# Continuing Bombardment in El-Fasher: Attacks on Civilian Infrastructure and IDP Camps

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Yale SCHOOL OF PUBLIC HEALTH
*Humanitarian Research Lab*

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# I. Key Findings

The Yale School of Public Health's Humanitarian Research Lab (HRL) confirms unprecedented bombardment damaging 183 structures across El-Fasher, North Darfur, including in Abu Shouk and Al Salam Internally Displaced Persons (IDP) Camps, between 10-20 October 2024. This damage is consistent with both aerial bombardment by Sudanese Armed Forces (SAF) and targeted artillery attacks by the Rapid Support Forces (RSF). Evidence consistent with civilian casualties is also observed through the expansion of cemeteries in and adjacent to Abu Shouk IDP camp.

Damage to 164 of these structures is highly consistent with aerial bombardment by SAF, concentrated in eastern residential neighborhoods and Al Salam IDP Camp. Damage to the remaining 19 structures is likely due to systematic targeting of infrastructure by RSF. Two hospitals and two markets in central and western neighborhoods of El-Fasher and Abu Shouk IDP Camp appear to have been targeted based on the precision of the strikes. Yale HRL does not assess impact points or damage nearby these structures, except for the Al-Saudi Hospital. There are multiple instances of bombardment damaging probable water access and storage points across El-Fasher; this specific damage is likely attributable to both SAF and RSF strikes. These findings align with local reports of multiple SAF airstrikes in eastern El-Fasher and RSF artillery shelling in central and western areas, including Abu Shouk IDP Camp, during this period.[1]

The bombardment assessed between 10-20 October 2024 is unprecedented in El-Fasher. Between 3 September and 20 October 2024, Yale HRL has documented at least 230 munition impacts and damage to 323 structures in El-Fasher. A plurality of the strikes is attributable to SAF, which has dropped hundreds of munitions primarily on eastern neighborhoods of El-Fasher in a month and a half. The number of damaged structures in this report is the highest documented by Yale HRL in El-Fasher to date and shows significant impact in northern neighborhoods, including Abu Shouk and Al Salam IDP Camps. Yale HRL previously documented damage to 50 structures between 3-13 September and to 82 structures between 1-6 October 2024.[2] Previous assessments were conducted without satellite imagery of most of the northern half of El-Fasher; damage to an additional eight structures was observed in these neighborhoods between 25 September and 20 October.

### Cemetery Expansion in Western Neighborhoods and Abu Shouk IDP Camp

Bombardment in El-Fasher has highly likely resulted in significant mortality. Analysis of satellite imagery shows a rapid expansion of the Al-Rahma cemetery in western El-Fasher, with approximately 79 earthen mounds consistent with burial sites newly observed between 25 September and 8 October 2024. Approximately 15 additional earthen mounds consistent with burial sites were newly observed in the Naivasha-Maqabir cemetery in Abu Shouk IDP Camp between 8-20 October 2024. Likely excavation activities appear ongoing at both cemeteries as of 8 October 2024. Local media reported that a cemetery in Abu Shouk is nearing saturation and that residents have resorted to mass graves to bury the dead.[3] Mortality in El-Fasher exceeds visible cemetery activity indicators.

### Attacks on Critical Infrastructure

**Hospitals:** Yale HRL confirms damage consistent with targeted shelling to Al-Saudi Hospital between 10 and 17 October 2024 through analysis of satellite imagery. A likely SAF infantry fighting vehicle was also observed within the hospital compound on 17 October 2024. On 13 October, the Federal Ministry of Health reported that RSF shelling damaged the hospital's water stations, killing at least one person.[4] Al-Saudi Hospital is the last remaining major hospital in El-Fasher and has previously been attacked at least six times.[5] Yale HRL also confirms damage consistent with targeted shelling to the state police hospital between 1-17 October 2024, as well as damage to the police barracks between 6-10 October 2024. Local media reported that RSF shelling on 10 October 2024 damaged the police headquarters, including the hospital, and resulted in the death of six police officers.[6] The police hospital reportedly also treats civilians and Yale HRL previously reported damage to the police hospital on 26 August 2024.[7]

**Markets:** Through analysis of satellite imagery, Yale HRL confirms conflict-related damage from targeted shelling to Naivasha market in Abu Shouk IDP Camp between 25 September and 20 October 2024, as well as to the Naivasha livestock market between 17 and 20 October 2024. Local news sources and aid organizations reported that RSF shelling damaged Naivasha market on 8 October 2024 and livestock corrals in the Naivasha market on 17 October 2024. Together, both incidents reportedly killed at least 29 people.[8] Yale HRL also identifies conflict-related damage from likely shelling at Umm Defso market in satellite imagery collected between 8 and 10 October 2024. Yale HRL previously reported conflict-related damage to the Umm Defso market between 18-20 May 2024.[9]

**Schools:** Yale HRL identifies conflict-related damage to two schools in eastern El-Fasher through analysis of satellite imagery. One school with a water provision facility displays damage consistent with an aerial strike between 6-10 October 2024; the other school was likely damaged due to a ground attack between 10-17 October 2024. The Timinat cemetery adjacent to the second school and an additional likely water storage site in eastern El-Fasher were also damaged by likely aerial bombardment in the same period.

## II. Human Security Analysis

On 13 September 2024 Yale HRL reported that El-Fasher had become a free-fire zone and that current levels of high-tempo combat activity would effectively reduce what is left of El-Fasher to rubble.[10] In the month since that report, Yale HRL has documented continuous air and artillery strikes that have decimated eastern neighborhoods and damaged critical infrastructure across the city. Displacement and civilian casualties, including fatalities, will rise as this phase of the fight for El-Fasher continues. What is left of El-Fasher's besieged civilian infrastructure — especially hospitals, water facilities, and markets — will cease to function soon if it has not already.

# III. 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.

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[1] Radio Dabanga, "انحسار المعارك المباشرة والتركيز على القصف الجوي والمدفعي" October 17, 2024, https://www.dabangasudan.org/ar/all-news/article/%D8%A7%D9%86%D8%AD%D8%B3%D8%A7%D8%B1-%D8%A7%D9%84%D9%85%D8%B9%D8%A7%D8%B1%D9%83-%D8%A7%D9%84%D9%85%D8%A8%D8%A7%D8%B4%D8%B1%D8%A9-%D9%88%D8%A7%D9%84%D8%AA%D8%B1%D9%83%D9%8A%D8%B2-%D8%B9%D9%84%D9%89, archived at https://perma.cc/EY7W-D5ZW; Darfur24, "مقابر جماعية لدفن ضحايا القصف المدفعي بالفاشر" October 17, 2024, https://www.darfur24.com/2024/10/17/%D9%85%D9%82%D8%A7%D8%A8%D8%B1-%D8%AC%D9%85%D8%A7%D8%B9%D9%8A%D8%A9-%D9%84%D8%AF%D9%81%D9%86-%D8%B6%D8%AD%D8%A7%D9%8A%D8%A7-%D8%A7%D9%84%D9%82%D8%B5%D9%81-%D8%A7%D9%84%D9%85%D8%AF%D9%81%D8%B9%D9%8A/, archived at https://perma.cc/C4K4-3TFY; HRL_MMC_044; HRL_MMC_045; International

Organization for Migration, “DTM Sudan Flash Alert: Conflict in Al Fasher (Al Fasher Town), North Darfur,” October 20, 2024, https://mailchi.mp/iom/dtm-sudan-flash-alert-conflict-in-al-fasher-al-fasher-town-north-darfur-update-050, archived at https://perma.cc/2YPW-XRTD

[2] Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. “Free-Fire Zone: Widespread Aerial and Artillery Bombardment across El-Fasher.” 13 September 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven; Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. “Confirmation of High-Tempo Aerial Bombardment in El-Fasher, 1-6 October 2024.” 07 October 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven.

[3] Darfur24, ”مقابر جماعية لدفن ضحايا القصف المدفعي بالفاشر” October 17, 2024, https://www.darfur24.com/2024/10/17/%D9%85%D9%82%D8%A7%D8%A8%D8%B1-%D8%AC%D9%85%D8%A7%D8%B9%D9%8A%D8%A9-%D9%84%D8%AF%D9%81%D9%86-%D8%B6%D8%AD%D8%A7%D9%8A%D8%A7-%D8%A7%D9%84%D9%82%D8%B5%D9%81-%D8%A7%D9%84%D9%85%D8%AF%D9%81%D8%B9%D9%8A/, archived at https://perma.cc/C4K4-3TFY

[4] Federal Ministry of Health of Sudan, ”وزارة الصحة الإتحادية تدين انتهاكات مليشيات الدعم السريع ضد المدنيين” Facebook, October 13, 2024, https://www.facebook.com/FMOH.SUDAN/posts/921421540018565?rdid=TYO2SlLzuOWZZUOB, archived at https://perma.cc/XDF2-M2DU; Sudan Tribune, “ وزارة الصحة: مقتل كادر طبي في قصف للدعم السريع على مستشفى بالفاشر“ October 13, 2024, https://sudantribune.net/article292043/, archived at https://perma.cc/5ED5-4669

[5] Médecins Sans Frontières, “Last hospital in El Fasher risks closure during intensive bombardment on the city,” August 14, 2024, https://www.msf.org/last-hospital-el-fasher-risks-closure-during-intensive-bombardment-city, archived at ; https://www.msf.org/sudan-msf-outraged-and-alarmed-over-repeated-attacks-hospitals-el-fasher-and-blockade-urgently, archived at ; https://www.msf.org/last-hospital-el-fasher-risks-closure-during-intensive-bombardment-city, archived at https://perma.cc/UG9J-3Q9B; Howarth, Caitlin N., Kaveh Khoshnood, Nathaniel A. Raymond et al. “El-Fasher: Recent Hospital Bombardment and Current Areas of Control,” 29 August 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven. Available at https://medicine.yale.edu/lab/khoshnood/publications/reports.https://perma.cc/MAT6-Q3MZ; https://www.msf.org/last-hospital-el-fasher-risks-closure-during-intensive-bombardment-city, archived at https://perma.cc/UG9J-3Q9B; Howarth, Caitlin N., Kaveh Khoshnood, Nathaniel A. Raymond et al. “El-Fasher: Recent Hospital Bombardment and Current Areas of Control,” 29 August 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven. Available at https://medicine.yale.edu/lab/khoshnood/publications/reports.https://perma.cc/UG9J-3Q9B; Médecins Sans Frontières, “Attacks on hospitals and aid blockade in El Fasher jeopardises lives,” August 1, 2024, https://www.msf.org/sudan-msf-outraged-and-alarmed-over-repeated-attacks-hospitals-el-fasher-and-blockade-urgently, archived at https://perma.cc/MAT6-Q3MZ; Howarth, Caitlin N., Kaveh Khoshnood, Nathaniel A. Raymond et al. “El-Fasher: Recent Hospital Bombardment and Current Areas of Control,” 29 August 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven. Available at https://medicine.yale.edu/lab/khoshnood/publications/reports; Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. “Tactical Changes in El-Fasher: Targeted Bombardment of Healthcare and Humanitarian Facilities” 28 June 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven.

[6] Darfur24, "مقتل 6 عناصر شرطة إثر قصف مدفعي لـ"الدعم السريع" على الفاشر" October 10, 2024, https://www.darfur24.com/2024/10/10/%D9%85%D9%82%D8%AA%D9%84-6-%D8%B9%D9%86%D8%A7%D8%B5%D8%B1-%D8%B4%D8%B1%D8%B7%D8%A9-%D8%A5%D8%AB%D8%B1-%D9%82%D8%B5%D9%81-%D9%85%D8%AF%D9%81%D8%B9%D9%8A-%D9%84%D9%80%D8%A7%D9%84%D8%AF%D8%B9%D9%85/, archived at https://perma.cc/S6MC-J4SJ

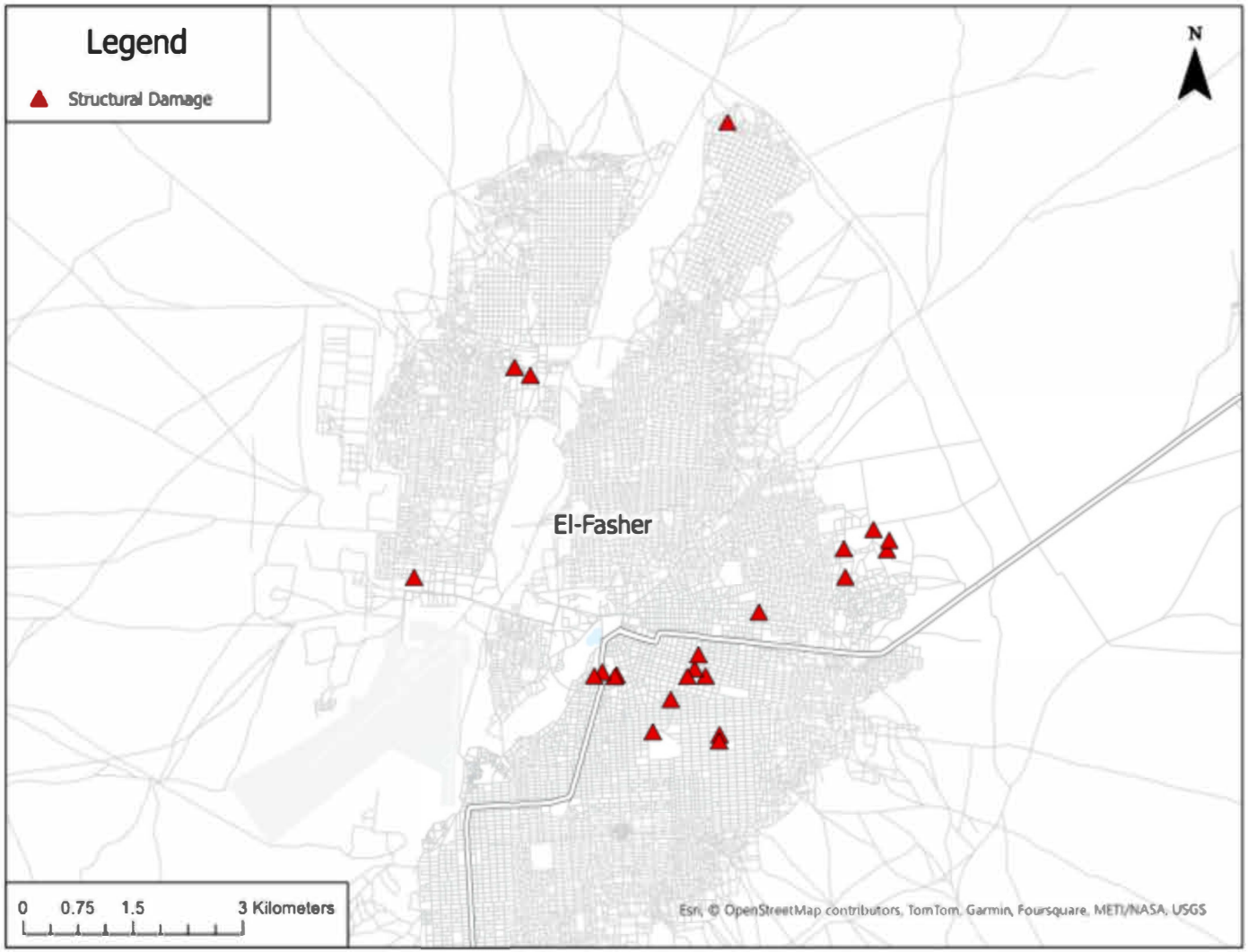
[7] Howarth, Caitlin N., Kaveh Khoshnood, Nathaniel A. Raymond et al. "El-Fasher: Recent Hospital Bombardment and Current Areas of Control," 29 August 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven. Available at https://medicine.yale.edu/lab/khoshnood/publications/reports.

[8] Darfur24, "استمرار إغلاق سوق نيفاشا بالفاشر بعد قصف أودي بحياة 19 شخصا" October 8, 2024, https://www.darfur24.com/2024/10/08/%D8%A7%D8%B3%D8%AA%D9%85%D8%B1%D8%A7%D8%B1-%D8%A5%D8%BA%D9%84%D8%A7%D9%82-%D8%B3%D9%88%D9%82-%D9%86%D9%8A%D9%81%D8%A7%D8%B4%D8%A7-%D8%A8%D8%A7%D9%84%D9%81%D8%A7%D8%B4%D8%B1-%D8%A8%D8%B9%D8%AF-%D9%82/, archived at https://perma.cc/R9GX-4V3K; Darfur Victims Support (@dvs2030), "قصف DVS تدين منظمة قوات الدعم السريع بواسطة المدفعية سوق معسكر ابوشوك للنازحين" X (formerly known as Twitter), October 7, 2024, https://x.com/dvs2030/status/1843280214241198384, archived at https://perma.cc/EV8K-Z9BJ; Darfur Victims Support (@dvs2030), "قصف قوات DVS تدوين الدعم السريع سوق معسكر نيفاشا" X (formerly known as Twitter), October 8, 2024, https://x.com/dvs2030/status/1843529798813135362, archived at https://perma.cc/UEY7-N9ER; Darfur Victims Support (@dvs2030), "قصفت قوات الدعم السريع معسكر ابوشوك للنازحين" X (formerly known as Twitter), October 17, 2024, https://x.com/dvs2030/status/1846935597216076260, archived at https://perma.cc/4C6Q-MRN3; HRL_MMC_046

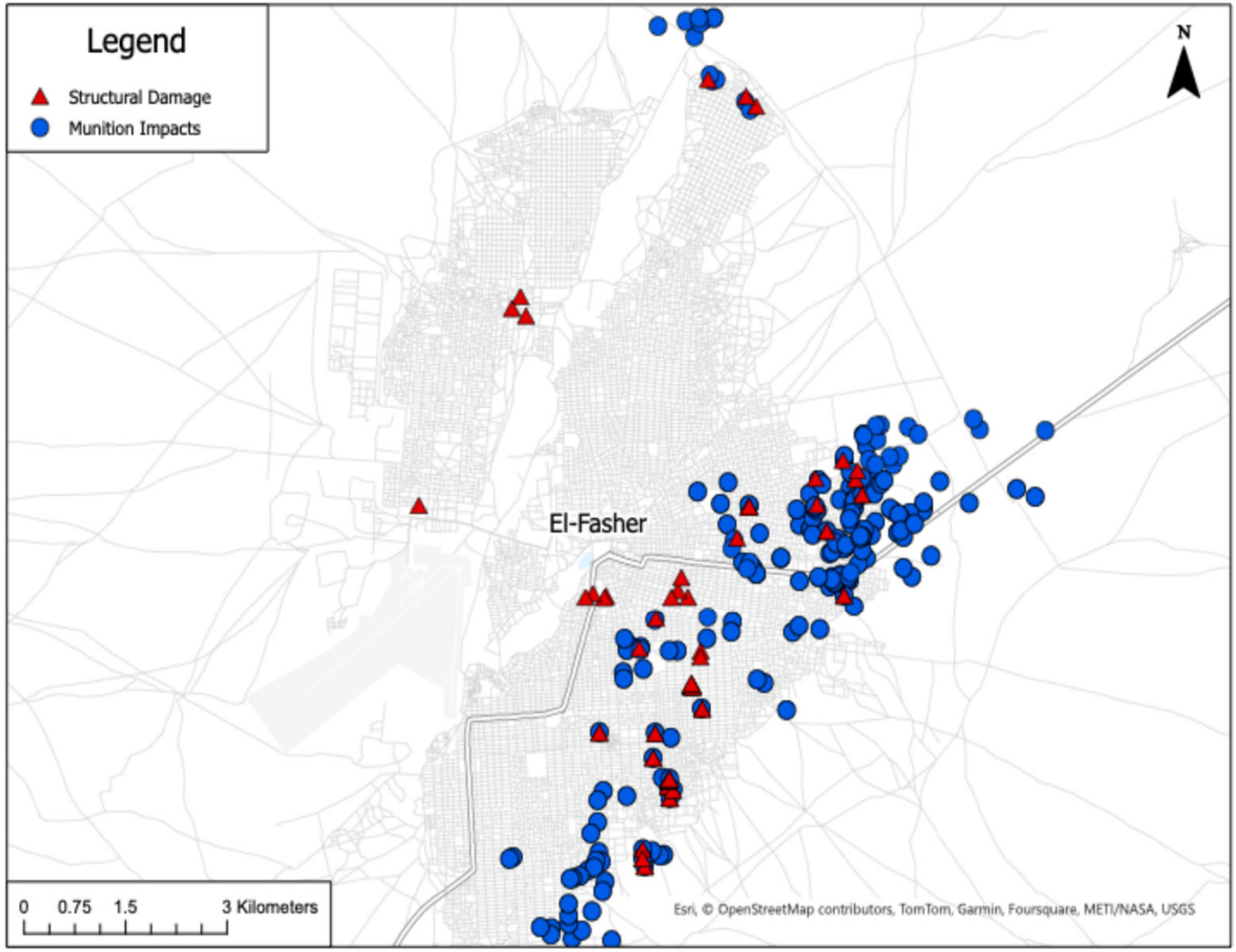
[9] Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. "RSF Advances in El-Fasher as Conflict-Related Damage Intensifies, 14-20 May 2024" 21 May 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven.

[10] Caitlin N. Howarth, Kaveh Khoshnood, Nathaniel A. Raymond et al. "Free-Fire Zone: Widespread Aerial and Artillery Bombardment across El-Fasher." 13 September 2024. Humanitarian Research Lab at Yale School of Public Health: New Haven.

Structural Damage Observed in El-Fasher
10 October - 20 October 2024



Munition Impacts and Structural Damage Observed in El-Fasher
03 September - 20 October 2024



# Al-Rahma Cemetery, Western El-Fasher

## GRAVE ACTIVITY BETWEEN 25 SEPTEMBER - 08 OCTOBER 2024

Analysis of satellite imagery shows the significant expansion of Al-Rahma cemetery adjacent to the Abu Shouk IDP Camp in western El-Fasher between 25 September and 08 October 2024. Approximately 79 newly observed mounds were identified between these dates.

Additionally, an ongoing excavation with vehicles present on the premises is observed in satellite imagery from 08 October 2024.

25 September 2024 © 2024 Maxar, USG-Plus


08 October 2024 © 2024 Planet Labs

# Naivasha-Maqabir Cemetery, El-Fasher

## GRAVE ACTIVITY BETWEEN 07-08 OCTOBER 2024

Analysis of satellite imagery shows an ongoing excavation at Naivasha-Maqabir cemetery within the Abu Shouk IDP Camp in western El-Fasher between 07 and 08 October 2024.

Imagery collected on 20 October 2024 shows the new presence of approximately 15 mounds at the area of excavation observed on 08 October 2024.


07 October 2024 © 2024 Planet Labs


08 October May 2024 © 2024 Planet Labs


20 October 2024 © 2024 Maxar, USG plus

# Al-Saudi Hospital, El-Fasher

## CONFLICT-RELATED DAMAGE AND MILITARY PRESENCE OBSERVED BETWEEN 10-17 OCTOBER 2024

Analysis of satellite imagery collected between 10 and 17 October 2024 shows conflict-related damage from targeted shelling to a building within the Al-Saudi Hospital complex. Local media reported that RSF shelling damaged the Al-Saudi Hospital on 13 October 2024.

A likely SAF infantry fighting vehicle (IFV) is observed on the ground of the hospital on 17 October 2024.

10 October 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG-Plus

Source | https://sudantribune.net/article292043/, archived at https://perma.cc/5ED5-4669

# Police Hospital, El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 01-17 OCTOBER 2024

Analysis of satellite imagery collected between 01 and 17 October 2024 shows conflict-related damage from likely targeted shelling to a structure in the police hospital complex in central El-Fasher.

01 October 2024 © 2024 Maxar, USG-Plus


17 October 2024 © 2024 Maxar, USG-Plus

# Police Barracks, El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 06-10 OCTOBER 2024

Analysis of satellite imagery collected between 06 and 10 October 2024 shows conflict-related damage from likely targeted shelling to a structure in a police barracks complex in central El-Fasher.

06 October 2024 © 2024 Maxar, USG-Plus


10 October 2024 © 2024 Planet Labs

## Naivasha Market, Abu Shouk IDP Camp

# CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 25 SEPTEMBER-20 OCTOBER 2024

Analysis of satellite imagery collected between 25 September and 20 October 2024 shows conflict-related damage from shelling to several structures in Naivasha market in the Abu Shouk IDP Camp in northwest El-Fasher.

25 September 2024 © 2024 Maxar, USG-Plus


20 October 2024 © 2024 Maxar, USG-Plus

# Naivasha Livestock Market, Abu Shouk IDP Camp

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 17-20 OCTOBER 2024

Analysis of satellite imagery shows damage from shelling to multiple structures at the Naivasha livestock market in the Abu Shouk IDP Camp in northwest El-Fasher between 17 and 20 October 2024.

16 October 2024 © 2024 Planet Labs


20 October 2024 © 2024 Maxar, USG-Plus

# Naivasha Livestock Market, Abu Shouk IDP Camp

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 17-20 OCTOBER 2024

Analysis of satellite imagery shows damage from shelling to multiple structures at the Naivasha livestock market in the Abu Shouk IDP Camp in northwest El-Fasher between 17 and 20 October 2024.

Livestock presence is observed on the grounds in imagery from 20 October 2024; it is unclear if the market is currently in use.

17 October 2024 © 2024 Planet Labs


20 October 2024 © 2024 Maxar, USG-Plus

# Umm Defso Market, El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 08-10 OCTOBER 2024

Analysis of satellite imagery collected between 08 and 10 October 2024 shows conflict-related damage from likely targeted shelling to a structure in the Umm Defso market in central El-Fasher.

08 October 2024 © 2024 Planet Labs


10 October 2024 © 2024 Planet Labs

# School, El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 06-10 OCTOBER 2024

Analysis of satellite imagery collected between 06 and 10 October 2024 shows conflict-related damage from an aerial strike to a compound wall and trees at a school with a water provision facility in eastern El-Fasher.

06 October 2024 © 2024 Maxar, USG-Plus


10 October 2024 © 2024 Planet Labs

# Timinat Cemetery and School, El-Fasher

## MUNITION IMPACT AND CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-17 OCTOBER 2024

Analysis of satellite imagery collected between 10-17 October 2024 shows a munition impact and damage to structures from likely aerial bombing to the Timinat cemetery in El-Fasher.

Adjacent to the cemetery to the north is a school with visible damage to its roof due to likely ground attack during this timeframe.


10 October 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG-Plus

# Al Salam IDP Camp, El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 25 SEPTEMBER-10 OCTOBER 2024

Analysis of satellite imagery collected between 25 September and 10 October 2024 shows damage to structures consistent with an aerial attack in the Al Salam IDP Camp in El-Fasher.

25 September 2024 © 2024 Maxar, USG-Plus


10 October 2024 © 2024 Planet Labs

# Al Salam IDP Camp, El-Fasher

## MUNITION IMPACT AND CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 25 SEPTEMBER-10 OCTOBER 2024

Analysis of satellite imagery collected between 25 September and 10 October 2024 shows a munition impact and damage to structures consistent with an aerial attack in the Al Salam IDP Camp in El-Fasher.

25 September 2024 © 2024 Maxar, USG-Plus


10 October 2024 © 2024 Planet Labs

# Al Salam IDP Camp, El-Fasher

## MUNITION IMPACT AND CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-16 OCTOBER 2024

Analysis of satellite imagery collected between 25 September and 10 October 2024 shows a munition impact and damage to structures in the Al Salam IDP Camp in El-Fasher.

10 October 2024 © 2024 Planet Labs


16 October 2024 © 2024 Planet Labs

# Eastern El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-17 OCTOBER 2024

Analysis of satellite imagery collected between 10 and 17 October 2024 shows conflict-related damage from aerial strikes to multiple structures in eastern El-Fasher.

10 October 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG-Plus

# Eastern El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-17 OCTOBER 2024

Analysis of satellite imagery collected between 10 and 17 October 2024 shows a munition impact and conflict-related damage from aerial strikes to multiple structures in eastern El-Fasher.

10 October 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG-Plus

# Eastern El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-17 OCTOBER 2024

Analysis of satellite imagery collected between 10 and 17 October 2024 shows conflict-related damage from an aerial strikes to multiple structures in eastern El-Fasher.

10 October 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG-Plus

# Eastern El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-17 OCTOBER 2024

Analysis of satellite imagery collected between 10 and 17 October 2024 shows conflict-related damage to multiple structures in eastern El-Fasher.

10 October 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG-Plus

# Eastern El-Fasher

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 10-16 & 16-17 OCT 2024

Analysis of satellite imagery collected between 10 and 16 October 2024 shows conflict-related damage consistent with aerial bombardment to multiple structures in eastern El-Fasher. Black smoke emitting from a munitions impact to structures is visible in the 16 October 2024 image.

Imagery collected on 17 October shows damage to structures located where smoke was observed on 16 October 2024.


10 October 2024 © 2024 Planet Labs

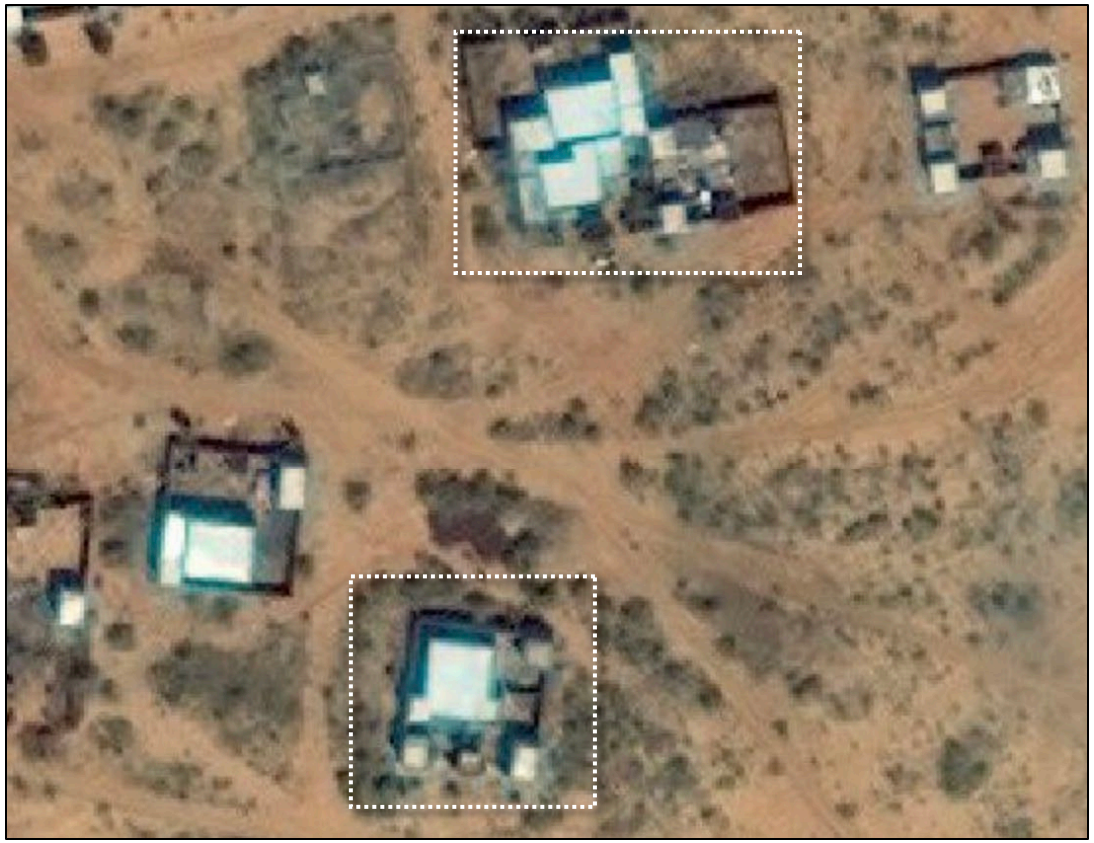

16 October May 2024 © 2024 Planet Labs


17 October 2024 © 2024 Maxar, USG plus

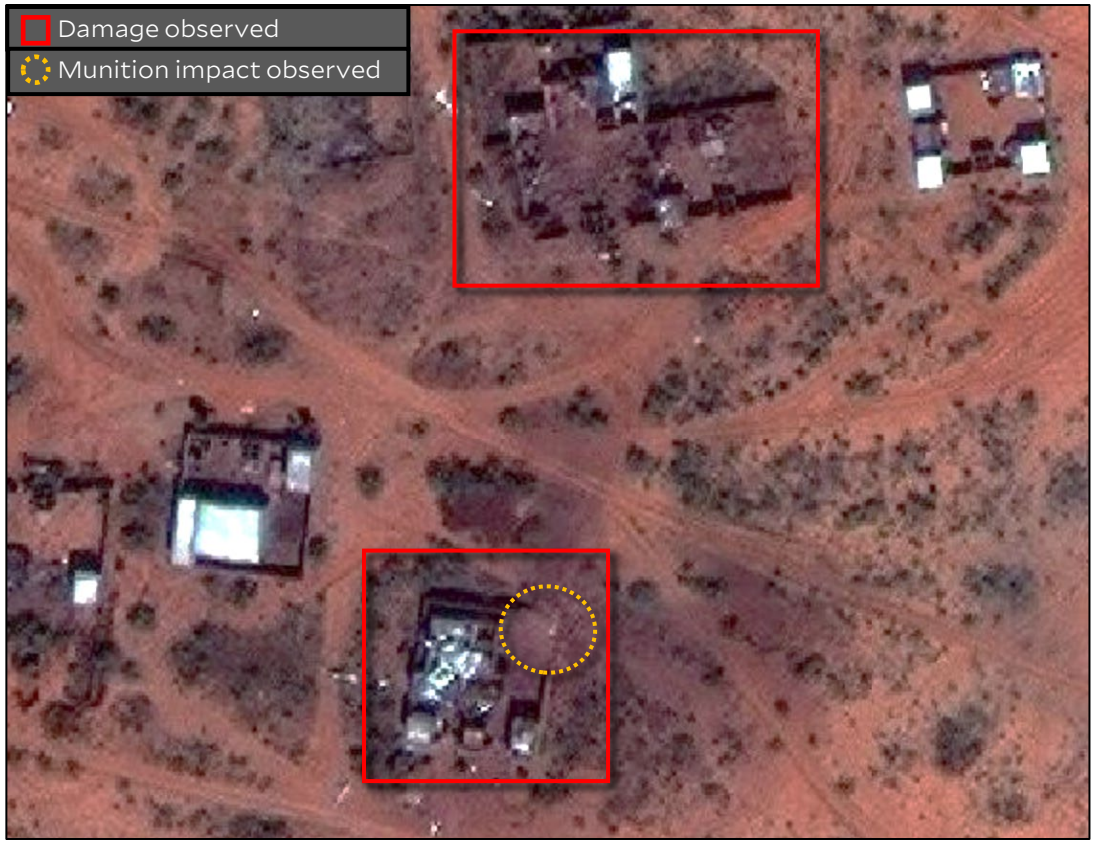
# Eastern El-Fasher

Analysis of satellite imagery collected between 17 and 20 October 2024 shows conflict-related damage from aerial strikes to multiple structures in eastern El-Fasher.

## CONFLICT-RELATED DAMAGE OBSERVED BETWEEN 17-20 OCTOBER 2024



17 October 2024 © 2024 Maxar, USG-Plus

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