

# Satellite Sentinel Project

## STRIKE RANGE: APPARENT DEPLOYMENT OF SAF MOBILE ROCKET LAUNCHERS NEAR SOUTH KORDOFAN

**ALERT: HUMAN SECURITY THREAT**

PREPARED BY



Harvard  
Humanitarian  
Initiative

**2 JULY 2011**

Satellite Sentinel Project (SSP) analysis of DigitalGlobe satellite imagery captured on 28 June has identified four vehicles consistent with BM-21 mobile multiple rocket launcher (MRL) systems at an apparent Sudan Armed Forces (SAF) camp southwest of El Obeid, North Kordofan, Sudan.

This vehicle, known as the “Grad,” can fire at least 40 rockets over 20km at the rate of two rounds per second. The BM-21 can be reloaded in approximately two minutes and prepared for transport in under ten minutes. The apparent MRLs observed at the camp are within two hours’ drive of the border with South Kordofan and less than half a day’s drive from Delling, Kadugli, and Kauda.

To date, there are no public reports of this unit being specifically used by the SAF in the fighting that erupted early last month in the Nuba Mountains region of South Kordofan. According to the Institute for National Security Studies, the SAF had 90 BM-21s in its arsenal as of 1989. The Sudan People’s Liberation Army (SPLA) reportedly has BM-21s in its arsenal as well.

The recently reinforced camp, approximately 65 km from the border of North and South Kordofan, has structures present consistent with an at least battalion-sized infantry detachment, 24 light vehicles arrayed in formation around the apparent MRLs, and an additional eight (8) apparent armored vehicles.

---

### 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.



Satellite Sentinel Project

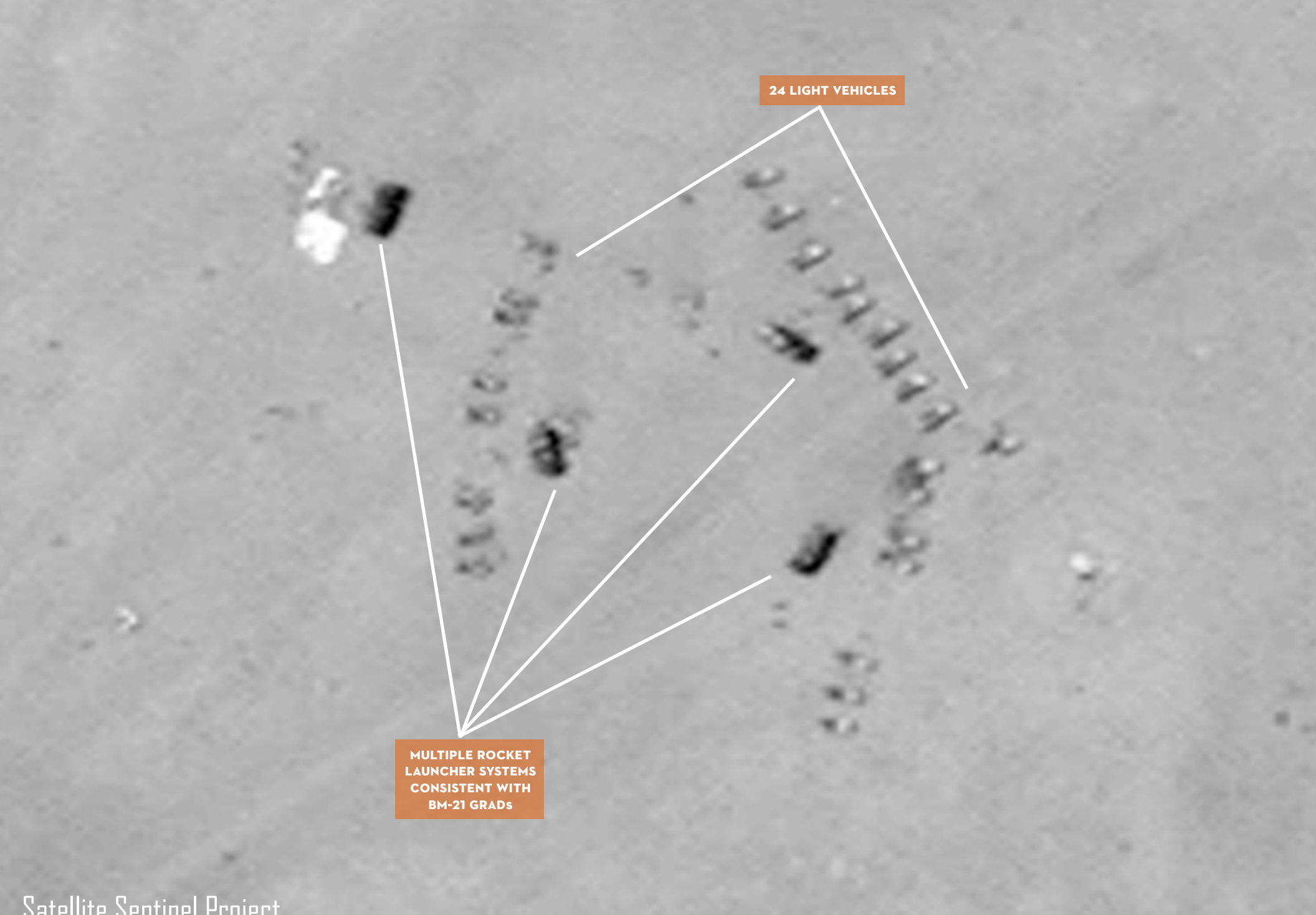


Harvard  
Humanitarian  
Initiative

DIGITALGLOBE

28 JUNE 2011 | FIG 1

SAF ENCAMPMENT WITH MULTIPLE ROCKET LAUNCHER SYSTEMS | EL OBEID, NORTH KORDOFAN



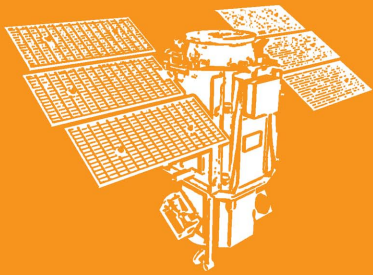
24 LIGHT VEHICLES

MULTIPLE ROCKET  
LAUNCHER SYSTEMS  
CONSISTENT WITH  
BM-21 GRADS





TENTS AND  
STRUCTURES  
CONSISTENT WITH  
INFANTRY CAMP



# 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 Trellon, 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 Trellon 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](http://www.satsentinel.org).

Press Inquiries: Contact Jonathan Hutson at [jhutson@enoughproject.org](mailto:jhutson@enoughproject.org) | 202.386.1618



enough



DIGITALGLOBE



Harvard  
Humanitarian  
Initiative

