

Single event investigation

Devastation in Karen State

Airstrikes on a Monastery and mining facilities, Kyainseikgyi Township

Report by MYANMAR WITNESS FELLOWSHIP PROGRAMME, 19 May 2023

Key Events Details

- **Location of Incident**
 - Dhamma Rakkhita Monastery (ဓမ္မရက္ခိတဘုန်းကြီးကျောင်း), Mae Kasa village (မက္ကသာရွာ), Kyainseikgyi township (ကြာအင်းဆိပ်ကြီးမြို့နယ်), Karen state (ကရင်ပြည်နယ်) [15.389233, 98.381778].
 - Thabyu Lead Mine (သပြေသတ္တုမိုင်း) Blocks 5 and 6 [15.606206, 98.410007].
- **Date/Time of Incident:**
 - Around 0300 hours on 6 October 2022 (monastery airstrike)
 - 16 November 2022 (mine airstrike)
 - 25 January 2023 (mine airstrike)
- **Alleged Perpetrator(s) and/or Involvement:**
 - State Administrative Council (SAC)
 - Myanmar Air Force (MAF)
 - Karen National Liberation Army (KNLA)
 - People's Defence Forces (PDF)
- **Conclusion:**
 - Myanmar Witness has investigated claims related to five airstrikes in Kyainseikgyi township following [clashes](#) between KNLA and PDF joint forces and the SAC.
 - One airstrike reportedly [damaged](#) the Dhamma Rakkhita Monastery (ဓမ္မရက္ခိတဘုန်းကြီးကျောင်း) in Mae Kasa village (မက္ကသာရွာ) and another four

allegedly hit the [Thabyu Lead Mine](#) (သပြေသတ္တုမိုင်း).

- Myanmar Witness has geolocated imagery showing damage to the sites following the airstrikes on 6 October 2022, 16 November 2022 and 25 January 2023.
- Myanmar Witness has identified user-generated content (UGC) which purports to show bomb remnants consistent with those employed by the MAF and analysed a statement made by an SAC official on 16 November which confirms that airstrikes had taken place in the state.
- Both locations are important within the community. The Dhamma Rakkhita Monastery (ဓမ္မရက္ခိတဘုန်းကြီးကျောင်း) is a place where the local people [hold](#) Buddhist rituals, and it is a site of refuge for the people of Mae Kasa village and surrounding villages due to the ongoing conflict. The lead mine provides a source of employment and income for the townships inhabitants.
- [Khit Thit Media](#) reported that three people working in the mines were killed during the alleged airstrike on 16 November 2022.

Executive Summary

Since September 2022, Myanmar Witness has been monitoring events in Kyainseikgyi township, which has been the site of clashes between the KNLA and Myanmar military. This report investigates claims that the Myanmar Air Force (MAF) carried out several airstrikes in the township between October 2022 and January 2023.

On 6 October 2022, at around 0300 hours, a military fighter jet allegedly bombed Mae Kasa village (မက္ကသာရွာ), about 10 kilometres east of the Phayar Taung military post which had been captured by the KNLA a few weeks earlier. Myanmar Witness has identified and geolocated imagery which shows significant damage to a building in the Dhamma Rakkhita Monastery grounds (ဓမ္မရက္ခိတဘုန်းကြီးကျောင်း). Additionally, satellite imagery was used to verify a date window within which damage to the roof occurred. The monastery grounds had provided a site of refuge for internally displaced people (IDP).

During November and December 2022, and January 2023, KIC News reported that the MAF carried out [four air strikes](#) on the Thabyu mining pits, about 22 kilometres north of Mae Kasa village, killing at least three civilians. Myanmar Witness has identified and geolocated images of the destruction of structures in the area, specifically related to the 16 November airstrike and the 25 January airstrikes.

On 16 November 2022, General Zaw Min Tun, the head of the State Administrative Council's (SAC) press team, confirmed that a MAF offensive to 'maintain the security of the region' took place in the township. This confirms that the MAF was operating aircraft in the area and provides added weight to allegations of other airstrikes between October 2022 and January 2023.

Myanmar Witness has provided in-depth reporting on the nationwide use of airstrikes by the MAF in the [Eyes on the Sky](#) report, and will continue to monitor and investigate further incidents.

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Background and Context

According to online news sources including [Myanmar Now](#) and [Khit Thit Media](#), on 28 September, following clashes between the KNLA and Myanmar military, a joint force of the KNLA and the PDF attacked and captured the Phayar Taung military post (ဘုရားတောင်စခန်းကုန်း) situated on the road connecting Kyainseikgyi town (ကြာအင်းဆိပ်ကြီးမြို့) and Phayar Thone Su town (ဘုရားသုံးဆူမြို့). More than 10 SAC troops (exact number differs between 11 and 13) were reportedly killed, including the deputy battalion commander of the Myanmar military, and their weapons were seized.

The Karen National Union (KNU) [reported](#) that the Myanmar Air Force (MAF) bombed the Dhamma Rakkhita Monastery in Mae Kasa village at around 0300 hours on 6 October 2022, severely damaging a building. The monastery was previously used by local charities, for Shinbyu ceremonies, and religious festivals. It was also used to house internally displaced people (IDP) from Mae Kasa and surrounding villages. The individuals who had been taking refuge in the Dhamma Rakkhita Monastery have been forced to relocate to Phayar Thone Su town and nearby places due to the frequent sighting of fighter jets, according to [Khit Thit Media](#).

The township remained a site of tension over the next few months. Between November 2022 and January 2023, three people were killed, eight were injured, and buildings were damaged during MAF airstrikes on the mining blocks of Thabyu Mine (သပြေသတ္တုမိုင်း), about 22 kilometres north of Mae Kasa village (မက္ကသာရွာ), according to [reports](#) by Khit Thit Media.

There were also reports of ground clashes on the morning of 4 January 2023, when the KNLA and PDF joint forces attacked Light Infantry Battalion (LIB) 32 and LIB-283, based in Kyainseikgyi township, and set a number of buildings on fire, according to [Mizzima News](#).

Methodology

Myanmar Witness follows a methodology of digital preservation and rigorous, replicable analysis. Digital evidence is collected and archived in a secure database and preserved with hashing to confirm the authenticity and prevent tampering.



Geolocation is conducted using a varied array of open-source online tools such as Google Earth to match satellite imagery with visual features identified in the footage or images. Geolocations are crosschecked and peer-reviewed before they are credited as verified.

Chronolocation is typically conducted by analysing user-generated content (UGC) timestamps to determine hard end limits for the possible time frame. This is followed with contextual and visual analysis, for example comparing visible aspects against known indicators such as weather events, shadows or other phenomena which may be indicative of the time in which a piece of UGC was captured. Shadow angle is determined after geolocation and its orientation is used to determine the position of the sun, and thus, time. Chronolocation is included as specifically as possible without incorrectly attributing time in order to account for limitations with some of these methods.

If dealing with unverified information, such as witness testimony or outside reporting, Myanmar Witness has made it known that these inclusions are claims and have not been independently verified by Myanmar Witness. Following stringent ethical standards, Myanmar Witness has obscured identifying information about individuals involved, censored private information and images where appropriate, removed links to private individual accounts and archived said information securely. Where appropriate, Myanmar Witness has also blurred or excluded graphic imagery.

Limitations

The information obtained by Myanmar Witness comes from an area of ongoing conflict so it is assumed that there is a selection bias, due to factors including fear of repercussions for uploading, unavailability of information from official sources and availability, or lack thereof, the internet - which has also restricted the amount of media available to be verified by Myanmar Witness. Myanmar Witness strives to eliminate as much of this bias as possible by using both focussed and broad search terms in multiple languages across open sources as well as identifying media from multiple sources, such as pro and anti-regime news and social media.

Location Map

According to Radio Free Asia's [reporting](#), Thabyu mining operations are located in Kyainseikgyi township within the area controlled by the KNU Brigade-6, which the SAC spokesperson confirmed to be targeting with the airstrikes.

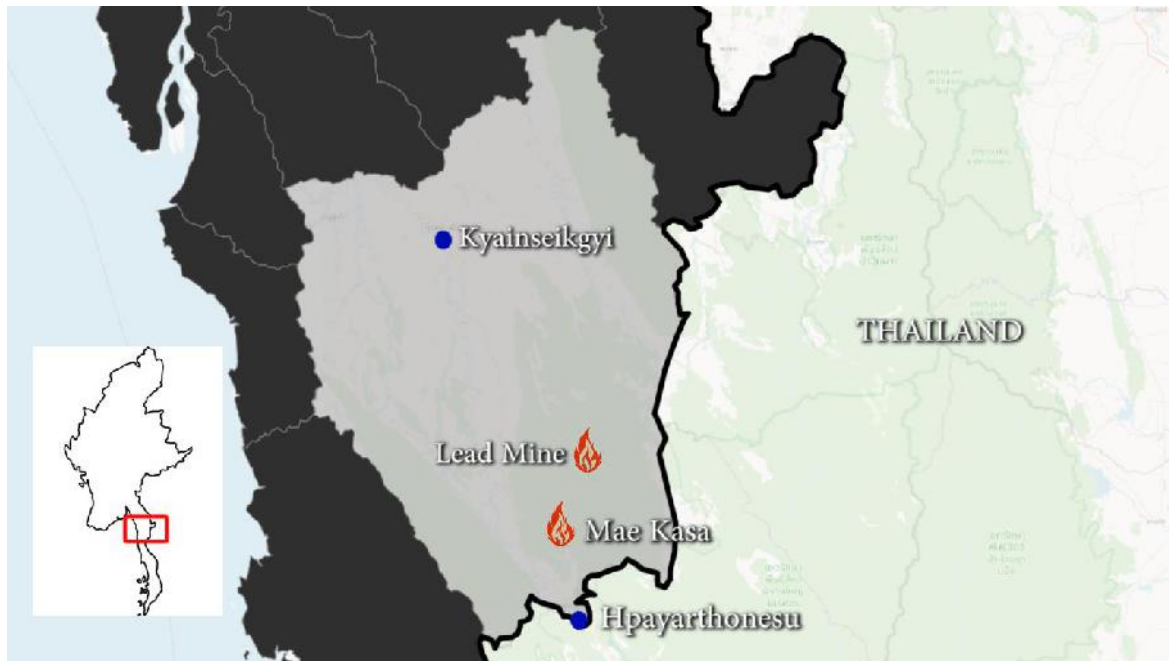


Figure 1: Location map of Kyainseikgyi township, Mae Kasa village, and the Thabyu Lead Mine.

Timeline

KYAINSEIKGYI TIMELINE

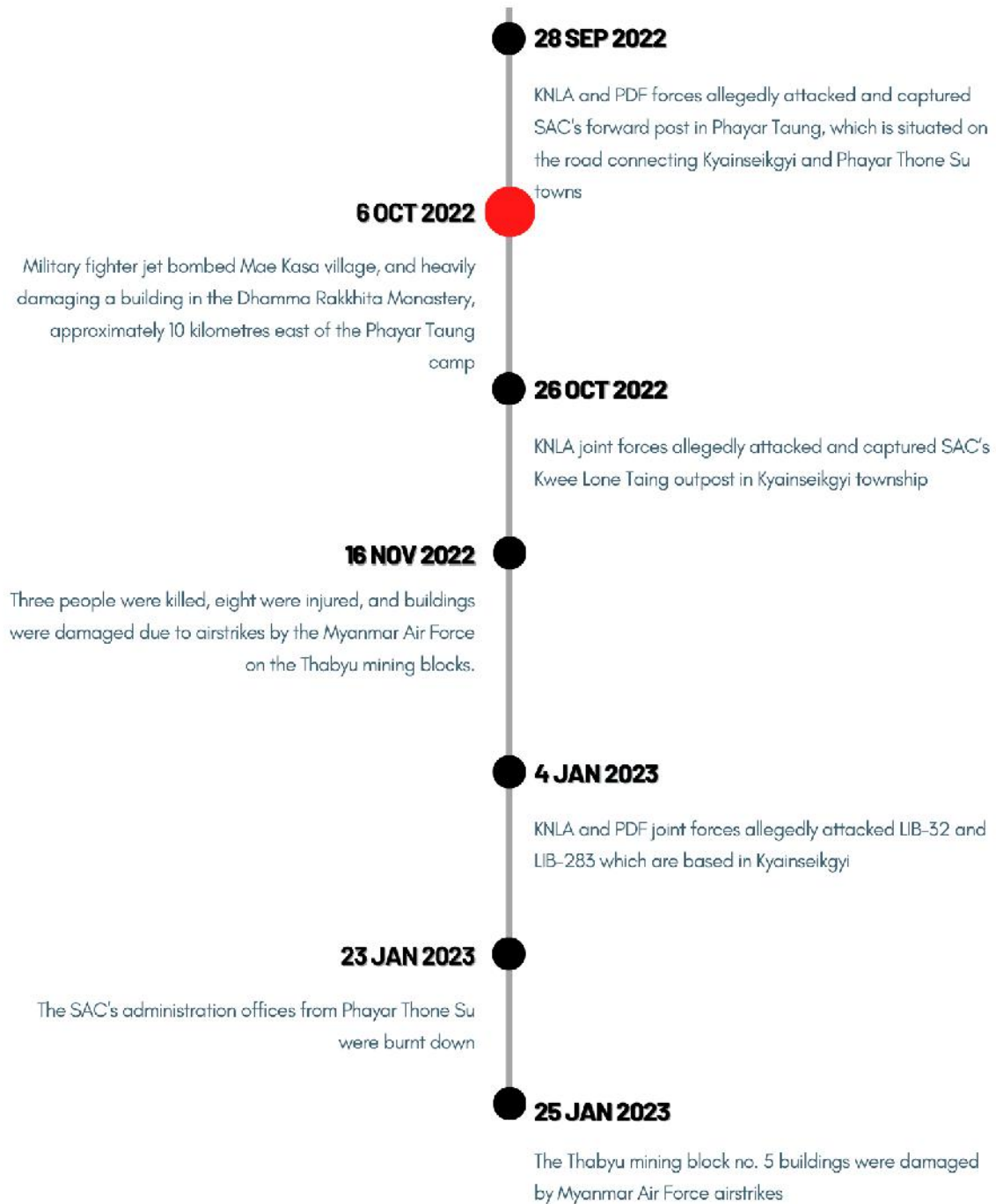


Figure 1: Timeline of reported airstrikes and clashes in Kyainseikgyi township between late September 2022 and January 2023.

The investigation

Myanmar Witness has investigated claims of MAF airstrikes following clashes between the Myanmar military and joint KNLA and PDF forces in Kyainseikgyi township, which destroyed religious buildings and commercial mining facilities, and left a number of individuals wounded or dead.

Dhamma Rakkhita Monastery

The Dhamma Rakkhita Monastery — a site of significance in the local community as it had previously housed IDPs and been used by local charities, for Shinbyu ceremonies, and religious festivals — was allegedly hit with an airstrike on 6 October 2022.

Geolocation of the airstrike

Myanmar Witness verified the location of the Dhamma Rakkhita Monastery in Mae Kasa village using old photographs and Google Earth satellite images.



Figure 2: The Dhamma Rakkhita Monastery in Mae Kasa village is a place where locals hold religious ceremonies. Source: Capture from a [video](#) of a religious ceremony held at the Dhamma Rakkhita Monastery in October 2019.



Figure 3: (Left) The Dhamma Rakkhita Monastery before the attack (Source: [Mon News](#)). (Right) Imagery of damage after the airstrike (Source: [Khit Thit Media](#)).



Figure 4: (Left) Still taken from a [video](#) footage of the Dhamma Rakkhita Monastery in October 2019.
(Right) Satellite photo of the Dhamma Rakkhita Monastery [15.389255, 98.381688].

Chronolocation of the airstrike

To confirm the date of the airstrike on the monastery, Myanmar Witness compared Sentinel Hub satellite imagery from before and after the alleged airstrike date of 6 October 2022. Satellite imagery showing a clear view of the ground was only available on 6 September and 6 October 2022 (largely due to the presence of clouds on other dates).

A comparison of this imagery reveals damage to the monastery roof. On 6 September 2022, the roof was mostly red, while on 6 October 2022 a large area of the roof appears to have turned grey in the imagery. These findings are consistent with reports that the monastery was damaged by airstrikes in the early morning of 6 October 2022.

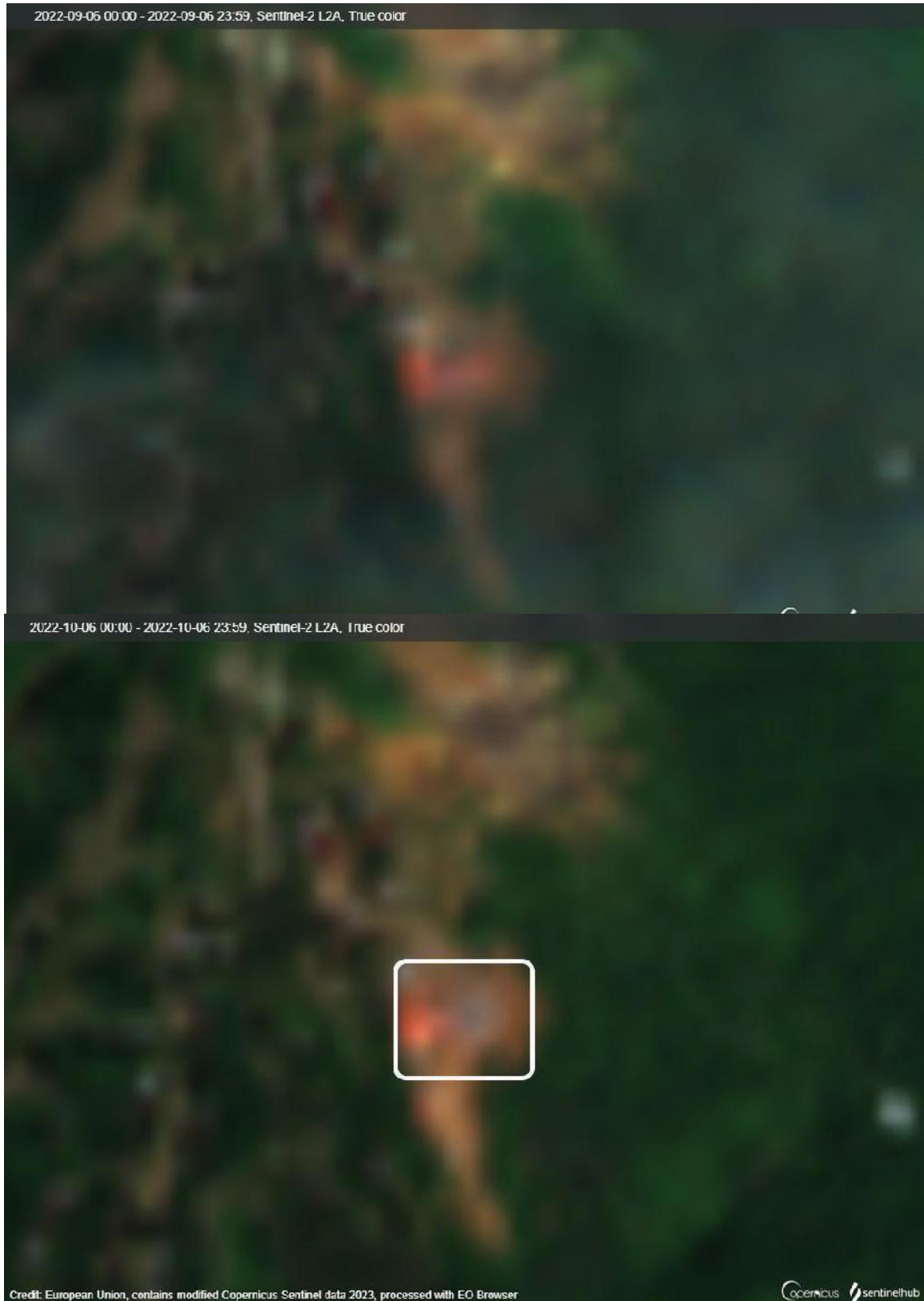


Figure 5: The Sentinel Hub satellite image shows the red roof (top, 6 September) changing to grey (bottom, 6 October) at the location of the Dhamma Rakkhita Monastery [15.389255, 98.381688].

Munitions found at the scene

According to the town's inhabitants, as reported by [KIC](#), weapon fragments were found inside the Dhamma Rakkhita Monastery after the attack. The exact type of munition alleged to have been used is not confirmed; however, analysis conducted by Myanmar Witness shows that the fragment is likely from 250-pound or 500-pound bombs. Myanmar Witness has identified reports that these types of bombs have been frequently deployed by the MAF in Karen state.



Figure 6: (Left) Suspected bomb fragments found near the monastery after the airstrike (Source - [KIC](#)). (Right) Bombs commonly used by the SAC in air strikes which are suspected to be the bomb used (Source - [Myanmar Military Online Study](#)).

Thabyu mining site

Social media users and online news media organisations have reported that four airstrikes have occurred at the Thabyu mine site, between November 2022 and January 2023. The site is 21 kilometres north of Mae Kasa village (the site of the monastery). During November 2022, airstrikes killed three people, injured eight people, and damaged multiple buildings, according to news reports by the [Khit Thit Media](#). For example, on 16 November 2022, Khit Thit Media reported that an airstrike destroyed part of 'block 6' of the mine site on 16 November 2022. Myanmar Now [reported](#) another airstrike on 1 December 2022. On 25 January 2023, KIC news [reported](#) that the MAF bombed 'block 5' at Thabyu mine, for a total of four times across the mining operations.

Geolocation

On the same dates as the reported airstrikes to block 5 and block 6 of the Thabyu mine, images circulated on social media, posted by individuals and news agencies, showing extensive damage to buildings. Myanmar Witness geolocated the images and verified that they took place at the Thabyu mine.

Images released online by news source [Khit Thit Media](#), allegedly following the airstrike on 16 November 2022, show extensive damage to the mine site. However, Myanmar Witness has been unable to geolocate or chronolocate these images with confidence.



Figure 7: The scene after the airstrike against block 6 of the Thabyu Mine (သံဂျိရဲငံး) reportedly on the morning of 16 November 2022. Location of the damages is verified with [Peakvisor](#) [15.619399, 98.406799] (Source: [Khit Thit Media](#)).

Images released following the alleged 25 January airstrike show damage to another section of the mine site. The location of the damaged buildings in ‘block 5’ was confirmed using [Peakvisor](#), which was used to match the surrounding mountains. However, Myanmar Witness was unable to chronolocate the images with confidence.

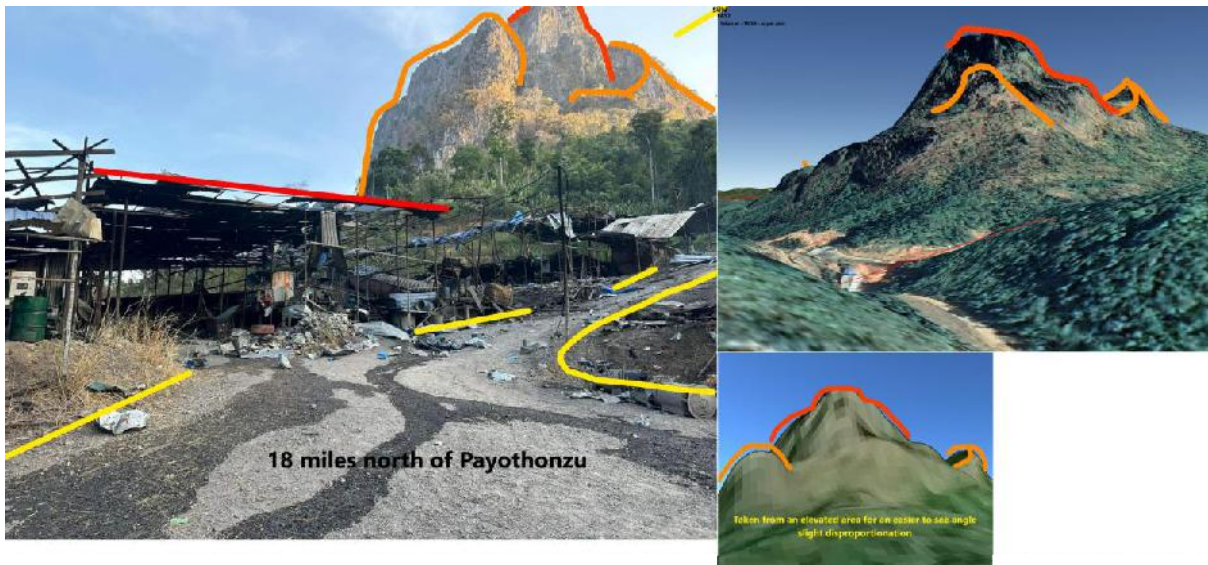


Figure 8: The location of block 5, reportedly attacked on 25 January 2023, can be confirmed by comparing it with the mountainous terrain seen on Google Earth and Peakvisor [15.606206, 98.410007]. (Source redacted due to privacy/safety concerns).

The damaged buildings were also checked and verified against [Google Earth](#) satellite imagery.



Figure 9: Confirmation of the geolocation of the damages to block 5 of Thabyu Mine [15.606206, 98.410007].
 (Source redacted due to privacy/safety concerns)

Chronolocation

The reports from [The Irrawaddy](#) and [Khit Thit Media](#) claim that an airstrike happened on 16 November 2022. Myanmar Now [reported](#) another airstrike to the same mining operation allegedly happened on 1 December 2022. [KIC](#), [Karen News](#) and [BNI Online](#) claimed that another airstrike, allegedly the fourth one, happened on 25 January 2023. However, the dates of the airstrikes are not possible to be verified due to lack of relevant evidence. The affected location is also too small for the damages to appear visually on Sentinel Hub.

Alleged Perpetrators

In a press conference on 16 November 2022, SAC spokesperson General Zaw Min Tun said that an airstrike was carried out for security purposes, according to [reports](#) by state-owned news agency Myawaddy. General Zaw Min Tun said that the attacks on the mine were aimed at KNLA brigade-6. However, [The Irrawaddy](#) reported that civilians working in Thabyu mine 'block 6' were injured and killed during the airstrike on 16 November (figure 10).

Although the statement doesn't allow for full verification of all reported airstrikes in the area, it confirms the MAF's presence and operations in the vicinity. This, coupled with the fact that only the MAF has access to military aircraft, provides weight to these allegations.



Figure 10: Civilians who were killed by the military airstrike on block 6 of Thabyu Mine on the morning of 16 November 2022 according to the Irrawaddy (Source: The Irrawaddy Burmese Edition).

Analysis of Aircraft Range

According to a [Telegram channel](#) that monitors and reports military flight activities, the MAF mainly uses the Hmawbi (မော်ဘီ) and Taungoo (တောင်ငူ) air bases for airstrikes against targets in Karen state.

Based on the distance between these air bases and Mae Kasa village, Myanmar Witness calculated the time required for aircrafts to reach Mae Kasa. Figures 12, 13, and 14 show the air bases which are often used by the MAF, the types of fighter aircraft, and the duration of the flight.

As Taungoo and Hmawbi air bases are controlled by the MAF, Mae Kasa village is within range, and there are no other groups with access to military aircraft, it can be concluded that the MAF is likely to be the perpetrator of the air attacks on the monastery in Mae Kasa and attacks on the nearby Thabyu mines.

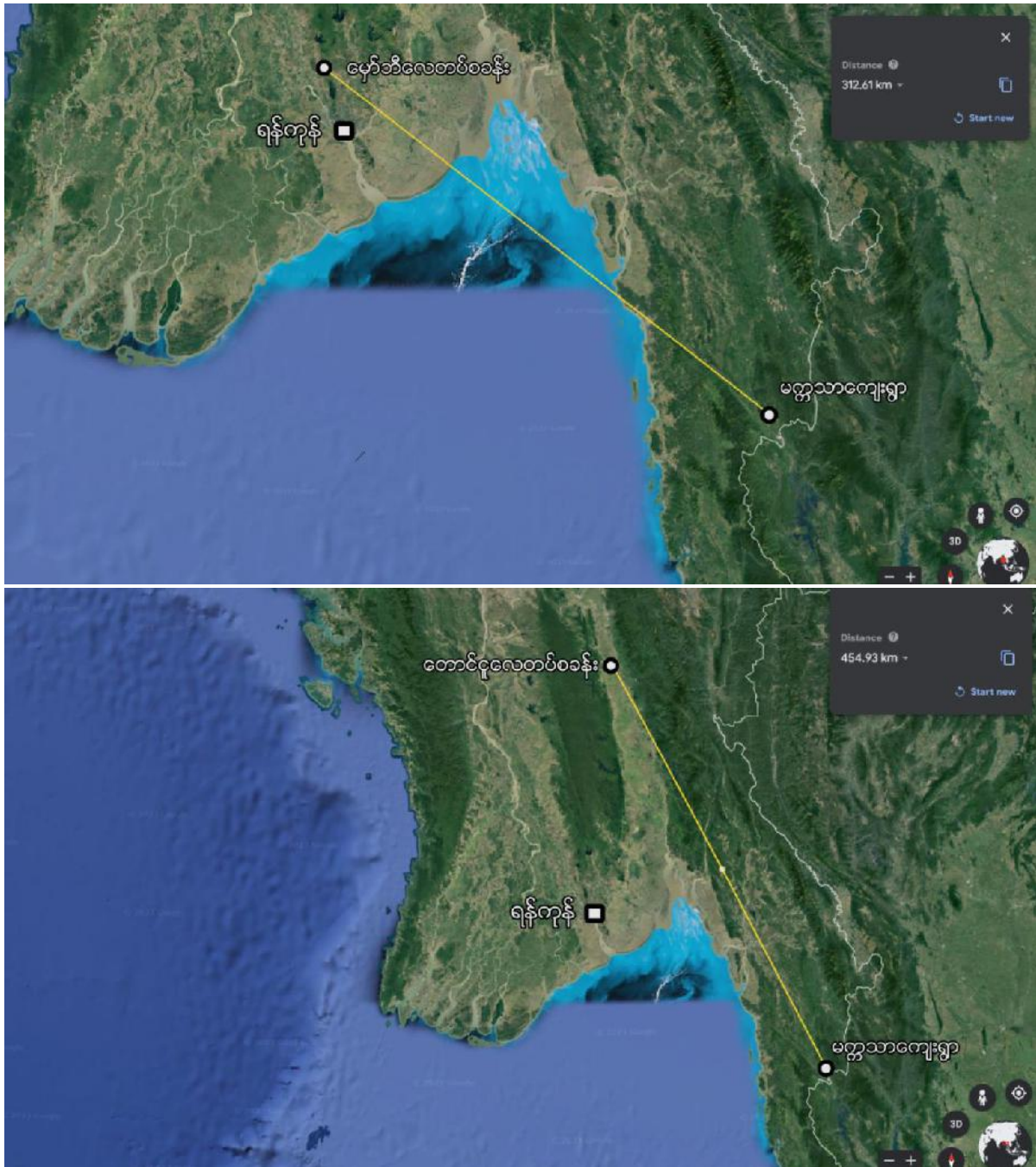


Figure 11: Measuring the distance between air bases and the location of air strikes. (Top) Hmawbi Air Base and Mae Kasa village (312 kilometres) and (Bottom) Taungoo Air Base and Mae Kasa village (454 kilometres).

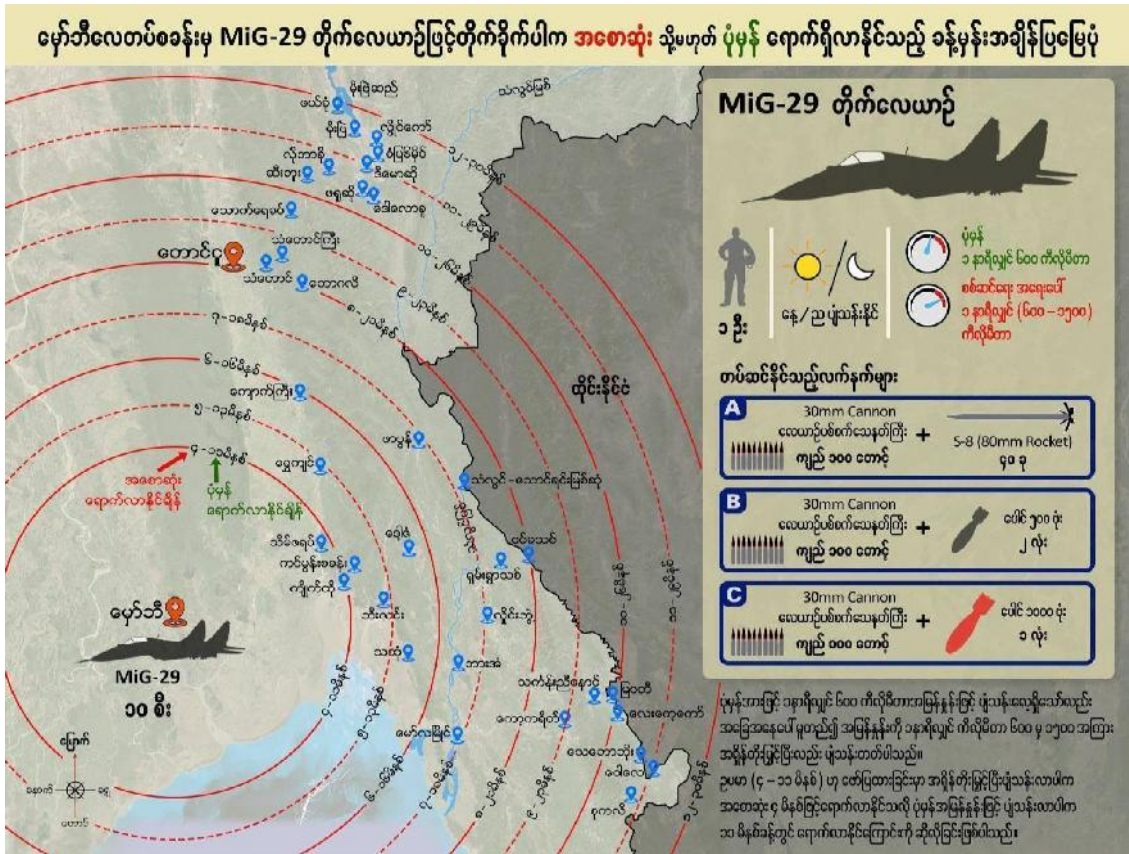


Figure 12: A MiG-29 will take 12 to 31 minutes to reach Mae Kasa village from Hmawbi airbase.

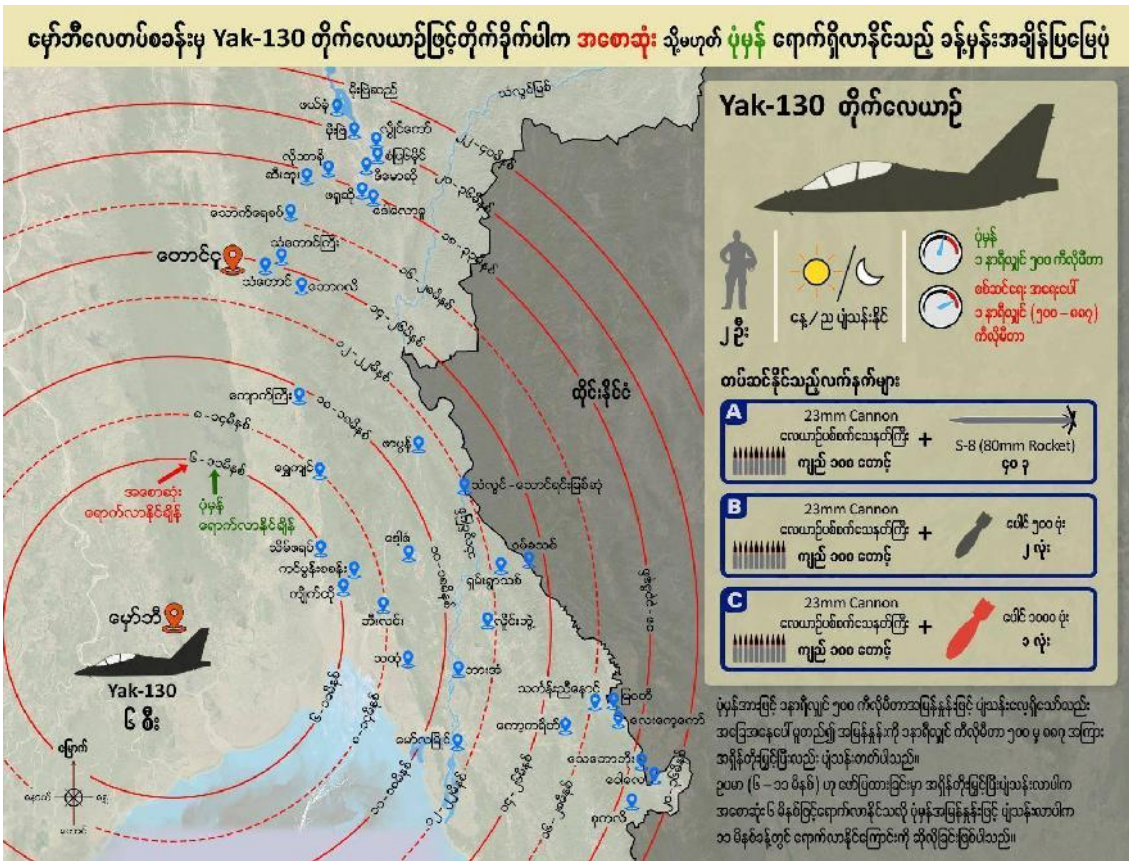


Figure 13: A Yak-130 will take between 21 to 37 minutes to reach Mae Kasa village from Hmawbi airbase.

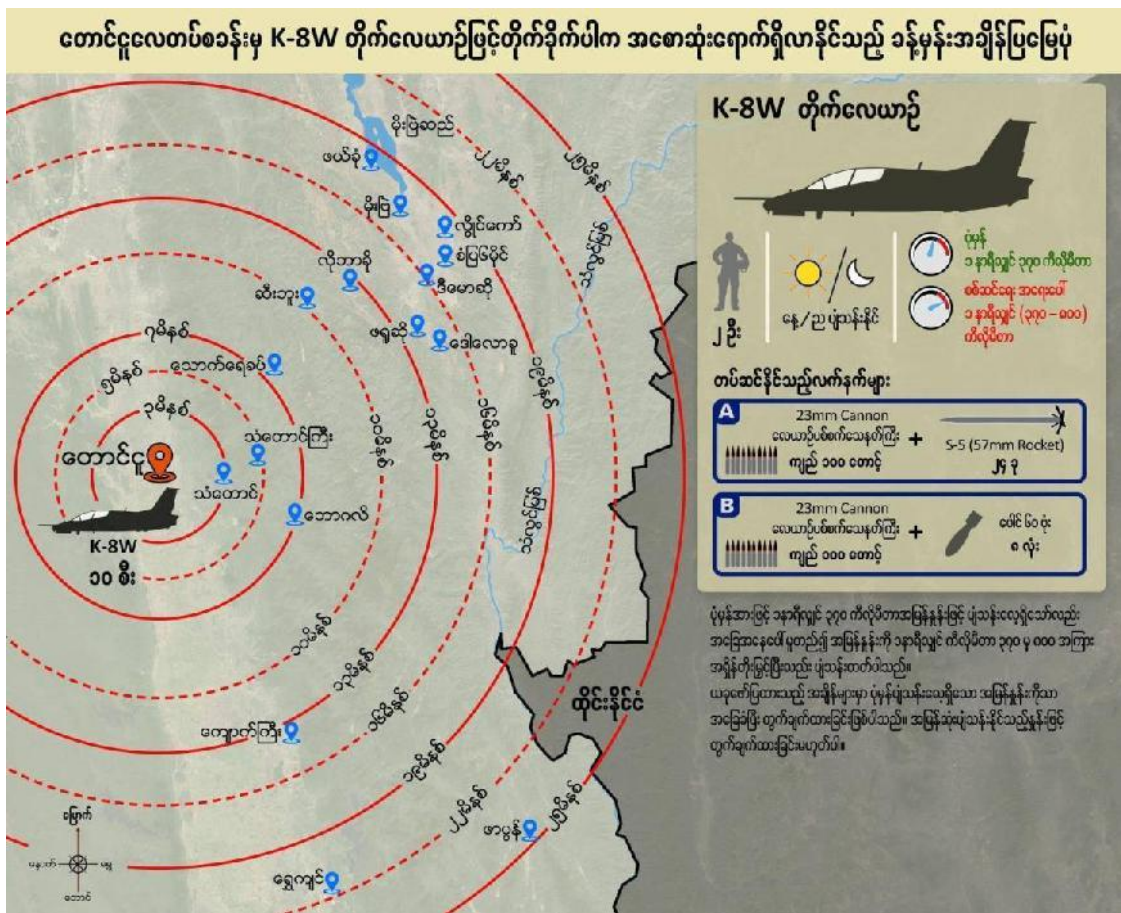


Figure 14: A K-8W will take between 34 to 73 minutes to reach Mae Kasa village from Taunggyi air base.

Conclusion

Through an analysis of open source UGC, Myanmar Witness has verified damage to Dhamma Rakkhita Monastery and parts of the Thabyu Mine facility, allegedly caused by a series of MAF airstrikes.

The images showing damage to the monastery were geolocated to verify the location, and satellite imagery was analysed in order to narrow down the window of time within which the damage occurred. Similarly, images showing damage to the mines were identified; however, chronolocation to verify when the images were captured was not possible with a high enough level of confidence. Despite this, a statement by the SAC provided further information to suggest the MAF was responsible for the damage from at least one of the airstrikes. Remnants of weaponry used by the MAF were also found at the monastery.

Although not all of the airstrikes could be fully verified, Myanmar Witness believes it is likely that the MAF were responsible for these airstrikes following clashes between SAC forces and local defence groups.

Myanmar Witness monitors airstrikes in Myanmar and has published multiple reports on their use in civilian areas, guides on the MAF's aircraft inventory, and the MAF air bases. For example, Myanmar Witness has published reports on airstrikes in the [Lay Kay Kaw](#) (လေးကျွန်း) region, also in Karen state. Myanmar Witness has provided in-depth reporting on the nationwide use of airstrikes by the MAF in the [Eyes on the Sky](#) report, and will continue to monitor and investigate further incidents.

Abbreviations List

Karenni Nationalities Defence Force	KNDF
Karen National Liberation Army	KNLA
Karen National Union	KNU
People's Defence Force	PDF
Light Infantry Battalion	LIB
State Administration Council	SAC