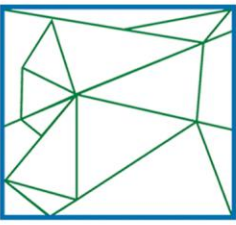


سوريون
من أجل
الحقيقة
والعدالة
Syrians
For Truth
& Justice



bellingcat



SYRIAN ARCHIVE

February 2018



Six Months On! Medical Facilities in Syria Still Under Fire

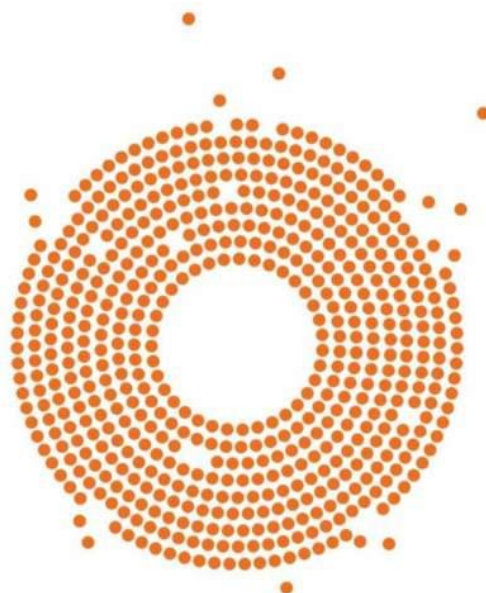
Joint Report: Syrian Archive, Bellingcat, and Syrians for Truth and Justice/STJ



About Syrian Archive

The [Syrian Archive](#) is a Syrian-led initiative striving to promote sustainable peace and respect for human rights within Syrian society through facilitating justice and accountability efforts. This includes evidence gathering and documentation of incidents; the acknowledgment that war crimes and human rights violations have been committed by all parties to the conflict; the identification of perpetrators to end the cycle of impunity; and the development of a process of justice and reconciliation. Through collecting, verifying, curating and investigating visual content, the Syrian Archive aims to preserve data as a digital memory to establish a database of human rights violations, and to act as a tool for legally implementing justice and accountability efforts as concept and practice in Syria.

Since its founding in 2014, the Syrian Archive has collaborated with organisations including Human Rights Watch (HRW), Amnesty International, University of California at Berkeley and the University of Essex, Witness, Bellingcat and various agencies of the United Nations (UN), specifically the Independent International Commission of Inquiry on the Syrian Arab Republic.



SYRIAN ARCHIVE



About Bellingcat

[Bellingcat](#) uses open source and social media investigation to investigate a variety of subjects, from Mexican drug lords to conflicts being fought across the world. Bellingcat brings together contributors who specialise in open source and social media investigation, and creates guides and case studies so others may learn to do the same.

bellingcat

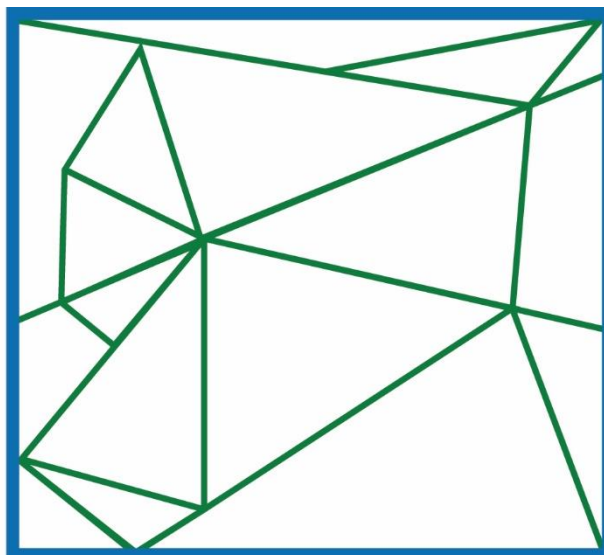
About Syrians for Truth and Justice/STJ

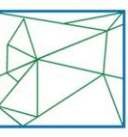
[Syrians for Truth and Justice /STJ](#) is a nonprofit, nongovernmental, independent Syrian organization. STJ includes many defenders and human rights defenders from Syria and from different backgrounds and affiliations, including academics of other nationalities.

The organization works for Syria, where all Syrians, without discrimination, should be accorded dignity, justice and equal human rights.

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Syrians
For Truth
& Justice





Six Months On! Medical Facilities in Syria Still Under Fire

Joint Report: Syrian Archive – Bellingcat – Syrians for Truth and Justice



Preface

In the period between 03 January 2018 and 05 February 2018, four hospitals in Idlib governorate well within the De-Escalation Zones established by Russia, Turkey and Iran during the Astana talks were attacked by airstrikes that visual documentation, witness statements, and flight observation data attributes to Syrian or Russian forces. Three of these hospitals were attacked within the span of a week.

This report was written as a followup to a July 2017 report titled [Medical Facilities Under Fire: Systemic Attacks during April 2017 on Idlib Hospitals.](#), in which detailed reports of eight hospitals or medical facilities targeted within one month in one province (Idlib) were published jointly by the Syrian Archive, in partnership with [Syrians for Truth and Justice](#), [Justice for Life](#), [Bellingcat](#) and a flight observation organisation.

Findings in this previous report suggest that in April 2017, Syrian and Russian armed forces were responsible for the eight attacks on Syrian hospitals and healthcare centres - facilities in Idlib serving a combined 1.3 million people (a beneficiary group larger than the population of Brussels), as reported in witness statements as well as by the managers of those medical facilities. Subsequently, [the United Nations' Commission of Inquiry presented findings of a fact-finding](#) mission confirmed the systemic targeting of medical facilities by the Syrian government in April 2017, as well as the illegal use of chemical weapons.

De-escalation zone

On 4 May 2017, the sponsoring states of Astana Talks (Russia, Turkey, and Iran) [signed a memorandum of understanding for the establishment of de-escalation zones in Syria](#) for at least six months, which [was extended](#) at Astana 7 on 31 October 2017. The Russian Ministry of Defense [published a map showing](#) the locations included in this memorandum as shown below (de-escalation zones in blue, ISIS in grey, Syrian army in orange). See below:



The document had been elaborated by the Russian Defence Ministry upon the direct order





These areas included Idlib province, some parts of northern Homs province, as well as some parts of adjacent provinces (Latakia, Hama, and Aleppo), Eastern Ghouta in Damascus countryside and some parts of southern Syria.

Just four days after the [Astana International meeting establishing Syria's De-Escalation Zones](#) in many parts of the country, [three Idlib medical facilities serving a combined more than 100.000 people yearly were allegedly attacked](#) in airstrikes attributed to Syrian or Russian forces on a single day.

Now, six months later, little has changed. Hospitals remain at the frontlines of the Syrian conflict, and attacks against medical facilities are regular.

Russian Ministry Statement of Denial

The first week of February 2018 has shown a flurry of media attention focused on potential Russian involvement in the bombing of civilians in Syria. In response, the Russian Embassy to the United Kingdom [published a press release](#) on 15 Feb. 2018 claiming a misinformation campaign by "Western media." The press release claims "the misinformation comes down to allegations that the Russian Aerospace Forces are striking rebel strongholds in Idlib, killing civilians and damaging civilian infrastructure, including medical institutions." See below:

The Embassy of the Russian Federation to the United Kingdom of Great Britain and Northern Ireland

15 February 2018
Moscow: 17:52
London: 14:52

Consular queries:
+44 (0) 203 668 7474
info@rusemb.org.uk

Press Releases and News

PRESS RELEASES AND NEWS

15.02.2018

The latest anti-Russian campaign in Western media (MFA comment)

We have noted a number of articles published by Western media in the latest campaign to denigrate Russia's role in fighting terrorism in Syria. Here are just a few of the many examples: "Syria's Idlib province pounded by Russian airstrikes, activists say" (The Washington Post, February 5); "Russia bombs Syria rebel strongholds after jet is shot down" (Newsweek, February 5); "Biggest airstrikes in a year hit Syria after rebels shoot down Russian jet" (The Guardian, February 6); "Devastating Russian airstrikes of retribution in Syria" (Deutsche Welle, February 5); "Russia launches an offensive after the jet is downed" (Frankfurter Allgemeine Zeitung, February 5). These articles are obviously carbon-copies – their style and reasoning are strikingly similar.

The misinformation comes down to allegations that the Russian Aerospace Forces are striking rebel strongholds in Idlib, killing civilians and damaging civilian infrastructure, including medical institutions. The Syrian Army is being groundlessly accused of using chemical weapons.

These Journalists describe as "rebels" Hayat Tahrir al-Sham, the group that claimed responsibility for downing on February 3 the Russian Su-25 assault aircraft piloted by Major Roman Filippov. He was monitoring compliance with the ceasefire in the Idlib de-escalation zone.

Hayat Tahrir al-Sham emerged as an offshoot of the terrorist organisation Jabhat al-Nusra in 2017, which took under its operational control a number of other units of the anti-government armed opposition. Jabhat al-Nusra, which severed ties with al-Qaeda at one point, and its spawn Hayat Tahrir al-Sham are blacklisted by the international community as terrorist organisations despite the assurances of al-Nusra leaders that they have split with al-Qaeda. Nobody takes such statements seriously. The attempts of the Western media to disavow Hayat Tahrir al-Sham's links with al-Qaeda on this basis are unfounded and only designed to mislead the public in the West about the nature of the targets attacked by the Russian Aerospace Forces and the Syrian Army.

Foreign Minister Sergey Lavrov has emphasised many times that terrorists from Jabhat al-Nusra continue to be able to offer resistance because they have external support, including from the media. The elimination of this terrorist group, no matter what name it assumes, is one of the key goals of the Russian Aerospace Forces in Syria.

It is telling that representatives of the White Helmets are quoted in these articles. This organisation has discredited itself to the point that its mere mention as a source gives cause to doubt the authenticity of a story. Social media is littered with videos showing "rescuers" from the White Helmets putting makeup on "victims of the Syrian Government's brutality" or alleged bombing by the Russian Aerospace Forces. They are closely cooperating with terrorist organisations and are often seen with weapons in hand on the side of terrorists during combat operations. The video showing White Helmets "helping" already dead children caused a stir.

The authors of some articles are making new attempts to hold Russia and the lawful Syrian Government responsible for the use of toxic agents in Idlib. To the contrary, Russia has consistently advocated the complete elimination of chemical arms in Syria. Owing to Moscow's peacemaking initiative, an agreement was reached on the liquidation of Syria's chemical arsenal. In the middle of 2014 precursors of chemical arms were removed from Syria with Moscow and Washington's cooperation.

Moreover, in October 2017 the US Department of State reported the use of toxic agents by Hayat Tahrir al-Sham in Idlib, thereby admitting that terrorists have chemical weapons. Nonetheless, this high-profile statement did not garner the attention of world media.

These bogus stories are being published against the background of Russian diplomatic efforts, including the Syrian National Dialogue Congress held in Sochi on January 29-30. An anti-Russia campaign was also launched by the Western media simultaneously with the successful liberation of Aleppo by the Syrian government troops and the Russian Aerospace Forces, which suggests some parallels.

These attempts of the Western media to discredit Russia's role in the struggle against terrorists are regrettable. We see them as part of the double game played by some of our Western partners that divide terrorists into good and bad in the pursuit of their myopic geopolitical interests.

The Washington Post, February 5: "Syria's Idlib province pounded by Russian airstrikes, activists say" (By Erin Cunningham and Louisa Loveluck)
https://www.washingtonpost.com/world/middle_east/syria-idlib-province-pounded-by-russian-airstrikes-activists-say/2018/02/05/32b3f429-bae3-464b-ba12-df9a6181e64a_story.html?hpid=hp_hp-top-table-main-syria%3Aa-79c13133ee99

The Guardian, February 6: "Biggest airstrikes in a year hit Syria after rebels shoot down Russian jet."
<https://www.theguardian.com/world/2018/feb/05/russian-and-qaeda-jets-bomb-civilian-areas-in-north-west-syria-idlib>

Newsweek, February 5: "Russia bombs Syria rebel strongholds after jet is shot down."
<http://www.newsweek.com/russian-forces-ramp-syria-bombing-after-jet-shot-down-799308>

Deutsche Welle, February 5: "Devastating Russian airstrikes of retribution in Syria."
<http://www.dw.com/de/verheerende-russische-vergeltungsanriffe-in-syrien/a-42458136>

Frankfurter Allgemeine Zeitung, February 5: "Russia launches an offensive after the jet is downed."
<http://www.faz.net/aktuell/politik/aussenland/russland-nach-flugzeug-abschuss-verstaerkt-ziele-in-syrien-an-15433154.html>

TRAVEL ADVICE

This statement, implies (though does not outrightly deny) that Russian airforces are not responsible for the bombing of civilian infrastructure, including hospitals and medical facilities. Later, the same press release states that "on February 3 the Russian Su-25 assault aircraft piloted by Major Roman Filippov...was monitoring compliance with the ceasefire in the Idlib de-escalation zone" at the time his plane was shot down.

That four Idlib hospitals were targeted by airstrikes within a four week period indicates that regardless of whether or not Russian aircraft are targeting medical facilities and other protected persons and objects (deliberately or not), Russia, Turkey and Iran have failed in their compliance enforcement of the de-escalation zones. Through analysis of flight observation data for 4 Feb. 2018 bombing of Maarat al-Numaan National Hospital, for example, several flights were tracked as having taken off from Hmeimim airbase (controlled by Russian forces), flown north, turned around and bombed the National Hospital at 20:40.



In a [previous statement by Russian Foreign Minister Sergey Lavrov regarding the 2016 attack on a humanitarian aid convoy near Aleppo](#), the Foreign Minister stated: "The Syrian aircraft could not have operated [there], because the attack against the convoy was conducted in the night time and the Syrian Air Force does not perform flights in this time, it has no such capabilities."

As the Maarat al-Numaan National Hospital was attacked at night, Lavrov's statement can be interpreted as: 1) inaccurate, as the Syrian Airforce does in fact have the capacity to fly at night, potentially involving them in the 2016 attack on a humanitarian aid convoy; 2) the Syrian Air Force has vastly improved its capabilities since 2016, allowing flights to operate at night and operates out of a Russian airbase, in addition to airbases controlled wholly by the Syrian airforce; 3) Russian aircraft were involved in the attack of Idlib medical facilities; or 4) A third-party operating Russian aircraft from Russian airbases was involved in the attack of Idlib medical facilities, and Russian forces are failing to enforce compliance within their own airbases.

Protected status of medical personnel

Under International Humanitarian Law, medical personnel enjoy a protected status. As part of their protected status, they cannot be targeted by any party to the armed conflict. The law defines medical personnel as, "Personnel assigned, by a party to the conflict, exclusively to the search for, collection, transportation, diagnosis or treatment, including first-aid treatment, of the wounded, sick and shipwrecked, and the prevention of disease, to the administration of medical units or to the operation or administration of medical transports." Moreover, persons performing medical duties who do not fall within this legal definition but are attacked when providing similar medical services enjoy the same protection under International Humanitarian Law.

The principle of proportionality also prohibits parties to an armed conflict from launching attacks that might incidentally harm medical personnel, creating excessive harm in relation to any concrete military advantages gained. Article 3 of the Geneva Conventions further requires that the wounded and the sick be collected and cared for during armed conflict.



About this report

The Syrian Archive and its partners ([Syrians for Truth and Justice](#), and [Bellingcat](#)) analysed and verified this pattern of attacks by cross referencing a combination of open-source visual content, flight observation data, and witness statements. Findings regarding these attacks were characterised by repeated bombardments, lack of warnings, and an absence of active military hostilities in the vicinity of the attack. Through collecting, verifying and reporting investigative findings from these incidents, the authors hope to preserve critical information that may be used for advocacy purposes or as evidence in future proceedings seeking legal accountability.

This report includes damage identification, cross referencing and contextualising visual content (50 verified videos) with witness statements (10 people) and with flight observation data (1696 observations) provided by a spotter organisation of aircraft in the immediate vicinity of hospitals at the time of attacks. Geolocation of visual content was done in collaboration with the Bellingcat Investigation Team.

By examining a variety of sources of information for each attack, the Syrian Archive was able to corroborate and strengthen the findings from their visual content dataset. Visual content gathered and verified by the Syrian Archive is extensively analysed - including in-depth geolocation and, when relevant, munition identification.

To cross-reference findings from visual content, flight observation data was provided to the Syrian Archive by an organisation employing a well-developed network of spotters. Following an analysis of the visual content and flight observation data, the Syrian Archive identified excerpts of statements from witnesses and victims collected by Syrians for Truth and Justice combined them with findings from their earlier analysis to provide corroborating witness statements for each attack.



Detailed overviews of each incident are provided in the following pages. An overview of the visual content is provided first, followed by an overview of the corroborating flight observation data and witness statements. All times provided are in Damascus local time, and in 24-hour format. Prior to publication, consent was acquired with those interviewed (e.g. medical workers, facility managers, and Civil Defense volunteers) regarding the public sharing of information regarding attacks.



Bombing the Orient Hospital

- Location: IDLIB: Kafranbel
- Hospital: The Kafranbel (Orient) Hospital
- Beneficiaries: ~3,000 people
- Date of the attack: 5 February 2018
- Time: 08:45 am
- Attacks: 4 airstrikes
- Potentially responsible: Russian or Syrian air force
- Date of previous attacks on this hospital: 19/09/2017

Kafranbel surgical (Orient) Hospital

[Orient Hospital or known as "Kafranbel Surgical Hospital"](#) is located in the northern part of the city of Kafranbel, in the southern countryside of Idlib, provides services covered the entire towns and cities of the southern countryside of Idlib, with a population of more than 400,000. The hospital has about 156 workers, including 18 doctors.

Previous attacks on Kafranbel surgical (Orient) Hospital

Orient hospital in Kafranbel was attacked on 19 September 2017 with three airstrikes that resulted in injuries to several people, structural damage to the building, as well as to the equipment of the hospital. [A detailed report titles about this previous incident](#) was published by the Syrian Archive and by [Syrians for Truth and Justice](#) in 2017.



It was additionally attacked previously on 25 March 2017. Qasioun News Agency [published a video](#) showing the damage to the building and fire after the attack. See below:





WHAT HAPPENED

On 5 February 2018, local sources including [Muaz Al Shami reported](#) that Kafarnabel Surgical Hospital, also known as Hand in Hand Hospital and Orient Hospital, was struck by multiple airstrikes causing significant material damage and resulting in the entire hospital becoming completely out of service.

[Footage filmed during](#) and after the 5 February 2018 attack clearly shows the hospital was attacked directly, with one [geolocated video](#) capturing a bomb as it fell through the air and struck the east side of the hospital building. See below:





[Maara Media Center](#) and other reporting from the ground blamed Russian aircraft for the attack.



مركز المعرفة الإعلامي added 11 new photos.

...

5 February at 09:48 · 🌐

شهداء وجرحى وخروج مشفى كفرنبعل عن الخدمة إثر قصف طيران العدوان الروسي بصواريخ شديدة الانفجار مشفى كفرنبعل الجراحي بريف إدلب الجنوبي

#سوريا #ادلب #كفرنبعل

#MMC

تصوير: عبد العزيز أحمد قيطاز



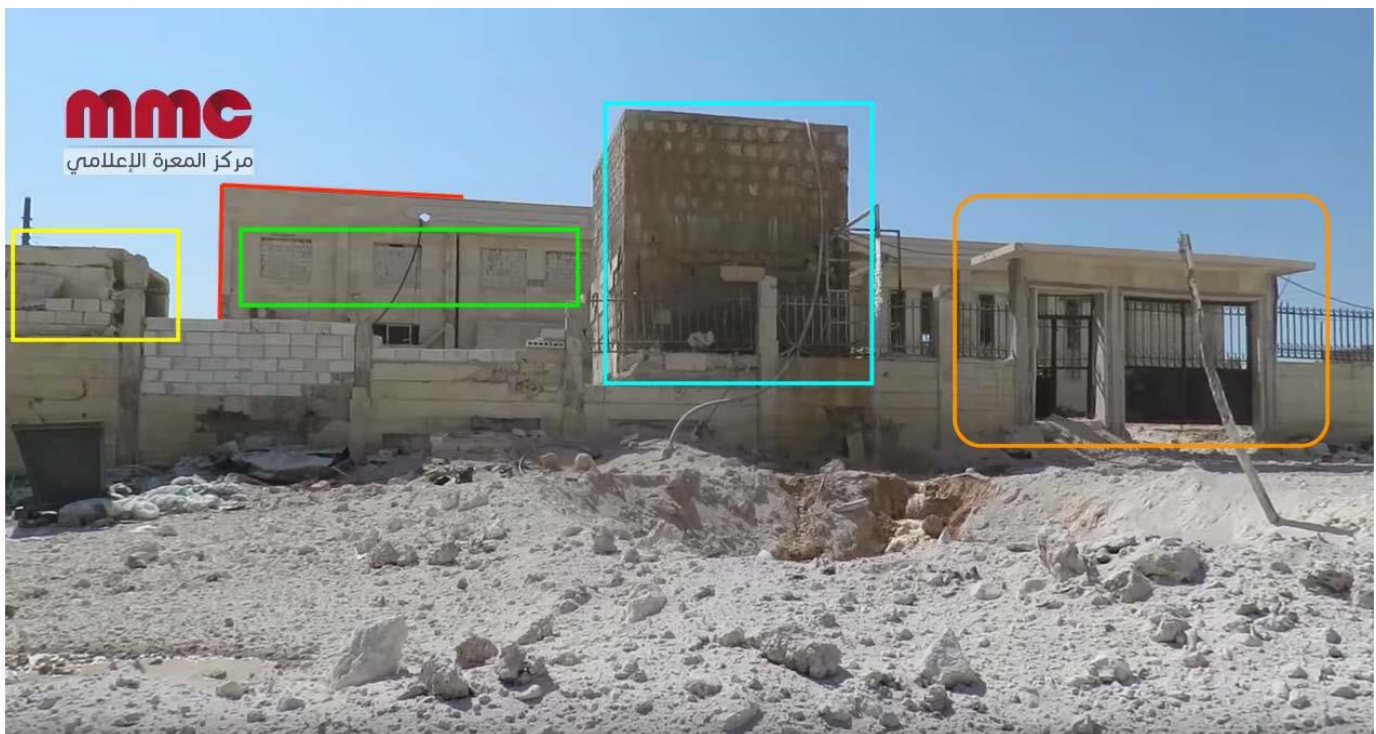


Footage filmed after the airstrikes shows clear damage to the hospital building and to the surrounding area. Damage to the northeast corner of the building, consistent with footage of the airstrike, can be seen clearly as well. The corner of the building is badly damaged and the windows, bricked up in footage from 19 September 2017, have been completely blown out:

Below is [a video publish](#) by "Nidaa Syria" that shows the damage to the northeast corner of the hospital building:



The Syrian Archive compared images between previous attacks 19 September 2017 and this attack (5 February 2018) through videos of [Maara Media Center](#) and [Baladi news agency](#).



[Maara Media Center published photos](#) that show the small building in-front of the main hospital building completely destroyed.



The satellite image below shows the exact location of the impact site and damage, from Digital Globe.





Damage to the entrance of the building and an ambulance provided by the “UK 2 Syria” campaign can be seen in [a video published](#) by Sham News Network:



Edlib Media Center [published video](#) showing also the damage to the interior of the hospital:



Muaz Al Shami [published a video](#) showing three floors damage as a result of the munition that targeted the building.



WHEN DID IT HAPPEN?

Witness statements of the attack was provided by Syrians for Truth and Justice. One of the nurses, who was at Orient Hospital at the time of the attack, spoke to Syrians for Truth and justice about the details of the incident, stating:

"On the morning of February 5, 2018, while I was checking the patients in the hospital, a warning came from the security and safety team that the hospital should be evacuated, particularly that Russian warplanes had raided Al-Ma'ra Central Hospital a day earlier. So the wounded and the reviewers were immediately transferred to the basements. At 8:45 a.m., the warplanes carried out four raids on the hospital, causing panic and fear state among the sick and the medical staff as well. However, dust and fragments scattered everywhere. Thank God there were no injuries among the medical staff or reviewers as the damage was limited to material, the upper floors were entirely damaged and the hospital was completely out of service."



In a cross-checked certificate, a reviewer, who was also at the hospital at the time of shelling, said that at 8:45, while he was in the hospital with a view to visiting one of his sick relatives, warplanes believed to be Russian carried out four air strikes on the hospital, causing destruction in the building specially the upper floors, he continued saying:

"It was a very difficult moment when fear and panic dominated all those in the basements, and the dust filled the place, there were fragments of rubble flying around. It's hard to describe the horrible scene in a few words. The raids caused the hospital to be completely out of service, due to falling a rocket in the operating room causing entire destruction. Then the Civil Defense teams worked to extinguish the fires that had been erupted as a result of the shelling, and they evacuated the sick and the medical staff out of the hospital in case they shelled it again."

Obayda al-Othman, the director of the Syrian Civil Defense Center in Kafranbel, spoke to Syrians for Truth and Justice explaining what happened:

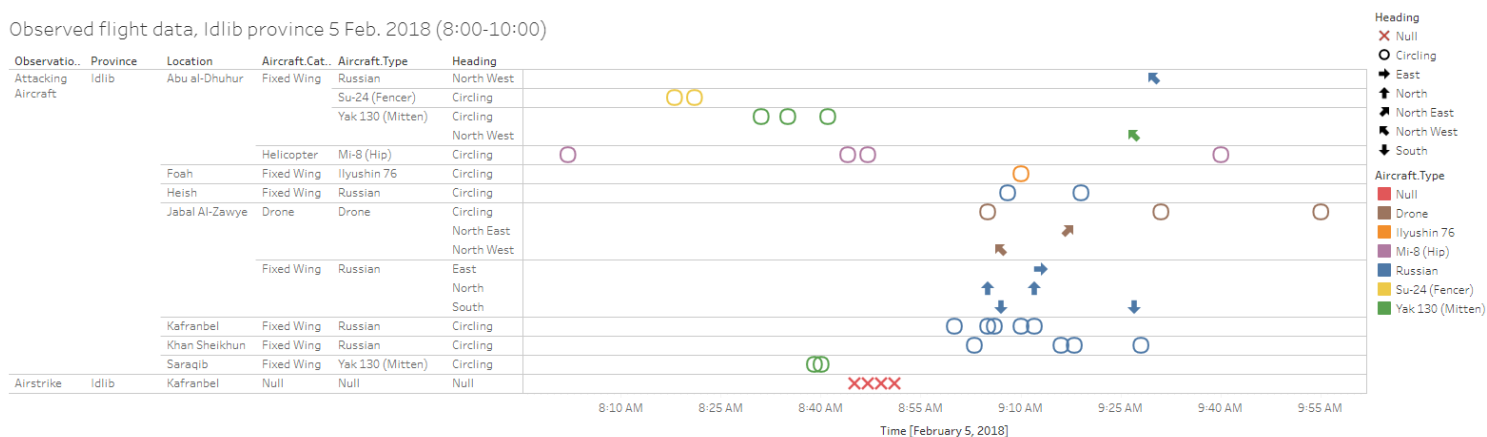
"A day before targeting Orient Hospital, specifically on February 4, 2018, the Russian planes flew in all the liberated areas, where a Russian warplane bombed Kafranbel with highly explosive rockets targeting the popular market and houses of civilians, causing death of 9 civilians and dozens of injured. Anyway, the following day, Russian warplanes bombed Kafranbel Surgical Hospital or known as Orient Hospital with more than 3 air raids, causing destruction of the upper floors, in addition to a rocket dropped in the operating room and the intensive care room. So, immediately the Civil Defense teams rushed to the hospital to evacuate patients and reviewers to other medical points. However, these raids caused the hospital to get completely out of service, without having human damage."

Flight Data Analysis

To provide a further layer of verification, the Syrian Archive cross-referenced findings from the videos and witness testimony with flight observation data from a spotter organisation. This

process necessitated analysing observation data for flights between 8:00 and 10:00, the period directly before and after the reported attack between 7:45 and 8:00 as was claimed by media activists. See below:

Observed flight data, Idlib province 5 Feb. 2018 (8:00-10:00)



[View full visualisation](#)

Through comparing where flights were observed, the type of aircraft observed, the time flights were observed, and the direction flights were heading, and comparing this data to geolocation conducted in earlier steps, the Syrian Archive was able to identify several flights potentially responsible for the attack (several fixed-wing Russian aircraft), seen circling in the immediate vicinity of the geolocated attack site starting from 9:00 AM. Previous research has found that circling flights typically indicate target acquisition and/or preparation for an imminent attack.

While there is no direct evidence available that one of the observed aircrafts was involved in the attack on Kafranbel the presence of these aircrafts increase the likelihood that an air attack occurred at this location and the time stated by the citizen reporters as well as humanitarian groups, and estimated also using imagery from the attack.



Bombing the Oudai Hospital

- Location: IDLIB : Saraqib
- Hospital: Oudai (Ehsan) Hospital
- Beneficiaries: ~36000 people in a year
- Date of the attack: 29/01/2018
- Time: 07:40am (potato market) 08:10am (hospital attack)
- Attacks: 1 airstrike
- Reported injured: 3 injured from the medical facility staff
- Potentially responsible: Russian or Syrian air force
- Previous attack on the hospital: 21/01/2018

Oudai (Ehsan) Hospital

Oudai (Ehsan) Hospital is located in Saraqib city in the southern countryside of Idlib city; it provides medical services such as surgical operations, first aid and health care to the people of Saraqib. The hospital receives roughly 3000 patients a month, two surgical rooms, a department of intensive care, a section for incubators, and a building for clinics.

Previous attacks on Oudai (Ehsan) Hospital

Idlib health directorate [reported that Oudai hospital was attacked](#) on 21/01/2018 with an airstrike that resulted in structural damage to the hospital and its equipment.



مديرية صحة إدلب - Idlib Health Directorate

22 January at 20:26 · 🌐

#مديرية_صحة_إدلب

#مدينة_سراقب

#مشفى_الشهيد_عدي_أبو_حسين

تعرض مشفى الشهيد عدي أبو حسين (#الإحسان سابقاً) في مدينة "سراقب" يوم الأحد 21/1/2018 لغارة جوية من قبل الطيران الروسي، تسببت بخروج المشفى عن الخدمة بعد تعرض المبنى والمعدات لأضرار بالغة.

#Idlib_Health_Directorate

#Saraqib_City

On Sunday 21 Jan 2018, Al-Ihsan Hosoiatal (Owdai Hospital) in the city of Saraqib has been targeted by an air strike that made it go out of service due to the huge damages in the infrastructure and equipment of the .hospital



WHAT HAPPENED

On 29 January 2018 local sources reported that Owdai Hospital in Saraqib was targeted by an airstrike, following an earlier airstrike that damaged the hospital on 22 January 2018. Edlib Media Center [published a video](#) showing what they claim to be the first moment of the attack that bombed the Oudai Al Hussein hospital. See below:



The [Syrian Network for Human Rights reported](#) that the hospital was treating victims of an earlier bombing at the new potato market in Saraqib January 29th 2018 when the hospital was attacked.

Assi Press [published photos at 9:35](#) of injured people being treated as a result of the attack that targeted the potato market.

Citizen journalist Hadi Alabdallah [published a video](#) showing the Syrian Civil Defense rescuing the injured as a result of the attack on the Saraqib potato market.

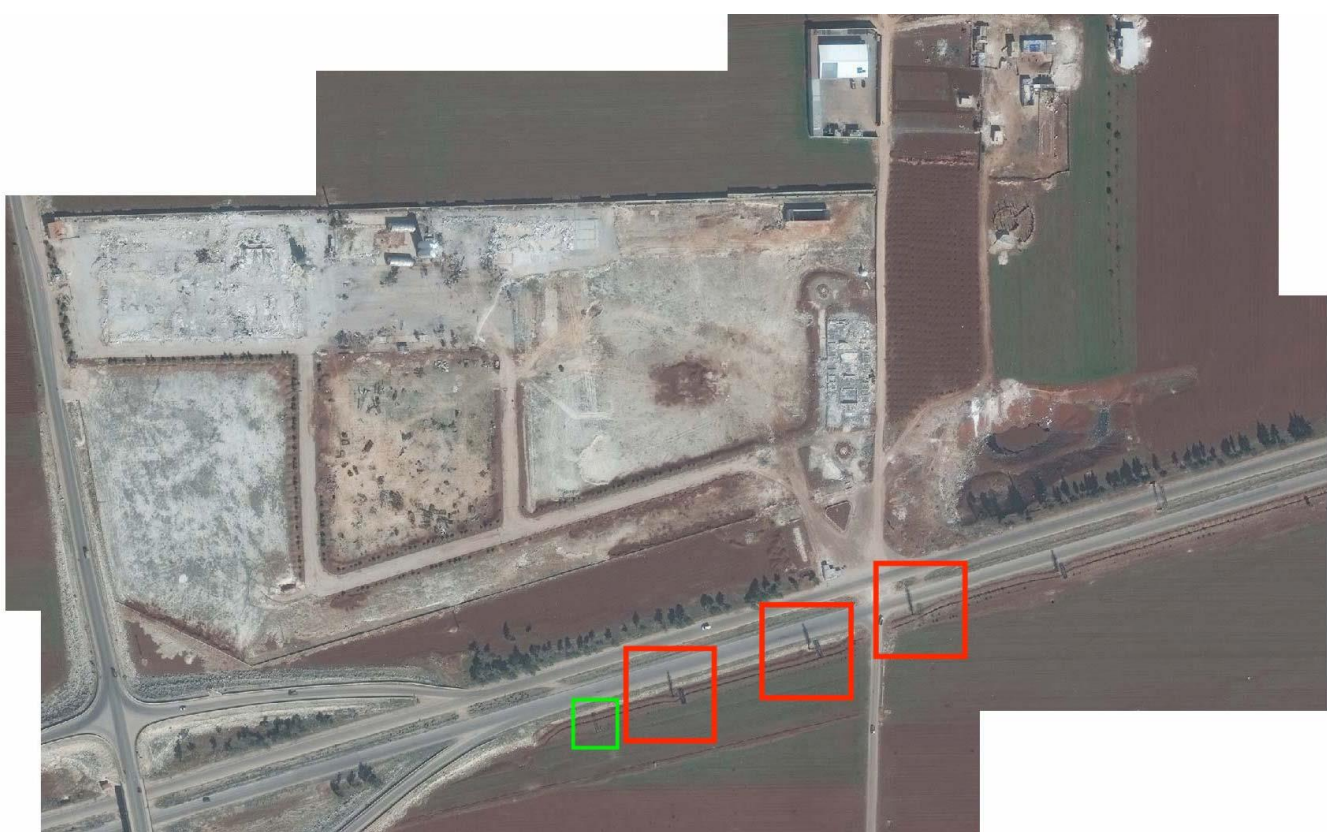


Alabdallah stated in the video: "11 killed and many injured in a new massacre committed by the airforce which bombed the potato market."

Edlib Media Center [published a video](#) about the potato market bombing showing those killed and injured people as a result of the airstrike, as well trucks damaged in the attack. The photo clearly shows a possible crater as a result of the airstrike that targeted this location.



Geolocation of the impact site (the potato market) was possible through using the video published by Alabdallah. Three banners standing in the main street can clearly be seen both in the video still and in the satellite imagery. See below:

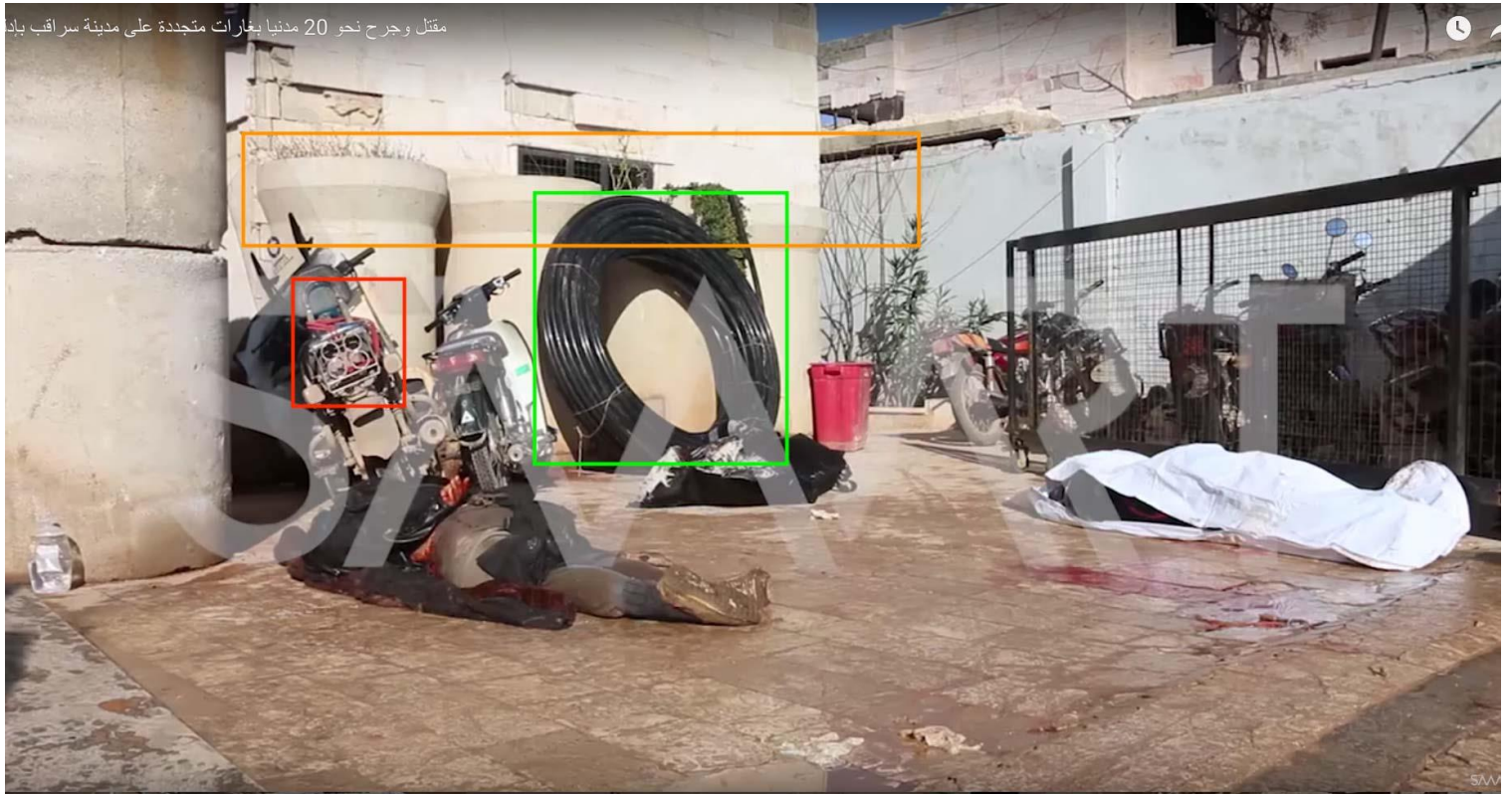




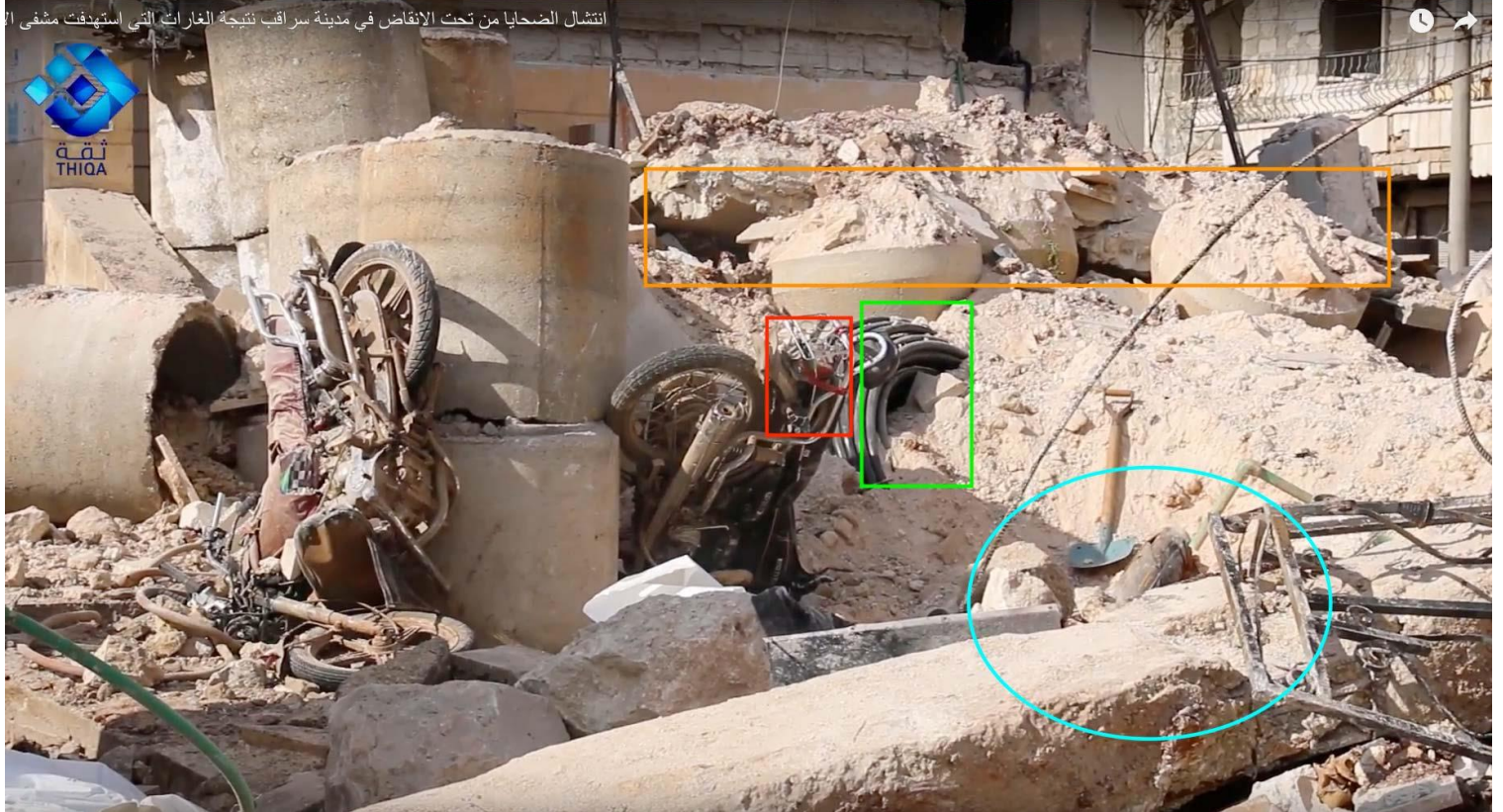
According to witness testimonies collected by the Syrians for Truth and Justice, the killed and injured people from the potato market attack were moved to Oudai hospital, which was then subsequently bombed by airstrikes.

The Syrian Archive has identified stills from the [Smart News Agency video](#) as well as from the [Thiga News Agency video](#) showing the Oudai hospital before and after the attack. In the still above, dead bodies as a result of the potato market attack can clearly be seen. In the second still below shows damage of the same location after the airstrike that targeted the hospital.

مقتل وجرح نحو 20 مدنيا بغارات متجددة على مدينة سراقب باد



انتشال الضحايا من تحت الأنقاض في مدينة سراقب نتيجة الغارات التي استهدفت مشفى الا



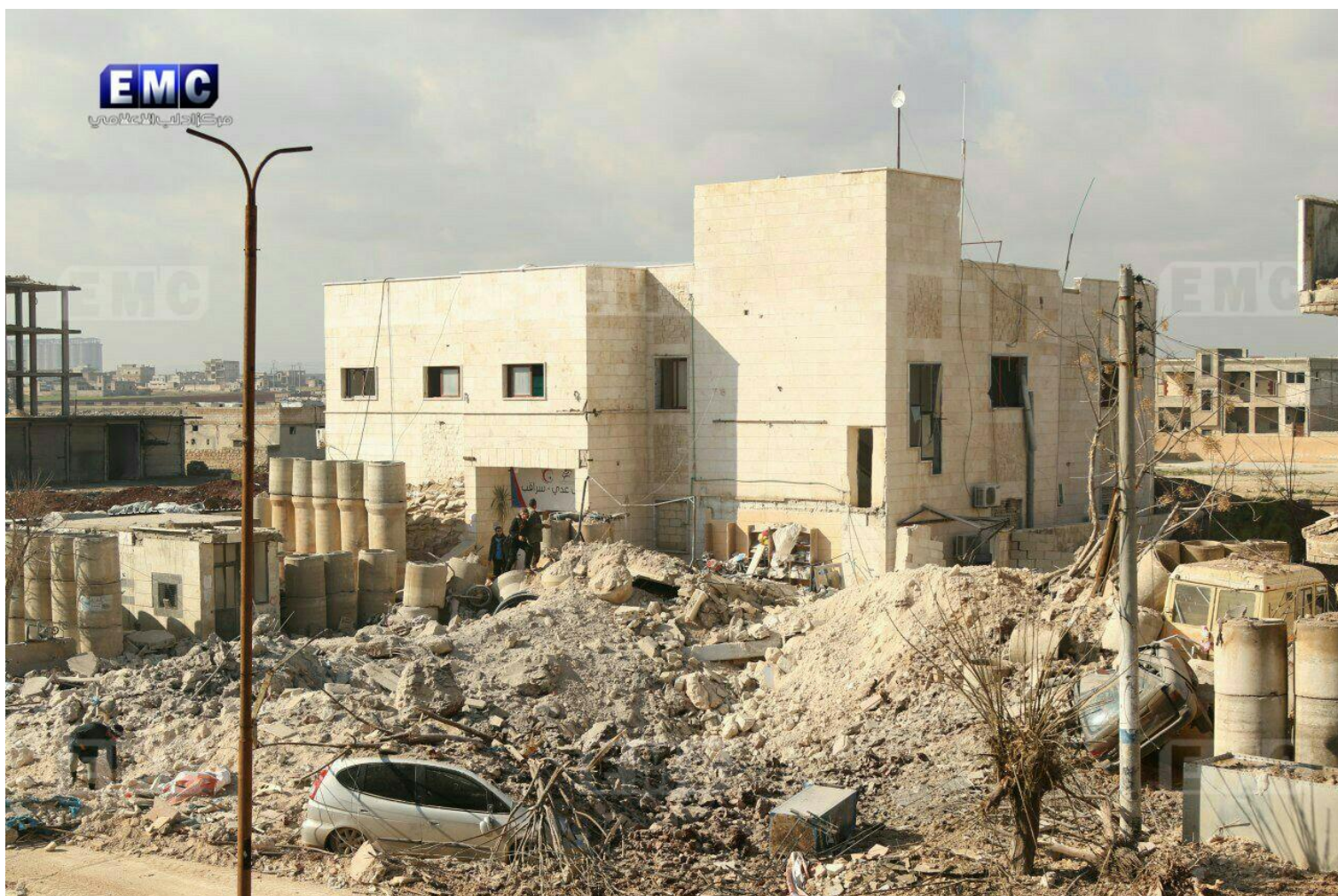


Alabdallah [published another video on the same day of the potato market attack on 29 January](#) showing damage to the Oudai hospital as a result of an airstrike following the airstrike on the potato market. See below:

He stated in the video: "After the morning massacre that was committed by the airforce in the potato market, which resulted in the death of 11 people and in many injured, those injured were transferred to Oudai (Ehsan) hospital in Saraqib to be treated. But after this, the Russian airforce targeted this hospital, resulting in the hospital becoming completely out of service. A large crater resulted from the munition used by the airforce. A few of the medical staff were injured as a result of this attack. Some of those injured from the potato market that were transferred to be treated in this hospital were killed as a result of the airstrike. As of now, some of those killed remain under rubble. This is the only hospital in this city which was not out of service. Ambulances were damaged as well."

Aljissr TV [published a a video of an interview](#) with Dr. Ali Al Faraj, the Deputy of Oudai hospital. Al Faraj stated: "This morning the potato market was bombed, then the emergency centre. Afterwards, the blood bank and the Oudai hospital were bombed on the same day. Those injured from the potato market attack were all transferred to the Oudai hospital, which was then bombed as you can see here. As a result of this attack, the hospital is now completely out of service. Three medical staff were injured. Renovating the hospital building will be very difficult after this attack."

Edlib Media Center [published photos](#) showing rescue operations outside the hospital after the attack. See below:



The bomb landed in front of the main hospital building, leaving a large crater as [shown in a video published](#) by Thiqa News Agency, and resulting in the collapse of a warehouse containing medical supplies. The video shows the Syrian Civil Defence digging an adult male who died in the attack out of the debris after the initial rescue operation.



WHERE DID IT HAPPEN?

The Syrian Archive team created a Panoramic image using the [video of Sham News Network](#) which was published after the attack. The hospital building and another building were identified through comparing the image with Google earth satellite imagery. See below:





MUNITIONS IDENTIFIED

Sham News Network published a video showing remnants of a munition that is claims was used during the potato market attack. The remains of the rocket indicates it would have been launched by a [BM-30 multiple rocket launcher](#), a type of surface to surface rocket launcher. If this was the munition used in the attack, it would contradict claims the attack was launched from the air.



WHEN DID IT HAPPEN?

Witness statements of the attack were provided by Syrians for Truth and Justice.

Ahmed al-Asaad, a doctor who was in the hospital at the time of attacking it, spoke to Syrians for Truth and Justice about what happened: "At about 8:00 am on 29 January 2018, Russian military aircraft shelled the potato market in Saraqib, which resulted in dozens of civilian



casualties. Immediately afterwards, the ambulance teams transported those injured and killed to Uday al-Hussein Hospital, but the warplanes again attacked the hospital with two vacuum rockets, resulting in the hospital becoming completely out of service, killing a civilian and wounding some members of the medical staff at the hospital in the process. Anyway, the shelling also destroyed the room where the dead had been transported from the potato market. So Saraqib now is without any medical points to provide services to those injured and to the locals as well."

Hassan Al-Hassaan, a Syrian Civil Defense worker in Idlib province, told Syrians for Truth and Justice: "The observatories monitoring air traffic in the skies of Saraqib informed them on the morning of 29 January 2018 that warplanes believed to be Russian shelled the city's potato market. As a result, Syrian Civil Defense teams were directed to move the injured and lift the dead from rubbles. There were about 13 killed, in addition to dozens of wounded, and then I transferred them to Uday al-Hussein Hospital in the city. He continued: "Almost half an hour after we transferred the dead and wounded to the hospital, the warplanes shelled Uday al-Hussein Hospital at about 8:00, leading to massive destruction. Immediately after, the rescue teams again went to the impact site to evacuate the injured out of fear of another raid. This resulted in the hospital becoming completely out of service.

In another testimony by Abu Arab, the supervisor of a military aircraft observatory in Saraqib, spoke to Syrians for Truth and Justice. He stated: "At 7:35 on 29 January 2018, a warplane took off from the Hmeimim Military Base in Latakia province, flew toward north of Syria at 7:40, and targeted the city's potato market with explosive rockets. This led to a massacre, and we immediately informed the Civil Defense teams to go to the bombing site. But the same warplane targeted the hospital of Uday al-Hussein with two vacuum rockets after about half an hour. This resulted in the hospital becoming completely out of service.



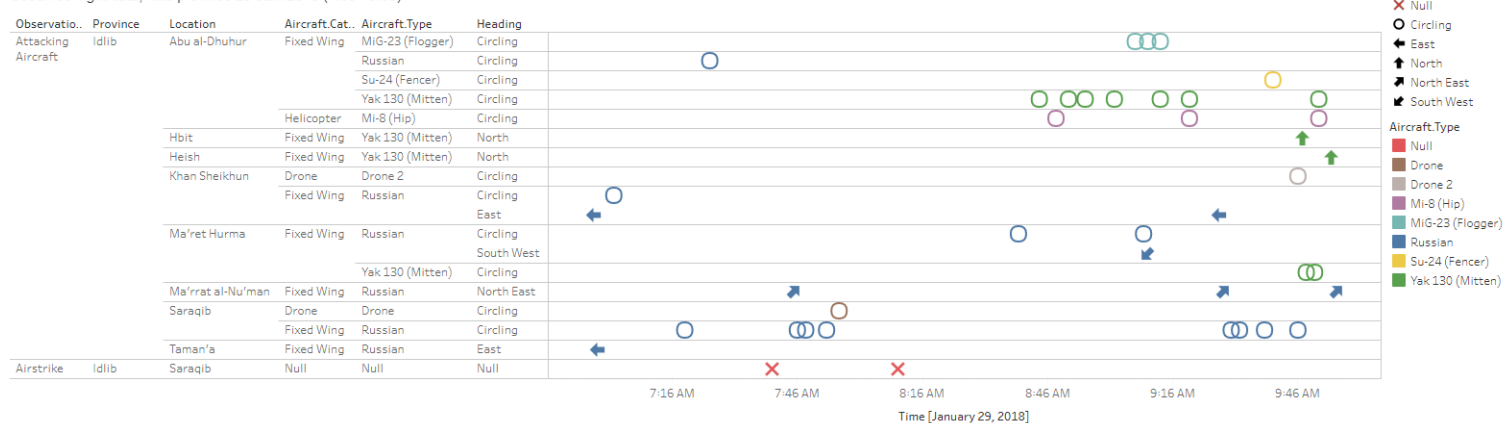
Safi al Hammam, an activist from Saraqib, also spoke to Syrians for Truth and Justice, stating: "The day of 29 January 2018 was a bloody day in every sense of the word, as the city was shelled with various kinds of weapons by Russian aircraft from Sokhoi, which targeted the potato market with several rockets, resulting in dozens of civilian casualties whom were later transferred to Uday al-Hussein Hospital in Saraqib. These warplanes targeted the hospital with two vacuum rockets, killing one civilian and injuring dozens, in addition to resulting in the hospital becoming completely out of service. And then the Russian warplanes targeted it once again with dual raids, injuring several media personnel. The city has also witnessed a massive wave of displacement towards the border areas north of the province, due to the violent shelling of the city."

According to a Syrians for Truth and Justice reporter, who was in the hospital at the time of the attack, a state of panic and horror controlled all the sick and injured in the hospital after they became aware that the military aircraft observatory had tracked warplanes, believed to be Russian, approaching toward Uday al-Hussein Hospital on the morning of 29 January 2018. Everyone was transferred to the ground floor of the hospital. In the meantime, fighter jets dropped two vacuum rockets, directly targeting the hospital building. This resulted significant damage to the building, as well as several injuries among members the medical staff and media who were outside hospital campus.

Flight Data Analysis

To provide a further layer of verification, the Syrian Archive cross-referenced findings from the videos and witness testimony with flight observation data from a spotter organisation. This process necessitated analysing observation data for flights between 7:00 and 10:00, the period directly before and after the reported attack between 7:30 and 8:30 as was claimed by media activists. See below:

Observed flight data, Idlib province 29 Jan. 2018 (7:00-10:00)



[View full visualisation](#)

Through comparing where flights were observed, the type of aircraft observed, the time flights were observed, and the direction flights were heading, and comparing this data to geolocation conducted in earlier steps, the Syrian Archive was able to identify several flights potentially responsible for the attack (several fixed-wing Russian aircraft), seen circling in the immediate vicinity of the geolocated attack site starting from 7:45 AM. Previous research has found that circling flights typically indicate target acquisition and/or preparation for an imminent attack.

While there is no direct evidence available that one of the observed aircrafts was involved in the attack on Saraqib the presence of these aircrafts increase the likelihood that an air attack occurred at this location and the time stated by the citizen reporters as well as humanitarian groups, and estimated also using imagery from the attack.



Bombing the National Hospital

- Location: IDLIB : Maarat al-Numan
- Hospital: The National Hospital of Maarat al-Numan
- Beneficiaries: ~500,000 people a year
- Date: 4 February 2018
- Time: around 20:40
- Attacks: 6 airstrikes according to Osama Eido (Hospital x-rays department)
- Munitions identified: One photo acquired by the Syrians for Truth and Justice
- Potentially responsible: Russian or Syrian air force

BACKGROUND OF THE NATIONAL HOSPITAL OF MARRET AL-NUMAN

The National Hospital of Maarat al-Numan is a hospital located on the Aleppo-Damascus international highway. It sits between three governorates: 60km north of Hama city, 80km south of Aleppo and 50km southeast of Idlib.

The hospital was [founded in 1984](#) and was supplied with medical equipment worth 6.9 million Euro. The hospital sits on an area of 70 thousand square meters, consists of three floors, contains all medical departments and has an annex building for doctors, and another building of outpatient clinics and it serves about 30.000 monthly beneficiaries.

On Feb 4th, 2018, local reports [including videos published](#) by the Syrian Civil Defense, claim that the National Hospital was targeted by multiple airstrikes.

PREVIOUS ATTACKS

The National Hospital of Marrat al-Numaan was previously attacked on 2 April 2017. The Syrian Archive has [published an in-depth open source investigation](#) regarding that attack.



WHAT HAPPENED

On 4 February 2018 at 21:19, a citizen journalist named Anas Al Marwai (who lives in Maarat al-Numaan) [published a video](#) on his Facebook page in which he states: "A huge explosion as a result of Russian warplanes missiles at the national hospital in Maarat al-Numan."

Idlib Health Directorate separately published [a post on their Facebook page](#) at 21:21 stating: "Russian warplanes directly targeted the National Hospital in Maarat al-Numan, and the aircraft monitors interception calls between the driving room in Hameimim base, heard the air force stating they would repeat the targeting of the hospital." See below:

Idlib Health Directorate - مديرية صحة إدلب

4 فبراير، الساعة 09:21 م .



#مديرية_صحة_إدلب

#مشفى_المعرة_الوطني

طائرات حربية روسية تستهدف بشكل مباشر "المشفى الوطني" في مدينة معرة النعمان، ومرصد الطيران ترصد مكالمات بين غرفة القيادة في حميميم توجه الطيران الحربي لتكرار استهداف المشفى بصواريخ شديدة الانفجار.

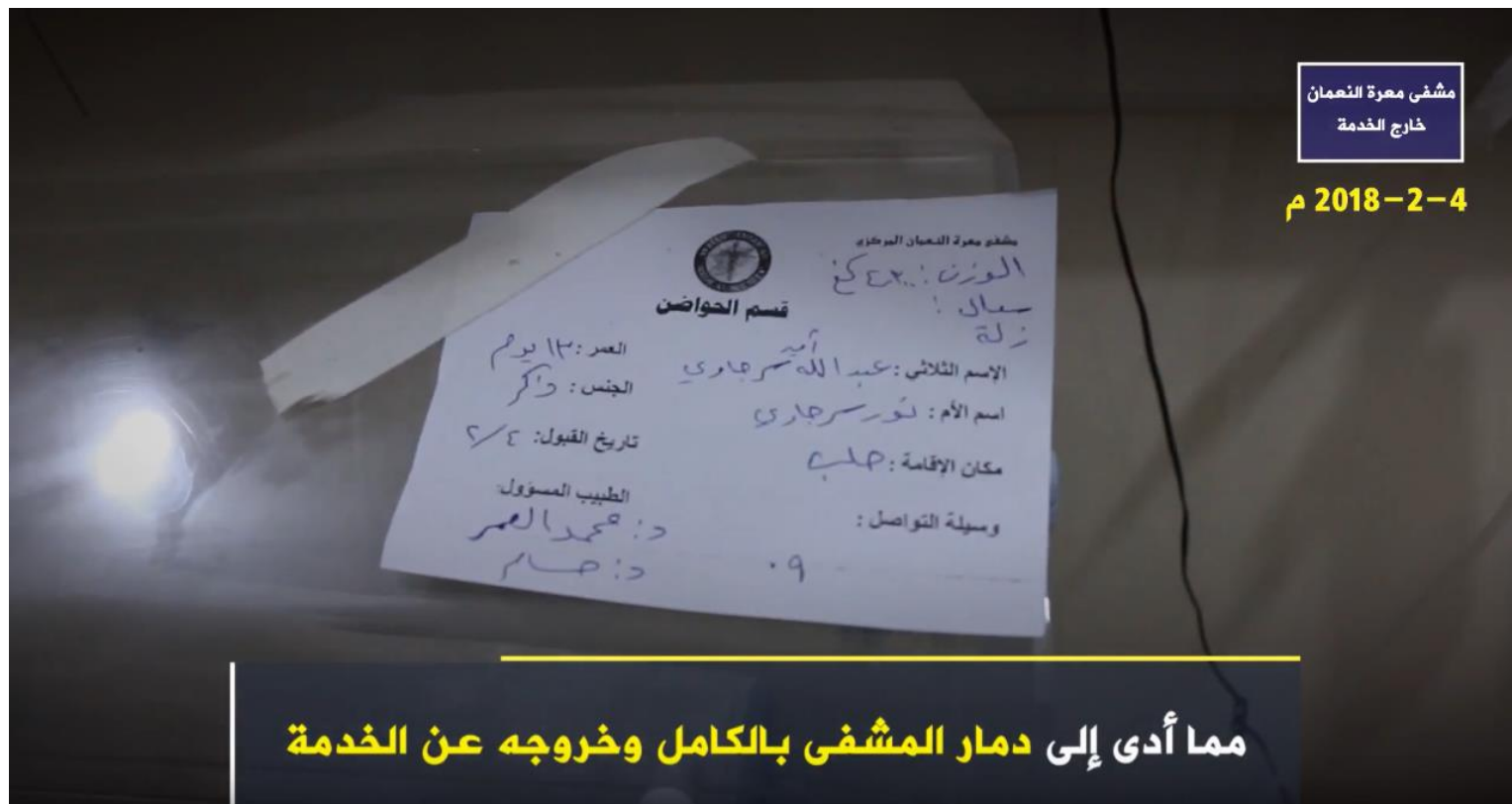
Syrian Civil Defense in Idlib [published photos](#) on their Facebook page at 22:41 saying "Civil Defense teams evacuated the patients from the national hospital in Maarat al-Nu'man to nearby hospitals after the hospital was targeted with four air strikes." Photos show destructions as a result of the attacks, as well as of the Civil Defense evacuating injured people. See below:



On their YouTube channel Civil Defense published several videos additional in which members can be seen fighting fires outside the hospital. See below:

[A second video shows](#) Syrian Civil Defense rescuing a newborn child. In the video, the paramedic asked someone to bring him a Laryngoscope, and after several seconds another man came and said "go to the car now, the tanks might explode." At this point, the paramedic took the child and went to a car.

Another video from Syria Civil Defense [presents a summary](#) of what happened, stating that the National Hospital is out of service as a result of the attack, and shows stills from incubators room. See below:



The label is from a baby called Abdullah Amir Sarjawi, 13 days old, the date of his admission was 04 February, and his parents live in Aleppo.



An exclusive photo to Syrians for Truth and Justice shows the location where one of the missiles downfall

Hadi Alabdallah, a citizen journalist, [published a video on his YouTube channel](#) showing destruction inside the hospital, injured (including elderly men and women), fires outside of the hospital as a result of the attack, as well as the evacuation of babies and injured from the hospital by the Syria Civil Defense members. See below:



In Alabdallah's video at 0:29 somebody asks the Syria Civil Defense members while they were carrying babies, "Where are you taking babies?" Someone can be heard answering: "To the incubators, Syria Civil Defense is taking them to the incubators."

In the same video at 0:49, Alabdallah stated: "A little while ago, Russian warplanes targeted the National Hospital in Maarat al-Numan, resulting in the hospital to become out of service. There are martyrs, wounded and trapped under the rubble as a result of targeting of the National Hospital by these aircrafts. This hospital containing large numbers of injured, patients, and babies. The babies who were inside the incubators were evacuated, some of them may have died due to being evacuated under abnormal harsh conditions. Most parts of the hospital were damaged and destroyed."



At 1:47 in the same video, Alabdallah stated: "Many medical facilities in Idlib have been attacked. The air force is now flying over us and maybe it'll target this area in any moment because this hospital was attacked with more than ten airstrikes so maybe it gets targeted again."



An exclusive photo to STJ shows a part of the destruction that has done in the hospital.

In a separate video, published by citizen reporter Moaz Alshami while they were standing in front of the hospital, Syrian Civil Defense members are seen working to put out fires. Moaz stated: "After the massacre carried out by Russian aircrafts in Kafranabel city, the National Hospital in Maarat al-Numan has now been targeted with more than six air strikes. It is the only



hospital operating here. It contains dozens of injured people who were injured in Kafranabel and taken here."

After that Alshami entered the hospital and said: "The Civil Defense evacuate the incubators. A few hours ago, a massacre in Kafranabel and before it in Khan al-Sabeel and before it in Maazran, every day there is a new targeting of civilians."

At 4:31, Moaz Alshami conducted an interview with two women standing beside an injured. One of the women said: "We are from Khan Sheikhan. We were in the hospital there, when it targeted. We came here and now this hospital has been targeted too. Where are we going?"

SMART News Agency [published a video](#) on their YouTube channel as well, containing a testimony from the Head of Radiology Department. He stated: "The hospital was targeted last night 4 Feb 2018 by six strikes from Russian warplanes. As a result, the hospital is now completely out of service, which was the only hospital in this region, serving more than 20 thousand patients per month."

The following day, 5 February 2018, the Syrian American Medical Society (SAMS) - who supported the hospital - [published a post](#) on their Facebook page stating that the National Hospital in Maarat al-Numaan had become out of order as a result of being targeted by six airstrikes. See below:



...

الجمعية الطبية السورية الأمريكية- سامز

5 فبراير، الساعة 12:04 ص .



تم تعليق العمل في مشفى المعرة المركزي، الذي تدعمه #سامز بمدينة معرة النعمان، في ريف #أدلب، بعد استهدافه بست غارات جوية. ويعد مشفى المعرة من أكبر المشافي في ريف ادلب الجنوبي وريف حماة الشمالي، ويحوي جميع الاختصاصات الطبية والجراحية. وتضررت أقسام الإسعاف والحواضن والعناية المشددة بشكل كبير جراء الغارات، وقامت فرق سامز بإخلاء المرضى إلى مراكز صحية أخرى.

يأتي هذا القصف في سياق هجمات مستمرة على المرافق الصحية في ادلب وريفها، رغم أن هذه المناطق ضمن اتفاق وقف التصعيد الذي وقعت عليه الأطراف الضامنة "روسيا، إيران، تركيا" في اجتماع استانة 6.

وشهد اليوم أيضاً تعرض مشفيين آخرين لأضرار جراء غارات جوية قريبة منهما. الأمومة التخصصي لأضرار مادية جراء قصف حوله، وهو مدعوم من قبل سامز ويعد الوحيد المختص بأمراض النساء في مدينة ادلب ويقدم خدماته مجاناً. كما تأثر أيضاً مشفى الأورينت في جبل الزاوية وتعرض لأضرار مادية.

WHERE DID IT HAPPEN?

The Syrian Archive team was able to match several objects between Alshami's video and SMART News Agency's video which confirms both documented the same location. See below:



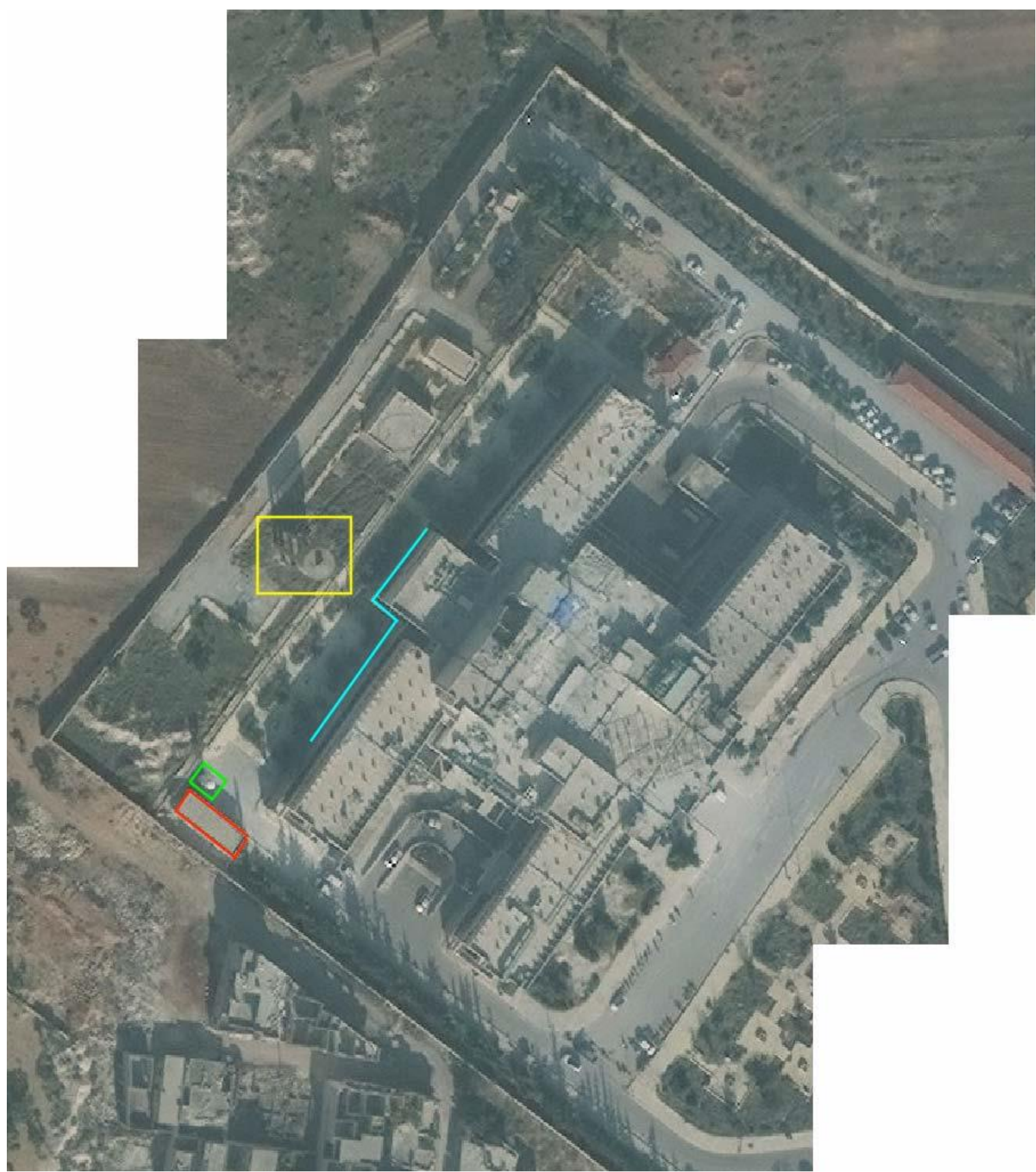
Other objects were identified from a different angle of the same location using the same videos above:



We also identified objects that were shown in Smart News Agency's morning video about this incident:



The Syrian Archive team was also able to geolocate several landmarks and objects using SMART News Agency's video and a satellite image for the National Hospital in Maarat al-Numaan, confirming it was the same location. See below:





Seems from inside the hospital were also able to be cross referenced. In a video [from the Civil Defense](#), the evacuation process for children and women can clearly be seen. It also documents two Syrian Civil Defense members walking in a hospital corridor. At 1:19 of the video, a banner can be seen on the floor that states: "Children's Division." See below:





A separate video was [published by Moaz Alshami](#) in which a sign reading "Emergency Operation" can be seen:





WHEN DID IT HAPPEN?

According to several testimonies collected by Syrians for Truth and Justice the first attack happened around 20:40. Jamil Jaafar, a member of the medical staff who was in the National Hospital at the time of the attack, spoke to Syrians for Truth and Justice:

"At 8:40 p.m. on Sunday, 4 February 2018, while I was at the hospital treating the patients, a Russian warplane raided and injured many patients as well as the medical personnel. We immediately evacuated the injured people who were in the emergency department, in the surgery rooms, and in the incubator section. Moments later, the warplane targeted the hospital once again with high-explosive rockets, as well as a percussion (concussion) rocket that could penetrate the surgery room. The airstrikes concentrated on the emergency department."



Another testimony by a member of the Syrian Civil Defense who was in the hospital at the time of the attack, stated:

“On Sunday evening, 4 February 2018, at around 8:45 p.m while we were at the hospital, a warplane raided on the hospital, so we were forced to move the patients to the lower floors. However, the warplanes bombed more than four airstrikes with high-explosive rockets, one of which was a percussion rocket.”

Abu Bahar, the supervisor of an observatory that monitors the movement of the warplanes in the city's skies, spoke to Syrians for Truth and Justice, stating:

“On February 4, 2018, a squadron of warplanes took off from Hememim Military Airbase in Latakia province, flew towards the north of Syria, and then rotated on bombing our areas. However, at 8:40 p.m. on the same day, one of these aircrafts raided Maarrat al-Numan Central Hospital, followed by five more raids, which caused the hospital to be completely out of service.”

THE WEAPONS USED

Syrians for Truth and Justice was able to obtain a photo shows the remains of one of the missiles that fell in front of the National Hospital. See below:

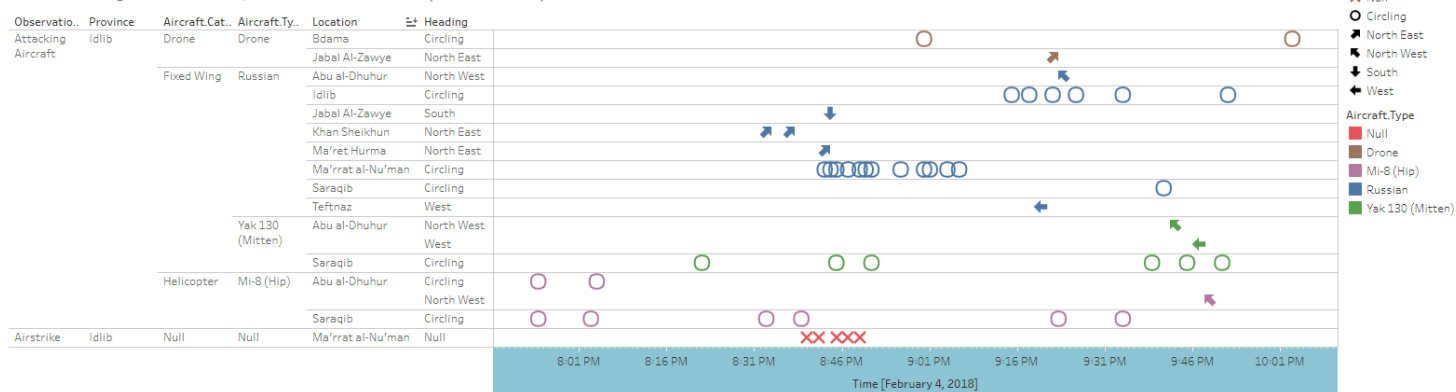


The Syrian Archive was unable to gather additional information regarding munitions used in this attack.

FLIGHT DATA ANALYSIS

To provide a further layer of verification, the Syrian Archive cross-referenced findings from the videos and witness testimony with flight observation data from a spotter organisation. This process necessitated analysing observation data for flights between 19:00 and 22:00, the period directly before and after the reported attack between 20:45 and 20:51 as was claimed by media activists. See below:

Observed flight data, Idlib province 4 Feb. 2018 (20:00-22:00)



[View full visualisation](#)

Through comparing where flights were observed, the type of aircraft observed, the time flights were observed, and the direction flights were heading, and comparing this data to geolocation conducted in earlier steps, the Syrian Archive was able to identify several flights potentially responsible for the attack (several fixed-wing Russian aircraft), seen circling in the immediate vicinity of the geolocated attack site starting from 11:41 AM. Previous research has found that circling flights typically indicate target acquisition and/or preparation for an imminent attack.

While there is no direct evidence available that one of the observed aircrafts was involved in the attack on Maarat al-Numaan, the presence of these aircrafts increase the likelihood that an air attack occurred at this location and the time stated by the citizen reporters as well as humanitarian groups, and estimated also using imagery from the attack.



Bombing Al Salam Medical Facility

- Location: Maarat al-Numaan (Idlib governorate, Syria)
- Claimed targets: Al-Salaam hospital
- Date: 03 January 2018
- Reported killed: 2 killed (including one infant who was 1 year old)
- Reported injured: 10 injured, as reported by Thiqa News Agency
- Potentially responsible: Russian or Syrian Air Force



BACKGROUND OF MAARAT AL-NUMAAN

Maarat al-Numaan (also known as al-Maarra) is a city located 33 km south of Idlib. It is the second largest city in Idlib, with a population of roughly 58,008 (2004 census). Maarat al-Numaan has a long history, and its museum has [mosaics from the Dead Cities](#), dating from the 1st to 7th centuries.

The city saw demonstrations early on in the Syrian uprising. [One of the first demonstrations](#), dating from 24 April 2011, documents demonstrators chanting for freedom and Daraa. Security forces [often intervened](#) to break up demonstrations. The city has seen a [number of defection of](#)



[military officers](#), and as a result, swiftly became an important hub for [organizing protests](#). In October 2012, Maarat al-Numaan fell under [control by the Free Syrian Army](#) (FSA), since which it has ceased to be controlled by the Syrian government.

On 13 March 2016, al-Nusra Front and Jund al-Aqsa [attacked the Free Syrian Army's Division 13](#) in Maarat al-Numaan, overrunning their depots, killing seven combatants and wounding as many as 20 others. Two of Division 13's storage facilities which were filled with US manufactured anti-tank TOW missiles were surrendered to al-Nusra. At the time, Ahmad al-Saaoud, a Syrian rebel commander, said the attackers had seized light weapons and ammunition from his group but had not managed to capture any TOW anti-tank missiles.

Civilian opposition against al-Nusra [continued for several months](#) in Maarat al-Numaan until 6 June 2016 when clashes broke out again. On 9 June, [an agreement was signed](#) between the Free Idlib Army and Tahrir al-Sham. This agreement requires the Division 13 to be stripped of power and all headquarters of Division 13 to be managed by the Free Idlib Army with the exception of one to be managed by Tahrir al-Sham.

Al-Salaam Hospital

Al Salaam Hospital is a maternity hospital in Maarat al-Numaan founded in 1995. It contains all medical departments, including women's clinics, orthopaedics, and general surgery. The hospital served approximately 500,000 people.

Prior to the attack on 3 Jan 2018, the hospital treated approximately 8.000 to 9.000 patients per month. In December of 2017, the [hospital delivered 674 babies](#) and [the total number of beneficiaries](#) from its services reached 8670 patients, including 1789 in the internal clinic, 3356 in the paediatrics clinic, 2668 in the women's clinics, and hundreds of other patients in different clinics. See below:



Al Salaam Hospital is the only maternity hospital in Maarat al-Numaan that provided emergency services, medical consultations, as well as deliveries.



WHAT HAPPENED?

On 03 Jan 2018 between 11:38 AM and 12:00 AM (in Damascus local time), al-Salaam hospital in Maarat al-Numaan was attacked allegedly by the Russian air force. The Syrian American Medical Society (SAMS), who supported the hospital, published a [report](#) stating that the latest airstrikes resulted in the 'killing [of] five people, including a newborn baby girl and her father, and injuring many more.'

On their Facebook page, [SAMS published a video](#) showing the hospital from the inside, immediately after the attack. That evening [SAMS later reported](#): "Al-Salaam hospital in Maarat al-Numaan was becoming out of order, after violent attacks against it caused significant material damage, and its medical staff and patients were evacuated. A newborn baby girl was killed two hours later after she has been born in the hospital and another was injured as a result of the shelling."

Thiqa News agency [also published a video on their YouTube channel](#) showing the destruction of the hospital. See still below:



The video includes an interview with one of the medical staff who stated: "Russian aircraft targeted al-Salaam hospital after the Duhur prayer [noon prayer]. The hospital is out of service now as a result of this attack, we have ten injuries, including three children."

Hadi Alabdallah [also published a video](#) showing destruction of the incubators section of the hospital. See below:



Another still from the Alabdallah video shows destruction outside of the hospital. The Syrian Archive has identified similar objects between Alabdallahs video and Thiqa News Agency video. See below:



In the same video, Alabdallah conducted an interview with one of the hospital doctors who stated: "We were in the operations room when we were surprised by a huge explosion caused by two missiles. We went out immediately to check the casualties. We had five victims and a number of wounded, in addition to extreme physical damage."



RFS Media [also published a video](#) showing the destruction in the front of the hospital. The video also features an interview with a member of Syria Civil Defence rescue team, who stated: "The warplanes launched heaviest attacks on several areas in the southern countryside of Idlib. We are now in al-Salaam hospital in Maarat al-Numaan, a civilian hospital, which was targeted by airstrikes, resulting in five victims and ten wounded."

Maara Media Center (MMC) [published a video](#) by Mohamed Aldaher showing additional destruction outside of the hospital from a different perspective. See stills below:





The video contains an interview with one of Syria Civil Defence members who stated: "Russian warplanes targeted Maarat al-Numan city with two air strikes targeting al-Salaam hospital and some shops surrounding it. A city inhabited by civilians."

Eye on Homeland (EOH) [published an Additional video](#) on their youtube channel showing the outside of the hospital, where the attack caused destruction of nearby shops surrounding the al-Salaam hospital. See below:



The Syrian Archive identified objects contained in both the Maara Media Center video and the Eye on Homeland video to confirm both videos were filmed in the the same location. See below:



Edlib Media Center also published a video [showing the first moments after the attack](#). See below:



WHERE DID IT HAPPEN?

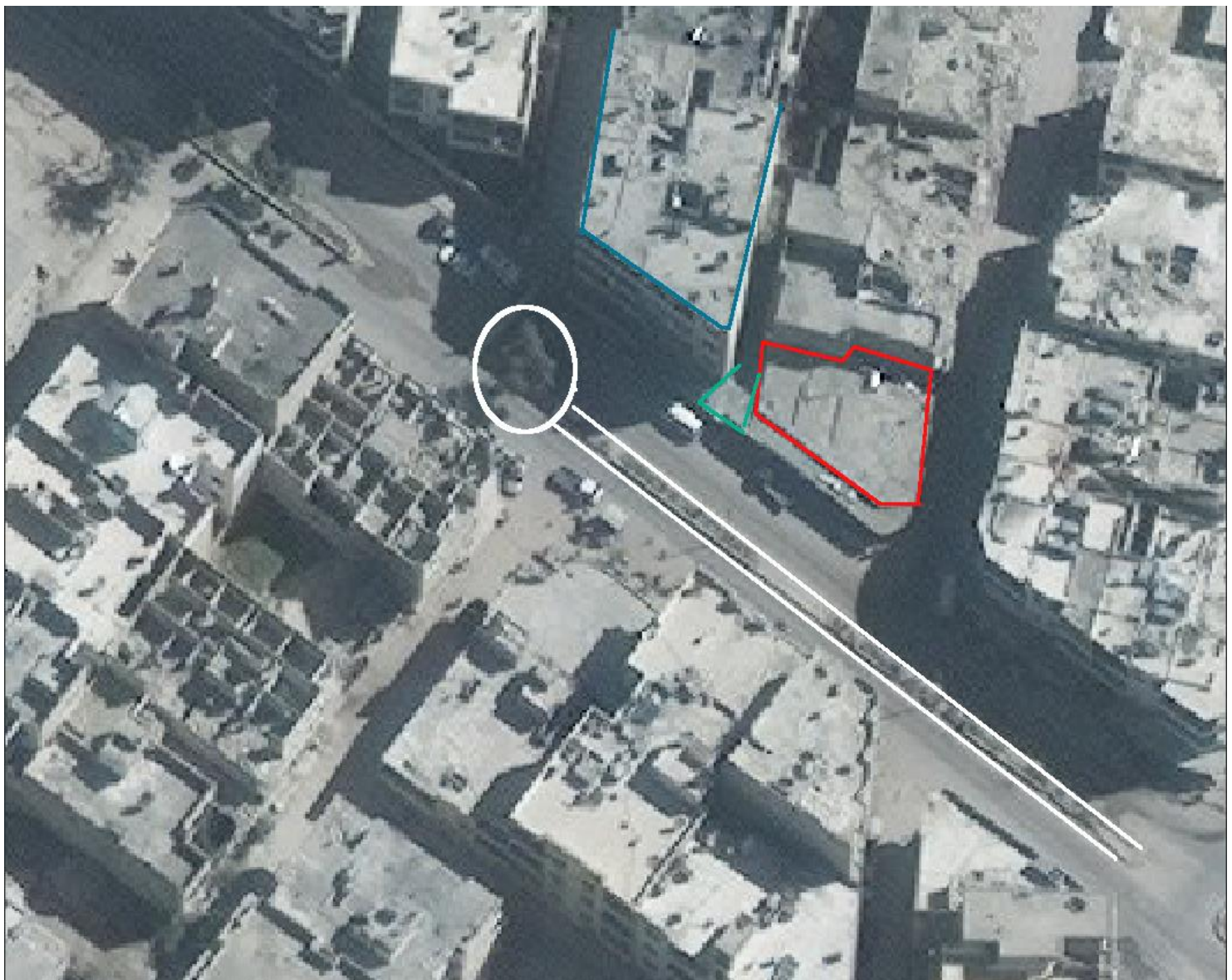
Al Jazeera published a video after the attack [showing rubble removal activities around the hospital](#), by Syria Civil Defense.

The Syrian Archive was able to geolocate several landmarks and building using the above video and satellite images, thus confirming that the targeted location was the al-Salaam hospital and its surroundings. The below stills were taken from inside and outside the hospital:





These landmarks and buildings were then compared with the following satellite image taken from Digital Globe, confirming the location:





WHEN DID IT HAPPEN?

According to some testimonies in the videos above, the airstrike took place after the noon prayer, [which was held around](#) 11:38 AM on 03 Jan 2018.

At 11:48 AM on 03 January, a citizen reporter, based in Maarat al-Numaan, [Anas Al Marwai](#), [published a video](#) on his Facebook page showing destruction around the al-Salaam hospital. See below:



Another Citizen reporter Mutie Jalal also [published a tweet](#) at 11:55 AM about the attack, stating: "Two Russian airstrikes on Sarakib and one on Maarat al-Numaan and another one on Muharram."

Hadi Alabdallah [published another video](#) showing the destruction of shops around the hospital. See below:



In the same video, Alabdallah stated: "Although it's raining, and the sky is full of clouds, the Russian warplanes do not stop flying and bombing the areas of Idlib countryside." Through comparing Alabdallah's description of the weather at the location to recorded data of the [weather on 03 January in Maarat al-Numaan](#), the Syrian Archive was able to confirm the weather was rainy and cloudy, corroborating claims made in the videos. See below:


Ma`arrat an Nu`man, Syria Monthly Weather

17:15 EET


< Jan 2018 >



SUN	MON	TUE	WED	THU	FRI	SAT
31	1	2	3	4	5	6
17°	11°	16°	18°	13°	13°	13°
6°	5°	7°	8°	6°	5°	5°



WEDNESDAY, 3 JAN ✕



18° / 8°
Light Rain Shower
/0.43cm

Waning Gibbous 

Record High -- **Sunrise**  06:41 **Moonrise**  18:18

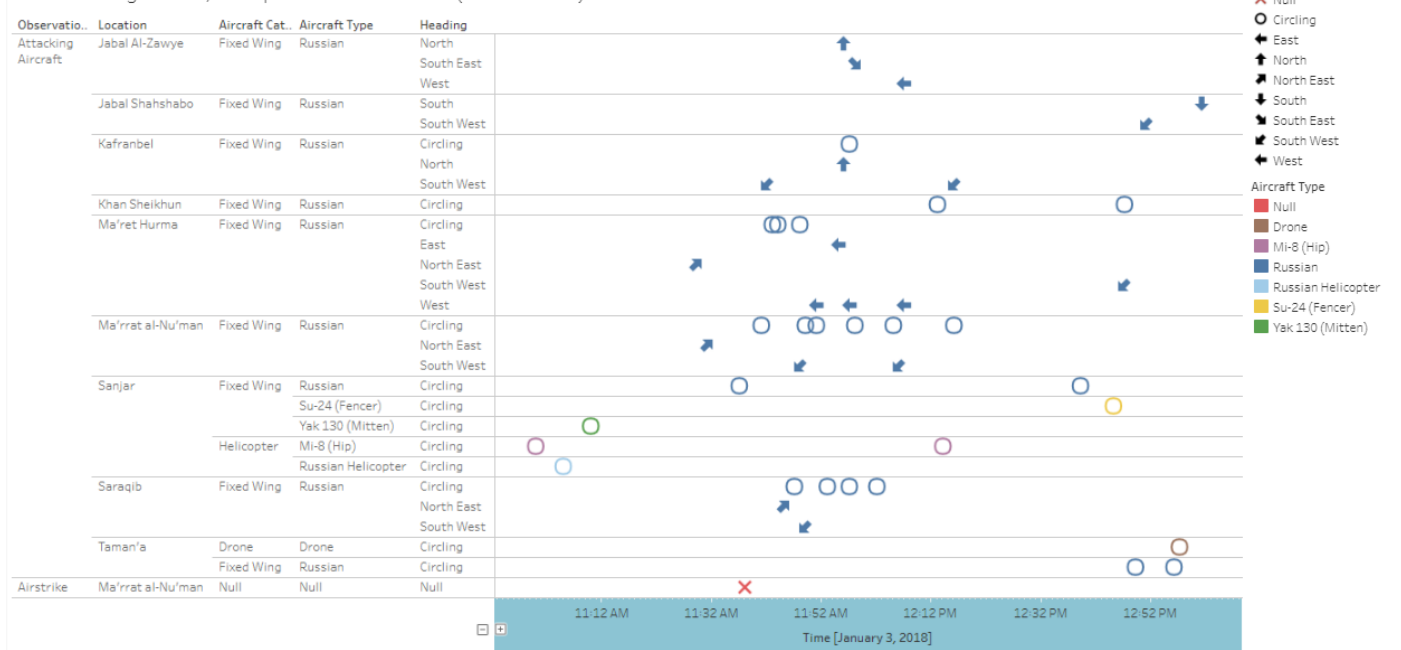
Record Low -- **Sunset**  16:33 **Moonset**  07:41

FLIGHT DATA ANALYSIS

To provide a further layer of verification, the Syrian Archive cross-referenced findings from the videos and witness testimony with flight observation data from a spotter organisation. This process necessitated analysing observation data for flights between 11:00 and 14:00, the period directly before and after the reported attack between 11:30 and 11:45 as was claimed by media activists. See below:



Observed flight data, Idlib province 3 Jan. 2018 (11:00-13:00)



[View full visualisation](#)

Through comparing where flights were observed, the type of aircraft observed, the time flights were observed, and the direction flights were heading, and comparing this data to geolocation conducted in earlier steps, the Syrian Archive was able to identify several flights potentially responsible for the attack (several fixed-wing Russian aircraft), seen circling in the immediate vicinity of the geolocated attack site starting from 11:41 AM. Previous research has found that circling flights typically indicate target acquisition and/or preparation for an imminent attack.

While there is no direct evidence available that one of the observed aircrafts was involved in the attack on Maarat al-Numaan, the presence of these aircrafts increase the likelihood that an air attack occurred at this location and the time stated by the citizen reporters as well as humanitarian groups, and estimated also using imagery from the attack.



SOME OF KILLED CIVILIANS NAMES AND PICTURES:

On his Facebook page, Anas Al Marwai [published a photo of a newborn baby girl from Ma'ar Shamareen](#) named "Tal Firas Al Omar", stating that she died an hour after she was born in Al Salaam Hospital as a result of the bombing.

Mukhils Kahttab, a citizen-based in Maarat al-Numaan, [published a photo](#) on his Facebook page of what he claimed was "his nephew, who was killed as a result of the al-Salaam hospital targeting."

Data Ethics - Medical Facilities Under Fire

The authors have strived to incorporate a "**Do No Harm**" ethical framework into its processes. Due to the repeated targeting of hospitals, medical facilities, and medical personnel since 2012 particularly by Syrian and Russian forces, additional precautions and ethical issues were raised.

As the Syrian Archive, it is important to be transparent in our findings and methodologies. We believe that visual documentation of human rights violations that is transparent, detailed, and reliable are critical towards providing accountability and can positively contribute to post-conflict reconstruction and stability. Such content can humanise victims, reduce the space for dispute over numbers killed, help societies understand the true human costs of war, and support truth and reconciliation efforts.

In order to prove that digital content has been verified, geolocation is needed. In the past the Syrian Archive has verified and published the locations of particular human rights violations; due to repeated targeting of hospitals and medical facilities, it was decided that publicly publishing the exact locations of facilities, even for those in longer in use, could potentially pose additional risks towards those working in such environments.

For this reason, two versions of this report have been written: a public version which provides summary findings, and a private version which includes additional information, such as coordinates, provided to those groups given the mandate to investigate human rights violations



in the Syrian conflict. The private report and its data will also be prepared to be given to the International, Impartial and Independent Mechanism on Syria (IIIM), as well as to the UN Commission of Inquiry on Syria.

Prior to publication, consent was acquired with those interviewed (e.g. medical workers, facility managers, and Civil Defense volunteers) regarding the public sharing of information regarding attacks.

Errors, Corrections, and Feedback

The authors of this report have strived for accuracy and transparency of process in reporting and presentation, while balancing the need to protect the safety of those providing documentation in some instances. With these interests in mind, detailed methodologies for some information deemed sensitive have not been published.

With that said, while all efforts have been made to present our best understanding of alleged incidents, it is recognised that the publicly available information for specific events can at times be limited.

If readers have new information about particular events; find an error in our work - or have concerns about the way we are reporting our data - please do engage with us. You can reach us at info@syrianarchive.org.



Methodology

This report took an interdisciplinary approach towards investigating attacks on medical facilities in Idlib during January and February 2018. In the report, the authors have included a variety of sources for analysis and investigation, which each have their own respective methodologies. Specific methodologies are provided in the following pages:

WITNESS STATEMENTS

Following the hospital attacks in Idlib province during the month of January and February 2018, Syrians for Truth and Justice established a field research team which was tasked with entering the city and inspecting the impact sites. These organisations were additionally tasked with collecting material evidence as well as accounts of the survivors, such as those injured and their families, as well as accounts of eyewitnesses (e.g. medical staff; managers of the hospitals; civil defense team members).

Interviews were conducted in person in Idlib by staff members of their respective organisations and recorded on audio devices and then later transcribed. Staff members conducted a total of 10 semi-structured interviews using a standardised questionnaire. Questions asked to respondents focused on the following themes:

1. Details surrounding the attack (e.g. date, time, location)
2. The number of patients each medical facility provided care to on a monthly basis
3. The types of departments or procedures medical facilities conducted
4. The geographic areas served by medical facilities
5. Whether this medical facility had been previously subject to attack
6. Information regarding casualties and those injured as a result of the attack

FLIGHT OBSERVATION DATA

To cross-reference with findings from visual content, flight observation data information was provided to the Syrian Archive by an organisation employing a well-developed network of spotters (flight observers) of aircrafts departing from military air fields primarily located in northwestern and central Syria.

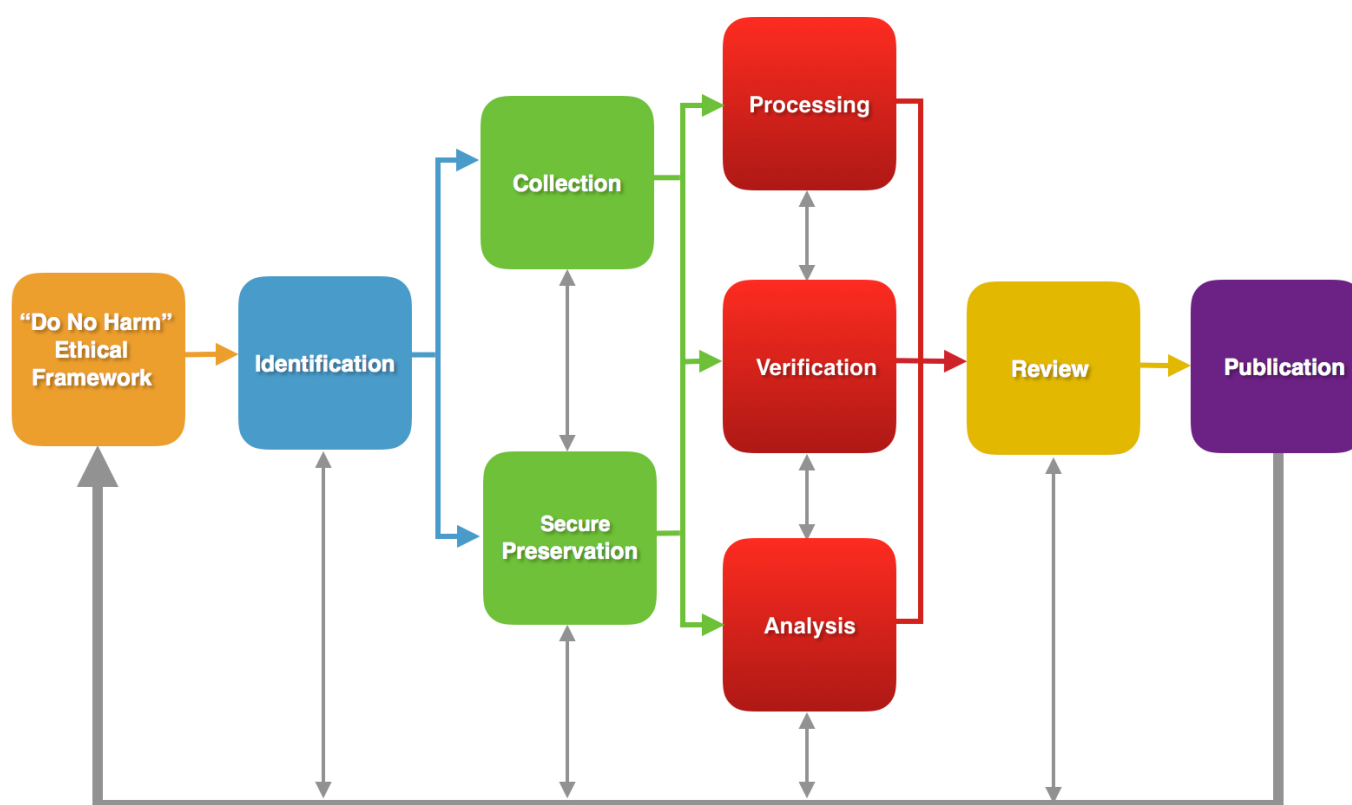


Flight data and the visual content were analysed to identify whether flights were observed in the vicinity of locations attacked for locations in which aerial bombings were alleged.

VISUAL CONTENT

The Syrian Archive employed its Digital Evidence Workflow, based off of the [Electronic Discovery Reference Model developed by Duke University School of Law](#). This workflow consists of five components: A) Identification; B) Collection and secure preservation; C) Processing, verification and analysis; D) Review; and E) Publication. A "Do No Harm" ethical framework has been applied to all steps in the digital evidence workflow. Detailed methodologies of these components are analysed in the following subsections.

Syrian Archive Digital Evidence Workflow





A. Identification

The Syrian Archive's identification process has three steps: 1) Establish a database of credible sources for digital content; 2) Establish a database of credible sources for verification; 3) Establish a standardised metadata schema. These three processes are outlined in detail below:

1) Establish database of credible sources for content

Before any collection, archival, or verification of digital materials was possible, the Syrian Archive first established a database of credible sources for visual content. The Syrian Archive project worked to identify over 3000 credible sources, a list consisting of individual journalists and field reporters, larger media houses (e.g. local and international news agencies), human rights organisations (e.g. Syria Institute for Justice), Syrian Civil Defense (White Helmets), and local field clinics and hospitals, and others. Many of the sources used by the Syrian Archive began publishing or providing visual content in late 2011-early 2012 and have also published work in other credible media outlets.

Credibility was determined by analysing whether the source is familiar to the Syrian Archive or to its existing professional network of Syrian journalists, media activists, human rights groups and humanitarian workers; whether the source's content and reportage been reliable in the past. This is determined by evaluating how long the source has been reporting and how active they are. To determine where the source is based, social media channels are evaluated to determine whether videos uploaded are consistent and mostly from a specific location where the source is based, or if locations differ significantly. Channels are analysed to determine whether the video account uses a logo and whether this logo is consistently used across videos. Channels are additionally analysed for original content to determine whether the uploader aggregates videos from other news organisations and YouTube accounts or whether they upload mostly user-generated content.

2) Establish database of credible sources for verification

Secondly, the Syrian Archive project worked to establish a database of credible sources for verification. These sources provide additional information used for verification of content originating on social media platforms or sent from sources directly. Those verifying content are



made up of citizen journalists, human rights defenders and humanitarian workers based in Syria and abroad. To preserve data integrity, sources used for content did not comprise part of the database for verification.

3) Establish standardised metadata scheme

Third, the Syrian Archive recognised the need for a standardised metadata scheme for organising content, but also that any metadata scheme used would be a highly political choice. Given that there are no universally accepted legally admissible metadata standards as of the date of this publication, efforts were made to develop a framework in consultation with a variety of international investigative bodies. Among these include consultations with members of the International Criminal Court, with members of the United Nations Office for High Commissioner of Human Rights, with members of the International, Impartial and Independent Mechanism on international crimes committed in Syria (IIIM), with archival institutes like the NIOD Institute for War, Holocaust and Genocide Studies, with international human rights organisations like Amnesty International, Human Rights Watch, and Witness, and with research institutes like the Human Rights Center at UC Berkeley School of Law.

Establishing a standardised metadata schema is necessary in order to assist users in identifying and understanding when, where, and what happened in a specific incident. A review of practices by other war archival institutes, such as those of NIOD, found that additional information is helpful for contextualising raw visual content (e.g. location of video recording; date of video recording and upload; and the origin of the video). Metadata collected by the Syrian Archive project includes description of the visual object as given (e.g. YouTube title); the source of the visual content; the original link where footage was first published; specific landmarks able to be identified; weather (which may be useful for geolocation or time identification); specific languages or regional dialects spoken; clothes or uniforms able to be identified; weapons or munitions used; device used to record the footage; and media content type. The metadata is populated automatically and manually depending on how it was collected from e.g. open source or closed source. [A detailed description and full list of metadata field types are provided on the Syrian Archive website.](#)



In categorising violations, the Syrian Archive has decided to use the violations categories used by the Office of United Nations High Commissioner for Human Rights (OHCHR). This was done because OHCHR is one of the groups in the unique position of being able to investigate incidents of human rights violations and war crimes. These categories consist of many often overlapping categories. Categories identified by the UN OHCHR Inquiry on Syria and used by the Syrian Archive project include:

Violations: treatment of civilians & hors de combat fighters

- Massacres and other unlawful killing;
- Arbitrary arrest and unlawful detention;
- Hostage-taking;
- Enforced disappearance;
- Torture and ill-treatment of detainees;
- Sexual and gender-based violence;
- Violations of children's rights;

Violations: conduct of hostilities

- Unlawful attacks;
- Violations against specifically protected persons and objects;
- Use of illegal weapons;
- Sieges and violations of economic, social and cultural rights;
- Arbitrary and forcible displacement.

Should potential investigations by international bodies not be pursued by the UN OHCHR and rather by another investigative body, it is anticipated that the Syrian Archive will modify violations categories to meet the needs of those investigating.

B. Collection and secure preservation

The collection and secure preservation of the digital evidence workflow ensures that the original content is not lost due to removal on corporate platforms. This is done by collecting and securely storing digital content on external backend servers before it goes through basic verification. It is then backed up securely on servers throughout the world. Videos are hashed with (SHA-256) and (Md5) consistent with current best practices and timestamped to ensure they are not tampered with after being collected from social media platforms (open source) or



taken directly from sources (closed source). Simultaneously it is hashed and timestamped by an independent and impartial third party for reference and integrity purposes. Once verified, content is centrally published on the Syrian Archive website in an open-source format. The Syrian Archive uses the [SugarCube software](#) for this process, a free and open source software developed for use in human rights investigations using online-based user generated content research.

C. Processing, verification, and analysis

After content has been collected and stored securely, the next stage of the digital evidence workflow refers to the processing, verification, and analysis of digital materials. Detailed descriptions of these three components of the digital evidence workflow are outlined below:

1) Processing

Metadata from visual content collected from social media platforms is parsed and aggregated automatically using a predefined and standardised metadata scheme, as described above. Metadata from visual content sent to the Syrian Archive directory is created manually using the standardised metadata scheme.

This prepares the visual content for initial verification. As much additional metadata and chain of custody information as possible is recorded. This is done to assist users in identifying and understanding when, where, and what happened in a specific incident.

2) Verification

Verification is comprised of three components: 1) Verify the source of the video uploader; 2) Verify the location where the video was filmed; 3) Verify the dates in which the video was filmed and uploaded. Detailed descriptions of these three processes are outlined below:

- Verify the source of the video uploader

Establish that the source of the video on the Syrian Archive's verified list of credible sources. If the source is not an existing trusted source, determine the new source's credibility by going through the procedure highlighted above.



In some cases, near-duplicate content may be published. For example, if one video is 30 seconds and a second video is 10 minutes but includes all or portions of the first video, both videos would be published as long as it is possible to verify both videos. Similarly videos from news organisations or media houses featuring all or parts of content from other videos are also preserved, as long verification is possible. The Syrian Archive also preserves duplications if they are from different sources and the original uploader is unable to be determined (for example if two identical videos are uploaded simultaneously).

The video uploader source may not necessarily be the same as the source who originally filmed content. In most of the video footage verified by the Syrian Archive, only the video uploader and not the video filmer is known. Advanced verification in the analysis phase includes the source of filming, a process done in cases deemed priority.

- Verify the location where the video was filmed

Each video goes through basic geolocation to verify that it has been captured in Syria. More in-depth geolocation is conducted for priority visual content in order to verify that it has been captured in a specific location. This has been done by comparing reference points (e.g. buildings, mountains ranges, trees, minarets) with Google Earth satellite imagery, Microsoft Bing, and Digital Globe, as well as OpenStreetMap imagery and geolocated photographs from Google Maps. In addition to this, the Syrian Archive has referenced the Arabic spoken in videos against known regional accents and dialects within Syria to further verify location of videos. When possible, the Syrian Archive has contacted the source directly in order to confirm the location, and cross-reference video content by consulting existing networks of journalists operating inside and outside Syria to confirm the locations of specific incidents.

- Verify the dates in which the video was filmed and uploaded

The Syrian Archive verifies the date of capturing the video by cross referencing the publishing date of visual content collected from social media platforms (e.g YouTube, Twitter, Facebook and Telegram) with dates from reports concerning the same incident. Visual content collected directly from sources is also cross referenced with reports concerning the same incident featured in the video.



- News reports from international and local media outlets, including Reuters, Smart News Agency, Aleppo Media Center, Qasioun News Agency, LCC;
- Human rights reports published by international and local organisations, including Human Rights Watch, Amnesty International, Syrian Human Rights Network, Violations Documentation Center in Syria, Syrian American Medical Society, and Physicians for Human Rights;
- Reports shared by the Syrian Archive's network of citizen reporters on Twitter, Facebook and Telegram about the incidents.

Additional tools are used to check the date of the visual content such as Google reverse imagery and Sun Calc.

3) Analysis

In some cases, the Syrian Archive is able to conduct in-depth open source investigations. Time and capacity limitations means not all incidents are able to be analysed in-depth, however by developing a replicable workflow it is hoped that others can assist in these efforts of investigate other incidents using similar methods. A detailed overview of in-depth incident analysis is provided in the [investigations section](#) of the Syrian Archive website.

D) Review

Once digital materials have been processed, verified, and analysed, it is then reviewed for accuracy. In the event of a discrepancy, content is fed back into the digital evidence workflow for further verification. If content is deemed accurate it moves to the publishing stage of the digital evidence workflow.

E) Publication

Once the visual content is verified and reviewed, it's then published on the Syrian Archive database where they are made publicly available in a free and open source format. Regular reports on verified visual content ensure that the feedback loop between the Syrian Archive and sources who filmed the videos is closed. This allows the Syrian Archive to add value to the visual content being preserved, verified and analysed immediately for advocacy purposes and later on for accountability and justice purposes.