

Kamikaze drones

March 18, 2022

In news- Kamikaze also called as suicide drones, are unmanned aircraft that are part of the tranche of weapons that are being sent by the US to Ukraine to assist their fight against Russia.

What are Kamikaze drones?

- They are small unmanned aircraft that are packed with explosives that can be flown directly at a tank or a group of troops that are destroyed when it hits the target and explodes.
- The single-use weapons are cheaper than most US drones, and come in two sizes – Switchblade 300 and Switchblade 600.
- They are called Switchblade because their bladelike wings spring out on launch.
- **The Switchblade 300** weighs about five pounds, flies up to 15 minutes at a time, and **is designed to be carried in a backpack, assisting small infantry units** tracking the Russians' movements.
- **The Switchblade 600**, by comparison, weighs about 50 pounds, **flies up to 40 minutes**, and is known as a **"loitering missile"** that **can target armoured vehicles**.

'Kamikaze drones'
US-manufactured, man-portable, camera-equipped, remote-controlled flying bombs that explode on contact

SWITCHBLADE 300	Maker: AeroVironment	SWITCHBLADE 600
49.5 cm	Length	1.3 m
Self-contained ground launch and multi-pack (optional air or ground vehicle, water craft, etc)	Launcher	Self-contained launcher for ground, air, and maritime
2.5 kg (includes launcher and transport bag, fits inside backpack)	Weight	54.4 kg (including the control system/munition)
- 2 minutes	System setup time/launch	- 10 minutes
Precision strike with advanced munition	Lethality	Precision strike with anti-armor warhead
10 km/15 mins	Range/endurance	40 km/40 mins
101 kph/161 kph	Speed (cruise/blast)	113 kph/185 kph
Below 500 ft*, (cruising $10,000 ft^*$)	Operating altitude	Below 650 ft*, (cruising $10,000 ft^*$)

Source: AeroVironment *Above ground level **Above sea level

- The small lethal drones are **difficult to detect on radar**, and they can even be programmed to hit targets without human intervention, based on facial recognition.
- Weighing just five-and-a-half pounds, the Switchblade can be taken into battle in a backpack and fly up to 7 miles to hit a target.
- The drone, made by AeroVironment Inc., has been in the arsenal of US commandos since it was secretly sent to Afghanistan in 2010 for use against the Taliban.
- The Switchblade has a feature that allows the operator to adjust the blast radius. So, it can kill the driver of a vehicle but not a passenger.
- The weapon can be “waved off” up to two seconds before impact in the event of a mistake or a risk to civilians.
- Although the Kamikaze might be the most advanced form of this genre of drones, **Russia, China, Israel, Iran and Turkey all have some version of it.**
- For example, Iranian-backed militias have used small drones in 10 attacks this year on US bases in Iraq. There have been also multiple occasions where Russia has used such suicide drones to launch attacks in Ukraine following their invasion.