



PRODUCT CATALOG

AV
AeroVironment™

AEROENVIRONMENT HAS DELIVERED THE VAST MAJORITY OF ALL UNCREWED AIRCRAFT IN THE U.S. DEPARTMENT OF DEFENSE INVENTORY*

35K+ UNITS DELIVERED WORLDWIDE

4 MM+ ACCUMULATED UAS FLIGHT HOURS (EST)

55+ ALLIED NATIONS USE OUR LMS, UAS, UGV & SUPPORT SERVICES

WHO WE ARE

At AeroVironment, we are relentless in our efforts to deploy technology in ways that push beyond the realm of what's possible. With each innovation, we strive to broaden our customers' horizons and elevate their capacity to make smarter, quicker decisions.

We develop technologies and solutions that enable customers to operate beyond the horizon, enabling them to see the world in powerful new ways, complete ever-more ambitious missions and overcome seemingly intractable challenges. By pushing the boundaries of future-defining technologies, we move beyond what is currently possible to create a powerful, interlocking family of products spanning missions, domains and worlds.

* Source: United States Department of Defense Unmanned Systems Roadmap 2013-2038, page 5

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GLK-OFF / / /



LMS

AeroVironment's Switchblade® loitering munition systems (LMS) close the gap between observation and action, giving troops the ability to identify threats and precisely deliver a lethal payload with minimal collateral effects. Their small size and low acoustic, visual and thermal signatures make Switchblade systems difficult to detect or track, even at close range.

Rapidly deployable and highly maneuverable with high-performance optics and scalable munition payloads, our LMS enable warfighters to easily launch, track and engage beyond-line-of-sight targets, including light armored vehicles, across domains. These qualities make Switchblade the loitering munition of choice in Ukraine.

SWITCHBLADE® 600 LOITERING MUNITION



LAUNCHER DIMENSIONS

Length: 60 in (1.5 m)
Diameter: 7.5 in (19.2 cm)

	RANGE
	37.2 mi (60+ km)
	56+ mi (90+km) w/ Forward Pass

	ENDURANCE
	40+ min

	SPEED
	Loiter: 70 mph (113 km/h)
	Sprint: 115 mph (185 km/h)

	EFFECTS ON TARGET
	Anti-armor & anti-personnel effects

WEIGHT

Munition: 33 lb (15 kg)
AUR: 65 lb (29.5 kg)

WEIGHT

Munition: 3.69 lb (1.68 kg)
AUR: 7.2 lb (3.27 kg)

RANGE

30 km with Extended Range Antenna

ENDURANCE

20+ min

SPEED

Loiter: 63 mph (101 km/h)
Sprint: 100 mph (161 km/h)

FIRE CONTROL SYSTEM

Tablet-based FCU with tap-to-target guidance & built-in mission planner & trainer

TARGETING OPTICS

Enhanced EO/IR with forward to left hand panning camera suite

OPERATING ALTITUDE

Flight <500 ft (152.4 m)
AGL; supports operation >15,000 ft (4572 m) ASL

LAUNCH METHOD

Self-contained launcher for ground, air & maritime; configurable multipack capability

LETHALITY

Anti-personnel effects; precision strike with low collateral effects

FIRE CONTROL SYSTEM
Tablet-based FCU with tap-to-target guidance & built-in mission planner & trainer

TARGETING OPTICS
2-axis, 4-sensor gimbal (Dual EO/IR) integrated sensor suite

OPERATING ALTITUDE
Below 650 ft (198 m)
AGL; ceiling >15,000 ft (4572 m) MSL

LAUNCH METHOD
Self-contained launcher for ground, air & maritime

LETHALITY
Precision strike with anti-armor warhead

KEY FEATURES

- » Patented wave-off feature & recommit capability
- » Enhanced frequency hopping Digital Data Link™ covering more frequencies & supporting AES-256-bit encryption
- » Intuitive touch screen tablet Fire Control Unit (FCU)
- » <10 minute system setup & launch

ALL-IN-ONE, MAN-PORTABLE, ANTI-ARMOR, SMART MUNITION SYSTEM



Best-in-Class
Sensor Suite



Anti-Armor
Warhead



Self-Contained
Tube-Launcher



Mission Planning
on FCU

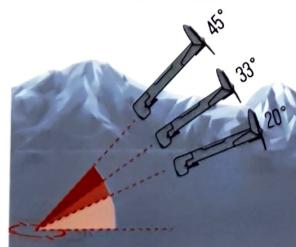


Integrated Training
Simulator (T-sim)

KEY FEATURES

- » Patented wave-off feature & recommit capability
- » Enhanced frequency hopping Digital Data Link™ covering more frequencies & supporting AES-256-bit encryption
- » Intuitive touch screen tablet Fire Control Unit (FCU)
- » Advanced Munition—multiple commit angles, user-selectable point of detonation, left hand commit with continuous Positive Identification (PID)

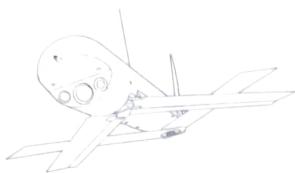
3 USER-SELECTABLE ATTACK ANGLES



DIRECT ATTACK FROM ORBIT // MAINTAIN PID



BLACKWING™ LOITERING RECONNAISSANCE SYSTEM



DIMENSIONS

Wingspan: 27 in (68.6 cm)
Length: 19.5 in (49.5 cm)
Diameter: 3 in (7.6 cm)

WEIGHT

4 lb (1.8 kg)

SENSORS

Integrated EO/IR sensors—day/night operations

LAUNCH METHOD

Underwater-to-air delivery canister, tube, MPL

KEY FEATURES

- » Rapid response ISR
- » C3 tactical data relay from UAS to UUV
- » Modular payload

MPL MULTIPACK LAUNCHER



DIMENSIONS

36 in D x 30 in W x 36 in H

WEIGHT

~130 lb empty
~160 lb loaded

CONFIG- URATIONS

6-pack standard (Alternates for 2-20 AURs possible)

MOUNTING

Hold-downs for vehicle or shipboard use

POWER

Solar panel & internal battery, Shore/TacVeh power augments to maintain internal operating temps

CONTROL

100 ft remote operation control cable (FOB/COP ops cell bunker/buildings, tactical vehicles, ship CIC)

KEY FEATURES

- » Compatible with Switchblade® 300 & Blackwing™
- » Rapid Reload—<30 seconds per round
- » Low observable remote ops
- » Tactical vehicle/MRAP



+ SUAS

Over the last decade, members of AeroVironment's growing family of small uncrewed aircraft systems (SUAS)—P550™, Puma™ LE, Puma™ 3 AE, Raven® and VAPOR® Helicopter UAS—have been adopted by more than 55 allied nations.

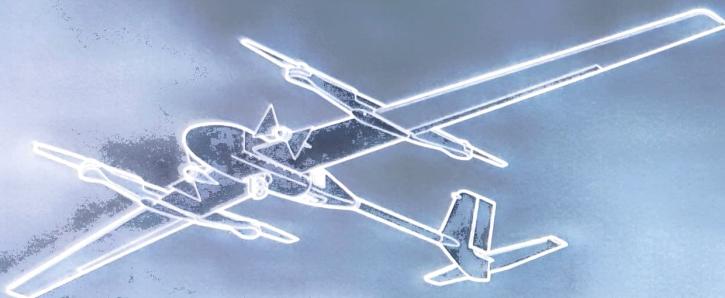
The reason for their appeal is straightforward. Under battlefield conditions, they have proven themselves

ideal for low-altitude intelligence, surveillance and reconnaissance missions. Lightweight, rugged and easy to operate, our SUAS deliver real-time color and/or infrared imagery to ground control and remote viewing stations. With their enhanced communications and interoperability, they are a critical for multi-domain operations.



INTRODUCING

P550™ AUTONOMOUS eVTOL UAS



» LINK RANGE



40 km Standard;
Up to 60 km with DDL range
depending on BCS Radio

» ENDURANCE



Up to 5 hr

» TOTAL



PAYLOAD CAPACITY
Up to 15 lb (6.8 kg)

SPEED	15-27 m/s (30-52 kts)
OPERATING ALTITUDE	Max. Flight DA 14K ft (4267 m)
GCS	Vigilant Spirit GCS with Quattro STANAG 4586 GCS
LAUNCH & RECOVERY	VTOL

Max. Launch DA 10K ft (3000 m)

Vigilant Spirit GCS with
Quattro STANAG 4586
(Baseline) & Kinesis
GCS

LAUNCH &
RECOVERY

VTOL

DIMENSIONS

Wingspan: 17 ft (5 m)

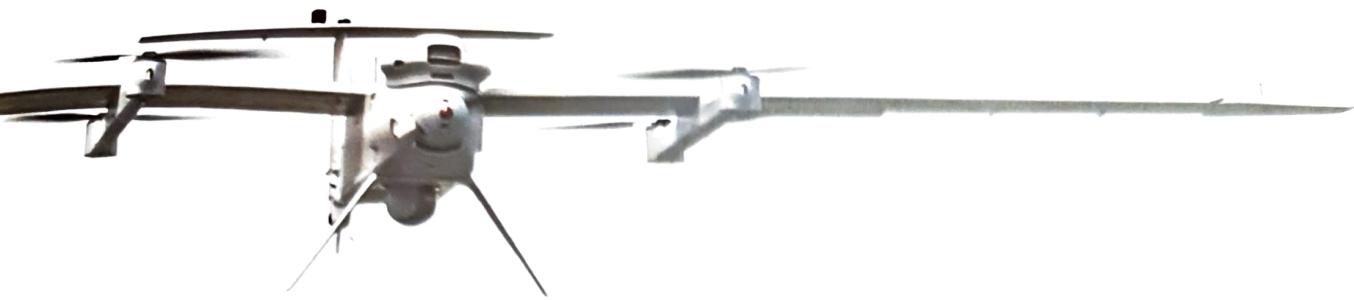
Length: 9 ft (2.8 m)

WEIGHT

Up to 55 lb (24.9 kg) MGTOW

KEY FEATURES

- » Advanced mission system enabling secure A2V Autonomous missions
- » mDDL-FH // Advanced Day-Night VIO Navigation for A2F AD Ops
- » Modular architecture supporting 3rd party payloads, radios, and control options



MUAS

With a 185-kilometer operating range, AeroVironment's fixed-wing medium and large UAV aircraft systems (MUAS) – JUMP® 20 and T-20 – are excellent choices for exacting reconnaissance, surveillance and target acquisition applications, due to their ability to carry some of the most powerful and versatile imaging sensors available.

The JUMP® 20 is the first fixed-wing UAS extensively employed by U.S. forces capable of vertical take-off and landing (VTOL). It features a 30-pound payload capacity and more than 13+ hours of uninterrupted flight.

JUMP® 20 VTOL FIXED-WING

**DIMENSIONS**

Wingspan: 18.6 ft (5.7 m)
Length: 9.5 ft (2.9 m)



LINK RANGE
115 mi (185 km)



ENDURANCE
13+ hr



USABLE PAYLOAD CAPACITY
Up to 30 lb (13.6 kg)



POWER SUPPLY
MOGAS, 190 cc EFI Engine
Battery Powered VTOL Jump

WEIGHT

215 lb MGTOW* (97.5 kg)
Fuel & Payload

OPERATING ALTITUDE

17,000 ft DA

GCS

Common GCS with T-20™

LAUNCH METHOD

No launch system or runway required; vertical take-off & landing (VTOL)

RECOVERY METHOD

VTOL landing

*MGTOW - Maximum Gross Take-off Weight

DIMENSIONS

Wingspan: 18.6 ft (5.7 m)
Length: 9.5 ft (2.9 m)



LINK RANGE
115 mi (185 km)



ENDURANCE
24+ hr



USABLE PAYLOAD CAPACITY
Up to 50 lb (22.7 kg)



POWER SUPPLY
MOGAS, 190 cc EFI Engine

KEY FEATURES

- » Multi-INT/Multi-Domain in a single integrated aircraft
- » Best-in-class range & endurance, delivering superior performance
- » Fully Integrated Payload Options—synthetic aperture radar, mapping capabilities, laser designation, anti-jamming, COMINT/SIGINT
- » Compatible with ACE® (Autonomous Control Engine) enabling fully-autonomous launch & landing from a moving vehicle or vessel

SENSOR OPTIONS

HOODTECH 09E0960/09E0IR3



HOODTECH 11E0IR5



TRILLIUM HD80/95



HOODTECH 06E0IR

SWAPPABLE IMAGING SYSTEMS

- » Superior long-range day and night imaging systems that offer onboard tracking, MWIR, image stabilization, analog and digital output with H.264/5 compression.

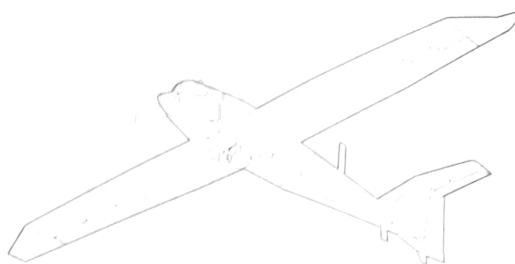
DATA LINKS

- » Provides ISR support, MUM-T interoperability, OSRVT downlink to ground or air forces, and the ability to communicate across multiple channels and bands.

COMMUNICATIONS RELAY

- » Provides unobstructed ground-to-ground and pilot-to-ground voice/video communication in urban environments or challenging terrain.

T-20™ RUNWAY INDEPENDENT

**WEIGHT**

225 lb MGTOW* (102 kg)
Fuel & Payload

OPERATING ALTITUDE

20,000 ft DA

GCS

Common GCS with JUMP® 20

LAUNCH METHOD

Catapult-launched

RECOVERY METHOD

Autonomous or manual skid landing

*MGTOW - Maximum Gross Take-off Weight



ISR SERVICES

AeroVironment's ISR services ensures uninterrupted operations and mission success through effective mission planning, on-site operational support, maintenance, repairs, and timely supply chain management. Our highly trained staff of Field Service Representatives (FSR) are ready to quickly mobilize to support customer mission requirements in any theater of operation.

Fully Equipped & Staffed

Turnkey Solutions for COCO & GOCO operations

OEM-SME remote pilot certified operators, instructors & maintainers

Design & Development of mission-tailored TTPs & SOPs

Development of on-site sustainment operations & delivery

» Total Logistical & Operational Support mission planning, coordination & monitoring

» Maintenance & Repair Services on-site to ensure mission sustainment & success



TRAINING AND FIELD SERVICES



STUDENT TRAINING

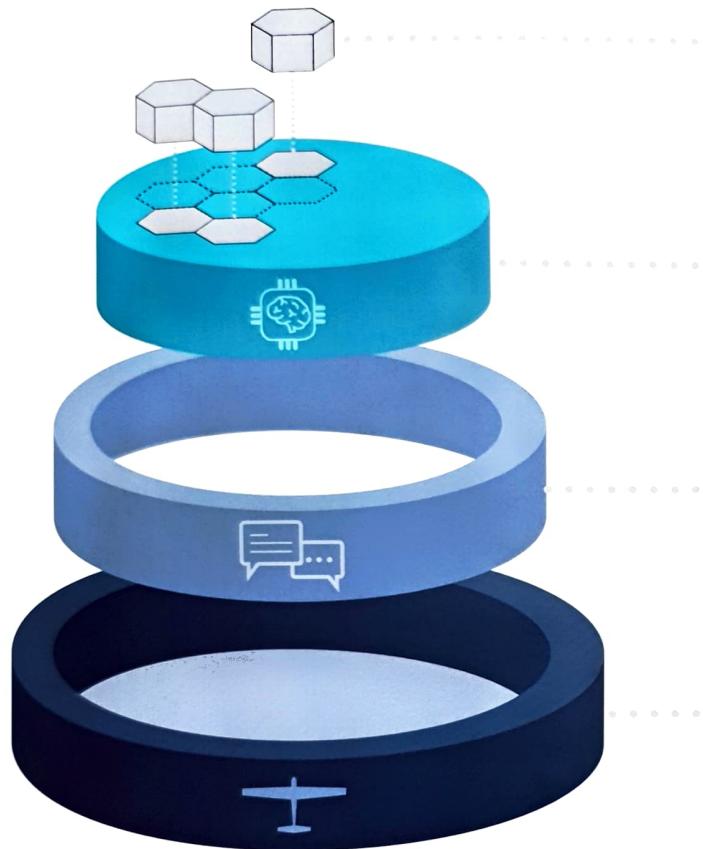
- » Training includes classroom and live flights
- » Tailored FSR training for air vehicle operators and mechanics to include a "dual qualification" in 8 weeks
- » Training offered at AV facilities or Customer Location
- » Built in robust simulator offers realistic training conditions and scenarios

FIELD SERVICE

- » Factory support program
- » Ongoing global logistics support
- » Component replacement tracking
- » On-site FSRs
- » Crew member currency training support

AVACORE™ AUTONOMY SOFTWARE

AVACORE is AV's autonomy software that implements autonomous missions for uncrewed systems. It provides a framework for rapidly adopting new behaviors and algorithms for these missions.



PLUG-INS

- Plug-in interfaces allow alternative waypoint planning, target detection, team behaviors, and other algorithms
- Discovered at run-time to dynamically enhance behaviors

AVACORE

- Executes complex, adaptable missions for single agent or team autonomy
- Missions are defined by behavior trees that can be loaded at run-time, delivering maximum flexibility for users
- Common message definitions provide the canonical data model for adapting specialized platform hardware to mission

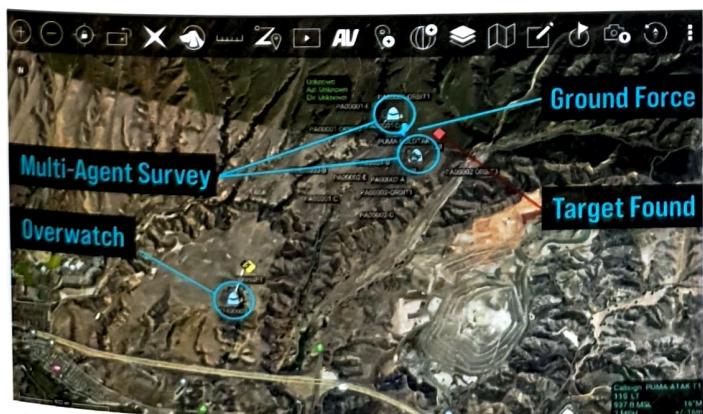
BRIDGE

Software interface adapters for each of the platform devices

PLATFORM

Uncrewed Vehicle platform to be enhanced by AVACORE

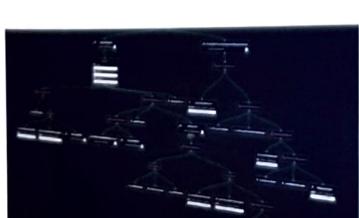
- | | |
|------------------------|-------------------|
| • Autopilots | • Radios |
| • Sensors | • Drop Mechanisms |
| • Emitters/Designators | • User Interfaces |
| • Kinetic Payloads | |



Through AVACORE, ATAK with SPOTR-Edge™ provides multi-agent collaborative autonomy



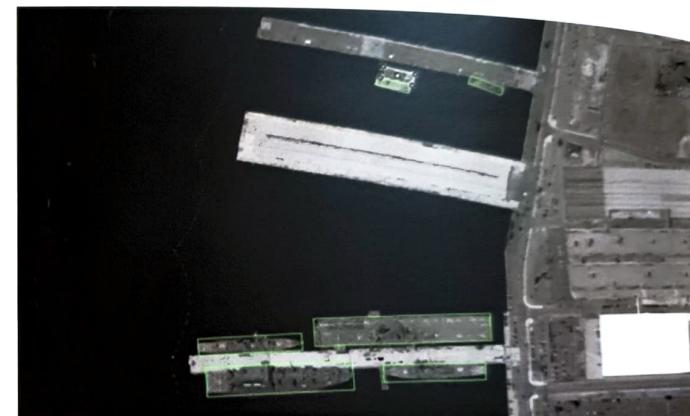
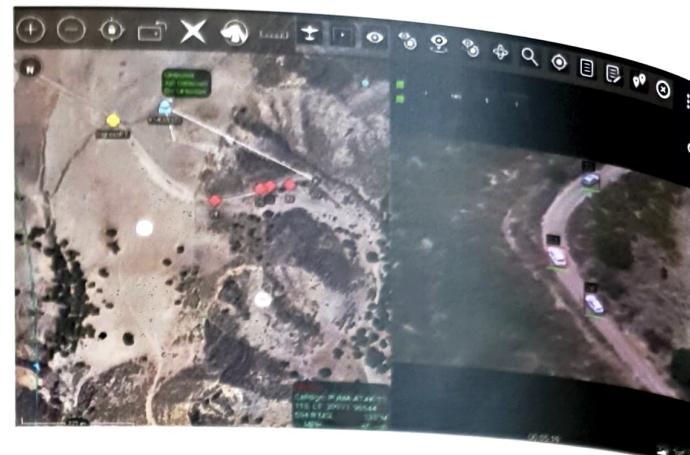
Modular to support mission specific or third-party AI models



SPOTR-Edge™ COMPUTER VISION SOFTWARE

SPOTR-Edge is a suite of computer vision and video analytics capabilities for embedded applications including robotic systems, edge devices, and other low size, weight and power (SWaP) environments. Core functions include object detection, classification, localization / geolocation, tracking, and re-identification – day or night. SPOTR-Edge consumes video and metadata sources in standard formats and outputs real-time data products to the onboard autonomy software and/or other downstream consumers.

Messaging APIs adhere to an interface control document (ICD) and streaming outputs include MISB-compliant KLV (key-length-value) metadata for platform and target track data. The baseline software includes a library of operationally relevant object classes including persons and different types of vehicles and maritime vessels; additional models can be provided to meet mission-specific requirements and use cases. Target models are swappable in the field and online for maximum flexibility, and to allow for upgrades and extensibility.



ACE™ AUTONOMOUS CONTROL ENGINE

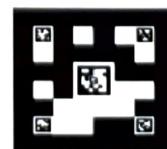
ACE (Autonomous Control Engine) is a vision-based navigation solution that enables fully-autonomous UAS operation, including push-button takeoff and landing from confined spaces, moving vehicles, and moving vessels. ACE enables centimeter-level precision landing in dynamic conditions without GPS.



This optical guidance system enables fully autonomous UAS launch and recovery onto a small passive optical marker, without GPS.

KEY FEATURES

- Suitable for UAS that needs to operate from moving vehicles and vessels on land or at sea*
- GPS-optional operation*
- Standard open interfaces for compatibility with third-party and legacy systems*
- Enables mobile tethered UAS for long duration missions*



ACE system tracks a passive visual fiducial called a "tag" during takeoff and landing to achieve centimeter-level accuracy and real-time operation.