



On the use of drones: Searching for the kidnapped Nigerian schoolgirls

Aerial surveillance aircraft assist with the fight against Boko Haram

By Hubert Foy

The Bottom Line

Unmanned aerial surveillance devices are proving effective intelligence-gathering tools that may make rebel groups' previous ability to operate without detection a thing of the past. Quality imagery helps in tracing the movements of key Boko Haram leaders and identifying targets, which can then guide Nigerian policy leaders and military commanders to make informed decisions on the ground.

The international search and rescue mission of 276 schoolgirls abducted by Boko Haram terrorist group on 15 April 2014 in northern Nigeria relies significantly on the use of spy satellites and drones to collect information that can discern the whereabouts of the girls. A spy satellite, officially referred to as a reconnaissance satellite, is an Earth observation satellite or communications satellite deployed for military or intelligence-gathering applications. Electronic intelligence, complementary to ground intelligence, is a potential source of information on the location(s) and activities of the Boko Haram insurgents with their hostages. Such information would be valuable input in the decision-making process of Nigeria's commander-in-chief, the president and military chiefs.

American military technology in service of Africa

A few countries, including France, the UK and the US have all sent intelligence analysts to Abuja as part of their government assistance in their bid to locate the abducted schoolgirls. The US has superior eyes in the sky capable of providing continuous surveillance

of bases for the al-Qaeda linked terrorist group. President Barak Obama has sent 80 troops to Chad, mostly to support the unmanned Predator drones and surveillance aircraft, Northrop Grumman RQ-4 Global Hawk, being used to spy on Boko Haram bases in the forests and plains around Nigeria's borders with Niger, Chad and Cameroon.

In addition, there are approximately 30 specialists from the US Departments of State and Defence and the US Federal Bureau of Investigation (FBI) to advise the Nigerians. About half of the group is military personnel with medical, counter terrorism, intelligence and communications specialties. Positive results can be achieved by pooling and comparing Western nations' spy satellite imagery on preselected areas of Borno, Yobe and Adamawa states in northern Nigeria, which are considered safe havens for Boko Haram.

The American, British and French analysts are mostly counting on their optical observation satellites to locate the girls. Unfortunately, cloud cover in northern Nigeria in the months of May and June offer only a one-in-every-three-day clear sky favourable for optical observation. The observation

window is likely to reduce in the run-up to the rainy season, which starts in July. To overcome that challenge, imagery from various Western nations' satellites could be pooled and compared, a task that the Nigerian Army is not currently in a position to carry out and that no other country has offered to do.

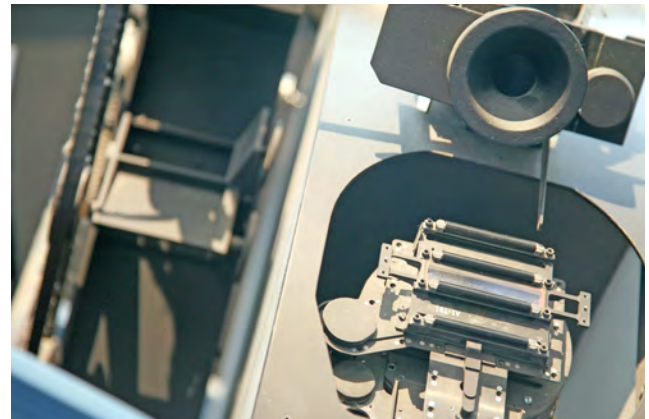
US eyes in the sky can also bolster Nigeria's technical means to decimate Boko Haram leadership and their

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bases. Using satellite imagery has the advantage of giving coverage that would go back a number of years, and analysts would be able to look at the construction chronology and expansion of Boko Haram bases as well as their affiliate compounds. US technology in reconnaissance missions ranges from high resolution photography and measurement to communications eavesdropping and covert communications. Drones and surveillance aircrafts have the advantage of dedicated and continuous monitoring of preselected border areas, bases or even a compound that may be linked to Boko Haram. The fundamental difference between drones and reconnaissance satellites is that each satellite can stay overhead an area for about 5-10 minutes only twice a day. That observation window provides a very brief snapshot of that area. Earth observation satellites are suitable for the surveillance of permanent places or infrastructure – strategic intelligence gathering.

A drone, on the other hand, is more suitable for tactical intelligence gathering. It can maintain continuous surveillance of mobile objects within an area. At an orbit high enough so that it is not seen by humans, drones allow for 24/7 stakeout-quality coverage for about 28 days. Using a drone, it is possible to figure out how many people are in the area, what their daily routine is, whether that routine varies by day of the week. Presumably, the Boko Haram schedule varies because terrorist bombing and kidnapping activities are not spontaneous. They require planning, financing and national indifference to succeed. Drones and

surveillance aircrafts basically enable effective tracking of those activities and could guide Nigerian Army commanders to plan and raid Boko Haram bases.

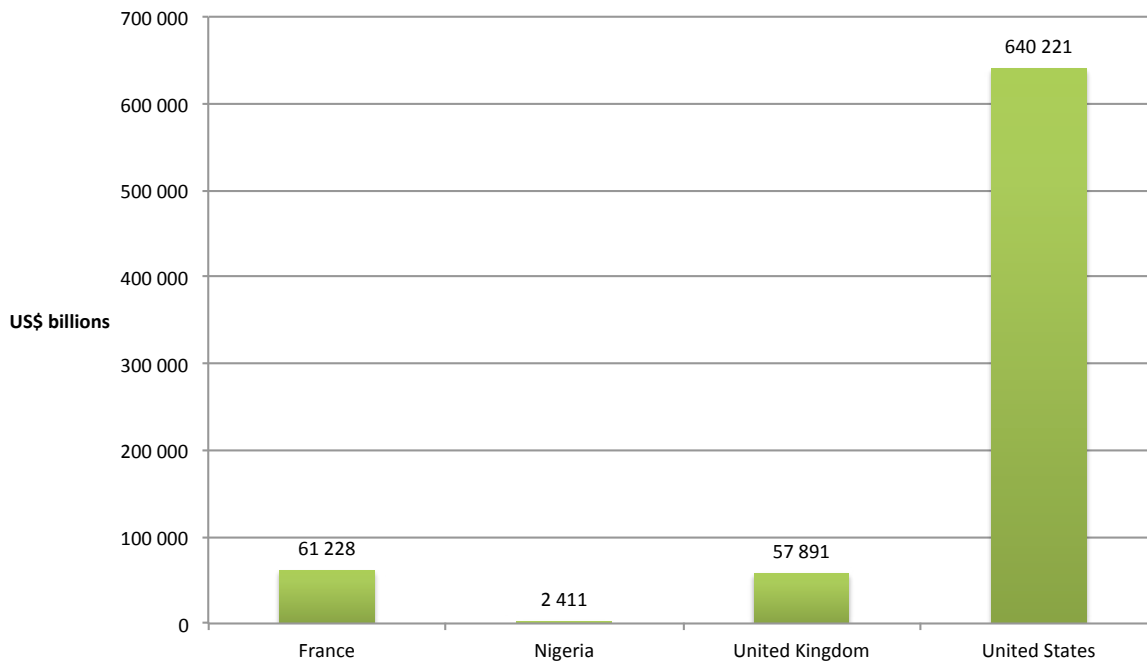


Spy satellite camera
Photo courtesy Simon Law/Flickr

High Altitude Long Endurance (HALE) drones have also been sent to north-eastern Nigeria. These are better suited to locating mobile groups, like Boko Haram, that have no infrastructure to give them away to satellite observation, according to Intelligence Online. The US Air Force began flying a Northrop Grumman RQ-4 Global Hawk in the area in mid-May. Drones provide real world imagery intelligence, providing full-motion video from anywhere on the planet. It is unclear whether the Nigerian government has these technical capabilities. Two years ago, Israel tried to sell Nigeria a mini-drone system fitted with sensors to aid its fight against Boko Haram.



Northrop Grumman RQ-4 Global Hawk plane
Photo courtesy US Navy/Flickr



Comparison of military expenditures of France, Nigeria, the UK and the US for 2013
 Graph compiled by ACMM with data from 'Military expenditure by country, in current US\$ million, 1988-2013', Stockholm International Peace Research Institute (SIPRI)

What can be expected from the deployment of drones in Nigeria

The value of imagery intelligence is in the details and quality. Both spy satellite and drone, and surveillance aircraft sensors provide imagery to recognize mini I-pad size objects. That is certainly good enough to see people but probably not good enough to do facial recognition, although that is certainly a possibility. Those technologies have been used successfully in the fight against terrorism in Afghanistan and Iraq. Similarly, they can be employed over Nigeria to provide quality imagery and advanced electronic intelligence in tracing the movements of key Boko Haram leaders and identifying targets that can guide Nigerian policy leaders and military commanders in making informed decisions to ensure a safe and secure rescue operation of the girls. Beyond the resolution of the abductions, aerial surveillance aircraft will find continued service against the Boko Haram organisation itself to assist in the military campaign against the deadly group that is wreaking such destruction on Nigeria.

In sum:

- Good intelligence remains key to military achievements, and drones are effective in collecting images
- African military personnel presence in Africa remains a controversial and sensitive matter, while drone technology has thus far been uniformly welcomed by African beneficiary nations
- Pooling images from various nations' drones and satellites will ensure a greater intelligence harvest

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Analysis in Context

- ➔ **Boko Haram abductions: US and UK step up military effort to find girls**, *The Guardian*, May 2014: <http://bit.ly/1jqwgSY>
- ➔ **'US to share intelligence on girls with Nigeria: So what?'**, *US News*, May 2014: <http://bit.ly/1oLlLFC>
- ➔ **'The effectiveness of drone strikes in counterinsurgency and counterterrorism campaigns'**, *Strategic Studies Institute*, September 2013: <http://tinyurl.com/q7mlvgf>