ExpertView

Centre for Air Power Studies (CAPS)
Forum for National Security Studies (FNSS)
12/25

Precision, Perfection and Accuracy have been Hallmarks of IAF Golden Strikes in Pakistan: Targets Obliterated from the Face of Earth

Colonel Vinayak Bhat (Retd)

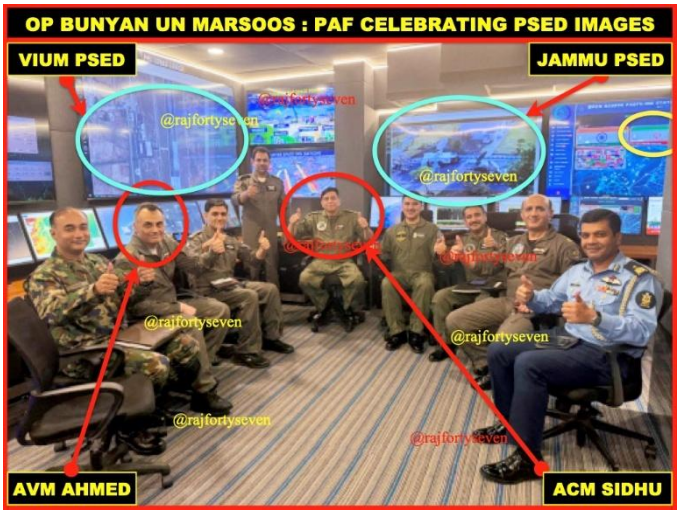
30 May, 2025

Keywords: Operation Sindoor, Air Defence, Terrorism, PAF Airbase

Why did Pakistan request a ceasefire within 80 hours of Operation Sindoor? The Pakistani Operation Bunyan Marsoos, meaning “Wall of Lead”, was abruptly called off, and Pakistan waved a white flag.

The horrendous Pahalgam terrorist attack was the largest after Pulwama, which happened in February 2019. Pahalgam attack was claimed by The Resistance Front (TRF), a terror outfit working as a front organisation part of the officially banned Lashkar-e-Taiba (LeT) but fully supported by the Pakistani establishment.

The entire world condemned these ghastly and horrific terrorist attacks, but neither did Pakistan's Prime Minister Shahbaz Sharif feel any remorse, nor did their Chief of Army Staff condemn the terrorist activities.



The precise and perfect attacks carried out with the backing of accurate intelligence have become a hallmark of IAF's strikes inside Pakistan since the destruction of the terrorist training camp at Jabba Top, popularly known as Balakot. This time, India struck at nine well-known terror locations, including the Jaish-e-Mohammad (JeM) terrorist training academy at Bahawalpur and Lashkar-e-Taiba (LeT) headquarters at Muridke.

Pakistan sent in drones the next day to avenge the Indian attacks on terror hubs by attacking cities and towns along the border and shelling the border villages, causing casualties of innocent civilians, including women, children and elderly. PAF tried attacking armed forces bases and installations, but all in utter vain.

India was forced to retaliate in kind by attacking various radars, SAM sites, IADS centers and other PAF facilities at 13 locations. All the attacks were carefully calibrated and planned to display India's technological prowess in controlling the enemy's reactions.

India has held the Indus Water Treaty in abeyance until Pakistan gives up supporting terrorism. The Indian government has announced that it will stop India's share of water flowing into Pakistan and has already started cleaning up the dams.

This report takes a look through satellite imagery at only two of more than 25 targets hit by the IAF that broke the back of Pakistan and brought them down to their knees to beg the DGMO for a cessation of hostilities.

Hardened Deeply Buried Targets (HDBTs)

Militaries around the world try to safeguard their assets from adversaries. One favourite method is to dig deep to survive from your enemies. Following World War II, most weapon systems underwent massive technological advances in targeting enemy facilities remotely. This prompted all militaries to dig further and provide shelters hardened against aerial attacks, both conventional and nuclear.

Such underground facilities, constructed with special materials, reinforced bars and hardened with multilayered protective covers, are called HDBTs. These facilities feature heating, ventilation, and air conditioning (HVAC) units to maintain a cleaner environment underground.

Pakistan had at least 22 such HDBTs, located mainly around its airbases, with a few in and

around Islamabad and Karachi. India, during Op Sindoor, attempted and successfully hit at least two HDBTs, one at Chaklala and the other at Murid airbase respectively.

Both targets were C2 centres for air defence, as per the DGMO (Air), Air Marshal A.K. Bharti. However, the author agrees with the IAF's assessment but strongly feels that these were used more like C4I Centers.

Every HDBT needs to be studied in depth regarding its soil composition, number of layers, and other relevant factors and then tackled accordingly.

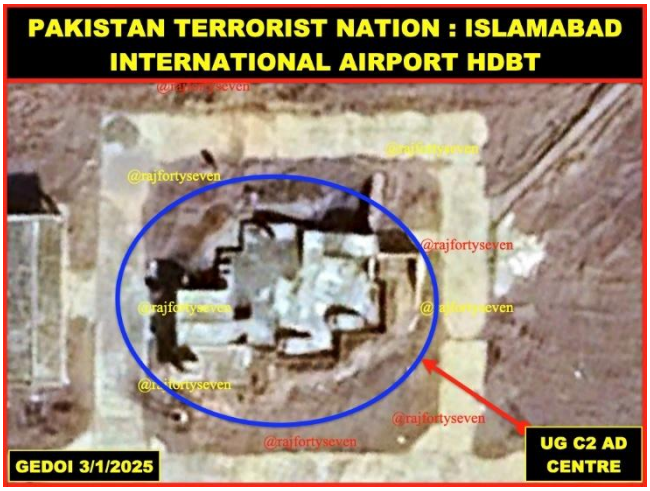
Generally, these are attacked with low-yield nuclear, thermobaric, conventional, or directed energy weapons. All weapons have their advantages and disadvantages.

The choice of weapons depends on the desired effect, what effect is needed at the target end and the underground facility's construction design and materials used.

Both facilities were constructed by different companies, as discussed in the succeeding paragraphs. Very potent and accurate ISR systems are required to study the HDBTs. The intelligence about these HDBTs must be highly accurate and corroborated through multiple sources. A blueprint of the entire facility is always considered the best.

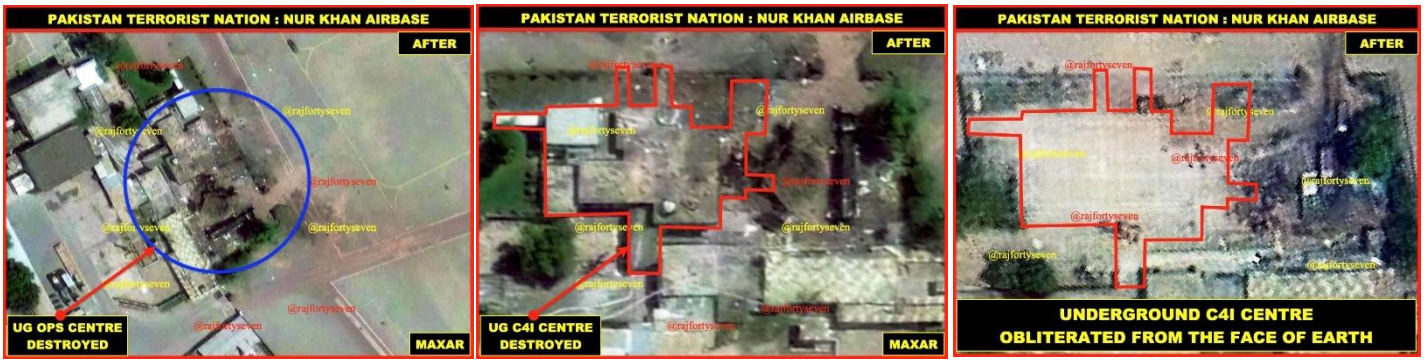
Then, Geologic Assessment Methodology for Underground Targets (GAMUT) must have been adopted to enhance the location and characterisation of the HDBTs.

The IAF also must have been forced to use conventional, possibly penetrating bombs to destroy these two targets, keeping in mind India's no-first-use (NFU) nuclear policy.



Islamabad Chaklala Airbase

The C2 AD Centre at Chaklala Airbase now known as Nur Khan Airbase, is situated at 33.612222°N 73.096650°E within Islamabad city.



The facility was constructed in the 1990s over an area of 750 sqm, probably by General Electric (GE) Aviation, a US company specialising in underground construction.

The construction technology, along with its blueprints, were shared with Pakistan, possibly in exchange for a promise to stop their cold tests at Kirana Hills. By then Pakistan had already achieved nuclear weapons technology through cold tests and computer simulations, as per A Q Khan's interview to Kuldeep Nayyar on January 28, 1987.[1]

Most VIPs visiting Islamabad were given a tour of this HDBT and shown the technological advances Pakistan's air force had achieved.

The US and Chinese generals, after visiting this facility, were always praising it and how the PAF has achieved its integration with other systems indigenously.

The Pakistan Strategic Plans Division's own Special Works Department (SWD) took over the task of constructing at least 21 more of these underground facilities (UGFs), with the first one starting at Karachi's Masroor airbase.

The C2 AD Centre, as seen on satellite imagery, had been expanded/renovated twice in 2005 and 2015 after its construction by the GE.

The satellite images from the last fifteen years suggest that this facility was also used as a research and simulation data collection centre for all new radars. It has been observed over the last decade that all aircraft collecting intelligence have been downloading data at this centre for

integration with both old and new systems.

The IAF attacked the facility with extreme precision through an HVAC shaft directly leading to the main chamber of the UGF or HDBT. The internal size of the shaft was 45 cm, which is very small, even for measuring on an open-source image, as its single pixel measures 30 cm at the best resolution.

Hence, there was no margin for error, and the task must have been given to the best pilot with all data fed to the missile beforehand, including high-resolution (HiRes) images and pictures of the facility, especially the HVAC shaft.

This is probably the first of its kind, the most unique, and the smallest target hit by any air force in the entire world.

The after-strike imagery, which was released during the DGMO press conference, showed a large chunk of concrete which had risen above the surface, possibly with the explosion below the surface of a penetrating bomb.

The explosion must have been so large as to pulverise everything and everybody inside the HDBT instantly. The effect of the explosion was so significant that the multilayered concrete rebar roof was broken from below and thrown up.

Unlike at other locations, PAF was not in a hurry to remove the debris from this site as it would have confirmed the size and immensity of damage caused by a perfect IAF attack.

However, after a period of four days, a decision must have been made, in consultation with the families of dead PAF soldiers and officers, to bury them in situ as not even shreds of them would have been available to be put in a coffin.

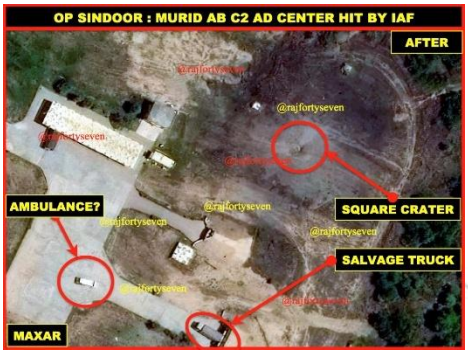
Nobody inside the C2 AD centre available at the time of the strike would have been left alive to tell the story of how the devastation occurred.

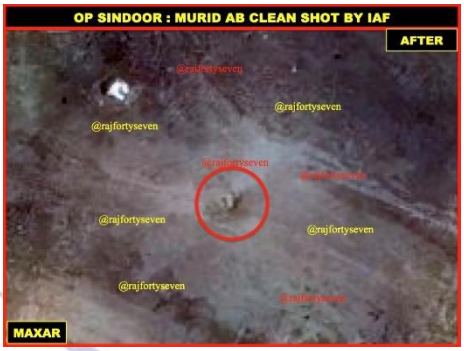
After the decision to bury the dead in situ was taken, the broken and destroyed C2 AD Center's entire structure was seen being levelled on the satellite imagery.

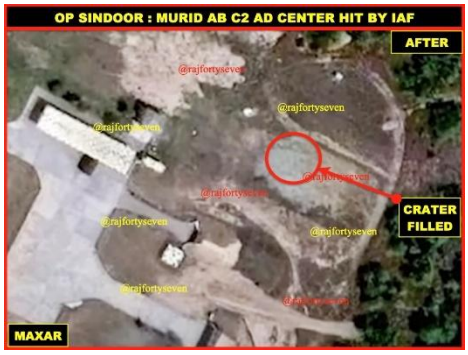
The JCBs, along with concrete paving machines, were observed levelling and cementing

the entire area of this HDBT.

As of date, it can be confidently said that the entire facility was obliterated from the face of the Earth.







Chakwal Murid Airbase

The Murid Airbase is located very close to Chakwal on the Pothohar Plateau in Punjab. It is approximately 85km South of Islamabad.

The airbase is located away from the civil population and stands out as a large, lush green patch in the entire district.

Pakistan's Special Works Department understood very well the technology either shared or stolen from GE of the USA. And they further improved upon it with minor innovations.

In all the underground facilities the HVAC ducts have been enlarged in size and pulled away from the facility by at least 10m to a maximum of 100m. This does not permit any penetrating bomb to be effectively dropped on the HVAC ducts/ shaft to destroy the HDBT.

In the case of the Murid C2 AD Centre, too, similar extensions of shafts precluded their use for dropping a penetrating bomb.

Thus, it was possibly decided by the IAF to attack directly at the central section of the HDBT without any pillars resisting the penetration of the missile.

The afterimage of Murid C2 AD Center vividly displays a small rectangular crater of approximately 1.16m X 0.98m size, indicating a deeper penetration.

The top layer of the HDBT is composed of compressed earth; a deeper study of satellite images reveals very little compressed earth scattered around. This indicates a deeper penetration of the weapon before it explodes.

The external colour of the crater seen in the satellite image, being very light, is clear evidence that it is only an impact crater and not an explosion crater. This strongly suggests that the penetrating weapon has penetrated the subsurface facility and exploded rather than exploding at the surface.

A possible ten-ton (8m long) truck is observed in the after-satellite image, stationary at the entrance with its rear end partially inside the larger entrance of the underground facility. This suggests that the truck is trying to salvage any material that may be suggestive of the remains of dead officers and airmen.

Pakistan has already cemented the crater, trying to shield any proof of the attack by the IAF against overhead imagery.

Only one single possible ambulance has been observed near the entrance of the facility in after-strike imagery, strongly suggesting possibly a lone survivor, indicating considerable casualties of personnel.

This activity, after almost 7-8 hours of the strike, is evidence that a massive effort must have been required to retrieve the possible lone survivor from the debris of the most hardened cement concrete.

Assessment

Pakistan's efforts at safeguarding their assets by hiding them in HDBTs have failed miserably, by the ingenuity of IAF in striking with impunity.

The latest satellite images procured from Maxar indicate that the two targets discussed in this paper have been completely obliterated from the face of Earth as promised by the Prime Minister of India, Shri Narendra Modi.

The other locations at Sargodha and Jacobabad targeted by IAF indicate that India has hit PAF's nerve centres in a very calculated strike and ensured they remain inactive for more than six

months at least.

This renders all smaller C2 AD Centres in those theatres defunct, such as the one on the eastern side of Islamabad International Airport, where the PAF Chief of Air Staff (CAS) was hiding during Operation Sindoor. A special HDBT was possibly prepared for the safety and security of the PAF CAS. In the month of March this year, the HDBT was given another protective layer or two, to further strengthen its protective character. The evidence of satellite imagery suggests that Pakistan had prepared for a longer war with India and had prepared hideouts for their Chiefs well in advance of the terrorist act of 22 April 2025.

This entails that any orders given by the PAF CAS would never reach the commands, theatres, or squadrons or be directly issued to the aircraft (for nuclear options).

There would be no coordination between various entities, thus making any air operation untenable in this highly informative warfare in the aerospace domain.

The satellite imagery reveals extraordinary successes achieved by the IAF, far exceeding expectations, even considering the standards of the world's best air forces.

The entire world, although very quiet about the satellite imagery proofs available for all to see, was indeed shell-shocked as to how India had pulled this skirmish off against Pakistan in barely 80 hours.

The damages observed on satellite images vividly indicate evidence of wiping out of entire staff at Pakistan's Air Defence Command Centre at Nur Khan. The airbase, as well as the complete staff at Murid Airbase's C2 AD Centre, was fully staffed.

The number of officers and airmen would total anywhere from 100 to 200, as the attacks were conducted at the peak of operational alertness when no staff would have been off duty for any reason whatsoever.

However, the discussion of casualties in men and material cannot be compared one to one since our sectoral and national aims were much different than the PAF's aims.

It suffices to say that the Indian Air Force has displayed its lethality and technological prowess to the most obdurate adversary who wanted only a pretext to use the nuclear arsenal.

The Indian calibrated attacks were extremely restrained yet so lethal that they provided Pakistan with a face-saving option and yet did NOT give Pakistan the face-saving nuclear option.

कर्मण्येवाधिकारस्ते मा फलेषु कदाचन।
मा कर्मफलहेतुर्भूर्मा ते सङ्गोऽस्त्वकर्मणि ॥47॥

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Notes:

[1] Ramindar Singh, Dilip Bobb, "Dr A.Q. Khan's Pak N-bomb revelation brings prospect of nuke arms race to the subcontinent," *India Today,* March 31, 1987, https://www.indiatoday.in/magazine/cover-story/story/19870331-dr-aq-khans-pak-n-bomb-revelation-brings-prospect-of-nuke-arms-race-to-the-subcontinent-798697-1987-03-30. Accessed on May 28, 2025.