Chapter 15: Africa - World’s First Busiest Drone Operational Proving Ground - Where Counter-Terrorism and Modernization Meet

Student Learning Objectives – Africa has become the drone investment playground of many nations. The student will be introduced to activities of these geopolitical players (US, France, EU, Germany, Egypt and China) and the significance of their intentions. The history of drone investments/operations in Africa is directly a function of the growth of terrorist organizations and African economy.

Africa – Overview
Africa is a developing continent comprised of unstable states due to undeveloped economy, poor education, and unified government among the states. Africa’s leaders want to see their country develop and become a world leader. They look to their long-term allies to solve their issues.

Radical Islam continues to spread and threaten the future of Africa. With the turbulence of state’s government, insurgence groups have joined forces with terrorist organizations affiliated with radical Islam. Radical Islamic extremists are a global security threat. Therefore, several countries fighting terror at home are also assisting Africa in the fight on terror. A priority goal of many African leaders is to defeat terrorism. They feel this can be achieved by stopping terrorist organizations membership growth. Conflict on land is not the only issue facing Africa, maritime security is a huge factor in Africa’s economic growth.

Other countries willingly assist Africa in protecting their waterways to reap the benefits of trade and profit. There are high stakes for China, European Union, and United States to ensure Africa’s perimeter allows for safe passage of Commercial and Military vessels. Africa’s land positioning and natural resources has made it an attractive global investment. This has given Africa the fastest growing economy in the world despite the lack of sustained infrastructure.

The ability to be flexible with technology testing and implementation has given Africa an advantage with the development of UAS. Now their infrastructure is being architected and constructed by technical companies and countries with an interest in a claiming Africa’s resources as their own. Africa is leading the UAS marketplace with the willingness to formulate laws to suit the commercial UAS industry.

Africa - The Facts
According to Theobald Barber, “there are over 3,000 protected areas in Africa, including 198 Marine Protected Areas, 50 Biosphere Reserves, and 129 UNESCO World Heritage Sites.” (Staff-A, 2017)

“Africa has the second largest population in the world, at about one billion people.” (Staff-A, 2017) Nigeria is ranked among the seven most populous countries, with 200 million citizens. The United Nations has published Africa will have more than half of the world’s population growth by 2050. “Africa is the world’s poorest and most underdeveloped continent with a continental GDP that accounts for just 2.4% of global GDP. The national flag of Mozambique has the image of an AK-47 assault rifle embedded into it. It is one of only two national flags of UN member states to feature a firearm. The other is

85 (Barber, 2018)
Unmanned Aircraft Systems (UAS) in the Cyber Domain

Guatemala.” (Staff-A, 2017) Which could be an indication of their population’s struggle for independence.86 “About 41% of children in Africa aged between 5-10 years are actively involved in child labor. It is the hottest continent, with water scarcity impacting the lives of over 300 million Africans. (Staff-A, 2017)

**Economics**

*Economy is a driver for the continent’s decision to be accommodating to the UAS commercial community.* When it comes to UAS development, Africa is the second most attractive investment destination in the world. See Figures 15-3 and 15-4. 87

Africa is one of the most integrated regions in the world, ranking only behind Europe and Southeast Asia for economic integration. Africa is moving toward the negotiations for the establishment of a Continental Free Trade Area (CFTA) which will be the largest free-trade area in the world. See Figure 15-1.

**The Spread of Radical Islam Across Africa**

**Africa - Al-Qaida and Islamic State**

Starting in after the end of Qaddafi regime, Jihadists have spread from the Horn of Africa to Guinea-Bissau. Osama bin Laden in a statement in July 2006 clearly singled out Somalia as an important jihadist front of the future. Al-Qaida and Islamic State-linked groups in West Africa are now cooperating at the operational level and that there are connections with IS-affiliates in the Lake Chad region close to northeastern Nigeria and Maghreb-Sahel region. As a result of a three days of attacks in Mali (June 29 - July 1, 2018), Islamic militants are in control of the area. They have closed schools and killed hundreds of civilians. This northeast location is a cornerstone to launch attacks against nearby countries. See Figure 15-2 Regional Conflicts Trends.

---

86 (The Guardian, 2015)
87 Figure 15-4 is an important figure as it relates to the investment return “payoffs” for UAS development by foreign and US governments.
The Spread of Radical Islam Across Africa

Africa - Al-Qaida and Islamic State

Salafi-Jihad Movement
Over the past 16 years the al Qaeda network, has become even stronger across Yemen, the Horn of Africa, Libya, and West Africa. Recently al Qaeda network recruited several groups across Middle East and North Africa during the Arab Spring’s unrest. Their goal, the destruction of current Muslim societies using force and creation of what they regard as a true Islamic society.

By the joining together of smaller groups al Qaeda’s survival even if the core group is defeated completely. Also, this type of formation makes it difficult for any country to defeat al Qaeda.
Unmanned Aircraft Systems (UAS) in the Cyber Domain

Figure 15-2 Islamic Militant Groups in Africa


88 (Africa Center for Strategic Studies, 2017)
Source: Globalpost. (May 14, 2014). From This map shows which export makes your country the most money [Infographic on Africa the first product exported by every African state]. : https://www.pri.org/stories/2014-05-14/map-shows-which-export-makes-your-country-most-money
Africa - Katiba Macina Groups (KM)
The KM Islam and Muslim groups operate mostly in Western Africa, in the center of Mali. Terrorist groups grow their ranks and recruit members through exploiting local conflicts to their own advantage. Growth continued because of absence of proper judicial systems, and to competition over natural resources.

Africa - Al-Qaeda and Islamic State
The “Group for the Support of Islam and Muslims” (Jama’at Nusrat al-Islam wal-Muslimin) brings together four existing al Qaeda organizations under one banner. March 2, 2017 merged creating JNIM. This collective group is made up of members of Ansar Dine, Katiba Macina, al-Mourabitoun and al-Qaeda in the Islamic Maghreb (AQIM). Merger of al-Qaeda-linked groups in Mali might pose serious risks for regional security. JNIM operates in northern and central Mali including in the towns of Kidal, Timbuktu and Mopti. The merger of al-Qaeda-linked groups in Mali might pose serious risks for regional security. See Figure 15-5 - al-Qaeda in the Islamic Maghreb (AQIM).

Groups like al-Mourabitoun, with more experience, could share their expertise with new movements and field of explosives manufacturing. Combination of part of the groups increased attacks in 2016 by 150%. Currently, JNIM have six hostages a French, Australian, South African, Colombian, Swiss, and Romanian.

The group’s largest attack, May 2017, JNIM disabled a communications tower outside of Gao, and used a suicide bomber to the Malian army base. The successful attack killed 7, wounded 16, and captured another 17 Malian soldiers. JNIM retreated from further terroristic action after the sight of French troops. The continue to wage attacks in northern Tunisia, using grenades, improvised explosive devices (IED), and firearms. See Figure 15-6.

Tuareg Rebellion [NMLA]
In 2012, Mali had experienced violence from ethnic Tuareg rebels who began a separatist insurgency and joined forces with Islamist militants to seize control. Similar attacks occurred in the last three months of 2017, in the central Mopti and Segou regions. This region has experienced more attacks then the five northern regions combined. In 2017, 22 Malian soldiers were killed. As a result, the Malian army imposed a ban on motorcycles and pickups in some areas to decrease opportunity for attacks. The attacks from the Militants use complex assaults with vehicles and landmines. The United Nations (U.N.) created Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) after the National Movement for Liberation of Azawad (Tuareg Rebellion) [NMLA] began to invade Mali’s Azawad region.

The U.N. mission, largest U.N. Peacekeeping mission with 13,000 members, protects the region from the combination of al-Qaeda in the Islamic Maghreb (AQIM) and Tuaregs. The U.N. troops continue to patrol and keep the peace along the Mali border.

Africa - Ansar Dine (AD)
“Mali based Tuareg, Al Murabitoon and Al Qaeda in the Islamic Maghreb’s (AQIM) combination associate formed in December 2011. Its leader is part of JNIM. In 2013, Ansar Dine was recognized by the U.S. State Department. The group, AQIM, has since merged with the Movement for Unity and Jihad in West Africa (MUJAO) to fight against French and Malian forces.” (Emad-Ceseden, 2013)
The Salafi-jihadi Base in the Sahel


**Islamic State of Iraq and al Sham (ISIS)**

Islamic State in the Greater Sahara Burkina Faso branch was recognized a new branch operating in the Sahel region of West Africa in 2016. A smaller section of the al Qaeda-associated al Murabitoon group gained ISIS leadership attention October 2016. The group executed several small-scale attacks in Burkina Faso and Niger. Including a Nigerien prison holding Boko Haram and al Qaeda in the Islamic Maghreb (AQIM) militants with a small team and at least one suicide bomber.
Figure 15-6 Terrorist Related Deaths in Africa

Source: Jihadists in Africa – a rising tide (July 20, 2015). In The Economist.
https://www.economist.com/graphic-detail/2015/07/20/a-rising-tide
Figure 15-7 HOT SPOT – ARC OF INSTABILITY

Africa - Counterterrorism Efforts

Why Fight Terror Groups in Africa?
Belgium has the highest number of foreign fighters in Syria of any Western European nation.

Because of France’s presence in Africa, Al-Qaeda in the Islamic Maghreb (AQIM) has repeatedly issued calls for attacks against France. Since U.S. supports Israel, combined with the military involvement in Iraq and Afghanistan, all terrorist groups challenge the US operations and facilities in Africa. See Figure 15-7.

Joint European Union Counterterrorism
EU has deployed several Common Security and Defense Policy missions (CSDP) to provide some assistance in training armed forces, police and army, of these countries in addressing counterterrorism tactics and strategies. In April 2010, the EU launched a military training mission in Somalia (EUTM Somalia). By December 2016, the Council of European Union decided to prolong the mission in Somalia until 31 December 2018 with a budget of close to € 27 million. The commander of EUTM is from Italy. The mission has trained 5,000 Somalia soldiers (Somali National Armed Forces (SNAF) by end of 2016. The United Kingdom, in 2017, has committed military helicopters, surveillance aircraft, no troops considering Brexit. See Figure 15-28.

G5 Sahel – Five Africa States United
G5 Sahel (G5S) Joint Force, has membership of five states; Burkina Faso, Mali, Mauritania, Niger, and Chad. The battle with Al Qaeda is heavy in Africa’s Sahel region. The G5S is comprised of up to 5,000 military and police personnel drawn from national battalions. Including the existing Liptako-Gourma task force (LGTF) established earlier this year by Burkina Faso, Mali, and Niger to secure their shared border region, with their headquarters located in central Mali.

In 2017, G5 Sahel (G5S) Joint Force was authorized by the African Union Peace and Security Council and the adoption of UN Security Council (UNSC) Resolution 2359. Mainly supported by France with 4,000 French troops deployed to the region. The U.S. pledged $60 million in support of the initiative. During an attack in June 2018, JNIM destroyed the entrance to G5S Headquarters, by a massive car bombing. See Figure 15-8.
United Nations Counterterrorism

UN has contracted Thales UK to operate 3 Hermes 900 drones out of Timbuktu to support UN peacekeeping missions in Mali. See Figure 15-9 In December 2015, Thales signed a three-year contract to support the UN. It was just renewed for another two years, through January 2020. The primary mission of the Hermes drones are aerial surveillance for humanitarian convoys by UN to assist in protection from Al Qaeda in the Islamic Maghreb, Boko Haram and the Islamic State, See Figure 15-10.

Figure 15-8 Source: (Sahel Elite, 2017)
Figure 15-9 An Elbit Hermes 900 drone at Timbuktu Airport, Mali

Figure 15-10 United Nations Counterterrorism


France - Operation Serval
Operation Serval began in 2012 by France. The operation’s goal is to stop the jihadist incursion from Northern Mali into the Malian capital. Also, to stop all forms of passage, where jihadist groups between Libya and the Atlantic Ocean. French interest in Africa continues to grow with movement of French troops into Libya, Mali and the Central African Republic.
France has acquired the MQ-9 Reaper to carry out Operation Serval. They wanted the MQ-9 for its ability to provide fire power and higher payload. However, the MQ-9 Reaper requires over a two-year timeframe for purchase through the U.S. weapon export policy and modifying them with European sensors. Because of U.S. stiff export drones, France’s interest has dwindled. However, French special forces, both army and air force, possess mini-drones. The inventory includes the following, Israeli Elbit Skylark 1 and 1-LE, French Drac, Thales Spy Arrow, and U.S. AeroVironment Wasp. [See Figures 15-11, 15-12, 15-13 15-14.]

**France - Operation Barkhane**
Replacing Operation Serval in August 2014, France’s new mission was to provide counterterrorism efforts in the Sahel region (G5S). France assisted the G5S region armed forces in fighting terrorist networks and prevented creation of terrorist safe-havens. France did this with

A mix of 20 mix of Gazelle, Puma and Cougar helicopters; 200 Armored vehicles, ten dedicated transport/reconnaissance aircraft, six fighter planes, and three Harfangs drones. In the G5S region, France established four permanent military bases. The headquarters of Operation Barkhane and air force in N'Djamena, a regional base in Gao, north Mali, a special-forces base in Burkina Faso’s capital, an intelligence base in Niger’s capital, an air base of Niamey. Niamey is an ideal location to hosts drones in charge of gathering intelligence across the entire Sahel-Saharan region.

**Figure 15-11 France’s MQ-9**

Unmanned Aircraft Systems (UAS) in the Cyber Domain

Figure 15-12 Thales Spy Arrow Drone


French EADS Harfangs
EADS Harfangs are modified Israeli IAI Herons, $25 million each for UAVs and ground stations. EADS/IAI’s formal proposal to extend France’s Heron-derived Harfang rent-a-drone service involves sensor upgrades, but no weapons. The experience in Mali and Libya are pushing France toward armed UAVs. It is possible to modify the Harfang UAVs to add RAFAEL’s Spike-LR missiles, or MBDA’s Viper Strike glide bombs. On January 8, 2018, a Harfang drone belonging to the 1/33 "Belfort" Drone Squadron landed for the final time on Cognac-Chateaubernard Air Base (BA 709), before its withdrawal from active service.

Figure 15-13 Skylark 1 LE

France has declared to focus on fighting Islamist militants as their primary foreign policy objective. France ordered six MQ-9 Reaper drones to replace EADS-made Harfang drones. The move to armed drones fits into a more aggressive policy. Estimated delivery by 2019.

France working with Germany, Italy and Spain to develop a European drone field by 2025.

**Trans-Sahara Counterterrorism Partnership (TSCTP)**

The Trans-Sahara Counterterrorism Partnership was established in 2005. It is a U.S.-funded and implemented effort. “TSCTP partners include Algeria, Burkina Faso, Cameroon, Chad, Mali, Mauritania, Morocco, Niger, Nigeria, Senegal, and Tunisia.” (Emad-Ceseden, 2013)

“TSCTP mission is to build the capacity and cooperation of military, law enforcement, and civilian actors across North and West Africa to counter-terrorism. With the TSCTP, the North and West African militaries will be enabled and enhanced their capacity to conduct counterterrorism operations. By integrating the ability of North and West African militaries and other supporting partners enables..."
individual nations’ border security to monitor, restrain, and interdict terrorist movements.” (Emad-Ceseden, 2013) Also, by strengthening the rule of law, including access to justice, and law enforcement’s ability to detect, disrupt, respond to, investigate, and prosecute terrorist activity. “The North and West African militaries, with TSCTP, can monitor and counter the financing of terrorism. In turn, reducing the limited sympathy and support among communities for violent extremism. TSCTP programs have worked to counter violent extremist radicalization and recruitment of youth, including educational and training courses in Algeria and Morocco, and extensive youth employment and outreach programs, community development, and media activities in Niger, Burkina Faso, and Chad.” (Emad-Ceseden, 2013)

**Partnership for Regional East Africa Counterterrorism (PREACT)**

Funded by the U.S. government, PREACT, builds the capacity and cooperation of military, law enforcement, and civilian actors across East Africa for the mission of counterterrorism. PREACT has reduced the operational capacity of terrorist networks by developing a rule of law framework for countering terrorism in partner nations. In addition, PREACT has enhanced border security, countered the financing of terrorism, and reducing the appeal of radicalization and recruitment to violent extremism.

**United States - West Africa**

Supporting West Africa from terror actors, the U.S. has an Africa Command, located in the Nigerien air base in Niamey. The U.S. will use MQ-9 Reapers with precision-guided bombs and missiles, targeting Al Qaeda in the Islamic Maghreb, Boko Haram and the Islamic State. This is the second time that armed drones have been stationed and used in Africa by the U.S. See Figure 15-15.
Support from the U.S. has gone from in 2013, a 100 U.S. Troops assigned to Niger to 2018, 800 including special operations. U.S. Troops have been provided to support and facilitate intelligence collection and sharing with French forces, who are conducting CT operations in Mali. The U.S. provides guidance to local troops as they battle Boko Haram and al Qaeda. The U.S. is currently building a drone and airbase in the northern city of Agadez. In 2018, US Africa Command will launch its MQ-9 Reapers, nicknamed "hunter/killer" drones with advanced intelligence gathering capabilities. Niger was the only country in Africa granting the U.S. permission to build out a new U.S. airbase. The U.S. has maintained a presence at Guelmim Air Base in southern Morocco. Research suggested MQ-1 Predators have been operated here. See Figure 15-16.
United States - East Africa

On 25 June 2011, U.S. Predator drones attacked an al Shabaab training camp in Somalia, killing a senior a senior terror leader. Four Al-Shabaab fighters, including a Kenyan, were killed in a drone strike late February 2012. U.S. Drone strikes of Somalia Al-Shabaab fighters have increased: 14 in 2016 vs. 34 in 2017. As of January 2018, 24 more al-Shabaab fighters have been killed in 3 drone strikes.

The U.S. in Ethiopia has armed MQ-9 Reapers operating out of Arba Minch Airport. Since 2011, flights have been conducted with a primary mission to disrupt and eradicate terroristic operations in Ethiopia and Somalia. The U.S. Air Force has invested “millions” of dollars to upgrade the runway and airport in this area. See 15-17.

home to U.S. Special Operations forces and armed drones for operations in Somalia & Yemen
The Kenyan military has publicly denied it hosts U.S. drones or surveillance flights. Seychelles International Airport is home to an unknown number of MQ-9 Reapers. The drones carry out counter-terrorism missions in Somalia. There are has been two U.S. drone crashes at this area. See Figure 15-17.

**United States - North Africa**

U.S. wants to establish a drone base in North Africa, to fight against Libya based Islamic State (ISIS). U.S. drones used in Libya currently fly from NAS Sigonella on Sicily, Italy.

Libya based Islamic State (ISIS) targets attacks across Northern Africa.

However, the U.S. intelligence has a blind spot, thus the need for the additional drone base.

**Figure 15-17 Seychelles International Airport**

*Source: Publicintelligence.net. (December 1, 2012). Located on the island of Mahé, Seychelles the Seychelles International Airport has hosted US drones since 2009. Since December 2011, two MQ-9’s have crashed at this airport. https://publicintelligence.net/us-drones-in-africa/*

In Kenya, the U.S. Navy is operating Camp Simba located near Manda Bay. The camp is current
ISIS in June 2015 executed an attack in Port Sousse leaving 38 dead and the March 2015 Bardo Museum attack left 19 dead. U.S. Air Force MQ-1B Predators have been involved in reconnaissance and strike sorties in Operation Unified Protector. There are also some suggestions that a Predator was involved in the final attack against Muammar Gaddafi. The U.S. MQ-1Bs Predators along with MQ-9 Reapers returned to Libya in 2012, after the attack that killed the US Ambassador in Benghazi. The operation proved successful with the U.S. taking Libya from ISIS stronghold.

In May 2015, ISIS had 6,000 fighters in Libya. From August to December 2016, four-month air campaign over Sirte by three MQ-9 Reapers (flown from bases in Nevada, Tennessee and North Dakota) conducted 495 airstrikes.

United States - Central Africa
US Africa Command (AFRICOM) based in Cameroon has and inventory of MQ-1C drones.

AFRICOM claimed the base for location of being in the heart of the Central Africa counter-terrorism combat zone. See Figure 15-18.

Figure 15-18 AFRICOM Base in Cameroon

Source: Center for the study of Drone, S: (March 1, 2018), CT: Drone Bases Updates, URL: http://dronecenter.bard.edu/drone-bases-updates/

Cameroon
A satellite image of the U.S. drone base in Garoua, Cameroon. See Figure 15-19.
Figure 15-19 A satellite image of the U.S. drone base in Garoua, Cameroon

Unmanned Aircraft Systems (UAS) in the Cyber Domain

Figure 15-20 China CH-5 Rainbow


Figure 15-21 US MQ-9

China Counterterrorism
Terrorism in Africa is not a high priority issue for China. However, the China-Africa Cooperative provides technical and financial assistance for the counterterrorism effort. China will not join missions associated with Western political agendas nor until terrorist attacks against Chinese entities in Africa or physical attacks in China by African terrorist groups. See Figure 15-20, 15-21 and 15-22. Compare the Chinese CH-5 to the MQ-9.

Israel Counterterrorism Efforts
“Africa and Israel have a long history of partnering with military operations. For example, Israeli anti-terrorist forces advised Kenyan units in connection with the 2013 attack on the Westgate Mall in the capital, Nairobi. Currently the countries are conduct operations together Al Qaeda and Palestinian militancy.” (Emad-Ceseden, 2013)In 2016, Israeli counterterrorism and intelligence agencies set up a special command center in the Kenyan port city of Mombasa. Israel has successfully lead Kenyan operations against the Al Qaeda cells embedded in eastern and southern Kenya. Israel has trained the Elite guards that protect VIPs in Africa. See Figure 15-23.

East Africa union (EAU) is comprising of Israel and six East African states, Kenya, Ethiopia, Tanzania, Uganda, Rwanda and South Sudan; for to rid their countries of the jihadist Islamic State.

Kenyan army is receiving training from Israeli military instructors on tactics for battling Al Shabab, affiliates of Al Qaeda, inside Somalia and a supply of Israeli weapons tailored for anti-terror warfare. In return for military intelligence assistance for combating terror, the six East African governments are offering Israeli firms preferential treatment for developing their markets. August 2017, Israel offers to train drone operators for Ghana’s Special Forces for tactical surveillance and counter-terrorism purposes. The Israeli officials said Israel was willing to finance the training of the drone operator program. Israel and Ghana cooperate on several defense matters. Ghana participates in the UNIFIL force in southern Lebanon, and has about 870 soldiers stationed there, stated a United Nations report in June. In addition, several Israeli defense companies operate in Ghana and provide services to Ghana military.

**Figure 15-23 Israel -East Africa CT efforts**

Germany - West Africa

Germany plans to deploy Heron drones leased from IAI to Gao, Mali to join their reconnaissance and surveillance LUNA drones already there. After the August 13, 2017 terrorist attack in Burkina Faso, the country also accepted Germany’s offer to train its soldiers in German military training camps. See Figure 15-24. Germany has committed to the African countries “defend their security and stability and fight against terror and organized crime” Germany Government allowed U.S. drones forces access to Ramstein AB, to fly Predator & Reaper drones, Global Hawk aircraft, under the condition that the Americans do nothing there that violates German law.

Pakistan - West Africa

Pakistan attraction to be involved in West Africa is simple, the trade of Nigeria liquefied natural gas and Pakistani farm tractors. West Africa welcomes the Pakistan military hardware to assist with the fight against Boko Haram, who represents ISIS in Nigeria. Boko Haram continually conducts attacks against Nigerian government forces. Pakistani assembled drones, like the Chinese CH-3, assist from the air.
**Egypt - North Africa**

The airbase, Bir Gifgafa, is 50 miles east of Suez Canal is home to Egypt’s Wing Loong drones.

Drone deployment to Bir Gifgafa to combat Islamist insurgency on Sinai Peninsula in support of Northern Africa continues to grow with further construction of the airbase. See Figure 15-25.

**Figure 15-25 Egypt - North Africa Satellite images from Nov 2016 show 4 Wing Loong Drones**

Source: Center for the study of Drone. (March 1, 2018). Drone Bases Updates http://dronecenter.bard.edu/drone-bases-updates/

**Italy/France/United States - East Africa**

Chabelley Airfield, Djibouti is the French built but U.S. military operated airfield, French allies use for training and as a divert location ten miles from the capital of the small African nation of Djibouti. U.S. Air Force’s 870th Air Expeditionary Squadron run U.S. operations from airfield (with permission of French and Djiboutian government) Used for U.S. drone operations over Somalia and Yemen From September
2014 to February 2015 Italian Air Force operated MQ-1 Predators from Chabelley to support counter-piracy missions. See Figure 15-26.

**Figure 15-26 Chabelley Airfield Djibouti**

*Source:* Center for the study of Drone. (March 1, 2018). Drone Bases Updates http://dronecenter.bard.edu/drone-bases-updates/

**Africa Maritime Piracy and Violence**

**Africa’s Maritime Security**

Maritime security has become a priority for most of Africa’s regional communities since the increase in piracy. The importance of protecting their maritime territories needs to occur to protect regional economies. Africa realizes the “blue economy” will increase with the safeguarding of the area. The continent has a coastline of 18,950 miles, according to international law permits coastal states to claim as much as 200 nautical miles from their coastlines. The Southern African Development Community (South Africa, Mozambique and Tanzania) have coastlines on both the Indian and Atlantic oceans. The threats faced by the sub-region include illegal and irregular fishing and smuggling. As a result, the three states agreed to conduct joint patrols, military exercises and surveillance
China – Africa’s Maritime
Port of Djibouti home to China’s People's Liberation Navy (PLAN) new naval base in the Horn of Africa nation, which is home to approximately a thousand Chinese military personnel. PLAN escorts ships in the Gulf of Aden and the waters off the Somali coast and perform humanitarian rescues. The new PLAN naval base will provide a place for rest and rehabilitation for the Chinese troops taking part in U.N. peacekeeping mission. Will be used to ensure China's performance of missions, such as escorting, peacekeeping and humanitarian aid in Africa and west Asia. Images appear to show evidence of a squadron building, seven shelters for helicopters or UVA's along a 1,300-foot long apron, which is intended to accommodate aircraft for loading, refueling or maintenance. In Africa, Chinese business investment grew from $10 billion to more than $200 billion between 2000 and 2016, U.S. investment remained stagnant. See Figure 15-27.

Figure 15-27 China Navy Base - Horn of Africa nation


European Union Naval Force’s (EUNAVFOR)
Operation Atalanta, was launched in 2008, as part of European Union Naval Force’s (EUNAVFOR) anti-piracy naval mission. The operation runs from the sea off the Horn of Africa and in the Western Indian Ocean. It deters and disrupts piracy and armed robbery at sea and monitors fishing activities off the coast of Somalia. The operation supports other EU missions and international organizations working to strengthen maritime security and capacity in the region. EUNAVFOR deploys UAVs for intelligence, surveillance, target acquisition, and reconnaissance. On February 23, 2018, EUNAVFOR, responded to piracy attack reported by Motor Tanker Leopard Sun off coast of Somalia. Italian Airforce uses remote controlled Predator unmanned aerial system (UAS) in support of Operation Atalanta off coast of Somalia.
To execute long-range surveillance and reconnaissance patrolling missions, the Italian Air Force’s Predator B UAS is a long-endurance, medium-high-altitude RPA designed for surveillance, military reconnaissance, and targeting, and close air support missions over land or sea. Predator B has a single Honeywell turboprop engine, the aircraft can stay airborne for up to 27 hours at 50,000ft altitude.

**Morocco’s Commercial Activity in Africa**

A Morocco-based startup Atlan Space has developed software to use drones for monitoring illegal maritime activity like illegal fishing or oil spills. Testing has been taking place in Uganda.

UAVs operated by this software can be launched and deployed into monitoring operations without having an aircraft operator.

**Figure 15-28 Italian Air Force’s Predator B UAS**


**UNICEF and Virginia Tech**

Virginia Tech Unmanned Systems Lab designed a drone, called EcoSoar, that could perform drug delivery flights. Virginia Tech worked with UNICEF to teach Malawian students to build EcoSoar. In June 2017, UNICEF and Government of Malawi conducted flight testing in the drone testing corridor in Kasung. The University hosted a two-day workshop for 13 Malawian students and faculty to teach the construction of the aircraft that is made of foam core (poster board) and 3D printed parts. See Figure 15-29.
Unmanned Aircraft Systems (UAS) in the Cyber Domain

Figure 15-29 Virginia Tech and Malawian Students


Summary
Africa’s rich natural resources attract other countries for trade in exchange for military protection and commercial growth of the continent. Terror groups continue to violently spread through strategic areas of the Africa to gain ideal land for attacking neighboring countries. The European Union, Russia, China, and the U.S. continue to peacekeeping support and military training of African troops in several regions. However, the future of U.K. support is not clear and U.S. Special Forces are considering reducing operations by half over the next three years. China is one of the largest aid donors to Africa across infrastructure, education, and military. Despite Africa’s fight against radical Islam, their infrastructure and commercial UAS market continues to lead the globe.

Discussion Questions
1. Why is Africa ideal continent to test and grow innovation?
2. How can the spread of radical Islam hinder Africa’s growth? Support from other countries?
3. Why does Africa have the potential to lead the UAS drone market?
Bibliography


Readings


Nichols, Ryan, Mumm, Lonstein, & Carter


347


Unmanned Aircraft Systems (UAS) in the Cyber Domain


