habitat:

Found in a variety of habitats from desert shrub to short grass or wooded steppes, coniferous forests, and mountainous areas up to elevations of 4,000 meters (13,123 feet). Usually found in dry, rocky areas.

#### Activity and behavioral patterns:

Mainly nocturnal. During warmer months, emerges only after sunset. Reports vary as to aggressiveness.

#### Venom's Effects:

Primarily hemotoxic with some neurotoxic activity. Bite generally causes sharp pain at site, followed by edema and necrosis. May develop bloodfilled blisters at the site of bite. Heart rate and blood pressure usually increase. Recorded deaths are usually the result of respiratory failure.

## European Viper, Common Adder

#### **Description:**

Adult length usually 0.5 to 0.6 meter; maximum of 0.9 meter. Stout snake with slightly flattened body. Background color var-



ies by geographic location. Dorsal color varies from gray to copper to brown or uniformly black with dark, heavy zig-zag strip pattern on back. Belly gray, gray brown, or black; sometimes marked with white spots. Tip of tail yellow, orange, or reddish orange. Snout broadly rounded but not clearly upturned as in some other European vipers. May have Xshaped or inverted V-shaped mark on head.

#### Habitat:

Found in rocky or bushy hillsides, open fields, woods. shady areas, moors, swamps, marshes, and bogs. In northern parts of range, found mainly at sea level; may be found at elevations to 2,700 meters (8,858 feet) in lakes and rivers. Can tolerate coldest environment of any viper species.

#### Activity and behavioral patterns:

Active during the day in colder months; largely nocturnal during warmer months. Generally not vicious or aggressive. Tends to freeze when danger is present; however, easily alarmed and bites if threatened or stepped on. Usually lives in colonies near hibernation sites.

#### Venom's effects:

Hemotoxic; also some neurotoxic activity. Causes sharp pain or severe burning at site of bite, followed by swelling and inflammation of lymph system. Victim usually develops nausea, headaches, vomiting, chest pain, and labored breathing. Fatalities reported.

## Steppe Viper, Orsini's Viper

#### **Description:**

Adult length usually 0.4 to 0.5 meter; maximum of 0.65 meter. Background color gray, yellow, green, or light brown. Belly usually light or dark gray, sometimes with yellow



markings. Completely black specimens reported. Dark, wavy, zig-zag line with black edges down center of back from head to tail; may be discontinuous. Head oval, narrower than that of other vipers; distinct from neck. Snout rounded, slightly upturned. Dark line extending from each eye to corner of mouth.

#### Habitat:

Found in dry plains, flatlands with few trees or bushes; more common at higher elevations. Also found on wooded hillsides in mountainous regions. Generally seeks open areas near dry clay or loamy soil. Hides in rodent dens and small animal burrows.

#### Activity and behavioral patterns:

Primarily diurnal, but may be nocturnal during hot summers months. More active than other vipers; can move rapidly. Hibernates during winter months. Not aggressive; avoids human confrontation. Seldom bites, even when bothered, but will bite if continuously disturbed, stepped on, or handled roughly.

## Central Asian Pit Viper

#### **Description:**

Maximum length 0.8 meter; relatively stout. Background white, gray, brown red or olive; pale dorsal crossbands with dark edges which may be in two halves not meeting exactly



at the vertebral line. Belly may be heavily or lightly speckled with gray. Dark cheek stripe, outlined above with light line extends from eye across the jaw.

#### Habitat:

Grasslands and scrublands in mountainous areas.

#### Activity and behavioral patterns:

No information available.

#### Venom's effects:

Little information available. Likely hemotoxic and neurotoxic. Clinical symptoms may include pain and slight bleeding at site, swelling and rapid tender enlargement of local lymph nodes. Systemic symptoms may include double vision, neck rigidity, general achiness, difficulty breathing, and suppression of urine.

## Arthopods

## Insects

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

## Spiders

Although there are several spider species found in the region that are capable of inflicting a painful bite none are known to be life-threatening.

## Scorpions

Several species of scorpions are able to inflict a painful sting. Only one species is capable of inflicting a lifethreatening sting, the mesobuthus martensi.

## 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 (may be more than 50 millimeters long) secrete a very noxious fluid that can cause severe blistering upon contact; some can squirt this fluid at least 2 feet.

## Plants

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

#### **Comments:**

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

## Croton

#### Other names:

Ciega-vista, purging croton.

#### Mechanisms of toxicity:

Long-lasting vesicular dermatitis results from contact with the toxic resin. The cathartic and purgative properties of the toxins (croton oil, a



"phorbol," in leaves, stems, and seeds) causes severe gastroenteritis, even death; 20 drops potentially lethal (the oil applied externally will blister the skin). Many members covered with hundreds of sticky hairs that cling to the skin if contacted. Contact with the eyes can be very serious.

#### **Comments:**

Croton is a wooly-haired annual herb, or evergreen bush, or small tree with smooth ash-colored bark, yellowish-green leaves, small flowers, and fruit.

## 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 through consumption of crushed seeds accidentally included in flour; also through attempting to experience the hallucinogenic "high." Jimsonweed can kill quickly.

#### **Comments:**

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

## Mole Plant

#### Other names:

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



#### Mechanisms of toxicity:

Herbs, often with colored or milky sap, containing complex terpenes; irritate the eyes, mouth, and gastrointestinal tract, and many cause dermatitis by direct contact. In some cases rain water dripping from the plant will contain enough toxic principle to produce dermatitis and keratoconjunctivitis; can blind. Some contain urticating hairs (skin contact breaks off ends and toxic chemicals are injected). The caper spurge has killed those who mistook the fruit for capers. The Mexican fire plant was known for having medicinal properties in the first century and has killed children. Red spurge causes dermatitis. The pencil cactus has an abundant, white, acrid sap extremely irritating to the skin; has caused temporary blindness when accidentally splashed in the eyes, and has killed as a result of severe gastroenteritis after ingestion.

#### **Comments:**

Approximately 2,000 species of extremely variable form; may appear as herbs, shrubs or trees — many are cactus-like. Fruit is usually a capsule opening in three parts, each one seeded; sometimes a drupe.

#### Stinging Nettle

#### Other names:

Roman nettle, Roman nettle, dog or small nettle.

#### Mechanisms of toxicity:

Brushing against the plant shears off a protective cap from specialized siliceous stinging hairs, allowing skin puncture. After puncture, an irritant liquid is released that can contain several pro-inflammatory mediators including alkaloids, histamine, acetylcholine, and 5 hydroxytryptamine. These substances cause the immediate reaction after a nettle sting. The term "urticaria," describing the char-



acteristic skin eruption, is derived from the genus name. Thought to be a defense against browsing animals; usually does not involve a hypersensitivity reaction. Stinging can persist at the site for more than 12 hours after clinical features of urticaria have disappeared. This persistence of symptoms is due to secondary release of inflammatory mediators, or persistence of implanted hairs.

#### **Comments:**

Genus of 30 species, usually perennial, single-stalked herbs less than 0.3 meter (1 foot) in height, found mainly in northern temperate areas. The tender tips are used as a leafy vegetable in some locales; simmering in water renders the stingers ineffective.

#### Wood Nettle

Other names:

Moroides, stinger, gympie

#### Mechanisms of toxicity:

The leaf edges, stems, stalks and fruit-bearing parts have stiff, sharp, stinging hairs — frequently not conspicu-



ous. On contact the hair tips break and an extremely irritating liquid is injected into the skin. Light contact results in intense burning pain. Poses a serious threat to forestry workers and jungle troops. Death was reported regarding a man who contacted the dried bark.

#### **Comments:**

Tends to be particularly thick in areas of regrowth or replanted forests. Chopping or slashing the bushes can produce prolonged sneezing and intense throat irritation. Light contact tends to be more painful than strong contact — described as tingling interspersed with sharp, stabbing pains accompanied by red inflammation with a large flare area.

## Physic Nut

#### Other names:

Purging nut, pinon, tempate, Barbados nut.

## Mechanisms of toxicity:

Quickly fatal potential. Fruit has two or three black, oily, pleasant tasting, poi-


sonous seeds (also toxic roots and leaves) containing a plant lecithin (a toxalbumin called curcin) which, in contrast to many of the toxic lecithins, causes toxicity rapidly (has caused death — severe toxicity can follow ingestion of a single seed); also has intensely cathartic oils (some have used the oil for lamps, etc.); has caused fatal intoxication. Bark has been used as a fish poison. Also a skin irritant (hairs), as are all euphorbs.

#### **Comments:**

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

## Spurge Laurel

#### Other names:

February daphne, merezon, mezereon.

### Mechanisms of toxicity:

Bark, leaves, and fruit contain toxic agents. Entire plant is toxic. Resin is acrid; has been used in the past as pepper substitute, with fatal consequences. Vesicular dermatitis when skin contact is made (extract used by beggars to induce skin lesions to arouse pity).

## **Comments:**

A very dangerous ornamental. A

folk remedy for many symptoms ("dropsy," "neuralgia," snakebite, etc.).



## Mexican Poppy

**Other names:** Prickly pear, Argemony.

Mechanisms of toxicity:

The entire plant contains alkaloids - sanguinarine, bergerine, protopine, and various isoquinolone and dihydrosanguinarine alkaloids (can be transmitted through milk). Has caused epidemic dropsy



(vomiting, diarrhea, glaucoma, abdominal swelling) in India through the seeds contaminating home-grown grains. Prickles cause skin irritation.

### **Comments:**

Found in arid areas.

## May Apple

Other name:

American mandrake

## Mechanisms of toxicity:

A dangerous plant used in many folk-remedies. The podophyllin resin is in all parts; the rootstock, leaves, and unripe fruit contain the toxin podo-



phylloresin (purgative), the glycoside podophyllotoxin (a lignan), and the antimitotic peltatin. All parts are poisonous except the ripe fruit, which is edible. Ingestion results in vomiting and severe diarrhea; fatalities have resulted from repeated ingestion or topical application of an extract of the rootstock. Was used by Amerindians for suicide.

### **Comments:**

Found in east Asia, the Himalayas, and North America. Historically used by many cultures as a medicinal.

## Bulb Yam

#### **Other Name:**

Air potato, wild yam

#### Mechanisms of Toxicity:

Bulb yam, air potato, and wild yam have tubers that contain diosgenin, a steroidal saponin, the alkaloid dioscorine, and a norditerpene lactone (diosbulbine). They and some other yams are poisonous when eaten raw Causes gastroenteritis (nausea, bloody diarrhea). Some individuals eat them after special preparation. Has been



used to commit murder. Found mainly in the lowlands.

#### **Comments:**

A prickly climber with a cluster of tubers just below the soil surface. Considered the chief "famine-food" of the tropical East. Poisonous unless properly prepared. Other species of this genus are good to eat with no special preparation, such as goa yam and buck yam.

## Black Nightshade

### Other names:

Deadly nightshade, common nightshade, horse nettle, bittersweet, Jerusalem cherry, nipple fruit, quena, wild tomato, apple of Sodom, white-edged nightshade.



## Mechanisms of toxicity:

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

### **Comments:**

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

## English Yew

## Other names:

Ground hemlock, American yew, Japanese yew.

## Mechanisms of toxicity:

Taxine A and B, classed as steroid alkaloids, are present in all plant parts except the aril. A single chewed seed is deadly.



An hour after ingestion, nausea, dizziness, and abdominal pain begin. This is followed by reddening of the lips, dilatation of the pupils, shallow breathing, tachycardia, and coma. Then the pulse slows, blood pressure drops, and death occurs through respiratory paralysis. No proven treatment exists. Emptying the stomach hours after ingestion may be helpful as leaves may not pass through the GI tract expeditiously. Various clinical measures (circulatory stimulants, artificial respiration, cardiac pacemaker) have not prevented death in suicide cases.

### **Comments:**

An evergreen shrub or small tree bearing a characteristic fleshy, red, sweet-tasting aril with a single green to black, partly exposed, hard-shelled seed within. In North America, the Japanese yew, the toxicity of which may exceed that of the English yew, has repeatedly caused fatal animal poisonings. Was once known as the tree of death.

## Heliotrope

### Other names:

Cherry pie, scorpion's tail, Indian heliotrope.

## Mechanisms of toxicity:

Contains pyrrolizidine alkaloids. Cause of large epidemics (Afghanistan, India) of illness following ingestion of bread made with flour contaminated with members of this genus. The pathologic effects (Budd-Chiari syndrome) take weeks to months, and death comes slowly over years. Has also caused chronic copper poisoning.



## **Comments:**

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

## *Lily of the Valley* Mechanisms of toxicity:

Contains more than 20 cardiac glycosides (e.g. convallatoxin). Quickly fatal potential. Has caused death: children are attracted to its pretty flowers and bright poisons have berries: occurred from drinking water from a vase in which flowers were placed. Has been mistaken for wild garlic and made into soup. Used as an arrow poison in Africa.

### **Comments:**

Dried roots made into many medicinals, especially in Russia.

## Black Henbane

#### Other names:

Insane root, fetid nightshade.

#### Mechanisms of toxicity:

Old well-known medicinal and deadly poison (hyoscyamine, atropine) with many uses in many cultures. Tropine alka-

loids in the seeds (in a pod); has resulted in death; dermatitis (low risk).





### **Comments:**

Erect, hairy annual with coarse, hairy stems 1-5 feet tall, native to Europe. Found along roadsides in nutrient-rich sandy soils and loam. Dusky yellow flowers with violet veins. Fruits are capsules containing many black seeds (can be confused with the poppy plant seeds).

## Foxglove

### Other names:

Fairy bells, lady's thimbles, lion's mouth, digitalis

### Mechanisms of toxicity:

Entire plant contains irritant saponins and digitalis glycosides.

## **Comments:**

A tall-growing evergreen with hairy leaves and trumpet-shaped flowers. Sucking the base of the flowers for the sweet taste or drinking water from vase in which they were placed has caused many poisonings. Fatalities have also occurred from mistaking the plant for other herbs for tea.



# APPENDIX J: International Telephone Codes

I	nternational Te	lephone Codes	
Algeria	213	Malta	356
Australia	61	Mexico	52
Austria	43	Mhroco	212
Bahrain	973	Netherlands	31
Belgium	32	Nigeria	234
Brazil	55	New Zealand	64
Canada	1	Norway	47
China	86	Oman	968
Cvorus	357	Philippines	63
Dermark	45	Portugal	351
Diibouti	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	Śweden	46
Indonesia	62	Switzerland	41
Iran	98	Syria.	963
Iraq	964	Taiwan	886
Ireland	353	Tanzania	255
Israel	972	Thaila <b>nd</b>	66
lvory Coast	225	Tunisia.	216
Japan	81	Turkey	90
Jordan	962	UAE	971
Kenya.	254	Unite d Kingdom	44
<b>Ku</b> wait	965	United States	1
Libya.	218	Yemen	967
Ma.da.ga.sca.r	261	Zam bia.	260
Malaysia	60	Zm ba.bw e	263
AT&T (public phones)	0072-911	On-base	550-H <b>OVE</b> or
	or 0030-911		550-2USA

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