

## **Lithuania Country Handbook**

1. This handbook provides basic reference information on Lithuania, 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 Lithuania.
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 Lithuania.
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## Lithuania



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## KEY FACTS

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**Official Name.** Republic of Lithuania,  
*Local long form.* Lietuvos Respublikos

*Local short form.* Lietuva

*Former name.* Lithuanian Soviet Socialist Republic

**National Flag.** Three equal horizontal bands of yellow (top), green, and red. The yellow band represents the sun, light, and good. The green band symbolizes natural beauty, freedom, and hope. The red band signifies earth, courage, and the blood that has been shed for the Fatherland.

**Head of State.** President Rolandas Paksas (since 26 February 2003)

**Capital.** Vilnius

**Time Zone.** UTC (formerly GMT) +2 hours

**Population.** 3,592,500

**Languages.** Lithuanian (official), Polish, and Russian

**Currency.** Litas (LTL)

**Exchange Rate.** One LTL =US\$2.78 (Jan 2004)



**National  
Flag**

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## U.S. MISSION

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### U.S. Embassy

<b>Location:</b>	2600 Akmenu 6, Vilnius
<b>Mailing Address:</b>	United States Embassy, Vilnius, PSC 78, Box V, APO AE 09723
<b>Telephone:</b>	[370] (5) 2665500
<b>FAX:</b>	[370] (5) 2665510
<b>E-Mail:</b>	mail@usembassy.lt
<b>Internet:</b>	www.usis.lt

### Travel Advisories

Travelers are advised to obtain a current Consular Information Sheet (CIS) from the U.S. State Department or the U.S. Embassy prior to visiting the country. A CIS provides details on entry requirements, currency regulations, health conditions, areas of instability, crime and security threats, and recent political disturbances. Contact the Bureau of Consular Affairs via telephone (202) 647-5225, by fax (202) 647-3000, or on the internet at [www.travel.state.gov](http://www.travel.state.gov) to obtain an updated CIS.

### Entry Requirements

#### *Passport/Visa Requirements*

A valid passport is required to enter Lithuania. The passport must be valid for at least 6 months from the date of entry. U.S. citizens do not need Lithuanian visas for most stays of 90 days or less. Visitors are encouraged to register at the U.S. Embassy. Polish border crossings have been expanded and improved, but travelers can expect major delays. Travelers who enter Russia, even to transit, need a Russian visa. U.S. citizens may contact the Lithuanian Embassy at 2622 16th Street N.W., Washington, D.C. 20009, tel. (202) 234-5860, or visit [www.Itembassyus.org](http://www.Itembassyus.org) for current information on visa requirements.

## ***Customs Restrictions***

Lithuanian customs authorities may enforce strict regulations concerning import or export of items such as firearms and antiques. It is recommended that travelers contact the Lithuanian Embassy in Washington, D.C. for specific information regarding customs regulations and requirements. Import duties and restrictions are imposed on alcohol, tobacco, sugar, food, and metals. Exports subject to duties include lumber, leather, and metals.

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## **GEOGRAPHY AND CLIMATE**

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### **Geography**

Lithuania is the southern-most Baltic State, with Latvia to the north and the Baltic Sea on the west coast. Along the southern and eastern borders of Lithuania are (from west to east) the Russian state of Kaliningrad, Poland, and Belarus. Lithuania is slightly larger than West Virginia, and has an area of 65,200 square kilometers (40,424 square miles).



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**Coastline**

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## Boundaries

Lithuania is bordered by Belarus 502 kilometers (311.2 miles), Latvia 453 kilometers (281 miles), Poland 91 kilometers (56.4 miles), and Kaliningrad 227 kilometers (140.7 miles). The country has 99 kilometers (61.4 miles) of coastline, and Lithuania claims 12 nautical miles of territorial sea.



Baltic Region

## ***Border Disputes***

Lithuania has no border issues with Russia; the border between the countries was officially established 24 October 1997. Lithuania and Latvia are in dispute over their maritime border and oil exploration rights.

## ***Bodies of Water***

There are 2,833 lakes in Lithuania, and 1,600 ponds, most of which are in the eastern region. There are 758 rivers longer than 10 kilometers (6 miles), but Lithuania has only 600 kilometers (372 miles) of navigable waterways. Lithuania's largest river, the Nemunas, was at one time a strategic shipping route through the country.

## ***Topography***

Lithuania is on the edge of the east European plain, and is the largest of the three Baltic States. It has 96 kilometers (60 miles) of coastline, of which only 38 kilometers (24 miles) face the Baltic Sea. The Curonian Spit, a long, narrow strip of land, shields Lithuania from much of the Baltic Sea. Lithuania's major warm-water port of Klaipeda is at the mouth of Kursiu Gulf, which is a shallow lagoon extending south to Kaliningrad. The Nemunas River connects the major inland cities, and serves as an inland shipping route. Lithuanian topography is mostly flat,



**Nemunas River**

except for hills in the western uplands and eastern highlands. The highest hill is Kruopine, at 272 meters (900 feet) above sea level. Numerous small lakes, swamps, and forest areas cover much of the country. The growing season lasts 170 days in the east, and 200 days in the west, with most farmland consisting of sandy or clay loam soils.



## Topography

## ***Land Statistics***

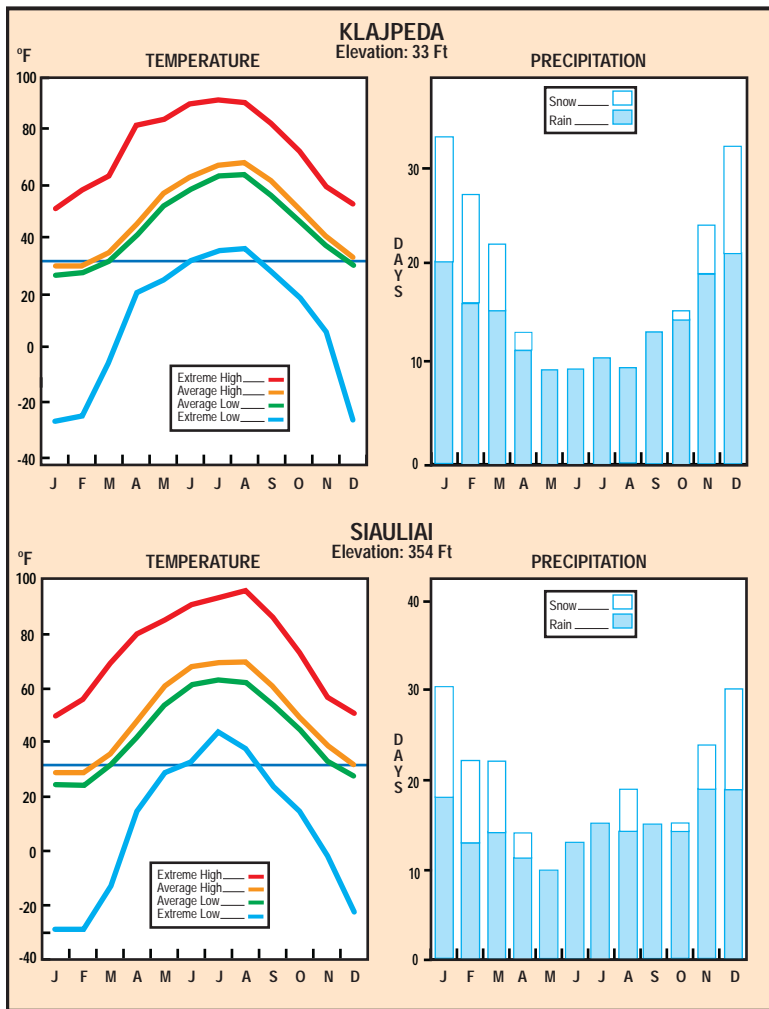
<b>Type</b>		<b>Type</b>	
Arable	45.46	Permanent crops	0.93
Forests and woodland	28.00	Other	25.61

## **Climate**

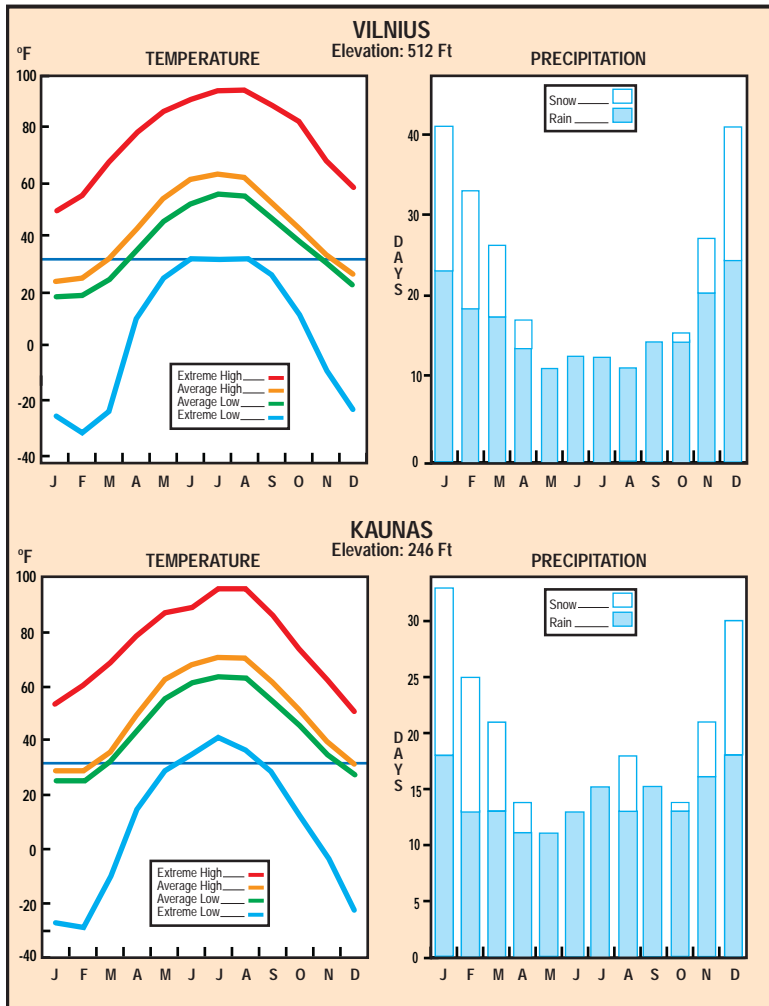
With four distinct seasons, Lithuania's climate is humid, with moderating effects from the Baltic Sea. January temperatures average -5°C (23°F), and July temperatures average 17°C (63°F). Annual precipitation averages 661 millimeters (26.4 inches). Vilnius's climate is temperate, with seasons of equal length. Summers are pleasant, but winters inland are cold, with large amounts of snowfall.

## ***Environment***

Lithuania's chief environmental problem is soil and groundwater contamination, particularly by petroleum products and chemicals at military bases. The Lithuanian nuclear power plant at Ignalina (74 miles from Vilnius) has two reactors similar to those used in Chernobyl. Experts rank this plant as one of the most dangerous in the world despite assurances from the Lithuanian government that it will not create another Chernobyl-type disaster. Since Lithuania depends on nuclear power for 80 percent of its energy, it cannot afford to shut the plant down. However, the Lithuanian government did agree to decommission the first reactor by 2005 after intense pressure from the European Union. The EU is pushing for the government to shut down the second reactor no later than 2009, though plans for this move remain uncertain. In addition, the new oil terminal in Butinge, built near Lithuania's border with Latvia, has caused environmental concern, despite assurances from the government that it is safe.







Vilnius and Kaunas Weather

## *Cross-Country Movement*

There is little or no hindrance to cross country movement in Lithuania due to the flat terrain. In the east there are some highlands, but there are no terrain features that would be a major barrier to transit.

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## **TRANSPORTATION AND COMMUNICATION**

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### **Transportation**

Due to the country's former status as a Soviet satellite state, Lithuania's transportation system is not as advanced or well-maintained as those found in the West. Many roads and bridges are in need of extensive repair, and Lithuania has become overwhelmed with maintenance needs as its transportation system continues to deteriorate. However, Lithuania is working to improve its transportation to Western standards. Like



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**Bus in Lithuania**

many European countries, they have an extensive public transportation system, though this is primarily in larger cities. There are bus and train services throughout the country, and a bus line connects Warsaw, Poland, through Vilnius and Riga, to Tallinn, Estonia. Bus service is easy to find in the capital. These buses tend to be slow and overcrowded, and they often break down. Taxi service is inexpensive and available at stands, or can be ordered by phone. Rental cars are also available.

### ***Roads***

Lithuania has 71,375 kilometers (44,253 miles) of road network, of which 35,500 kilometers (22,010 miles) are paved highways. In 1999, Lithuania announced its plan to spend 2.5 billion euros (US\$3.2 billion) by 2015 on their transportation infrastructure. This is part of Lithuania's pre-accession program to join the European Union.

Lithuania has a high percentage of traffic accidents. The number of vehicle deaths and injuries has finally begun to decline after a substantial rise from 1997 to 1998. Roads in Lithuania range from two to six-lane highways connecting major cities, to small dirt roads traversing the countryside. Driving lanes are not always clearly marked, and lighting is often poor. Drivers must be aware of potholes, slow-moving horse carts, or trucks traveling at night without tail-lights or reflectors. Winter driving can be especially hazardous because roads are not always plowed. The safety of public transportation in Lithuania is considered good, as well as the availability of roadside assistance. Urban and rural road conditions and maintenance are considered of only fair quality.

### ***Rail***

Lithuania has 1,807 kilometers (1,120 miles) of 1.524-medium gauge rail, of which 122 kilometers (75 miles) is electric. It is the standard broad gauge used across Europe. Lithuania also has 22 kilometers (13 miles) of 1.435-medium gauge rail, and 169 kilometers (104.8 miles) of 0.750-narrow gauge, but all services have been suspended on these

tracks. The railways in Lithuania were privatized in 1992. Lithuanian Railways (Lietuvos Gelezinkeliai) has not yet been able to expand significantly enough to take advantage of more extensive international and domestic transit traffic. Cargo transit has increased, and has helped to supplement some of the profits lost due to a decrease in passenger tran-



Transportation Network

sit. In 1999, Lithuania Railways transported 15 million tons of cargo, and during the first half of 2000, they transported 10 million tons. The north-south train line connects Tallinn, Estonia, through Riga and Kaunas, to Warsaw, Poland. The east-west line connects the port of Kaliningrad with Russia via Lithuania, as well as connecting to the rail networks of the former Soviet republics and Baltic States. Both of these lines are increasingly used for cargo transport.

Two passenger trains depart daily for Warsaw without crossing into Belarus, but they take 12 hours. Lithuanian Railways also provides direct routes to Russia, Belarus, Latvia, and Germany. Lithuania has received a loan from the European Bank for Reconstruction and Development, and from the Export-Import Bank of Japan, and is using these funds to modernize the Lithuanian railway system.

## ***Air***

Lithuania has 96 airports; 12 have permanent surface runways, and only 18 are usable. Only 11 have paved runways of 914 meters (2,998 feet) or more. Vilnius is the primary passenger airport. SAS, LOT, Malev, Swissair, Austrian Air, Lithuanian Airlines (state-owned), and Lufthansa provide service between Vilnius Airport and European cities. Lithuanian Airlines and Air Lithuania, (its subsidiary) provide domestic and international flights. International flights connect to 13 countries, including the UK, Denmark, Germany, France, Poland, Russia, Norway, and Sweden. Travellers coming from the United States must make connecting flights in Western Europe. Kaunas International is the primary cargo airport, accommodating two thirds of Lithuania's air cargo.

## **Primary Airports**

<b>Airport/ Coordinates</b>	<b>Elevation</b>	<b>Runway LxW</b>	<b>Surface</b>	<b>Capacity</b>
<b>Vilnius</b> 5438N/02517E	197 m (646 ft)	2,500 x 50 m (8,202 x 164 ft)	Asphalt/concrete (permanent)	C-14B, C-5, C-130, C-17

<b>Kaunas</b> 5457N/02405E	78 m (256 ft)	3,250 x 50 m (10,660 x 164 ft)	Asphalt/concrete (permanent)	All aircraft
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### ***Maritime***

The primary port of Lithuania is Klaipeda, and the secondary port is Butinge, which is the site of a controversial oil terminal. During the Soviet period, Klaipeda served as a key transit facility, when more than 90 percent of Klaipeda's transit traffic was with the USSR. After Lithuania declared its independence, traffic decreased significantly, but the port still accommodates 20 percent of the cargo from all eastern Baltic ports. The Lithuanian Shipping Company (formerly part of the Soviet merchant shipping system) was restructured and privatized in the early 1990s. Since then, the company has been adversely affected by declining trade and an obsolete fleet. The Lithuanian government is working with the Dutch consortium B.B. Bredo to privatize the company.

Klaipeda is at the northern mouth of Curonian Lagoon, and a ship canal connects it to the Baltic Sea. Klaipeda is ice-free, making it a potentially successful port and source of revenue for Lithuania. It accommodates nearly all domestic trade in Lithuania. Klaipeda also provides regular cargo-ferry lines, including rail and roll-on/roll-off ships between Klaipeda and Hamburg, Kiel, Stockholm, and Copenhagen. It is the only port in the Baltic region to receive funding from the EBRD and the European Investment Bank to finance major expansion projects due to its designation by the European Union as the EU's regional priority port.

Butinge has large revenue potential for Lithuania. The Butinge oil terminal was built in 1999, with an annual capacity of 8 million tons of crude oil and 2 million tons of light oil. Large tankers use one of two pontoon docks. One is located 7.3 kilometers from shore, and will accept tanks with a cargo capacity of 80,000 tons; the other is 3.3 kilometers off shore, and accommodates those tanks with a 35,000-ton capacity. Butinge services the substantial Mazeikiiai refinery, which is on the Latvian border. The terminal has been controversial since its

opening, when four Latvian protesters chained themselves to a buoy and had to be forcibly removed.

### **Primary Ports**

<b>Port/ Coordinates</b>	<b>Facilities</b>	<b>Weather</b>	<b>Largest Vessel</b>
<b>Klaipeda</b> 5543N/2108E	Petroleum, dry bulk, general cargo, roll-on/roll-off, bunkers, towage, airport (within 62 mi)	Ice-free year-round	10.5 m max draft
<b>Butinge</b> 5558N/2043E	Primarily for the loading and discharging crude and light oil	Ice-free year-round	13.5 m max draft

There are 600 kilometers (372 miles) of perennially navigable waters in Lithuania. Nemunas, the most significant river, starts west of Minsk, Belarus, and runs through Kaunas, Lithuania to Sovetsk (Tilsit), Russia and the Curonian Lagoon.

### ***Merchant Marine***

The Lithuanian Merchant Marine service has 52 ships of 1,000 gross registered tonnage or more. They have 23 cargo ships, 11 combination bulk ships, 2 petroleum tankers, 1 rail car carrier, 11 refrigerated cargo ships, 1 roll-on/roll-off, and 3 passenger vessels (1999 est.).

### **Communication**

#### ***Radio and Television***

The Lithuanian Radio and Television Center uses 57 television and 76 radio transmitters. Radio and television programs are broadcast by 29 radio-relay stations and a 1,231-kilometer (763-mile) radio relay line. There are two medium wave radio networks and three ultra-short FM networks. There are 29 AM, 142 FM, and one shortwave radio stations. 106.8 FM and 101.5 FM are the most popular radio stations in Lithuania. There are two public television channels, but public broadcasting services were recently cut back due to a massive budget deficit.

There are three Lithuanian (PAL system) channels, and one Russian channel. Baltijos Televizija (Baltic Television) is a popular private station, though TV-3 (part of the Swedish conglomerate of similar “TV-3s” in the Nordic Baltic area) has recently taken the top ratings. There are 1.9 million radios and 1.7 million televisions in Latvia.

### ***Telephone and Telegraph***

Telecommunication reforms have progressed slowly, though the purchase of Lietuvos Telekomas by Telia of Sweden and Sonera of Finland should bring further investment for the telecommunication sector. There are 1 million phone lines, and 500,000 cellular phones in use. The telephone system is considered inadequate, but it is being modernized to provide improved international capability and better residential access. A national fiber-optic cable interurban trunk system is nearing completion, and rural exchanges are being improved and expanded, though there are still many unsatisfied telephone subscribers. International access is provided by landline connections to Latvia and Poland. There are major international connections to Denmark, Sweden, and Norway by underwater cable for further transmission by satellite.

Telephone and telegraph services are readily available in large cities such as Vilnius and Kaunas at standard international rates. Public pay phones are easily found in Vilnius and most large cities, as are the telephone cards that are required to use them. There are no coin pay phones available. Phone cards can be purchased at post offices and most news kiosks. Mobile services are also available, and are being upgraded. They are provided by joint Lithuanian and foreign mobile communications companies: Bite GSM, Comliet, Omnitel, and TELE2. NMT-450 analogue cellular network operates in Vilnius and EUTELSAT operates through Copenhagen. The country code for Lithuania is 370.

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

Western newspapers, which may be a day old, are available at most bookstores and hotels in Vilnius, Kaunas, and Klaipeda for US\$3-6. Locally,



the most popular Lithuanian newspaper is *Lietuvos Rytas*, which has many advertisements, classifieds and entertainment listings. Other popular newspapers include *Respublika* and *Lietuvos Aidas*, which both sell more than 100,000 copies. The smaller, *Financial Times* is a biweekly business newspaper with an English-language summary. The *Lithuanian Weekly*, *Lithuanian Worker*, and *The Baltic Times* are weekly newspapers published in English that cover events in Lithuania. Popular quarterlies include *Lithuania in the World* and *Vilnius*, which can be found in most kiosks and bookstores.

### ***Postal Services***

Mail service in Lithuania, particularly in Vilnius and the large cities, is up to Western European standards. Letters and postcards take 2 to 4 days to reach Western Europe, and 7 to 10 days to North America. It is not uncommon for letters or parcels to disappear for a few weeks, but most mail reaches its destination. Stamps may be bought at local post offices, and international express mail services are available in Vilnius. Express mail service is available through private and domestic carriers.

### ***Internet Access***

E-mail and internet access is available in Vilnius, Kaunas, and Klaipeda. Klaipeda is the first city in Lithuania to offer public internet access at its post office. Standard 56Kbps dial-up service and ISDN service are available. According to a 1999 estimate, there are 10 internet service providers in Lithuania, including Aiva Sistema, Elnet, Infostruktura, Lietuvos telekomas, Omnitel, Penki Kontinentai, and Taide. Lithuania's internet country code is .lt.

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## **CULTURE**

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Lithuania's cultural development has been strongly influenced by Poland, Russia, and Western Europe. These influences affected the

development of educational and religious institutions, art, literature, architecture, and social thought.

During the final years of Soviet oppression, many of the intelligentsia and the youth of Lithuania began to collect and preserve as much folklore as possible, to include songs, tales, names, and household and folk-crafted articles, which they stored in the Institute of the Lithuanian Language and Folklore. Consequently, little of their culture was lost during the occupation, and 600,000 songs were preserved, to include the *sutartine*, a method of Lithuanian singing.

Choral singing remains popular in Lithuania, as well as symphonic, ballet, chamber, and opera music. Opera and ballet are particularly significant within Lithuania's national culture; both were supported under the Soviet system as well, though religious activities such as choral singing were not. Lithuania's support of the arts attracts world-renowned dancers, artists, and musicians.

Most Lithuanians are reserved, but they are also sincere, patient, and diligent. Masking feelings is their way of maintaining privacy. They respect skill and intelligence. Lithuanians are critical of their own personal faults, and are openly critical and distrustful of public institutions. This is mostly due to their time under Soviet rule. They value thrift, but regard extreme thrift as stinginess. Lithuanians also value education, family, music, and loyalty to nationalism.

The average Lithuanian family has one or two children. The father is usually head of the household, but both parents share in responsibilities, and many women now work outside the home. Elderly family members prefer to live alone, but many must live with their adult children. Urban dwellers usually live in apartments, and rural areas have more single-family homes. As more land is being purchased by citizens, more and more families are building private homes, with gardens that are used either to grow produce or as an area for relaxation.

With a population of 580,000, Vilnius is the largest city in Lithuania. Most Western commodities can be found there. Many parts of Vilnius are centuries old; the section known as Old Town typifies Lithuania's historic connection with Western Europe with its narrow, winding roads. There is a variety of restaurants, though Lithuanian and Polish cuisine are predominant. Cafes, pizzerias, and fast food are also available, particularly in Old Town and near the train station. Vilnius has many forms of entertainment, including shopping, clubs, opera, and ballet.

Kaunas, the former capital of Lithuania, is located at the intersection of the Neris and Nemunas Rivers, and is home to 400,000 people. The 24,000 students of the University of Kaunas help give the city a youthful atmosphere. There are 26 museums in the city, as well as many new



Lithuanians



Rural Lithuania



Old Town Vilnius



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### Downtown Kaunas

hotels, clubs, and concert halls. Kaunas annually hosts the Kaunas Jazz Festival and the Pazaislis Music Festival. This city hopes to become a larger center for business and industry.

### Population Patterns

<b>Population</b>	3,592,500
<i>Age 0-14</i>	17.6% (male 323,776; female 310,087)
<i>Age 15-64</i>	68.4% (male 1,188,171; female 1,268,035)
<i>Age 65 and older</i>	14% (male 164,513; female 332,979)
<b>Growth Rate</b>	-0.23%
<b>Birth Rate</b>	10.48 births/1,000 population
<b>Death Rate</b>	12.89 deaths/1,000 population
<b>Migration Rate</b>	0.14 migrant(s)/1,000 population

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**Life Expectancy at Birth** Total population: 69.6 years

*Male* 63.78 years

*Female* 75.7 years

Ethnic make-up within Lithuania is 80 percent Lithuanian, 9 percent Russian, 7 percent Polish, 2 percent Belarussian, and 1 percent other. Population density is 56.47 people per square kilometer (35 per square mile). Most Lithuanians (68 percent) live in urban areas.

## Education and Literacy Rates

Lithuanians begin school at age 6. In the second grade, students are assigned to one of three levels according to academic abilities. They must stay in school until the age of 16. Students then have the option of attending secondary or vocational school, or working. Education in Lithuania is tuition-free at all levels. General education schools offer an optional course in religion, and there are schools for Jews and other religious minorities. Ethnic minorities have the option of attending schools taught in their native language. To attend college, students must pass difficult entrance exams. There are 16 universities in Lithuania, including Vilnius University, the University of Vytautas Magnus, and Kaunas Technical University. Nearly 99 percent of Lithuanians can read and write by the age 15.

## Religion

Most Lithuanians are Roman Catholic. During the Soviet occupation, churches were closed and all religious affiliations were suppressed. Lithuanians were forced to practice their faith privately. In 1990, Lithuania passed the Act of Restitution of the Catholic Church, which restored religious freedom and allowed all churches to reopen. Eighty percent of Lithuania is Roman Catholic, while the remaining 20 percent is Russian Orthodox, Old Believer (the ancient pagan worship centered on nature), Lutheran, and Jewish.



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**Vilnius Cathedral**

## **Recreation**

Music, theater, dancing, sports, and art strongly influence Lithuanian culture. Every 5 years, a national, 3-day song festival is held, bringing together thousands of singers, musicians, and dancers, as well as hundreds of thousands of listeners. There are music theatres in Vilnius, Kaunas, Klaipeda, and Panevezys that host many of the theatre troupes in Lithuania, including the 11 state-sponsored groups. There are also Westernized nightclubs, coffeehouses, and internet cafes that cater to the younger generations. Many Lithuanians participate in athletics, such as basketball, soccer, bodybuilding, track and field, sport dances, and tennis. More than 52,000 Lithuanians attend one of the 800 sports clubs in

the country in order to stay active and healthy. Camping and going to the beach are popular forms of recreation for families.

## **Food and Diet**

In Lithuania, meals are eaten in an orderly, reverent, and quiet manner. Lithuanians eat three meals a day, with breakfast and lunch being the most substantial. Dinner is usually soup with bread. Pork, bread, fish, potatoes, mushrooms, and dairy products are staples in the common Lithuanian diet. Bread also serves as a key element in an old tradition in which a loaf of bread is buried in the foundation of the home, to ensure that the family who lives there will never go hungry. The most honorable place at the dinner table, directly in front of the father, is reserved for the bread, which is the first thing to be brought out.

Rural dwellers raise pigs for Christmas and Easter celebrations. Pork is often served in the form of sausages called fitches and skilandis. Introduced to the region in the 18th century, potatoes are also common to the Lithuanian diet. Mushrooms are used abundantly, as there are more than 400 edible varieties growing in Lithuania. Local fruit (apples, pears, plums, and strawberries), and vegetables (carrots, cabbage, peas, and beets) are also popular. Dairy products, such as cottage cheese and sour cream, are commonly found in traditional Lithuanian recipes, and both sweet and sour milk, *pienas*, is consumed with meals. Lithuanians rarely eat sweets and pastries, which are usually reserved for holidays and special occasions.

## **Customs**

### ***Greetings***

Shaking hands is the customary form of greeting in Lithuania. Good friends may kiss one another on the cheek, and men may kiss the extended hand of a woman in greeting. When introducing a man, use *ponas* (Mr.) before the last name; for a woman, use *ponia* (Mrs.) or *panele* (Miss). Professional titles are used before the last name. Doctors and teachers are respectfully



addressed by title alone. Adults do not address each other by their first names until invited to do so. The most common terms for greeting are *Laba diena* (Good day), *Labas rytas* (Good morning), *Labas vakaras* (Good evening), *Su Diev* (Go with God), and *Viso gero* (Goodbye).

### **Gestures**

It is impolite to talk with one's hands in one's pockets. One should always maintain eye contact during a conversation. Verbal communication is preferred over hand gestures. Using the hands during or instead of conversation is not uncommon, only less formal. One should not shake hands through a doorway; visitors should wait for the host to come outside, or wait to be invited inside.



**Cuisine**

## ***Dress***

Lithuanians wear styles from Europe and the United States. They also often wear handmade garments, especially in rural areas, due to the expense and limited availability of ready-made wear. This is expected to decline, based on Lithuania's continued integration with the world market. Fedoras (fur hats worn by men) and European-style hats are common in winter. Wool and fur are commonly used for clothing in the winter. Lithuanian women use cosmetics, but older women only use them sparingly.

## ***Visiting***

Visiting in homes is common in Lithuania because outside social activities are expensive. Spontaneous visits are rare, however. It is polite to call, but unannounced guests are still welcome. Punctuality is expected. Fresh flowers are a common gift to the host, but they should always be offered in odd numbers, because even numbers are reserved for funerals. Visitors should also remember that white flowers are usually reserved for brides, and that carnations are for mourning. Dinner guests also often give wine as a gift. Hosts always offer some sort of refreshment, and Lithuanians consider an abundance of food to indicate the prosperity of their home. Vodka or other alcohol is usually part of a social evening as well, though this is usually reserved for men.

## ***Cultural Considerations***

Adults should not chew gum in public. Guests should always unwrap flowers before giving them to the hostess. At formal gatherings, guests must stand until the hostess is seated, but on informal occasions, guests may make themselves at home.

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## MEDICAL ASSESSMENT

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### Disease Risks to Deployed Personnel

Lithuania is assessed as Intermediate Risk for infectious diseases, with an overall disease risk that will adversely impact mission effectiveness unless force health protection measures are implemented.

The following is a brief summary of the infectious disease risks in Lithuania. Risk varies greatly depending on location, individual exposures, and other factors.

#### *Food- or Waterborne Diseases*

Sanitation varies with location, but typically is well below U.S. standards. Local food and water sources (including ice) may be contaminated with pathogenic bacteria, parasites, and viruses to which most U.S. service members have little or no natural immunity. Diarrheal diseases can be expected to temporarily incapacitate a high percentage of personnel (potentially 11-50 percent per month) within days if local food, water, or ice is consumed. Hepatitis A can cause prolonged illness in a smaller percentage. In addition, viral gastroenteritis (for example, Norovirus) and food poisoning (for example, *Bacillus cereus*, *Clostridium perfringens*, *Staphylococcus* spp.) may cause significant outbreaks.

#### *Vectorborne Diseases*

During warmer months (typically April through October), ecological conditions in rural areas support large populations of arthropod vectors, including mosquitoes and ticks. Tick-borne encephalitis (TBE) is the major vectorborne risk in Lithuania; however, other diseases such as the California Group viruses (Inkoo and Tahyna) and Lyme disease occur at lower levels. Individually, most of these diseases are likely to affect only a very low percentage of personnel. However, the combined risk is

higher, and some have the potential to cause prolonged illness, and death in some cases.

### ***Soil-contact Diseases***

Rare symptomatic cases of hantavirus could occur year-round in personnel exposed to dust or aerosols in rodent-infested areas. Risk is highest in rural and semi-rural areas. Although sporadic, the disease typically requires prolonged hospitalization, including intensive care; fatalities may occur. Illness associated with the predominant Puumala virus is generally less severe; however, the more severe Dobrava virus also may occur.

### ***Sexually Transmitted and/or Bloodborne Diseases***

Sexually transmitted diseases, including gonorrhea and chlamydia, may affect a high percentage of sexually active personnel. Additionally, rare cases of hepatitis B (if unvaccinated) or HIV could occur among personnel having unprotected sexual contact, particularly with prostitutes or intravenous drug users. Though the immediate impact of HIV/AIDS and hepatitis B is limited, the long-term health impact on individuals is substantial. A variety of other sexually transmitted diseases, including chancroid, herpes, syphilis, and venereal warts, are common in prostitutes and may cause symptomatic infections

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

Lakes, rivers, streams, or other surface water may be contaminated with organisms that cause leptospirosis, with concentrations varying from location to location. Operations or activities involving extensive fresh-water contact may result in personnel being temporarily debilitated with leptospirosis. In addition, wading or swimming may result in diarrhea and exposures to enteric diseases such as diarrhea and hepatitis through incidental ingestion of water. Prolonged water contact may also lead to the development of a variety of potentially debilitating skin conditions such as bacterial or fungal dermatitis.

## ***Respiratory Diseases***

Deployed U.S. armed forces in Lithuania may be exposed to a wide variety of common respiratory infections, including influenza, pertussis, viral upper respiratory infections, viral and bacterial pneumonia, and tuberculosis (TB). U.S. military forces in close-quarter conditions are at risk for substantial person-to-person spread of respiratory pathogens. Influenza is of concern because of its ability to debilitate large numbers of unvaccinated personnel for several days. The World Health Organization estimated the annual TB incidence in 2002 was 50 to 99 active cases per 100,000 (compared to the U.S. rate of approximately 6 per 100,000). Prolonged contact with the local population may result in conversion rates to tuberculosis skin testing (PPD screening) that may be elevated over U.S. military baseline.

## ***Animal-contact Diseases***

Although anthrax occurs sporadically throughout the Lithuania, it is assessed as a negligible risk to U.S. personnel. Rare cases among personnel exposed to aerosols from animals or their environments, such as barns, could develop symptomatic Q fever. Infection can also be acquired through consumption of unpasteurized, contaminated milk products. Rabies also occurs countrywide.

## ***Medical Capabilities***

Health care in Lithuania falls below Western standards but is improving because of outside assistance. In larger cities, health care is a mix of public and private providers. In rural areas, inhabitants have difficulty reaching the nearest outpatient or medical clinic.

Lithuanian disaster response capabilities are adequate. In larger cities, emergency medical services are available. Ambulances have a reasonable response time and can be reached by calling 03 (cell phone 112).

Physicians are adequately trained and, in most cases, perform to European standards of practice. Several American-trained physicians are

found in the major cities, and joint American-Lithuanian clinics are available. Nurses are not as well trained as their U.S. counterparts.

All major cities have a number of public hospitals with an emergency room and sufficient staff and equipment to provide emergency stabilization for trauma cases. Lithuania's major medical facilities are primarily distributed among three major cities: Vilnius, Kaunas, and Klaipeda.

English-speaking personnel are available in many health care facilities. Labels and package inserts are written in Lithuanian and occasionally Russian which may cause some difficulties.

Some over-the-counter medicines are available in pharmacies (farmacijos) in larger cities. Prescription medications are harder to obtain, especially those requiring disposable needles or syringes, and medication strength may differ from the original prescription. In rural areas, shortages of basic medical supplies exist. HIV testing was mandatory for blood donors until 1993. Now, blood donors are tested only upon their consent. Whether Lithuania uses untested blood is not known.

### ***Key Medical Facilities***

#### **Baltic-American Medical and Surgical Clinic**

<i>Coordinates</i>	54-43-13N 025-18-58E
<i>Location</i>	124 Antakalnio Street, Vilnius - located within the Vilnius University Antakalnio Hospital
<i>Telephone</i>	(370 5) 234 2020, (370 5) 276 7100
<i>Type</i>	Private
<i>Beds</i>	Yes; number unknown
<i>Capabilities</i>	Medical-internal, emergency, urgent care, dermatology, neurology, psychiatry, physiotherapy; surgical elective, emergency, abdominal, orthopedic, plastic, reconstructive, urology, ophthalmology, oral; ancillary-electrocardiogram, x-ray, ultrasound, laboratory.

*Comments* Highly recommended. Modern, professional health care and diagnostic services. Used for referrals by the Embassy Health Unit. Western-quality, 24-hour medical and surgical facility.

### **Vilnius University Emergency Hospital**

*Coordinates* 54-40-05N 025-12-28E  
*Location* Siltnamiu 29, Vilnius  
*Telephone* (370 5) 216 9212, (370 5) 216 9140,  
(370 2) 26 9069, (370 2) 26 9140  
*Type* Public  
*Beds* Yes; number unknown  
*Capabilities* Medical urgent care, emergency, surgical diseases; surgical—general, neurovascular, orthopedics and traumatology, urology; ancillary—intensive care, anesthesiology, electrocardiogram, x-ray, laboratory, ambulance services.  
*Comments* One of several major medical teaching facilities in Vilnius. Medical and surgical capabilities shared with Vilnius University Hospital Santariskiu Klinika, located at Santariskiu 2 (telephone (370 5) 272 00 66, (370 5) 272 03 30).

### **Medical and Dental Diagnostic Center**

*Coordinates* 54-42-21N 025-18-59E  
*Location* V. Grybo 32/10, Vilnius  
*Telephone* (370 2) 70 9120, (370 2) 70 9121  
*Type* Private  
*Beds* None  
*Capabilities* Medical—general, internal (ENT); surgical—outpatient services only), ophthalmology; ancillary—computed tomography, angiogram, x-ray, endoscopy, ultrasound, laboratory.

*Comments*

Western-quality standards. English-speaking therapists. Used for referrals by the Embassy Health Unit. Contains some of the country's best diagnostic facilities. Working hours are limited; does not offer full-service care.

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## HISTORY

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Lithuania was founded in the early 13th century, and the country's territory once reached as far as what is now Kiev, Ukraine. However, a series of invasions and occupations reduced Lithuania's holdings until the 18th century, when it was taken over by Russia. In 1920, Lithuania won its independence, and the country shifted from being enserfed by the Russians to being able to establish an education system, develop their own press, and pursue the arts.

In 1939, a Soviet-German agreement put Lithuania under Soviet control again. Totalitarian rule was established. Soviet-style economy and culture were enforced, and Lithuanian state employees and public figures were arrested and exiled to Russia. Tens of thousands of Lithuanians were deported to Siberia. Lithuanian revolt against the U.S.S.R. soon followed the outbreak of the war against Germany in 1941, and Lithuania became part of the German occupational administrative unit of Ostland, when thousands more were deported to labor camps. Russia reestablished control of Lithuania in 1944, and Communist party leaders arrived to create a local party administration.

Until mid-1988, the Lithuanian Communist Party (LCP), which was responsible to the Communist party of the U.S.S.R, controlled all political, economic and cultural life. The political and economic crisis that began in the U.S.S.R. in the mid-1980s also affected Lithuania, and Lithuania offered active support to Gorbachev's program of social and political reform. The Lithuanian reform movement *Sajudis* was formed in 1988 by intellectuals, and declared a program of democratic and



national rights. On *Sajudis*' demand, constitutional amendments were passed, declaring Lithuanian laws to supersede Soviet legislation. The 1940 decision proclaiming Lithuania a Soviet state was annulled, and a multi-party system was legalized.

In 1990, *Sajudis*-backed candidates won the elections to the Lithuanian Supreme Soviet. On 11 March 1990, *Sajudis* chairman Vytautas Landsbergis proclaimed restoration of Lithuanian independence, formed a new cabinet of ministers, and adopted the Provisional Fundamental Law of the state. The U.S.S.R. demanded that Lithuania revoke the act, and began using political and economic sanctions against Lithuania, as well as demonstrating military force. Lithuania's leadership continued to seek Western diplomatic recognition of its independence. Soviet military and security forces continued forced conscription, occasional seizure of buildings, attacking customs posts, and sometimes killing customs and police officials. Lithuanian independence was recognized, and on 8 September 1992, Lithuania and Russia signed an agreement calling for Russian troop withdrawal by 31 August 1993.

Since independence, Lithuania has worked to modernize its economic, political, and transport infrastructures, and to further privatize industry in pursuit of EU and NATO membership. To gain international acceptance, Lithuania joined the UN and the Organization for Security and Cooperation in Europe (OSCE) in 1991. In 1993, it became a full member of the Council of Europe, and in 1994, Lithuania joined the NATO-sponsored Partnership for Peace. Since the last election, the political atmosphere has been calm, and despite tension with Russia over their EU and NATO bids, foreign relations remain good within the region and with the international community.

## Chronology

- 2500-1500 BC Finno-Ugric and proto-Baltic tribes settle on Baltic shores.
- 1386 Lithuania converts to Christianity.
- 1569 Lithuania unites with Poland in the Union of Lublin; Polish-Lithuanian Commonwealth formed.

1795	Poland partitioned; Lithuania annexed by Russian Empire.
Feb. 1918	Independence formally declared by the Council of Lithuania.
July 1920	Lithuania's independence recognized by Soviet Russia in Treaty of Moscow.
August 1922	Lithuania's first constitution adopted.
August 1939	Nazi-Soviet Pact (Treaty of Non-Aggression) assigns Lithuania to Germany.
Sept. 1939	The Treaty on Friendship and Existing Borders transfers Lithuania from Germany to U.S.S.R.
1944	U.S.S.R. retakes Lithuania, deportations resume.
May 1989	The Lithuanian Supreme Soviet approves the declaration of Lithuanian sovereignty.
Dec. 1989	Lithuanian declaration of independence. Lithuania announces support for multi-party democracy and independent statehood.
March 1990	The Supreme Council (formerly Supreme Soviet) declares Lithuanian independence.
Sept. 1991	After several attempts to overthrow the new government, the USSR formally acknowledges Lithuania's independence.
Sept. 1991	Lithuanian becomes a member of the OSCE; one week later, Lithuania is admitted to the United Nations.
Jan. 1992	Lithuania and Poland sign a Declaration on Friendly Relations and Neighborly Cooperation, which guarantees the rights of the respective ethnic minorities in each country and also recognizes the border between the two countries.
May 1993	Lithuania becomes a full member of the Council of Europe.
Aug. 1993	Remaining Soviet troops withdraw.
Jan. 1994	Lithuania joins Partnership for Peace, and announces intention to become a full member of NATO.

2001 Lithuanian political and economic atmosphere calm and productive, allowing for advances in further economic reform, as well as working towards NATO and EU membership.

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## GOVERNMENT AND POLITICS

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### Government

Lithuania is a free and independent democratic secular republic. It is a parliamentary democracy with a unicameral legislature. The government is run by the Seimas (parliament) and the president, and government assistance. Significant issues concerning the national government and the people are determined by referendum.



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Presidential Palace

## ***National Level***

### **Executive**

The president is the head of state, and is elected by universal suffrage in a secret ballot for a 5-year term. The president adopts and implements foreign policy with the aid of the government, appoints Lithuania's diplomatic representatives, and appoints the prime minister and other key ministry or military positions. The Seimas, however, must approve these positions. The cabinet and prime minister also form the executive branch. The last prime minister assumed office in 2001, and new elections will be held in 2004. The cabinet is usually made up of the prime minister's coalition allies, and is appointed by the president. The cabinet governs the country through junior department ministers and professional civil servants. Ministers are not required to resign from their parliamentary mandates to serve in the cabinet.

### **Legislative**

The Seimas holds all legislative power in Lithuania. It consists of 141 members who are elected for 4-year terms on the basis of universal suffrage by a secret ballot. Constituencies fill 71 of the seats, and the remainder is filled in proportion to the national votes cast.

The Seimas convenes annually for two, 4-month sessions. The roles of the Seimas include considering and voting on amendments to the constitution, enacting laws, adopting resolutions for the organization of referendums, announcing presidential elections, approving or rejecting the prime minister candidate, and supervising the activities of the government. The Seimas has the power to register no confidence in the government. The responsibilities of the Seimas include approving the state budget, establishing taxes, ratifying treaties, and debating foreign policy issues. The Seimas also has the power to declare and impose martial law to mobilize Lithuania's armed forces.



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**President Paksas**

## **Judiciary**

The Lithuanian Judiciary is based on the civil law system. It consists of the Constitutional Court, the Supreme Court, and the Court of Appeals, as well as district and local courts. Judges are recommended by the president and appointed by the Seimas. The Seimas also appoints the members of the powerful Constitutional Court, who can veto legislation based on its accordance with the Lithuanian Constitution. The president has the power to appoint all other judges,

although those appointed to the Court of Appeals are subject to approval by the Seimas.

### ***Key Government Officials***

<b>President</b>	Rolandas Paksas
<b>Prime Minister</b>	Algirdas Brazauskas
<b>Minister of Defense</b>	Linas Linkeveius
<b>Minister of the Economy</b>	Petras Esna
<b>Minister of Foreign Affairs</b>	Antanas Valionis
<b>Minister of the Interior</b>	Virgilijus Vladislovas Bulovas
<b>Minister of Justice</b>	Vytautas Markecieius
<b>Parliament Chairman</b>	Artūras Paulauskas

### **Local Government**

After declaring independence in 1990, Lithuania was divided into 585 administrative districts. These include 11 cities, 44 regions, 81 towns, 22 settlements, and 427 areas. The local governments of these districts operate on two levels. The smallest rural administrative units are called Apylinkės. The lowest level includes rural districts and district towns, and the upper level has jurisdiction over districts and cities. Local governments in Lithuania are made up of a municipal council, which is elected by its respective local population.

### **Politics**

#### ***Suffrage***

All citizens at least 18 years old can vote.

#### ***Political Parties***

**Homeland Union/Lithuanian Conservatives.** This party was founded in May 1993 by the right wing of the Lithuanian Movement for Restructuring (*Sajudis*). It is a conservative party that is slightly authoritarian. They support property restitution for pre-war owners. In economic affairs, the party could be defined as liberal and opportunistic. Prior to



### Administrative Divisions

the 1996 elections, the party held a populist campaign, promising tax cuts, pay rises in the public sector, and higher pensions for the elderly. The Homeland Union advocates subsidies to promote agricultural exports. The fight against crime and corruption is another focal point of

the party. In foreign relations the party favors Lithuania's quick integration into the European Union and NATO.

**Christian Democratic Party of Lithuania.** This is a right-center party that is very close to the Homeland Union, but has difficulties sustaining any type of coalition due to the Christian Democrats' more socialist stance on economic policy. They also promote protection of small- and medium-sized businesses, as well as tougher action on crime.

**Lithuanian Center Union.** This party stands in the political center. They advocate state budget reform, earmarking all expenditures, as well as non-agricultural production in rural areas.

**Lithuanian Social Democratic Party.** This party is left of center, but has had internal problems, partly due to the democratic internal structure. Since decentralizing and opting for a more independent party form, there has been more stability. The LSDP advocates moderate economic policies in which the state plays an active role in setting up a social market economy.

**Lithuanian Democratic Labor Party.** This party was formed in 1990 from the former Lithuanian Communist Party. They claim to be a social democratic party. The party itself is diverse, and much of its popularity is due to the security it provided after the fall of the Soviet Union. They emphasize economic growth policies with more privatization, an open economy, stimulating exports, and subsidizing the agricultural industry with cooperative ownership for some medium- and small-sized enterprises. Internationally, they favor an intermediary role for Lithuania between east and west.

**Democratic Party.** This is a small party that lacks clear ideological direction, but they do advocate a conservative economic policy and the creation of a large middle class in Lithuanian society.

**Lithuanian Women's Party.** This party imitates their Russian counterpart in their policies, the principal objective being to unite women's votes in Lithuania.



## *Foreign Relations*

When Lithuania regained independence, the first foreign policy objective was to restore its status as an independent state in the international arena. With this accomplished, and a strengthening economy, they have adopted five primary foreign policy goals: quick accession to the European Union; NATO membership, good relations with neighbors, intensified economic development, and participation in international community efforts to ensure democracy, human rights, and stability.

**United States.** The United States established diplomatic relations with Lithuania on 28 July 1922. U.S. representation accredited to Lithuania served from the legation in Riga, Latvia until 31 May 1930, when a legation in Kaunas was established. The Soviet invasion forced the Legation in Kaunas to close on September 5, 1940, but Lithuanian representation in the United States has continued uninterrupted for more than 70 years. The United States never recognized the forced Lithuanian incorporation into the U.S.S.R., and views the present Lithuanian government as having been a legal republic the entire time. Lithuania has been given most-favored-nation treatment from the United States since December 1991. Through 1996, the United States has committed more than US\$100 million to Lithuania's economic and political transformation, and for addressing humanitarian needs. In 1994, the United States and Lithuania signed an agreement of bilateral trade and intellectual property protection, and in 1997 the two nations signed a bilateral investment treaty.

**European Union.** Lithuania's relations with the European Union are solid, and continue to develop steadily. Lithuania is on course to join the EU in 2004. Lithuania's agreement to decommission the first reactor at Ignalina Nuclear Power Plant was seen as a milestone in furthering relations between the EU and Lithuania. The Ignalina decommission was an unpopular move among Lithuanians, but EU membership remains one of Lithuania's primary foreign policy objectives.



## Defense Industry Facilities

**Latvia and Estonia.** Lithuania's relations with their Baltic neighbors are good, but differences in international policy sometimes cause tension. The Baltic Battalion (BALTBAT) is the joint peacekeeping force formed by the three nations as part of the military cooperation within the region. Along with BALTBAT, there is the joint airspace surveillance system BALTNET, the joint naval fleet BALTRON, and the Baltic

Defense College at Tartu, Estonia. There are also preliminary plans for joint military equipment acquisition. The three states are joined economically as well as through the Baltic Free Trade Agreement, though trade remains modest. Relations with Estonia are often tenuous, as many Lithuanians view Estonians as their second biggest threat after Russia, and Estonia's push for its own EU membership ahead of the other two Baltic states has further strained relations. Relations with Latvia are much stronger, especially economic ties. Much of Lithuania's exports go through Latvian ports, and Lithuania supplies its surplus electricity to Latvia. Tensions have arisen over oil found in the currently disputed maritime border between the two countries, and Latvia's reluctance to conclude an agreement without supplemental agreements on resources has already resulted in cooled relations.

**Poland.** Lithuania continues to maintain close ties with Poland. Poland is one of Lithuania's top advocates in the international community, which has become especially significant to Lithuania since Poland's NATO accession. Relations are sometimes strained over each country's treatment of the other's minority within their borders. Poland and Lithuania accuse the other of forcing assimilation and not allowing cultural autonomy. However, the two states increased their military ties with the creation of the Lithuanian-Polish Peace Operations Battalion (LITPOLBAT). Economic relations between the two countries are poor due to bureaucracy on both sides that causes difficult border crossings.

**Belarus.** The instability and close proximity of Belarus to Vilnius have become a growing concern for Lithuania. The border between the two countries is difficult to guard, and has become problematic for both countries, in some cases leading to accidental skirmishes along the border. Relations were further strained when Belarus named Vladimir Uskhopchik as its Deputy Defense Minister, since he is a wanted criminal in Lithuania after violent actions against civilians in Vilnius in 1991. There has been no withdrawal of diplomatic ties, but tension remains between the two countries.

**Russia.** Lithuania maintains good relations with the Russian state of Kaliningrad. They are advocates for Kaliningrad with the EU and the Council of Baltic Sea States, and they have granted more than US\$1 million in humanitarian aid to the province, in addition to maintaining economic ties. However, Lithuania's relations with Russia itself only continue to deteriorate. Lithuania's desire to join NATO has led to a rise in tensions.

Lithuania bars former Communist Party leaders from holding government positions, and has signed a bill calling for damage restitution from the Soviet occupation. The bill has angered Russia and led to further deteriorated relations. Although much of Lithuania's trade is with Russia, trade is not as politically based as relations with Estonia and Latvia. Lithuania has also made it clear that Western companies are preferred in the oil privatization deals, which has led to one of Russia's companies (LUKOil) denying pipeline usage for other exporters of crude oil to Lithuania. The two countries also consistently disagree on the extradition of Soviet officials involved in the violent actions of 1991 in Lithuania.

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## ECONOMY

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### Statistics

<b>Gross Domestic Product</b>	US\$29.2 billion (2002 estimates)
<b>Inflation Rate</b>	0.8%
<b>Unemployment Rate</b>	12.5%
<b>Per Capita Income</b>	8,400
<b>Balance of Trade</b>	Imports: US\$6.8 billion Exports: US\$5.4 billion
<b>Total State Debt</b>	US\$5.8 billion
<b>Major Imports</b>	Minerals (21%), machinery (17%), textiles (9%), metals (5%)

<b>Import partners</b>	Russia (25.3%), Germany (17.2%), Poland (4.9%), Italy (4.2%), France (3.8%)
<b>Major Exports</b>	Minerals (23%), textiles (16%), machinery (11%), wood (5%), food (5%)
<b>Export partners</b>	United Kingdom (13.8%), Latvia (12.6%), Germany (12.6%), Russia (11%), Poland (6.3%)
<b>Foreign Direct Investment</b>	US\$2.3 billion

### ***Industry, Manufacturing and Agriculture***

**Industry.** Industry accounts for the largest part (30 percent) of the Lithuanian economy. Since independence, most industry has been privatized; industrial enterprises have been taken over by small businesses. Industries include manufacturing metal-cutting machine tools, electric motors, television sets, refrigerators and freezers, agricultural machinery, optical equipment, furniture, electronic components, and computers, as well as petroleum refining, small ship building, and processing textiles, fertilizers, amber, and food (beef, dairy and fish).

**Agriculture.** After declaring independence, Lithuania sought to privatize agriculture and return the land to its citizens. It made agrarian reform a priority for the government. The rural population of Lithuania is 1 million, and accounts for 33 percent of the Lithuanian population. More than 20 percent of Lithuanian employees worked in the agriculture sector in 1999, though this has dropped to 10 percent. In October 2000, there were 67,800 private farms in Lithuania. The agricultural sector in Lithuania is heavily subsidized. In 2000, agriculture, hunting, and forestry sectors contributed to 7.5 percent of the GDP. Agricultural products include grain, flax, potatoes, sugar beets, and other vegetables.

### ***Natural Resources***

Lithuania's natural resources include iron ore, granite, limestone, clay, quartz sand, dolomite, gypsum, and chalk. It is also heavily forested, and timber is Lithuania's principal raw material product. There are

4,000 cubic meters of peat reserves as well, but it has no hard coal, and very little lignite, oil, or gas.

### *Utilities*

**Water:** Due to the low water quality in Lithuania, most areas of the country have access to chlorinated tap water. Some rural areas must use the ground water available from wells or lakes as their principal source of water. It is advisable to drink only bottled water in Lithuania, particularly in urban areas.

**Electricity:** In 2001, 1.389 billion kWh of Lithuania's electricity were imported, while 6.3 billion kWh were exported. The Ignalina plant produces more than 75 percent of all generated electricity in Lithuania; other electricity sources are fossil fuel, and hydroelectric power. Lithuania is dependent on Russia for much of its gas supply, which has led to disputes on prices between the two countries, in addition to heating problems in winter. In response to this, Lithuania has expressed interest in importing natural gas from Norway.

### **Outlook**

Lithuania is still transitioning to a market economy. The State Privatization Fund has signed privatization agreements concerning the Lithuanian Shipping Company and Taupomasis Bankas (Savings Bank); the government appears committed to privatization. An IMF stand-by agreement in May 2001 committed the government to continuing structural reforms, utilities privatization, and fiscal discipline. Lithuania, committed to its goal of EU accession, will continue reforms and modernization of economic infrastructure. Privatization will continue. These reforms have already successfully accelerated the growth of Lithuania's economy from -3 percent in 1999 to 2.5 percent in 2001.

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## THREAT

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### Crime

The crime rate is relatively low compared to other major European capitals. But street crime does occur and it has been increasing, particularly at night near major hotels and restaurants frequented by foreigners. Travelers should exercise the same precautions with regard to their personal safety and belongings that they would practice in any major city in the United States. Mugging and purse snatching usually take place at night when the victims are walking alone along dimly lit streets. Auto theft is common. Robberies have occurred on trains, in train stations, and in hotel rooms. Police forces suffer from lack of manpower, resources, and equipment. Local police are not likely to speak English, so it may be difficult to obtain police assistance.

Lithuania is also experiencing significant problems with growing criminal organizations. Without increased manpower funding to the police forces, organized crime could eventually pose a major threat to Lithuania's internal security. Crime wars have already taken place in larger cities, namely Vilnius. Many of these organizations operate in the black market, as well as in human trafficking.

### Drug Trafficking

Lithuania is a transshipment point for opiates and other illicit drugs from Western Europe, Latin America, and Southwest Asia to Western Europe and Scandinavia.

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## ARMED FORCES

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### Defense Organization

Lithuania's defense is based on the Swedish-Finnish concept of a total, rapid response force composed of a mobilization force (reserves) and a small group of career active-duty professionals. The defense ministry is responsible for combat forces, border control, the National Defense Volunteer Force (*Savanororiska Krasto Apsaugos Tarnyba-SKAT*), or home guard, consists of 50-60 units, varying in size from company to platoon strength.



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Ministry of Defense Insignia

Perhaps the most prestigious arm of the military, SKAT originated during Lithuania's struggle to regain independence in the early 1990s, and consists entirely of volunteers. There is a mandatory, 1-year active-duty draft, and there is alternative service for conscientious objectors. In 2000, Lithuania announced plans to increase its armed forces from 10,000 to 13,000, and to create an air defense battalion.

### Defense Treaties

Lithuania's military trains and serves with the following organizations.

- Baltic Security Charter (BSC)
- BALTBAT (Baltic Battalion)
- BALTRON (a naval patrol and mine-clearing force)
- BALTDEFCOL (Baltic Defense College)



- Organization for Security and Cooperation in Europe (OSCE)
- Partnership for Peace (PfP)

## Strategy

Lithuania's military strategy is defensive in nature. Lithuanian forces are trained for a retaliatory response to aggressors, but the force is not large enough to repel a large-scale attack, and must depend on international support to keep aggressors out of Lithuanian territory. Lithuania feels that the only way to secure the defense of their country is to join NATO's collective defense system. The Lithuanian military is developing a better mobilization strategy for personnel and material resources, in addition to reforming their military to meet NATO standards.

## Personnel

### *Key Military Personnel*

**Minister of Defense**

Linus Linkeviecius



Lithuania/NATO Joint Exercise

**Chief of Defense**  
**Chief of the General Staff**  
**Commander, Ground Forces**  
**Commander, Air Force**  
**Commander, Navy**

Major General Jonas Kronkaitis  
Colonel Vitalijus Vaiksnoras  
Brigadier General Valdas Tutkus  
Colonel Edvardas Mazeikis  
Captain Kestustis Macijaus

## Army

### *Organization*

The main operational unit of the Lithuanian Army is the Iron Wolf Brigade. It is made up of two motorized assault battalions, four motorized infantry battalions, and a staff battalion. Contract officers, warrant officers, and senior non-commissioned officers man this brigade. Two more of the battalions are classified as assault units and maintain most of the 27 armored personnel carriers. They also have access to 36 120-mm mortars.

The primary mission of the Guard Battalion is to protect government buildings and media offices, and provide the honor guards for foreign dignitaries. The Jaeger (reconnaissance) battalion maintains most of the 11 armored personnel carriers (BRDM-2s). They act as a rapid response unit with personnel trained to conduct special operations. They also have immediate access to the commander-in-chief of the armed forces. The engineering battalion does not have heavy equipment, but can still fulfill its duties in bridging and demolition. In peacetime its personnel



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**Iron Wolf Brigade Insignia**

are assigned to search and rescue and EOD tasks. During times of natural emergency or other crises, they aid civilian authorities.

An artillery battalion should be operational by the end of 2004. The battalion will be formed under the Reaction Brigade. The Brigade is the Lithuanian force provider to the Lithuanian-Polish Peace Operations Battalion LITPOLBAT and the Estonian-Latvian-Lithuanian peace-keeping Battalion BALTBAT. The Iron Wolf Brigade will be reorganized by 2006 into a mechanized Mobile Reaction Brigade capable of carrying out all types of ground operations and implementing NATO treaty's Article 5 operations on Lithuania's territory alongside NATO forces.

The mission of the Brigade in peacetime is to maintain a high level of combat readiness, protect the territory of the state of Lithuania, organize and conduct military training, prepare servicemen for international



**Lithuanian General**

peacekeeping operations, and in certain cases established by law, provide help to the government and the police.

### ***Disposition***

A few units are deployed with LITPOLBAT and BALTBAT as part of the UN peacekeeping missions. Training areas are at Rukla and Pabrade. There are bases at Alytus (motorized infantry battalion), Kaunas (Jaeger), Klaipeda, Marijampole, Panevezys, Rukla, Siauliai, and Taurage (motorized infantry battalions), and Vilnius (Iron Wolf Brigade HQ).

Lithuania wants to become an active member of the international community rather than a passive observer. Lithuanian Armed Forces have recently deployed to support the United States in Operations IRAQI FREEDOM and ENDURING FREEDOM.



**Army Captain**

### ***Equipment***

#### **Armor**

<b>Type</b>	<b>Role</b>	<b>Quantity</b>
BRDM-2	Reconnaissance Vehicle	11
M113	Armored Personnel Carrier	49
BTR-60	Infantry Fighting Vehicle	22

## Artillery

Type	Role	Quantity
120-mm M43	Mortar	61
60-mm	Mortar	167
105-mm	Howitzer	72
40-mm L/70	Anti-Aircraft	36
20-mm FK-20	Anti-Aircraft	24
RPG-7V	Rocket Launcher	403
90-mm PV-1110	Recoilless Gun	100
84-mm Carl Gustav	Recoilless Gun	273

## Infantry Weapons

Type	Role
11.43-mm A1911	Pistol (Colt)
9-mm	Pistol (Makarov)
7.62-mm AKM	Assault Rifle
7.62-mm AK4	Assault Rifle
7.62-mm M-14L1	Sniper Rifle
7.62-mm MG3	General Purpose Machine Gun
12.7-mm DShK	Heavy Machine Gun

## Fixed Wing

Type		Quantity
An-2	Tactical Transport	2
PZL-104	Utility	3

## Navy

### Organization

The navy has 700 personnel, of whom 275 are conscripts. The conscripts are used to support Lithuania's vessels, which include patrol boats and former Russian corvettes and frigates, and to support the coastal defense unit, which lacks artillery and missiles. The BALTRON headquarters is at Tallinn in Estonia, but Klaipeda is a significant secondary base. The navy trains jointly with Latvia and Estonia at Klaipeda and Tallinn. The

role of Lithuanian naval forces is to patrol the Baltic as part of the joint BALTRON force, to protect and defend Lithuanian territorial sea and economic zones, and to conduct search and rescue operations.

The Flotilla is one of the key units in the Lithuanian Naval Forces. The Flotilla is divided into four separate units, including a squadron of combat ships, a squadron of patrol ships, a squadron of mine-hunters, and a unit of cutters. The Flotilla's mission includes searching for unexploded ordnance, conducting clearance operations, search and rescue and other special operations, and protecting and controlling shipping and sea lines in territorial sea and exclusive economic zone.



**Naval Forces Insignia**

A new unit, the Naval Protection and Defense Unit, is made up of two companies: the Protection Company, which is armed with field gunnery capable of effective fighting against surface and air targets; and the Defense Company, which is armed with the Swedish 40-mm Bofors L/70 anti-aircraft guns, and a fire control radar system. The missions of the Protection and Defense Unit are to protect and defend naval objects, to protect and defend the Klaipeda seaport, and to train the reserves. This unit participated in many exercises in 2001, including Amber Sea, Baltic Sky, and Pajurio Brizas.

### ***Disposition***

There are no naval forces deployed outside Lithuania. They are stationed at Klaipeda, which is the navy's training area and headquarters.

## ***Equipment***

<b>Name</b>	<b>Type</b>	<b>Quantity</b>
GRISHA III	Frigate (FFL)	2
STORM	Fast Patrol Craft (PCFG)	3
HK-21	Coastal Patrol Craft/Survey	1
LINDAU	Type 331 Minesweeper	2
<i>Valerian Uryavayev</i>	Oceanographic Research (AGOR)	1

## **Air Force**

### ***Organization***

The Aviation Service of the National Defense Department was established in November 1991, and was later was reorganized into the Lithuanian Air Force in March 1993. The Lithuanian Air Force is has 825 personnel. There are no conscripts in the air force. Most of their aircraft has been disposed of, though Lithuania does have an air surveillance company for the airspace monitoring purposes of BALTNET. The air surveillance companies report to an air control center. BALTNET is also a way for the three Baltic States to become familiar with NATO techniques. Lithuania has enlarged their air force by 50 percent to meet the needs of BALTNET and to enhance their NATO bid. Lithuania is also expected to make several acquisitions similar to those being made in the other Baltic States. The missions of the Lithuanian Air Force are to survey air space, maintain and defend infrastructure for host nation support, transport troops and cargo, and conduct search and rescue operations. Lithuania provided transport aircraft for NATO-led SFOR/KFOR operations in the Balkans.

### ***Disposition***

There are no air assets deployed at this time. Lithuania's air bases are located at Kazlu-Ruda, near Kaunas (Air Force Base 3), Siaulsai (Air Force Base 1), and Panvezys (Air Force Base 2).

## ***Equipment***

<b>Name</b>	<b>Type</b>	<b>Quantity</b>
L-39ZA Trainer/Light Attack	Fixed-wing	2
L-39C Armed Trainer	Fixed-wing	4
An-2 Colt Utility Transport	Fixed-wing	8
Anatov An-26B “Curl” Tactical Transport	Fixed-wing	3
Mi-2 Hoplite	Rotary	2
Mi-8 Hip-C Utility/SAR	Rotary	

## **Security Forces**

Lithuanian security forces are a part of the Interior Ministry, rather than the Ministry of Defense. While armed forces increased 50 percent between 1997-1998, security forces increased by only 4 percent. The security force consists of the border police, the coast guard, and a permanent guard force of 250 personnel stationed at Ignalina nuclear power station. The coast guard, has 400 personnel and only small, unlisted craft, and the security forces’ small arms are outdated.

### ***Border Police***

The Lithuanian Border Police (VSAT) has 3,500 personnel divided into four battalions. Their main role is to guard and focus attention on the crossing point at Sovetsk, where drugs and guns are smuggled in from Kaliningrad. There is a highly lucrative trade in smuggling people across the border. Smugglers transport citizens from the former Soviet Union and Bangladesh to the European Union. The Border Police also monitor military transit to and from Kaliningrad.

### ***State Security Service***

The State Security Service is Lithuania’s intelligence service. Its work is mainly focused on keeping information on radical and neo-Nazi groups, including the illegal National Social Union. The last parliament voted to change the office to a non-political civil service post to ensure non-bias in their collections.



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## APPENDIX A: Equipment Recognition

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### INFANTRY WEAPONS

#### 7.62 mm M14



Maximum Effective Range	200 m
Caliber	7.62- x 51-mm
System of Operation	Gas
Rate of Fire	Cyclic, 700-750 rds/min
Feed	20-round box magazine
Length	1.12 m
Weight (Loaded)	5.1 kg

**NOTE:** Some M14s in Lithuania are being converted for the sniper role.

## 7.62-mm AKM



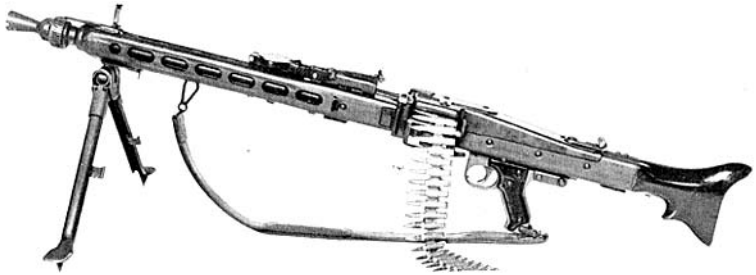
<b>Maximum Effective Range</b>	300 m
<b>Caliber</b>	7.62- x 39-mm
<b>System of Operation</b>	Gas, selective fire
<b>Rate of Fire</b>	Cyclic, 600 rds/min
<b>Feed</b>	30-round detachable box magazine
<b>Length</b>	880 m
<b>Weight (Loaded)</b>	3.86 kg

## 7.62-mm PK/PKS



<b>Cartridge</b>	7.62- x 54R
<b>Rate of Fire</b>	Cyclic: 650-720 rds/min Effective: 250 rds/min
<b>Effective Range</b>	1,000 m
<b>System of Operation</b>	Gas, open bolt, fully automatic, belt fed
<b>Length</b>	1.173 m
<b>Magazine Capacity</b>	250-round non-disintegrating metallic belt or 100-round assault magazine
<b>Weight (Empty)</b>	9 kg

## 7.62-mm MG3



Maximum Effective Range	800 m (bipod) 2,200 m (tripod)
Caliber	7.62 x 51-mm NATO
System of Operation	Short-recoil, automatic
Overall Length	1.225 m
Feed	100-rd drum or 250-rd belt
Weight	11.05 kg

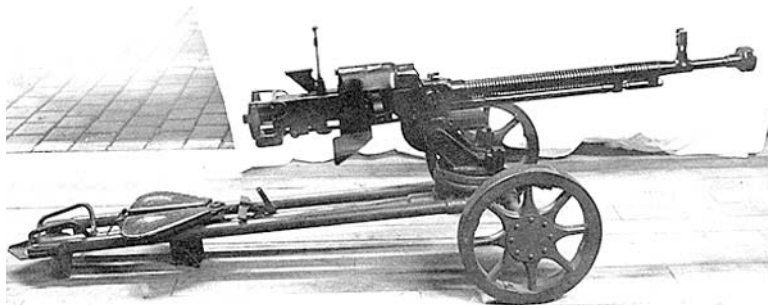
**Using the MG-3:** (1) Open feed cover. (2) Rest first round against cartridge stop on right hand side of feed guide. (3) Pull cocking handle as far to the rear as possible [bolt will stay open] (4) Safety is just above pistol grip...push button from the right and weapon is on **SAFE. MG3 IS READY TO FIRE**

## 12.7-mm NSV



<b>Type</b>	Heavy machine gun
<b>Caliber</b>	12.7 x 107-mm
<b>Feed</b>	50-rd linked belt
<b>System of Operation</b>	Gas, automatic only
<b>Rate of Fire</b>	Cyclic: 700-800 rds/min; practical: 270 rds/min
<b>Maximum Effective Range</b>	2,000 m
<b>Overall Length</b>	1.56 m
<b>Weight</b>	57.9 kg

## 12.7-mm DShK Model 38/46



Maximum Effective Range	1,500 m
Caliber	12.7 x 108-mm
System of Operation	Gas, automatic
Overall Length	1.588 m
Feed	50-rd metallic link belt
Weight (empty)	35.7 kg

**USING THE DSHK:** (1) Push forward feed latch located at top rear of feed cover and lift cover. (2) Place belt on revolving block so first round can be put in the upper recess of feed block. (3) Hold free end of belt w/right hand and press feed belt against revolving block. (3) Rapidly rotate block w/belt as far to the right as possible. (4) Close cover, Pull operating handle to rear until slide is engaged. WEAPON IS READY TO FIRE. (5) Hold both spade grips and depress trigger.

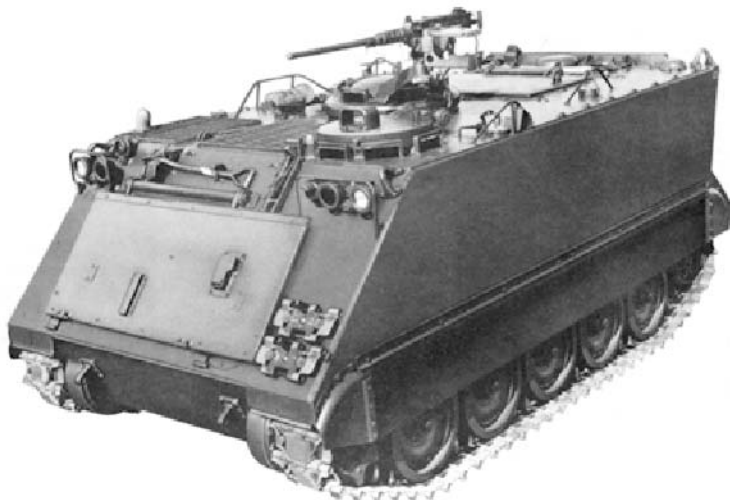
## ARMOR

### BRDM-2 Reconnaissance Vehicle



<b>Crew/Passengers</b>	4
<b>Type</b>	4 x 4
<b>Armament</b>	Main: 14.5-mm KPVT w/500 rds Coaxial: 7.62-mm PKT w/2,000 rds
<b>Maximum Speed</b>	Road: 100 km/h; Water: 10 km/h
<b>Maximum Range</b>	750 km
<b>Fuel Capacity</b>	290 liters
<b>Combat Weight</b>	7,000 kg
<b>Length</b>	5.75 m
<b>Width</b>	2.35 m
<b>Height</b>	2.31 m
<b>Night Vision</b>	Yes
<b>NBC</b>	Yes
<b>Fording</b>	Amphibious
<b>Gradient</b>	60%
<b>Vertical Obstacle</b>	0.4 m

## M113A1



<b>Crew/Passengers</b>	2 + 11
<b>Type</b>	Tracked
<b>Armament</b>	1 x 12.7-mm AA MG
<b>Maximum Speed</b>	58 km/h
<b>Maximum Range</b>	480 km
<b>Fuel Capacity</b>	360 liters
<b>Combat Weight</b>	12,094 kg
<b>Length</b>	4.92 m
<b>Width</b>	3.11 m
<b>Height</b>	2.52 m
<b>Night Vision</b>	Yes
<b>NBC</b>	Yes
<b>Fording</b>	Amphibious
<b>Gradient</b>	60%
<b>Vertical Obstacle</b>	0.61 m

**RECOGNITION:** Five road wheels, no track-return rollers; front glacis inclined to rear; box-like appearance.



## BTR-60



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

## ARTILLERY

### 105-mm M101



<b>Crew</b>	8
<b>Maximum Range</b>	11,270 m
<b>Rate of Fire</b>	10 rds/min
<b>Combat Weight</b>	2,030 kg
<b>Length</b>	5.991 m
<b>Width</b>	3.65 m
<b>Height</b>	1.574 m
<b>Prime Mover</b>	6 x 6

## 120-mm M-85 Pram-L



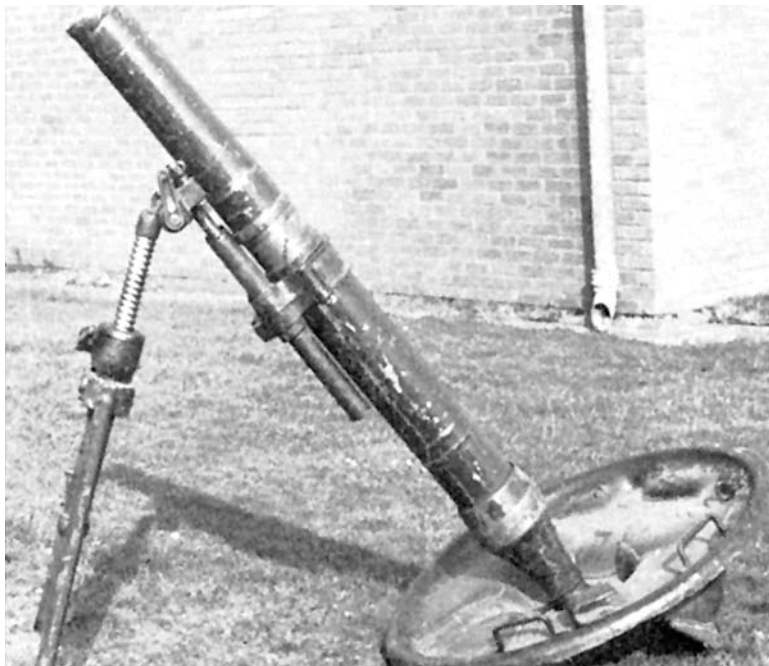
<b>Crew</b>	3
<b>Range</b>	8,036 m
<b>Rate of Fire</b>	Burst: 16 rds/min; Sustained: 6 rds/min
<b>Weight</b>	250 kg
<b>Emplacement Time</b>	5 mins
<b>Traverse</b>	5° left or right

## 120-mm 2B11



<b>Crew</b>	5
<b>Range</b>	7,200 m
<b>Rate of Fire</b>	Burst: 15 rds/min; Sustained: 4 rds/min
<b>Weight</b>	300 kg
<b>Traverse</b>	360° (dismounted)
<b>Prime Mover</b>	4 x 4

## 120-mm M-43 Mortar



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

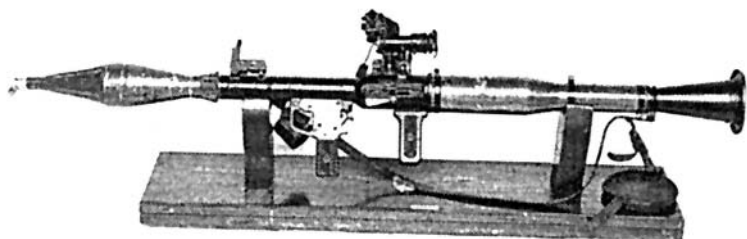
## ANTITANK

### 84-mm Carl Gustav



Crew	2
Maximum Range	2,100 m
Effective Range	450 m
Length	1.3 m

## RPG-7



Maximum Effective Range	1,700 m
Caliber	30-mm
Overall Length	1.1 m

## 90-mm PV-1110



<b>Role</b>	Recoilless Gun
<b>Crew</b>	3
<b>Range</b>	700 m
<b>Effective Range</b>	450 m
<b>Rate of Fire</b>	6 rds/min
<b>Armor Penetration</b>	550 m
<b>Weight</b>	260 kg



## 40-mm Bofors L/70



<b>Crew</b>	5
<b>Maximum Range</b>	7,800 m (vertical) 12,600 m (horizontal)
<b>Rate of Fire</b>	240-300 rds/min
<b>Emplacement Time</b>	3 min
<b>Combat Weight</b>	5,150 kg
<b>Travel speed</b>	Towed up to 60 km/h

## AIRCRAFT

### Aero L-39



<b>Type</b>	Trainer/light attack
<b>Crew</b>	2 (tandem)
<b>Max Speed</b>	610 km/h
<b>Range</b>	1,352 km
<b>Length</b>	12.13 m
<b>Height</b>	4.77 m
<b>Max Take-off Weight</b>	5,600 kg

**NOTE:** Shown above is a test plane flown by the U.S. Navy in 2003. Lithuania flies the L-39ZA model, as well as the L-39C trainer. The ZA is a ground attack and reconnaissance plane with reinforced wings and four underwing stations.

## An-2 Colt



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

## An-26 Curl



<b>Type</b>	Twin-turboprop short-range transport
<b>Crew</b>	5
<b>Payload</b>	5,500 kg
<b>Max Speed</b>	435 km/h
<b>Range (with max fuel)</b>	2,660 km (with max payload: 1,100 km)
<b>Length</b>	23.8 m
<b>Height</b>	8.575 m
<b>Max Take-off Weight</b>	24,000 kg

**NOTE:** Designed to operate from airfields of limited size, with paved or natural runways.

## Mi-8 (Hip-C)



<b>Type</b>	Twin-turbine multipurpose helicopter
<b>Crew/Passengers</b>	2/28-32
<b>Armament</b>	Assorted machineguns, bombs and missiles
<b>Max Speed</b>	260 km/h
<b>Range</b>	425 km (with 24 passengers)
<b>Payload</b>	4,000 kg
<b>Length</b>	25.24 m
<b>Width</b>	2.50 m
<b>Height</b>	5.65 m

**NOTE:** Lithuania uses Mi-8 Hip-C and Hip-H variants as utility and SAR helicopters.

## PZL Mi-2 Hoplite



<b>Type</b>	Twin-turbine general purpose helicopter
<b>Crew/Passengers</b>	1/8
<b>Armament</b>	Assorted machineguns, bombs and missiles
<b>Max Speed</b>	200 km/h
<b>Range</b>	580 km
<b>Main Rotor Diameter</b>	14.50 m
<b>Length</b>	17.42 m
<b>Max Take-off Weight</b>	3,700 kg

## NAVY

### GRISHA III



<b>Role</b>	Frigate
<b>Number in Service</b>	2
<b>Complement</b>	70 (5 officers)
<b>Armament</b>	SA-N-4 GECKO SAM; 2 x fixed torpedo tubes; 57-mm twin L/75 gun; 30-mm AK-630 Gatling system; RBU-6000 anti-submarine mortars
<b>Maximum Speed</b>	30 knots
<b>Range</b>	950 nmiles at 27 knots
<b>Displacement</b>	1,200 tons, full
<b>LOA/Beam/Draft m(ft)</b>	71.2 x 9.8 x 3.7 (233 x 32.2 x 12.1)
<b>Sonar</b>	IFF; Bull Nose; Elk Tail

## STORM Class



<b>Role</b>	Patrol
<b>Number in Service</b>	3
<b>Complement</b>	20 (3 officers)
<b>Armament</b>	Bofors 76-mm gun; Bofors 40-mm L/70
<b>Maximum Speed</b>	32 knots
<b>Range</b>	550 miles at 32 knots
<b>Displacement</b>	138 tons, full
<b>LOA/Beam/Draft m(ft)</b>	36.5 x 6.2 x 1.8 (120 x 20.3 x 1.8)
<b>Radar</b>	Navigation: Furuno; I-band



## HK-21



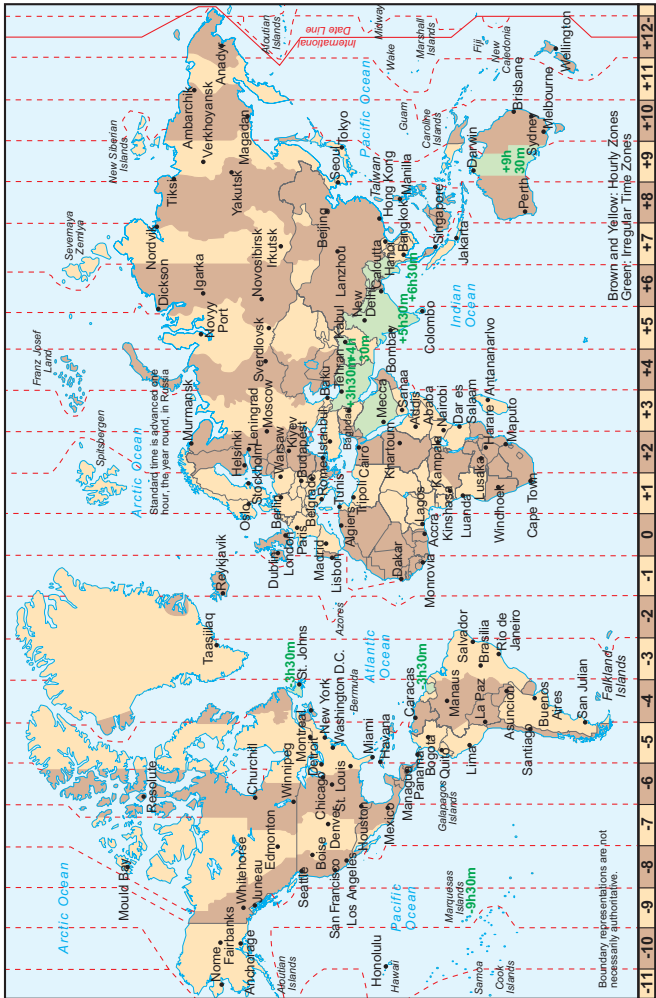
<b>Role</b>	Coastal Patrol; survey
<b>Number in Service</b>	1
<b>Complement</b>	7 (1 officer)
<b>Armament</b>	SA-N-4 GECKO SAM; 2 x fixed torpedo tubes; 57-mm twin L/75 gun; 30-mm AK-630 Gatling system; RBU-6000 anti-submarine mortars
<b>Maximum Speed</b>	12 knots
<b>Displacement</b>	88 tons, full
<b>LOA/Beam/Draft m(ft)</b>	23.1 x 5.8 x 1.8 (75.8 x 19 x 5.9)

## LINDAU Class



<b>Role</b>	Mine hunter
<b>Number in Country</b>	2
<b>Complement</b>	43 (5 officers)
<b>Armament</b>	Bofors 40-mm L/70
<b>Speed</b>	16.5 knots
<b>Range</b>	850 miles at 16.5 knots
<b>Displacement</b>	463 tons, full
<b>LOA/Beam/Draft m(ft)</b>	47.1 x 8.3 x 3 (154.5 x 27.2 x 9.8)
<b>Radar</b>	Navigation: Raytheon Mariner Pathfinder; I-band
<b>Sonar</b>	Plessey 193 m, minehunting, high frequency; EdgeTech DF-1000 sidescan, high frequency

# APPENDIX B: International Time Zones



## Coordinated Universal Time (UTC)

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

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

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
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

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
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

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
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

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
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



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

<b>Country</b>	<b>UTC</b>	<b>Eastern</b>	<b>Central</b>	<b>Mountain</b>	<b>Pacific</b>
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

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## APPENDIX C: Conversion Charts

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### 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

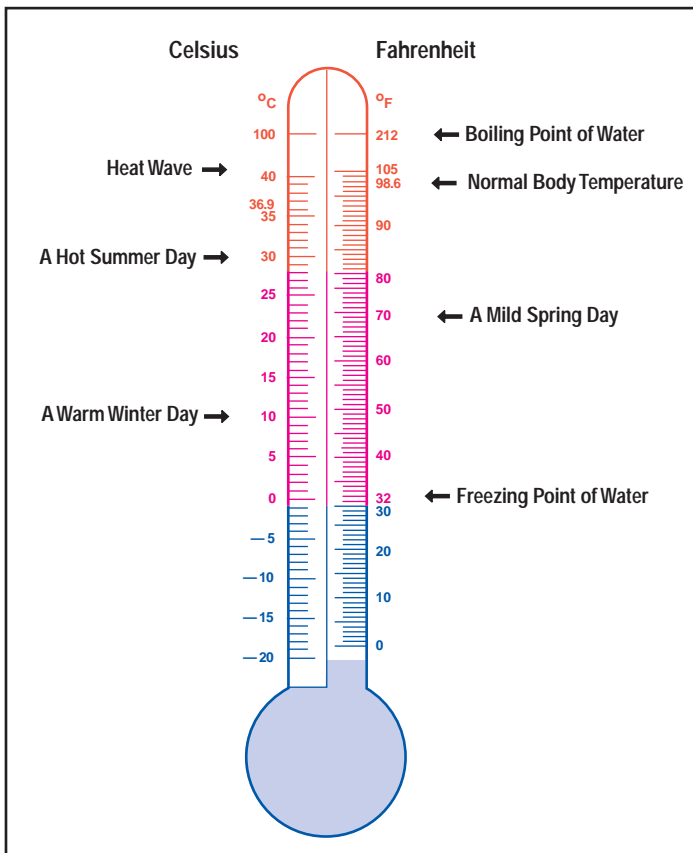
<b>Units of Volume</b>	<b>Multiply by</b>	<b>To find</b>
Milliliters	0.20	Teaspoons
Milliliters	0.06	Tablespoons
Milliliters	0.03	Fluid Ounces
Liters	4.23	Cups
Liters	2.12	Pints
Liters	1.06	Quarts
Liters	0.26	Gallons
Cubic Meters	35.32	Cubic Feet
Cubic Meters	1.35	Cubic Yards
Teaspoons	4.93	Milliliters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

### **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



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## APPENDIX D: Holidays

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<b>January 1</b>	New Year's Day
<b>February 16</b>	National Day of Restoration of the State of Lithuania (from Russia 1918)
<b>March 11</b>	Day of Restoration of Independence from the USSR (1990)
<b>April 15</b>	Easter (date varies)
<b>April 16</b>	Easter Monday (date varies)
<b>May 6</b>	Mother's Day (1 <sup>st</sup> Sunday of May)
<b>July 6</b>	Day of Statehood and Crowning of King Mindaugas (1253)
<b>July 21</b>	Creation of Lithuanians Soviet Socialist Republic (1940)
<b>August 3</b>	Anniversary of the Annexation of Lithuania by the Soviet Union (1940)
<b>August 13</b>	Last Russian soldier left Lithuania (1992)
<b>November 1</b>	All Saints Day
<b>December 25</b>	Christmas
<b>December 26</b>	Boxing Day





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## APPENDIX E: Language

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### Key Phrases

Thank you.	Aciu.
I beg your pardon.	Atsiprasau.
Good morning.	Labas rytas.
Good afternoon	Laba diena
Good evening.	Labas vakaras.
Good night.	labanakt.
Goodbye.	viso gero
My name is ...	Mano vardas yra ...
What is your name?	Koks Jusu vardas?
How are you?	Kaip gyvenate
Fine, thanks.	Aciu, gerai.
Where do you come from?	Is kur Jus?
I am from ...	As is ...
When?	Kada?
How?	Kaip?
What?	Kas?
Why?	Kodel?
Who?	Kas?
Which?	Kuris?
Where is/are the ...?	Kur yra ...?
Where can I get/find ...?	Kur as galeciau nusipirkti/rasti ...?
How far?	Ar toli?
How long?	Ar ilgai?
How much?	Kiek?
May I ...?	Ar galeciau ...?
Can I have ...?	Ar galeciau ...?
Can you help me?	Ar negaletumete man padeti?
What does this mean?	Ka tai reiskia?

I understand.  
I don't understand.  
Do you speak English?  
I don't speak Lithuanian.  
Go straight ahead.  
It is down there.  
Thank you.  
Where is the nearest bank/  
currency exchange office?  
I want to change some dollars  
into Lits.  
What is the exchange rate?  
Do you understand me?  
Where is the toilet?  
Call the police.  
Get a doctor.  
Go away.  
Help!  
Fire!  
I am ill.  
I am lost  
Look out!  
My ... has been stolen.  
Where can I find a doctor who  
speaks English?

## Key Words

Yes  
No  
Please  
Hello  
Hi  
left  
right

Suprantu?  
Nesuprantu  
Ar Jus kalbate angliskai?  
Gera! negaliu kalbeti lietuviskai.  
Vaziuokite pirmyn.  
Tai yra ten.  
Aciu  
Kur yra artimiausias bankas/  
valiutos keitimo punktas?  
As noreciau iskeisti dolerius  
sterlingu i litus.  
Koks yra valiutos kursas?  
Ar mane suprantate?  
Kur yra tuoletas?  
Pakvieskite policija.  
Pakvieskite gydytoja  
Eikit salin.  
Gelbekite/Padekite!  
Gaisras!  
As nes veikuoju/sergu.  
As esu paklydes (paklydusi).  
Saugokites!  
Mano ... yra pavogtas.  
Kur galiu rasti gydytoja, kuris  
kalba angliskai

Taip  
Ne  
Prasau  
Laba diena  
Sveikas/Labas  
kaire  
desine

opposite	priesais
next to	salia
after	paskui
north	i siaure
south	i pietus
east	i rytus
west	i vakarus
noon	vidurdienis
midnight	vidurnaktis
in the morning	ryta
during the day	po pietu
in the evening	vakare/vakara
at night	nakties
yesterday	vakar
today	siandien
tomorrow	rytoj
spring	pavasaris
summer	vasara
autumn	ruduo
winter	ziema

### Month of the Year

January	Sausis
February	Vasaris
March	Kovas
April	Balandis
May	Geguze
June	Birzelis
July	Liepa
August	Rugpjutis
September	Rugsejis
October	Spalis
November	Lapkritis
December	Gruodis

## Days of the Week

Monday	Pirmadienis
Tuesday	Antradienis
Wednesday	Trečiadienis
Thursday	Ketvirtadienis
Friday	Penktadienis
Saturday	Sestadienis
Sunday	Sekmadienis

## Colors

black	juodas
blue	melynas
brown	rudas
green	zalias
orange	oranzinis
red	raudonas
white	baltas
yellow	geltonas

## Numbers

0	nulis	16	sesiolika
1	vienas	17	septyniolika
2	du	18	astuoniolika
3	trys	19	devyniolika
4	keturi	20	dvidesimt
5	penki	30	tridesimt
6	sesi	40	keturiasdesmt
7	septyni	50	penkiasdesmt
8	astuoni	60	sesiasdesmt
9	devyni	70	septyniasdesmt
10	desimt	80	astuoniasdesmt
11	vienuolika	90	devyniasdesmt
12	dvylika	100	simtas
13	trylika	200	du simtai
14	keturiolika	300	trys simtai
15	penkolikai	1000	tukstantis

## APPENDIX F: International Road Signs



Crossroads



Maximum speed



No through road



Road narrows



Fallen/falling rock



No entry for  
vehicular traffic



Motorway



Stop and give way



Low flying aircraft or  
sudden aircraft noise



No left turn



One way street



Tourist  
information point



Traffic signals



No u-turn



Cable height  
16' - 6"

Overhead cables,  
Maximum height



Failure of  
traffic light signals



Sharp deviation



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## **APPENDIX G: Deployed Personnel's Guide to Health Maintenance**

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

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

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

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

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

Overcrowded living areas should be avoided. Ventilated living areas and avoiding coughing or sneezing toward others will reduce colds and other respiratory infections. Cots or sleeping bags should be arranged "head to toe" to avoid the face-to-face contact that spreads germs.

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

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

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

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

## **Additional Information**

### ***Water***

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

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

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

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



## ***Rodents***

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

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

## ***Insects***

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

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

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

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

**DoD-approved insect repellents are:**

IDA KIT: NSN 6840-01-345-0237

Permethrin Aerosol Spray: NSN 6840-01-278-1336

DEET Insect Repellent: NSN 6840-01-284-3982

**Hot Weather**

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

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

**Sunscreens:**

Sunscreen lotion: NSN 6505-01-121-2336

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

## WORK/REST TABLE

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

The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specific heat category. Individual water needs will vary +/- (plus/minus) 1/4 qt/hr.

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

**Caution:** Hourly fluid intake should not exceed 1 ½ quarts. Daily intake should not exceed 12 quarts. Note: MOPP gear adds 10° to WBGT Index.

### **Food**

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

### **Human Waste**

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

## Cold Weather

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

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

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

## First Aid

### *Basic Lifesaving*

Those caring for injured persons should immediately:

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

## Injuries and Care

### *Shock*

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

## ***Abdominal Wound***

### ■ Treatment:

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

## ***Bleeding***

### ■ Treatment:

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

### ■ Tourniquet:

- ❑ **NOTE: Tourniquets should only be used when an injury is life threatening.**
- ❑ A 1-inch band should be tied between the injury and the heart, 2 to 4 inches from the injury, to stop severe bleeding; wire or shoe strings should not be used.
- ❑ Band should be tight enough to stop bleeding and no tighter.
- ❑ Once the tourniquet is tied, it should not be loosened.
- ❑ The tourniquet should be left exposed for quick visual reference.
- ❑ The time that the tourniquet is tied and the letter “T” should be written on the casualty’s forehead.

## ***Eye Injury***

### Treatment:

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

## ***Chest Wound***

Symptoms:

- Sucking noise from chest
- Frothy red blood from wound

Treatment:

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

## ***Fractures***

Symptoms:

- Deformity, bruising
- Tenderness
- Swelling and discoloration

Treatment:

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

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

Symptoms:

- Lack of feeling and/or control below neck

Treatment:

- Conscious victims should be cautioned to remain still.
- Airway should be checked without moving injured person's head.

- Victims who must be moved should be placed, without bending or rotating victim's head and neck, on a hard surface that would act as a litter (door, cut lumber).
- Head and neck should be immobilized.

## *Heat Injuries*

### **Heat Cramps**

Symptoms:

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

### **Heat Exhaustion**

Symptoms:

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

### **Heat Stroke**

Symptoms:

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



Treatment:

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

## ***Burns***

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

### **Thermal/First Degree**

Symptoms:

- Skin reddens
- Painful

Treatment:

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

### **Thermal/Second Degree**

Symptoms:

- Skin reddens and blisters
- Very painful

Treatment:

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

## **Thermal/Third Degree**

Symptoms:

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

Treatment:

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

## **Electrical Burns**

Treatment:

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

## **Chemical Burns**

Treatment:

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

## ***Cold Injuries***

### **Hypothermia**

Symptoms:

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

Treatment:

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

### **Frostbite**

Symptoms:

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

Treatment:

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

## **Emergency Life-Saving Equipment**

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

Shirts = Dressings/Bandages

Belts, Ties = Tourniquets, 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



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## APPENDIX H: Individual Protective Measures

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### 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.

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## APPENDIX I: Dangerous Animals and Plants

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### Snakes

#### *European Viper, Common Adder*

##### **Description:**

Adult length 0.5 to 0.6 meter; maximum 0.9 meter. Stout snake with slightly flattened body. Background color varies by location. Dorsal color varies from gray to copper to brown or uniformly black with



dark, heavy zig-zag pattern on back. Belly gray, gray brown, or black; sometimes with white spots. Tip of tail yellow, orange, or red-orange. Snout broadly rounded but not clearly upturned as in other European vipers. May have X-shaped or inverted V-shaped mark on head.

##### **Habitat:**

Found on hillsides, open fields, and woods. Likes shady areas, moors, and swamps. In northern parts of range, found mainly at sea level; may be found up to 2,700 meters near lakes and rivers.

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

Active by day in colder months; nocturnal in warmer months. Generally not aggressive. Easily alarmed and bites if threatened or stepped on. Usually lives in colonies near suitable hibernation sites.

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

Hemotoxic and neurotoxic. 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.

## Arthropods

### *Scorpions*

Though there is little information on area scorpions, the region may have species capable of inflicting a painful sting.

### *Spiders*

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



### *Insects*

Most countries have at least one species of moth having venomous/irritating hairs and/or whose larva (caterpillar) has venomous spines. Some caterpillars are very hairy (puss moths and flannel moths) and are almost unrecognizable as caterpillars, with long silky hairs covering the shorter venomous spines. Others have clumps of still, venomous spines on an otherwise smooth body. Contact with these caterpillars can be very painful. Some are brightly colored.

### *Centipedes*

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

### *Millipedes*

Millipedes are generally harmless to humans. However, when handled, some larger millipedes (may be more than 50 millimeters long) secrete a noxious fluid that can cause severe blistering on contact; some can squirt this fluid at least 2 feet.



## Plants

### *Cow Parsnip*

**Other names:**

Wild rhubarb, Giant hogweed, Hogweed.

**Mechanisms of toxicity:**

Many species within this genus contain furocoumarins. The roots and rind have phototoxic sap that causes acute bullous dermatitis within a few hours to two days after contact. If infected skin is then exposed to the sun, pigmentation may follow, and may take months to years to disappear.



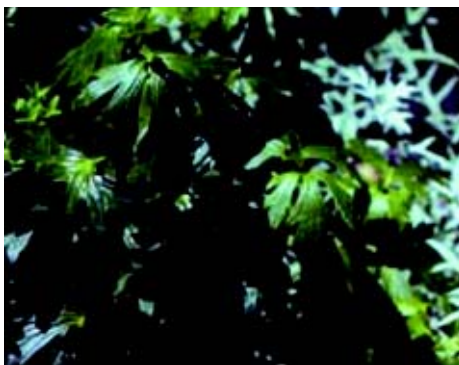
### *Monkshood*

**Other names:**

Wolfsbane, Aconite, Bihk, Badger's bane.

**Mechanisms of toxicity:**

The entire plant is toxic by ingestion or through skin absorption. Aconite is a medicinal made from the dried root, which contains an extremely toxic alkaloid known as aconitine (a steroid alkaloid); it may also have quinoline



alkaloids. The root has been mistaken for horseradish. Can cause instantaneous death in high doses. Fatal cardiac dysrhythmias have occurred

after ingestion of one teaspoon full of dried root. Absorption through the skin has caused a tingling sensation in the lips, followed by cardiac toxicity. Ingestion is followed almost immediately by pain and burning in the mouth and throat. Can cause dermatitis, but this is not the main concern. Extracts have been used to make arrow poison.

**Comments:**

Genus includes 100 northern temperate species, and presumably all contain alkaloids. Monkshood is a northern European species. It is a perennial herb, two to six feet in height, with thick, black, tuberous rootstock; it bears blue flowers. The plant is found in fields, woods, and roadsides, and is cultivated in gardens. Seed are pods with numerous tiny seeds. Bikh is found in northern India. Badger's bane is an herb with tuberous roots found in subtropical and temperate areas of China, where it is used as a medicinal despite its toxicity.

***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 that puncture the skin. 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





characteristic skin eruption, is derived from the genus name. Plant toxins are thought to be a defense against browsing animals, and they usually do 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 a secondary release of inflammatory mediators, or the persistence of implanted hairs.

**Comments:**

This is a genus of 30 species that are 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.

***Chervil***

**No Photograph Available.**

**Mechanisms of toxicity:**

Poisoning symptoms are similar to symptoms from hemlock and fool's parsley. Contains piperidine alkaloids (e.g. coniine, which exhibits nicotinic activity and has a curare-like effect).

**Comments:**

Drying the plant decreases toxicity. People who have mistaken the plant for parsley have been poisoned through ingestion.

***Cohosh/Baneberry***

**Other names:**

White, black, and red cohosh/baneberry, doll's eyes, grapewort, snakeberry, necklace weed.

**Mechanisms of toxicity:**

All parts contain an innocuous glycoside that is metabolized to form the aglycone protoanemonin, a volatile, irritant oil. As few as six berries have caused severe symptoms (gastroenteritis,



hematuria, and occasional circulatory collapse) for many hours. Handling can cause irritant dermatitis with blisters and severe eye irritation. Ingestion can cause death.

**Comments:**

Perennial herbs with berry-like fruit. Found in fields, deciduous forests, and roadsides.

***Lily of the Valley***

**Mechanisms of toxicity:**

Contains more than 20 cardiac glycosides (e.g. convallatoxin). Has a quickly fatal potential. Has caused death; poisoning has occurred from drinking water from a vase in which flowers were placed. Has been mistaken for wild garlic and made into soup. Has been used as an arrow poison in Africa.

**Comments:**

Dried roots are made into many medicinals, especially in Russia.



***Poison Hemlock***

**Other names:**

Spotted hemlock,  
fool's parsley

**Mechanisms of toxicity:**

Quickly fatal potential. The leaves and unripe fruit have the piperide alkaloids coniine and coniceine with highest concentrations in seeds and roots. Drying the plant decreases toxicity. One mouthful of the root



has caused death after symptoms of nervousness (within 30 minutes), nausea, vomiting, diarrhea, and respiratory failure.

**Comments:**

A biennial herb that resembles a carrot; smooth, spotted stems; foul odor. Naturalized in waste and marshy areas; native in temperate Eurasia. Also found in South Africa.

***Fool's Parsley***

**Mechanisms of toxicity:**

All parts are toxic, possibly due to a cicutoxin-like substance and traces of coniine. Symptoms of toxicity include profuse salivation, diaphoresis, gastroenteritis, seizures, and coma. Children have died from ingestion; the plant has been mistaken for parsley, and the rhizomes and roots for turnips or radishes.



**Comments:**

A carrot-like annual herb up to 2 feet high.

***Croton***

**Other names:**

Ciega-vista,  
purging croton.

**Mechanisms of toxicity:**

Contact with the toxic resin causes long-lasting vesicular dermatitis. Croton oil, (a “phorbol”) in leaves, stems and seeds, has cathartic and purgative toxic properties. It causes severe gastroenteritis, even death; 20



drops are potentially lethal, and the oil will blister the skin on contact. Many members are covered with hundreds of sticky hairs that cling to the skin on contact. Contact with the eyes can be very serious.

**Comments:**

A wooly-haired annual herb, evergreen bush, or small tree with smooth bark, yellow-green leaves, small flowers, and fruit.

***Spindle Tree***

**Other names:**

Burning bush, Wahoo.

**Mechanisms of toxicity:**

Spindle tree is the most toxic member of the genus. The flowers are yellow-green. The attractive pink (or orange-red) drupes have phyllorhodin, several cardiac glycosides, and other unknown substances as the toxic principles. Symptoms appear 10 to 12 hours after ingestion, and include bloody diarrhea, nausea, vomiting, fever, hallucinations, drowsiness, coma, and seizures.



**Comments:**

Deciduous or evergreen shrubs or trees. The fruit is a 3- to 5-valved, brightly colored capsule that opens to expose scarlet to orange seeds. Until further data is available, the other species of this group should be considered toxic.

***Snake's Head***

**No Photograph Available.**

**Other names:**

Guinea flower, crown imperial.

**Mechanisms of toxicity:**

Many contain veratrum alkaloids; used in some areas as medicinals.

**Comments:**

This genus has 100 species from western Europe and the Mediterranean to eastern Asia, but only a few species have been clearly shown to cause dermatitis.

***Herb Paris*****No Photograph Available.****Mechanisms of toxicity:**

Narcotic in large doses, producing abdominal pain, delirium, and seizures. Has caused fatalities in children.

**Comments:**

Common in Europe.

***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:**

Plant is usually an herb, often with colored or milky sap, containing complex terpenes that are irritating to the eyes, mouth, and gastrointestinal tract. Many species cause dermatitis by direct contact. In some cases, rain water dripping from the plant will contain enough toxic principle to produce dermatitis and keratoconjunctivitis; toxins can blind.

Some species have 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:**

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

***Heliotrope***

**Other names:**

Cherry pie, scorpion's tail, Indian heliotrope.

**Mechanisms of toxicity:**

Contains pyrrolizidine alkaloids. Has caused large epidemics of illness in Afghanistan and India following ingestion of bread made with flour contaminated with members of this genus. The pathologic effects (Budd-Chiari syndrome) take weeks to months to appear; causes fatality after many years. Chronic copper poisoning has been associated with this plant.



**Comments:**

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

## *Christmas Rose*

### **Other names:**

Hellebore, Stinking Helleborus, Bear's Foot, Green Hellebore.

### **Mechanisms of toxicity:**

An ancient medicinal, reportedly used as a chemical weapon hundreds of years B.C. Alkaloids are highly toxic,

and have a burning taste. The rootstocks and leaves contain cardiac and saponin glycosides and protoanemonin as the main toxic elements.

### **Comments:**

Native to Europe but are naturalized in many other areas.



## *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. Seeds (in a pod) contain tropane alkaloids. Has caused dermatitis and death.



### **Comments:**

Upright, hairy annual with coarse, hairy stems 1 to 5 feet tall; native to Europe. Found along roadsides on nutrient-rich sandy soils and loam. Has dusky yellow flowers with violet veins. Fruits are capsules containing many black seeds; often confused with the poppy plant seeds.

## ***Whorled Solomon's Seal***

**No Photograph Available.**

### **Mechanisms of toxicity:**

Although not known as a highly toxic group, this genus contains saponins, volatile oils, and tannic acid. Skin contact or ingestion often causes dermatitis. Fruits are toxic (saponins); similar to herb Paris. Symptoms from ingestion include vomiting, oral pain, and diarrhea.

## ***Golden chain/rain***

### **Mechanisms of toxicity:**

All parts are poisonous. Beans are cooked for food (boiled with several water changes) in the tropics. Cytisine is the toxic principle, concentrated in the seeds and bark. Excreted in cow's milk; poisoning can result from milk ingestion. Can be fatal.



### **Comments:**

Cultivated ornamental trees and shrubs with timber as hard as ebony. Native to southern Europe.

## ***Coffeeberry***

### **Other names:**

Alder buckthorn, common buckthorn, cascara.

### **Mechanisms of toxicity:**

The fresh bark is a strong laxative. There have been reports of deaths in children after ingesting buckthorn berries.





**Comments:**

Cascara bark is source of American cascara. Of low relative toxicity, it requires chronic use to cause symptoms, which include chronic diarrhea and/or melanin pigmentation of the mucous membranes of the colon. Freshly prepared cascara products contain anthrones, and can cause severe vomiting and intestinal cramping. The bark should be stored for at least a year before use, or detoxified by heating (in air) to reduce the presence of anthrones.

**Poison Ivy****Other names:**

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

**Mechanisms of toxicity:**

All species contain allergenic nonvolatile oils known as urushiols in the resin canals. These oils are highly sensitizing (delayed, type IV sensitivity) for some individuals.

**Comments:**

All species are deciduous, and the leaves turn red before being shed. Poison ivy is a climbing or trailing vine with trifoliate, alternate leaves that are smooth above and hairy beneath. Poison oak is never a climbing shrub, and is alternately three-leafed, smooth above and hairy beneath. Poison oak and poison ivy are found in disturbed areas and along trails in North America, and is a common cause of dermatitis. Poison sumac is a shrub or small tree with 7 to 13 alternate leaflets, and is found in swampy areas of North America. Very few cases of dermatitis are caused by this species because it inhabits isolated areas, and few people



are exposed to it. Some individuals suffer intense, debilitating reactions from contact with the sensitizing chemicals.

### ***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 of the Jerusalem cherry is a black berry. The fully ripe berries can be eaten; unripe berries contain solanine alkaloids, which can cause gastroenteritis, weakness, and circulatory depression. Can kill

#### **Comments:**

There are 2,000 species of herbs, vines, and 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. There is no proven treatment. Emptying the stomach hours after ingestion may be helpful as leaves may not pass through the tract expeditiously. Various clinical measures, including circulatory stimulants, artificial respiration, and 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.”

***Burn Bean***

**No Photograph Available.**

**Other names:**

Colorines, mescal bean, red hots, necklace pod sophora, silverbush, pagoda tree.

**Mechanisms of toxicity:**

Dark to bright red beans in woody pods are hallucinogenic; used by American Indians before peyote was discovered. Seeds and flowers are highly poisonous; has caused convulsions and death. One seed can kill a child. Cytisine acts like a nicotinic ganglionic stimulation agent.

**Comments:**

Fruit is source of a yellow dye. Dried flowers are sold as medicinal in Indonesia; has been used for bleeding problems.



## APPENDIX J:

### International Telephone Codes

#### International Telephone Codes

Algeria	213	Malta	356
Australia	61	Mexico	52
Austria	43	Morocco	212
Bahrain	973	Netherlands	31
Belgium	32	Nigeria	234
Brazil	55	New Zealand	64
Canada	1	Norway	47
China	86	Oman	968
Cyprus	357	Philippines	63
Denmark	45	Portugal	351
Djibouti	253	Qatar	974
Egypt	20	Republic of Korea	82
Ethiopia	251	Saudi Arabia	966
Finland	358	Senegal	221
France	33	Seychelles	248
Gabon	241	Singapore	65
Germany	49	Somalia	252
Greece	30	South Africa	27
Hawaii	1	Spain	34
Hong Kong	852	Sweden	46
Indonesia	62	Switzerland	41
Iran	98	Syria	963
Iraq	964	Taiwan	886
Ireland	353	Tanzania	255
Israel	972	Thailand	66
Ivory Coast	225	Tunisia	216
Japan	81	Turkey	90
Jordan	962	UAE	971
Kenya	254	United Kingdom	44
Kuwait	965	United States	1
Libya	218	Yemen	967
Madagascar	261	Zambia	260
Malaysia	60	Zimbabwe	263
AT&T (public phones)	0072-911 or 0030-911	On-base	550-HOME or 550-2USA



















