



ISRAELI EXECUTIONS OF PALESTINIAN AID WORKERS

REPORT BY EARSHOT 23.02.2026

FOREWORD

Firefighters have a close bond of solidarity which comes from our shared profession.

Like our profession, this solidarity knows no borders. In times of crisis, irrespective of continent or country, firefighters stand shoulder to shoulder united by the service we provide.

Ours is a lifesaving, humanitarian service which demands to be respected in all circumstances and situations – including in areas of conflict. Therefore, the deliberate targeting and assassination of firefighters whilst undertaking their duties must be intolerable for everyone in our profession.



This booklet, written by Earshot and based on meticulous research conducted with Forensic Architecture, details the targeting and apparent assassination of firefighters and other emergency workers whilst responding to an incident in Gaza.

On Sunday 23 March 2025, evidence strongly suggests that forces serving under the Israeli flag targeted and killed fifteen Palestinian emergency workers - including at least three firefighters – in an attack in which some victims were shot **'execution-style'** from close range.

During the incident, the attackers fired hundreds of rounds directly at emergency workers. As one worker lay fearing for his life, he referenced his chosen profession, calling out: **'forgive me mother for the way I chose to help people'**. He was then killed and his body dumped in a mass grave.

Seven days after the attack the bodies of fourteen victims, all wearing identifying uniforms of their respective organisations, were recovered from a mass grave. Also recovered from the soil was the crushed remains of a fire truck. One survivor described the truck as being discarded **'like a crumpled cigarette packet'**.

These brutal killings are a scar on our collective conscience. Our colleagues had put on their uniforms and gone to work to help others, just like our members do every day. They were executed for being firefighters. We must not tolerate this. We must demand accountability and justice.

It is understood that the Royal Air Force (RAF) flew a reconnaissance flight over the area two days after the attack. This may have collected evidence relevant to any potential criminal action. To date, the UK government has refused to release the footage or engage with efforts to investigate the incident. We demand that this position be reversed. Our government cannot be complicit in potential war crimes.

The Fire Brigades Union demands justice and accountability. We demand answers from the government and call on all UK MPs to join our campaign.

A handwritten signature in black ink, appearing to read 'Steve Wright'.

Steve Wright
General Secretary

WE REMEMBER THE VICTIMS AS WE FIGHT FOR JUSTICE:

Mustafa Khafaja, ambulance officer, PRCS

Ezz El -Din Shaat, ambulance officer, PRCS

Saleh Muammar, ambulance officer, PRCS

Refaat Radwan, first responder volunteer, PRCS

Muhammad Bahloul, first responder volunteer, PRCS

Ashraf Abu Libda, first responder volunteer, PRCS

Muhammad al-Hila, first responder volunteer, PRCS

Raed al-Sharif, first responder volunteer, PRCS

Zuhair Abdul Hamid al-Farra, fire truck driver, PCD

Samir Yahya al-Bahapsa, firefighter officer, PCD

Ibrahim Nabil al-Maghari, firefighter officer, PCD

Fouad Ibrahim al-Jamal, ambulance driver, PCD

Youssef Rassem Khalifa, ambulance officer, PCD

Anwar al-Attar, ambulance officer, PCD

Kamal Mohammed Shahtout, UNRWA

Israeli Executions of Palestinian Aid Workers

Report by Earshot
23.02.2026

1 Introduction

In the early hours of March 23, 2025, Israeli soldiers fired **at least 910 rounds** in Tel Al-Sultan, Gaza. Of these, we determined that **at least 789 were fired directly at aid workers**. Four days later, on March 27, the body of a Palestinian Civil Defence (PCD) ambulance officer was found near the incident site. Seven days later, on March 30, the bodies of the other fourteen victims, all wearing identifying uniforms or volunteer vests of their respective organisations, were recovered from a mass grave alongside the crushed remains of their ambulances and fire truck, buried under soil.

Through forensic audio analysis of three recordings — a 6-minute video and two phone calls captured by paramedics during the assault — we reconstructed the attack minute by minute. What emerges is a sustained, two-hour assault: Israeli soldiers firing from fixed positions, advancing while shooting, and ultimately executing aid workers at close range.

This investigation, conducted with Forensic Architecture (FA) and with the Palestinian Red Crescent Society (PRCS), is published by Drop Site News and presented in the UK Parliament on 24 February 2025.

2 What this investigation reveals

This investigation took nearly a year — not because of external delays, but because of what the evidence demanded. We listened to these recordings hundreds of times. We counted every gunshot and analysed its constituent sounds — its supersonic bullet shockwave, muzzle blasts, and echoes. We timestamped, catalogued, and measured the intervals between each of these sounds. We traced echoes off concrete walls to locate shooters with meter-level precision.

No other organisation — human rights body or media outlet — has analysed these recordings with this level of forensic detail. Without this audio analysis, the full scope of what occurred would have remained obscure.

Our investigation establishes three critical facts:

Survivor testimony is an accurate and reliable documentation of what occurred.

Every major element detailed by survivors through testimonies — soldiers' positions, the coordinated advance while firing, close-range executions between the vehicles, the use of missile launchers — is corroborated through audio analysis.

This was a sustained military operation against clearly marked emergency vehicles and personnel. Our investigation documents an attack lasting at least 2 hours, followed by the burial of ambulances and destruction of evidence.

Soldiers' names revealed. Audio evidence enabled us to name three soldiers who were involved in this crime. These findings should advance efforts toward accountability.



Figure 1: Reconstruction of the positions and movements of the Israeli soldiers throughout the 5 minutes and 30 seconds of gunfire captured in Refaat Radwan's video. 81 of the 844 gunshots captured in Refaat's video contain clearly audible gunshot echoes. We echolocated the position of the shooters for each of these gunshots along the 81 lines seen in the figure.

3 What happened on March 23, 2025

At approximately 4:00 am on March 23, 2025, a Palestinian Red Crescent (PRCS) ambulance driving along Gush Katif Road, in al-Hashahin, near Rafah in the south of Gaza, came under Israeli fire. Two drivers — Ezz El-Din Shaat and Mustafa Khafaja — were killed. A third PRCS volunteer, Munther Abed, was taken captive by the Israeli military and survived the attack.

At approximately 5:09 am, a second convoy arrived at the location of the first ambulance: 3 PRCS ambulances, one fire truck, and one Civil Defence vehicle. As the convoy came to a halt, Israeli soldiers opened fire.

Over the next two hours, Israeli soldiers fired at least 910 rounds — at least 789 directly at the aid workers.

Among the victims' personal belongings, one mobile phone was retrieved. On it: a 6-minute video taken by PRCS first responder volunteer Refaat Radwan, capturing the moment the convoy came under Israeli gunfire at 5:09 am.

Two other PRCS aid workers — trapped in the assault — managed to call PRCS headquarters while the attack was ongoing. At approximately 5:13 am, Ashraf Abu Libda (PRCS first responder volunteer) called while under heavy gunfire. Nearly two hours later, at 6:55 am, Asaad Al-Nasasra (PRCS paramedic) called while surrounded by Israeli soldiers. Ashraf did not survive the attack. Asaad did. Both calls were recorded.

These three recordings — Refaat's video and the two recorded phone calls — formed the evidential basis of our investigation.

We analysed the audio from these recordings and, in collaboration with FA, conducted detailed interviews with the two survivors. As the attack occurred during hours of little to no daylight, and as two of the three recordings are phone calls, audio analysis became a crucial means of reconstructing the attack and corroborating the survivors' testimonies.

What follows is a minute-by-minute account of what audio evidence can establish when visual evidence is deliberately destroyed.

I. Multiple shooters firing simultaneously at aid workers

Munther Abed testified being held at gunpoint by Israeli soldiers, with “an M16 assault rifle pointed at my back”, witnessing soldiers “shooting directly at the convoy”. Our audio analysis confirmed his account.

We counted at least **910 gunshots** across the three recordings. The majority – 844 shots – were captured in Refaat’s 5-minute-30-second video. The density of gunfire in this recording frequently exceeded 900 rounds per minute (RPM) – the highest rate of fire for a single M16 rifle in automatic mode.

At one point in Refaat’s video, 5 gunshots are audible within 67 milliseconds – the shortest possible time it takes an M16 to cycle and fire again. The irregular intervals between these shots confirm **at least 5 shooters firing simultaneously**. This represents only one moment in the attack. The remaining 839 gunshots in Refaat’s video, combined with survivor testimony, suggest many more shooters were present. Asaad testified there were “at least 12 soldiers.” Munther said “at least 30.”

Audio ballistic analysis of the 844 gunshots in Refaat’s video established that his camera was consistently in the line of fire throughout the period of audible gunshots. By identifying the supersonic shockwave made by the bullet flying past the recording device, followed by the muzzle blast in 789 out of 844 gunshots, we confirmed that **93% of all audible gunfire was fired towards Refaat’s camera and the emergency vehicles**.

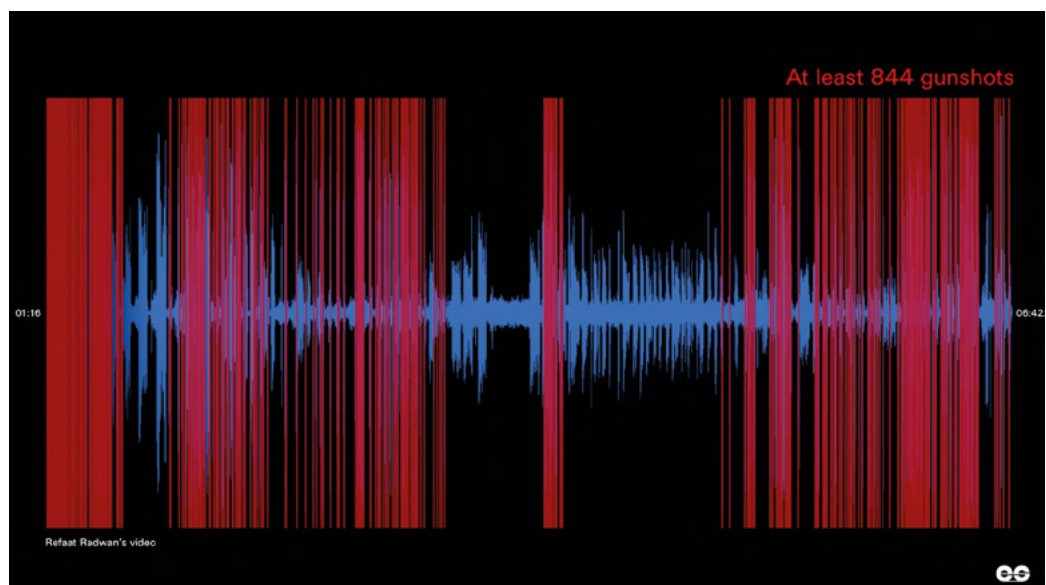


Figure 2: Annotation of the 844 gunshots heard in Refaat’s video in the 5 minutes and 30 seconds of audible gunfire. 93% of these gunshots (789 gunshots) were fired towards Refaat’s camera.

II. Timeline of the attack

1 5:09 am – 5:13 am: Fixed firing position on an elevated sandbank

Audio ballistic analysis and echolocation confirmed the **soldiers' initial positions on an elevated sandbank 38 to 48 metres southeast of the vehicles**. Echolocation, in this context, is the process of using the propagation of sound waves and their acoustic reflections to forensically reconstruct a scene or event. The time delay, direction, and distortion of the echo reveal the size, distance, texture, and shape of objects in the environment. This process allows us to estimate the position of a sound source and its movements.

The Israeli Army's destruction and clearance of Tel Al-Sultan left very few structures standing. This fundamentally changed the area's acoustic behaviour. In a dense urban environment, gunshot echoes overlap and become indiscernible from one another. Here, with most structures destroyed, the remaining surfaces produced clearly distinguishable echoes – paradoxically strengthening our ability to determine shooter positions with meter-level precision.

In the first 4 minutes of gunfire, echoes are audible between 558 and 603 milliseconds after the muzzle blast. We identified a 2-metre-tall and 50-metre-wide concrete wall 130 metres south of Refaat as the only surface capable of causing these echoes. Echolocation confirmed the position of Israeli soldiers on an elevated sandbank southeast of Refaat.

The interval between muzzle blast and echo remained stable throughout these 4 minutes, indicating the soldiers remained stationary on the elevated sandbank while firing continuously.

This analysis confirmed the location where Munther testified to being held at gunpoint, surrounded by Israeli soldiers who opened fire towards the vehicles as the second convoy arrived.

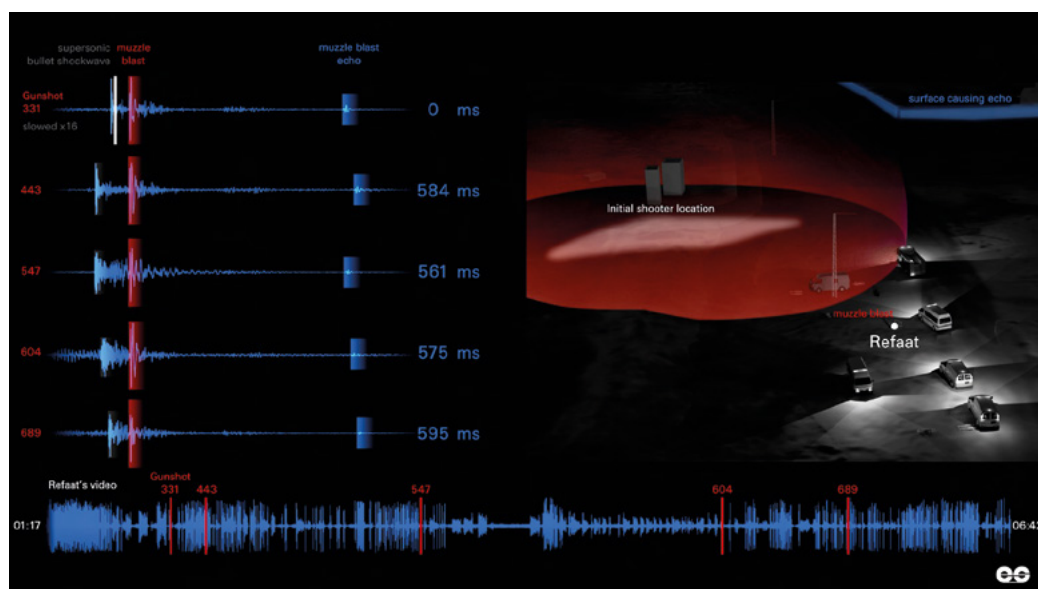


Figure 3: 'Simulation of the sound of a gunshot fired from the elevated sandbank 38 to 48 metres southeast of Refaat. For the first 4 minutes of gunfire, we clearly identified audible echoes between 558 and 603 milliseconds after the sound of the muzzle blast. The simulation illustrates the propagation of sound across the site of the attack, with the muzzle blast reflecting off a 2-metre-tall and 50-metre-wide concrete wall 130 metres south of Refaat and traveling back to Refaat's camera as an echo 558 to 603 milliseconds later.

2 5:13 am: Coordinated advance while firing

In the final 1 minute and 30 seconds of Refaat Radwan's video, echolocation and audio ballistic analysis indicated that the soldiers moved towards the aid workers at a walking pace of approximately 1 metre per second while continuously shooting.

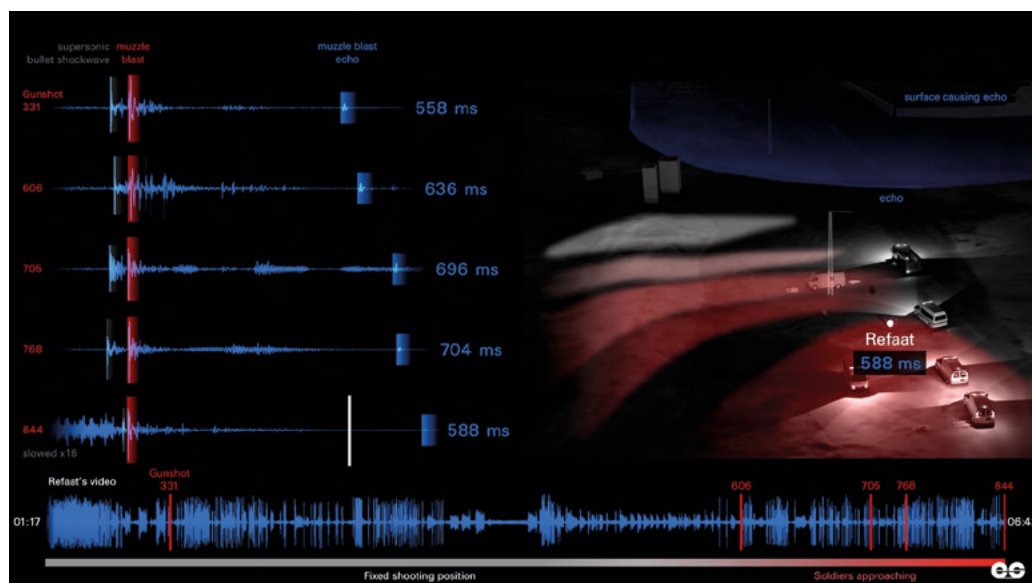


Figure 4: Simulation of the sound of a gunshot fired from a position increasingly close to Refaat. In the final 1 minute and 30 seconds of Refaat's video the echo previously heard between 558 and 603 milliseconds after the muzzle blast increases gradually and is heard up to 779 milliseconds after the muzzle blast. The simulation illustrates how this increasing echo interval corresponds with the soldiers moving away from the 2-metre-tall concrete wall identified as causing these echoes, and towards Refaat's position..

3 5:14 am: Close-range executions

At approximately 5:13 am, Ashraf called the PRCS headquarters. We confirmed that Ashraf's phone call overlapped with the final 42 seconds of Refaat's video by synchronising the sound of 109 gunshots across the two recordings.

These gunshots coincide with audible voices of Israeli soldiers, heard across the left and right audio channels in Refaat's video. This is the first time in the recordings where we hear voices speaking Hebrew at this level of intelligibility, and the first time we hear those voices distinctly separated across the stereo field, indicating that the Israeli soldiers were positioned to both the left and right of Refaat's phone.

In stereo recordings, proximity magnifies the positional differences captured by the left and right microphones. At a distance, sound waves hit both microphones at roughly the same time and level. However, once up close, any slight movement of the source causes larger differences in arrival time and volume between the two channels, making the movement through the stereo field sound more pronounced and distinguishable.

Therefore, the presence of the soldiers' voices — heard both louder and across both left and right recording channels — strongly suggests that Refaat had become surrounded by Israeli soldiers who were positioned in close proximity to him.

The audible presence of Israeli soldiers' voices coincides with Refaat and Ashraf's final words announcing the arrival of the Israeli soldiers.

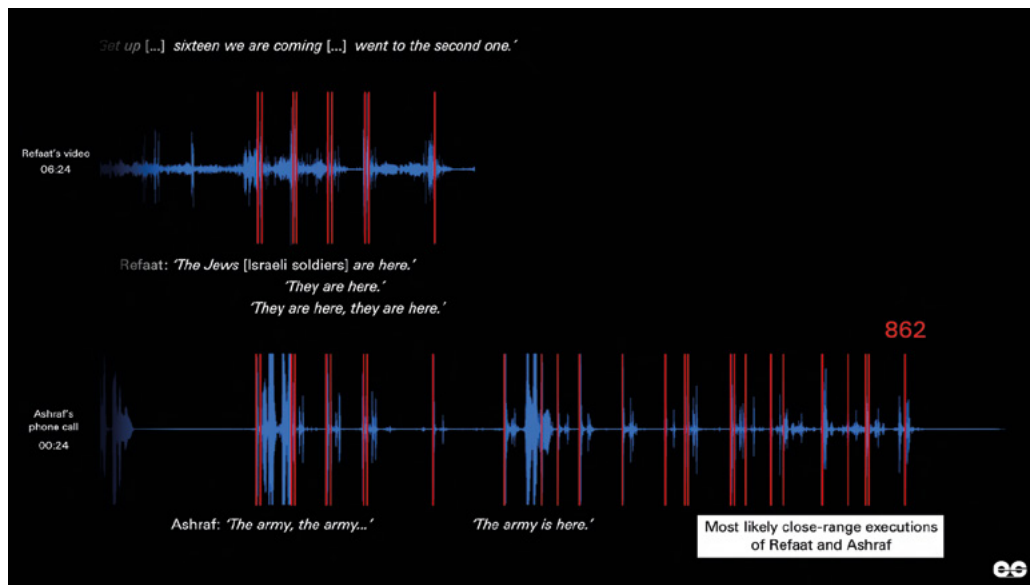


Figure 5: Synchronisation of Refaat's video and Ashraf's phone call with audible voices of Israeli soldiers as well as Refaat and Ashraf's final words.

After Refaat's video ends, Ashraf's call continues for 52 seconds, capturing 24 additional gunshots. 8 of these contain new and distinctive muzzle blast echoes, characterised by 2 to 3 echoes in quick succession, arriving 20 to 140 milliseconds after the muzzle blast.

We analysed these echoes and determined they were reflecting off surfaces just 3-24 meters from Ashraf's phone. The only surfaces within this range were the emergency vehicles themselves — strongly suggesting shooters were firing from between the vehicles, within meters of aid workers.

For 3 specific gunshots in Ashraf's call, we used the positions of the ambulances relative to Ashraf's location to establish even more precise shooter positions. The arrangement and orientation of the ambulances created a kind of architecture around the shooters, and by measuring the intervals in time between these echoes we could determine which ambulance the gunshots were reflecting off and in turn the most likely position of the shooter as they fired the shot. **For one of these gunshots we could place the shooter 1 to 4 meters from Ashraf.**

These gunshots coincide with the last time we hear Ashraf's voice, suggesting they are, most likely, the shots that killed him.

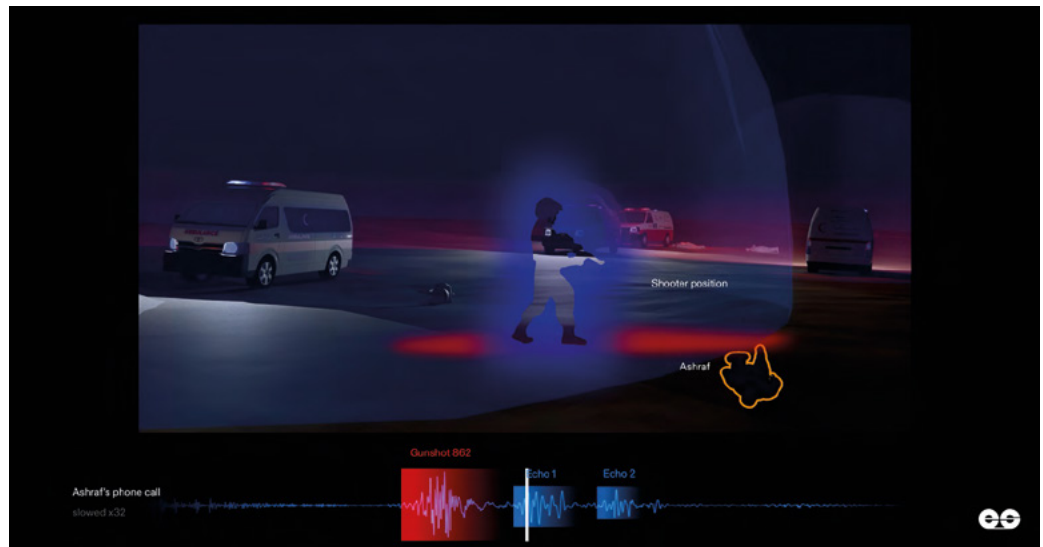


Figure 6: Simulation of the sound of gunshots fired from in-between the emergency vehicles, revealing the position of Israeli soldiers as close as 1 to 4 metres to the aid workers.

This evidence corroborates survivor Asaad Al-Nasasra's eyewitness testimony that Israeli soldiers "came down [from the sandbank], got close to them [aid workers] and shot them from close range," and "were walking between them [aid workers] and shooting".

4 7:13 am Sustained operation and burial

Over two hours after the attack on the second convoy, Asaad Al-Nasasra made a phone call to the PRCS headquarters that captured at least 42 additional gunshots, vehicle movement, and an explosion.

We identified the acoustic signature of this explosion as matching the 3-phased operation — ejection, ignition, propulsion — of a Spike LR guided missile. This weapon is fired from "vehicle-mounted" or "man-portable" launchers and is produced by Israeli defense contractor Rafael Advanced Defense Systems¹.

Asaad's testimony described exactly this: "I saw a soldier on one knee, with the launcher on his shoulder. From the mound. (...) When the [UN] vehicle entered I was actually on the phone [with the Palestinian Red Crescent]. [They were] asking me if there were any cars moving, and I told them yes, the UN vehicle. As soon as I told him yes, they hit the vehicle".

1

Rafael Advanced Defense Systems, "Spike LR2," [rafael.co.il](https://www.rafael.co.il/system/spike-lr2/), accessed November 3, 2025, <https://www.rafael.co.il/system/spike-lr2/>

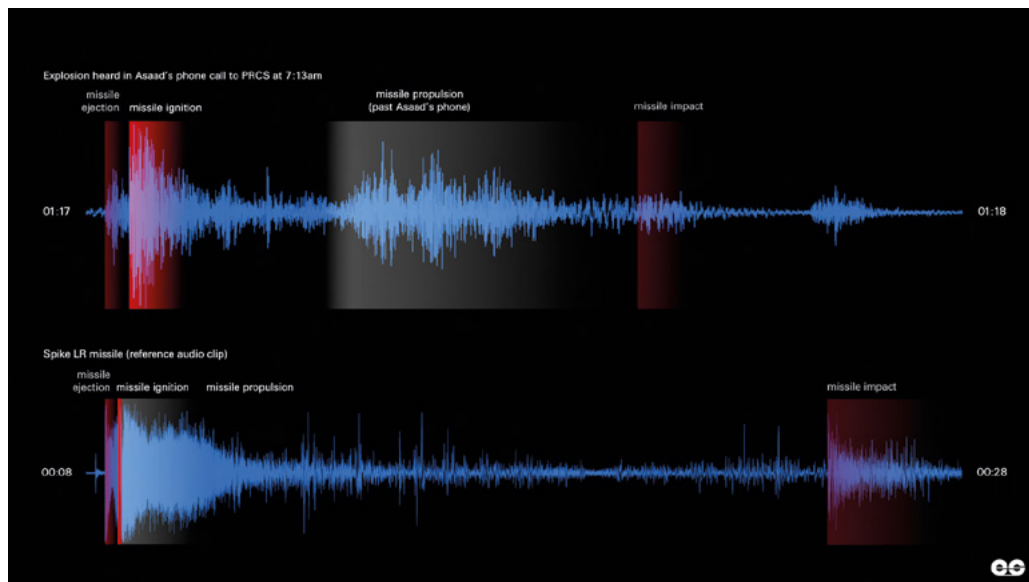


Figure 7: Comparative analysis of the sound of a Spike LR missile and the sound of the explosion heard on Asaad's phone call with the PRCS.

III. Names of Israeli soldiers

We enhanced the audio from Asaad Al-Nasasra's phone call to the PRCS headquarters at around 7:13 am and identified multiple voices of Israeli soldiers speaking in Hebrew. Fragments of this speech were made intelligible, revealing the names of three soldiers involved in the attack: Elias (nicknamed Lalas), Yotam, and Amatzia.

A transcript of the recording reads as follows:

Clip 1:

00:05 – 00:07: *Lalas did you finish?*

00:07 – 00:10: *Then go replace them, we will put the guns on them and you can bring their bags.*

00:36 – 00:38: *What's happening Yotam?*

00:38 – 00:42: *[Unintelligible] you don't drop cover. Go first over there, give cover, get their head stuck into something. [sic]*

01:17 – 01:18: *[sound of explosion, likely Spike LR missile]*

03:36 – 03:38: *[mechanical sound]*

Clip 3:

00:32 – 00:37: *Elias wait a second so that he can see you, the one passing with a [unintelligible].*

00:44 – 00:46: *I'm on [unintelligible] right now.*

00:57 – 00:58: *It's Amatzia.*

00:58 – 00:59: *All of you come.*

01:30 – 01:32: *Let's remove the [unintelligible].*

01:42 – 01:48: *[sound of engine revving and vehicle movement]*

02:25 – 02:27: *Did everyone already leave?*

02:27 – 02:28: *What?*

02:28 – 02:29: *Did everyone already leave?*

02:29 – 02:31: *Down here, I can't [unintelligible].*

4 Broader implications for humanitarian protection

International humanitarian law exists to protect precisely these workers: those who respond to crisis, who operate under emblems meant to guarantee safety. This case demonstrates how the entire framework of humanitarian protection is being undermined.

When soldiers fire 900+ rounds at marked ambulances and aid workers, advance while shooting, execute survivors at close range, and bury the evidence within hours of the attack, the framework of humanitarian protection has not simply failed — it has been deliberately violated.

5 What sound reveals

Through forensic analysis of over 900 gunshots, we built an auditory reconstruction of what happened that day — from the initial attack on the ambulances to the final close-range executions.

Sound, long overlooked in human rights research, proved to be indispensable. It revealed what was designed to be invisible: the position of shooters, their movements, the distance between weapons and victims, the names of soldiers involved in the attack. This case demonstrates not only what happened in Tel Al-Sultan, but what sonic investigation can contribute to accountability and human rights research.

Yet, beyond the forensic findings, it is the echoes of this incident that continue to haunt us — not just for what they revealed about this attack, but for what they revealed about Gaza itself.

The same destruction that enabled us to locate shooters with precision also marked the erasure of an entire acoustic environment. For two years, we have listened to incidents across Gaza. But here, we heard how the sound of Gaza has fundamentally changed. The acoustic environment itself bears witness to systematic destruction — not just of buildings, but of the possibility for certain sounds to exist at all.

This investigation documents one attack. The changed soundscape documents something more difficult to name: the erasure of an entire acoustic world.



Ken Cameron House
171-173 Gray's Inn Road
London
WC1X 8UE
twitter: @fbunational
website: www.fbu.org.uk