

**RSF Burning Agricultural Communities Close
to El-Fasher and Razing of Civilian Dwellings
inside the City**

29 May 2024

Yale SCHOOL OF PUBLIC HEALTH
Humanitarian Research Lab

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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.

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I. Key Findings

Targeted Razing in Southeast El-Fasher Neighborhood: The Yale School of Public Health's Humanitarian Research Lab (HRL) identifies individuated damage consistent with intentional attacks in the southeast neighborhood inside El-Fasher city consistent with RSF. Individuated damage refers to houses and other buildings burned by dismounted infantry. Approximately 50 structures, likely houses, are visible with active smoke plumes as well as visible active fire in imagery from 26 May 2024. The thermal scarring and smoke plumes are visible at specific buildings and notably not at other buildings and do not cross the roads or other space between buildings indicating selection. The selective nature of these burnt structures in proximity to unburnt structures, as well as the absence of ground scarring between them without impact cratering, are consistent with a targeted ground-based attack.

While Yale HRL has previously documented burned civilian structures in El-Fasher, these are the first to be documented in recent weeks of fighting that have clearly been lit intentionally by armed actors. This finding represents a significant new dynamic in the deteriorating human security situation inside the city proper. It is likely that similar intentional ignition of structures has occurred in other areas of El-Fasher. However, given the low density of buildings in this area, indicators consistent with intentional burning are more visible in satellite imagery.

Conflict-Related Damage in Abu Shouk IDP Camp: Yale HRL also finds additional conflict-related damage inside Abu Shouk Internally Displaced Persons (IDP) camp inside northwest El-Fasher city as of 26 May 2024 consistent with reports of fighting between Rapid Support Forces (RSF) and Sudan Armed Forces (SAF) and their aligned forces in the area. This conflict-related damage is consistent with open source reports of fighting and significant civilian impact in and around Abu Shouk IDP camp and understates conflict's impact to the population of Abu Shouk IDP camp.ⁱ

32 Communities with Arson Attacks: As of 26 May, Yale HRL has identified three additional communities which have sustained thermal scarring consistent with deliberate arson attacks on communities between 20 and 26 May 2024. Two of these communities, Gileidit and a community referred to as "Unidentified Community 23," are the closest likely arson-damaged communities to El-Fasher yet identified. They are located approximately 12 km and 10 km respectively from the center of El-Fasher city and within 4-6 km of the outskirts of Abu Shouk and Al Salam IDP camps in an area believed to be controlled by RSF at present. Notably, one probable BTR light-armored vehicle and three support vehicles were observed approximately 1.6 km east of Gileidit village on 26 May 2024. These vehicles are present on newly created vehicle tracks that run east of Gileidit. These vehicles are assessed to likely be RSF due to RSF currently believed to be controlling that area. Vehicles and light armored vehicles are observed, which are materiel known to be utilized by RSF forces in the area.

Ammar Jadid, the third community which has sustained recent thermal scarring, has sustained damage at least three separate times to date. The most recent damage prior to 20-26 May 2024 was likely within 18 - 20 May 2024.ⁱⁱ As of 29 May 2024 Yale HRL has identified a total of 32 communities between 60 and 10 km of the center of El-Fasher

city have sustained thermal scarring consistent with arson on to the north, northwest, west, and southwest of El-Fasher since 21 March 2024. These predominantly agricultural communities have been significant sources of food production and supported sustainable economies in the North Darfur region.ⁱⁱⁱ The agricultural burning significantly affects food supply to the El-Fasher locality.^{iv}

RSF Consolidated Force Presence in Eastern Neighborhoods of El-Fasher: According to imagery analysis, probable RSF elements consisting of technical and support vehicles continue to stage within the eastern neighborhoods of El Fasher. On 26 May at least as many as 24 vehicles were observed across multiple staging locations in total, indicating a continued buildup of RSF elements. Additionally, probable RSF elements have established checkpoints along the B-26 highway according to satellite imagery collected between 28 April - 27 May 2024. This significant presence indicates RSF probably has strong control of both eastern and northeastern neighborhoods inside El-Fasher and consolidated control of access to a major road to El-Fasher.

Golo Reservoir: Yale HRL has geolocated and is monitoring the Golo Reservoir. On 26 May 2024, RSF released videos claiming control, which was followed soon by SAF reporting to recapture Golo Reservoir on 27 May 2024.^v There are currently no visible signs of disruption to the facility or control of the facility. Yale HRL will continue to monitor the site on a regular basis.

II. Human Security Analysis

Displacement: The Office of the Spokesperson for the UN Secretary-General on 28 May 2024 reported that the International Organization for Migration (IOM) estimates approximately 58,000 people have been displaced from El-Fasher since 1 April 2024 due to recent conflict in the El-Fasher locality.^{vi} IOM had previously estimated that 400 households had been displaced between May 23-24 and an additional 1,500 households on 25 May primarily occurred from Abu Shouk IDP camp, Al-Salam, Al-Wahda, and Al-Inqaz neighborhoods inside El-Fasher because of increased security concerns from fighting.^{vii}

Casualties: On 28 May, Medecins Sans Frontieres (MSF) reported that since the fighting in El-Fasher escalated after 10 May 2024, South Hospital had received over 1,000 patients, 145 of whom died from their injuries.^{viii} These numbers are likely far lower than actual casualty counts, as eyewitnesses have reported bodies in the streets coupled with a lack of ambulances prevented many of the injured and dead people from reaching medical facilities. MSF announced on 28 May 2024 that South Hospital in El-Fasher has been hit twice by artillery fire between 25-26 May 2024 and that that all three major medical facilities in El-Fasher city have sustained damage due to the clashes between RSF and SAF.^{ix}

Telecommunications: There are reports of telecommunications outages on or around 22 May 2024 and 29 May 2024.^x IOM has previously reported that the communication disruptions have hindered accurate reporting and acknowledged that current figures may be an underestimate.^{xi} Continued clashes in El-Fasher are likely to further limit

communication with those inside the city and therefore limit delivery of critical humanitarian aid.

Broader Human Security Assessment: El-Fasher’s fall to the RSF will result in a largescale IDP crisis comprised of previous IDPs in El-Fasher from the 2003-5 Darfur Genocide, residents of El-Fasher who will be effectively displaced from their homes in the city, and communities that have recently been razed or may be razed in the near future. Additionally, RSF will then control all of Darfur’s regional capitals and the central hub for Darfur’s road networks to Chad, Libya, and points south, thus giving RSF and its allies a regional base of operations that represents a third of Sudan. RSF will then be able to both complete its ethnic cleansing of non-Arab communities it has not yet attacked and free up its force for operations on the eastern side of the country including attacks on Khartoum, Omdurman, and the route to Port Sudan through Al Jazeera. This position also significantly increases the likelihood of direct RSF combat with SPLAN-aligned forces in the Nuba Mountains and the Blue Nile region.

Yale HRL assesses that RSF’s capture of El-Fasher will represent a humanitarian and human security emergency on a scale currently unrivaled by any other current conflict including the ongoing conflicts in Gaza and Ukraine. This assessment is made based on the estimated number of people who may be killed, displaced, or become more food insecure as a result of El-Fasher’s fall.

Methodology

Yale HRL utilizes data fusion methodologies of open source and public and commercially available remote sensing data. Yale HRL produced this report through the cross-corroboration of open source and remote sensing data, including satellite imagery and thermal sensor data.

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 source of information was then verified and informed through open source analysis by Yale HRL’s analysts with relevant cultural and linguistic skills. In some cases, communities may have names similar to other communities or may be known by multiple names.

Specific coordinates have been provided to support the further identification and disambiguation of specific place names and community locations. Human security concerns were accounted for as part of the decision to release specific coordinates; potential civilian risk was rated minimal because these communities have already been visibly attacked, and in the case of combat activity and coordinates are released, it is assessed that the combatants are aware of this situation.

ⁱ Radio Dabanga, “<https://www.dabangasudan.org/ar/all->” May 26, 2024, <https://www.dabangasudan.org/ar/all->

[news/article/%d9%82%d8%b5%d9%81-%d9%85%d8%af%d9%81%d8%b9%d9%8a-%d9%84%d9%8a%d9%84%d9%8a-%d9%81%d9%8a-%d8%a7%d9%84%d9%81%d8%a7%d8%b4%d8%b1-%d9%88%d9%85%d9%86%d8%a7%d9%88%d9%8a-%d9%8a%d9%86%d8%aa%d9%82%d8%af-%d8%a7](https://www.who.int/news/article/%d9%82%d8%b5%d9%81-%d9%85%d8%af%d9%81%d8%b9%d9%8a-%d9%84%d9%8a%d9%84%d9%8a-%d9%81%d9%8a-%d8%a7%d9%84%d9%81%d8%a7%d8%b4%d8%b1-%d9%88%d9%85%d9%86%d8%a7%d9%88%d9%8a-%d9%8a%d9%86%d8%aa%d9%82%d8%af-%d8%a7),

<https://perma.cc/SFQ3-X23K>; International Organization for Migration, "DTM,

<https://perma.cc/N2Z6-NHXQ>. <https://mailchi.mp/iom/dtm-sudan-flash-alert-conflict-in-al-fasher-al-fasher-town-north-darfur-update-030>, <https://perma.cc/N2Z6-NHXQ>.

ii Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. "Fighting in Abu Shouk IDP Camp, El-Fasher North Darfur, 20-23 May 2024" 23 May 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven.

https://medicine.yale.edu/lab/khoshnood/publications/2024-05-23-yale-hrl-abu-shouk_479816_284_26865_v1.pdf, archived at <https://perma.cc/9WRG-FEQY>.

iii UN Habitat, "Darfur: Profile of El Fasher Town and Abu Shouk IDP Camp", 2009,

<https://unhabitat.org/sites/default/files/download-manager-files/El%20Fasher%20and%20Abu%20Shouk%20Profile.pdf>, archived at

<https://perma.cc/ALS2-FFMZ>

iv UN Habitat, "Darfur: Profile of El Fasher Town and Abu Shouk IDP Camp", 2009,

<https://unhabitat.org/sites/default/files/download-manager-files/El%20Fasher%20and%20Abu%20Shouk%20Profile.pdf>, archived at

<https://perma.cc/ALS2-FFMZ>

iv

v Darfur24, "قوات #الدعم السريع تعلن سيطرتها" Facebook, May 27, 2024

<https://www.facebook.com/darfur24/videos/459294663351630>, <https://perma.cc/TN5B-Q6X2>. ; Darfur24

"، الفاشر: الحركات تسيطر على خزان قولو بعد انسحاب الدعم السريع"،

<https://www.darfur24.com/2024/05/27/%D8%A7%D9%84%D9%81%D8%A7%D8%B4%D8%B1-%D8%A7%D9%84%D8%AD%D8%B1%D9%83%D8%A7%D8%AA-%D8%AA%D8%B3%D9%8A%D8%B7%D8%B1-%D8%B9%D9%84%D9%89-%D8%AE%D8%B2%D8%A7%D9%86-%D9%82%D9%88%D9%84%D9%88-%D8%A8%D8%B9%D8%AF/>, archived at

vi United Nations Office of the Spokesperson for the UN Secretary-General, "Highlights of the Noon Briefing by Stephane Dujarric Spokesperson for Secretary-General Antonio Guterres", May 28, 2024, <https://www.un.org/sg/en/content/noon-briefing-highlight>, archived at <https://perma.cc/ZZ54-T73J>

vii International Organization for Migration, "DTM Sudan Flash Alert: Conflict in Al Fasher (Al Fasher Town), North Darfur," May 25, 2024, <https://mailchi.mp/iom/dtm-sudan-flash-alert-conflict-in-al-fasher-al-fasher-town-north-darfur-update-030>, <https://perma.cc/N2Z6-NHXQ>.

viii Medecins Sans Frontieres, "Nowhere safe from violent fighting in El Fasher as hospitals are repeatedly hit," May 28, 2024, <https://www.msf.org/sudan-nowhere-safe-violent-fighting-el-fasher-hospitals-are-repeatedly-hit>, <https://perma.cc/QY96-TE68>.

ix Medecins Sans Frontieres (MSF), "Nowhere is safe from violent fighting in El-Fasher as hospitals are repeatedly hit", May 28, 2024, <https://www.msf.org/sudan-nowhere-safe-violent-fighting-el-fasher-hospitals-are-repeatedly-hit>, archived at

<https://perma.cc/QY96-TE68> ; Medameek " أطباء بلا حدود: لا مأمّن من القتال العنيف في الفاشر مع تكرر استهداف المستشفيات " لقراءة المزيد قم بزيارة.

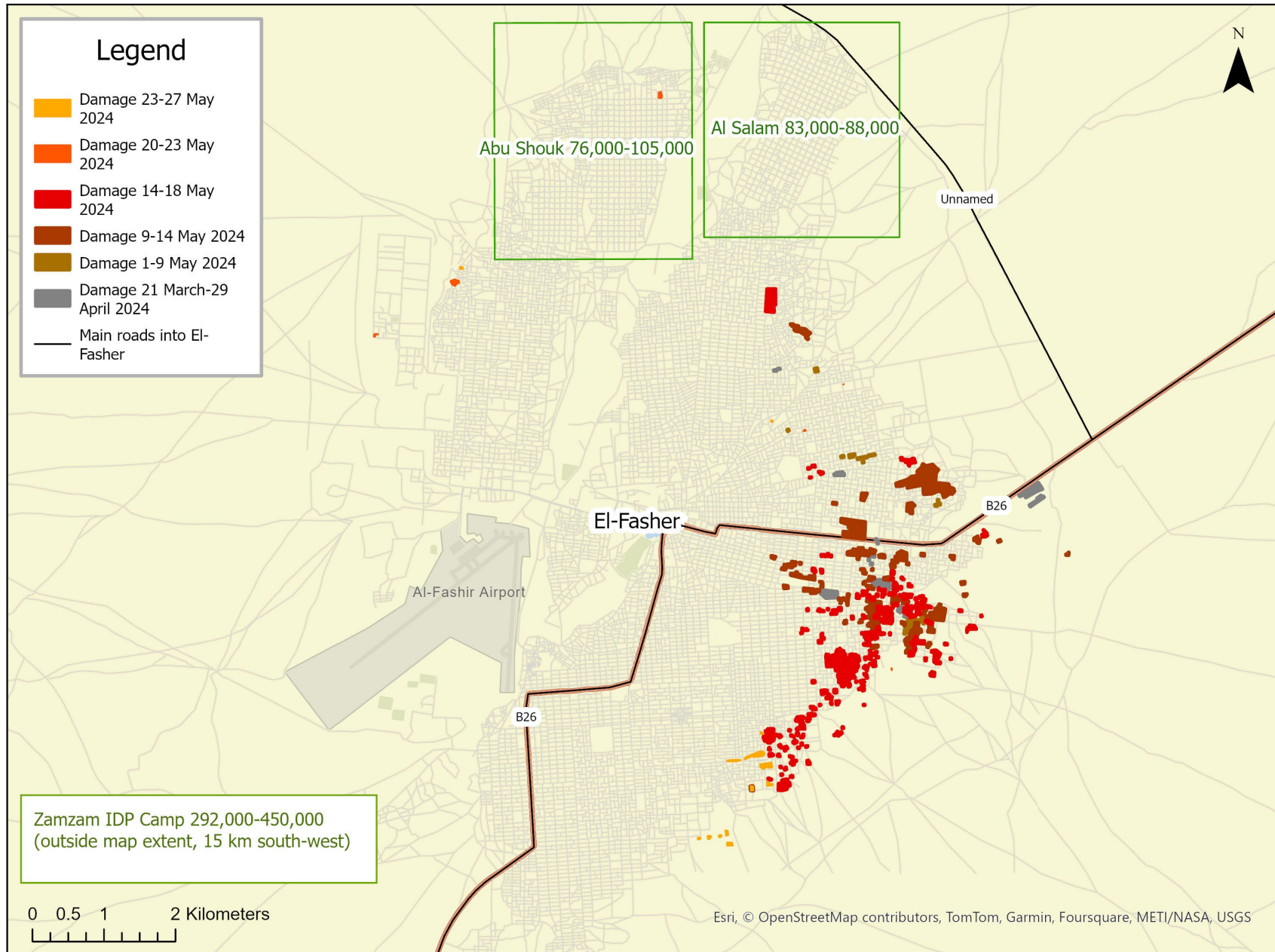
<https://www.medameek.com/?p=147593>, archived at <https://perma.cc/RF8B-PZSU>; Sudan

Tribune, "Fresh clashes in El Fasher leave over 100 injured and 22 dead", 25 May 2024, <https://sudantribune.com/article286079/>, archived at <https://archive.ph/WWHSW>.

x HRL_MMC_0016; HRL_MMC_0019

xi UN Office for the Coordination of Humanitarian Affairs, "Sudan: Conflict in Al Fasher, North Darfur - Flash Update No. 02 (as of 23 May 2024) [EN/AR]", May 23, 2024, , archived at <https://perma.cc/C4VY-WSGU><https://reliefweb.int/report/sudan/sudan-conflict-al-fasher-north-darfur-flash-update-no-02-23-may-2024>, archived at <https://perma.cc/C4VY-WSGU>

Thermal scarring observed at El-Fasher between 20 and 27 May 2024



Southeast Neighborhoods, El-Fasher

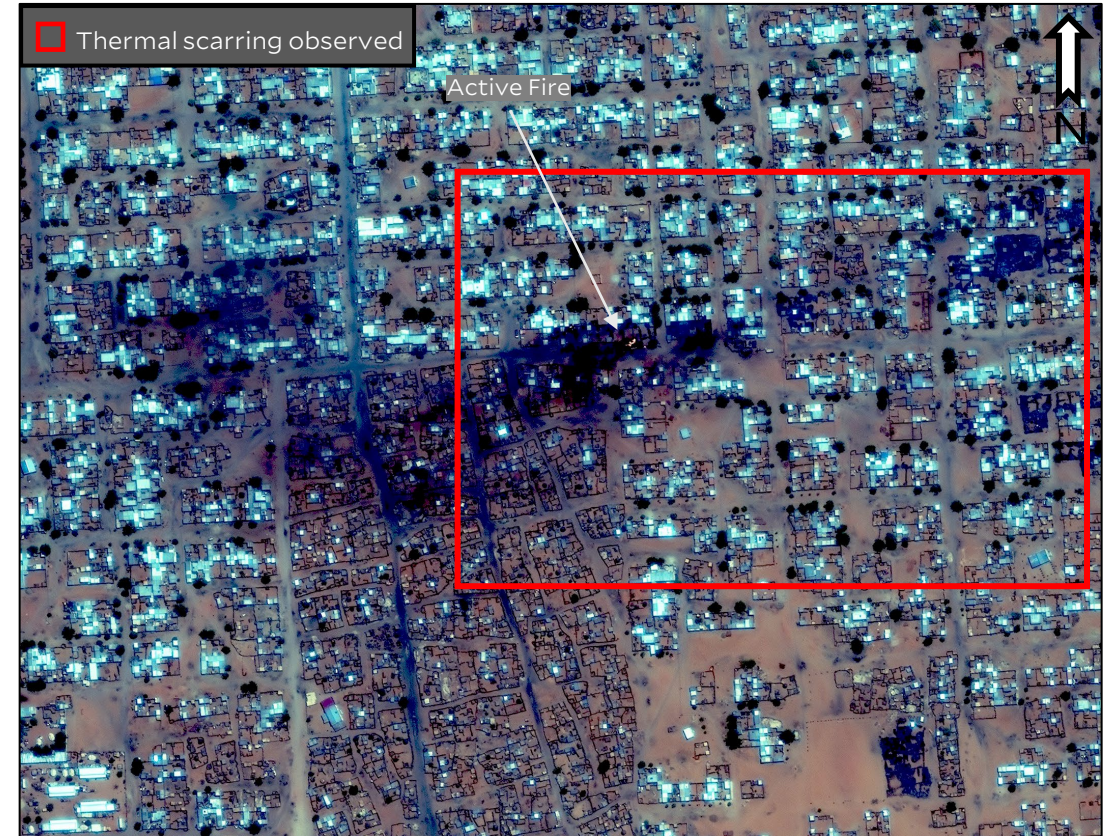
NEW THERMAL SCARRING OBSERVED BETWEEN 20-26 MAY 2024



20 May 2024 © 2024 Maxar, USG-Plus

According to analysis of satellite imagery, additional thermal scarring was observed between 20 and 26 May 2024, within the southeast sector of El-Fasher. Thermal scarring at the same neighborhood was previously observed between 09 and 18 May 2024.

Active fire and a smoke plume is visible in the image.



26 May 2024 © 2024 Maxar, USG-Plus

Southeast Neighborhoods, El-Fasher

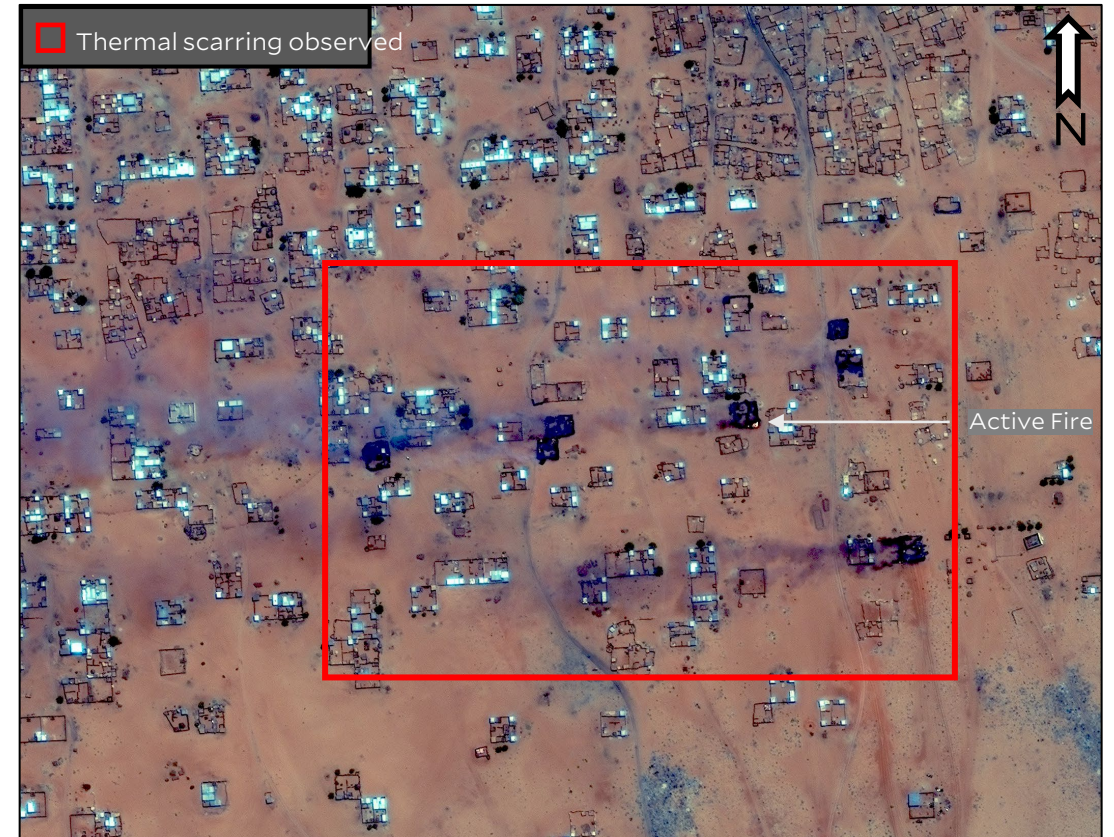
NEW THERMAL SCARRING OBSERVED BETWEEN 20-26 MAY 2024



20 May 2024 © 2024 Maxar, USG-Plus

According to analysis of satellite imagery, thermal scarring was observed between 20 and 26 May 2024, within the southeast sector of El-Fasher. The burnt structures in proximity to unburnt structures, as well as the absence of ground scorching between them indicate a targeted ground-based attack.

Smoke plumes and active fire are visible.



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Abu Shouk IDP Camp, El-Fasher

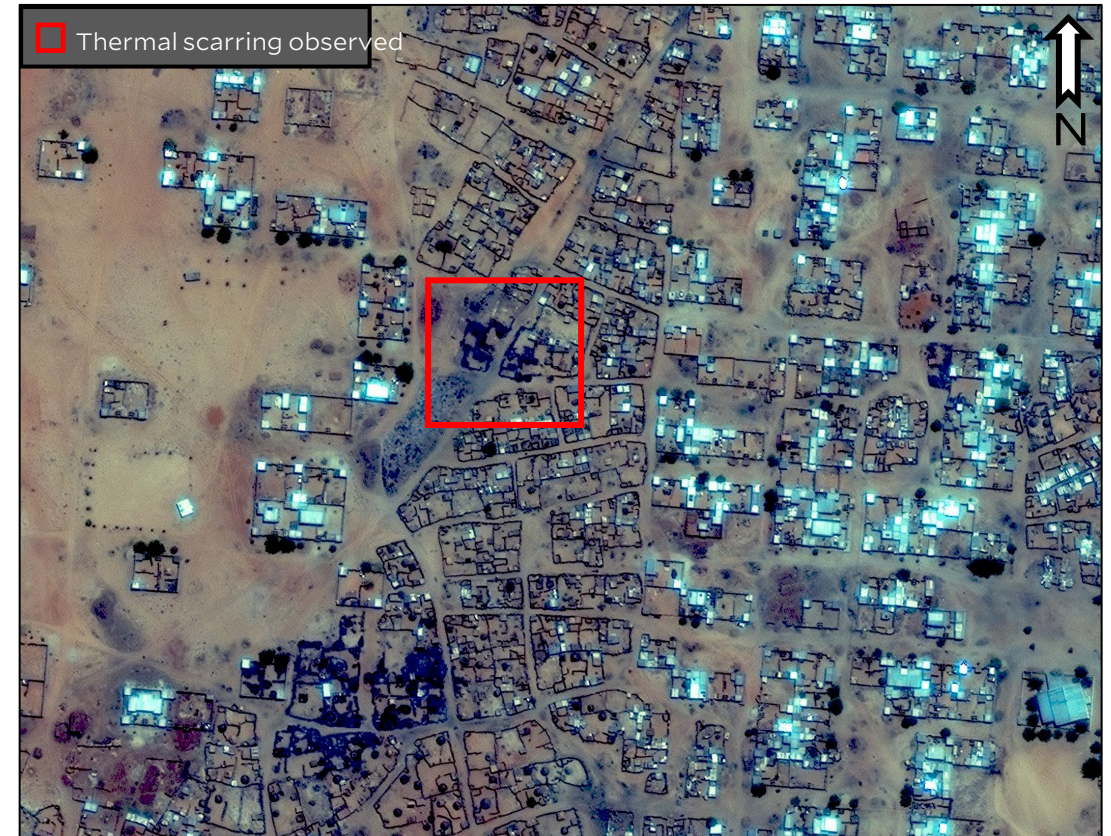
NEW THERMAL SCARRING OBSERVED BETWEEN 23-26 MAY 2024



23 May 2024 © 2024 Maxar, USG-Plus

According to analysis of satellite imagery, additional thermal scarring was observed between 23 and 26 May 2024, within the Abu Shouk IDP Camp in El-Fasher. Thermal scarring at the same neighborhood was previously observed between 20 and 23 May 2024.

Note significant cloud cover in the 23 May 2024 image.



26 May 2024 © 2024 Maxar, USG-Plus

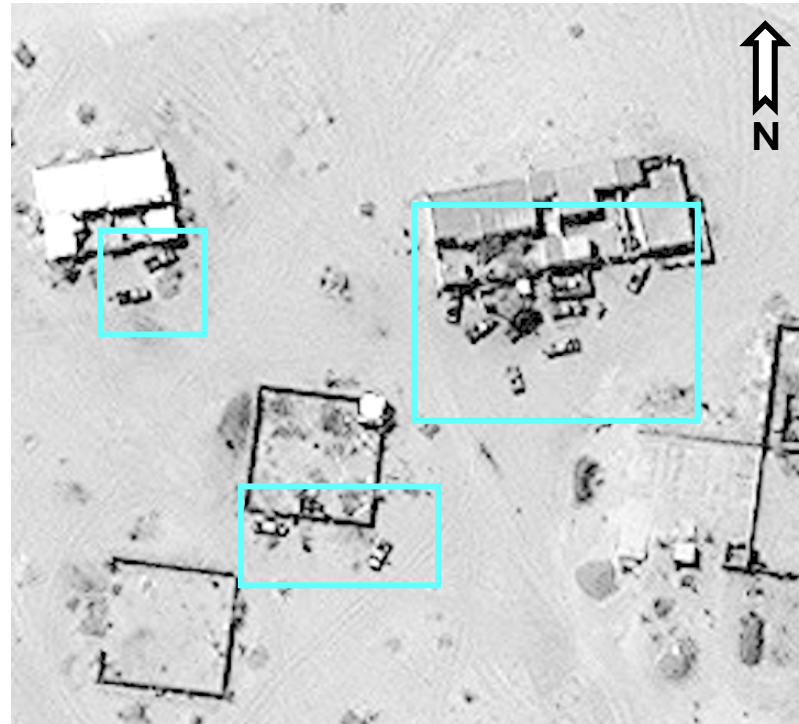
RSF Force Presence

PROBABLE RSF ELEMENTS OBSERVED IN EASTERN NEIGHBORHOODS OF EL-FASHER

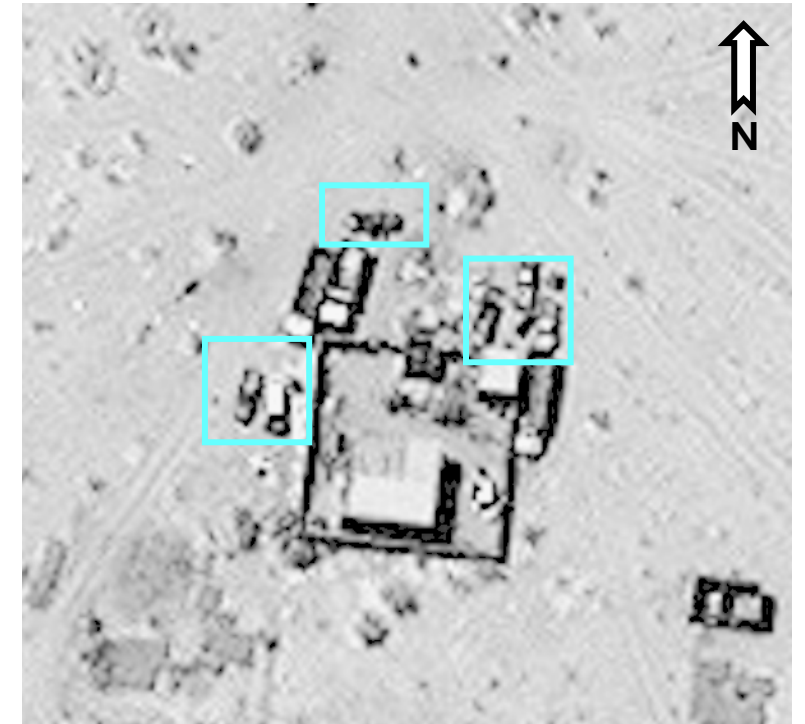
According to analysis of satellite imagery collected between 23 and 26 May 2024, probable RSF elements continue to stage at the eastern area of El Fasher. A total of at least 24 vehicles consisting of probable technicals and support vehicles were observed across multiple structures situated north of the B26 road. According to OSINT reporting, probable RSF elements have taken control of the northern and eastern sections of El Fasher.



Imagery 27 May 2024 © 2024 Maxar, USG-Plus

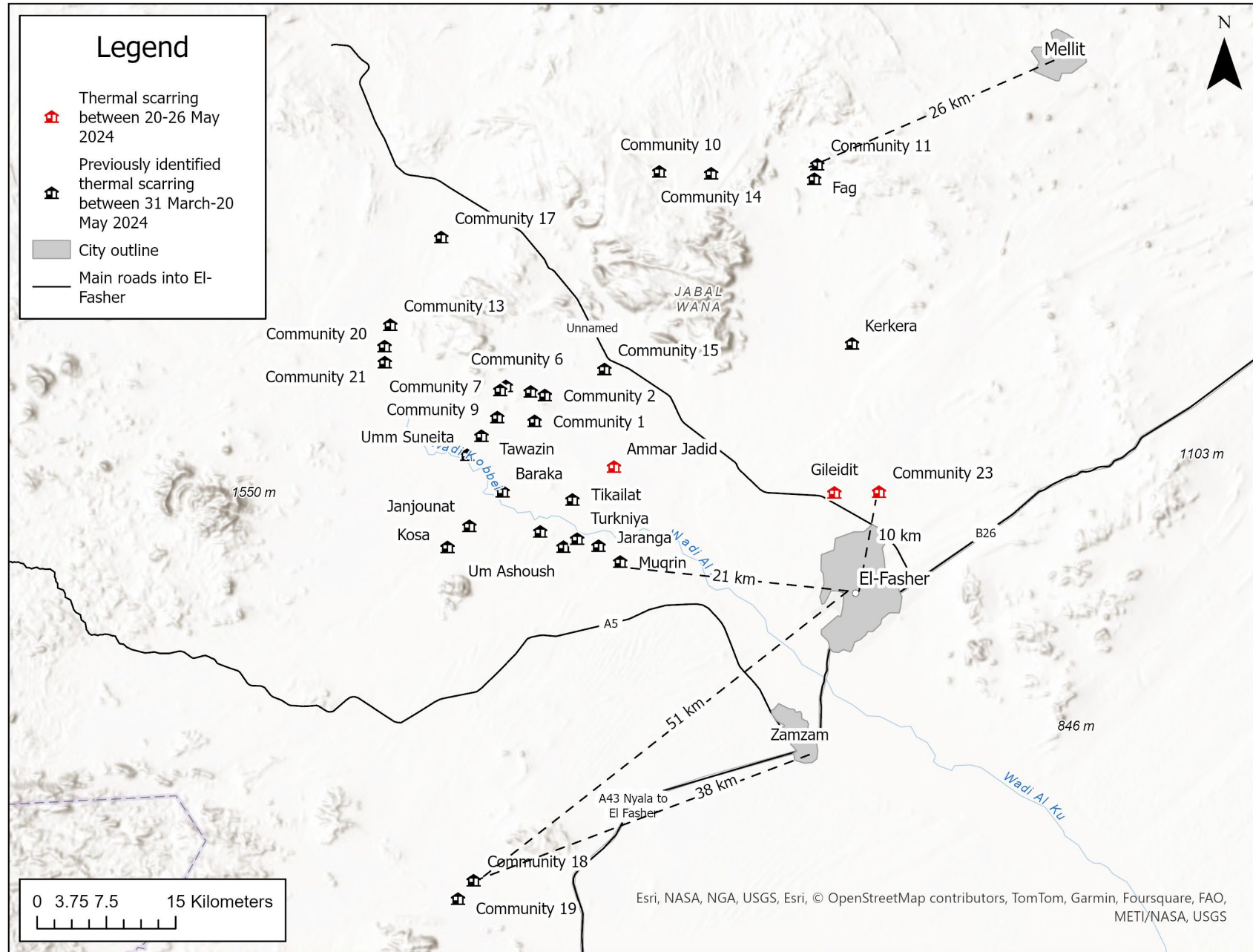


Imagery 27 May 2024 © 2024 Maxar, USG-Plus



Imagery 27 May 2024 © 2024 Maxar, USG-Plus

Thermal scarring observed at communities between 20 and 26 May 2024



Gileidit, North Darfur

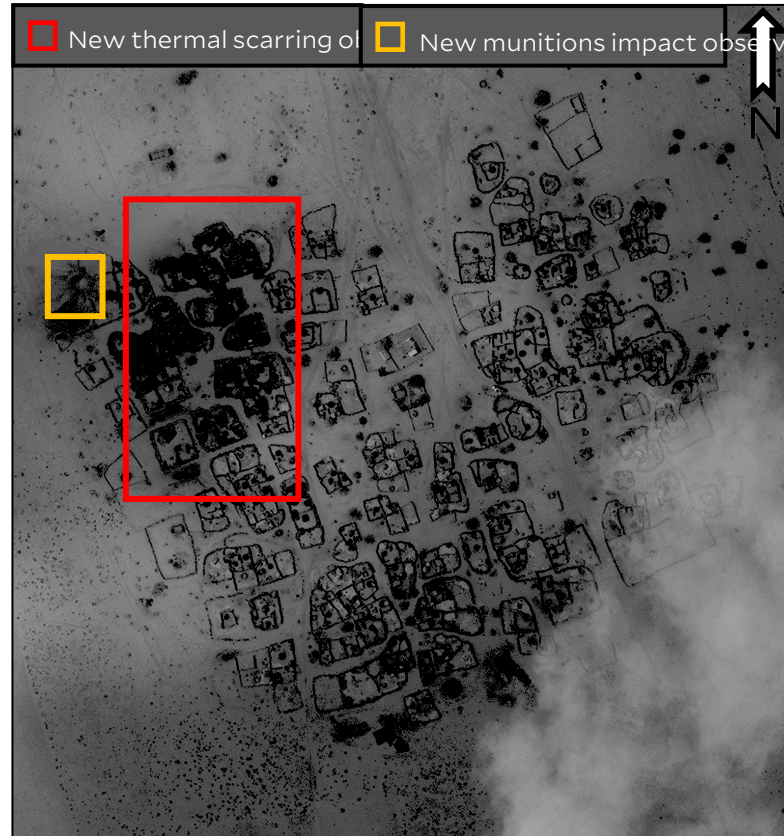
THERMAL SCARRING AND MUNITIONS IMPACT OBSERVED BETWEEN 20-23 AND 23-26 MAY 2024

According to analysis of satellite imagery, thermal scarring and munitions impacts points were observed between 20 -23 and 23 - 26 May 2024, within the village 5 km north of Abu Shouk IDP Camp and 12 km north of the center of El-Fasher city. According to analysis of VIIRS data, the time of new thermal scarring can be narrowed down to 22 and 25 May 2024.

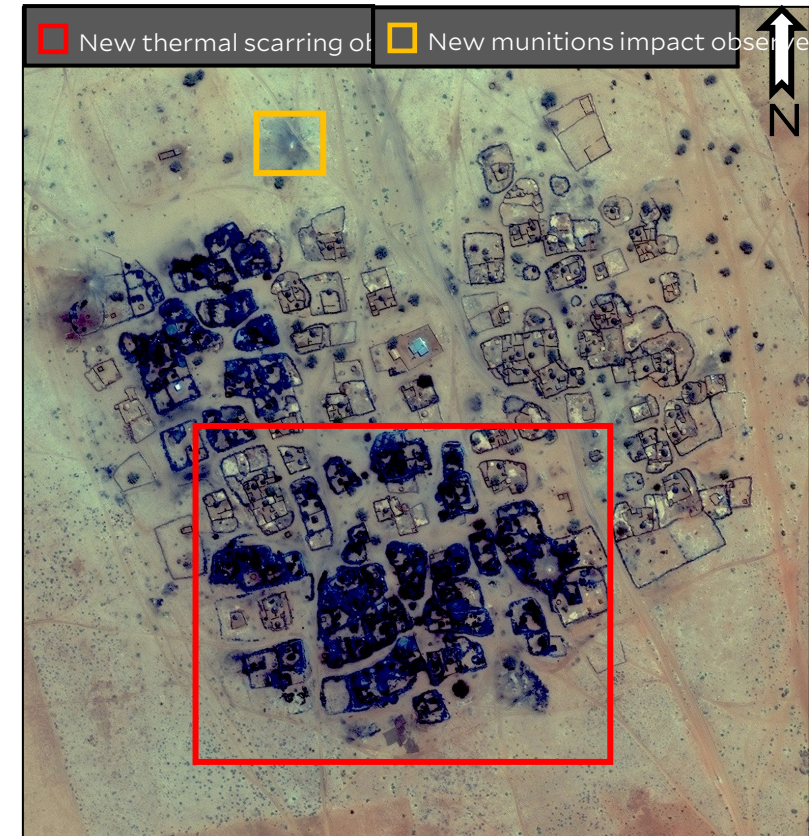
This instance of thermal scarring is the first instance of damage observed to this community since 21 March 2024.



20 May 2024 © 2024 Maxar, USG-Plus



23 May 2024 © 2024 Maxar, USG-Plus



26 May 2024 © 2024 Maxar, USG-Plus

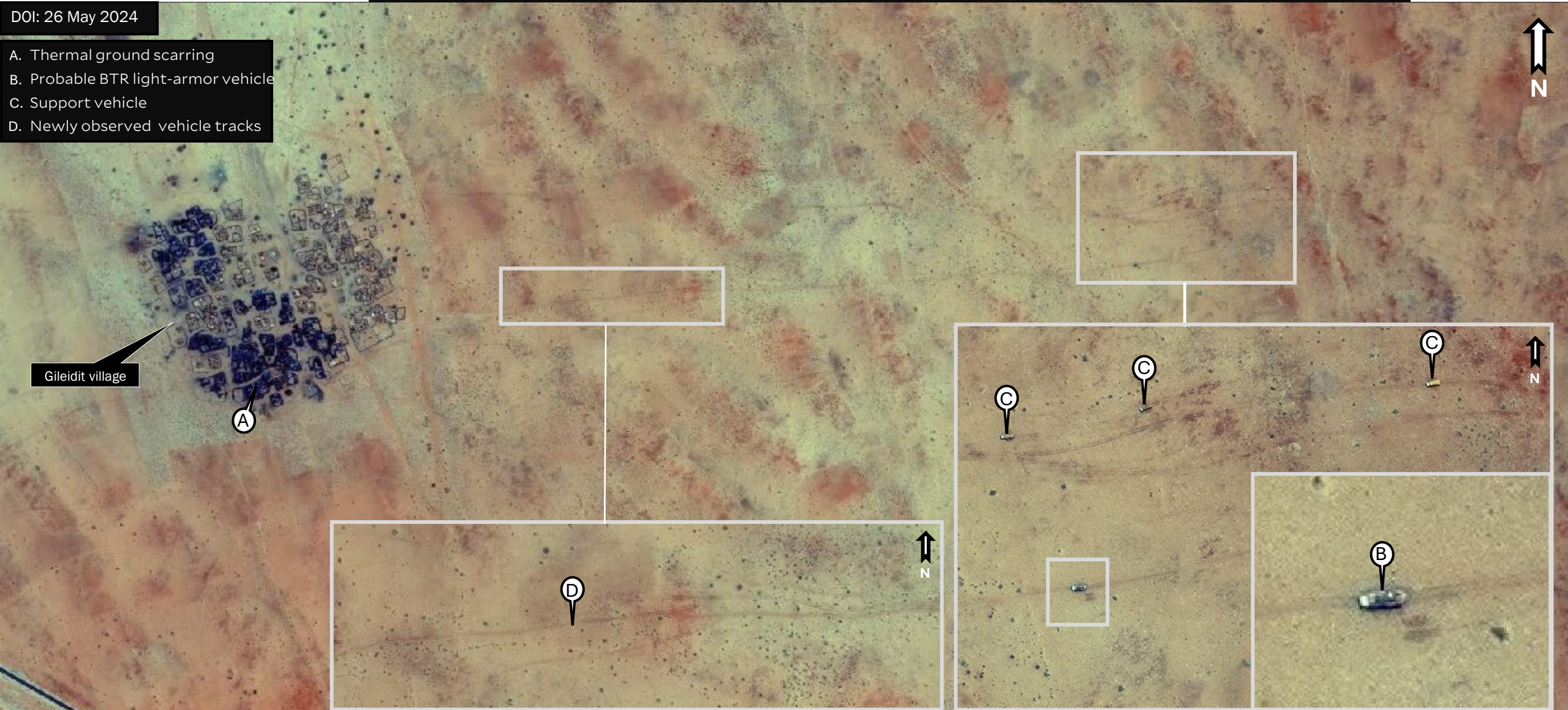
Possible RSF Elements Observed Near Gileidit Village North of El-Fasher

According to analysis of satellite imagery, one probable BTR light-armored vehicle and three support vehicles were observed 1.6km east of Gileidit village, which recently sustained severe thermal ground scarring. Additionally, newly observed vehicle tracks were observed leading between the recently burned village and the newly arrived vehicles.



DOI: 26 May 2024

- A. Thermal ground scarring
- B. Probable BTR light-armor vehicle
- C. Support vehicle
- D. Newly observed vehicle tracks



Unidentified Community 23, North Darfur

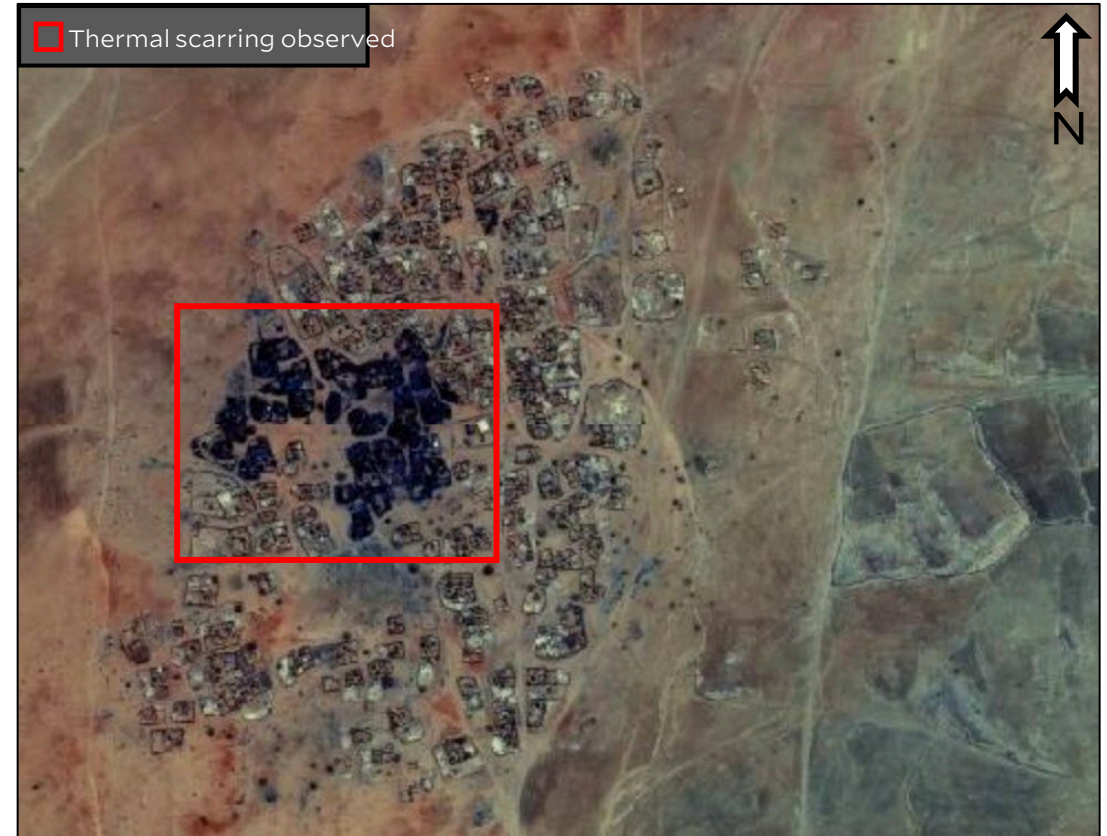
NEW THERMAL SCARRING OBSERVED BETWEEN 23-26 MAY 2024



23 May 2024 © 2024 Maxar, USG-Plus

According to analysis of satellite imagery, thermal scarring was observed between 23 and 26 May 2024, within the village 10 km north of the center of El-Fasher city.

This instance of thermal scarring is the first instance of damage observed to this community since 21 March 2024.



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Ammar Jadid, North Darfur

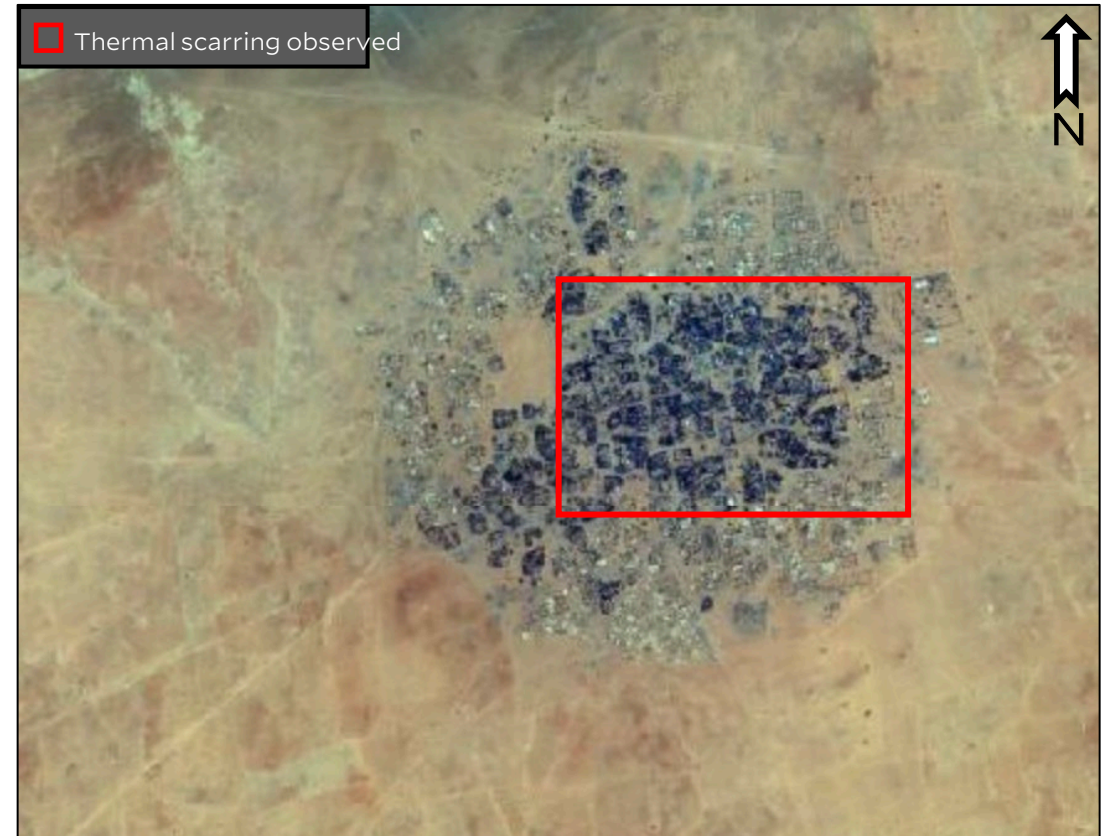
NEW THERMAL SCARRING OBSERVED BETWEEN 20-26 MAY 2024

According to analysis of satellite imagery, additional thermal scarring was observed between 20 and 26 May 2024, within the village of Ammar Jadid 28 km west of El-Fasher. Thermal scarring at the same community was previously observed between 15 and 20 April and 18 and 20 May 2024. VIIRS data was recorded at the location on the 15 April, 18 May and 27 May 2024.



25.1145456°E 13.7445487°N

20 May 2024 © 2024 Maxar, USG-Plus



25.1145456°E 13.7445487°N

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