During a commencement speech to the graduating class of 2014 at West Point, President Barack Obama stated:

... for the foreseeable future, the most direct threat to America, at home and abroad, remains terrorism, but a strategy that involves invading every country that harbors terrorist network is naïve and unsustainable. ... We need partners to fight terrorists alongside us. And empowering partners is a large part of what we have done and what we are currently doing …

For Combined Joint Task Force–Horn of Africa (CJTF–HOA), enabling our multinational partners to neutralize violent extremist organizations is a daily activity involving a broad scope of organizations. This is a cooperative effort between Joint services, interagency, intergovernmental, and multinational teammates. CJTF–HOA’s Commanding General, BG Wayne Grigsby, USA, refers to this great combined force as the JIIM team—joint, interagency, intergovernmental, and multinational team. This article will focus on enabling our multinational partners in an effort to strengthen the JIIM team by providing a secure means to collaborate together in order to render our adversaries incapable of disrupting peace and stability in Eastern Africa.

Conducting operations within Africa comes with a set of unique challenges. Each challenge is met with a unique solution to overcome those challenges. One such challenge is being able to share information securely between U.S. forces and troop contributing countries (TCC) to African Union Mission in Somalia (AMISOM). The Africa Command Data Sharing Network (ADSN) has been developed to meet the need to securely pass data communications between U.S. Forces and TCCs. The ADSN also provides an opportunity for U.S. forces to interface with their African counterparts, which has the potential to improve the relationships between U.S. forces and our multinational partners.

So what is the ADSN? The ADSN is a closed network, provided by the United States to select TCCs. Currently, Kenya, Djibouti, Uganda, and Burundi have been recipients of an ADSN terminal. The terminals are Secure Internet Protocol Router (SIPR) Network Access Point (SNAP) 1.2 meter lite systems that provide secure voice and data. These terminals are packed in six ruggedized transit cases for a combined weight of 600 pounds. The equipment is easy to transport for the TCCs as all six boxes fit in the rear of a sports utility vehicle. Each ADSN terminal comes with two voiceover Internet protocol (VOIP) phones and two laptops. The setup of the terminal is fairly simple and quick, taking a trained operator approximately 30 minutes to establish the node. Once in place, the satellite dishes will automatically acquire the satellite. Figure 1 is a depiction of the equipment string of the SNAP Lite. It is very basic: modem to router, router to encryption device, encryption device to router, router to switch, and switch to user end equipment. This provides a simple package that will allow the...
Before the physical installation, permission must be gained from the host nation and the U.S. Government. The first step in the process is to agree to share information between the United States and the host nation.
room, capable of maintaining temperatures less than 85 degrees Fahrenheit. The length of the receive, transmit, and monitor and control cables are 100 feet, so a satellite dish needs to within 100 feet from where the backside equipment will be staged. The dish needs to be placed on flat level ground, free from vehicle and foot traffic, and in a 12-foot-by-12-foot area. Also, the satellite dish needs to have a clear line of sight to the satellite, but special consideration has to be made to ensure that it is not emanating into anyone’s workspace, such as a guard shack. For U.S. forces, these requirements can all be met in short order; however, these considerations present unique challenges to some of the host-nation recipients. Power is a premium in most African nations, which makes it challenging to find a dedicated 30 amp circuit. Once procured, it becomes a challenge to ensure that circuit is not used for other equipment which draws a considerable amount of power, such as the air conditioner that is required to keep the room at or below 85 degrees Fahrenheit. This is a challenge in itself since temperatures in most areas where ADSNs operate have an average of 100 degrees Fahrenheit throughout the summer. If shore power is not readily available and a generator is required, it presents a whole new challenge—providing a steady stream of fuel to keep the generator running. This can put a considerable strain on the logistic capability of the host nation. It also dictates the hours of operation for the terminal. Most nations will turn the system on when they need to pass data and turn it off when they no longer require it. This makes two-way communications difficult, particularly when trying to contact the distant end via phone. Lastly, having a basic understanding of the host-nation’s engineering capability is important. If a level surface is not available in the desired location, the host nation must have the capability to create such a surface. These are planning factors that are well understood and are attainable by U.S. forces; however, the introduction of satellite and expeditionary data equipment is foreign to the majority of African nations, which means the supporting requirements for this capability have not been established or may not be present.

Very frequently, components of the ADSN may not be able to survive the harsh environment of East Africa, the daily set up and tear down, or the lack of consistent clean power. There have been a variety of component failures on the ADSN terminals. Block-up converters have failed because faulty fans became clogged due to dust and rain. Lawn mowers have run over transmission cables. Power surges have damaged the uninterrupted power supply on several occasions. Improper start up and shut down procedures have burned out the satellite dish’s tracking motor. Some TCCs have run the...
system off the uninterrupted power supply before being able to perform a graceful shutdown, which affects the system and prevents the satellite dish from being properly stowed. Having the satellite dish improperly stowed will affect the systematic boot up process and will affect the auto-acquire feature of the satellite. These systems are under warranty; however, getting the parts to their respective ADSN terminals is not a speedy process, particularly within conflict zones where U.S. forces are not allowed to operate freely. Receiving permission from the U.S. Embassy and then coordinating with the host na-
tion’s military delays the ability to send a contact team to repair the equipment. Typically, with an expedited process, permission from the U.S. Embassy and the host nation can be achieved in 96 hours. The primary mode of logistics is U.S. airlift. U.S. airlift provides the speediest means to send repair parts and personnel down range.

There have been several challenges that have been addressed when it comes to maintenance and installation. The first set of challenges that should be addressed is installation. The installation of an ADSN system takes effort from different elements of the staff. The J-2 (intelligence) is primarily responsible for the user end training. The J-6 (communications) has been responsible for conducting the site surveys, determining if the physical location would be suitable, and training the technicians. The J-2 has always met with their counterparts and the J-6 has met with theirs. However, the J-4 (logistics) has never accompanied the MTT on training for site surveys. This is problematic because a significant portion of ADSN reliability is directly connected to power and environment control. This will also allow the utility subject matter expert to interface with his host-nation counterpart to reemphasize the need to maintain a suitable temperature for the ADSN and to never overload the circuit. This information is already part of the training package, but perhaps it is given by the wrong trainers to the wrong audience who may not be able to affect power requirements. If using a generator, the utility operators and the ADSN technicians require close coordination. ADSN shut down should occur before the generator is turned off, and not repeatedly rely on the uninterrupted power supply on a daily basis. This will ease the wear-and-tear on the equipment and allow the shut down to be more met-

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tical instead of trying to shut down the equipment within a small window of time. This has two desired effects: one, it will help solidify the engineer requirements for the ADSN terminal; and two, it increases staff coordination within the host nation.

With the training challenges that are presented, one factor that is persistently not an issue is the willingness and desire to learn. Due to time restrictions, the instructors could not possibly cover anything beyond how to turn the ADSN on and how to turn it off. However, instructions can be broken down into elements that they can fix and elements that they can control. For example, along with the ADSN, we can provide them with a thermometer with the 85 degree mark highlighted. This is their tool to monitor the health of the network. This provides them with a useful tool to make an informed decision and empowers them to control their maintenance. Likewise, it is not enough to teach the host-nation partners how to turn the ADSN on and off. A maintenance package needs to be included. Another example of preventive maintenance is teaching the host-nation partners how to use a can of canned air and how to apply air pressure prop-

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