4 March 2011 | Overview

The human security situation in the Abyei region of Sudan has rapidly deteriorated in the past week due to renewed violence. Satellite Sentinel Project (SSP) has confirmed through the analysis of DigitalGlobe satellite imagery that buildings consistent with civilian infrastructure appear to have been intentionally burned Maker Abior and T odach villages. Some 100 people in the Abyei region have reportedly died in the clashes to date. According to the humanitarian organisation Médecins Sans Frontières (MSF), tens of thousands of civilians have either been displaced by fighting or fled due to fear of further attacks.

Fighting reportedly broke out on Sunday, February 27 between armed Misseriya and a southern police unit in the village of Todach, purportedly sparked by a dispute over the rights of Misseriya to graze their cattle in the area. Evidence of the attack at Todach has been documented by SSP monitoring of the location. Conflicting reports allege that over the next four days, elements of Misseriya militias and/or Popular Defense Forces (PDF) staged attacks on multiple villages, including Todach, Noong, Wungok and Maker Abior. These communities are all within the Abyei region as defined by the Permanent Court of Arbitration’s 2009 ruling.

The events of the past week contravene security arrangements established by Sudan People’s Liberation Movement (SPLM) and National Congress Party (NCP) officials at Kadugli on January 17, 2011, which stipulated the removal of southern police units from the area in the wake of fighting between Misseriya militias and southern police in early January. Misseriya leaders and northern officials have alleged that the local police in the Abyei region are aligned with the Government of South Sudan and include SPLA elements. As mandated by the Kadugli Agreement, two additional Joint Integrated Unit (JIU) battalions were deployed to replace police units in Abyei; however, multiple accounts confirm the failure of the JIUs to intervene and quell the recent violence in the Abyei region.

The recent violence in the Abyei region has occurred in the context of apparent increases observed by SSP in the military capacity of both the Sudan Armed Forces (SAF) and the Sudan People’s Liberation Army (SPLA) in regions along the contested border line. The recent violence in Abyei, coupled with the continuing militarization occurring on both sides of the border, has made an already volatile human security environment even more precarious.

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Findings
Images released in this report show:

- Approximately 20 out of at least 24 visible buildings consistent with civilian dwellings at the village of Maker Abior were burned as of March 3, 2011.
- In Todach, where 75 people were allegedly killed between February 27-28, 2011, at least 15 structures were burned as of March 3, 2011. New apparent fortifications consistent with foxholes are visible around the perimeters of several structures, a detail consistent with reports that the unit there had recently improved the location’s defenses within the past two weeks or so.
- Heavy equipment transports (HETs) carrying armored vehicles similar to T-55 main battle tanks, heavy trucks and light vehicles present at a known SAF outpost in Kharassana for several days until at least February 12, 2011.
- Improvements to internal fortifications and the presence of four armored vehicles consistent with T-55 main battle tanks at Kharassana.
- Installation of a new fuel storage facility at a reported SAF airstrip near Muglad.
- A rapid build-out of shelters and a road at a suspected SPLA encampment near Lake Abiad in Unity State occurring over the past month.

Conclusions
- Satellite imagery collected two weeks prior to Wednesday, March 2, 2011 shows no evidence of fire damage to the village of Maker Abior. However, imagery collected on Thursday, March 3, 2011 shows fire damage to almost all visible structures in the area without any visible scorching of ground vegetation or trees between the buildings. The absence of visible scorching of ground vegetation or trees between each apparent dwelling is indicative of Maker Abior having been intentionally destroyed, rather than damaged as the result of an accidental ground fire.
- Satellite imagery taken on February 14, 2011 shows no signs of fire damage to buildings in the village of Todach. As with Maker Abior, the pattern of fire damage to structures in Todach apparent in imagery collected on March 3, 2011 is suggestive of the deliberate burning of buildings, which corroborates reports of an attack at that location on February 27-28, 2011.
- Available reporting does not specifically indicate that the SAF components of the Joint Integrated Units (JIUs) included T-55-like main battle tanks. However, the HETs carrying tanks and other vehicles seen for several days at Kharassana in February 2011 corroborate reports claiming that the SAF elements of the JIUs were moving north from their former positions in the south during that period. A confidential source claims that HETs carrying tanks were seen to the north of the outpost near Dilling during the timeframe when transports appear to have left Kharassana.
- The four main battle tanks remaining at Kharassana do not appear to be either conducting or preparing to conduct forward deployments, and appear to have been covered, according to recent collections of satellite imagery. There is no evidence of support assets in the area consistent with the potential imminent deployment of those particular armored vehicles.
- The suspected SAF outpost at Heglig, in close proximity to the contested border, shows recent activity indicating that the facility is in current use and being improved, most notably by the addition of fortified artillery positions.
- Public sources have reported the congregation of SPLA troops at the position near Lake Abiad beginning in the fall of 2010. The apparent construction of new shelters and a road far from established, neighboring towns is consistent with reports of a significant military encampment at that location.

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.

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Multiple public sources have reported that militiamen allegedly associated with PDFs attacked the village of Maker Abior, some 15 kilometers northwest of Abyei Town, on the morning of Wednesday, March 2. According to international officials, 33 police officers died in the attack and were buried in a communal grave in the vicinity of Abyei Town. Satellite imagery captured by Digital Globe corroborates reports that the majority of structures in Maker Abior were systematically burned in the attack. This village was the site of clashes between armed Misseriya and southern policemen from January 7-9, 2011, during which as many as 76 people were reportedly killed. While the number of people who have fled Abyei Town and surrounding villages as a result of the recent violence remains unconfirmed, the humanitarian aid organization, MSF, has reported that tens of thousands of civilians have been displaced as of Thursday, March 3.
From February 27-28, clashes between armed Misseriya and southern police in the village of Todach reportedly claimed the lives of as many as 75 police, militiamen and civilians. Imagery collected by DigitalGlobe shows signs of recent fire damage suggestive of systematically burned infrastructure consistent with reports of attacks that took place at this location. The recent fighting in Todach marked the first outbreak of violence in the Abyei region since the signing of the Kadugli Agreement on 17 January, 2011. The clashes led to the cancellation of a meeting during which Misseriya and Dinka Ngok leaders were scheduled to resolve outstanding issues related to access to water and grazing rights that continue to impede the implementation of the Kadugli Agreement.
Outpost Near Kharassana | South Kordofan

2 January 2011 | FIG 5A

- **Towed artillery**
- **External fortification**
- **Internal fortification construction**
- **Shelters**
- **Towed artillery**

4 hets with 2 vehicles per het consistent with T-55 tanks

Empty heavy equipment transport (HET)

12 February 2011 | FIG 5B

- **4 offloaded vehicles consistent with T-55 tanks**
- **Unknown vehicles**
- **2 smaller hets with 2 vehicles per het consistent with T-55 tanks**
- **4 light vehicles**
- **Improvements to internal fortification**
15 February 2011 | fig 5c

Outpost Near Kharassana | South Kordofan

Artillery has shifted 4 light vehicles, equipment 4 vehicles consistent w/ T-55 tanks structures structure moved

satsentinel.org
3 February 2011 | fig 4a
Muglad Airstrip | South Kordofan
sat sentinel.org
helicopter consistent with Mi-8
exposed fuel storage facility

25 February 2011 | fig 4b
Muglad Airstrip | South Kordofan
sat sentinel.org
3 Feb: under construction
13 Feb: in progress
25 Feb: nearly completed
New infrastructure | Lake Abiad, Sudan

New structures appeared between 30 Sept 2010 and 15 Jan 2011

Approx. 9,500m primary road constructed between 15-26 Jan 2011
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, the United Nations UNITAR Operational Satellite Applications Programme (UNOSAT), 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.

UNOSAT leads the collection and analysis of the images and collaborates with Google and Trellon to 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.

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