

Devastating Effect of Precision Weapons in the Ukraine Conflict

Marshal Winter seems to have taken control of the ongoing conflict in Ukraine, and we are witnessing a reduced tempo; as far as the intensity of operations is concerned. Both the adversaries seem to be in their respective corners akin to a boxing bout. There is no doubt that both sides have achieved some of their goals, but more importantly, both need to reflect on what went wrong and what lies ahead.

While the weary adversaries may not be engaging in direct physical confrontations, the focus is now on 'indirect fires'; from the ground by long range vectors, and the air, targeting key and critical infrastructure, aimed at lowering the morale of the population.

Russian attacks on power stations and infrastructure have left millions without electricity, heat, and water. President Zelensky had said 'Moscow would aim to make the last few days of 2022 dark and difficult'.^[i]

The weather-enforced pause has led to General Sergei Surovikin launching a vigorous aerial campaign that has destroyed much of Ukraine's energy infrastructure—a civilian-centered tactic.^[ii]

The Russians are utilising this period to consolidate their gains, build up stockpiles of ammunition, carry out replacements of their fleet, and keep the pressure on by engaging Ukraine with long range vectors and the threat of escalating the conflict with the aim of renewing an offensive after the winter.

The critical dependence of a society on crucial and well-developed infrastructure, and its vulnerability, is what is the focus in this phase of the war. It is no longer military infrastructure solely that is being targeted by the Russians but also civilian infrastructure which forms the back bone of power generation.

The Ukrainian's hit back on New Year's Eve by targeting a specific military installation, killing 89 Russian troops in Makiivka^[iii], while the Ukrainian Ministry of Defence said the death toll is closer to 400. Ukraine's military had launched six projectiles at the 'provisional base' in the eastern city of the Donetsk region, using the HIMARS guided rocket system. While "two of the missiles were shot down by Russian Air Defences", it added, "four struck the building".

The missiles had struck the Professional Technical School no. 19 (PTU) in Makiivka, that housed soldiers, two minutes after midnight on New Year's Day. The General Staff of Ukraine's Armed Forces said, "up to ten units of Russian military equipment in Makiivka were damaged or destroyed during an attack",^[iv] without specifying their nature.

Renewed Russian missile and drone attacks across Ukraine followed. Multiple blasts rocked Kyviv and other areas of Ukraine on December 31st and through the night, wounding dozens. A Russian spokesman stated that its New Year attacks targeted "the facilities of the military-industrial complex of Ukraine" that are involved in the production of drones.

"Storage facilities and launch sites" for the drones have also been destroyed, the Russian Defence Ministry said. "The plans of the Kyiv regime to carry out terror attacks against Russia in the near future have been thwarted."^[v]

Speaking from Kyiv in his nightly address, President Zelensky said Russia planned to “exhaust” Ukraine with a prolonged wave of drone attacks. “We must ensure, and we will do everything for this, that this goal of terrorists fails like all the others,” he said. He further stated, “now is the time when everyone involved in the protection of the sky should be especially attentive”.

Russian military Commanders have been criticised over the attack, with some saying “Commanders must be held to account for allowing troops to concentrate in an unprotected building within range of Ukrainian rockets, where ammunition may also have been stored” and Sergei Mironov, a former Chairman of the Russian Senate saying, “it was obvious that neither intelligence nor Air Defence had worked properly”.

Grigory Karasin, a member of the Senate and former Deputy Foreign Minister, not only demanded vengeance against Ukraine and its NATO supporters but also “an exacting internal analysis.”

On 08 January, Ukrainian missiles struck Melitopol, which came a day after all non-critical infrastructure in the Ukrainian port of Odessa was without power, as Russia had used Iranian-made drones on January 07th to hit two energy facilities, leaving 1.5 million people cut off from electricity.

For the Russians, it is no doubt becoming increasingly difficult to explain these significant and multiple cracks in their capabilities, which has earlier occurred with the sinking of the ‘Moskova’, and the explosion on the Kerch bridge.

The problems of conflict remain protection of valuable assets. Ammunition perforce lies in the open, however, certain safety precautions are always enforced, keeping the ammunition concealed, while also maintaining a distance between the troops and the ammunition.

The options vary from overhead hardened shelters to underground storage areas which are both concealed and hardened to withstand an attack. However, during an offensive, such measures take time to be put into place, and are not feasible due to the fluidity of operations.

Therefore, armies are forced to resort to other measures to store and protect ammunition in the field. This includes concealing the ammunition by camouflage, protecting it with temporary or semi-permanent structures, and adopting safety measures regarding storage.

There are, of course, elaborate instructions on the subject, one of which involves safety distances and creation of protective walls around the ammunition. Troops are located at a distance from major storage areas, and there are also protective measures taken against ground and air threats. The latter includes an air defence cover to the vulnerable asset.

From the accounts coming in, it seems that the concentration of troops was co-located or in close proximity of the ammunition being stored, and there was not adequate dispersion. Sufficient dispersal to become an uneconomical target is the key. There is no doubt that the Russians need to work on their procedures and drills to ensure that such incidents do not repeat.

HIMARs multiple rocket launchers have been among Ukraine’s most effective weapons in the war, delivering precision fire on hundreds of targets, including Russian command posts. Last week, the United States said it was sending more aid to Kyiv to strengthen its air defences and defeat drones.

In an article published in 'The First Post' regarding Lessons drawn from the Ukrainian conflict, I stated that "there is no sanctuary in modern warfare. The enemy can strike throughout operational depth with long-range precision fires. Moreover, both countries had networks of agents in place to observe key targets and to update their command on the movement of troops and stores. The integration of human intelligence (HUMINT) with long-range precision-fires kill chains is critical. Survivability depends on dispersing ammunition".^[vi] The strike could not have been carried out without precise intelligence prior to using precision guided weapons.

In this attack, there are reports emanating from the Russian Ministry of Defence, "that the illegal mass use of mobile phones by the soldiers allowed the enemy to track and determine the coordinates of their location for the missile strike". The sophisticated use of technology is increasingly taking a lead role in the conflict.

As General Raj Shukla wrote in *Russia – Ukraine War: The Conflict and its Global Impact*, "Precision fire systems are the future and the critical role of long – range fires is instructive". He also said "the Indian military needs to evaluate the entire challenge of precision weaponry and upgrade its capacities".

The Ukrainians have no doubt shown resolve while fighting an existential war with support from the West. How Russian and Ukrainian military strategies evolve will dictate the future of the conflict. According to Colin Meisel in 'War on the Rocks', a shift toward a "[punishment strategy](#)" is taking place, that is, "where one force seeks to inflict high costs rather than to outmaneuver or attrit opposing military forces". The persistent precision attacks on key infrastructure are an indicator of such a shift. However, what is evident is that the challenges of modern warfare are not easy to overcome.

While the Ukraine conflict demonstrates the critical importance of precision in engaging high-value and defended targets, the war is providing answers to many questions regarding the manner wars of the 21st century will be fought. One of these questions being the appropriate balance between precision and massed fires.

End Notes

[i] Russian missiles rain down on Ukraine on Christmas as Putin , The Times of India, 26 Dec 2022.

http://timesofindia.indiatimes.com/articleshow/96506836.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

[ii] Sergei Surovikin: General who led Syrian bombing is new face of Russia's Ukraine war, The Times of India, 21 October 2022

<https://timesofindia.indiatimes.com/world/europe/sergei-surovikin-general-who-led-syrian-bombing-is-new-face-of-russias-ukraine-war/articleshow/95005295.cms>

[iii] Paul Kirby, Makiivka: Russia points fingers after deadliest Ukraine attack, BBC, 03 January 2023

<https://www.bbc.com/news/world-europe-64155859>

[vi] Maj Gen Jagatbir Singh, Ukraine conflict: Precision weapons ensure windows of opportunity continue to exist in winter 04 January 2023

<https://www.firstpost.com/opinion/ukraine-conflict-precision-weapons-ensure-windows-of-opportunity-continue-to-exist-in-winter-11926722.html>riel

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