

Satellite Sentinel Project

RADIUS OF OPERATIONS: SUDAN INCREASES AIR ATTACK CAPACITY

HUMAN SECURITY ALERT
REPORTED BY



Harvard
Humanitarian
Initiative

11 NOVEMBER 2011

The Satellite Sentinel Project (SSP) has confirmed through the Harvard Humanitarian Initiative's analysis of DigitalGlobe satellite imagery that the Sudan Armed Forces (SAF) are rapidly working to enhance air strike and air assault capacity in two airbases recently captured from rebels in Sudan's Blue Nile border area. Since taking control of the town of Kurmuk on 2 November, SAF has started building fortifications around the airstrip, positioned armor and other units nearby, and appear to be upgrading the facility. The airstrip at Kurmuk is now the southern most airstrip under SAF control along the border with South Sudan.

There are three visible craters currently on the runway, which are consistent with artillery or aerial bombardment, which must be repaired before the strip can be fully operational. The airstrip at Kurmuk is 1500 meters in length, long enough for landing an Antonov An-26 and other attack aircraft. The Antonov An-26 has a potential operational radius of approximately 1100km/683.5m. Stationing attack aircraft in Kurmuk would allow SAF to strike targets in Upper Nile, Blue Nile, Sennar State and elsewhere in southern Sudan over less distance and with greater frequency than at any other SAF airbase.

Additionally, SAF appears to be rapidly building helipads in Kurmuk. On 28 September, when SPLA-N forces still controlled Kurmuk, there appeared to be one area consistent with a helipad at a compound. As of 10 November, there are now five areas consistent with helipads at that same compound in Kurmuk, which indicates that as many as four additional helipads have been built by SAF in approximately a week since the SAF captured Kurmuk. These helipads will allow SAF to base helicopter gunships and transport helicopters needed for the transport of air assault infantry near the border with South Sudan.

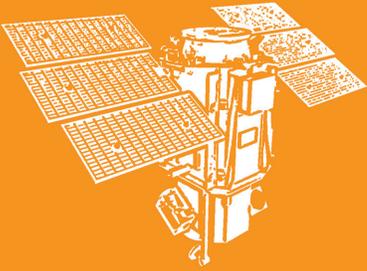
DigitalGlobe imagery analyzed by SSP from 24 October shows the presence of three attack helicopters and one Antonov at the SAF-controlled Damazin airstrip. The presence of air assets and expansion of the air strip affirms SAF's growing air capacity in Blue Nile enabling a projection of force throughout Blue Nile, Upper Nile, and southern Sudan.

RECENT AERIAL BOMBARDMENT

Since 8 November, the Government of Sudan (GoS) has conducted an aerial bombardment campaign against refugee camps in South Sudan. The bombings occurred after the submission of a formal complaint by President Omar al-Bashir to the United Nations Security Council claiming that South Sudan is supplying weapons to South Sudan-aligned rebels operating in South Kordofan and Blue Nile. On 6 November Bashir said that "the armed forces, the police forces, the security and the People's Defense Forces are always ready to teach the aggressors more lessons."¹ South Sudan's President Salva Kiir accused Bashir of using these accusations to justify a "pending invasion of the South."²

The first aerial bombardment of a refugee camp by SAF allegedly occurred in Guffa, Upper Nile State, South Sudan on 8 November. SAF reportedly launched a four-hour bombardment on the camp, killing 7 people and destroying structures.³ The office of the United Nations High Commissioner for Refugees (UNHCR) indicated that the area is not a formal refugee camp, though approximately 400 refugees are present there.⁴

The second aerial bombardments occurred on 10 November when SAF allegedly dropped bombs in and around a refugee and internally displaced persons (IDP) camp in Yida, Unity State, South Sudan. One bomb reportedly fell near a school in session but did not detonate. According to news reports, bombings lasted throughout the day, killing 12 and wounding 20 people. On 10 November, the New York Times reported that there are presently 21,000 refugees in the camp.⁵



Satellite Sentinel Project

RADIUS OF OPERATIONS: SUDAN INCREASES AIR ATTACK CAPACITY

HUMAN SECURITY ALERT

REPORTED BY



Harvard
Humanitarian
Initiative

SOURCES

1. Klein, Alice. "Sudan warns it is ready to return to war with South Sudan." *The Telegraph*. 9 Nov 2011. Retrieved from: <http://www.telegraph.co.uk/news/worldnews/africaandindianocean/sudan/8879373/Sudan-warns-it-is-ready-to-return-to-war-with-South-Sudan.html>
2. Holland, Hereward. "South Sudan accuses Sudan of air strike on refugee camp." *Reuters*. 10 Nov 2011. Retrieved from: <http://www.reuters.com/article/2011/11/10/us-southsudan-bombing-idUSTRE7A94O120111110>
3. Ferrie, Jarred. "South Sudanese President Kiir Accuses al-Bashir of Planning an Invasion." *Bloomberg*. 10 Nov 2011. Retrieved from: <http://www.bloomberg.com/news/2011-11-10/south-sudanese-president-kiir-accuses-al-bashir-of-planning-an-invasion.html>
4. "S. Sudan's Kiir blames Khartoum for violence." *AFP*. 9 Nov 2011. Retrieved from: http://www.google.com/hostednews/afp/article/ALeqM5jlXaFhljzobEivOG2X7no6e_gU1Q?docId=CNG.4f0c63687383f92d2e2672061cd48532.131
5. Kron, Josh. "South Sudan Accuses Sudan of Bombing Civilian Camp Amid Fears of War." *The New York Times*. 10 Nov 2011. Retrieved from: <http://www.nytimes.com/2011/11/11/world/africa/south-sudan-accuses-sudan-of-bombing-civilian-camp.html?ref=sudan>

ABOUT THE PROJECT

Satellite Sentinel Project conducts regular, intensive monitoring of Sudan to assess the current human security situation and identify potential threats to civilians.

Analysis prepared by Harvard Humanitarian Initiative.
Imagery and additional analysis provided by DigitalGlobe.



VEHICLES
CONSISTENT WITH
HEAVY ARMOR

INFANTRY
FIGHTING VEHICLES
(IFVs)

TOWED
ARTILLERY

VEHICLES
CONSISTENT WITH
IFVs

KURMUK AIRSTRIP
Following the initial drive from the Blue Nile capital at Ad-Damazin to the SPLA-North stronghold at Kurmuk, Sudan Armed Forces took decisive control of Kurmuk town and its primary military asset, the airstrip. The airstrip stretches 1500 meters long by 33 meters wide, sufficient for use by an Antonov AN-24/26, Mi-24 Hind, and Nanchang Q5 aircraft. The Antonov AN-24/26 and Mi-24 aircraft have been repeatedly sighted approximately 150km north of Kurmuk, at Ad-Damazin.



Satellite Sentinel Project



AIRSTRIP
EXPANDING BY
250 M

EXPANSION
IN PROGRESS

SAF HELICOPTERS
CONSISTENT WITH
Mi-24 HINDS

SAF HELICOPTER
CONSISTENT WITH
Mi-17 HIP

SAF PLANE CONSISTENT
WITH ANTONOV AN-24/26

STRIKE RANGES:

MI-24 HIND GUNSHIP

POTENTIAL OPERATIONAL RANGE FROM BASE: 225 KM
SIGHTED AT: AD-DAMAZIN, KADUGLI

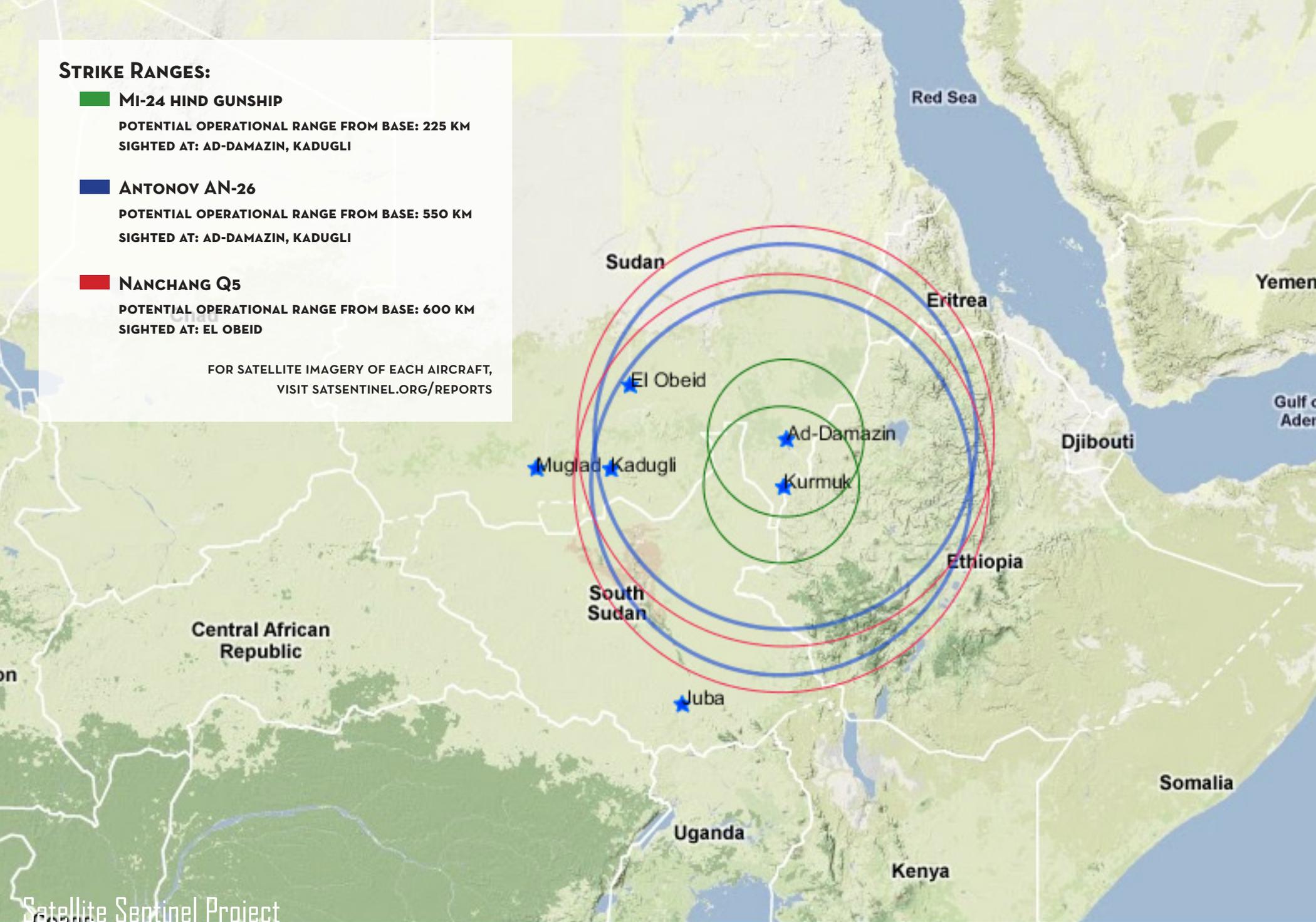
ANTONOV AN-26

POTENTIAL OPERATIONAL RANGE FROM BASE: 550 KM
SIGHTED AT: AD-DAMAZIN, KADUGLI

NANCHANG Q5

POTENTIAL OPERATIONAL RANGE FROM BASE: 600 KM
SIGHTED AT: EL OBEID

FOR SATELLITE IMAGERY OF EACH AIRCRAFT,
VISIT SATSENTINEL.ORG/REPORTS



3 OCT



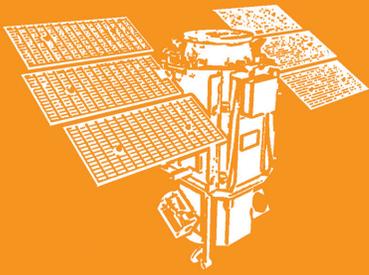
10 NOV



LIGHT
VEHICLES

CRATERING
CONSISTENT WITH
AERIAL BOMBARDMENT

Satellite Sentinel Project



Satellite Sentinel Project

ABOUT THE PROJECT AND THE PARTNERS

THE WORLD IS WATCHING BECAUSE YOU ARE WATCHING.

The Satellite Sentinel Project – conceived by George Clooney – combines satellite imagery analysis and field reports with Google’s Map Maker technology to deter the resumption of war between North and South Sudan. The project provides an early warning system to deter mass atrocities by focusing world attention and generating rapid responses on human rights and human security concerns.

This project is the result of an unprecedented collaboration between Not On Our Watch, the Enough Project, Google, DigitalGlobe, the Harvard Humanitarian Initiative, and Trelon, LLC.

The project works like this: Commercial satellites passing over the border of northern and southern Sudan are able to capture possible threats to civilians, observe the movement of displaced people, detect bombed and razed villages, or note other evidence of pending mass violence.

Google and Trelon design the web platform for the public to easily access the images and reports. Harvard Humanitarian Initiative provides system-wide research and leads the collection, human rights analysis, and corroboration of on-the-ground reports that contextualizes the satellite imagery. The Enough Project contributes field reports, provides policy analysis, and, together with Not On Our Watch, and our Sudan Now partners, puts pressure on policymakers by urging the public to act. DigitalGlobe provides satellite imagery and additional analysis.

The Satellite Sentinel Project marks the first sustained, public effort to systematically monitor and report on potential hotspots and threats to security along a border, in near real-time (within 24-36 hours), with the aim of heading off humanitarian disaster and human rights crimes before they occur.

Not On Our Watch – co-founded by Don Cheadle, George Clooney, Matt Damon, Brad Pitt, David Pressman, and Jerry Weintraub – has provided seed money to launch the project. To support the Satellite Sentinel Project, donate at www.satsentinel.org.

Press Inquiries: Contact Jonathan Hutson at jhutson@enoughproject.org | 202.386.1618



Harvard
Humanitarian
Initiative

