

RSF and SAF Attack Markets in El-Malha and Tora, North Darfur

27 March 2025

Yale SCHOOL OF PUBLIC HEALTH
Humanitarian Research Lab

© 2025 Humanitarian Research Lab at Yale School of Public Health. Satellite Imagery © 2025 Maxar Technologies.

This report was independently produced by the Yale School of Public Health's Humanitarian Research Lab with the support of the Avaaz Foundation. Learn more at <https://medicine.yale.edu/lab/khoshnood/> and <https://avaaz.org>.

The Faculty Director of the Humanitarian Research Lab (HRL) at the Yale School of Public Health is Dr. Kaveh Khoshnood. The analysis and production of this report was overseen by HRL Executive Director Nathaniel Raymond and Caitlin Howarth. Analysis and report production was conducted by the Humanitarian Research Lab's Conflict Analytics team.

Citation | Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. "RSF and SAF Attack Markets in El-Malha and Tora, North Darfur" 27 March 2025. Humanitarian Research Lab at Yale School of Public Health: New Haven.

I. Key Findings

The Yale School of Public Health's Humanitarian Research Lab (HRL) corroborates reports of Rapid Support Forces (RSF) ground attack and capture of El-Malha, North Darfur. The damage at the market and other structures, including likely Internally Displaced Persons (IDP) structures, in El-Malha is consistent with an intentional ground-based arson attack. Yale HRL also corroborates likely Sudan Armed Forces (SAF) airstrikes on the market at reportedly peak hours of the primary market day in Tora, North Darfur. Both El-Malha and Tora are located north of El-Fasher in a contested desert region and serve as critical logistics and supply hubs for areas with very limited resources. El-Malha has served as logistics hub for SAF-aligned Joint Forces.¹ According to local media, tens of thousands of internally displaced persons (IDPs) have fled to the El-Malha seeking refuge in recent weeks, and a significant increase in structures likely consistent with IDPs is visible in satellite imagery during the same time period.² The market in Tora attracts many people from the surrounding areas and is in RSF-controlled territory.³

These attacks have reportedly resulted in significant civilian casualties and displacement. Damage to markets and other critical infrastructure exacerbates extreme food insecurity in the region. Tora is a small village located in El-Fasher locality, which the Integrated Food Security Phase Classification (IPC) Famine Review Committee predicted would face Famine conditions between December 2024 and May 2025. El-Malha locality has faced IPC-4 (Emergency) food insecurity conditions since October 2024.⁴ Markets serve as critical infrastructure and are expected to be densely populated on market days. Conflict parties have certain obligations to protect critical infrastructure under international humanitarian law.

RSF Ground Attack on El-Malha, North Darfur

Yale HRL assesses targeted thermal scarring and other damage in El-Malha town, including at the market, consistent with a ground-based attack in satellite imagery collected between 18 - 23 March 2025. El-Malha city has served as a Joint Force logistics base and, according to *Darfur24*, the city has reportedly received tens of thousands of IDPs as of 27 February 2025 fleeing from El-Fasher and other areas in North Darfur.⁵ This corroborates reports of an RSF attack on El-Malha town starting 20 March 2025.⁶ Active smoke plumes are also visible over the market in satellite imagery from 21 March 2025. A significant number of structures across El-Malha have been razed by likely intentional arson attacks. Some of the structures that were destroyed are likely new structures for IDPs, built in the period between 21 February – 7 March 2025. The pattern of these attacks demonstrates selection: some structures have been razed while other nearby structures are not damaged. Analysis of imagery from 23 March 2025 also shows the presence of light technical vehicles across the city. A water distribution point near Malha also shows visible signs of leakage and there are at least six light technical vehicles, possibly weapon mounted, alongside what appears to be other animal-drawn carts and some debris. The leakage, technical vehicles, debris, and the carts' lack of orderly alignment is abnormal in baseline satellite imagery.

These findings corroborate reports that RSF attempted to capture El-Malha from SAF and Joint Forces on 20 March 2025.⁷ Since 20 March, both RSF and Joint Forces have claimed to control El-Malha, but local news organizations and open sources report that Joint Forces fled the city.⁸ RSF reportedly opened fire on civilians, destroyed homes, looted, and burned the El-Malha market.⁹ This attack was reportedly preceded by RSF unmanned aerial vehicle (UAVs, often colloquially referred to as “drones”) attacks on El-Malha on 8-9 March 2025.¹⁰ Local news organizations reported that an estimated 40 civilians died in during the clashes, and, according to the International Organization for Migration (IOM), 15,000 households were displaced from El-Malha town on 20-21 March 2025.¹¹

El-Malha is a critical logistics site for Joint Forces in the desert north of El-Fasher linking Northern State, North Darfur, and Kordofan, as well as Sudan and Libya. It is a midpoint on a major corridor through the desert that supplies goods, water, livestock, troops, and military equipment.¹²

Destruction of Tora Market Corroborates Reports of SAF Airstrike on Market Day

Yale HRL corroborates reports of destruction to the market in Tora, North Darfur through analysis of satellite imagery from 21 and 26 March 2025. Thermal scarring is visible at the market in Tora, North Darfur in satellite imagery from 26 March 2025 after data from the Visible Infrared Imaging Radiometer Suite (VIIRS) indicated that a fire event was detected at the location on 25 March 2025. Damage in Tora appears to be concentrated within the market area. The United Nations (UN), news media, and rights groups reported that multiple munitions from a likely SAF airstrike hit an active market in Tora, North Darfur on 24 March 2025.¹³ The Tora market attracts many people from the surrounding area, and the strike reportedly occurred on a weekly market day during peak hours.¹⁴ Video footage from Tora circulating on social media depicts damage to market stalls and structures, thermal scarring on the ground, and charred human remains.¹⁵

The UN stated that the airstrike may have resulted in hundreds killed and scores of others injured.¹⁶ The final death toll will likely continue to rise. Because the local health facility lacks the capacity to treat mass casualties, wounded patients have reportedly been transferred to Mellit and El-Fasher, which also suffer from shortages of medical supplies.¹⁷ SAF has previously conducted airstrikes hitting markets, including on their primary market days, in multiple locations across Sudan, including Khartoum, as well as in Kuma, Kutum, and Kabkabiya in North Darfur.¹⁸ UN OCHR also stated that RSF had reportedly conducted extrajudicial detentions after the airstrike in Tora.¹⁹ Contemporaneously, RSF has reportedly further restricted freedom of movement and road activity on major roads around El-Fasher including looting and confiscating goods headed toward the market in El-Fasher.²⁰

Both RSF’s ground attack on El-Malha and SAF’s airstrike on Tora’s market represent potential violations of the laws of armed conflict by both SAF and RSF. They exacerbate an already catastrophic humanitarian situation affecting the safety of IDPs

in El-Malha, as well as food security and civilian protection in the case of the Tora market.

II. Methodology

Yale HRL utilizes data fusion methodologies of open source and remote sensing data analysis. Yale HRL produced this report through the cross-corroboration of open source data, including social media, local news reporting, multimedia, and other reports, and remote sensing data, including satellite imagery and thermal sensor data. Researchers analyzed open source data across social media, news reports, and other publicly available sources to identify, chrono- and geolocate, and verify incidents. Analysts assess the credibility and reliability of open source data based on a source's level of detail, past credibility, and the corroboration of other independent sources. Remote sensing and satellite imagery analysis relies on multi-temporal change detection, which involves the comparison of two or more satellite images of the same area captured at different times to detect differences in coloration, visual properties, and presence, absence, or positional change of objects across the images.

Place names were identified using UN P-codes obtained via the United Nations Humanitarian Data Exchange (HDX) and International Organization for Migration (IOM)'s Displacement Tracking Matrix (DTM) Sudan. This baseline was then verified and informed through open source analysis by Yale HRL's analysts with relevant cultural and linguistic skills.

Limitations

There are significant limitations to the data fusion methodology. The information environment in Sudan does not have the breadth of data available in other locations and there is likely a significant reporting bias for those who provide open source reporting. The tools and techniques present significant challenges to assess activities such as extrajudicial detention, conflict-related sexual violence (CRSV), and conflict-related casualties, particularly in environments with limited data. Satellite imagery analysis is limited by available imagery over time and space. Available nadir angles of satellite imagery can produce challenges to assess structural damage, until multiple angles and ground-level photographic and video materials emerge to help inform the analysis. Image resolution level can also limit the analyst's ability to perceive the full extent of damage present.

¹ Darfur24, "تدهور الأوضاع الإنسانية للنازحين بـ"المالحة" شمال دارفور"، February 27, 2025, <https://www.darfur24.com/2025/02/27/%d8%aa%d8%af%d9%87%d9%88%d8%b1-%d8%a7%d9%84%d8%a3%d9%88%d8%b6%d8%a7%d8%b9-%d8%a7%d9%84%d8%a5%d9%86%d8%b3%d8%a7%d9%86%d9%8a%d8%a9-%d9%84%d9%84%d9%86%d8%a7%d8%b2%d8%ad%d9%8a%d9%86-%d8%a8%d9%80%d8%a7/>, archived at <https://perma.cc/L7AD-59DV>

² Darfur24, "تدهور الأوضاع الإنسانية للنازحين بـ"المالحة" شمال دارفور" February 27, 2025, <https://www.darfur24.com/2025/02/27/%d8%aa%d8%af%d9%87%d9%88%d8%b1-%d8%a7%d9%84%d8%a3%d9%88%d8%b6%d8%a7%d8%b9-%d8%a7%d9%84%d8%a5%d9%86%d8%b3%d8%a7%d9%86%d9%8a%d8%a9-%d9%84%d9%84%d9%86%d8%a7%d8%b2%d8%ad%d9%8a%d9%86-%d8%a8%d9%80%d8%a7/>, archived at <https://perma.cc/L7AD-59DV>

³ Darfur Network for Human Rights, "Sudanese Army Airstrike on Tora Market Kills at least 61 and injures over 100," March 25, 2025, <https://dnhr.org/2025/03/25/dnhr-org-airstrike-tora-market-north-darfur/>, archived at <https://perma.cc/UB6W-86H6>; AFP, "More than 50 civilians die in Darfur market strike blamed on Sudan's military," March 26, 2025, <https://www.france24.com/en/live-news/20250325-monitor-accuses-sudan-army-of-major-strike-on-darfur-market>, archived at

<https://ghostarchive.org/archive/CJEBE>; Radio Dabanga, "قتلي وجرحي في قصف بالطيران على سوق" "أسبوعي بدارفور" March 25, 2025, <https://www.dabangasudan.org/ar/all-news/article/%D9%82%D8%AA%D9%84%D9%8A-%D9%88%D8%AC%D8%B1%D8%AD%D9%8A-%D9%81%D9%8A-%D9%82%D8%B5%D9%81-%D8%A8%D8%A7%D9%84%D8%B7%D9%8A%D8%B1%D8%A7%D9%86-%D8%B9%D9%84%D9%89-%D8%B3%D9%88%D9%82-%D8%A3%D8%B3%D8%A8%D9%88>, archived at <https://perma.cc/UKF6-WF42>; Darfur Victims Support, "تقرير عن القصف الجوي على قرية طرة - ولاية شمال دارفور التاريخ: 26 مارس 2025" March 26, 2025, <https://darfurvs.org/2025/03/26/%D8%AA%D9%82%D8%B1%D9%8A%D8%B1-%D8%B9%D9%86-%D8%A7%D9%84%D9%82%D8%B5%D9%81-%D8%A7%D9%84%D8%AC%D9%88%D9%8A-%D8%B9%D9%84%D9%89-%D9%82%D8%B1%D9%8A%D8%A9-%D8%B7%D8%B1%D8%A9-%D9%88%D9%84%D8%A7/>, archived at <https://perma.cc/QB5Z-YXAA>

⁴ 2 Integrated Food Security Phase Classification, "Sudan: Acute Food Insecurity Snapshot October 2024 - May 2025," December 24, 2024, https://www.ipcinfo.org/fileadmin/user_upload/ipcinfo/docs/IPC_Sudan_Acute_Food_Insecurity_Oct2024_May2025_Snapshot.pdf, archived at <https://perma.cc/9EKQC4E8>

⁵ Darfur24, "تدهور الأوضاع الإنسانية للنازحين بـ"المالحة" شمال دارفور" February 27, 2025, <https://www.darfur24.com/2025/02/27/%d8%aa%d8%af%d9%87%d9%88%d8%b1-%d8%a7%d9%84%d8%a3%d9%88%d8%b6%d8%a7%d8%b9-%d8%a7%d9%84%d8%a5%d9%86%d8%b3%d8%a7%d9%86%d9%8a%d8%a9-%d9%84%d9%84%d9%86%d8%a7%d8%b2%d8%ad%d9%8a%d9%86-%d8%a8%d9%80%d8%a7/>, archived at <https://perma.cc/L7AD-59DV>

⁶ Sudan Tribune, "مقتل العشرات و فرار آلاف الأسر من «المالحة» بشمال دارفور" March 24, 2025, <https://sudantribune.net/article298995/>, archived at <https://perma.cc/6C6N-VSPW>; Sudan War Monitor, "RSF captures strategic desert city in North Darfur," March 20, 2025, <https://sudanwarmonitor.com/p/rsf-captures-strategic-desert-city>, archived at <https://perma.cc/UG5F-GUWM>; Radio Dabanga, "المعارك تنتقل الى المالحة بشمال دارفور" March 21, 2025, <https://www.dabangasudan.org/ar/all-news/article/%D8%A7%D9%84%D9%85%D8%B9%D8%A7%D8%B1%D9%83-%D8%AA%D9%86%D8%AA%D9%82%D9%84-%D8%A7%D9%84%D9%89-%D8%A7%D9%84%D9%85%D8%A7%D9%84%D8%AD%D8%A9-%D8%A8%D8%B4%D9%85%D8%A7%D9%84-%D8%AF%D8%A7%D8%B1%D9%81%D9%88>, archived at <https://perma.cc/M3G5-M7MC>

⁷ Sudan Tribune, "مقتل العشرات و فرار آلاف الأسر من «المالحة» بشمال دارفور" March 24, 2025, <https://sudantribune.net/article298995/>, archived at <https://perma.cc/6C6N-VSPW>; Sudan War Monitor, "RSF captures strategic desert city in North Darfur," March 20, 2025, <https://sudanwarmonitor.com/p/rsf-captures-strategic-desert-city>, archived at <https://perma.cc/UG5F-GUWM>; Radio Dabanga, "المعارك تنتقل الى المالحة بشمال دارفور" March 21,

2025, <https://www.dabangasudan.org/ar/all-news/article/%D8%A7%D9%84%D9%85%D8%B9%D8%A7%D8%B1%D9%83-%D8%AA%D9%86%D8%AA%D9%82%D9%84-%D8%A7%D9%84%D9%89-%D8%A7%D9%84%D9%85%D8%A7%D9%84%D8%AD%D8%A9-%D8%A8%D8%B4%D9%85%D8%A7%D9%84-%D8%AF%D8%A7%D8%B1%D9%81%D9%88>, archived at <https://perma.cc/M3G5-M7MC>

⁸ Sudan Tribune, “المشتركة» تعلن استعادة السيطرة على المالحة بشمال دارفور» March 20, 2025, <https://sudantribune.net/article298831/>, archived at [https://perma.cc/W4F3-RMLK; VISTA \(@VistaMaps\), «شمال_دارفور | محلية المالحة»#](https://perma.cc/W4F3-RMLK; VISTA (@VistaMaps), «شمال_دارفور | محلية المالحة»#) on X (formerly known as Twitter), March 20, 2025, <https://x.com/VistaMaps/status/1902792672634376245>, archived at <https://perma.cc/JP9L-A38A>

⁹ Sudan Tribune, “مقتل العشرات و فرار آلاف الأسر من «المالحة» بشمال دارفور» March 24, 2025, <https://sudantribune.net/article298995/>, archived at <https://perma.cc/6C6N-VSPW; Darfur24, «حركة نزوح من المالحة بشمال دارفور»> March 24, 2025, <https://www.darfur24.com/2025/03/24/%D8%AD%D8%B1%D9%83%D8%A9-%D9%86%D8%B2%D9%88%D8%AD-%D9%85%D9%86-%D8%A7%D9%84%D9%85%D8%A7%D9%84%D8%AD%D8%A9-%D8%A8%D8%B4%D9%85%D8%A7%D9%84-%D8%AF%D8%A7%D8%B1%D9%81%D9%88%D8%B1/>, archived at https://perma.cc/YG5D-FTAL; HRL_MMC_084 has been withheld for security reasons

¹⁰ Sudan Tribune, “هجوم بالطائرات المسييرة على المالحة في شمال دارفور» March 9, 2025, <https://sudantribune.net/article298339/>, archived at <https://perma.cc/6X9W-USVU; Darfur24, «مقتل وإصابة 8 عناصر من القوة المشتركة في قصف بمسيرات على المالحة»> March 9, 2025, <https://www.darfur24.com/2025/03/09/%D9%85%D9%82%D8%AA%D9%84-%D9%88%D8%A5%D8%B5%D8%A7%D8%A8%D8%A9-8-%D8%B9%D9%86%D8%A7%D8%B5%D8%B1-%D9%85%D9%86-%D8%A7%D9%84%D9%82%D9%88%D8%A9-%D8%A7%D9%84%D9%85%D8%B4%D8%AA%D8%B1%D9%83%D8%A9-%D9%81%D9%8A/>, archived at https://perma.cc/8KK2-RVQL; HRL_MMC_087 has been withheld for security reasons

¹¹ Sudan Tribune, “مقتل العشرات و فرار آلاف الأسر من «المالحة» بشمال دارفور» March 24, 2025, <https://sudantribune.net/article298995/>, archived at [https://perma.cc/6C6N-VSPW; International Organization for Migration, «DTM Sudan Flash Alert: Conflict in Al Malha \(Al Malha town\), North Darfur,»](https://perma.cc/6C6N-VSPW; International Organization for Migration, «DTM Sudan Flash Alert: Conflict in Al Malha (Al Malha town), North Darfur,») March 24, 2025, <https://mailchi.mp/iom/dtm-sudan-flash-alert-conflict-in-al-malha-al-malha-town-north-darfur-update-001>, archived at <https://perma.cc/VB3S-8F3D>

¹² Al Jazeera, “الجيش السوداني يتصدى لهجوم للدعم السريع في المالحة قرب الفاشر» March 21, 2025, <https://www.aljazeera.net/politics/2025/3/21/%D8%A7%D9%84%D8%AC%D9%8A%D8%B4-%D8%A7%D9%84%D8%B3%D9%88%D8%AF%D8%A7%D9%86%D9%8A-%D9%8A%D8%AA%D8%B5%D8%AF%D9%89-%D9%84%D9%87%D8%AC%D9%88%D9%85-%D9%84%D9%84%D8%AF%D8%B9%D9%85>, archived at <https://perma.cc/2UA4-RAVX; BBC News, «عقب سيطرة الجيش على القصر الجمهوري في الخرطوم، قوات الدعم السريع تسيطر على منطقة المالحة غربي السودان»> March 23, 2025, <https://www.bbc.com/arabic/articles/cgkm5dx52kko>, archived at <https://perma.cc/R3VW-B38D>

¹³ UN News, “World News in Brief: Alarm over Türkiye detentions, Ukraine update, Sudan-Chad border emergency,» March 25, 2025, <https://news.un.org/en/story/2025/03/1161506>, archived at <https://perma.cc/WZ65-BYZX; UN OHCHR, «Comment by UN High Commissioner for Human Rights Volker Türk on Sudanese Armed Forces airstrikes in Tora, North Darfur,»> March 26, 2025, <https://www.ohchr.org/en/press-releases/2025/03/comment-un-high-commissioner-human-rights-volker-turk-sudanese-armed-forces>, archived at <https://archive.ph/Vx7T6; Al Jazeera, «Dozens killed in strike on market in Sudan’s North Darfur,»> March 25, 2025, <https://www.aljazeera.com/news/2025/3/25/sudanese->

army-accused-of-deadly-strike-on-civilians-in-darfur-market, archived at <https://perma.cc/3ASH-SLUU>; Radio Dabanga, “قتلي وجرحي في قصف بالطيران على سوق أسبوعي بدارفور” March 25, 2025, <https://www.dabangasudan.org/ar/all-news/article/%D9%82%D8%AA%D9%84%D9%8A-%D9%88%D8%AC%D8%B1%D8%AD%D9%8A-%D9%81%D9%8A-%D9%82%D8%B5%D9%81-%D8%A8%D8%A7%D9%84%D8%B7%D9%8A%D8%B1%D8%A7%D9%86-%D8%B9%D9%84%D9%89-%D8%B3%D9%88%D9%82-%D8%A3%D8%B3%D8%A8%D9%88>, archived at <https://perma.cc/UKF6-WF42>; Darfur Network for Human Rights, “Sudanese Army Airstrike on Tora Market Kills at least 61 and injures over 100,” March 25, 2025, <https://dnhr.org/2025/03/25/dnhr-org-airstrike-tora-market-north-darfur/>, archived at <https://perma.cc/UB6W-86H6>; Malachy Brown, “Sudan Military Bombing Kills Dozens in Attack on Market in Darfur,” The New York Times, March 25, 2025, <https://www.nytimes.com/2025/03/25/world/africa/sudan-military-bombing-darfur.html>, archived at <https://archive.ph/pvjFn>

¹⁴ Darfur Network for Human Rights, “Sudanese Army Airstrike on Tora Market Kills at least 61 and injures over 100,” March 25, 2025, <https://dnhr.org/2025/03/25/dnhr-org-airstrike-tora-market-north-darfur/>, archived at <https://perma.cc/UB6W-86H6>; AFP, “More than 50 civilians die in Darfur market strike blamed on Sudan’s military,” March 26, 2025, <https://www.france24.com/en/live-news/20250325-monitor-accuses-sudan-army-of-major-strike-on-darfur-market>, archived at

<https://ghostarchive.org/archive/CJEBE>; Radio Dabanga, “قتلي وجرحي في قصف بالطيران على سوق ”أسبوعي بدارفور” March 25, 2025, <https://www.dabangasudan.org/ar/all-news/article/%D9%82%D8%AA%D9%84%D9%8A-%D9%88%D8%AC%D8%B1%D8%AD%D9%8A-%D9%81%D9%8A-%D9%82%D8%B5%D9%81-%D8%A8%D8%A7%D9%84%D8%B7%D9%8A%D8%B1%D8%A7%D9%86-%D8%B9%D9%84%D9%89-%D8%B3%D9%88%D9%82-%D8%A3%D8%B3%D8%A8%D9%88>, archived at <https://perma.cc/UKF6-WF42>; Darfur Victims Support, “تقرير عن القصف الجوي على قرية طرة – ولاية شمال دارفور التاريخ: 26 مارس 2025” March 26, 2025, <https://darfurvs.org/2025/03/26/%D8%AA%D9%82%D8%B1%D9%8A%D8%B1-%D8%B9%D9%86-%D8%A7%D9%84%D9%82%D8%B5%D9%81-%D8%A7%D9%84%D8%AC%D9%88%D9%8A-%D8%B9%D9%84%D9%89-%D9%82%D8%B1%D9%8A%D8%A9-%D8%B7%D8%B1%D8%A9-%D9%88%D9%84%D8%A7/>, archived at <https://perma.cc/QB5Z-YXAA>

¹⁵ HRL_MMC_085 and HRL_MMC_086 have been withheld for security reasons

¹⁶ UN OHCHR, “Comment by UN High Commissioner for Human Rights Volker Türk on Sudanese Armed Forces airstrikes in Tora, North Darfur,” March 26, 2025, <https://www.ohchr.org/en/press-releases/2025/03/comment-un-high-commissioner-human-rights-volker-turk-sudanese-armed-forces>, archived at <https://archive.ph/Vx7T6>

¹⁷ AFP, “More than 50 civilians die in Darfur market strike blamed on Sudan’s military,” March 26, 2025, <https://www.france24.com/en/live-news/20250325-monitor-accuses-sudan-army-of-major-strike-on-darfur-market>, archived at

<https://ghostarchive.org/archive/CJEBE>; Darfur24, “قتيلاً و200 جريح إثر قصف جوي على سوق بلدة 57” “بشمال دارفور” March 25, 2025, <https://www.darfur24.com/2025/03/25/57-%D9%82%D8%AA%D9%8A%D9%84%D8%A7%D9%8B-%D9%88200-%D8%AC%D8%B1%D9%8A%D8%AD-%D8%A5%D8%AB%D8%B1-%D9%82%D8%B5%D9%81-%D8%AC%D9%88%D9%8A-%D8%B9%D9%84%D9%89-%D8%B3%D9%88%D9%82-%D8%A8%D9%84%D8%AF%D8%A9/>, archived at <https://perma.cc/7E7H-2AGD>; Darfur24, “قتلي وجرحي في قصف جوي على بلدة طرة شمال الفاشر” March 24, 2025, <https://www.darfur24.com/2025/03/24/%D9%82%D8%AA%D9%84%D9%89-%D9%88>

<https://perma.cc/27E2-2YH7>

¹⁸ Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. “SAF Airstrike Campaign in North Darfur: Markets Damaged, Civilians Impacted.” 10 October 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven, <https://files-profile.medicine.yale.edu/documents/8dd82c98-f290-4892-84a6-df84fa229d99> archived at <https://perma.cc/YZC3-7CNV>; UN OHCHR, “Comment by UN High Commissioner for Human Rights Volker Türk on Sudanese Armed Forces airstrikes in Tora, North Darfur,” March 26, 2025, <https://www.ohchr.org/en/statements/2024/12/sudan-alarm-civilians-killed-attacks-markets>, archived at <https://ghostarchive.org/archive/5mMwZ>; Mat Nashed, “Sudan’s armed forces fails to protect civilians during air raids: Activists” Al Jazeera, September 13, 2023, <https://www.aljazeera.com/news/2023/9/13/sudans-armed-forces-fails-to-protect-civilians-during-air-raids-activists>, archived at <https://perma.cc/VNK6-TR8L>

¹⁹ UN OHCHR, “Comment by UN High Commissioner for Human Rights Volker Türk on Sudanese Armed Forces airstrikes in Tora, North Darfur,” March 26, 2025, <https://www.ohchr.org/en/press-releases/2025/03/comment-un-high-commissioner-human-rights-volker-turk-sudanese-armed-forces>, archived at <https://archive.ph/Vx7T6>.

²⁰ Darfur24, “الدعم السريع تشدد الحصار على “الفاشر” شمال دارفور,” March 26, 2025, <https://www.darfur24.com/2025/03/26/%D8%A7%D9%84%D8%AF%D8%B9%D9%85-%D8%A7%D9%84%D8%B3%D8%B1%D9%8A%D8%B9-%D8%AA%D8%B4%D8%AF%D8%AF-%D8%A7%D9%84%D8%AD%D8%B5%D8%A7%D8%B1-%D8%B9%D9%84%D9%89-%D8%A7%D9%84%D9%81%D8%A7%D8%B4%D8%B1-%D8%B4/>, archived at <https://perma.cc/DKK9-3HLN>

Main Market, El-Malha, North Darfur

CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the main market area of the town.

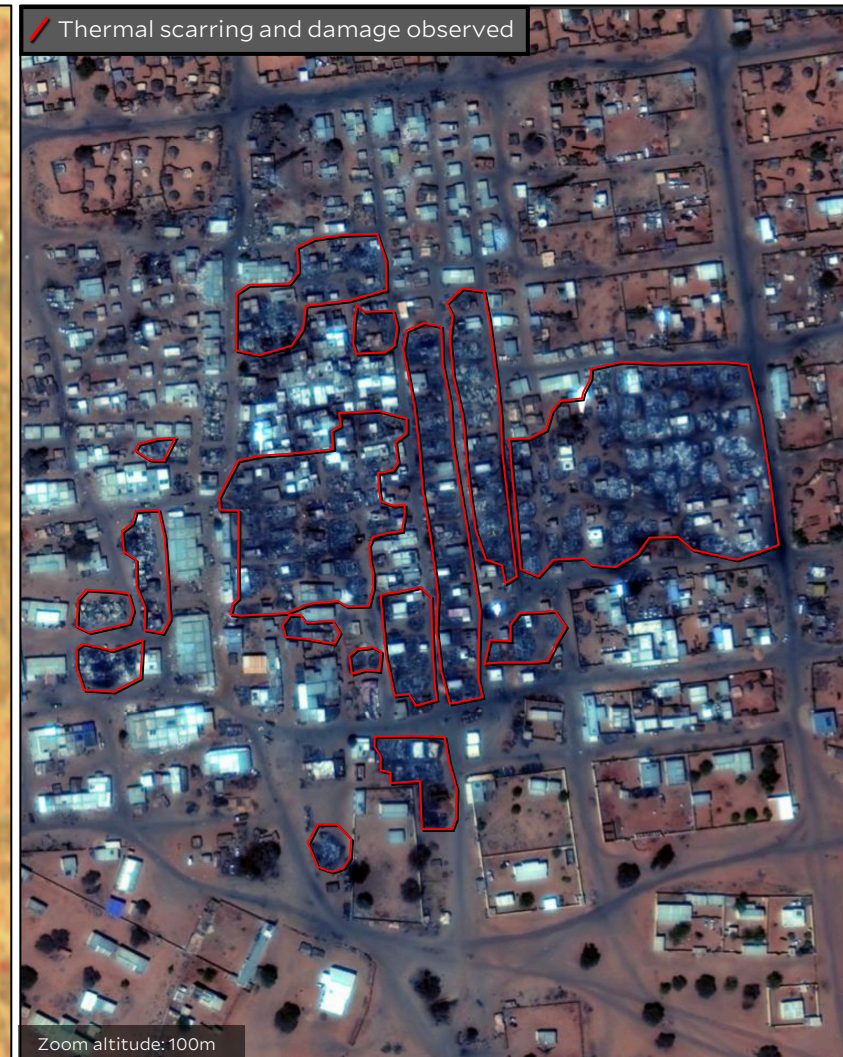
Low resolution Sentinel-2 imagery collected on 21 March 2025 shows black smoke due to active burning emanating from the market area. Note: the zoom altitude is 200m on the 21 March image and 100m on the 18 and 23 March images.



18 March 2025 © 2025 Maxar Technologies



21 March 2025 © 2025 Copernicus Sentinel



23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

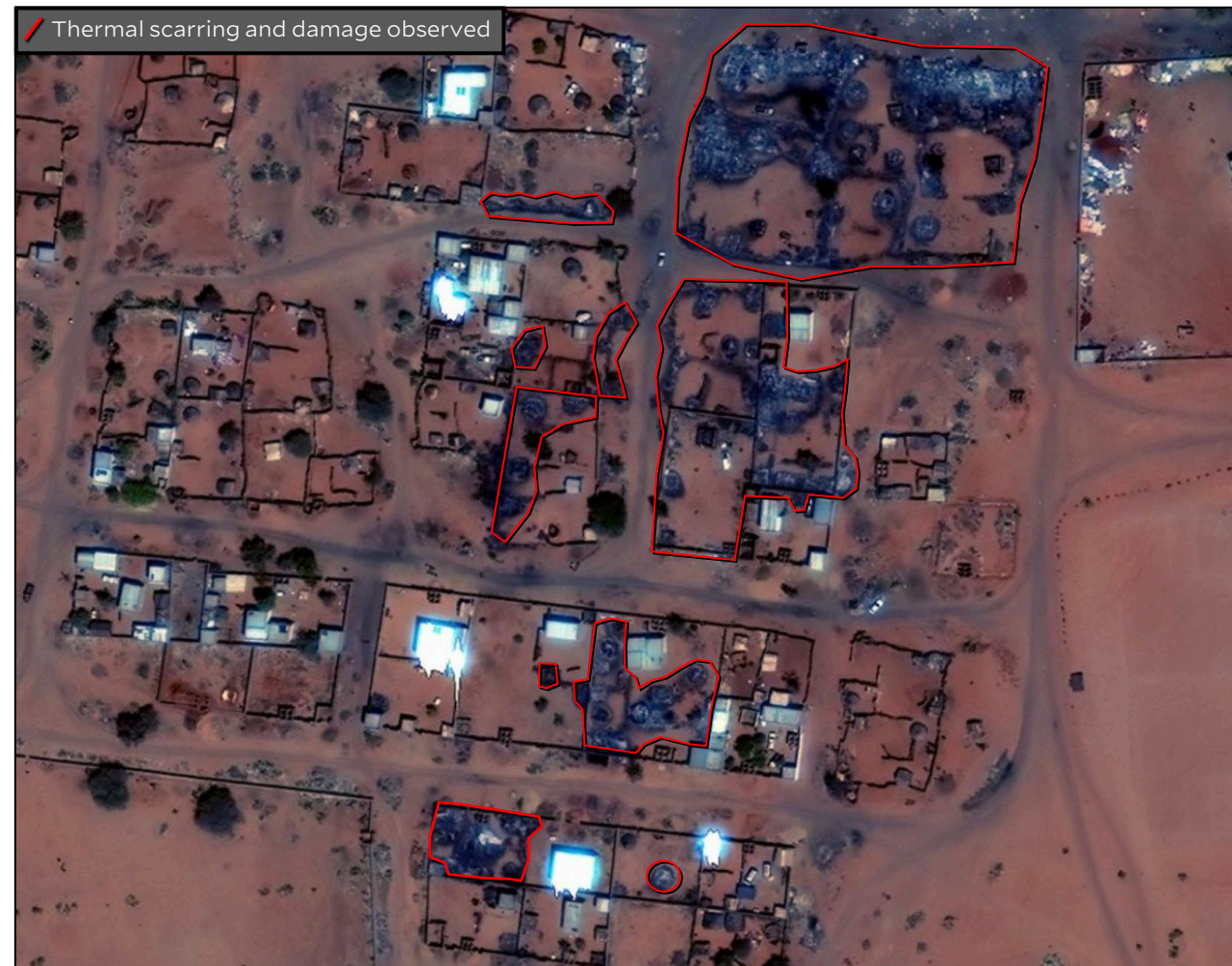
CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the town. The unaffected ground between burned structures and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.

Some of the destroyed structures were created between 21 February 2024 and 7 March 2024. These structures are likely connected with the increase in Internally Displaced Persons (IDPs) who reportedly arrived in El-Malha during the same time period.



18 March 2025 © 2025 Maxar Technologies



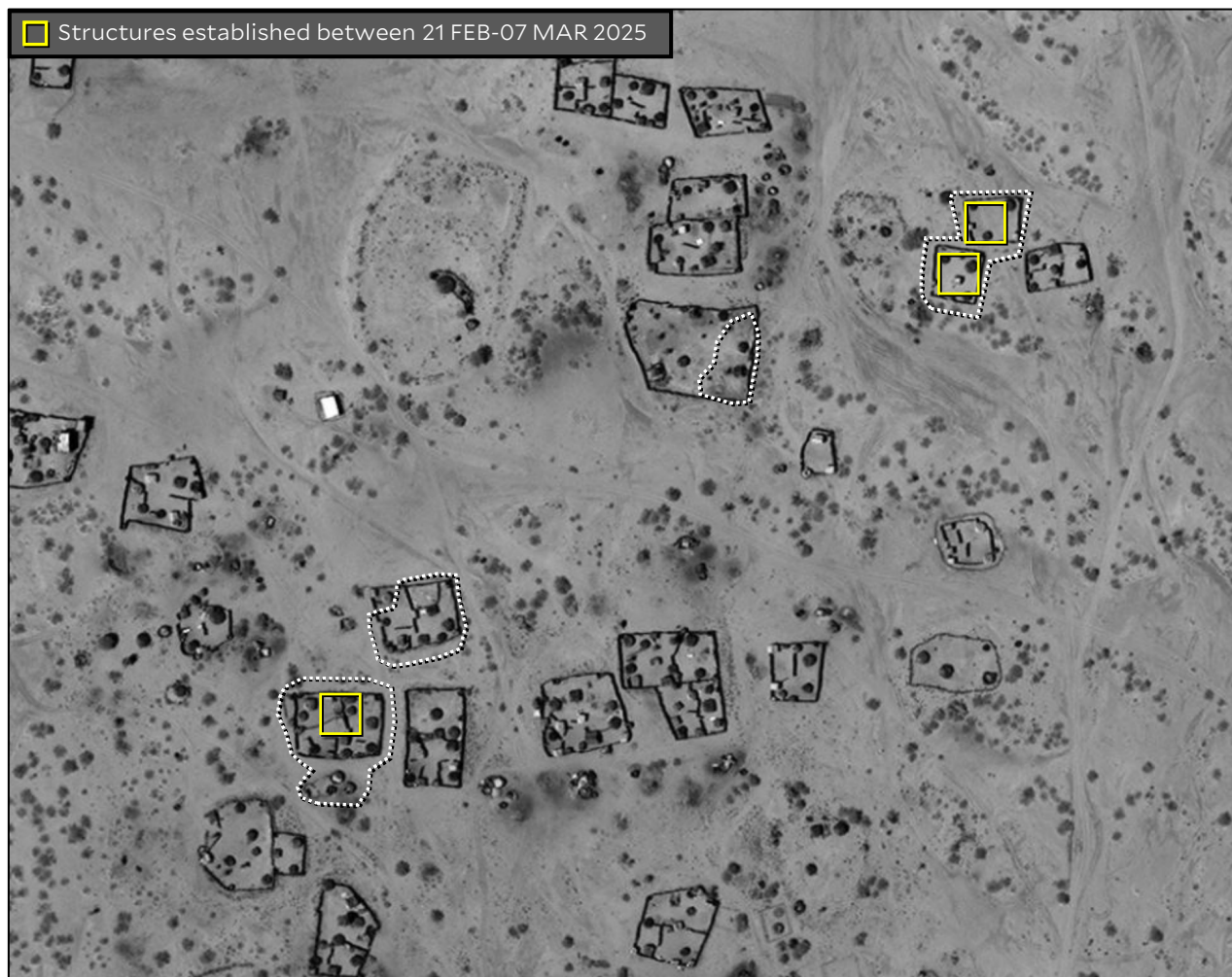
23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the town. The unaffected ground between burned areas and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.

Some of the destroyed structures were created between 21 February 2024 and 7 March 2024. These structures are likely connected with the increase in Internally Displaced Persons (IDPs) who reportedly arrived in El-Malha during the same time period.



18 March 2025 © 2025 Maxar Technologies



23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from intentional ground-based attacks, within the town.

The unaffected ground between burned structures and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.



18 March 2025 © 2025 Maxar Technologies



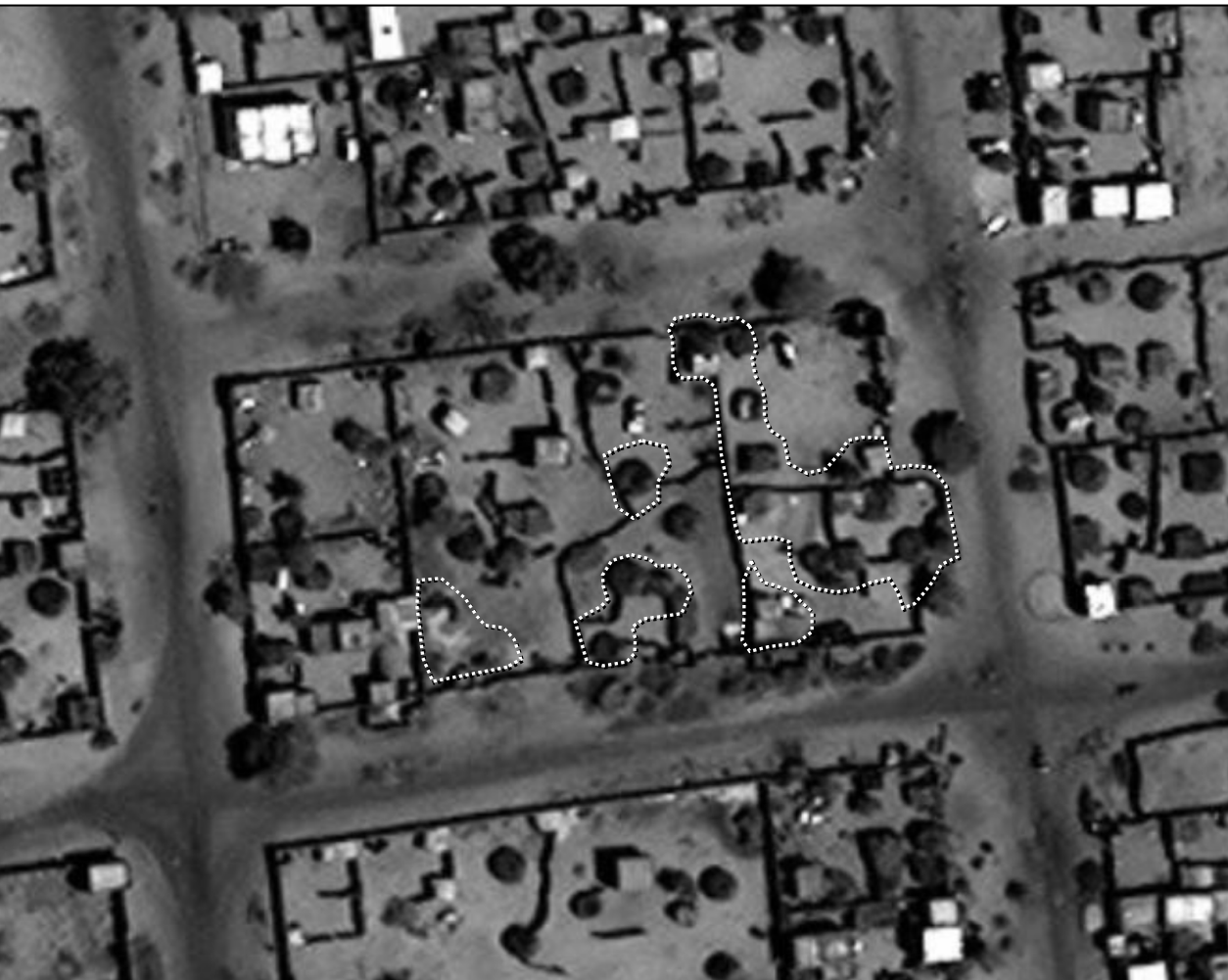
23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

CONFLICT-RELATED DAMAGE AND VEHICLE PRESENCE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the town. The unaffected ground between burned structures and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.

Also observed in 23 March 2025 satellite imagery is the new presence of at least three light technical vehicles within the walled confines of the razed area, and one additional light technical vehicle on the outside.



18 March 2025 © 2025 Maxar Technologies



23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the town.

The unaffected ground between burned structures and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.



18 March 2025 © 2025 Maxar Technologies



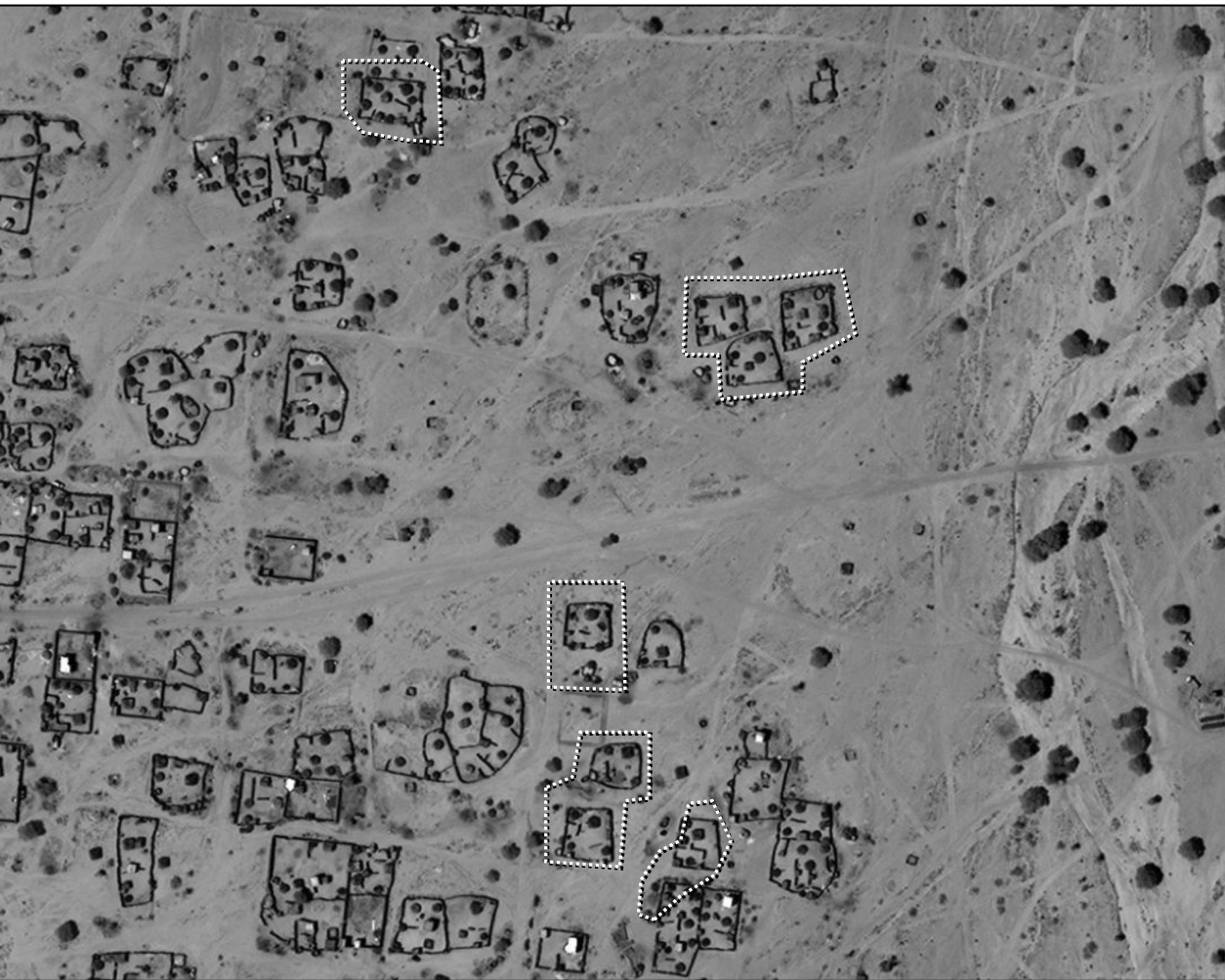
23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the town.

The unaffected ground between burned structures and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.



18 March 2025 © 2025 Maxar Technologies



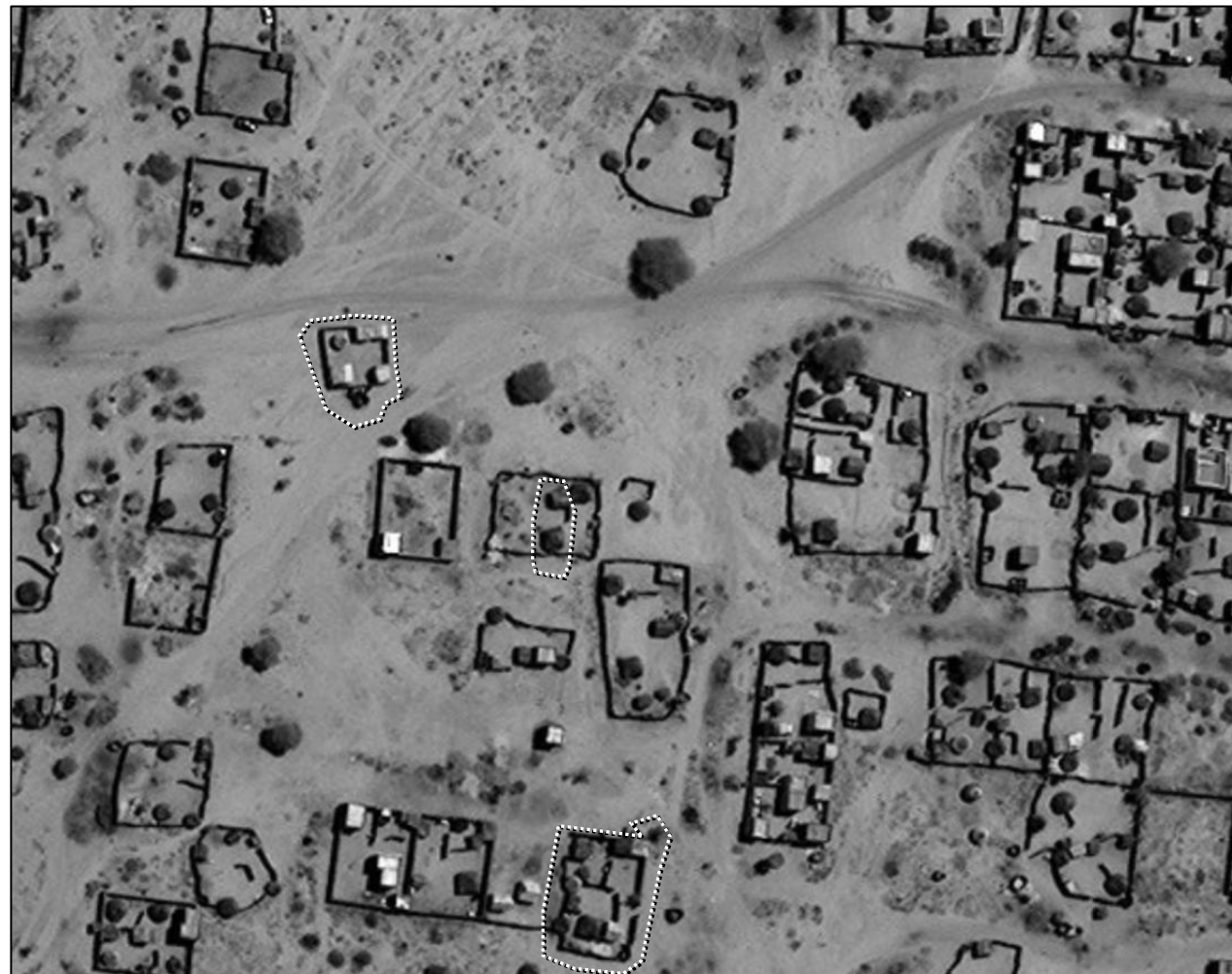
23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur

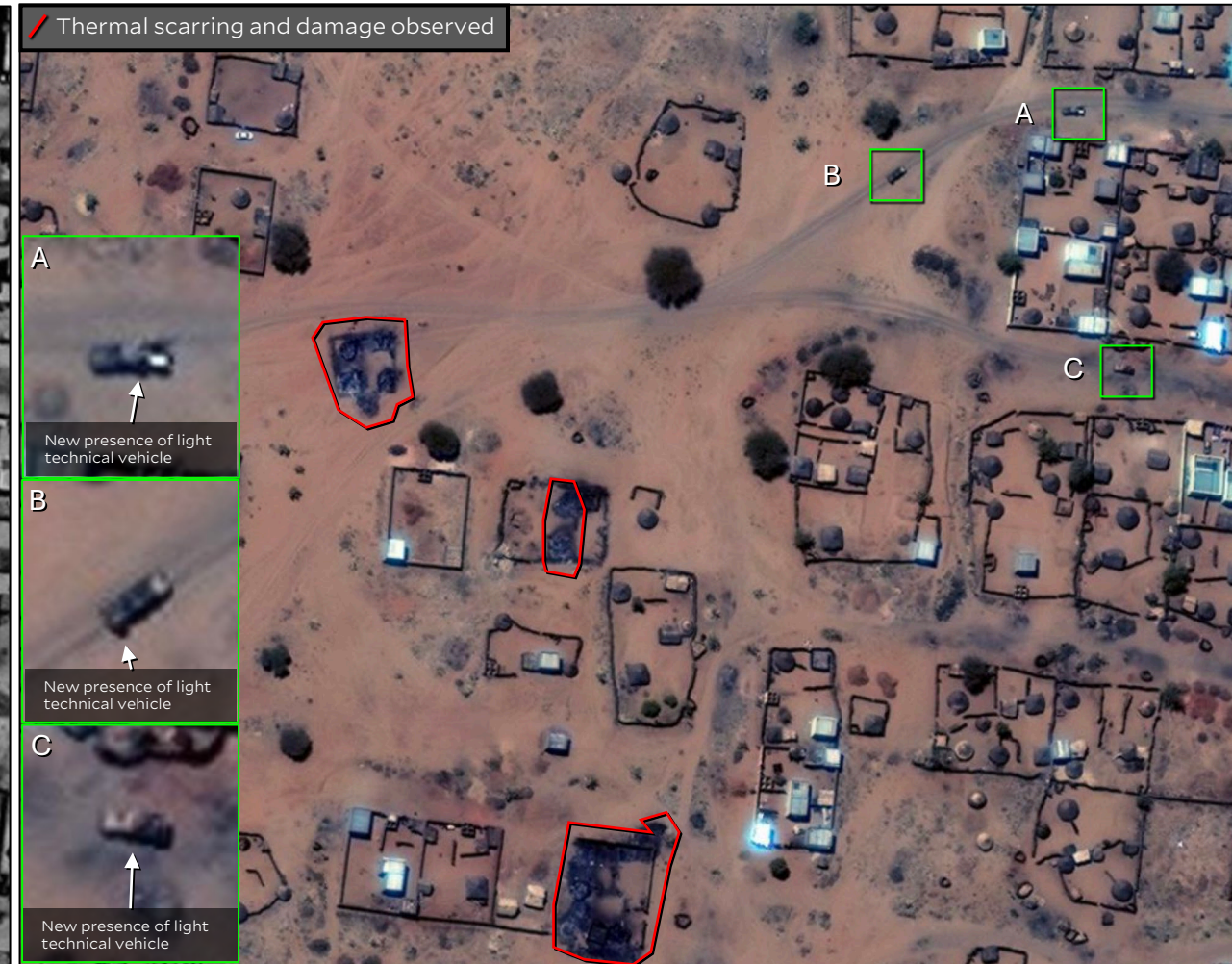
CONFLICT-RELATED DAMAGE AND VEHICLE PRESENCE OBSERVED BETWEEN 18-23 MARCH 2025

Analysis of satellite imagery collected between 18 and 23 March 2025 of El-Malha shows thermal scarring and damage to several structures, consistent with that from ground-based attacks, within the town. The unaffected ground between burned structures and lack of thermal scarring on the ground outside individual community areas is highly consistent with intentional attack targeting structures.

Also observed in 23 March 2025 imagery is the new presence of at least three light technical vehicles observed on the road.



18 March 2025 © 2025 Maxar Technologies



23 March 2025 © 2025 Maxar Technologies

El-Malha, North Darfur | 23 March 2025

Imagery collected on 23 March 2025 over El-Malha shows the new presence of at least 6 light technical vehicles, possibly weapon-mounted, at a water distribution point that with signs of heavy leakage.



□ Light technical vehicles observed

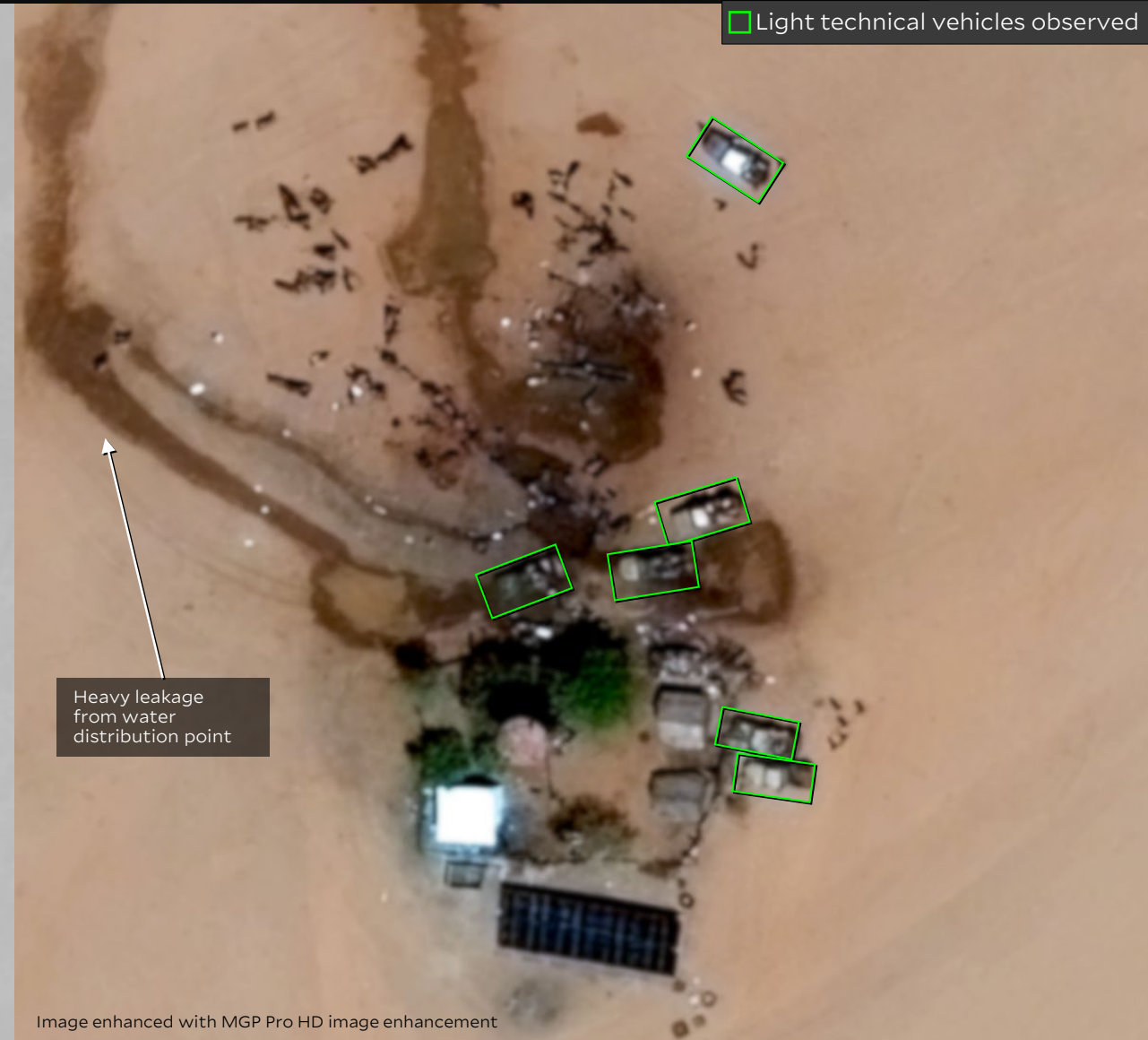


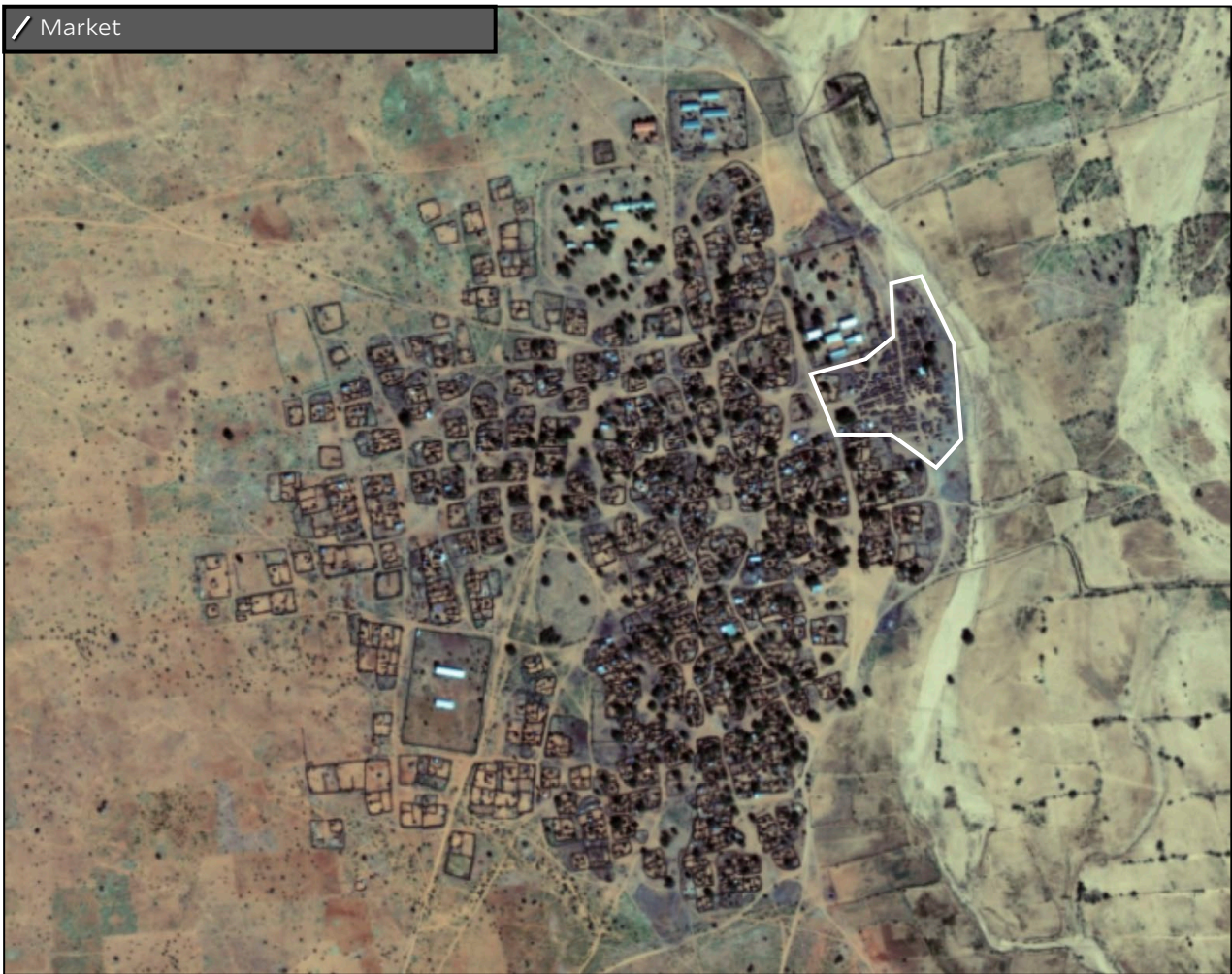
Image enhanced with MGP Pro HD image enhancement

Image enhanced with MGP Pro HD image enhancement

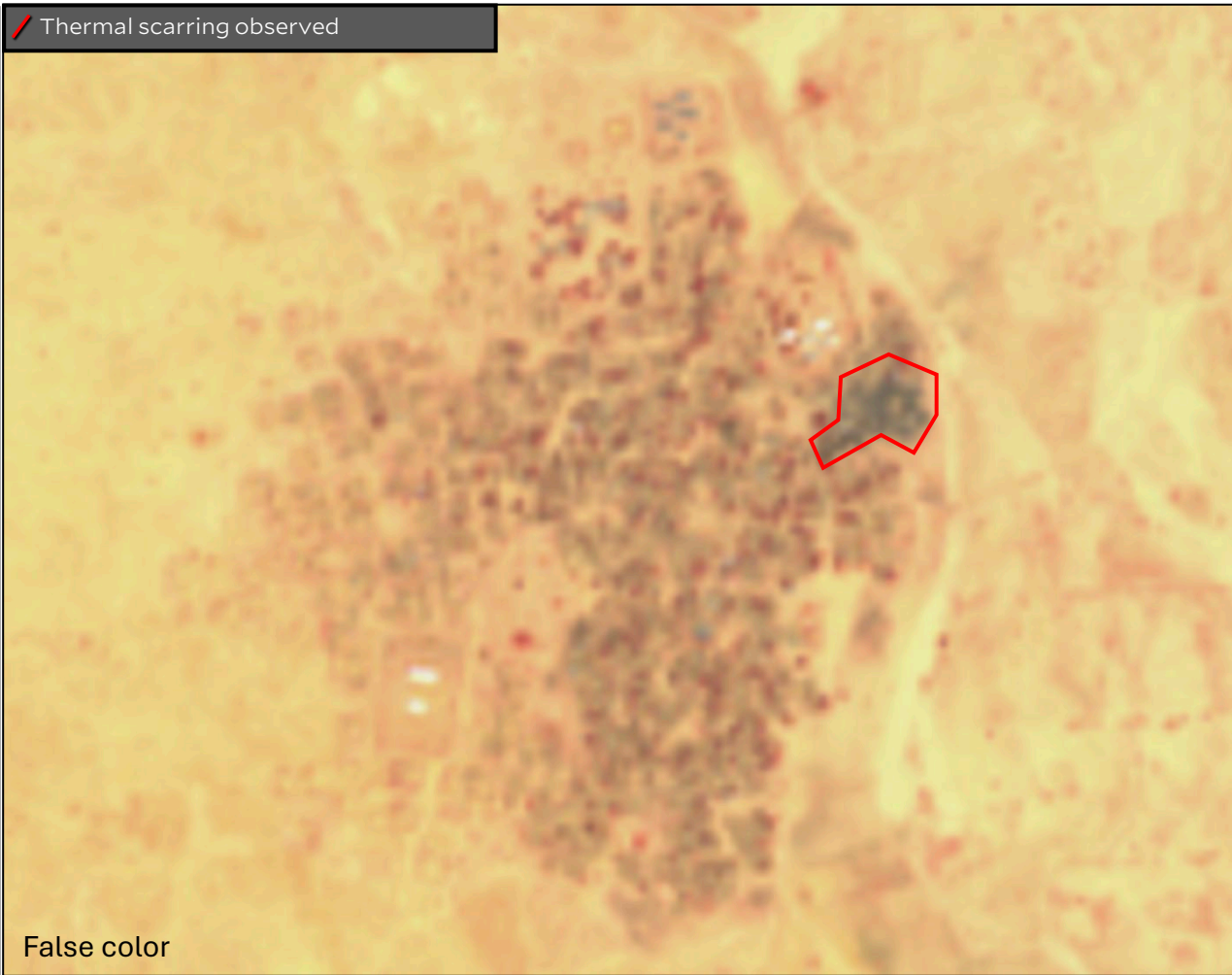
Tora, North Darfur

THERMAL SCARRING OBSERVED BETWEEN 21-26 MARCH 2025

Analysis of satellite imagery shows thermal scarring of the market in Tora between 14 January and 26 March 2025. Through analysis of low-resolution Sentinel imagery, the timeframe can be narrowed down to 21 and 26 March 2025. Additionally, fire event detections (VIIRS) occurred at the location on 25 March 2025.



14 January 2025 © 2025 Maxar Technologies



26 March 2025 © 2025 Copernicus Sentinel

Yale SCHOOL OF PUBLIC HEALTH
Humanitarian Research Lab

<https://medicine.yale.edu/lab/khoshnood/>