

LEADERS RISK MANAGEMENT GUIDE TO CENTRAL AFRICA



Forward

The guiding principles of U.S. Africa Command (USAFRICOM) and US Army Africa (USARAF) are:

- ◆ Foster a favorable attitude toward the United States
- ◆ Be a team player
- ◆ Add value to existing activities
- ◆ Exemplify professionalism
- ◆ Learn and adapt
- ◆ Maintain strong relationships

As America's Army responds to partnership initiatives and humanitarian relief requests on the African continent, we must continue to pursue lessons learned if we are to protect our forces. There might be many operational challenges for us in Central Africa, but one fact is clear; our personnel face greater danger from illness and accidents than from hostile actions. That means the accident-prevention component of force protection takes on added importance.

The risk of accidents during medical, logistical, and regional partnership operations presents many threats. Some are more obvious than others. One of the more obvious risks will come with the harsh environment. The solution is for commanders and other leaders to identify and manage those risks. The composite risk-management process of hazard identification and control must be built into day-to-day decision-making.

That does not mean we can throw away the book. What it does mean is that leaders and personnel will be writing new chapters. Applying the force-protection principles in this guide will help leaders add another link to our chain of successful operations. The information found in this guide has been compiled from many public sources, such as the U.S. Department of State and the World Health Organization. These ideas form a beginning outline to help leaders anticipate the situation. They are only a starting point.



Figure 1 - Conditions in Africa will be a challenge



Figure 2 - Your contributions to the mission will make a difference

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Section I – Central Africa Operational Risks

The key to managing risks in Central Africa is hazard identification. It is important that planners and individual travelers are prepared in terms of what to expect, how to deal with different situations that are common, and what to wear or eat. Safety and security are two important issues that require the attention of leaders and individual travelers. This section outlines general operational risks and preventive measures for conducting operations in this region.

Force Protection and Safety

Although Central Africa is now significantly more stable than it has been over the past decade, security continues to be problematic. Several peacekeeping operations are ongoing in the region. The United Nations has its largest peacekeeping operation in the world in the Democratic Republic of the Congo. Violence persists in many other areas due to the presence of several militias and foreign-armed groups, with sporadic outbreaks occurring.

Deteriorating economic conditions are fostering increased crime, especially in urban areas. Travel in many sections of most major cities is generally safe during daylight hours, but travelers are urged to be vigilant against criminal activity that target foreigners, particularly in highly congested traffic and areas surrounding hotels and stores. Outlying, remote areas are less secure due to high levels of criminal activity and the lack of adequate training, supervision, and salary payments to the security forces present. Security officials and/or individuals purporting to be security officials have detained and later robbed American citizens and other foreigners.

Vehicle thefts, burglaries, and armed robberies occur throughout the region; there have been reports of after-dark carjackings in many areas, resulting in deaths. It is recommended to drive with doors locked and windows closed at all times. If confronted by members of the military or security forces, visitors should not permit personnel or police officers to enter their vehicles nor get into the vehicle of anyone purporting to be a security official. It is recommended that in such instances U.S. citizens remain courteous and calm and, if threatened, not resist.

Consistency in administering laws and regulations is notably absent. Travelers should note that in cases of theft and robbery, legal recourse is limited. Therefore, valuable items may be safer if kept at home or another secure location. Travelers using public transportation or visiting high pedestrian traffic areas of any type are advised to be vigilant against robbery and pick pocketing which is a persistent problem in most urban areas. The presence of “street children,” who can be persistent and sometimes aggressive, remains a problem.



Figure 3 - Crowds gather in urban and rural areas when foreigners visit

Regional Risk Mitigation

Anti-Terrorism and Force Protection Issues

Foreigners may be targeted for crimes and acts of terrorism in Central Africa. Force protection and anti-terrorism programs are critical for protection of our personnel. Critical to any operation in the region is a Force Protection and anti-terrorism plan that addresses risks and preventive measures. Personal Recovery plans and Emergency Response Plans must be completed. When developing these plans, consider the following:

- ◆ Communication and Personal Locator Requirements
- ◆ Threat / security briefings
- ◆ Designated response teams (personal recovery and security)
- ◆ Route planning
- ◆ Coordination of operational plans with the US Embassy plans
- ◆ Need for security forces
- ◆ Partner Nation provided resources and support

Protect Your Belongings

Most of the people surrounding you are normal people carrying on with their daily lives. Unfortunately there are a few on the lookout to relieve you of your belongings. You will undoubtedly carry some cash and a few things while on the road. Thwart pickpockets and keep your stuff safe with these strategies:

- ◆ Do not ride third class on long train rides. Thieves thrive in these tight quarters where people are packed in for hours. Opt instead for at least second-class bunk cars and preferably first-class sleeper cars.
- ◆ Turn your cell phone off in public areas. Once your phone rings, you are a walking target.
- ◆ Spread the money you carry across your body. If you have money that you won't be using during the day, store it in places that you wouldn't be able to access easily – at the bottom of each shoe, in each sock, in a money belt wrapped around your thigh and, for women, tucked under each armpit in your bra. Do not wear any sort of visible money pouch, and any money belt you wear should be flat and well hidden on your body. Keep accessible cash in a (preferably zipped) front pocket. Men should consider using a wallet chain. If you must retrieve money from one of your “hidden” locations, find a bathroom or other private place to do so.
- ◆ If you must travel at night, travel with a group and stick to well-lit areas.
- ◆ Do not look like a tourist. Leave your jewelry and expensive shoes at home. Carry as little as possible, and do not travel with irreplaceable items.
- ◆ Be mindful about using credit and ATM cards. If ATM machines are available, look for those inside or have a friend watch your back if you must use one outside. If you pay by credit card, do not let the card leave your sight, though it is even better if it does not leave your hand.

Coping in Crowds

Crowds and jostling in public places make snatching your valuables even easier. From train stations to crowded city sidewalks, you will often find yourself surrounded by other people. Additionally, operations undertaken by USARAF may attract crowds. Consider these suggestions before heading out into the crowd:

- ◆ Street hawkers are thick in public transportation hubs and on busy street corners. Most of them are harmless.
- ◆ Strap slashers have become common. Do not just hold your backpack by its straps, and in large crowds, consider carrying daypacks on your chest instead of on your back.
- ◆ Avoid political demonstrations.
- ◆ Be cognizant of your belongings, and keep your hands in the pockets with your cash if you do not have other items to think about.
- ◆ Do not pull out maps and look lost. Walk with a purpose.
- ◆ Be mindful of rowdy crowds near sporting events. Be assertive to stay safe, but remove yourself from the situation if tensions begin to rise.
- ◆ Try not to be separated from your traveling partners. Watch each other's backs.
- ◆ Trust your instinct. If it feels unsafe, it probably is. Leave if your gut tells you to.
- ◆ Be prepared to address crowd control issues during operations. Consider including crowd control procedures as part of operational plans.



Figure 4 - Crowded urban areas elevate risk for crimes

Street Children



Figure 5 - Street children present risks to visitors

Rapid urbanization, economic problems, and HIV/AIDS have forced millions of children onto the streets in Central Africa. Many resort to drugs (particularly sniffing glue) to escape their situations and immediately latch on to anyone resembling a foreigner. In encountering street kids, consider the following:

- ◆ In some cities, they hang out in large groups in the center of roundabouts. Try to cross streets so you do not have to walk through a roundabout, but if you have no choice, try to cross with a group of locals.
 - ◆ Do not give them money or handouts. If you want to help, give money to a local group that works directly with the children.
 - ◆ Acknowledge, talk, and joke with them. Not only does this make them less intimidating to you, but it also makes you more human in the eyes of the kids. These kids are just trying to survive.
 - ◆ If a gang of children starts following you, stay in public areas. In many countries, children respect what adults say and locals will often step up if you need a hand. A couple sharp words from shop owners usually scare kids away. In bus stations and public transportation hubs, drivers and conductors are good allies because harassment from street kids is bad for business.
- ◆ Many Central African countries have indirect cultures in which it is rude to be rude. However, if you have a child with you that you just cannot shake free, a firm “no” may work.

Force Protection Risks and Mitigations for Central Africa

Angola

Angola is a large, developing country in south-west central Africa. The capital city is Luanda. Portuguese, the official language, is widely spoken throughout the country. Despite its extensive oil and mineral reserves and arable land suitable for large-scale production of numerous crops, Angola has some of the world's lowest social development indicators. Development was severely restricted by a 27-year long civil war that broke out upon independence in 1975, which destroyed the majority of the country's infrastructure. Since the conflict's conclusion in 2002, the economy grew at double digit annual growth rates until the global financial crisis undercut oil revenues; nonetheless the government continues extensive infrastructure reconstruction and development projects. Angola still faces challenges with its infrastructure and with providing government services, especially in basic social services, aviation and travel safety, accommodation availability and quality and communications. Facilities for tourism, particularly outside the capital of Luanda, are often rudimentary.

The overall security situation in Angola has improved markedly since the end of the civil war; however,

Americans should still exercise caution when traveling in Angola. Although the war has ended, ground travel in some parts of Angola can be problematic due to land mines, which were used extensively during the war. Travelers should not touch anything that resembles a mine or unexploded ordinance. Frequent checkpoints and poor infrastructure contribute to unsafe travel on roads outside of the city of Luanda. Despite Angola's great progress in rebuilding highways and bridges, infrastructure in many places remains poor. Police and military officials are generally undisciplined, but their authority should not be challenged. Travel in most parts of Luanda is safe by day, but car doors should be locked, windows rolled up, and valuables stored out of sight. Visitors should exercise caution when traveling after dark within Luanda, and no travel should be undertaken on roads outside of cities after nightfall.



Figure 6 - Angola relief map

Americans located in, or planning to visit, the northern province of Cabinda should be aware of threats to their safety outside of Cabinda city. In 2008 and 2009 armed groups specifically targeted and attacked expatriates in Cabinda; armed attacks resulted in the rape, robbery, or murder of several expatriates working in Cabinda. Those responsible have declared their intention to continue attacks against expatriates. Occasional attacks against police and Angolan Armed Forces (FAA) convoys and outposts also continue to be reported. These incidents, while small in number, occur with little or no warning. American citizens are, therefore, urged to exercise extreme caution when traveling outside of Cabinda city and limit travel to essential only.

Americans are advised to undertake only essential travel to Lunda North and South provinces. The government of Angola is sensitive to the travel of foreigners in the diamond producing areas of the provinces, proper permission and documentation is required to frequent these areas. One can be subject to restriction or detention. There have been reports of crime or banditry in these areas, especially on roads leading into these areas.

Visitors to Angola are advised not to photograph sites and installations of military or security interest, including government buildings, as this can result in fines and possibly arrest.

Cameroon

Cameroon is a developing country in central Africa. Although there are many natural and cultural attractions in Cameroon, facilities catering to American/European style tourism are quite limited. The capital is Yaoundé, though Douala, the country's largest city, is its main port and commercial center. Official languages are French and English, though French predominates in most of the country. English may be used in Cameroon's two Anglophone regions of Southwest and Northwest, as well as the larger cities. The staff of major hotels in Cameroon's large cities is usually bilingual. In February 2008, social and political discord led to civil unrest, although the immediate threat of violence has now receded.

In February 2008, Cameroon experienced significant civil unrest in half of its ten regions, most notably in the port city of Douala. Demonstrators clashed violently with police and then military personnel, resulting in the reported deaths of forty persons and arrest of over 1,600 individuals. The unrest was marked by widespread road blockages, attacks on public and private vehicles, looting, burning of government and other buildings, and roaming crowds of malcontents. This disturbance created shortages of fuel, food and other supplies throughout the country, and was ended through the deployment of military units and the use of significant force.

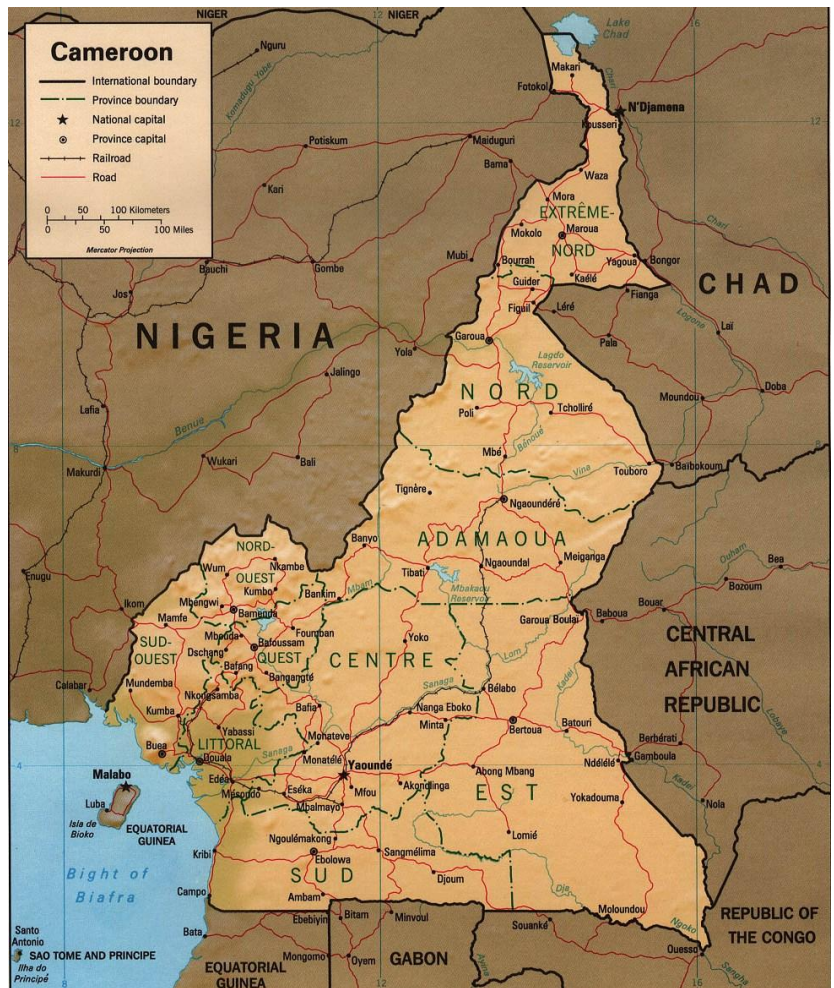


Figure 7 - Cameroon relief map

Following the restoration of order, the government has made some efforts to address fuel and food prices that were among the key grievances of the demonstrators. However, economic conditions, notably the high unemployment rate, remain difficult without the prospect for rapid improvement. Political tensions continue, most recently due to general disappointment with the composition of the electoral commission appointed by the President in December 2008. Although a rapid resumption of violence is considered unlikely, Americans living in or visiting Cameroon are encouraged to stay abreast of local political and social developments that could signal additional difficulties for the country.

Embassy employees have been instructed to refrain from travel outside of city limits after dusk, and to be cautious in their movements in centrally located areas within cities and towns. Armed highway bandits (most notably in border areas); poorly lit and maintained roads; hazardous, poorly maintained vehicles; and unskilled, aggressive, and/or intoxicated drivers all pose threats to motorists. Attacks and accidents are most common outside major towns, especially in the regions bordering Chad and the Central African Republic, but occur in all areas of the country.

The U.S. Department of State continues to warn U.S. citizens against travel to neighboring Central African Republic (CAR). On occasion, conflict between insurgents and government security forces in CAR has spilled across the border into Cameroon, affecting outposts in both Adamawa and East Provinces.

In February 2008, an attack by rebel insurgents on Ndjamena, the capital of Chad, forced the evacuation of the U.S. Embassy in Chad and sent up to 50,000 refugees across the border into the town of Kousseri in Cameroon. Americans in Cameroon considering crossing into Chad should review the U.S. Department of State's Travel Warning for Chad.

Following a ruling from the International Court of Justice, Cameroon assumed full control of the Bakassi Peninsula in August 2008. Cameroon faces substantial challenges in administering this remote area which is poor, has divided loyalties, and has close ties to criminal elements in the Niger Delta. In November 2008 an organization called the "Bakassi Freedom Fighters" seized a vessel belonging to a French oil services company off the coast of the Bakassi peninsula and held the crew hostage for almost two weeks. Although the hostages were subsequently released unharmed, the same organization has made credible threats of more violent attacks in the future. Since Cameroon assumed control of the area, there have been multiple attacks on Cameroonian military forces and clashes between armed groups and Cameroonian security forces. It is very difficult to reach the Bakassi area, but travelers considering a trip should exercise extreme caution as the area is considered very unsafe and is currently off-limits for Embassy and United Nations personnel.

Central African Republic

The Central African Republic (CAR) is one of the world's least developed nations and has experienced several periods of political instability since independence from France in 1960. Despite an on-going peace process and the presence of a democratically elected government in the capital, Bangui, rebels still control large portions of the country's Northern provinces, and highway bandits prey on civilians and travelers in much of western CAR. In the Dzanga-Sangha National Park in the southwest, facilities for tourists are being developed but remain limited.

Travelers in the CAR should exercise extreme caution. There have been recent incursions of the Lord's Resistance Army in southeastern CAR between Zemio and the border with Sudan. Check the Department of State website for the most current Travel Warnings.

Armed rebel groups, bandits, and poachers present real dangers, and the Central African government is unable to guarantee the safety of visitors in most parts of the country.

Northwestern and northeastern CAR, especially the areas bordering Chad, are particularly dangerous due to clashes between government and rebel forces. There have been repeated attacks on Central African and expatriate travelers throughout CAR, including in and around the Parc National de Bamingui-Bangoran. In August 2009, the Lord's Resistance Army conducted incursions into southeastern CAR between Zemio and the border with Sudan.

U.S. government employees may only visit the northwestern or northeastern CAR prefectures on a case-by-case basis and with specific authorization of the embassy's Chief of Mission. Bangui itself, though safer, suffers from elevated crime rates, as well as severely limited transport and medical options. CAR military and civilian security forces (and people posing as such) staff checkpoints throughout the city, frequently harassing local and expatriate travelers for bribes. The U.S. Department of State advises U.S. citizens against travel outside of the capital Bangui.

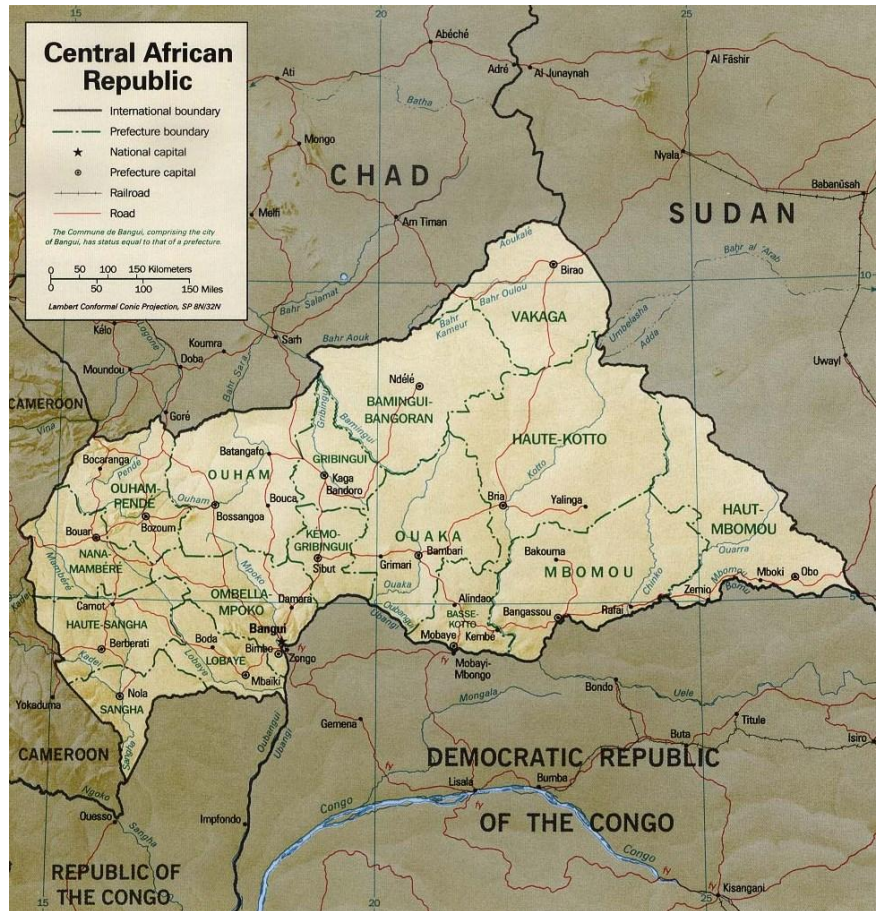


Figure 8 - Central African Republic relief map

Chad

Chad is a developing country in north-central Africa with one of the lowest per-capita incomes in the world. Chad faces challenges in the areas of political stability and economic development. Years of war, drought, and lack of economic growth have severely damaged the country's institutions and its infrastructure. Facilities for tourism are limited. The capital is N'Djamena. French and Arabic are the primary languages.

The U.S. Embassy in Chad has prohibited official government travel to eastern Chad without express authorization. Violent crime in eastern Chad has escalated in recent weeks, including robbery and carjacking at gunpoint, kidnapping and attempted kidnapping, and murder. The level of violence in each incident has increased significantly; robbery victims have been beaten and killed. In addition, armed rebel groups continue to be a threat to the region. Criminal and rebel activity tends to increase during the dry season, which lasts from late September to July.

The overall security situation remains fluid and potentially dangerous.

Violent criminal gangs are difficult to interdict, despite the presence of a United Nations Peacekeeping Operation in the region. The government of Chad is unable to guarantee the safety of visitors in eastern Chad. If rebels approach the capital, N'Djamena, the U.S. Embassy may decide to evacuate non-emergency personnel and family members of Embassy personnel on short notice, as was done in June 2008. Family members of Embassy personnel under the age of 21 are not authorized to reside in Chad. Commercial flights continue to operate from N'Djamena International Airport, but flights are subject to change when rebel activity intensifies.

The government of Chad requires all individuals traveling to or residing in refugee-affected areas in eastern Chad to obtain permits issued by the Ministry of Territorial Administration in N'Djamena, and to register in Abéché upon arrival in eastern Chad. American citizens who intend to enter Sudan from Chad, despite the Department's Travel Warnings for both countries, must obtain the appropriate visas and permits in advance of entry into Sudan. Further information is available in the Department of State's Travel Warning for Sudan.

The U.S. Embassy is not able to support evacuation from eastern Chad. The Embassy strongly recommends that all U.S. citizens in Chad be prepared to implement their personal evacuation or safe haven plans on short notice should the situation warrant, and exercise extreme caution.



Figure 9 - Chad relief map

Democratic Republic of the Congo

The Democratic Republic of the Congo (Congo-Kinshasa), located in central Africa, is the third-largest country on the continent. The capital is Kinshasa. French is the official language. Years of civil war and corruption have badly damaged the country's infrastructure.

Though the DRC is now significantly more stable than it has been over the past decade, security remains problematic. The first democratic elections in more than forty years were held in 2006, and a new government is now in place. Post-election disturbances occurred as recently as March 2007 in Kinshasa, resulting in deaths of civilians and military personnel. During civil disturbances in 2007 there were incidents of hostility towards U.S. citizens and other expatriates.

Both inside and outside Kinshasa, there can be roadblocks, especially after dark. Vehicles are often searched for weapons and valuables, and travelers are checked for identity papers. Security forces regularly seek bribes. If confronted with such a situation, it is suggested that U.S. citizens remain courteous and calm. If detained, report the incident to the U.S. Embassy in Kinshasa as soon as possible.

The United Nations has its largest peacekeeping operation in the world in the DRC. Known by its French acronym of MONUC, it has nearly 20,000 peacekeepers deployed in the country – primarily in the east. Violence nevertheless persists in the eastern DRC due to the presence of several militias and foreign-armed groups, with sporadic outbreaks occurring in North Kivu, South Kivu, and northern Katanga provinces, as well as in the Ituri District of Orientale province, and sporadically in Bas-Congo province. Members of the Lord's Resistance Army entered into northeastern DRC from Sudan in 2005, and have camps in an isolated region of the DRC, Garamba National Park, where they killed eight MONUC peacekeepers in January 2006 and have terrorized and severely abused the civilian population. A joint military offensive against the LRA in Haut Uele District commenced in mid-December 2008. In March 2009, an American film crew in the Kivu provinces was robbed at gunpoint by Congolese government soldiers.

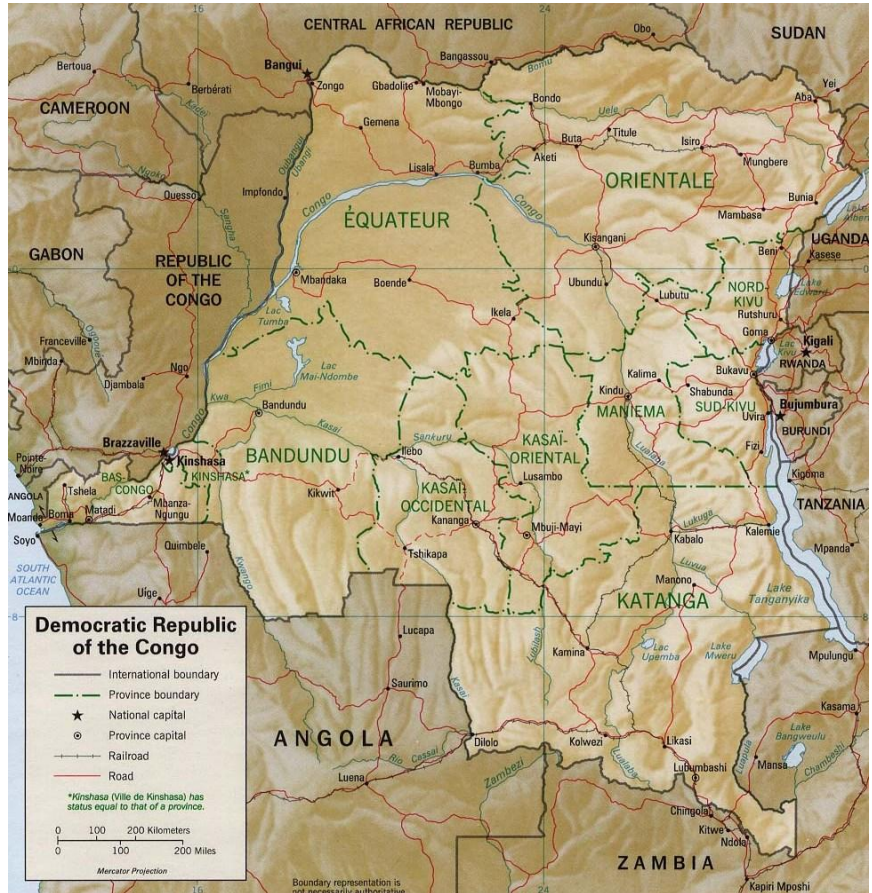


Figure 10 - Democratic Republic of the Congo relief map

Equatorial Guinea

Equatorial Guinea is an oil-rich, developing country on the western coast of central Africa. Its capital and main port, Malabo, is located on the island of Bioko, off the coast of Cameroon. A secondary port, Luba, is also on Bioko. The mainland territory of Equatorial Guinea is bordered by Cameroon and Gabon. The principal city on the mainland is Bata. Facilities for tourism are limited but growing. Official languages are Spanish, which is widely spoken, and French, which is not widely understood, but sometimes used in business dealings.

Violent crime is rare and the overall level of criminal activity is low in comparison to other countries in the region. However, there has been a rise in non-violent street crime and residential burglaries. Travelers should exercise prudence and normal caution, including avoiding dark alleys, remote locations, and traveling alone.

Although large public demonstrations are uncommon, U.S. citizens should avoid large crowds, political rallies, and street demonstrations. In February 2009, approximately 50 gunmen arriving by speedboats attacked government buildings in Malabo but were repelled by Equatorial Guinean military and police.



Figure 11 - Equatorial Guinea relief map

Gabon

Gabon is a developing nation on the western coast of central Africa. French is the official language; few Gabonese speak English. Facilities for tourism outside the capital city, Libreville, are available, but they are often limited and can be expensive.

Americans should maintain security awareness at all times. There have been incidents of civil unrest during the past year, both in the capital city and in the interior. Large gatherings such as sporting events, protests and demonstrations, or any other event where crowds congregate, should be avoided.

In Gabon, petty thievery is common. Violent crime is more common in urban areas, and there have been cases of armed robberies in homes, restaurants and at beaches frequented by foreigners. Occasionally, Americans or Europeans have been victims of crime.

The U.S. Embassy encourages Americans to take extra precautions when traveling in Libreville. To prevent carjacking and petty theft, citizens are encouraged to travel with their automobile windows up, doors locked, and items of value hidden from view. Marginal neighborhoods, poorly lit streets, and unfamiliar areas of the city should be avoided, especially at night. Walking, running, or staying on the beach alone or in groups after dusk should be avoided. When dining in restaurants or visiting markets, it is recommended that travelers carry only minimal amounts of cash and avoid wearing excessive amounts of jewelry. If involved in an attempted robbery or carjacking, Americans are encouraged to comply with the attacker to avoid injury and to report all incidents to the police and the U.S. Embassy. Police response time to reports of crime is often slow.

Americans may contact the U.S. Embassy in Gabon for the most up-to-date information on safety and security. The Embassy informs the registered resident American community of security matters through a warden system.



Figure 12 - Gabon relief map

Republic of the Congo

The Republic of the Congo (Congo-Brazzaville) is a developing nation in central Africa. The official language is French. The largest cities are the capital, Brazzaville, located on the Congo River, and Pointe Noire on the coast. Civil conflict in 1997 and again in 1998-99 damaged parts of the capital and large areas in the south of the country. The last rebel group signed a cease-fire accord with the government in March 2003. Facilities for tourism are very limited.

Although the Republic of the Congo is still recovering from the Civil War, there have been no serious episodes of unrest or violence since the March 2003 peace accord. Continued security awareness, however, remains a key consideration for all visitors.

Travel in the Pool region south of Brazzaville should be avoided. The Embassy continues to receive reports of roadblocks and armed robberies from travelers to this region. The passenger train connecting Brazzaville and Point Noire passes through this region and train travelers have also been robbed. For this reason the Embassy discourages travel by road or rail between Brazzaville and Pointe Noire.

In the Republic of the Congo, petty street crime targeting foreigners is rare. However, incidents of mugging and pick-pocketing have been reported near the ports in Pointe Noire and Brazzaville, as well as in the Congolese neighborhoods surrounding Brazzaville's city center.

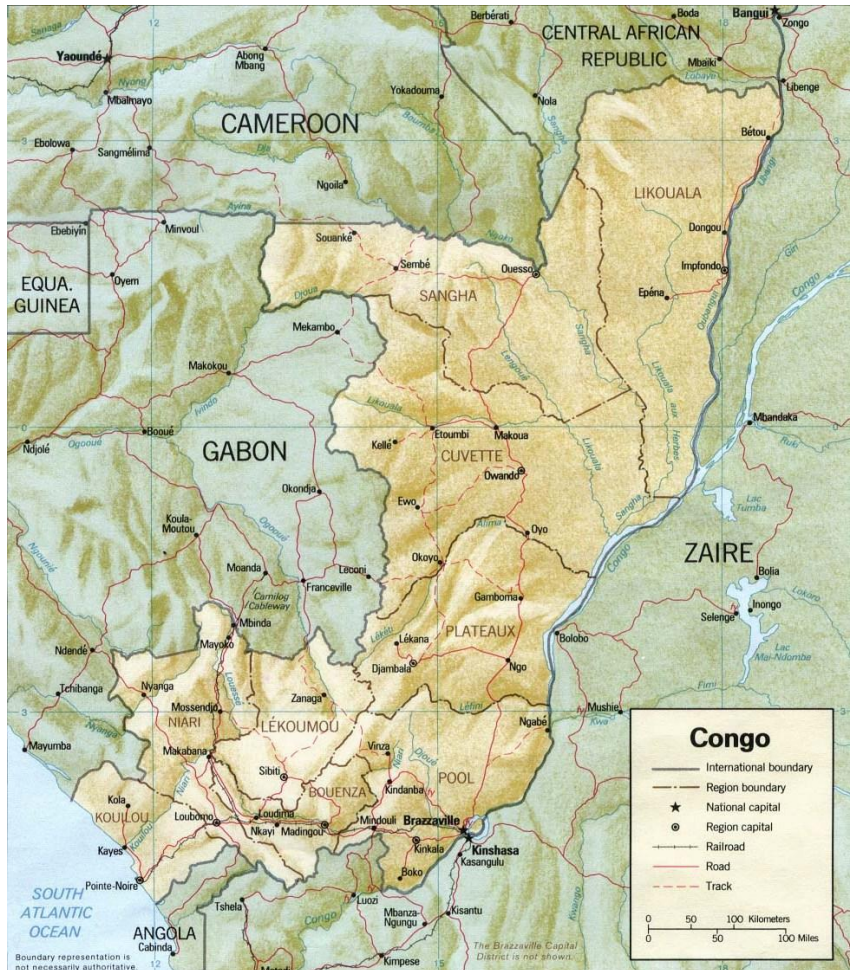


Figure 13 - Republic of the Congo relief map

São Tomé and Príncipe

São Tomé and Príncipe is a developing nation, comprising the islands of São Tomé and Príncipe, located off the western coast of central Africa. Portuguese is the official language; few Sao Tomeans speak English.

Americans should maintain security awareness at all times. There have been recent, isolated incidents of civil unrest in the capital city. In February 2009, there was a heightened security presence in the capital of São Tomé following the arrests of several leaders of a former paramilitary group, the Buffalos, suspected of plotting a coup. Large gatherings or any other events where crowds have congregated to demonstrate or protest should be avoided.

Crimes such as burglary, pick-pocketing and armed robberies in homes do occur on the islands, particularly around the winter holidays. Such crimes can occur anywhere, but are more prevalent in public places, such as in markets, on the streets, or near hotels. Do not display large amounts of cash in public. If possible, store valuables and extra cash in a hotel safe while sightseeing or visiting the beach. When dining in restaurants or visiting markets, it is recommended that one carry only minimal amounts of cash and avoid wearing excessive amounts of jewelry. If involved in an attempted robbery or carjacking, Americans are encouraged to comply with the attacker to avoid injury and to report all incidents to the police and the U.S. Embassy in Libreville. Police response time to reports of crime can be slow.

Americans may contact the U.S. Embassy in Libreville, Gabon, for the most up-to-date information on safety and security. The Embassy informs the registered resident American citizen community of security matters through a warden system.



Figure 14 - São Tomé and Príncipe relief map

Vehicle Operations and Transportation Risks



Figure 15 - Vehicle operations offer many challenges in Central Africa

Central Africa is immense. In many countries, and particularly in rural areas, roads are often poorly maintained and it is not unusual to come across large domestic animals such as sheep and cattle. Roads are generally in poor condition and often impassable to all but four wheel drive vehicles in the rainy season.

When driving in cities, keep windows up and doors locked. Try to avoid driving at night, particularly outside major cities, it can be hazardous and is discouraged. Often, roadways are not marked and lack streetlights and shoulders. Many sections have deteriorated surfaces. Due to possible language barriers and lack of roadside assistance, receiving help may be difficult. Travelers may be stopped at police or military roadblocks throughout the region, where their vehicles and luggage may be searched. At roadblocks or checkpoints, documents should be shown through closed windows. Precautions for dealing with roadblocks vary from country to country.

Drivers should also be aware that communities tend to grow along roadways. Local pedestrian populations depend heavily on these roadways for daily activities creating congestion problems and road hazards. Sidewalks and roadway shoulders are scarce in both rural and urban areas.

Ensure you know all the legal requirements for driving a vehicle in the country you are travelling to. Laws vary from country to country, some countries require you to always carry hazard triangles, have reflectors (a white sticker on your bumper), wear seat belts etc. Be cognizant of which side of the road the country drives on. This will also affect the flow of pedestrian traffic. The use of taxicabs or other forms of public transportation is also not recommended in many countries in the region. Please keep this risk in mind as you make transportation arrangements.

The decision to allow organizational personnel to drive in Central Africa will be reached through employment of the Composite Risk Management process. The USARAF Command Safety Office maintains driving risk assessments for each country. They can also assist in development of driving risk mitigation factors. Planners should keep in mind that the CG, USARAF is the approving authority for **EXTREMELY HIGH** and **HIGH** risk driving activities. The following sections address driving hazards for each country in Central Africa. Contact the U.S. Embassy, Regional Security Officer the most current conditions.

Regional Risk Mitigation

Public Transportation

There are many factors to take into account when considering public transportation: tight quarters, questionable vehicles, unsafe traffic patterns, corruption, and a loss of control. Minimize the risk factors with these tactics:

- ◆ Sit with your travel partners and keep your items between you. Do not let someone sit between you. If you are traveling alone, the best place to sit is next to the window with your valuables between your body and the window.
- ◆ Even if you are the only person riding in a taxi, keep a firm grip on your purse or wallet as would-be thieves can reach through an open window while your vehicle is stopped.
- ◆ Solo women might want to consider wearing a cheap wedding band and invent a husband to avoid unwanted advances, especially on long rides with many men.
- ◆ Note the condition and sobriety of your driver before you get in a vehicle, and do not be afraid to ask your driver to slow down if he is driving too fast or dangerously.
- ◆ Change taxis at the border crossings otherwise you risk being stopped constantly in a vehicle that does not belong to the country in which you have just entered.
- ◆ Be mindful of people who get out behind you at your stop. There have been reports of people who note where solo travelers disembark, then mug them once they have left the vehicle.
- ◆ Though you may never find the “perfect” ride, feel free to check the condition of a vehicle before you board. If you have concerns, wait for the next one. Take advantage of any safety tools provided, even if they leave something to be desired. An unconventional seatbelt, which may be little more than a snap on a strap, will do you more good than no seatbelt at all.
- ◆ If your bag, bike, or other belongings are being loaded on to a vehicle, make sure they are actually loaded. Just because they are labeled does not guarantee they will be placed in or on the vehicle.
- ◆ Know where you are going and have a general idea of how to get there.



Figure 16 - Regional public transportation

Common Driving and Vehicle Operations

Central Africa is immense. Road conditions in most areas are hazardous due to erratic driver behavior, pedestrians, and animals in the roadways, and the lack of basic safety equipment on many vehicles. Only major highways and some streets in the cities are paved; many roads are narrow, rutted, and poorly maintained. The following section discusses risk mitigation factors to address these conditions.



Figure 17 - Livestock and beasts of burden may be found on roads throughout the region

Unfamiliar Driving Conditions

- ◆ Remind drivers and crews to be alert for pedestrians, livestock, and beasts of burden on all roads.
- ◆ Caution drivers to be prepared for the unexpected; local drivers rarely comply with established procedures or exercise defensive driving awareness.
- ◆ Ensure that drivers are prepared for poorly surfaced and poorly maintained roads as well as poor off-road mobility/stability. Caution drivers to always.
 - Plan routes to avoid likely obstacles.
 - Probe water crossings slowly.
 - Mark hazards for following traffic.
 - Assume all stream depths are unknown.
 - Plan alternate return routes.
 - Maintain slow speed on hills and curves.
 - Warn drivers that road debris requires frequent tire changes and that they should stick to cleared lanes and always bring adequate spares.

Built-Up Areas/Local Driving

- ◆ Provide instruction in local driving customs and practices. (Accident experience shows local drivers to be very unpredictable, often showing complete disregard of traffic signs and signals, turning left from the right lane or right from the left lane, and making U-turns in intersections.)
- ◆ Avoid areas of high civilian-vehicle concentration.
- ◆ Stress need for constant alertness and to expect civilian vehicles to do the unexpected.
- ◆ Ensure all drivers are aware of flash flood dangers: frequency of rainstorms, low areas, effect on roads and traffic.

Loss of Control / Rollovers

- ◆ Use experienced drivers in difficult terrain.
- ◆ For off-road movements, when possible conduct a physical reconnaissance of the route to avoid the worst terrain hazards. Mark unavoidable hazards on strip map and include them in the pre-march briefing.
- ◆ Check loads to ensure cargo is correctly secured. Stress even load distribution, especially when traveling over off-road terrain.

Crew Coordination

- ◆ Stress importance of maintaining crew communications
- ◆ Remind drivers and vehicle commanders to notify passengers when crossing ditches, climbing an obstacle, or any maneuver that might catch occupants off balance. Consider dismounting passengers in extremely rough terrain.

Bridge Conditions and Load Limits

Bridges in the region present significant hazards. Few are maintained or inspected and almost no historical records to indicate structural limitations exist. Many have been built as part of aid programs without provisions for maintaining the bridge. During the rainy season, many may be subjected to significant flooding. Consider the following controls when planning travel routes and load plans.

- ◆ Perform route recon whenever possible.
- ◆ Contact local authorities for information on load limits and bridge condition.
- ◆ Get bridge assessment from Army engineers when possible.
- ◆ Caution drivers not to assume that marked weight classifications are valid.
- ◆ Warn drivers to check bridges for visible damage or signs of undermining.
- ◆ Remind drivers to watch for improvised repairs and warning signs.
- ◆ Reroute around suspect bridges, and spread the word.

Off-Road Driving

Few roads in Central Africa are paved and terrain conditions range from mild to extreme. Consider these controls when driving in the region.

- ◆ Terrain: Mild to extreme
- ◆ Roads: Few roads are paved
- ◆ Provide instruction about tire pressure and hands-on training in gear selection.
- ◆ Ensure drivers refer to appropriate vehicle operator's manual for "Operating Under Unusual Conditions."
- ◆ Ensure that wheeled-vehicle drivers receive hands-on training in driving in sand, mud, and rocky terrain to include the following:
 - Reduce tire pressure for soft soil conditions, and drive at low speed. Inflate tires to normal pressure as soon as situation permits. (Prolonged driving on partially deflated tires will overheat tires and break down sidewalls.)
 - Select a gear or range that will start vehicle with a minimum of clutch slippage and wheel spinning.
 - Maintain a steady, even rate of movement.
 - Avoid unnecessary gear shifting. Keep automatic transmissions in low range.
 - Brake gradually or allow vehicle to roll to halt. Stop on downhill slope when possible.
 - Cross shallow ditches by shifting into low gear or range and proceeding slowly.
 - Enter ditches obliquely so that one wheel leaves the ditch as the other wheel on the same axle enters it.
 - Do not attempt to straddle large boulders; they will damage axles and other low parts of the vehicle.
 - Drive slowly in rocky terrain, and carry an extra spare tire if one is available.
 - Remove stones between dual tires as often as possible to prevent breaking sidewalls.
 - Use low gear (or low range) to pull slowly out of mud.
 - Increase traction in mud by placing boards, brush, or similar material under the wheels.
 - When driving through mud, select a low gear, roll onto the soft area at a medium speed for the selected gear, and carefully maintain a steady throttle until reaching solid ground. .
 - FM 21-305 provides additional guidance.
- ◆ Ensure that wheeled and tracked vehicle operators receive hands-on training in driving in existing conditions.

Convoy Operations

Preparing for convoy operations in Central Africa requires more than ensuring you have a driver that knows how to steer. Leaders at all levels must plan for convoy operations. Planners must maximize the use of convoys and security elements by combining multiple convoys going to the same or nearby destinations. Time for preparation and rehearsal must be incorporated into the convoy planning timeline. Convoy planners must make security a priority and include it in rehearsals. This will make life a little harder on the planners, but it makes it easier for the drivers. It also protects assets and personnel from attrition, allowing the organization to stay operational. The following section discusses risk mitigation factors to address these conditions.

Convoy Checklists

Following are checklists that commanders, liaison team members, convoy planners, and organization safety personnel can use to ensure that convoys are professionally and safely planned.

Route Selection

Ask the convoy commander or convoy planner these questions:

- ◆ Has map reconnaissance been completed?
- ◆ Has a physical reconnaissance been made of the entire route?
- ◆ Can all vehicles clear bridges, underpasses, tunnels, and other clearance and weight limits? If not, have alternate routes been selected?
- ◆ Can all vehicles maintain minimum speed limits? If not, have alternate routes been selected?
- ◆ Have urban or potentially congested areas been identified?
- ◆ To avoid congestion, have alternate routes been selected?
- ◆ Has convoy movement been planned to avoid peak traffic periods?
- ◆ Have alternate routes been selected for vehicles transporting oxygen, acetylene, or other compressed gases?
- ◆ Have strip maps of the entire route been prepared?
- ◆ Does each convoy vehicle have a strip map?
- ◆ Have traffic control points been established at hazardous locations?
- ◆ Are GPS navigation systems available for the lead vehicles of each serial / march unit?

Start and Release Points

Ask the convoy commander or convoy planner at battalion level these questions:

- ◆ Is adequate space available for vehicle organization and lineup at start point?
- ◆ Is sufficient space available for maneuvering of vehicles sequential lineup of vehicles, and march units and serials?
- ◆ Has arrival time at release point been established?
- ◆ Is adequate space available for safe vehicle release?

Conventional Highways

Ask the convoy commander or convoy planner these questions:

- ◆ Have halt areas been identified along the route?
- ◆ Has a 15-minute halt been scheduled after the first hour, and 10-minute halts every 2 hours thereafter?
- ◆ Are halt times adjusted to permit halts at safe locations?
 - Location is away from urban or heavily congested areas.
 - Terrain permits vehicles to completely clear highway traffic lanes.
 - Location avoids curves or reverse sides of hills (blind spots from approaching vehicles),
 - Location permits minimum of 3 feet between parked vehicles.
- ◆ Are halt areas shown on strip maps?

Controlled-Access Highways

If convoy movement will take place on controlled-access highways (those where entry and exit is permitted only at specific points), ask the convoy commander or convoy planner these questions:

- ◆ Have halt areas been identified along the route?
- ◆ Has a 15-minute halt been scheduled after the first hour, and 10-minute halts every 2 hours thereafter?
- ◆ Are all halts planned in designated rest areas?
- ◆ Have all halt areas been physically checked to ensure sufficient capacity?
- ◆ Are halt areas shown on strip maps?
- ◆ Are halts scheduled to avoid overloading of halt areas?
- ◆ Do areas for meal halts contain the following?
 - Sufficient areas for cooking and eating?
 - Waste disposal facilities?
 - Latrines?
- ◆ Do bivouac sites contain the following?
 - Sufficient area for cooking, eating, and sleeping?
 - Waste disposal facilities?
 - Latrines?
 - Area for vehicle maintenance?
 - Security for cargo?

Convoy Organization

Ask the convoy commander or convoy planner these questions:

- ◆ Are convoys of more than 20 vehicles separated into serials?
- ◆ Are serials divided into march units if required?
- ◆ Is convoy element size based on capacity of halt/bivouac areas?
- ◆ Have the following personnel been designated and briefed?
 - Commanders for each serial and march unit
 - Pace setter
 - Trail party
 - Claims officer
 - Drivers and assistant drivers
- ◆ Are vehicles transporting troops not the last vehicle in a serial or march unit?
- ◆ Are empty vehicles or those carrying general cargo used as buffers (i.e., last vehicle in convoy)?
- ◆ Are recovery and medical vehicles near the rear of the convoy?
- ◆ Is the convoy organized initially with 5 minutes between march units and 10 minutes between serials?
- ◆ Have adjustments to time gaps been identified and planned for?
- ◆ Are convoy and convoy element commanders positioned for best convoy control?
- ◆ Has convoy operation during periods of darkness been avoided?
- ◆ Are the following proper vehicle intervals planned?
 - Controlled access highway: 220 meters
 - Rural conventional highway: 150 meters
 - Urban conventional highway: 50 meters
- ◆ Does each driver have a strip map?
- ◆ Is the convoy commander checklist completed?

Convoy ID and Communications

Ask the convoy commander or convoy planner these questions:

- ◆ Are lead, rear, and element commander vehicles correctly identified?
- ◆ Are flags and signs correctly mounted on each vehicle?
- ◆ Is each convoy identified by a convoy clearance number?
- ◆ Has method of communication been decided?
- ◆ Has radio equipment (ideally, 2-way radio in first and last vehicle of each serial and unit) been checked and assigned to vehicles?
- ◆ Have signal-operating instructions been provided to vehicles with radios and the liaison team?
- ◆ Have personnel been briefed on visual and audio signals?
- ◆ Have road signs and messages been constructed and placed as required?
- ◆ Are real-time tracking systems such as Blue-Force Tracker available for use?

Logistical Support

Ask the convoy commander or convoy planner these questions:

- ◆ Are medical personnel scheduled and posted in rear of convoy?
- ◆ Are sufficient food and mess personnel and facilities available?
- ◆ Do all personnel have proper clothing and equipment?
- ◆ Has weather briefing been obtained for duration of convoy operation?
- ◆ Have provisions been made for obtaining weather updates?
- ◆ Is special equipment available based on weather requirements?
- ◆ Have weather effects on halts, meals, and bivouacs been determined and planned for?

Convoy Personnel Briefing

Ask the convoy commander whether leaders have given drivers the following instructions:

- ◆ Permit emergency halts only on roadside of controlled access highways.
- ◆ Permit only guards and maintenance personnel on traffic side of convoy during halts on conventional highways.
- ◆ Drivers and assistant drivers perform vehicle operator maintenance and check cargo security at every stop.
- ◆ Assistant drivers will remain awake and alert.
- ◆ Reflectors and warning devices must be in place before beginning maintenance.
- ◆ Warning lights are used during periods of darkness or low visibility.
- ◆ Convoy begins only at convoy commander's signal.
- ◆ In case of accident, main column does not stop to provide assistance. Next following vehicle provides immediate assistance to accident vehicle.
- ◆ If an accident occurs to vehicle ahead, make maximum effort to clear traffic lanes.
- ◆ First officer or NCO at accident scene takes charge.

Convoy Dropouts Lack Escorts in a Hostile Environment

- ◆ Emphasize PMCS to reduce dropouts.
- ◆ Ensure that delayed drivers have good maps and information about the area of operations.
- ◆ Arrange escorts with local police or security forces if possible.

Refueling and Maintenance Halts

Ask the convoy planner these questions.

- ◆ Are sufficient supplies of diesel, mogas, and oil available for refueling?
- ◆ Are refueling halts planned for bivouacs?
- ◆ If not, is refueling planned for noon meal halt?
- ◆ Have vehicle operator maintenance checks been scheduled for every halt? Who inspects the drivers for signs of fatigue? What is the plan for driver changes?
- ◆ Are sufficient maintenance vehicles and equipment available in rear of convoy?
- ◆ Are spare vehicles available for emergencies?
- ◆ Are all vehicle refuelers properly equipped and trained?

Vehicle Maintenance and Recovery

While in a foreign country, personnel may encounter road conditions that differ significantly from those in the United States. Emergency response and vehicle maintenance support may be non-existent in some locations. The following section discusses risk mitigation factors to address these conditions.

- ◆ Ensure all vehicles are equipped with self-recovery as appropriate
- ◆ Fabricate ground support devices for outrigger support in soft ground
- ◆ Be aware that rough ground shortens tire life
- ◆ Carry an extra spare tire on each vehicle when traveling outside urban areas
- ◆ Establish policies and procedures for actions to take should a breakdown occur.

Material Failure

- ◆ Have all drivers perform PMCS before departure, during halts, and after completion.
- ◆ During halts, in addition to normal during – operation PMCS, emphasize tire/track pad condition and security of loads.
- ◆ During operation, have drivers pay particular attention to air cleaner indicator and water and transmission gauges.
- ◆ Ensure operators know proper cool-down procedures for their vehicles. Procedures are spelled out in appropriate operators manuals.
- ◆ Ensure vehicle basic issue items, pioneer tools, highway-warning devices, and fire extinguishers are present on every vehicle.
- ◆ Ensure that disabled vehicles are moved completely off the roadway.

Road Debris Requires Frequent Tire Changes

- ◆ Instruct drivers to stick to cleared lanes.
- ◆ Bring adequate spares.

Recovery Operations

- ◆ Remind recovery personnel to use a braking vehicle when required by TM and to always use correct hookup procedures.
- ◆ Ensure that all vehicles are equipped for self-recovery as appropriate (tow ropes/cables and rope ladders, pierced steel planking, or other traction material to place under tires).
- ◆ Caution personnel to keep hands and clothing at least 5 feet from winch when rewinding cable after recovery operations.
- ◆ Enforce safe towing speeds.
- ◆ Match driver to mission.
- ◆ Fabricate ground support devices for outrigger support in soft ground.

POL

- ◆ Remind personnel to use extreme care when changing hot lubricants (they can burn).
- ◆ Take care to prevent contamination of POL.

Driving Risks and Mitigations by Country

Angola

Driving in Angola is assessed as an **EXTREMELY HIGH RISK** activity. Since the end of the civil war in 2002, overland access to the interior has improved considerably. Nonetheless, highways in some areas remain poor and other infrastructure for travel is often poor or nonexistent. Fighting in most of the country damaged or destroyed many roads and bridges, and services for motorists outside urban areas cannot be counted on.

Road travel can be dangerous, especially during the rainy season (October - March), which can cause large potholes and erosion. Landmines remain a serious problem on some secondary roads in more remote areas. Road conditions vary widely outside the capital from acceptable paved surfaces to virtually impassable dirt roads, particularly secondary routes. Many secondary roads, including secondary roads in urban areas, are impassable during the rainy season. Overloaded, poorly marked, and disabled vehicles, as well as pedestrians and livestock, pose hazards for motorists. Ground travel in rural areas should be undertaken during daylight hours only. Landmines also pose a continuing hazard to travelers. Many areas were heavily mined during the war, including roads, bridges, and railroad tracks. Areas with suspected landmines are generally clearly marked and travelers should heed these warnings. Primary roads are considered to be landmine free in most provinces, but travelers should not venture far from the margins of the road. Extensive government, commercial, and NGO demining projects continue throughout the country.

Traffic in the capital city of Luanda is heavy and often chaotic, and roads are often in poor condition. Few intersections have traffic lights or police to direct vehicles. Drivers often fail to obey traffic signals and signs, and there are frequent vehicle breakdowns. Itinerant vendors, scooters, and pedestrians often weave in and out of traffic, posing a danger to themselves and to drivers. Most public transportation, including buses and van taxis, should be avoided as the vehicles are generally crowded and may be unreliable.

Cameroon

Driving in Cameroon is assessed as an **EXTREMELY HIGH RISK** activity. Cameroon's road networks, both paved and unpaved, are poorly maintained and unsafe at all times of the year. Vehicles are poorly maintained and there is no mechanism or requirement to inspect for roadworthiness. During the rainy season, many roads are barely passable with four-wheel-drive vehicles. Livestock and pedestrians create constant road hazards (especially at night) and road safety rules are frequently ignored. There are few road and traffic signs; speed limits are neither posted nor enforced. Buses and logging trucks travel at excessive speed and are a constant threat to other road traffic.

Travelers on roads near the borders with the Central African Republic and Chad should ensure that they have adequate vehicle fuel, cooking fuel, food, and water for several days as well as a reliable means of communication, such as a satellite or cell phone, or radio.

Visitors who are not in possession of a valid passport and a visa may experience difficulties at police roadblocks or other security checkpoints. It is not uncommon for a uniformed member of the security forces to stop motorists on the pretext of a minor or non-existent violation of local motor vehicle regulations in order to extort small bribes. Visitors are advised not to pay bribes and to request that the officer provide a citation to be paid at the local court.

Local law states that vehicles involved in an accident should not be moved until the police arrive and a police report can be made. If an accident results in injury, drivers should be aware of the possibility that a "village justice" mentality may develop. If an angry crowd forms, drive directly to the U.S. Embassy or another location where you can receive assistance. Contact the local police once you are safely away from danger.

Central African Republic

Driving in the Central African Republic is assessed as an **EXTREMELY HIGH RISK** activity. In capital city of Bangui, road conditions vary, and many roads have large holes and degraded points that prevent the normal flow of traffic. Only a small portion of the roads in the country, including in the capital, are paved, and many of the compacted dirt roads have been degraded. Drivers tend to prefer to drive on the smoothest portion of the road and ignore basic traffic laws, thus slowing the flow of traffic and increasing the risk of collision. The city of Bangui does have a public transportation system consisting of green buses and yellow taxis, though these vehicles are often dangerously overcrowded and very badly maintained.

Due to the risk of armed attacks on motorists in the northern and western regions of the country, overland travel in these areas should be avoided. Any driving outside the capital should be only during daylight hours. Most remote areas in the CAR that are frequented by tourists are accessible only by four-wheel drive vehicles, although some roads are not passable at all during the rainy season, from May to October.

Chad

Driving in Chad is assessed as an **EXTREMELY HIGH RISK** activity. Roads are in poor condition and dangerous. In the capital city of N'Djamena, only the main roads are paved; the rest of the roads are either hard-packed dirt or looser dirt and sand. During the summer rainy season (mid-June to mid-September) many roads become impassable or are restricted by rain barriers, while during the drier season, clouds of dust rising from the roads reduce visibility.

Visitors should take great care while driving. Both paved and unpaved roads are poorly maintained, and often have large ruts and potholes. All drivers should adjust their speed accordingly. At night, streets are not lit; it is imperative to watch for pedestrians, bicyclists, motorcyclists, and livestock, as they may not become visible until they are in very close proximity.

Driving in Chad tends to be erratic both in cities and in rural areas. In cities, particularly N'Djamena, motorists share the roads with bicycles, motor scooters, pedestrians, and non-motorized wheelchairs. Lanes are not marked, and it is not uncommon for a normally two-lane thoroughfare to become a four-lane road during rush hours. There are only a few traffic lights in N'Djamena, and these are often out of service. Drivers yield to traffic on their right, particularly when entering the traffic circles.

In rural areas, drivers should watch for livestock crossing the roads, and for large hawks that rest on the roads. These birds can be fearless, and cause damage by smashing into drivers' windshields; drivers may avoid this by slowing down when approaching the hawks, and allowing them sufficient time to fly away. Finally, drivers should be alert to older transport trucks traveling between cities, which do not always have functioning headlights.

No emergency services exist, so drivers should exercise extreme caution. Travelers should always wear seat belts. When traveling by car, be sure to carry a spare tire. Roadside service is limited to good Samaritans and children who will help push cars to the side or out of holes. When traveling outside the capital, it is imperative to carry sufficient quantities of drinking water. Drivers should ensure that their gas tanks are at least half-full at all times, as gas stations are not widely available. In an emergency, gas may be purchased in bottles from roadside stands, but it is generally of poor quality. Travelers on roads in all areas of the country are subject to attack by armed bandits.

Democratic Republic of the Congo (DRC)

Driving in the Democratic Republic of the Congo is assessed as an **EXTREMELY HIGH RISK** activity. Inter-city roads are scarce, and throughout the DRC roads are generally in poor condition, and often impassable in the rainy season. When driving in cities, keep windows up and doors locked. At roadblocks or checkpoints, documents should be shown through closed windows. In the event of a traffic incident involving bodily injury to a third party or pedestrian, do not stop to offer assistance under any circumstances. Attempting to provide assistance may further aggravate the incident, resulting in a hostile mob reaction such as stoning or beating. Proceed directly to the nearest police station or gendarmerie to report the incident and request official government intervention.

Presidential and other official motorcades pose serious risks to drivers and pedestrians in Kinshasa. When hearing sirens or seeing security forces announcing the motorcade's approach, drivers should pull off the road as far as possible, stop their vehicles, and extinguish headlights. Vehicles should not attempt to move until the entire motorcade has passed by; the security forces will physically indicate when this has occurred. Failure to comply may result in arrest, and/or vehicle damage with possible personal injury.

Public transportation of all forms is unregulated and is generally unsafe and unreliable. Taxis, mini-buses, and trains are in poor mechanical condition and are invariably filled beyond capacity.

Visitors who wish to travel in any mining areas must first obtain government approval from various government agencies or ministries, an often cumbersome and time-consuming process.

Drivers should stop their cars and pedestrians should stand still when passing a government installation during the raising and lowering of the Congolese flag. This ceremony occurs at roughly 7:30 a.m. and 6:00 p.m.

Equatorial Guinea

Driving in Equatorial Guinea is assessed as a **HIGH RISK** activity. Generally, Equatorial Guinea's road networks are underdeveloped. There are few road and traffic signs, though more signs are becoming evident. Livestock and pedestrians create constant road hazards. During the rainy season, many roads are passable only with four-wheel-drive vehicles. However, new road construction and repair is taking place all over the country and road conditions have improved markedly over the course of the past year. If you plan on staying and driving around the country for any length of time you should attempt to purchase a cell phone for assistance in case of an emergency.

Travelers outside the limits of Malabo and Bata may expect to encounter occasional military roadblocks. Travelers should be prepared to show proper identification (for example, a U.S. passport) and to explain their reason for being at that particular location. The personnel staffing these checkpoints normally do not speak or understand English or French; travelers who do not speak Spanish would do well to have their reason for being in the country and their itinerary written down in Spanish before venturing into the countryside.

Gabon

Driving in Gabon is assessed as a **HIGH RISK** activity. Travel by road in Gabon can be hazardous. It is recommended that you drive with your car windows up and the doors locked. Travelers are routinely stopped at police checkpoints within cities and on roads to the interior. Americans should comply politely if stopped, but avoid encouraging requests for bribery if possible. Travelers should use extreme caution when driving after dark. Two-lane roads are the norm throughout Gabon. Roads to outlying cities have visible and hidden dangers that are profuse, including large potholes, absence of road signs, poor to non-existent streetlights, timber-laden trucks, and the presence of pedestrians and animals. Construction work is often poorly indicated. Four-wheel drive vehicles are recommended for travel beyond the paved road to Lambarene, especially during the rainy season.

Roadside assistance and emergency medical services are available in Libreville, but they may not be dependable. Such services are nonexistent outside of the city. Service stations are available along main roads, but vehicle repair facilities are not always available. Drivers must have a valid international driver's license when driving in Gabon.

Use of taxis is generally safe but does pose added risks. It is recommended that one use a hotel taxi when possible. Before entering a taxi, check that the taxi has seatbelts and negotiate the rate before entering the taxi. Riding in a taxi alone or during late hours of the evening is not recommended and creates additional risk of becoming a victim of crime. Rail services remain available, but infrequent, and travelers should be prepared for lengthy delays.

Republic of the Congo

Driving in the Republic of the Congo is assessed as a **HIGH RISK** activity. Road conditions are generally poor and deteriorate significantly during the rainy season, November-May. Maintenance of the few paved roads is limited. Overland travel off the main roads requires a four-wheel drive vehicle. Poorly marked checkpoints, sometimes manned by undisciplined personnel, exist in many areas of the countryside.

The U.S. Embassy in Brazzaville does not recommend or endorse the use of taxicabs or other forms of public transportation in the Republic of the Congo. Most of these vehicles are not equipped with seatbelts or other standard safety features required in the United States. Please keep this risk in mind if you choose to use this form of transportation.

Traffic safety in general is hazardous due to high speeds, aggressive driving, poorly maintained vehicles, and general apathy for the safety of pedestrians and cyclists. Roads are narrow, dangerously potholed, full of debris and pedestrians, and frequently wash out during rainy season. Emergency services are limited.

São Tomé and Príncipe

Driving in São Tomé and Príncipe is assessed as a **HIGH RISK** activity. Streets in the city of São Tomé are paved, but large potholes are common. Major roads outside of town are also paved. Pedestrians, bicyclists, motorcyclists, and animals on the roads can be a major hazard. Outside of the city of São Tomé, there are no sidewalks or shoulders along the side of roads. In rural areas outside of the capital city, drivers are expected to honk the car's horn periodically as a warning signal of their approach. There is no street lighting outside of the capital. Some roads may be impassable without a four-wheel-drive vehicle. Only a few miles of improved roads exist on the island of Príncipe; the conditions are similar to those found on São Tomé.

Although taking taxis is fairly safe, it is advisable to rent a car instead. If you must take a taxi, make sure that the taxi has seatbelts and negotiate the rate before entering the taxi.

Ground Operations

Ground operations in Central Africa primarily consist of partner nation capacity building programs. Included in these operations are humanitarian, medical, dental, veterinary, logistic support, mil to mil, and construction operations as well as traditional field sustainment operations. Many hazards and controls are common to those found in operations at other locations; however, additional regional concerns must also be considered. The political and economic climate in many of countries in the region remains volatile. These and other dynamic factors can have a significant impact to operational risk levels. Mission, Enemy, Terrain, Troops, Time, and Civilians (METT-TC) should be factored into the planning process for all ground operations.



Figure 18 - Ground operations include support to our African partners

Risk Mitigation

General Operational Requirements

General operational requirements include theater common issues and leadership concerns. The following section discusses risk mitigation factors to address these conditions.

Lines of Authority May Not Be Clear

- ◆ Press for limits of responsibility.
- ◆ Establish clear lines of responsibility and command
- ◆ Maintain internal chain of command.
- ◆ Warn troops to exercise judgment in civil issues.
- ◆ Establish liaison with relief agencies on site.
- ◆ Define communication and check-in requirements
- ◆ Manage risks when life and health are at stake.

Lack of Comprehensive Fire and Disaster Plan

- ◆ Establish and publish a coordinated plan
- ◆ Think about the next disaster
- ◆ Post exit signs and mark paths
- ◆ Evaluate improvised family-privacy barriers

Piped Water Supplies Not Trustworthy

- ◆ Use only water that has been cleared by Preventive Medicine officials
- ◆ Use military water purification sources
- ◆ Use bottled water

Fatigue

- ◆ Establish sleep discipline
- ◆ Eliminate non-productive duties
- ◆ Discourage nightlife
- ◆ Create least-disruptive bivouac possible

Ammunition and Explosives

Partner nation capacity building programs may include a variety of humanitarian and infrastructure building operations. Construction and infrastructure building programs may require the use of explosives. These operations will require precautions to address the proper management of explosives. The following section discusses risk mitigation factors to address these conditions.

General Precautions

- ◆ Expose only the minimum number of people and amount of equipment necessary to ammunition and explosives.
- ◆ Handle ammunition carefully. Containers must not be tumbled, dropped, thrown, rolled, or dragged (unless designed for dragging).
- ◆ Make provisions to evaluate and, if necessary, segregate damaged ammunition.
- ◆ Coordinate with QM laundry to wash clothing with an antistatic additive to reduce static electricity.
- ◆ Do not use sparking metallic tools on explosives; take precautions to reduce static electricity discharge.
- ◆ Determine if your area of operations is susceptible to electrical storms and establish lightning protection procedures.
- ◆ Do not allow personnel to collect dud rounds for souvenirs.
- ◆ Monitor suspension/restriction notices. Suspended lots should be visibly marked and physically separated from serviceable unit basic load (UBL).
- ◆ Do not remove ammunition from its packaging until you have to. Ammunition containers provide protection from hazards such as moisture and static electricity.
- ◆ Wear leather gloves when working with banding materials or wooden boxes.
- ◆ Keep the area within 50 feet of ammunition clear of vegetation, refuse, empty packing materials, and other hazards that could cause a fire to spread to the ammunition.

Fire Precautions

- ◆ Keep all flammable materials and all flame or spark-producing devices away from ammunition and explosives. This includes matches, lighted cigarettes, petroleum products, and vehicles with leaking fluids.
- ◆ Ensure fire extinguishers are present wherever ammunition is handled, stored, or transported.
- ◆ In case of fire, evacuate the area to a distance of at least 400 meters and take cover.
- ◆ Clearly post "Add no water" signs to ammunition-containing materials (such as thermite or triethyl aluminum (TEA/TPA)) that react violently with water. These fires may be smothered with sand or dirt.

Loading Precautions

- ◆ Ensure vehicle brakes are set, engine is turned off, and at least one wheel is chocked during loading and unloading.
- ◆ Ensure ammunition weight is evenly distributed and the load is secured to prevent movement.
- ◆ Ensure vehicles and trailers loaded with ammunition are parked at least 50 feet from vehicles and trailers loaded with flammable liquids.
- ◆ Ensure tailgates and safety straps are secured.

Storage Precautions

- ◆ Protect ammunition, particularly unpackaged ammunition, from direct sun. However, tarpaulins or other covers placed directly on ammunition could cause deterioration, so a ventilation space must be provided.
- ◆ Disperse ammunition to minimize loss in the event of fire, accidental explosion, or hostile action.
- ◆ Conform to quantity-distance standards for storage of ammunition and explosives.
- ◆ Ensure that ammunition of unknown origin and captured ammunition is examined, evaluated, and classified by qualified personnel and stored in a designated collection point.
- ◆ When storing ammunition, use sand dunes, barriers, buildings, and so forth to prevent propagation and to protect personnel and materiel from the effects of an explosion.

Pyrotechnics

- ◆ Ensure your personnel know that simulator flash powder ignites instantly and explosively and that simulators should not be exposed to intense heat and direct sunlight. Remind them never to cut open or hand-ignite these devices and to mark duds and seek EOD guidance for handling and disposal.
- ◆ Remind personnel, while training, not to throw/detonate simulators, flares, or smoke devices near troops, tents, vehicles, or other flammable/combustible materials.
- ◆ Remind personnel to roll down sleeves and wear gloves and helmets when using simulators.

Unexploded Ordnance (UXO)

Several countries in Central Africa have recently experienced hostilities. This has led to a proliferation of land mines and UXO in some areas. To address these hazards, use the following guidelines:

- ◆ Brief personnel on dangers of UXO.
- ◆ Establish procedures for marking and handling UXO.
- ◆ Do not allow personnel to collect dud rounds, bomblets, or suspected UXO for souvenirs.
- ◆ Have NCOs perform shakedown inspections while in cantonment areas.
- ◆ Constantly remind personnel that UXO can kill.
- ◆ Be alert while crossing terrain and areas where prior hostilities may have taken place.
- ◆ Remind personnel: If you do not know what it is, do not mess with it!

Weapons Handling and Range Operations

During major exercises, opportunities to train with multinational forces may exist. Training opportunities may include live fire ranges. The operational role undertaken by the organization will affect the types of hazards encountered. Many can be controlled if the organization maintains operational control. If the partner nation manages the range operation then consideration should be given to their range management practices.

In some cases, USARAF organizations may be looked upon to provide instruction and mentorship to partner nations. Language barriers, use of unfamiliar weapon systems by partner nation, and history of poor weapons discipline should be considered when determining risks and controls. Consider the following risk mitigation factors to address these conditions.

Weapons Handling

- ◆ Do not tolerate horseplay.
- ◆ Ensure weapons are kept on safe.
- ◆ Enforce muzzle discipline standards.
- ◆ Ensure clearing barrels are emplaced at designated locations and personnel are using them.
- ◆ Remind personnel to consider weapons loaded at all times and to check chamber often.
- ◆ Instruct personnel to load only on command or SOP.
- ◆ Remind personnel to know their target and their allies.
- ◆ Insist on comprehensive pre-marksanship training.
- ◆ Require language interpreters who understand local and regional dialects.



Figure 19 - Ranges operations provide opportunities to share our safe practices

Train in Target Identification under "Mirage" Conditions

- ◆ Control ammo.
- ◆ Highlight danger of “cook-offs.”
- ◆ Rehearse immediate-action drills for misfire/weapons malfunction.
- ◆ Remind personnel to clear for backblast when firing anti-armor weapons.
- ◆ Ensure that personnel receive correct ammunition for the weapon system. Refer to the operator's manual when in doubt.

Weapons Maintenance

- ◆ Establish weapons lubrication policy.
- ◆ Require that weapons, ammo, and magazines be kept clean.
- ◆ Require that muzzles be covered to prevent clogging.
- ◆ Conduct headspace and timing in accordance with TM. Caution personnel not to rely on memory, to always verify.

Range Waiver – Deviations from Standard SDZs

- ◆ On the African continent, the range waiver / deviation approval authority is the CG, USARAF. This responsibility shall not be further delegated.
- ◆ The USARAF Safety Office will maintain a copy of all approved range waivers.
- ◆ CG, USARAF will approve all live-fire training operations.

Life Support Centers and Bivouac Areas

Some of the most significant risks to safety and health can be found in life support centers. A variety of conditions in Central Africa exacerbate risk. Continual exposure to these conditions can lead to risk complacency. The following section discusses risk mitigation factors to address these conditions.

Small Detachments Set Up in Substandard Buildings

- ◆ Don't occupy buildings until checked by engineers
- ◆ Give safety and medical review of kitchens and mess areas
- ◆ Use field sites rather than suspect structures
- ◆ Maintain sanitation standards
- ◆ Don't trust local water, gas, or electrical systems

Improvised Barracks Exits Are Warped or Blocked

- ◆ Have organization fire marshal check troop evacuation routes.
- ◆ Clear several paths of exit.

Concertina Wire Is Used In Pedestrian Areas

- ◆ Remove unneeded wire
- ◆ Mark essential wire with engineer tape
- ◆ Find secure storage for weapons and high-cost items

Inadequate Trash Collection Creates Fire/Sanitation Risk

- ◆ Set up routine police calls.
- ◆ Learn the approved trash dump/pickup point.



Figure 20 - Controlling hazards when conducting life support operations is essential

Tent Fires

- ◆ Designate a fireguard for each tent and brief each fireguard on fire hazards.
- ◆ Ensure that fire extinguishers are accessible and that personnel know how to use them.
- ◆ Inspect electrical circuits for possible overload condition.
- ◆ Establish and enforce smoking areas.
- ◆ Ensure proper installation and operation of tent stoves.
- ◆ Ensure that the correct fuel is used for the type stove being used.
- ◆ Prohibit use of stoves that are leaking fuel, and require immediate cleanup of any spills.

Tent Electrical Systems Are Over-Elaborate

- ◆ Perform informal surveys of electrical loads
- ◆ Limit the number of civilian appliances in use
- ◆ Have an engineer evaluate any modifications
- ◆ Limit the number of outlets

Tent Wiring Systems Become Hazard in Storms

- ◆ Include electrical shutdown in storm plan
- ◆ Assign individuals to cut power at the generator
- ◆ Identify critical circuits that should stay up

Vehicles Are Parked Uphill From Living Areas

- ◆ Mark safe parking areas downhill from tents
- ◆ Require use of emergency brakes and chocks

Vehicles Operate In Bivouac Areas at Night

- ◆ Limit times and places for transient vehicles
- ◆ Use ground guides in occupied areas at all times

Mess Operations – Food-Borne and Water-Borne Threats

The diseases of greatest risk throughout the region, in both rural and urban areas, are bacterial and protozoal diarrhea, hepatitis A, and typhoid/paratyphoid fever, associated with contaminated food, water, and ice. Do not consume any food, water, or beverages (to include bottled water) that have not been approved by the U.S. military. Assume all non-approved food, ice, and water are contaminated. Water and food items available in this region, including dairy products, fish, fruits, and vegetables, may contain unsafe levels of pesticides, chemical fertilizers, bacteria, and viruses. Contamination with human or animal waste is widespread. Even a one-time consumption of these foods or water may cause severe illness. See GTA 08-05-062 for appropriate countermeasures. The following section discusses risk mitigation factors to address these conditions.



Figure 21 - Prevention of diseases from food and water borne sources requires sustained focus

Sanitation

- ◆ Ensure all food waste is properly disposed of. If buried, do so daily and at least 30 meters from food preparation areas.
- ◆ Ensure food preparation area is at least 100 meters from latrines and 50 meters from incinerators.
- ◆ Ensure food is protected from contamination.
- ◆ Monitor food handlers and other personnel to ensure sanitation standards are maintained.
- ◆ Caution personnel to rehydrate MRE items.
- ◆ Reinforce hand washing to reduce transmission of disease.

Fire and Explosion

- ◆ Ensure kitchen fuel storage area is at least 15 meters from working area and is marked as a hazard area.
- ◆ Ensure operable fire extinguishers are accessible (with designated operators) in mess-tent area and at stove-lighting and fuel-storage areas.
- ◆ Ensure that all personnel who refuel or operate stoves, immersion heaters, and burners are properly trained.
- ◆ Make operators aware that increased heat will add pressure to fuel tanks and fuel cans and that particular attention should be given M2 burners.
- ◆ Keep mess-tent exits clear of obstructions.

Cuts and Burns

Keep knives sharp, and use the right knife for the job. Remind personnel too:

- ◆ Not use knives or other sharp implements to open tray packs (use modified can opener and P38).
- ◆ Tilt heated tray packs and cans to right or left when opening to prevent burns from squirting hot juices.

Material Handling

Most partner nation capacity building operations will include material handling requirements of some sort. Humanitarian and medical aid may require significant handling of large amounts of cargo and supplies. The following section discusses risk mitigation factors to address these conditions.

Lifting and Carrying

- ◆ Enforce the use of correct techniques.
- ◆ Require personnel to get help with loads that cannot be managed with ease.
- ◆ Remind personnel to bend from the hips and knees, not just the waist; to carry heavy objects close to the body; to avoid sudden movements and move slowly and deliberately; and to avoid trying to carry unbalanced loads.



Figure 22 – Many operations in Central Africa draw crowds. Keep this in mind when conducting operations

Slips, Trips, and Falls

- ◆ Ensure that work areas are clear of obstructions and hazards.
- ◆ Prohibit personnel from jumping or stepping from cargo vehicles while carrying loads; require the use of a ramp or the buddy system.
- ◆ Remind personnel to use extreme care when carrying loads over rough surfaces or in loose soil, mud, or sand.

Personnel Use Front-Loaders and Other Material-Handling Equipment for Workstands

- ◆ Use only man-rated ladders and stands
- ◆ Do not stand on forklift tines or unguarded pallets

Heavy Equipment and Material-Handling Equipment Operators Are Not Trained and Licensed

- ◆ Enforce operator qualification standards
- ◆ Communicate training and personnel needs to the G 1

Improvised Slings and Rigging

- ◆ Use only approved and inspected hooks and slings
- ◆ Keep people away from the area underneath rigging

Warehouse-Type Forklifts Are Used In Rough Terrain

- ◆ Use the proper lift for the situation
- ◆ Prepare working surface for small-wheeled trucks

Humanitarian, Medical, and Dental Support Operations

Humanitarian aid and medical / dental support is one of the primary operations conducted by USARAF. These operations have the potential to expose providers to a variety of diseases to include Tuberculosis, HIV, and Hepatitis. Other hazards are present because of the austere conditions and lack of safety standards. The following section discusses risk mitigation factors to address these conditions.



Figure 23 - Providing medical and dental support is a core mission

Exposure to HIV, Hepatitis, and Other High Risk Diseases

- ◆ Ensure medical organizations have an effective SHARPS program and method for proper medical waste disposal in place
- ◆ Ensure medical personnel have all current immunizations to include a documented pre-departure PPD skin test, Hepatitis B, and yellow fever
- ◆ Ensure gloves and other protective equipment is worn by all personnel
- ◆ Ensure standard operating procedures are in place for Occupational Exposure to Bloodborne Pathogens
- ◆ Promote frequent washing of hands with anti-bacterial soap and use of alcohol based hand sanitizers
- ◆ Practice proper use of PPE and prevention of respiratory disease transmission

Mixed Military-Civilian Crews Have Different Standards

- ◆ Let headquarters liaisons settle differences.
- ◆ Listen to experienced civil-relief experts.
- ◆ Hold to Army safety standards.

Relief Logistics Centers Lack Organic Firefighters

- ◆ Mark hazardous materials with standard placards.
- ◆ Make a self-help fire plan.
- ◆ Locate working fire extinguishers and guard them.

Civilian Relief Packages Could Include Hazardous Items

- ◆ Check contents before distribution
- ◆ Post warnings of inappropriate materials
- ◆ Observe what children receive (BIC lighters, etc.)
- ◆ Feed information back to provider agencies

Children Playing Around Water, Traffic, and Work Areas

- ◆ Have responsible persons establish activity program
- ◆ Isolate hazards in initial planning
- ◆ Post guards and patrols
- ◆ Create secure storage areas

Engineering and Construction

Engineering and construction operations can be dangerous in any location. Environmental and infrastructure conditions found in Central Africa can significantly increase operational risk. The following section discusses risk mitigation factors to address these conditions.

Personal Injuries

- ◆ Remind operators that construction equipment may be unstable off road in sandy, muddy, or rocky terrain.
- ◆ Ensure that operators and supervisors check outriggers for stability.
- ◆ Ensure that safety belts are worn at all times when operating equipment.
- ◆ Ensure that rollover protection systems are installed. Rehearse operator/crew rollover drills.
- ◆ Require use of sun umbrellas on slow-speed equipment such as rollers and compactors.
- ◆ Ensure that all prime movers and trailer brake systems are operational.
- ◆ Rehearse braking and downhill driving procedures with all operators.
- ◆ Appoint a site safety supervisor for large earthwork or building-construction sites.
- ◆ Control vehicle and dismounted access to sites.
- ◆ Ensure that excavation walls are reinforced to prevent cave-in.
- ◆ Ensure that all electrical equipment is grounded, and ensure that personnel always ground and bond when transferring fuel.
- ◆ Ensure that proper safety equipment (goggles, gloves, etc) is available for both organizational and partner nation personnel. Ensure personnel are trained on proper use and that use is enforced.
- ◆ Ensure that helmets or hard-hats are worn on construction sites.
- ◆ Require that personnel wear gloves when working with metal tools and materials exposed to heat from the sun or extreme cold.
- ◆ Caution personnel not to shortcut safety procedures to avoid heat or cold discomfort.
- ◆ Ensure personnel know what to do during windstorms to prevent injury and equipment damage.
- ◆ Ensure that personnel on site know what to do in event of flash floods.
- ◆ Require use of proper recovery techniques for recovery of stuck equipment.
- ◆ Ensure that electrical wiring, hydraulics, and optics are protected from mud, sand, ice, and other abrasives.
- ◆ Enforce spill control (personnel must remove contaminated soil from operational areas immediately because of fire and vapor hazards).



Figure 24 - Missions also include construction and rebuilding of infrastructure

Untrained Troops Are Issued Power Equipment

- ◆ Find personnel who have the proper background
- ◆ Establish tailgate training sessions
- ◆ Put only capable troops on risky equipment
- ◆ Request help from Task Force or civil trainers
- ◆ Keep teams properly dispersed; don't bunch up

Untrained Personnel Enter Confined Spaces

- ◆ Prohibit entry, even in life-or-death cases
- ◆ Ensure trained rescuers are available
- ◆ Communicate rapidly to trained rescuers
- ◆ Stand by to offer outside assistance

Personnel Encounter Toxic and Hazardous Waste

- ◆ Only trained and equipped personnel handle waste
- ◆ Record and report suspect sites to next higher headquarters

Improvised Crews Lack Personal Protective Equipment

- ◆ Include projected needs in predeployment plan
- ◆ Learn the emergency supply system
- ◆ Deploy with all supplies of work gloves available
- ◆ Contact task force depots immediately on arrival

Military and Civilian Crews Do Not Share Signals

- ◆ Compare signals before rigging work
- ◆ Try to work with same civilian helpers continually
- ◆ Brief civilians involved in sling load operations

Obsolete or Marginal Equipment Is Pressed Into Service

- ◆ Upgrade any substandard equipment that must be used
- ◆ Find local experienced personnel to use and maintain gear

Small Fuel Containers Are Improvised

- ◆ Use only approved containers
- ◆ Centralize refueling points
- ◆ Obtain extinguishers

Troops Encounter Uncovered Wells, Sewers, Pits, and Traps

- ◆ Get information from locals
- ◆ Recon new areas of operation
- ◆ Report potential problems to other elements
- ◆ Mark perimeter with engineer tape

Bridging Units Face Unusually High Currents in Rainy Seasons

- ◆ Assure PFDs are worn
- ◆ Rig downstream lines, if possible
- ◆ Post rescue boats
- ◆ Stay alert to trees and debris

Waters Are Contaminated With Waste and Hazmat

- ◆ Minimize contact with streams
- ◆ Assure inoculations during predeployment preparations
- ◆ Drink approved water only

Electrical Safety at Construction Sites

- ◆ Ensure power sources are properly grounded
- ◆ Manage use of extension cords. Keep them out of the traffic flow and away from water sources. Enforce the use of GFCI extension cords
- ◆ Ensure buildings are properly grounded
- ◆ Enforce proper wiring standards

Fuel Handling

Fuel handling can be risky in any environment. Conditions found in Central Africa complicate operations. Limited fire response capabilities, extreme environmental conditions, and poor roads all increase fuel handling and distribution risk. The following section discusses risk mitigation factors to address these conditions.

Failure to Use Bonding and Grounding Equipment

- ◆ Require regular inspection and testing of bonding and grounding equipment.
- ◆ Require that personnel properly bond and ground all equipment before engaging in any petroleum operation.
- ◆ Require personnel to ground themselves by touching a large metal object before handling fuel hoses and nozzles.



Figure 25 - Fuel operations in Central Africa present unique challenges

Lack of Proper Fire Extinguishers

- ◆ Ensure that correct types of fire extinguishers are available and ready. (Extinguishers fastened in storage brackets are not considered ready.)
- ◆ Ensure that extinguishers are in proper operating condition and that all personnel know how to use them.

Flame and Spark Producing Equipment

- ◆ Prohibit open flames, stoves, electrical tools, catalytic converters, and similar hazardous equipment in petroleum storage, transfer, and operating areas.
- ◆ Keep all sources of vapor ignition away from fuel storage, transfer, and operating areas.
- ◆ Remind crews to stop fuel flow and close hatches in case of fire in tank compartment.
- ◆ Caution personnel not to drag hoses across the rear deck of combat vehicles or near exhaust systems. Armor plates and exhaust pipes become hot during operation and could damage hoses or start a fire.
- ◆ Require flame and spark arrestors on equipment used near petroleum storage or handling areas.

Fuel System Supply Points

- ◆ Remind personnel not to fill collapsible bags to capacity (allow for expansion).
- ◆ Require that pump engines be kept clean.
- ◆ Remind personnel to keep hose-line valves slightly open to allow for fuel expansion into tankage.
- ◆ Remind personnel to keep pumps properly lubricated and to use dust caps and plugs.

Improper Fuel Handling

- ◆ Establish a waste POL point.
- ◆ Strictly enforce no-smoking rules.
- ◆ Post no-smoking signs around the POL storage areas.
- ◆ Prohibit presence of matches and lighters in vehicle-maintenance areas.

Inadequate Inspections

- ◆ Require frequent inspection of petroleum storage, handling, and working areas.
- ◆ Ensure that potentially hazardous conditions are corrected immediately.
- ◆ Require daily fuel-sample checks.

Notched-Handled Nozzles

- ◆ Prohibit use of nozzles with notched, stay open handles. If such handles must be used, require that they be modified so that they must be held open by hand to operate.

Static Electricity

- ◆ Remind personnel to avoid wearing wool and synthetic clothing or combinations while engaged in petroleum operations (Electrostatic charges build up).
- ◆ Require crews to bond themselves to equipment by placing both bare hands on it for at least 10 seconds before beginning any fuel operation such as fuel circulation or sampling, regardless of what materials are in their clothing (Use extra caution in cold weather).
- ◆ Remind crews that when removing fuel soaked clothing, they should first wet the clothing. If no water is available or it is too cold to wet clothing first, they should ground themselves by holding a piece of grounded equipment with both hands for a moment before moving the clothing.
- ◆ Coordinate with QM laundry to wash clothing with an antistatic additive to reduce static electricity.

Spills and Leaks

- ◆ Ensure that crews wear fuel-resistant or rubber gloves and protective clothing to keep fuel off their skin. Require personnel to wash immediately with soap and water if they get any fuel on their skin.
- ◆ Ensure that personnel use drainage tubes or containers to catch leaking or spilling product.
- ◆ Ensure that personnel dispose of collected products properly.
- ◆ Require immediate cleanup of spills and leaks.

Fuel Contamination

- ◆ Keep equipment properly lubricated.
- ◆ Keep caps and covers on systems.
- ◆ Keep pump engines clean.
- ◆ Purge tanks, lines, and filter separators at the beginning and end of the day.
- ◆ Circulate fuels to remove water. Make sure aqua-glow tests are conducted as required.
- ◆ Keep pressure-relief valves clean (compressed air).
- ◆ Inspect for corrosion.
- ◆ Conduct Millipore sampling as required

Tank-Vehicle Operations

- ◆ Ensure that crews maintain required distances between vehicles while engaged in fuel handling operations or when vehicles are parked.
- ◆ Use ground guides when backing vehicles or when moving in parking or assembly areas.
- ◆ Chock wheels of parked vehicles to prevent movement in either direction.
- ◆ Use tire chains on fuel tankers when more traction is needed on ice or snow. Require crews to remove chains when on dry pavement.
- ◆ Remind crews not to fill vehicles to capacity (allow for expansion).
- ◆ Caution crews to keep tank hatches open during refueling to allow vapors to escape; close hatches immediately after refueling.
- ◆ Use bottom loading when possible.

Electrical Safety

Conditions found in Central Africa may require most organizations to generate and distribute their own electricity. Seasonal torrential rains can further affect risks. Proper configuration and grounding of electrical systems is critical for guarding against injuries and electrocution. The following section discusses risk mitigation factors to address these conditions.

Generator and Light Sets Not Grounded

- ◆ Inspect before power up and periodically thereafter
- ◆ Be sure generator TM is available
- ◆ Ensure generator operators are licensed



Figure 26 - Regional conditions require organizational production and distribution of electricity

Electrical Mishaps

- ◆ Give extra care to preventing static electricity in hot, dry climates.
- ◆ Ensure that personnel know grounding procedures for the soil in the area of operations.
- ◆ Instruct personnel to drive grounding rods to a depth of 6 feet.
- ◆ Remind personnel to keep moist soil around grounding rods to increase conductivity and to keep grounding rods, straps, and connections free of paint and oil.

Lightning

- ◆ Prohibit the use of radios, telephones, and switchboards during electrical storms if possible.
- ◆ Instruct personnel to disconnect electrical equipment from power sources and antennas if situation permits.
- ◆ If equipment must be used during electrical storms, keep use as brief as possible.

Communication Systems

- ◆ Remind personnel to stay twice the distance from power lines as the length of the antenna when erecting antennas.
- ◆ Transmitting radios may cause electrical shock or emit non-ionizing radiation. Stay clear of HF antennas and satellite dishes.
- ◆ Ensure that personnel know the location of all power lines.
- ◆ Stress the danger of throwing communication wire over power lines.

Aviation Operations

Most of the Central African Civil Aviation Authorities are not in compliance with International Civil Aviation Organization (ICAO) aviation safety standards. Civil aviation in these nations continues to experience air incidents and accidents. Incidents typically include hard landings, engine failures, collapsed landing gear, and planes veering off the runway. Most air travel schedules are unreliable and planes are frequently overloaded with passengers and/or cargo.

Some U.S. Embassies have prohibited official travel by U.S. government employees and contractors on many national commercial air transportation services due to concerns regarding safety and maintenance. International flights on foreign-owned and -operated carriers are not affected by this notice.

Organizations providing operational air support should also be aware of limited ATC capabilities. Aviation organizations should be prepared to provide flight following of their assets. Additionally, operations require the use of High Frequency (HF) radios as the default means of communications.

Risk Mitigation

General / Operational Issues

The limited civil and military infrastructure common in most areas of Central Africa affect an aviation organization's ability to support air operations. The following section discusses risk mitigation factors to address these conditions.

ATC Capability is Saturated

- ◆ Coordinate early with task-force operations and airspace control liaison
- ◆ Put extreme effort into airspace awareness
- ◆ Contact the theater Aviation Flight Operations Detachment for area flight planning

Local Fire-Protection Capability Is Exceeded

- ◆ Use task-force extinguisher supply channels to cover landing zones
- ◆ Check closed civilian airfields for trained help

Failure to Identify and Mark Obstacles

- ◆ Survey areas of operation, and establish hazard maps and restricted flight areas as first order of business.
- ◆ Brief hazards and obstacles for every mission.
- ◆ Brief all crewmembers on their responsibility for scanning to detect hazards and obstacles and to inform pilot on controls.
- ◆ Develop an Aviator's Procedure Guide for the area of operation.
- ◆ Establish Emergency Helicopter Instrument Recovery Procedures (EHIRP) for area of operation.
- ◆ Include EHIRP in mission briefings (organization SOP).
- ◆ Spell out crew duties and crew coordination requirements.



Figure 27 - Aviation operations in Central Africa present many unique challenges

Inadvertent Instrument Meteorological Conditions (IMC)

- ◆ Make inadvertent IMC proficiency a demonstrated requirement for all pilots. (Hands-on instrument flight in the aircraft at night forces good cockpit organization and eliminates cues that may detract from reliance on instruments. Realistic training will provide practice and instill confidence in instruments so that, when necessary, pilots will immediately transition to instruments instead of attempting to maintain visual reference with the ground.)
- ◆ Train pilots to periodically look under goggles to check for deteriorating weather conditions. (An inherent hazard with night vision devices is that pilots can see through clouds and may not immediately realize that they have entered IMC.)
- ◆ Before each mission, establish and brief requirements for go/no-go and continued operations in deteriorating weather and procedures for mission abort.

Untrained Civilian and Military Passengers

- ◆ Be sure everyone gets preflight safety briefing
- ◆ Provide disposable earplugs
- ◆ Set up a manned passenger holding area at busy landing zones

Radio Frequencies Are Not Compatible With All Agencies

- ◆ Work with task-force operations to organize frequencies and gear
- ◆ Use liaisons with partner nations and other participating groups

Tall Obstacles May Not Have Warning Lights

- ◆ Check topo maps and imagery for towers, smokestacks, etc
- ◆ Watch survey date of topographical maps
- ◆ Talk to locals during flight planning
- ◆ See headquarters for fresh photomosaics

Survival equipment

- ◆ Check for presence and condition of survival kit before each mission. Kit should contain at least the following:
 - Water (5 gallons), canned or in canteens
 - Fabric shelter
 - Rations for 5 days
 - Waterproof matches
 - Compass
 - Handheld GPS
 - Local Maps
 - First-aid kit
 - Pocketknife (at least 2 blades)
 - Emergency radio
 - Water purification tablets
 - Sunburn ointment
 - Day/night signal flares
 - Snakebite kit
 - Frying pan
 - Whistle
 - Headnet, insect
 - Signal mirror
 - Colored signaling panel

Marginal-Weather Medevac Missions Are Called

- ◆ Move decision making to a level removed from crisis
- ◆ Don't ignore non-aviation and non-military medevac capabilities

Foreign Object Damage (FOD)

- ◆ Ensure that bivouac areas are clear of aircraft approach paths, landing pads, and departure paths to prevent loose items from being affected by rotor wash and injuring personnel or damaging aircraft.
- ◆ Require that FOD checks be performed following maintenance to reduce the possibility of loose items being ingested by aircraft engines.
- ◆ Ensure that approach, hover, and departure are high enough not to affect loose debris.
- ◆ Before use, recon unimproved landing and pickup zones for FOD whenever possible.

Forward Arming and Refueling Points (FARP)

- ◆ Ensure that fuel and ammunition handlers are familiar with and adhere to FM 10-68 and FM 1-104 procedures.
- ◆ Remind personnel to use extreme care when handling engine fuel at extremely high temperatures to prevent possible sparks and explosion and to always open fuel drums with bronze or other nonsparking tools.
- ◆ Require frequent inspections for an immediate correction of improper grounding points, deteriorated or leaking hoses, leaking nozzles, incorrect POL products, lack of personal equipment for refueling personnel, no water at refueling sites, unserviceable fire extinguishers, and no controlled access into/out of refuel points.
- ◆ Ensure that fuel drums are kept covered and protected from extreme temperatures.
- ◆ Ensure that fuel does not become contaminated by dirty nozzles or other unclean equipment.
- ◆ Consider positive control of air and ground traffic around refueling sites to reduce potential of collisions.
- ◆ Ensure that camouflage materials (netting/foilage) are kept as far from rotor blades as possible to prevent FOD.
- ◆ Prohibit operation of high-frequency radios within 100 feet of aircraft being refueled.
- ◆ Enforce the requirement for at least two qualified personnel to arm aircraft.
- ◆ Require daily inspection of grounding/bonding systems.
- ◆ Remind personnel to ensure that weapons are on safe before arming.
- ◆ Require that guns be oriented away from unit assets during rearming.
- ◆ Require frequent cleaning and lubrication of turret weapon systems to prevent jamming due to dirt, dust, sand, or mud.
- ◆ Caution personnel of the possibility of fire from static electricity. Remind them that connecting the nozzle bonding wire before opening the fuel cap will prevent a static arc from occurring in the presence of fuel vapor and significantly reduce the fire hazard.

Section II – Central Africa Health Risks

Based on a combination of all major infectious diseases that occur in a country, an overall country risk level is assigned as low, intermediate, high, or extremely high risk. All the countries in this region are **EXTREMELY HIGH RISK** for infectious diseases. Diseases of military importance to personnel deployed to Central Africa include hepatitis A and E, typhoid fever/paratyphoid fever, diarrhea (bacterial, protozoal, and cholera) and brucellosis, which are acquired by consuming contaminated food, water, and dairy products; vector-borne diseases such as malaria, chikungunya virus disease, yellow fever, dengue fever, Crimean-Congo hemorrhagic fever, rickettsioses, Sindbis virus disease, O’Nyong-nyong virus disease, leishmaniasis, plague, murine typhus (flea-borne), trypanosomiasis, West Nile fever and Rift Valley fever which are acquired through the bites of various insects and ticks; schistosomiasis and leptospirosis from swimming, wading, or skin contact with contaminated water; Lassa fever from inhalation of contaminated dust and aerosols; anthrax and rabies from animal contact; meningococcal meningitis, tuberculosis and Ebola hemorrhagic fever from contact with human respiratory secretions or droplets; and sexually transmitted diseases. Environmental factors also pose a significant health risk to deployed forces and include sewage, agricultural and industrial contamination of water and food supplies, extreme heat, localized air pollution, and potential severe flooding.

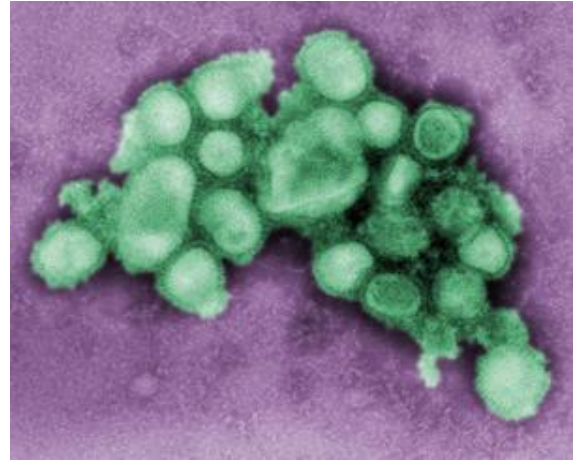


Figure 28 - Many unfamiliar diseases are common in Central Africa

Regional Risk Mitigation

The risk to personnel traveling in these countries can be mitigated through enforcement of established preventive measures. Keep in mind changing conditions can significantly affect operational risks. Consider the following when planning operations.

- ◆ Health threats can change as a result of weather conditions, natural disaster, war, or disease outbreak
- ◆ Health threats can become widespread with movement of displaced people and animals
- ◆ Personnel may be exposed to other diseases common to other countries or regions when working with multinational forces

Medical facilities are severely limited, and medical materials are in short supply. Contact the local U.S. Embassy for a list of emergency care providers and reputable medical facilities. Personnel should carry properly labeled prescription drugs and other medications with them and should not expect to find an adequate supply of prescription or over-the-counter drugs in local stores or pharmacies. While deployed, you must maintain your health and seek care whenever an illness or injury threatens your ability to complete your tasks. Seek care early so that your problems can be documented appropriately and taken care of immediately.

Rivers and Lakes

Lakes, rivers, streams or other surface water may be heavily contaminated with schistosomiasis or leptospirosis. You are at increased risk if you are involved in operations that involve water contact. Do not swim or bathe in ponds, streams, rivers, or lakes. If you must wade in fresh water, make sure your skin is protected from contact with the water.

Skin Diseases

Skin irritations and infections, such as athlete’s foot and ringworm, are common medical threats during any deployment and are commonly caused by fungi. The best prevention is to maintain clean, dry skin. See GTA 08-05-062 for additional countermeasure information.

Sexually Transmitted Diseases

Sexually transmitted diseases are highly prevalent in this region. Gonorrhea, chlamydia, and other infections are common, and may affect a high percentage of personnel who have sexual contact. Human immunodeficiency virus (HIV) is one of the leading causes of death in sub-Saharan Africa. Central Africa has the world's highest number of HIV cases, accounting for 67 percent of global infections. Hepatitis B is widespread. Though the immediate impact of HIV and hepatitis B on an operation is limited, the long-term impact on your individual health is substantial. See GTA 08-05-062 for appropriate countermeasures.

Hearing Protection

It is essential that you use properly fitted hearing protection during military operations. Exposure to high-intensity noise may cause hearing loss that can adversely affect your operational effectiveness and individual readiness. Good hearing is essential to mission success. Personnel operating in noise hazardous areas (e.g. operating power tools) are required to wear approved hearing protection (e.g. flanged earplugs, foam earplugs, or earmuffs).

Vision Protection

It is essential that measures are taken to protect vision when conducting operations in the region. Sand, wind, and dust accompanied by high UV exposure require appropriate eye protection whenever conducting outdoor operations. Sanitation issues and other environmental threats must also be taken into consideration. For these reasons, personnel requiring corrective lenses should not wear contact lenses when conducting operations in the region.

Oral Health

Dental disease is a common problem during deployments due to the challenge of maintaining good oral hygiene. You should deploy with toothbrush, dental floss, and fluoride toothpaste. Daily flossing and twice daily brushing of teeth is the best way to ensure prevention of periodontal disease and to decrease your risk of problems such as trench mouth and tooth decay. In difficult tactical environments, teeth should be brushed at least once a day with bottled water. Remember also to use bottled water when brushing your teeth. Seek medical attention immediately at the onset of any dental problems.

Infectious Diseases

The potential for acquiring infectious diseases in the Central Africa region is higher than most locations to which you may deploy and poses a very serious risk to your health. The health situation in most African countries requires visitors to be up to date with all common childhood vaccines.

Some African countries have actual entry requirements and will not let you in unless you have proof you have been vaccinated against a specific disease. While everyone should get the recommended shots listed below, to find out what you need for entry into a specific country, see your local medical authority. They will determine if these diseases or other vector-borne diseases are a threat in your specific location and provide appropriate countermeasures.

Risk Mitigation

Countries in Central Africa differ as to which diseases are prevalent and you have to adjust your vaccinations according to your specific destination. Contact your local medical authority for specific immunization requirements required for your operation. The following vaccinations though are highly recommended for travel to every African country:

Vaccination or Disease	Recommendations or Requirements for Vaccine-Preventable Diseases
Routine	Recommended if you are not up-to-date with routine shots such as, measles/mumps/rubella (MMR) vaccine, diphtheria/peruses/tetanus (DPT) vaccine, poliovirus vaccine, etc.
Yellow Fever	CDC yellow fever vaccination recommendation for travelers ≥ 9 months of age Some countries in the region requires travelers arriving from countries where yellow fever is present to present proof of yellow fever vaccination. Vaccination should be given 10 days before travel and at 10-year intervals if there is ongoing risk.
Hepatitis A or immune globulin (IG)	Recommended for all unvaccinated people traveling to or working in countries with an intermediate or high level of hepatitis A virus infection where exposure might occur through food or water. Cases of travel-related hepatitis A can also occur in travelers to developing countries with "standard" tourist itineraries, accommodations, and food consumption behaviors.
Hepatitis B	Recommended for all unvaccinated persons traveling to or working in countries with intermediate to high levels of endemic HBV transmission, especially those who might be exposed to blood or body fluids, have sexual contact with the local population, or be exposed through medical treatment (e.g., for an accident).
Typhoid	Recommended for all unvaccinated people traveling to or working in Central Africa, especially if visiting smaller cities, villages, or rural areas where exposure might occur through food or water.
Meningococcal (meningitis)	Recommended if you plan to visit countries that experience epidemics of meningococcal disease during December through June.
Polio	Recommended for adult travelers who have received a primary series with either inactivated poliovirus vaccine (IPV) or oral polio vaccine (OPV). They should receive another dose of IPV before departure. For adults, available data do not indicate the need for more than a single lifetime booster dose with IPV.

Vector Borne Diseases

Central African climates and ecological habitats support large populations of disease vectors, including mosquitoes, ticks, and sand flies. Significant disease transmission is sustained year-round and region-wide, including urban areas. There are several vector-borne diseases present throughout this region. They include malaria, Rift Valley fever, chikungunya virus disease, West Nile fever, yellow fever, O’Nyong-nyong fever, Sindbis virus disease, and dengue fever from mosquitoes; trypanosomiasis from tsetse flies; plague and murine typhus from fleas; sandfly fever and leishmaniasis from sand flies; Crimean-Congo hemorrhagic fever and rickettsioses from ticks; and murine typhus from fleas. All are transmitted year-round, day and night, in both urban and rural areas.

Malaria is widespread at altitudes below 2500 meters (8200 feet) and occurs year-round throughout this region. Malaria symptoms may include

- ◆ Fever
- ◆ Chills
- ◆ Sweats
- ◆ Headache
- ◆ Body aches
- ◆ Nausea and vomiting
- ◆ Fatigue

Malaria symptoms will occur at least 7 to 9 days after being bitten by an infected mosquito. Fever in the first week of travel in a malaria-risk area is unlikely to be malaria; however, you should see a doctor right away if you develop a fever during your trip. Malaria may cause anemia and jaundice. Malaria infections with *Plasmodium falciparum*, if not promptly treated, may cause kidney failure, coma, and death. Despite using the protective measures outlined below, travelers may still develop malaria up to a year after returning from a malarious area. Preventing exposure to mosquitoes, ticks, sand flies, or other biting vectors at all times and in all areas will help reduce your risk of acquiring vector-borne diseases.

There are many other diseases spread by the bites of mosquitoes, ticks, sand flies, fleas, mites, and lice. Prior to deploying to this region, you may receive the yellow fever vaccine. Your local medical authority will determine if these diseases or other vector-borne diseases are a threat in your specific location and provide appropriate countermeasures.

Risk Mitigation

- ◆ Ensure mandatory onetime G6PD deficiency screening test has been completed prior to travel.
- ◆ Take your malaria prevention pills when directed to do so. This is **CRITICAL**. Normally, you will begin taking medication prior to arriving in the area, while in the area, and after returning home.
- ◆ A yellow fever vaccination will be required when deploying to most countries within Central Africa. USARAF Surgeon’s Office recommends that all travelers receive the yellow fever vaccination unless otherwise contraindicated.
- ◆ Use the DOD Insect Repellent System detailed in GTA 08-05-062 to reduce your risk of acquiring a vector-borne disease. Wear permethrin-treated clothing with trousers tucked into boots, sleeves rolled down, and undershirt tucked into trousers. Wear N-diethyl-meta-toluamide (DEET) on all exposed skin.
- ◆ When deployed to this region, sleep under a permethrin-treated bed net to repel insects and further reduce risks of vector-borne diseases. Many insects in this region feed during the night, including mosquitoes that transmit malaria.
- ◆ When using both DEET and sunscreen products, apply sunscreen to the skin first so it does not interfere with the effectiveness of the DEET. After 30 minutes to an hour, apply the DEET. This allows the sunscreen to penetrate and bind to the skin first.

Field Sanitation

Sanitation is extremely poor throughout Central Africa, including most major urban areas. Local food and water supplies, including ice, are heavily contaminated with pathogenic bacteria, parasites and viruses to which most U.S. personnel have little or no natural immunity. Fish caught from lakes, rivers, or streams may be contaminated with pesticides that fishermen use as a means of increasing their catch. These conditions present a significant risk for acquiring incapacitating food and water diseases, including diarrhea (bacterial and protozoal), hepatitis A and typhoid/paratyphoid fever. All are transmitted year-round, day and night, in both urban and rural areas. You are at especially high risk for bacterial diarrhea. Potential rates per month in the absence of countermeasures would be close to 100 percent. There is also a 1-10 percent risk of hepatitis A, protozoal diarrhea, and typhoid/paratyphoid fever in the absence of countermeasures. Diarrhea can be expected if local food, water, or ice is consumed.

Risk Mitigation

General Sanitation

- ◆ Each company-sized unit has a Field Sanitation Team whose members are trained (40-hour course) and fully equipped IAW AR 40-5, FM 4-25.12, and FORSCOM REG 700-2. Know who the members of your Field Sanitation Team are, and know how they can assist in preventing medical threats to your health. Become familiar with Field Sanitation Team equipment and training.
- ◆ Wear gloves when handling blood, body fluids, or feces
- ◆ Cover exposed skin
- ◆ Wash hands and face after exposure. And make sure to wash hands prior to eating and after using latrine. Utilize alcohol based hand sanitizer and apply enough gel to cover all surfaces of each hand.
- ◆ Dispose of field latrine waste in accordance with Field Sanitation Team guidance

Food-Borne and Water-Borne Diseases

Local water and many local foods are highly contaminated with life threatening cholera and other germs that cause stomach cramps and diarrhea. Preventive measures include:

- ◆ Drinking bottled water from approved sources. Brush teeth with bottled water.
- ◆ Avoid ice cubes
- ◆ Wash all fruit and vegetables in a disinfectant solution
- ◆ Ensure meat is thoroughly cooked
- ◆ Avoid unpasteurized dairy products
- ◆ Use caution with the consumption of local foods. If you consume local foods, ensure they are served piping hot. Avoid eating runny eggs; make sure they are fully cooked. If you eat from a buffet line and the food is only mildly warm do NOT eat it. Avoid eating high-risk foods such as shellfish, stuffed pasta/meats, and wild game. If you are eating chicken break open the inside to insure that it is completely cooked.

Food items available in this region, including dairy products, fish, fruits, and vegetables, may contain unsafe levels of pesticides, chemical fertilizers, bacteria, and viruses. Contamination with human or animal waste is widespread. Even a one-time consumption of these foods or water may cause severe illness. See GTA 08-05-062 for appropriate countermeasures.

Health and Disease Risks by Country

The potential for acquiring infectious diseases in the Central Africa region is higher than most locations to which you may deploy and poses a very serious risk to your health. It is critical that you use appropriate countermeasures AT ALL TIMES to avoid incapacitations, hospitalization, and loss to your unit.

Malaria is widespread and occurs year-round throughout this region. Additionally, there is significant risk in this region for acquiring other incapacitating food and water diseases, including diarrhea (bacterial/protozoal), hepatitis A and typhoid/paratyphoid fever. All are transmitted year-round, day and night, in both urban and rural areas. You are at especially high risk for bacterial diarrhea. Potential rates per month in the absence of countermeasures would be close to 100 percent. There is also a 1-10 percent risk of hepatitis A, protozoal diarrhea, and typhoid/paratyphoid fever in the absence of countermeasures. Diarrhea can be expected if local food, water, or ice is consumed.

Annual outbreaks of meningococcal meningitis occur throughout the northern and eastern regions of the Central African Republic. You are at an especially high risk during the dry season from December through June and if you have close contact with local populations during an outbreak. All personnel conducting operations in this region should receive the meningococcal meningitis vaccine that provides protection from most types of meningococcal meningitis.

Angola

Medical facilities and services are available in Angola, but are limited and often do not meet U.S. standards. Adequate care for medical emergencies is limited to Luanda, where there are some good private clinics that usually have a 24-hour service provided by a general practice physician and with specialists on call. A list of such facilities can be found at the U.S. Embassy's website. Routine operations such as appendectomies can be performed. Local pharmacies provide a limited supply of prescriptions and over-the-counter medicines/drugs. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage. Malaria is endemic in most areas of Angola.

Angola and surrounding African countries have experienced outbreaks of viral hemorrhagic fevers. Most recent incidences are the 2005 Marburg hemorrhagic fever outbreak in Uige province, and the 2008 Ebola virus outbreak in the border region of neighboring Democratic Republic of Congo (DRC) that prompted the Government of Angola to close its border between Lunda Norte and the DRC.

Cameroon

Medical facilities in Cameroon are extremely limited. Even in large cities, emergency care and hospitalization for major illnesses and surgery are hampered by the lack of trained specialists, outdated diagnostic equipment, and poor sanitation. Medical services in outlying areas may be completely nonexistent. Doctors and hospitals often require immediate payment for health services in cash and require family members or friends to locate and purchase any medical supplies they will need. Pharmacies in larger towns are well stocked, but in other areas many medicines are unavailable. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage. Plasmodium falciparum malaria is common in Cameroon and is resistant to the antimalarial drug chloroquine.

There are periodic outbreaks of cholera in Cameroon. Yellow fever can cause serious medical problems, but the vaccine, required for entry, is very effective in preventing the disease. Measles is also present in northern Cameroon and travelers should be sure they are current with their vaccinations. Polio remains a threat in northern Nigeria, which shares a very porous border with Cameroon.

Central African Republic

Medical facilities are extremely limited in the CAR, and the quality of acute care is unreliable. Sanitation levels are low. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage.

Widespread diseases in the CAR include yellow fever, meningococcal disease, and shigellosis. Three fatal cases of yellow fever were reported in November 2009. Additionally, an outbreak of meningococcal disease was reported in February 2008. In March 2004, a meningococcal outbreak occurred resulting in 43 cases and 7 deaths by the end of the month. An outbreak of shigellosis also occurred in the CAR beginning in June 2003, resulting in 379 cases and 23 deaths.

Chad

Medical facilities in Chad are extremely limited. Medicines are in short supply or unavailable, including many over-the-counter preparations sold in the United States. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage. In the event of major injury or illness, visitors generally will require medical evacuation. Plasmodium falciparum malaria is common in Chad and is resistant to the antimalarial drug chloroquine.

There are two medical clinics in the capital of N'Djamena that offer “international standard” medical care, International SOS and Europ-Assistance. These are not walk in clinics and advance membership is required to access services.

Other widespread diseases in Chad include diarrhea and upper respiratory infections. Meningitis outbreaks usually occur annually and several other diseases (cholera, diphtheria, chicken pox, typhoid) periodically appear. AIDS is becoming an increasingly serious problem as infection rates have risen to alarming levels (up to 25 percent in high-risk groups).

Democratic Republic of the Congo

In the DRC, medical facilities are severely limited, and medical materials are in short supply. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage. Payment for any medical services required is expected in cash, in advance of treatment.

Malaria is common throughout the DRC; outbreaks of cholera, typhoid, yellow fever, the Ebola virus, and hemorrhagic fever also occur. Tuberculosis is an increasingly serious health concern in the DRC. Travelers should take appropriate precautions to prevent the spread of HIV/AIDS.

Equatorial Guinea

Medical facilities are extremely limited. Pharmacies in Malabo and Bata stock basic medicines including antibiotics, but cannot be counted on to supply advanced medications. Outside of these cities, many medicines are unavailable. Travelers are advised to carry any special medication that they require. The sanitation levels in even the best hospitals are very low though the new Israeli-built and staffed La Paz Hospital in Bata approaches European standards of sanitation. Doctors and hospitals often require immediate payment for health services, and patients are often expected to supply their own bandages, linen, and toiletries.

The national government, along with U.S. oil companies in the country, has taken aggressive steps to control the mosquito population and limit the impact of malaria on the population centers in Malabo and Bata. Plasmodium falciparum malaria is common in Equatorial Guinea and is resistant to the antimalarial drug chloroquine. There country experiences periodic outbreaks of cholera and yellow fever. The yellow fever vaccine is required for entry into Equatorial Guinea.

Gabon

Medical facilities in Gabon's major cities are limited, but they are generally adequate for routine or basic needs. The Embassy encourages Americans to use private doctors and hospitals, as public-sector health care quality is inconsistent and prone to strikes. Medical services in rural areas are generally unavailable. Additionally, some medicines are not available. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage.

Widespread diseases in Gabon include chikungunya fever, typhoid fever, and Ebola hemorrhagic fever. An outbreak of chikungunya fever was reported in May 2007 from Libreville, the capital of Gabon, resulting in over 17,000 cases. Additionally, an outbreak of typhoid fever, caused by contaminated water supplies, was reported from Gabon in December 2004. An outbreak of Ebola hemorrhagic fever was also reported in December 2001 and in 1994.

Republic of the Congo

Medical facilities are extremely limited. Some medicines are in short supply, particularly in rural areas. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage. Plasmodium falciparum malaria is common in the Republic of the Congo and is resistant to the antimalarial drug chloroquine.

Other widespread diseases in the Republic of the Congo include cholera and Ebola hemorrhagic fever. Cholera outbreaks were reported in November 2008. An outbreak of Ebola hemorrhagic fever was reported in May 2005.

São Tomé and Príncipe

Medical facilities in São Tomé and Príncipe are extremely limited. There is one hospital in the country, on the island of São Tomé, and several foreign-run clinics. However, the level of care is low. For all but minor medical needs, it is necessary to travel to Libreville (Gabon), Lisbon (Portugal), or elsewhere. Additionally, some medicines are not available. Bring adequate supplies of all medications in their original containers, clearly labeled. Carry a signed, dated letter from the primary physician describing all medical conditions and listing all medications, including generic names. Pack all medications in hand luggage.

Malaria is common throughout São Tomé and Príncipe. A cholera outbreak was reported in October 2005, causing almost 2000 cases by the end of the year. Though cholera occurs in São Tomé and Príncipe, the vaccine is not generally recommended to travelers.

Section III – Central Africa Pre-Deployment/Redeployment Operations

Because of the extreme environments and often-unstable civil conditions, it is extremely important that personnel planning to conduct operations in Central Africa take the necessary precautions to prevent illnesses and prepare themselves for the operating and living conditions in the area. This region has some of the highest instances of severely debilitating illnesses in the world. Preventive actions taken prior to departure such as immunizations are critical to ensuring personnel health. Personal recovery and force protection are equally important in this region. Proper preparation and training prior to departure is critical to operational success.



Figure 29 - Predeployment and redeployment actions are required for all!

Redeployment and post deployment activities are equally important. This is particularly true of post deployment medical activities. For example, malaria prevention will usually require personnel to take primaquine tablets for 14 days after their return from the region.

Pre-deployment / redeployment medical and training requirements are not limited to military personnel. They apply equally to DoD civilian employees, and contractors. USARAF policy requires equal enforcement of pre-deployment / redeployment medical and training requirements for all military and civilian personnel.

Pre-Deployment Operations

Preparation is the key to a safe and successful operation in Central Africa. Pre-deployment operations are those activities undertaken to prepare for operations in the region. Regional awareness issues, force protection concerns, and health risks must all be addressed prior to departure.

Risk Mitigation

Pre-Deployment Training and Mission Support Requirements

Theater Entry training is required by all U.S. Army soldiers, civilians, and contractors going TDY, deploying or being assigned to the USAFRICOM AOR. The following training and mission support requirements will be completed prior to deploying to Central Africa.

- ◆ Personnel traveling in Central African Nations must coordinate travel in accordance with DOD 4500.54-M Electronic Foreign Clearance Guide
- ◆ Complete Central Africa Leader Development and Education for Sustained Peace (LDESP) training
- ◆ USARAF Personal Recovery Briefing
- ◆ USARAF Survival, Evasion, Resistance, and Escape Briefing
- ◆ Theater entry Survival, Evasion, Resistance, and Escape (SERE) Level B training
- ◆ Complete Isolated Personnel Report Card (ISOPREP)
- ◆ Complete Anti-Terrorism and Force Protection (AFTP) Level 1 training
- ◆ Complete Human Rights Awareness Education
- ◆ Complete Statement of Preparedness at least 24 hour prior to departure
- ◆ Complete a detailed risk assessment; submit with Statement of Preparedness.

Pre-Deployment Health Requirements

Preventive actions taken prior to departure to Central Africa are critical to maintain health during the operation. The following section discusses risk mitigation factors to address these conditions.

- ◆ Complete the Pre-Deployment Health Assessment (DD FORM 2795) to assess your state of health before deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.
- ◆ You will not have access to your health care record during the deployment. The Adult Preventive and Chronic Care Flowsheet (DD FORM 2766) will be used as your deployment health record. This document will include information on all your immunizations, any medications you are currently taking, and any ongoing medical problems that you may have. When you go through medical processing, ensure that all appropriate information is documented on your DD FORM 2766. When you return home, this information will be placed in your regular health record.
- ◆ Complete immunizations prescribed for the operational area and as directed by preventive medicine.
- ◆ Begin taking malaria prophylaxis (e.g. doxycycline or Malarone) as directed
- ◆ Carry your yellow shot record with you during the deployment so medical care providers know your immunization history.
- ◆ Ensure completion of medical health threat brief.
- ◆ Ensure you pack an appropriate supply of personal medications or equipment as required (typically a 90 day of supply). Bring your personal hearing protection.
- ◆ Make sure your uniforms are treated with permethrin prior to deploying and carry DEET insect repellent.

Redeployment

Redeployment operations are those activities undertaken to recover from operations in Central Africa. Redeployment and post deployment activities are equally important. This is particularly true of post deployment medical activities. Proper redeployment and post deployment activities are just as essential to an operations success.

Risk Mitigation

Post-Deployment Health Information

Illness and chronic medical conditions can occur if proper post deployment medical actions are not followed. The following section discusses risk mitigation factors to address these conditions.

- ◆ Complete the Post-Deployment Health Assessment (DD FORM 2796) to assess your state of health after deployment and to assist health care providers in identifying your medical needs and providing present and future medical care to you.
- ◆ If you become sick after you return home, tell your physician that you were deployed.
- ◆ Complete malaria medications and primaquine prophylaxis as prescribed. Receive follow-on medical care/tests as directed.
- ◆ Ensure all deployed medical encounter documentation is included in the medical record.

Section IV – Central Africa Environmental Risks

Environmental conditions cover every extreme in Central Africa. The region lies between the Tropics of Capricorn and Cancer and most areas experience hot weather conditions throughout the year. There are exceptions though. Because of high altitudes, mountainous areas within the region can experience freezing conditions. The following section looks at the broad range of environmental conditions that affect the region.

Terrain

Central Africa includes the countries of Angola, Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Republic of the Congo, and São Tomé and Príncipe. The coastal region consists of dense mangrove swamps, marshes, lakes, lagoons, and expansive beaches, with coconut groves along the west coast. Along the coast of Cameroon is Mount Cameroon, a volcano that has been active four times this century. Mount Cameroon has an elevation of 13,350 feet above sea level. The most notable features in the northern interior are the prominent topographical plateaus, which range in average elevation from 1,970 feet to 2,300 feet. In the eastern part of the Democratic Republic of the Congo, there is seismic activity as high as 7 on the Richter scale.



Figure 30 – Mount Cameroon is a volcano that has been active four times this century

Risk Mitigation

Common Terrain Factors

Most of the region is unimproved and contains some of the roughest terrain in the world. The following section discusses risk mitigation factors to address these conditions.

Unimproved Roads and Off-Road Travel

- ◆ Enforce the requirement for seatbelt use.
- ◆ Require that personnel wear helmets.
- ◆ Ensure that all cargo is secure.

Slips, Trips, and Falls

- ◆ Remind personnel to pay close attention to rough terrain so they can maintain firm footing.
- ◆ Remind personnel to watch for mud, ice, water, and sand that could make surfaces slippery.

Bodies of Water

- ◆ Prohibit swimming and other water activities in unsupervised areas.
- ◆ Remind personnel of the potential health hazards associated with natural bodies of water in Central Africa.

High Elevations

High altitude illnesses can kill. Operations occurring at elevations over 6,000 feet can seriously affect unit and individual effectiveness. Serious illness or death can result if you ascend rapidly without allowing for acclimatization. Remain well hydrated; individual water requirements are greater at higher altitudes. The following section discusses risk mitigation factors to address these conditions.

- ◆ When operating in high mountain areas, be observant of the common symptoms of mountain sickness: headache, nausea, vomiting, dizziness, fatigue, irritability, and coughing. Seek medical attention immediately if you experience any of these symptoms.
- ◆ Pyridostigmine bromide tablets may increase the chance of dizziness or fainting during the first 24 hours at high altitude if you are not acclimatized.
- ◆ Lower oxygen levels at high altitudes combined with the heavier work requirements can increase your risk of high altitude illnesses. You may require more time and concentration to perform assigned tasks.
- ◆ For appropriate countermeasures during high altitude operations, see GTA 08-05-062 and GTA 08-05-060, *A Soldier's Guide to Staying Healthy at High Elevations*.

Weather

The climate in the region is primarily tropical with hot and humid summers and mild winters. The average daily temperature range is 72° to 81° F although extreme temperatures of -4° to 116° F are possible especially in Cameroon. North of the equator, the wet season is April through October with an average annual rainfall from 70 to 160 inches. South of the equator, the wet season is November through March with an average rainfall from 12 to 60 inches. Catastrophic conditions exist such as numerous tropical storms and cyclones, severe flooding, and lightning that kill more than 60 people each year. Hot, dry, and dust-laden harmattan winds from the Sahara occur during the dry season in the northern areas and can raise temperatures to over 100° F.



Figure 31 – Much of Central Africa is covered by tropical forests

Risk Mitigation

Hot and Cold Weather Injuries

Temperature extremes in this region will affect operations. This region is one of the hottest places on earth during the summer months. Central Africa has some of the earth's highest annual average temperatures. Heat is a significant medical threat in this region, especially during the early phase of deployment; acclimatization is critical. Generally, at least 4 days are required for personnel to become acclimated to an extreme environment.

Cold injuries can also occur in the mountainous areas of this region. The effects of cold weather are more severe in high mountainous areas due to reduced oxygen and lower air pressure. When deploying to the mountainous areas in this region, check with your organization on the requirement for packing the extended cold weather clothing system. See GTA 08-05-062 for appropriate countermeasures.

Hot Weather Injuries

- ◆ Use the buddy system
- ◆ Increase water intake, avoid caffeinated and alcoholic beverages
- ◆ Remind personnel that the body is cooled by sweat, and sunburn inhibits sweating. Therefore, they should take every precaution to prevent sunburn, including maximum use of shade, sunscreen, and clothing that covers as much exposed skin as possible.
- ◆ Prohibit the use of salt tablets. Although the body loses salt as it loses water, normal consumption of food replaces salt.
- ◆ Enforce hydration and monitor water use. Caution personnel that they may lose more than 1 quart of water per hour through sweating.
- ◆ Remind personnel that thirst is not a reliable indicator of the need for water; therefore, they must drink water regularly even if they are not thirsty.
- ◆ Caution personnel that dark urine is an indicator of dehydration and that more water is needed (urine color should be light without a strong odor).
- ◆ When possible, schedule heavy work for the cooler hours of the day (early morning, evening).
- ◆ Monitor personnel who are overweight, dieting, older age, in poor physical condition, ill, or past victims of heat injury; these conditions make them more susceptible to heat injury. Avoid dietary supplements.
- ◆ Enforce use of sunscreen, lip balm, and eye protection.
- ◆ Doxycycline causes light sensitivity. It is highly recommended to wear sunscreen, a cap/hat, and other forms of skin protection to prevent skin cancer.

Extreme Temperature Acclimatization

- ◆ Train only on a limited basis.
- ◆ Avoid prolonged exposure.
- ◆ Increase exposure as gradually as the mission allows after the initial 4 days.

Sand, Wind, and Dust

Sand, wind, and dust cause health problems, particularly to skin, eyes, throat, and lungs. Take care of problems early to avoid infection. Dry air, dust, and wind dry out the nose and throat and can also cause nosebleeds, coughing and wheezing. Cracked, chapped fingers reduce manual dexterity. Body areas (such as ears, armpits, groin, elbows, knees, feet, and the area under breasts) that collect dust and sand are susceptible to chafing, abrasion, and infection. High winds can turn tent pegs and loose objects into flying missiles (which may not be visible in blowing sand). The following section discusses risk mitigation factors to address these conditions.

- ◆ Take a daily sponge bath, using an approved water source.
- ◆ Wash your face and eyelids several times per day.
- ◆ Carry at least two pairs of glasses and a copy of your prescription. Do not wear contact lenses.
- ◆ Breathe through a wet face cloth, or coat the nostrils with a small amount of petroleum jelly to minimize drying of mucous membranes. Protect your lips with lip balm.
- ◆ Shield your face with cloth materials to protect from blowing dust and sand.
- ◆ Wear goggles to protect your eyes from wind, dust, and sand or when traveling in open vehicles.
- ◆ Wear gloves and use moisturizing skin lotion to protect your hands.

Thunderstorms / Lightning

During the rainy season, violent weather may be experienced. Thunderstorms with intense lightning are common. The following section discusses risk mitigation factors to address these conditions.

- ◆ Remind personnel that if they feel their hair stand on end, lightning may be about to strike them. They should immediately drop to their knees and bend forward with their hands resting on their knees (this position provides as little body contact with the ground as possible).
- ◆ Remind personnel that a person struck by lightning can usually be revived by quick application of CPR.
- ◆ Remind personnel not to stand near an isolated tree, a group of trees, or on high ground in the area of a thunderstorm.
- ◆ Caution personnel to get out of and away from water and inside a building or other sturdy structure if possible.

Hazardous Animals and Plants

Several species of highly poisonous snakes, which are well camouflaged and very aggressive, including mambas, adders, vipers, and cobras, live in the region. Several species of centipedes, scorpions, and spiders, some with potentially fatal venom, are present throughout the region. Some regional plants have thorns, stinging hairs, or toxic resins that may cause serious puncture wounds, slow-healing lacerations, or introduce poison into the skin causing skin irritation, rashes, or infections. Symptoms include dizziness, vomiting, irregular heartbeat, and delirium or hallucinations. Some regional plants may cause systemic poisoning if leaves, berries, flowers, or other plant parts are chewed or swallowed. Numerous species of stinging rays and jellyfish, venomous sea snakes, and poisonous fish are common in the region's coastal waters.

Risk Mitigation

Animals

A wide variety of dangerous animals are common to the area. Some of the most venomous snakes in the world, to include cobras and vipers can be found throughout the region. Many large predatory animals and other aggressive animals are also common to the area. The following section discusses risk mitigation factors to address these conditions.

- ◆ Consider any snake encountered as dangerous, and do not handle. Seek immediate medical attention if bitten; untreated snakebites may cause serious illness or death within 1 hour.
- ◆ If possible, avoid sleeping on the ground. Shake out boots, bedding, and clothing prior to use, and never walk barefoot. If bitten or stung, seek medical attention immediately.
- ◆ If you meet a snake at close quarters, try to remain calm and stand still. Do not lash out at it or make threatening gestures. Stay calm and move backwards slowly.
- ◆ When walking, look where you are going. Use a lamp or torch at night. Do not blunder through tall grass or thick cover. Do not put your hands or feet into places you cannot see, in particular under objects lying on the ground, into piles of rocks or logs and take care stepping over rocks or logs.
- ◆ Consider all animals as dangerous. Rabies is common throughout the region. Be aware that all animals bite. Make sure your personnel know to leave all animals alone.



Figure 32 - Some of the most dangerous animals in the world can be found in the region

Plants

Some of the most exotic plants in the world are located in the area. Many contain toxins that are poisonous. Others can cause severe skin conditions. The following section discusses risk mitigation factors to address these conditions.

- ◆ Avoid skin contact with plants when tactically feasible. Contact with the smoke from the burning of these plants can also cause skin rashes and damage to your lungs.
- ◆ Clean your clothing after contact with animals and harmful plants. Decontaminate clothing by washing with soap and water.
- ◆ Do NOT eat, chew, or swallow leaves, berries, flowers, or other parts of plants.

Toxic Industrial Chemicals and Materials

When deployed, you may face health risks from industrial chemicals and materials as a result of activities by terrorists or warring parties; accidents related to improper design, maintenance, or operation of indigenous industrial facilities; inadvertent exposure to toxic waste materials in the environment; or improper handling or disposal of hazardous material with which our own forces deploy. The degree of health risks depends upon many parameters. Consult your medical authority for additional information.

Annex A – Composite Risk Management

Composite risk management (CRM) is the Army's primary decision-making process for identifying hazards and controlling risks across the full spectrum of Army missions, functions, operations, and activities. CRM and accident prevention are command functions. The Composite Risk Management Process is the foundation for the USARAF Safety Program. As such, CRM is the principle risk reduction methodology used by the command. The CRM process is described in detail in FM 5-19, Composite Risk Management.

In USARAF, CRM must be integrated in all decision-making processes. Protection of the force through CRM enhances the Army's ability to train, fight, and win with minimum cost to the nation. For additional USARAF Composite Risk Management guidance, see USARAF Regulation 385-10.

CRM is a decision making process used to mitigate risks associated with all hazards that have the potential to injure or kill personnel, damage or destroy equipment, or otherwise impact mission effectiveness. In the past, the Army separated risk into two categories, tactical risk, and accident risk. While these two areas of concern remain, the primary premise of CRM is that it does not matter where or how the loss occurs, the result is the same – decreased combat power or mission effectiveness.

CRM has five key principles that govern its application. These underlying principles should be considered before, during, and after every application of the Five-Step Process.

Do not be Risk Averse.

Do not be risk averse. Identify and control the hazards; complete the mission.

Integrate CRM into all Phases of Missions and Operations.

Integrate CRM into all phases of missions and operations. Effective CRM requires that the process be integrated into all phases of mission or operational planning, preparation, execution, and recovery.

Accept No Unnecessary Risk.

Accept no unnecessary risk. Accept no level of risk unless the potential gain or benefit outweighs the potential loss. CRM is a decision making tool to assist the commander, leader, or individual in identifying, assessing, and controlling risks in order to make informed decisions that balance risk costs (losses) against mission benefits (potential gains).



Figure 33 - The need for risk management is great; notice the lack of fall protection

Make Risk Decisions at the Appropriate Level

Risk decision authority is based upon the residual risk of an activity after application of control measures. It assumes that controls are in place, implemented, and effective. Accepting risk is a serious matter; therefore, the appropriate level of USARAF leadership must weigh the increased danger to the mission, personnel, equipment, public, property, and environment against the operational requirement that necessitated acceptance of a significant level of risk. Risk or potential loss is balanced against expectations or expected gains. The approval level of authority is based on an appropriate level of command which is supported by level of responsibility, experience, and education. The following risk level approval authority will be used for USARAF Organizations (Supporting, assigned, or attached). Higher risk level approval authorities may retain authority to approve lower level risks within their organizations:

- ◆ **Extremely High Risk.** Operations deemed “Extremely High” level of risk, will be approved by the first General Officer in the Chain of Command. The CG USARAF will be notified of any approved extremely high risk operations.
- ◆ **High Risk.** High-risk operations must be approved by the first O6 in the Chain of Command. The U.S. Army Africa Deputy Commander/COS and G3 will be notified of any approved high-risk operations.
- ◆ **Moderate Risk.** Moderate risk operations must be approved by the first O5 in the Chain of Command.
- ◆ **Low Risk.** Low risk operations must be approved by the first O3 in the Chain of Command.

Apply the Process Cyclically and Continuously.

Apply the process cyclically and continuously. CRM is a continuous process applied across the full spectrum of Army training and operations, individual and collective day-to-day activities and events, and base operations functions. It is a cyclic process that is used to continuously identify and assess hazards, develop and implement controls, and evaluate outcomes.

Annex B – Accident Notification and Reporting

Commanders of USARAF organizations will ensure all accidents and injuries are reported, investigated, and analyzed IAW the requirements of AR 385-10, paragraph 3-2, DA Pam 385-40, and USARAF Regulation 385-10, Chapter 2.

- a. The Commanding General, USARAF will be briefed on all on-duty and off-duty fatal accidents involving Personnel, on-duty fatal accidents involving DA civilian employees, and on-duty fatal accidents involving DA contractors directly supervised by DA civilians or military. Additionally, the Commanding General will be briefed on all Class A, B, and C accidents that occur during operations on the African Continent.
- b. The accident reporting chain will be established prior to all operations. To expedite accident investigation board stand-up, the General Courts Marshal Convening Authority will be identified for each supporting organization prior to commencing operations.
- c. All units, organizations, teams, and individuals deploying or travelling to Africa will establish an Emergency Action Plan (Pre-Accident Plan) tailored to their operation and location prior to departure. This plan will be rehearsed prior to beginning operations.

Ground Accidents

Telephonic Notification

When a Class A or B accident occurs within USARAF organizations (supporting, assigned, or attached), the responsible Commander or their representative will:

- ◆ Immediately notify the Commander, USACRC/SC by calling DSN 312-558-2660/3410 or (334) 255-2660/3410.
- ◆ Notify the USARAF Safety Director by calling DSN 314-634-5165 or (39) 0444-71-5165. After duty hours, notify the USARAF Emergency Operations Center (EOC) by calling DSN 314-635-4377 or (39)-0444-71-4377. Initial telephonic notification should include the information contained in DA Form 7306-R (Worksheet for Telephonic Notification of Ground Accident). In addition to the synopsis of the accident, the accident synopsis block of DA Form 7306-R should address the type of operation/training involved, level/point of training, control measures/plans, host nation involvement, and level of supervision, both required and in effect at the time of the accident/incident. The completed DA Form 7306-R shall be forwarded to the USARAF Command Safety Office within 72 hours via e-mail at usaraf.opdsafety@eur.army.mil. If e-mail is not available the report may be made telephonically to DSN: 314-634-5165 or (39) 0444-71-5165.
- ◆ The USARAF activity experiencing a Class A or B accident involving non-USARAF personnel is responsible for notification of the accident victim's Army command or branch of service as appropriate. The USARAF Command Safety Office assists with these notifications.

Accident Investigation and Reporting

All Class A and B on-duty and off duty ground accidents involving Personnel or Army operations, to include training accidents, will be investigated by an accident investigation board IAW AR 385-10, paragraph 3-14a(1). On duty Army civilian accidents will be investigated and reported IAW DA PAM 385-40 and AR 385-10. The USARAF Safety Director may require investigation of other special case accidents that may not otherwise meet the criteria for investigation.

The commander will review and sign all Class A and B investigations and forward the original and one copy to Commander, USACRC/SC through Commander, USARAF (AESE-CSS), Unit 31401, Box 5, APO AE 09630 or usaraf.opdsafety@eur.army.mil. The report is required to be at the USACR/SC NLT 90 days after an on-duty accident and 30 days following an off-duty accident. To ensure this timeliness, the USARAF Safety Office requires the report be submitted NLT than 75 days after the on-duty accident and NLT 20 days after the off-duty accident.

Requests for extension beyond the accident report due date are made telephonically or via e-mail to the Administrative Quality Control Section, USACR/SC at DSN 558-2325/2274, (334) 255-2325/2274, or accidentinformation@conus.army.mil and a copy furnished to Commander, USARAF (AESE-CSS) Unit 31401, Box 5, APO AE 09630 or usaraf.opdsafety@eur.army.mil.

Class C and D ground accidents are investigated and reported IAW AR 385-10 and DA PAM 385-40. Whenever possible, the Abbreviated Ground Accident Report will be submitted using the USACR/SC Loss Automated Reporting System (LRAS), https://safety.army.mil/Loss_Reporting/LRAS_accident.html. The USARAF Command Safety Office will be included in the reviewing chain at usaraf.opdsafety@eur.army.mil.

For accidents where the CG, USARAF has GCMCA, forward the original and one copy of the completed USACR/SC Centralized Accident Investigation Aircraft Accident Investigation Report, endorsed through the chain of command to Commander, USARAF (AESE-CSS), Unit 31401, Box 5, APO AE 09630 or usaraf.opdsafety@eur.army.mil. The report will be submitted to USARAF Headquarters NLT 30 days from the date of the USACRC/SC letter of transmittal.

Forward the original and one copy of all the installation accident investigation (IAI) reports, endorsed through the chain of command to Commander, USARAF (AESE-CSS), Unit 31401, Box 5, APO AE 09630 or usaraf.opdsafety@eur.army.mil for processing NLT 75 days after the accident.

The USARAF Command Safety Office reviews submitted accident reports for technical accuracy and sufficiency prior to submission to the approval authority. The safety office will provide concurrence/non-concurrence for each finding and recommendation. CG, USARAF (or delegate), is the approving authority for all ground Class A or B accident investigation reports. The Safety Office will forward all Class A and B ground Accident Investigation Reports to USAFRICOM for review as required by DODI 6055-07.

Aviation Accidents

Telephonic Notification

Notify the USARAF Command Safety Office as soon as possible when a USARAF supporting aircraft is involved in a Class A, B, or C accident. Initial notification will be telephonic to the Command Safety Office during duty hours at DSN 314-634-5165, (39) 0444-71-516588-5921 or to the USARAF EOC at DSN 314-635-4377 or (39)-0444-71-4377. A complete DA Form 7305-R will be submitted within 24 hours to USARAF via e-mail to usaraf.opdsafety@eur.army.mil or telephonically at DSN 314-634-5165, (39) 0444-71-5165.

Accident Investigation and Reporting

All Class A, B, and C aviation accidents are investigated by an accident investigation board IAW AR 385-10, paragraph 3-8b. The USARAF Safety Director may require investigation of other special case accidents that may not otherwise meet the criteria for investigation.

Class D, E, and F aviation accidents are investigated and reported IAW AR 385-10 and DA PAM 385-40. Whenever possible, the Abbreviated Aviation Accident Report will be submitted using the USACR/SC Loss Reporting Automation System (LRAS), https://safety.army.mil/Loss_Reporting/LRAS_accident.html. The USARAF Command Safety Office will be included in the reviewing chain at usaraf.opdsafety@eur.army.mil. Class D, E, and F accidents/incidents are submitted to the USACR/SC NLT 30 days after the accident/incident.

For Class A and B aviation accidents where the CG, USARAF has GCMCA, forward the original and one copy of the completed USACRC/SC Centralized Accident Investigation Aircraft Accident Investigation Reports, endorsed through the chain of command to Commander, USARAF (AESE-CSS), Unit 31401, Box 5, APO AE 09630. The report will be submitted to USARAF Headquarters NLT 30 days from the date of the USACRC/SC letter of transmittal.

Installation Accident Investigation (IAI) reports are due to the USACR/SC NLT 90 following the accident. Forward the original and one copy of all installation accident investigation (IAI) reports, endorsed through the chain of command to Commander, USARAF (AESE-CSS), Unit 31401, Box 5, APO AE 09630 for processing NLT 75 days after the accident.

Requests for extension beyond the accident report due date may be made by the Accident Investigation Board President telephonically or via e-mail to the Administrative Quality Control Section, USACRC/SC at DSN 312-558-2325/2274, (334) 255-2325/2274, or accidentinformation@conus.army.mil and a copy furnished to Commander, USARAF (AESE-CSS) Unit 31401, Box 5, APO AE 09630, or usaraf.opdsafety@eur.army.mil.

The USARAF Command Safety Office reviews submitted aviation accident reports for technical accuracy and sufficiency prior to submission to the approval authority. The safety office will provide concurrence/non-concurrence for each finding and recommendation. CG, USARAF (or delegate), is the approving authority for all aviation Class A, B and C accident investigation reports when the CG, USARAF is the GCMCA.

The Safety Office will forward all Class A and B Aviation Accident Investigations Reports to USAFRICOM for review as required by DODI 6055-07. During contingency/JTF operations, notifications and procedures required in this section are made to, and coordinated by, the safety cell at the contingency/JTF headquarters. Air Force, Navy, Marine, and Coast Guard organizations supporting USARAF Operations will report all accidents IAW this regulation and complete service/department unique accident reporting and investigation requirements.

When known, all partner nation accidents will be reported to the contingency/JTF HQs by U.S liaison personnel IAW this regulation. In the event that the U.S Army Combat Readiness/Safety Center chooses to deploy a Centralized Accident Investigation (CAI) Team to a ground or aviation accident, all coordination will be completed by the USARAF Command Safety Office. This applies to both normal and contingency operations. USARAF supporting commanders with accident investigation responsibilities will:

- ◆ Maintain a list of personnel qualified to serve on Army accident investigation boards.
- ◆ Ensure a well-qualified pool of accident investigation board presidents by making use of the USACRC/SC's Accident Investigation Board President Course.
- ◆ Where necessary, develop written procedures for mutual support between the activity and local organizations for accident investigation boards. Travel and per diem payment will be addressed in the written procedures. Pre-planning will ensure that board presidents, acting on behalf of their appointing authority, can make timely determinations on the scope, technical assistance, and support required, as appropriate.

Annex C – Theater CRM Research and Planning Resources

Information contained in this Leader’s guide was obtained from various public and commercial web resources. These resources are provided to assist in Composite Risk Management, planning, and decision-making.

Personal Protection and Threat Information Resources

The resources below focus on personal / force protection issues and regional threats.

- ◆ U.S. Embassy Country Specific Information: http://travel.state.gov/travel/cis_pa_tw/cis/cis_1765.html
- ◆ Overseas Security Advisory Council (OSAC) – Sub-Saharan Africa Region: <https://www.osac.gov/Regions/index.cfm?region=5>
- ◆ Overseas Security Advisory Council (OSAC) – Middle East and North Africa Region: <https://www.osac.gov/Regions/index.cfm?region=4>
- ◆ U.S. Embassy Travel Warnings: http://travel.state.gov/travel/cis_pa_tw/tw/tw_1764.html
- ◆ CIA – The World Factbook – Africa: https://www.cia.gov/library/publications/the-world-factbook/region/region_afr.html
- ◆ Military Education Research Library Network (MERLIN) – Africa page: <http://merln.ndu.edu/index.cfm?secID=244&pageID=3&type=section>
- ◆ Africa Travel Warnings at About.com: <http://goafrica.about.com/od/healthandsafety/a/travelwarnings.htm>

Medical Information Resources

The resources below focus on medical issues and preventive actions.

- ◆ U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM) – Africa Resources: <http://usachppm.amedd.army.mil/HIOShoppingCart/searchResults.aspx?c=0&s=0&f=0&l=0&t=africa>
- ◆ Center for Disease Control (CDC) Traveler’s Health: <http://wwwnc.cdc.gov/travel/destinations/list.aspx>
- ◆ World Health Organization (WHO) – Country Information: <http://www.who.int/countries/en/>
- ◆ MD Travel Health – Africa: <http://www.mdtravelhealth.com/destinations/africa/index.php>
- ◆ U.S. Embassy Country Specific Information: http://travel.state.gov/travel/cis_pa_tw/cis/cis_1765.html
- ◆ U.S. Army Medical Research Unit – Kenya: <http://www.usamrukenya.org/>

Other Resources

The resources below focus on general safety issues, driving hazards, and other related information.

- ◆ U.S. Embassy Country Specific Information: http://travel.state.gov/travel/cis_pa_tw/cis/cis_1765.html
- ◆ CIA – The World Factbook – Africa: https://www.cia.gov/library/publications/the-world-factbook/region/region_afr.html
- ◆ Association for Safe International Road Travel (ASIRT): <http://asirt.org/Home/tabid/147/Default.aspx>
- ◆ Military Education Research Library Network (MERLIN) – Africa page: <http://merln.ndu.edu/index.cfm?secID=244&pageID=3&type=section>
- ◆ Perry-Castañeda Library Map Collection: <http://lib.utexas.edu/maps/africa.html>
- ◆ Africa Center for Strategic Studies: <http://africacenter.org/>
- ◆ Africa Union: <http://www.africa-union.org/root/au/index/index.htm>
- ◆ The Africa Guide: <http://www.africaguide.com/>
- ◆ The Africa Guide – Driving in Africa: <http://www.africaguide.com/traveltips/driving.htm>