

# Broken Agreement

Violations in the Demilitarized Border Zone by Sudan and South Sudan



Satellite Sentinel Project

Monitoring the Crisis in the Sudans

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May 2013

**COVER:** DigitalGlobe near imagery of Kiir  
Adem, South Sudan on March 11, 2013.

Satellite Sentinel Project

The Satellite Sentinel Project, or SSP, has secured unique independent evidence of the failure of Sudan and South Sudan to meet obligations to withdraw their troops in two potential hot spots along their shared border: Heglig, also known as Panthou,<sup>1</sup> and Kiir Adem. DigitalGlobe satellite imagery confirms that as of April 14, 2013, both countries' armed forces were maintaining defensive installations within the agreed-upon demilitarized buffer zone along their shared border. To date, neither the joint border-verification mechanism established by both countries, nor the U.N. peacekeeping mission tasked with monitoring the demilitarized buffer zone has detected these violations.<sup>2</sup> Although Sudan and South Sudan have taken some steps toward implementing the demilitarized buffer zone, by maintaining these installations, they have failed to fully comply with their obligations under agreements that they have signed.

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## Creating a buffer zone

In September 2012, the two Sudans agreed to create a 12.4-mile (20-kilometer) safe demilitarized buffer zone, or SDBZ, along their shared border in an effort to separate their armed forces and reduce the likelihood of cross-border conflict.<sup>3</sup> The security arrangements agreement requires that both sides remove all armed forces from the SDBZ and establish a joint border-verification mechanism to track compliance and investigate alleged violations. The presence of either side's military or armed civilians in the exclusion zone is a clear violation of the terms of the security arrangements.<sup>4</sup>

In early March 2013, Sudan and South Sudan agreed to implement the September 2012 security arrangements agreement and signed implementation modalities promising the unconditional withdrawal of forces to their respective sides of the SDBZ.<sup>5</sup> All forces were required to move to their side of the contested international border, or "zero line," by March 17, 2013, and to be completely out of the SDBZ by April 5, 2013.<sup>6</sup> The Government of Sudan certified its compliance with the withdrawal obligations on March 26, 2013, and South Sudan certified its compliance on April 11, 2013.<sup>7</sup>

In a report to the Joint Political and Security Mechanism on April 22, 2013, the head of the United Nations Interim Security Force for Abyei, or UNISFA, confirmed that it had carried out verification missions to determine forward progress on the creation of the SDBZ.<sup>8</sup> The UNISFA head of mission, Lt. Gen. Tadesse Werede Tesfay, admitted that the mission is currently unable to carry out ground patrols for verification because of the lack of force protection.<sup>9</sup> Instead, attempts to monitor compliance have relied on overflights by UNISFA helicopters. UNISFA has conducted missions to observe four locations in South Sudan—Kiir Adem, Tishwin (near Heglig/Panthou), Wunthou, and Sira Malaga—and four locations in Sudan—al Falah, al Radoum, al Kwek, and Kilo 4. According to the head of the UNISFA mission, these flights confirmed the absence of military presence in all eight places.<sup>10</sup>

South Sudan has since filed a complaint alleging Sudan Armed Forces, or SAF, presence at Tishwin, which is near Heglig/Panthou, Al Radoum and Kafindibi.<sup>11</sup> In turn, Sudan has filed a complaint alleging the presence of South Sudanese armed forces, or SPLA, in Samaha, Malikmair, Rahdangate, Bahrarab—also known as Kiir Adem—Al Garif, and Goda.<sup>12</sup> According to the UNISFA force commander, a joint border verification mechanism flight on April 21, 2013, confirmed the absence of South Sudanese troops at Samaha, Malikmair, Rahdangate, and Bahrarab, also known as Kiir Adem.<sup>13</sup> The flight noted, however, the continued presence of unidentified troops in Al Garif. But neither UNISFA nor the joint border verification mechanism confirmed violations in either Kiir Adem or Tishwin/Heglig.<sup>14</sup>

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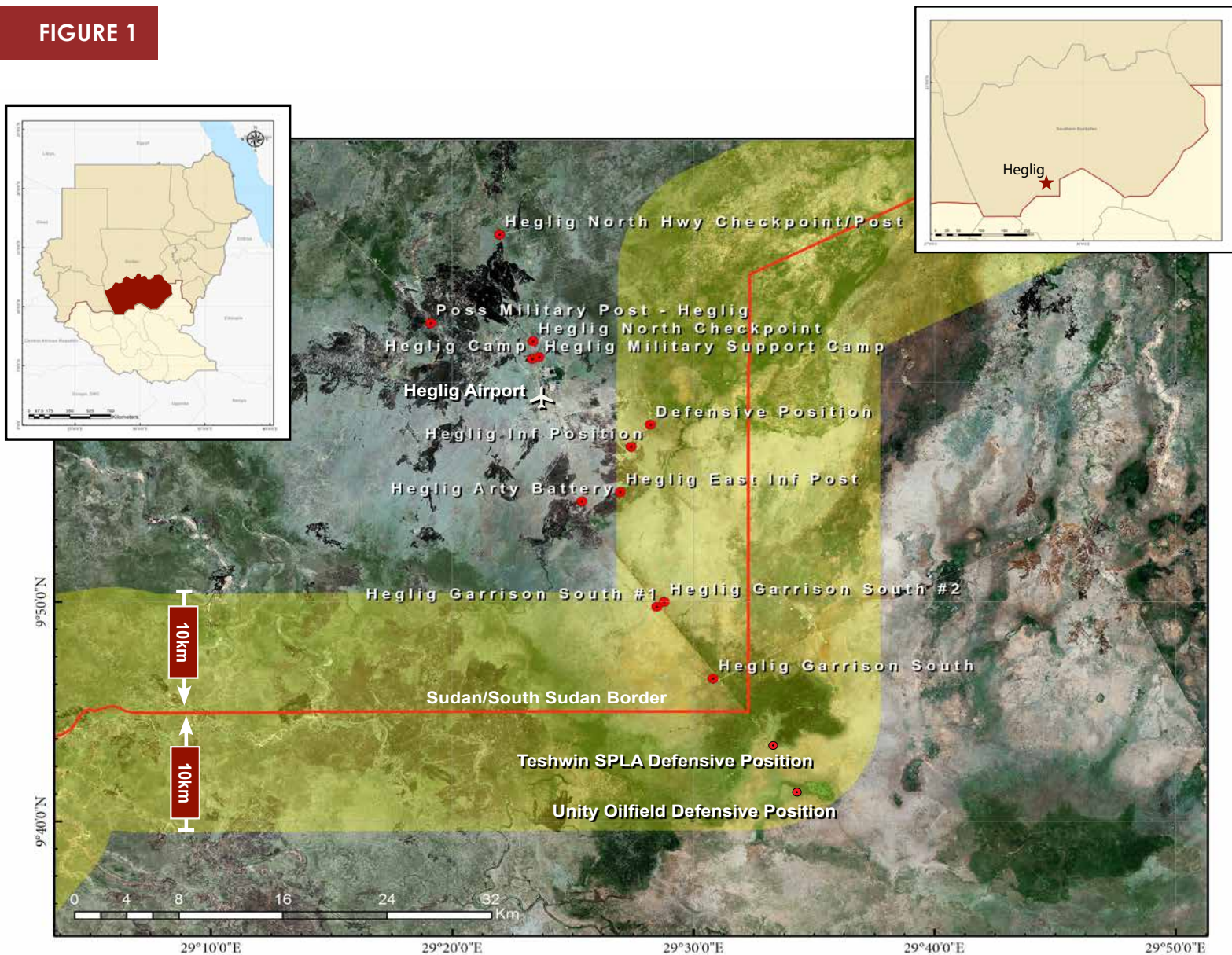
### Flashpoint: Heglig and Tishwin

Disputes over oil-rich Heglig, also known as Panthou, have sparked open hostilities between Sudan and South Sudan in the past. South Sudan claims historical ownership over Heglig, which it refers to using the Dinka word “Panthou.”<sup>15</sup> The African Union High Level Implementation Panel has identified the region as a “claimed” area, postponing further negotiation around its final status until after the African Union’s expert panel provides its opinion on five other disputed areas.<sup>16</sup>

In April 2012, the SPLA captured Heglig, claiming that the Sudanese were using the town as a “launching pad” for cross-border attacks. Fearing that this maneuver would reignite violence between Sudan and South Sudan, the international community pressured the SPLA to withdraw from the town.<sup>17</sup> After 10 days of occupation, South Sudanese President Salva Kiir agreed to withdraw his troops in exchange for an international force to ensure that Heglig would not continue to be used by Sudanese forces as a base for attacks against South Sudan.<sup>18</sup>



FIGURE 1



**Approximate alignment of DMZ in Heglig area**  
*Boundaries and names used on this map for illustration purposes only*

Figure 1 shows an approximation of the SDBZ in the sensitive Heglig area and the military positions affected by the 6.2-mile (10-kilometer) exclusion zone on either side of the international border. DigitalGlobe's historic observations of this area tracked six Sudanese military deployments and two South Sudanese deployments in the SDBZ prior to the implementation of the agreements. DigitalGlobe's analysis of imagery from April 2013 indicates that both Sudan and South Sudan have taken some steps toward compliance by removing main battle tanks from the exclusion zone straddling the contested border. The SAF maintains, however, a visible defensive position with two probable armed weaponized light pick-up trucks, colloquially referred to as "technicals" within the SDBZ.



FIGURE 2: Heglig Garrison South #1



19 km south of Heglig, South Kordofan, Sudan  
March 5, 2013

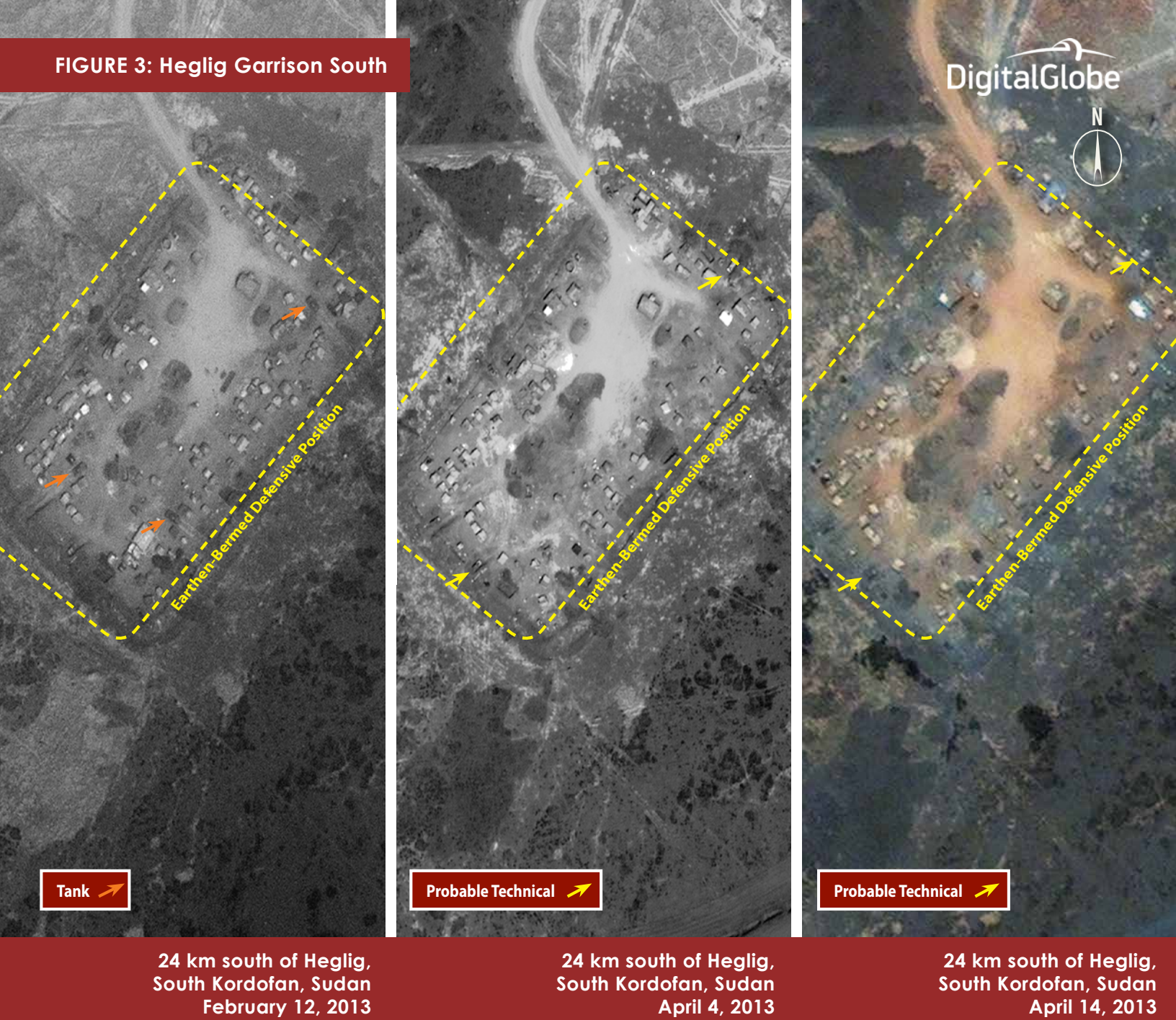


19 km south of Heglig, South Kordofan, Sudan  
April 4, 2013

Before and after imagery of two of SAF's defensive positions in Heglig shows that six main battle tanks—three from each defensive position—were removed from the area between February 12, 2013, and April 4, 2013. (see figures 2 and 3) The removal of these tanks evidences steps towards compliance with the March implementation modalities.



FIGURE 3: Heglig Garrison South



While analysis of satellite imagery indicates that armored vehicles were removed from SAF positions in the SDBZ around Heglig, satellite imagery documents the continued presence of SAF defensive installations there. A small SAF unit at Heglig Garrison South, approximately 1.8 miles (3 kilometers) north of the border, remained occupied with elements of a company-sized unit of infantry consisting of at least two probable “technicals” positioned in revetments as of April 14, 2013. (see figure 3)



FIGURE 4: Heglig Artillery Battery



April 14, 2013, imagery (see figure 4) of the SAF Heglig Artillery Battery, located 6.5 miles (10.5 kilometers) from the border and approximately one-third of a mile (half of a kilometer) outside the SDBZ exclusion zone, supports DigitalGlobe analysts' conclusion that the tanks were probably relocated there after being moved from their defensive positions within the SDBZ. According to DigitalGlobe's approximation of the buffer zone, this shift moved the tanks to just outside the SDBZ.



FIGURE 5: Heglig Infantry Position #1



Heglig, South Kordofan, Sudan  
April 14, 2013

Additionally, DigitalGlobe analysis of April 14, 2013 imagery confirms that Heglig Infantry Position #1 (see figure 5) has tents remaining within the earthen-bermed position. In DigitalGlobe analysts' experience, both sides' armed forces utilized earthen berms to secure their fortified military positions. While the installation has been reduced in size since March 5, 2013, it still exists. In DigitalGlobe analysts' experience, SAF and Popular Defense Forces, or PDF, militia do not leave tents erected if they are not being used. This continued presence represents a documented violation of the Government of Sudan's obligations under the March 2013 implementation modalities for the security arrangements.



**FIGURE 6: Teshwin SPLA Defensive Position**



**Teshwin, Unity State, South Sudan  
January 9, 2013**



**Teshwin, Unity State, South Sudan  
April 4, 2013**

Before and after imagery of Tishwin, an SPLA defensive position, south of the border in the Heglig area shows that six tanks were removed from the area between January 9, 2013, and April 4, 2013. (see figure 6) The removal of these tanks provides documented evidence of South Sudan's steps toward compliance with the March 2013 implementation modalities for the security arrangements. The area is located about 2.5 miles (4 kilometers) south of the border in Unity State, South Sudan, and is part of the SDBZ. Some tents and temporary structures were observed on either side of the highway at this location, but DigitalGlobe analysts cannot determine via satellite if the remaining structures are military or civilian installations. (see figure 6)



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## Flashpoint: Kiir Adem

Located in the 14 Mile Area, Kiir Adem is considered a potential flashpoint for conflict between Sudan and South Sudan.<sup>19</sup> Also known as the Monroe-Wheatley area, the 14-mile strip below the Kiir River between Northern Bahr El-Ghazal State in South Sudan and East Darfur State in Sudan was extremely controversial during the September 2012 negotiations between Sudan and South Sudan.<sup>20</sup> Eventually, both sides agreed to an extended timeline for withdrawals from the area due to sensitivity around the topic.<sup>21</sup>

**FIGURE 7: Kiir Adem Bridge Defensive Position**



**Kiir Adem, South Sudan  
May 15, 2012**



**Kiir Adem, South Sudan  
April 11, 2013**

South Sudan has maintained a defensive position in Kiir Adem, a small village near a bridge crossing the Bahr al-Arab, or Kiir River, since at least November 2011. (see figure 7) The river currently serves as the border between the two Sudans and lies at the center of the contested 14 Mile Area.<sup>22</sup> Other than a small reduction in the number of tents within the earthen-bermed protected SPLA position right at the bridge, no changes were observed between imagery from May 2012 and April 2013. Although no armored vehicles, artillery or other crew-served weapons were observed in either imagery, the defensive installation remained unchanged within the buffer zone.



**FIGURE 8: Kiir Adem South Defensive Position**



**Kiir Adem, South Sudan  
October 10, 2012**



**Kiir Adem, South Sudan  
April 11, 2013**

Continued presence of armed SPLA troops at this location would be a violation of the Government of South Sudan's obligations under the March 2013 implementation modalities of the security arrangements.<sup>23</sup> Additionally, a newly expanded defensive position was observed in the April 11, 2013 imagery, 2.8 miles (4.5 kilometers) south of the bridge. (see figure 8) DigitalGlobe analysts consider this location to be another South Sudanese infantry unit without crew-served weapons. This position was not observed on imagery taken in October 2012. Establishing a new defensive position within the SDBZ would be a violation of the terms of the security arrangements.<sup>24</sup>



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## Conclusion

DigitalGlobe has independently confirmed some important acts of compliance by both the Government of Sudan and the Government of South Sudan. Both the SPLA and the SAF moved tanks out of the SDBZ following the March 2013 commitment to implement the security arrangements. Clear evidence is available, however, of both sides' continued noncompliance with their obligations in two hotspots. (see figures 3, 5, 7, and 8) Although the joint border-verification mechanism has been activated and UNISFA has conducted verification missions to both locations, neither organization detected these violations.<sup>25</sup> In the absence of adequate force protection and resources to staff ground-patrol missions, the joint border-verification mechanism and UNISFA rely on sporadic helicopter overflights. DigitalGlobe satellite imagery offers a strong case that other violations have gone undetected and unverified due to the mission's current lack of resources and force-protection capacity. The Satellite Sentinel Project will continue to monitor both Sudan and South Sudan's armed forces and their compliance with obligations to create an SDBZ.

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## Endnotes

- 1 Heglig is the Arabic name and Panthou is the Dinka name for the town, which is hotly disputed between Sudan and South Sudan.
- 2 Enclosure to Decision Adopted by the JPSM Extraordinary Meeting, "Report by the Head of Mission UNISFA to the Joint Political and Security Mechanism (JPSM) during its Extraordinary Meeting in Addis Ababa, Ethiopia on 22 April 2013," p. 6 (on file with author).
- 3 "Agreement on Security Arrangements between the Republic of the Sudan and the Republic of South Sudan" (2012), available at <http://www.rssnegotiationteam.org/security-arrangements.html>.
- 4 Ibid at 3.
- 5 "Implementation Modalities for Security Arrangements agreed on 27<sup>th</sup> September 2012 between the Republic of the Sudan and the Republic of South Sudan" (2013), available at [http://www.rssnegotiationteam.org/uploads/1/2/8/8/12889608/sudansouth\\_sudan\\_implementation\\_modalities\\_for\\_security\\_080313.pdf](http://www.rssnegotiationteam.org/uploads/1/2/8/8/12889608/sudansouth_sudan_implementation_modalities_for_security_080313.pdf); "Adoption of Implementation Matrix by Sudan and South Sudan" (2013), available at [http://www.rssnegotiationteam.org/uploads/1/2/8/8/12889608/implementation\\_matrix\\_on\\_cooperation\\_agreements\\_120313.pdf](http://www.rssnegotiationteam.org/uploads/1/2/8/8/12889608/implementation_matrix_on_cooperation_agreements_120313.pdf).
- 6 Ibid at section 2.1.4 and section 2.3.2.
- 7 Enclosure to Decision Adopted by the JPSM Extraordinary Meeting, "Report by the Head of Mission UNISFA to the Joint Political and Security Mechanism (JPSM) during its Extraordinary Meeting in Addis Ababa, Ethiopia on 22 April 2013," p. 6 (on file with author).
- 8 Ibid at 3.
- 9 Ibid at 5.
- 10 Ibid at 5.
- 11 Ibid at 6.
- 12 Ibid at 8.
- 13 Ibid.
- 14 Ibid.
- 15 Douglas Johnson, "Note on Panthou/Heglig" (Paris: *Sudan Tribune*, 2012), available at [http://www.sudantribune.com/IMG/pdf/Note\\_on\\_Panthou\\_Heglig.pdf](http://www.sudantribune.com/IMG/pdf/Note_on_Panthou_Heglig.pdf).
- 16 "Adoption of Implementation Matrix by Sudan and South Sudan," at section 5.4.6, available at [http://www.rssnegotiationteam.org/uploads/1/2/8/8/12889608/implementation\\_matrix\\_on\\_cooperation\\_agreements\\_120313.pdf](http://www.rssnegotiationteam.org/uploads/1/2/8/8/12889608/implementation_matrix_on_cooperation_agreements_120313.pdf).
- 17 "South Sudan to 'withdraw troops' from Heglig oil field," *BBC News* April 20, 2012, available at <http://www.bbc.co.uk/news/world-africa-17787142>.
- 18 Ibid.
- 19 Amanda Hsiao, "Sudan-South Sudan Field Dispatch: Good News and Bad News from Negotiations in Addis Ababa" (Washington: Enough Project, 2012), p. 4, available at <http://www.enoughproject.org/files/FinalNegotiations%2010.9.2012.pdf>.
- 20 Ibid.
- 21 "Agreement on Security Arrangements between the Republic of the Sudan and the Republic of South Sudan" (2012) at ¶3.
- 22 Amanda Hsiao, "Sudan-South Sudan Field Dispatch: Good News and Bad News from Negotiations in Addis Ababa" (Washington: Enough Project, 2012), p. 4, available at <http://www.enoughproject.org/files/FinalNegotiations%2010.9.2012.pdf>.
- 23 Republic of South Sudan Negotiation Team, "Implementation Modalities for Security Arrangements agreed on 27<sup>th</sup> September 2012 between the Republic of the Sudan and the Republic of South Sudan," p. 3.
- 24 Ibid.
- 25 Enclosure to Decision Adopted by the JPSM Extraordinary Meeting, "Report by the Head of Mission UNISFA to the Joint Political and Security Mechanism (JPSM) during its Extraordinary Meeting in Addis Ababa, Ethiopia on 22 April 2013," p. 6.



## About the Satellite Sentinel Project and the Partners

SSP launched on December 29, 2010, with the goals of preventing a return to full-scale civil war between northern and southern Sudan as well as detecting, deterring and documenting threats to civilians along both sides of the border. SSP focuses world attention on pending incidents of mass violence in the Sudans and uses imagery and analysis to generate rapid responses on human rights and human security concerns.

The project works like this: A constellation of three DigitalGlobe satellites passing over Sudan and South Sudan captures imagery of possible threats to civilians, detects bombed and razed villages, or notes other evidence of mass atrocities or pending mass violence. SSP analyzes the imagery, open source data, and information from sources on the ground to produce reports.

The Enough Project contributes field reports, policy analysis, and communication strategy and, together with Not On Our Watch, pressures policymakers by urging the public to act. DigitalGlobe provides high-resolution satellite imagery and analysis conducted by the DigitalGlobe Analysis Center.

SSP is the first sustained public effort to systematically monitor and report on potential hotspots and threats to human security in near real-time.

SSP is primarily funded by Not On Our Watch. To support the Satellite Sentinel Project, donate at [satsentinel.org](http://satsentinel.org).

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