**2 . Date: 31-03-2023Armed ISR / ISTAR - HALE - General - PlatformChina Unveils Naval Variant Of WZ-7 Recon DroneURL: https://www.navalnews.com/naval-news/2023/03/china-unveils-naval-variant-of-wz-7-recon-drone/**

Built by the Guizhou Aircraft Industry Corporation, outside analysis considered the original Air Force version of WZ-7’s role is similar to the US Air Force‘s Northrop Grumman RQ-4 Global Hawk, a long range drone capable of providing Intelligence, Surveillance and Reconnaissance (ISR) capability. On January 1st, the Japanese Ministry of Defense confirmed that a Chinese WZ-7 passed through the Miyako Strait and conducted operations beyond the first island chain. The Southwestern Air Defense Force of the Japan Air Self-Defense Force scrambled F-15Js to intercept and observe the drone as it entered the Japanese Air Defense Identification Zone. It was also the first time that the JASDF scrambled to respond to such high altitude aircraft.

The naval version of the WZ-7 is somewhat similar to the US Navy’s MQ-4C Triton, a naval variant of the RQ-4 with the focus of broad maritime surveillance in mind. From the images released, it appears that the naval version of WZ-7 has its nose, both wing roots and upper part of the forward fuselage fitted with Wave Transmitting Material. Since long range drones require beyond line of sight communication link, such as satellite communication to operate without the support of line of sight Ground Control Station, so it makes sense to have its upper part fitted with Wave Transmitting Material in order for the antenna to perform the satellite uplink and downlink function with the communication satellite up ahead. ESM antennas were embedded within the wing roots to intercept the communication or radar signatures from the surface combatants to perform direction-finding function in order to locate them passively. It might even have a certain degree of Signal Intelligence collection capability. However, the Wave Transmitting Material at the nose suggested that it is highly likely this variant houses a Look-Down radar at its nose.

For years, China has been trying establish its Anti-Access/Area Denial (A2/AD) capability to counter the US Carrier Strike Groups by introducing various Anti-Ship capability, including the DF-21D Anti-Ship Ballistic Missile which Chinese media often referred as the “Carrier Killer”. Like any other weapon, in order to hit its target, you first have to spot it in the first place. This variant of WZ-7 could use its radar and ESM suite to supplement the existing Chinese Maritime ISR network as an important part of the whole “Kill Chain” ecosystem with the focus of conducting long range ISR, relaying tactical maritime picture and building situation awareness to provide up to date targeting information for the anti-ship units.

Apart from radar, another possibility would be this variant of WZ-7 might not be a Triton-ish ISR drone after all. Since a modern Maritime Surveillance Aircraft typically has a 360 degree radar mounted in its belly radar fairing to create an unobstructed Look-Down line of sight towards the surface, most notably the MQ-4C Triton and MQ-9B Sea Guardian, it would be quite rare to see an aircraft with similar role to have a front-facing only radar instead of a Omni-directional one. In this case, the WZ-7 we are seeing might be a Stand-Off Jammer asset to degrade surface combatants’ communication or radar performance to disrupt and provide cover for the strike package.

Length: 14.3m

Wingspan: 25m

Height: 5.4m

Takeoff Weight: 7,500kg (Around 16,500lb)

Mission Payload: 650kg (Around 1,400lb)

Cruising Altitude: Around 60,000 feet

Curising Speed: 750km/h (405 Knots)

Range: 7,000km (3,800 NM)

**3 . Date: 19-09-2023Loitering Munition - Mini - General - PlatformWhat is BAS-80? Russia's New Kamikaze Drone Inspired by Stolen SwitchbladesURL: https://www.newsweek.com/russia-bas80-kamikaze-drone-switchblade-loitering-munitions-ukraine-1828080?\_gl=1\*wfddws\*\_ga\*TGE3Vkl2OXR0R2RZQVFVZlkzUHA5RTlrQkpPaVVCd3dXdUszTE82UlVscWpxZF9SaUpuMGc2akZxbkhaT0ZqSg**

Russia is using a new drone closely resembling loitering munitions Ukraine has deployed against Moscow's forces, according to a local media report.

The BAS-80, described by Kremlin-linked Telegram news channel Mash as the "Russian analogue" of the Switchblade 300 suicide, drone, is "already in operation" in Ukraine, the outlet reported.

"Trophy" Switchblade drones were captured by Russian forces as far back as last fall, the Telegram channel reported, adding that BAS-80 prototypes had appeared shortly after.

The Ukraine war has spurred on drone development at lightning pace, experts say. Uncrewed vehicles in the air, and, in Ukraine's case, the water, allow military forces to scope out and track targets, as well as filming and carrying out strikes through one-way drones.

Both sides have used this type of kamikaze drone to attack key targets. Moscow has deployed Iranian-designed Shahed drones throughout the war to zone in on Ukrainian cities and infrastructure, and Kyiv has repeatedly sent its "Beaver" drone to the Russian capital.

The U.S. has sent an unconfirmed number of Switchblade drones to Ukraine as part of its tranches of military aid, worth more than $43.7 billion since February 2022.

Made by U.S. defense contractor AeroVironment, the latest version of the Switchblade 300 has a range of more than 12.5 miles and can fly for more than 20 minutes. "Weighing just 4 pounds, this lightweight, miniature, precision-guided lethal missile can be deployed in less than 2 minutes via tube-launch from land, sea, or mobile platforms," the manufacturer previously said.

Videos shared online as far back as May 2022 show Ukrainian troops using Switchblade suicide drones to target Russian forces. Combat footage appearing to show the Switchblade 300 in action indicated the drone was "effective against personnel and unarmored vehicles," but would struggle against armored targets, military expert David Hambling previously told Newsweek.

The BAS-80 is "unlikely" to cause significant damage to Western-supplied Ukrainian main battle tanks like the Leopard 1, Leopard 2 or Challenger 2, according to the Russian media report, which claimed it "will easily defeat light armored vehicles and groups of soldiers."

The similarities between the BAS-80 and the Switchblade 300 drones Ukraine has been wielding against Russian forces "is not particularly surprising," according to U.K.-based drone expert Steve Wright.

"As always with drones, the key differences are probably under the skin: what systems does it contain to allow the soldiers on the ground to specify its target, avoid the defenses and countermeasures that it will face, and guide it accurately to its target?" he told Newsweek on Tuesday.

The BAS-80 can hit targets at a distance of just under 19 miles, according to the Mash report. It is capable of flying up to 80 miles per hour. This comes in under the Switchblade 300's reported top sprint speed of 100 miles per hour, hitting 63 mph when loitering.

**4 . Date: 31-01-2025Hybrid Rotary / Fixed Wing - Cargo - MALE - General - PlatformPipistrel performs first flight of Nuuva V300 cargo droneURL: https://www.pipistrel-aircraft.com/nuuva-v300-takes-off-with-successful-first-flight/**

Ajdovščina, Slovenia, January 31, 2025 – Pipistrel, a Textron Inc. (NYSE: TXT) company, today announced the successful first hover flight of the Nuuva V300, a long-range, large-capacity hybrid-electric VTOL (vertical takeoff and landing) unmanned aircraft. This milestone marks an advancement in the development of advanced, sustainable and versatile unmanned aerial systems (UAS).

The Nuuva V300 is designed to carry a 600-pound payload over a range of up to 300 nautical miles and is capable of operating from paved or unimproved surfaces. The aircraft is engineered to load cargo through the nose of the fuselage, simplifying the process for operators and allowing for multiple payload configurations. Built to support a capacity of more than 100 cubic feet, it can hold up to three cargo pallets or be loaded with loose cargo, enhancing its utility for a variety of logistics needs.

“We are thrilled to witness the Nuuva V300’s first flight, a demonstration of our leadership in emerging technology and advanced air mobility, as well as our commitment to multi-purpose aviation solutions,” shared Kriya Shortt, President & CEO of Textron eAviation. “The Nuuva V300’s unique capabilities and robust design will not only transform logistics but also play a crucial role in commercial and defense missions such as search and rescue, humanitarian aid, disaster relief and ship-to-shore deliveries.”

“Today’s milestone is a testament to the hard work and innovative spirit of our team at Pipistrel,” added Gabriel Massey, President & Managing Director of Pipistrel. “The Nuuva’s first flight demonstrates Pipistrel’s strength in electric propulsion and dedication to advancing the aviation industry through our active involvement in research programs and our successful collaboration with regulatory agencies, including our recent operational authorization from the Italian Civil Air Authority (ENAC).”

Equipped with a zero-emission electric vertical take-off powertrain and a separate dedicated cruise propulsion system, the Nuuva V300 will provide unparalleled flexibility and runway independence. The aircraft is powered by in-house developed proprietary battery systems, ensuring efficient, sustainable and cost-effective performance. This unique combination of technologies will enable the Nuuva V300 to operate in a wide range of environments.

The Nuuva V300 is remotely monitored by an operator at the ground control station, developed in cooperation with Textron Systems, a fellow Textron Inc. company, enabling fully automatic point-and-click operations. Textron Systems has decades of experience designing, manufacturing and fielding uncrewed command and control systems, including millions of operational UAS flight hours in support of several U.S. Army Programs of Records.

The aircraft, which is equipped with automatic Beyond Visual Line of Sight (BVLOS) flight capabilities, will transition from vertical to forward flight on its wings and follow the most recent flight plan until landing. The first air vehicle is powered by a fly-by-wire, triple-redundant flight control system supplied by Honeywell.

To support the continued expansion of the aircraft’s flight envelope, a second Nuuva V300 air vehicle will also join the flight program in 2025. This addition will further enhance the aircraft’s performance and ensure it meets the highest standards of safety and reliability.

**5 . Date: 02-12-2023Armed ISR / ISTAR - Small - General - PlatformIranian Navy unveils homegrown Chamrosh-4 VTOL drone, remotely operated vehicleURL: https://www.presstv.ir/Detail/2023/12/02/715656/Iranian-Navy-unveils-homegrown-Chamrosh-4-VTOL-drone,-remotely-operated-vehicle**

The Islamic Republic of Iran Navy has unveiled a domestically developed and manufactured vertical take-off and landing (VTOL) drone, alongside a remotely operated vehicle (ROV) that can undertake a variety of marine operations autonomously.

The indigenous military achievements were put on display during an exhibition attended by Chief Commander of the Iranian Army, Major General Abdolrahim Mousavi, Iranian Navy Commander Rear Admiral Shahram Irani, and a number of high-ranking military figures and state officials in the capital Tehran on Saturday.

The VTOL drone, dubbed Chamrosh-4 and named after a bird in Persian mythology believed to live on the summit of Mount Alborz, enjoys cost-efficient technologies and can easily take off from and land vertically on the decks of all types of naval vessels, and carry out assigned missions.

Moreover, the remotely operated vehicle can detect, locate and destroy both anchored and sleeping naval mines.

The ROV reportedly has the ability to carry a wide range of equipment, and clear mines.

It can go as deep as 200 meters (656 feet), and has operational endurance of some 24 hours.

During the exhibition, various seaborne weapons, anti-ship missile systems, sophisticated surveillance, telecommunications and electronic warfare systems, as well as domestically produced advanced parts were showcased.

Iranian military experts and engineers have in recent years made remarkable breakthroughs in manufacturing a broad range of indigenous equipment, making the armed forces self-sufficient.

Iranian officials have repeatedly underscored that the country will not hesitate to strengthen its military capabilities, including its missile power, which are entirely meant for defense, and that Iran’s defense capabilities will be never subject to negotiations.

Leader of the Islamic Revolution and the Commander-in-Chief of the Iranian Armed Forces Ayatollah Seyyed Ali Khamenei has repeatedly called for efforts to maintain and boost Iran’s defense capabilities, decrying enemies for questioning the country’s missile program.

**6 . Date: 18-07-2023Armed ISR / ISTAR - MALE - Contract - Saudi Arabia buys Turkish drones during Erdogan's visitURL: https://www.reuters.com/world/middle-east/saudi-arabia-turkey-sign-mous-energy-defence-other-fields-2023-07-18/**

RIYADH, July 18 (Reuters) - Saudi Arabia agreed on Tuesday to buy Turkish drones in the biggest defence contract in Turkey's history as President Tayyip Erdogan reaped the benefits of his diplomatic push to repair ties with Gulf powers and help Ankara's struggling economy.

Erdogan and Saudi Crown Prince Mohammed bin Salman attended the signing ceremony between Turkish defence firm Baykar and the Saudi defence ministry, Saudi state news agency SPA reported.

**7 . Date: 18-05-2023General - SoftwareChinese Exported UAVs Include an ‘Electric Geofence’ Encircling Chinese TerritoryURL: https://www.scmp.com/news/china/military/article/3220830/built-watchdogs-protect-china-its-own-drones-military-source**

Chinese [drones](https://www.scmp.com/topics/drones?module=inline&pgtype=article) are leading the global market, but hidden “watchdog” technology is in place to limit their use in attacks on China.

A source close to [the military](https://www.scmp.com/news/china/military?module=inline&pgtype=article) said all Chinese combat and reconnaissance drones had been designed and developed to recognise an “electric geofence” encircling the borders of China’s territory.

“This is the so-called watchdog tool, which is a simple technology aimed at making sure Chinese exported drones are not used by enemies as weapons to attack our country,” said the source, who asked for anonymity because of the issue’s sensitivity.

The function – included in the implantable components and parts of unmanned aerial vehicles (UAVs) – was declared by Chinese developers in their instruction books, the source said.

The comments appear to confirm claims last year by the head of a leading Turkish drone developer, who told Indian-Canadian website EurAsian Times that Chinese-made UAVs “turned around as they approached the Chinese border”.

Baykar Technology CEO Haluk Bayraktar said “hidden restrictions” and “subpar performance” of drones from China had caused some clients to turn to Turkish UAVs, like his company’s TB2 military devices.

**8 . Date: 22-08-2023Requirement - ‘We’re trailing the world’: Push for Aussie-made defence dronesURL: https://www.smh.com.au/politics/federal/we-re-trailing-the-world-push-for-aussie-made-defence-drones-20230820-p5dxxu.html**

The Australian Defence Force would quickly begin using locally made surveillance drones under an Albanese government push to make the nation’s military less dependent on cheap imported technology from China.

The government’s Advanced Strategic Capabilities Accelerator (ASCA), a new agency created to spur innovation in the defence sector, has sought advice from Australian companies and research institutions about options to develop a sovereign, military-grade uncrewed aerial system (UAS) capability.

The Australian Defence Force has previously been reliant on small-scale drones manufactured by Chinese firm DJI.Credit: Reuters

The Department of Defence and the Defence Force announced earlier this year that they were downing their extensive fleets of drones made by Chinese tech giant DJI because of security concerns.

Defence Industry Minister Pat Conroy said it was a “no-brainer” for the government to encourage the use of locally made drone technology and expressed dismay the issue had not been addressed until now.

“We seem to be trailing the rest of the world,” Conroy said in an interview with this masthead.

“The fact we don’t have a sovereign UAS capability and rely on other countries, particularly DJI drones from China, makes us vulnerable to supply chain disruptions.

“Drones are versatile and cost-effective, and the war in Ukraine has shown how important they are to modern warfare.

“Australia will never have the biggest army in the world, so this type of unmanned technology is exactly what we need to be investing in.”

The ASCA, which was launched in July with $3.4 billion in funding, said: “The widespread adoption of modular, cheap, commercial drones, manufactured at scale for a wide range of versatile purposes, has allowed militaries around the world to rapidly adapt these capabilities for new, asymmetric applications.

“However, the overseas production of these commercial systems carries security and supply chain risks.”

Submissions for the request for information closed on Monday.

The agency said it was referring to drones used for tasks such as “training, photography and survey” rather than armed drones that are used in combat.

Dario Valenza, founder of Sydney-based commercial drone company Carbonix, said he was glad to see the government was addressing its “massive reliance” on imported Chinese-made drones.

“Australia actually has a very mature drone ecosystem, but it’s all geared around the commercial side,” he said.

“In our case, we supply friendly overseas militaries like the United States but we’ve had very little indication of the path to become a supplier for the Australian military … Until now, there didn’t seem to really be a coherent strategy.”

Valenza said: “Drones are going to be crucial for militaries in the future for everything from situational awareness information to delivering spare parts and medicines.

“If we can’t make them ourselves, we’re relying on someone who may decide to stop supplying us with them.”

Amanda Holt, chief executive of Canberra engineering company SYPAQ, said she believed the Defence Force could begin using Australian-made surveillance and training drones as soon as next year.

“One of the advantages of small UAS is that it’s not like designing and building crewed aircraft; you don’t need giant plant and equipment and multibillion-dollar investment upfront before you can start delivering a product,” she said.

“It is something that medium-sized Australian businesses can quite credibly invest in and iterate.”

SYPAQ’s distinctive cardboard drones have been used to deliver supplies and equipment to Ukraine’s armed forces, as well as assisting intelligence, surveillance and reconnaissance missions.

Hold said the lack of demand from the federal government for locally made, high-security drones meant it had not made commercial sense for Australian companies to invest in the technology until now.

The COVID-19 pandemic and the war in Ukraine showed the importance of not relying on foreign companies for crucial supplies, she said.