PRODUCT CATALOG

For more product information, **visit avinc.com**

VERSION 220602

AeroVironment℠

CONTENTS

AeroVironment™

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

35,000+

35,000+ UNITS DELIVERED WORLDWIDE

4 MILLION+

ACCUMULATED UAS FLIGHT HOURS (EST)

50+

ALLIED NATIONS USE OUR UAS, UGV AND SUPPORT SERVICES

WHO WE ARE

At AeroVironment, we are relentless to deploy technology in ways that push beyond the realm of the possible. With each innovation, we are always striving 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*

AeroVironment™

MULTI DOMAIN ROBOTIC SYSTEMS

JUMP® 20

T-20™

PUMA™ LE

PUMA™ 3 AE

RAVEN®

WASP® AE

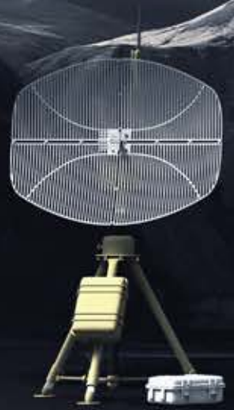
VAPOR® 55

QUANTIX™ RECON

SWITCHBLADE® 600

SWITCHBLADE® 300

BLACKWING™



DDL NETWORK ANTENNAS

CRYSALIS™ GCS

MPL

AeroVironment™

TACTICAL MISSILE SYSTEMS

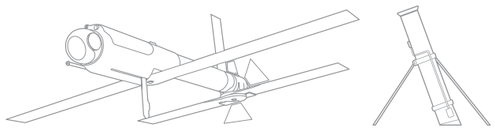
TMS

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

Rapidly deployable and highly maneuverable with high-performance optics and scalable munition payloads, our loitering missile systems enable warfighters to easily launch, track and engage beyond line-of-sight targets including light armored vehicles across domains. These qualities made the Switchblade 600 the "kamikaze drone" of choice in Ukraine.

AeroVironment™

SWITCHBLADE® 600 LOITERING MISSILE



DIMENSIONS
Length: 50 in (1.3 m)

WEIGHT
AUR: 50 lb (22.7 kg)
System (1 AUR and FCS): 120 lb (54.4 kg)

RANGE
40+ km

ENDURANCE
40+ min

SPEED
Cruise: 70 mph
Dash: 115 mph

EFFECTS ON TARGET
Light armor and anti-personnel effects

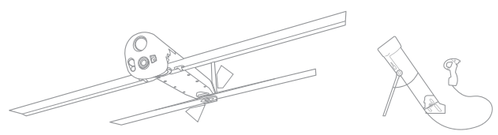
FIRE CONTROL SYSTEM	Tablet-based FCU with tap-to-target guidance and built-in mission planner and trainer
TARGETING OPTICS	2-axis, 4-sensor gimbal (Dual EO/IR) integrated sensor suite
OPERATING ALTITUDE	Below 650 ft AGL (ceiling >15,000 ft MSL)
LAUNCH METHOD	Self-contained launcher for ground, air and maritime
LETHALITY	Precision strike with anti-armor warhead

KEY FEATURES

- *Patented wave-off feature and recommit capability*
- *Intuitive touch tablet controller*
- *< 10 minute system setup and launch*

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

SWITCHBLADE® 300 LOITERING MISSILE



DIMENSIONS
Wingspan: 27 in (68.6 cm)
Length: 19.5 in (49.5 cm)

WEIGHT
AUR: 5.5 lb (2.5 kg)

RANGE
10 km

ENDURANCE
15 min

SPEED
Cruise: 63 mph
Dash: 100 mph

EFFECTS ON TARGET
Anti-personnel effects

GROUND CONTROL SYSTEM	Interoperable with common ground control system for Puma™ AE, Raven® and Wasp® AE
TARGETING OPTICS	Dual front and side look EO cameras and IR nose camera, stabilized electronic pan-tilt-zoom
OPERATING ALTITUDE	Below 500 ft AGL (ceiling >15,000 ft MSL)
LAUNCH METHOD	Self-contained ground launch and multipack
LETHALITY	Precision strike with Northrup Grumman advanced munition

KEY FEATURES

- *Patented wave-off feature and recommit capability*
- *Automated waypoint navigation*
- *Backpackable*
- *< 2 minute setup and launch*

BLACKWING™ LOITERING RECONNAISSANCE SYSTEM

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

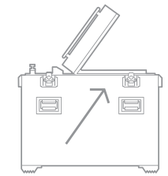
WEIGHT
4 lb (1.8 kg)

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 and 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 platforms: Switchblade® 300, Blackwing™*
- *Rapid Reload —< 30 seconds per round*
- *Low observable remote ops*
- *Tactical vehicle/MRAP*

SWITCHBLADE® 300 SENSOR TO SHOOTER KIT

Switchblade® Sensor to Shooter (S2S) combines the superior ISR capabilities of Puma™, Raven® and Wasp® with the precision strike capabilities of the Switchblade loitering missile system. Through S2S software, target coordinates are instantly transferred from the small UAS to Switchblade, reducing engagement timelines and cognitive load on the operators. S2S provides Switchblade operators with real-time video downlinks for a clearer view of the area of operation and the ability to scene-match small UAS ISR and Switchblade 300 camera feeds on one screen.

The Switchblade 300 Sensor to Shooter Kit allows operators to quickly update FalconView® with the S2S software on a ruggedized laptop, such as a Toughbook CF-33, and connect to the included pDDL™. The Switchblade 300 operator simply taps the screen to initiate machine-to-machine target coordinate transfer, creating an automated mission plan and confirming launch sequence.

PORTABILITY
Backpackable

LINK RANGE
10 km

SETUP TIME
Under 10 min

SPECIFICATIONS

SOFTWARE

APPLICATION	FalconView®: Sensor to Shooter Software Update
OPERATING SYSTEM	Windows® 10

HARDWARE

DIMENSIONS	Pelican Case: 16.9 in x 13.2 in x 4.5 in (42.9 cm x 33.6 cm x 11.4 cm)
WEIGHT	System: ~6.5 lb (2.95 kg)* Operational: 0.6 lb (0.27 kg)**
COMPATIBLE UAS	Puma™ LE, Puma™ 3 AE, Raven®, Wasp® AE
COMPATIBLE ANTENNAS	pDDL™
REQUIRED HARDWARE	Ruggedized Laptop

SYSTEM PERFORMANCE

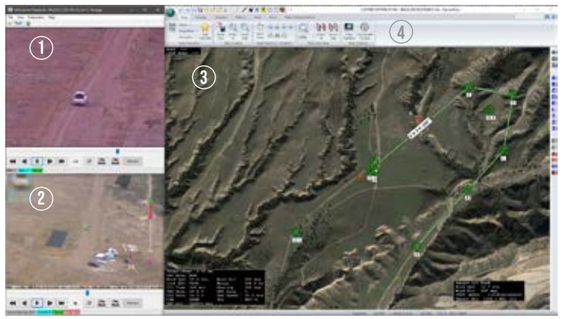
FREQUENCY BANDS	M1/2/5

*System consists of all kit components
**Operational setup consists of pDDL, antennas, USB Y-cable

KIT COMPONENTS

A	Pelican Carrying Case (1)
B	Antenna, M1/2/5 pDDL (2)
C	RFU, M1/2/5 pDDL (1)
D	Pouch pDDL (1)

E	Assy, SSD Hard Drive Software Installation (1)
F	Velcro tape hook and loop (2)
G	USB Y-Cable (1)
User Guide (2) Not Shown	

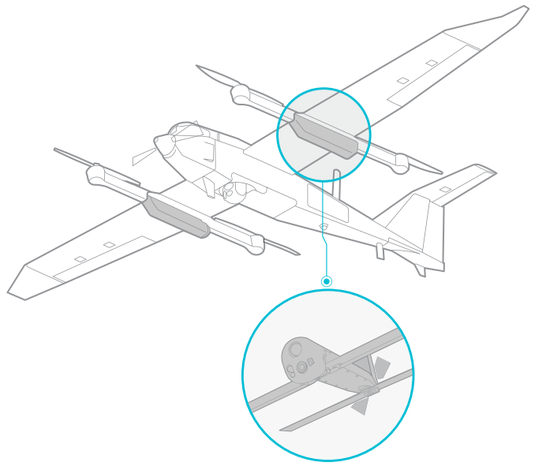


1. UAS Live Video Downlink Window
2. Switchblade 300 Live Video Downlink Window
3. Mission Map Data Points
4. Switchblade 300—FalconView

KEY FEATURES

- *Reduced engagement timelines with instant target coordinate transfer from small UAS to Switchblade 300*
- *View ISR & TMS downlink, FalconView UI & Mission Map on one screen for streamlined operations*
- *Scene-match small UAS ISR & TMS camera feeds to instantly reassess targets, mission plan & conduct BDA*
- *Identify threats at greater standoff range; find, fix & prosecute high-value targets with lethal effects*

UAS/TMS INTEROPERABILITY



S2S provides an integrated multi-domain ISR and precision strike capability for increased mission autonomy and efficacy, combining the extended range of JUMP® 20 medium UAS with organic Air Launched Effects of the Switchblade 300 loitering missile system. This end-to-end solution provides the warfighter with greater time on station to conduct persistent ISR and prosecute multiple targets with lethal effects.

MEDIUM UNMANNED AIRCRAFT SYSTEMS

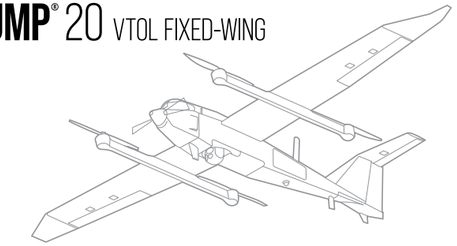
MUAS

With their 185-mile range, AeroVironment's fixed-wing medium unmanned aircraft systems (MUAS)—JUMP® 20 and T-20™—are excellent choices for exacting reconnaissance, surveillance and target acquisition applications, thanks 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 takeoff and landing (VTOL). It features a 30-pound payload capacity and more than 14 hours of uninterrupted flight.

AeroVironment™

JUMP® 20 VTOL FIXED-WING



DIMENSIONS
Wingspan: 18.8 ft (5.7 m)
Length: 9.5 ft (2.9 m)

WEIGHT
215 lb MGTOW* (97.5 kg)
Fuel & Payload

LINK RANGE
185 km (115 mi)

ENDURANCE
14+ hr

USEABLE PAYLOAD CAPACITY
Up to 30 lb (13.6 kg)

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

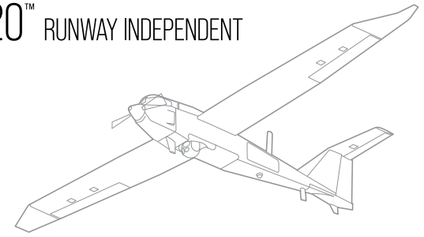
OPERATING ALTITUDE	17,000 ft DA
GCS	Common GCS with T-20
LAUNCH METHOD	No launch system or runway required; vertical takeoff & landing (VTOL)
RECOVERY METHOD	VTOL landing

*MGTOW - Maximum Gross Takeoff Weight

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*

T-20™ RUNWAY INDEPENDENT



DIMENSIONS
Wingspan: 18.8 ft (5.7 m)
Length: 9.5 ft (2.9 m)

WEIGHT
225 lb MGTOW* (102 kg)
Fuel & Payload

LINK RANGE
185 km (115 mi)

ENDURANCE
24+ hr

USEABLE PAYLOAD CAPACITY
Up to 50 lb (22.7 kg)

POWER SUPPLY
MOGAS, 190 cc EFI Engine

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 Takeoff Weight

KEY FEATURES

- *Runway Independent–small operational footprint with PLS (catapult)*
- *High-Performance Optics–Long-range day/night imaging, onboard tracking & stabilization*
- *Class-leading endurance & payload flexibility in a Group 3 UAS*
- *Group 4 capabilities in a Group 3 footprint*

SENSOR OPTIONS // COMPATIBLE WITH ALL JUMP 20 AND T-20 SYSTEMS

EO
EO TELESCOPE

ARCAM-45D
JUMP 20 ONLY

EO/IR
MWIR
SPOTTER

WESCAM MX-8

EO/IR
MWIR
H.264

TRILLIUM HD80

EO/IR
MWIR
SPOTTER

TASE 400 LRS

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 environment or challenging terrain.

ISR SERVICES

AeroVironment's ISR Services can provide everything from supply chain management, mission planning and onsite operational support to maintenance and repairs, ensuring uninterrupted asset operations and mission success. Our highly trained staff of over 100 Field Service Representatives (FSRs) are ready to mobilize quickly, 24-hours a day, to support customer mission requirements in any theater of operation.

- **Fully Equipped & Staffed Turn-Key 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** *onsite to ensure mission sustainment & success*

TRAINING AND FIELD SERVICES

FORT SOFTWARE: Fort is an iPad-based tool that tracks checklist compliance and reports system readiness.

STUDENT TRAINING
- *8 maintainers*
- *8 air vehicle operators*
- *10 weeks flight and maintenance training*

FIELD SERVICE
- *Factory support program*
- *Ongoing global logistics support*
- *Component replacement tracking with FORT*
- *Onsite FSR*
- *Currency training support*

AeroVironment™

SMALL UNMANNED AIRCRAFT SYSTEMS

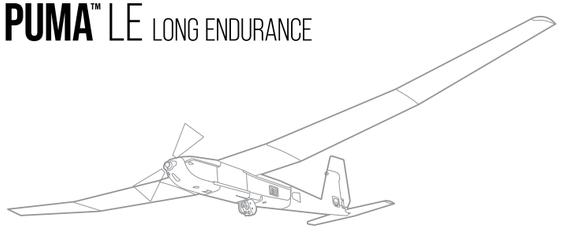
+ SUAS

Over the last decade, members of AeroVironment's growing family of small unmanned aircraft systems (SUAS) — Puma™ LE, Puma™ 3 AE, Raven®, Wasp® AE, Quantix™ Recon and VAPOR® Helicopter UAS — have been adopted by more than 50 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, they 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 building block for multi-domain operations.

AeroVironment™

PUMA™ LE LONG ENDURANCE



DIMENSIONS
Wingspan: 15 ft (4.6 m)
Length: 7.3 ft (2.2 m)

WEIGHT
23.5 lb with Mantis™ i45/i45 N (10.7 kg)

LINK RANGE
20 km, 60 km with LRTA

ENDURANCE
6.5 hr with Puma Smart 2500 Battery*

TOTAL PAYLOAD CAPACITY
5.5 lb (2.5 kg)**

SPEED	Cruise: 47 km/h (25 kts) Dash: 76 km/h (41 kts)
OPERATING ALTITUDE	300–500 ft (91–152 m) AGL, typical Max. launch 10K ft (3,048 m) MSL
GCS	Crysalis™ and legacy common GCS
LAUNCH METHOD	Hand-launched, bungee or vehicle launch
RECOVERY METHOD	Autonomous or manual deep-stall, land or sea

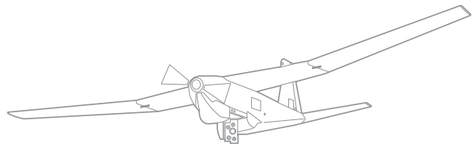
* Puma Smart 2500 Battery is not compatible with other Puma AE aircraft

**Payload capacity is reduced by 0.3 lb (140 g) with Puma Smart 2500 Battery

KEY FEATURES

- *6.5 hours of ISR capability & full-motion video in all environments*
- *Support two flights with 2-case mission packout*
- *Dedicated secondary payload bay with power supply and Ethernet*

PUMA™ 3 AE ALL ENVIRONMENT // RQ-20C



DIMENSIONS
Wingspan: 9.2 ft (2.8 m)
Length: 4.6 ft (1.4 m)

WEIGHT
15.4 lb with Mantis™ i45/i45 N (7 kg)

LINK RANGE
20 km, 60 km with LRTA

ENDURANCE
2.5 hr with Mantis™ i45

TOTAL PAYLOAD CAPACITY
4 lb (1.8 kg)

SPEED	Cruise: 49 km/hr (26 kts) Dash: 76 km/h (41 kts)
OPERATING ALTITUDE	300–500 ft (91–152 m) AGL, typical Max. launch 10K ft (3,048 m) MSL
GCS	Crysalis™ and legacy common GCS
LAUNCH METHOD	Hand-launched, optional rail or bungee launch
RECOVERY METHOD	Autonomous or manual deep-stall, land or sea

KEY FEATURES

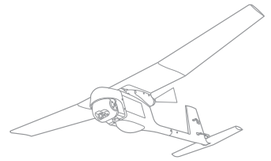
- *Increased payload capacity with optional underwing transit bay for secondary payloads*
- *Shares Mantis™ i45/i45 N gimbal payload & common LRUs with Puma LE*
- *Single case mission packout provides two full flights*

INTEROPERABLE LRU SHARING ACROSS PUMA PRODUCT LINE

Puma™ 3 AE and Puma™ LE share many of the same Line Replaceable Units (LRUs), retaining similar operation, transport and logistics support within the Puma family.

i25/i45/i45 N *Motor/Props* *Avionics* *GPS/INS* *DDL Radio* *GCS* *Servo* *Batteries* *UBC* *Laptop*

RAVEN® RQ-11B



DIMENSIONS
Wingspan: 4.5 ft (1.4 m)
Length: 3 ft (0.9 m)

WEIGHT
4.2 lb (1.9 kg)

LINK RANGE
10 km

ENDURANCE
75+ min

SPEED	Cruise: 32 km/h (17 kts) Dash: 81 km/h (44 kts)
OPERATING ALTITUDE	100–500 ft (30–152 m) AGL, typical Max. launch 14K ft (4,267 m) MSL
GCS	Crysalis™ and legacy common GCS
LAUNCH METHOD	Hand-launched
RECOVERY METHOD	Autonomous or manual deep-stall

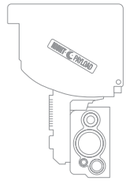
KEY FEATURES

- *Backpackable, lightweight & hand-launched*
- *Autonomous navigation & autoland*
- *Rugged for extended, reliable use in harsh environments*

MANTIS™ IMAGING PAYLOAD SENSORS

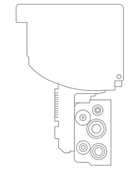
COMPATIBLE WITH PUMA

MANTIS™ i45 N



- Maximum visibility during night & low-light ISR
- Wide & narrow LWIR camera imagers
- 5 MP monochrome Low Light camera
- Enhanced laser illuminator

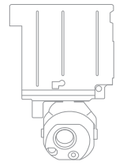
MANTIS™ i45



- Superior daylight & low-light capabilities
- Dual 15 MP high-res EO cameras
- Low Light, LWIR cameras
- Laser illuminator

MANTIS™ i25

PUMA AE ONLY



- Compact design for day & nighttime ISR
- 5 MP EO camera imagers
- LWIR camera
- Laser illuminator

COMPATIBLE WITH RAVEN

MANTIS™ i23

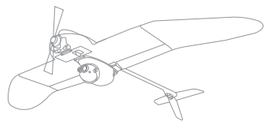
- Daylight & thermal imaging system
- 5 MP EO camera imager
- Laser illuminator

COMPATIBLE WITH WASP

MANTIS™ i22

- Advanced EO/IR imaging system
- 5 MP EO camera
- LWIR camera for night operations

WASP® AE ALL ENVIRONMENT // RQ-12A



DIMENSIONS
Wingspan: 3.3 ft (1 m)
Length: 2.5 ft (0.8 m)

WEIGHT
2.9 lb (1.3 kg)

LINK RANGE
5 km

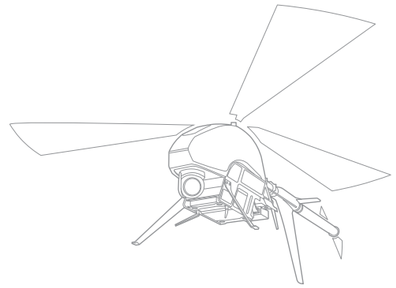
ENDURANCE
50 min

SPEED	Cruise: 43 km/h (23 kts) Dash: 83 km/h (45 kts)
OPERATING ALTITUDE	300 ft (91 m) AGL, typical Max. launch 10K ft (3,048 m) MSL
GCS	Crysalis™ and legacy common GCS
LAUNCH METHOD	Hand-launched
RECOVERY METHOD	Deep-stall landing in a confined area

KEY FEATURES

- *Backpackable, lightweight & hand-launched*
- *All-environment recovery with deep-stall landing in confined areas*
- *Quiet operation to avoid detection*

VAPOR® 55 ALL-ELECTRIC HELICOPTER UAS



DIMENSIONS
Aircraft: 8.4 ft x 2.2 ft x 1.9 ft
(2.56 m x 0.67 m x 0.58 m)
Rotor Diameter: 7.5 ft (2.29 m)

WEIGHT
55 lb (24.9 kg)

RANGE
8 km standard GCS

ENDURANCE
Cruise: 60 min
Hover: 45 min

USEABLE PAYLOAD
10 lb (4.5 kg)

GROUND SPEED LIMIT	22 mph (10 m/s)
OPERATING ALTITUDE	0-12,000 ft (3,657 m) MSL (density)
MAX WIND PEAK	Sustained: 27 km/h (15 kts), Gust: 37 km/h (20 kts)
DATA LINKS	900 MHz, 2.4 GHz, 5.8 GHz, Satellite

PAYLOAD OPTIONS*

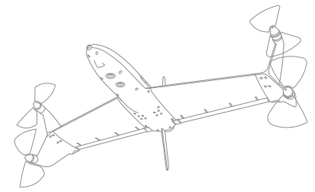
EO/IR Sensor · *Lidar* · *PPK Mapping*
Drop Mechanism · *Hyperspectral* · *Multi-Payload*

*Contact your AV Representative to discuss Payload Integration and Custom Configuration options.

KEY FEATURES

- *Purpose-built for multi-mission operations*
- *VTOL Automated Mission Execution—plan, simulate & execute*
- *Versatile payload bay for integration of sensors & third-party payloads*
- *Configurable to perform single and/or multiple payload missions*

QUANTIX™ RECON



DIMENSIONS
Wingspan: 3.2 ft (97.5 cm)

WEIGHT
5 lb (2.3 kg)

MISSION COVERAGE
Area: 400 acres
Linear: 20 km (out & back)

NAVIGATION
Automatic navigation - Area, Waypoint, Linear

RF SILENT MODE

MAX FLIGHT TIME	45 min
RANGE	2 km radio limit (up to 40 km without radio link)
PROPULSION	4 direct electric drive motors
MAX ALTITUDE	7,500 ft (2,286 m) MSL (Density Altitude)
CAMERA	18 MP RGB & Multispectral Cameras, Simultaneous Capture
COMMUNI-CATIONS	900 MHz Encrypted & WiFi
LAUNCH AND RECOVERY	Vertical takeoff and landing (VTOL)

KEY FEATURES

- *RF Silent Mode prevents detection*
- *Dual 18 MP cameras for complete hands-free data collection*
- *Ready to fly in ~5 minutes & accurate up-to-date maps within minutes of landing*
- *Rapid mission planning & verification with no connectivity required*

AV AeroVironment™

NETWORK CONNECTIVITY

+ NETWORK CONNECTIVITY

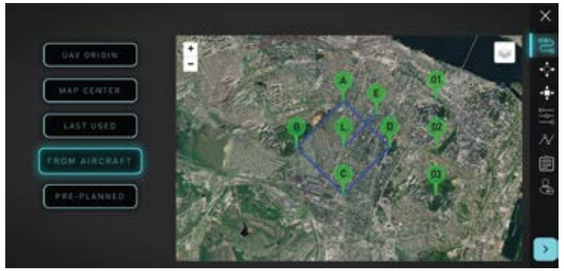
Reliable, real-time, secure communications are fundamental for accurate situational awareness and rapid response. Accordingly, we developed Crysalis™, our next-generation ground control solution, in conjunction with our broadband digital network module, Digital Data Link™, for enhanced command and control in a network-centric battlefield.

Featuring robust data encryption across multiple frequency bands, this IP-based module is designed for maximum flexibility and interoperability between small airborne systems and ground systems with limited power requirements. It ensures that bandwidth is available to maximize the number of systems that can operate in a given area.

CRYSALIS™ GCS

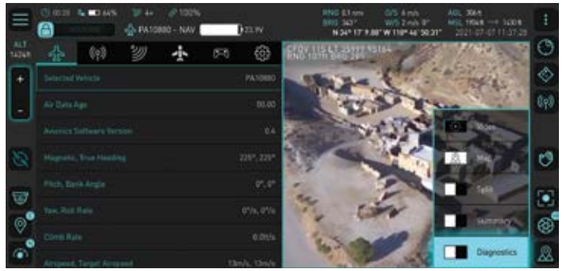
AeroVironment's next-generation ground control solution streamlines command and control of compatible unmanned aircraft systems (UAS) and their payloads through an intuitive user experience. Built around three core elements – software, hardware and antennas - Crysalis offers complete interchangeability, either as a network of modular elements or turnkey systems optimized for the warfighter. The result: an adaptable, operationally simplified GCS solution that improves battlefield communications and collaboration by enabling users to easily share real-time information and coordinate mission-critical decisions.

CRYSALIS™ CONTROL



MISSION PLANNING WIZARD

Takes operators through a step-by-step process to set flight operations and mission waypoints, identify any DTED conflicts, or quickly re-fly missions previously saved to the UAS or GCS.

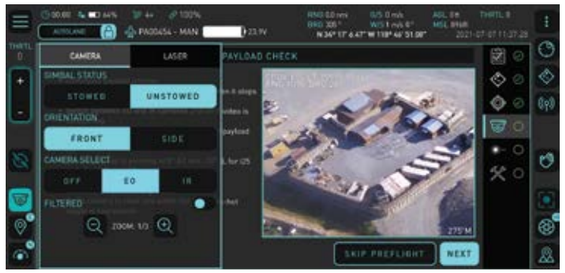


MISSION FLIGHT DIAGNOSTICS AND CAMERA MODES

View aircraft, GPS, telemetry, radio, GCS and mission plan diagnostics at any time with dynamic retasking. Select from multiple view options including Real-time Video, Map, Split Screen and Summary mode to customize your viewing experience.

BUILT-IN PRE-FLIGHT CHECKLIST

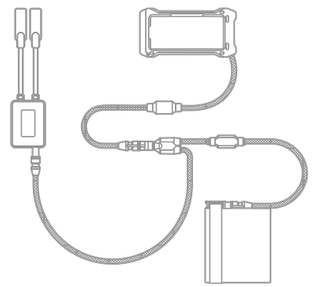
Comprehensive checklist covering avionics and navigation systems, radio systems, mission waypoints, aircraft and payload control and aircraft instrumentation reducing the time from set-up to deployment.



PAYLOAD CONTROL

Quickly access multiple camera and payload status and control options with zoom capability.

CRYSALIS™ RVT



PORTABILITY
Wearable

SETUP TIME
5 min

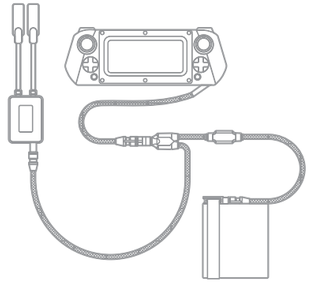
LINK RANGE
5 km

WEIGHT
System: 3.3 lb (1.5 kg)

USE CASE

Single operator (wearable), situational awareness, battlefield coordination and support to large and/or small teams; passive downlink video viewing and UAS telemetry data.

CRYSALIS™ ULTRALIGHT GCS



PORTABILITY
Wearable

SETUP TIME
5 min

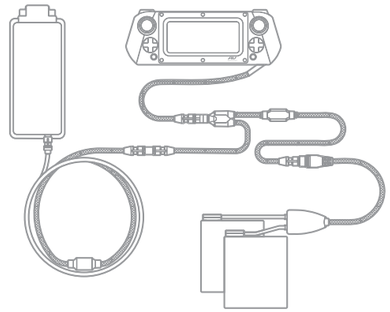
LINK RANGE
5 km

WEIGHT
System: 4.7 lb (2.1 kg)

USE CASE

Single operator (wearable); ideal for on-the-move and mobile ISR operations; virtual touchscreen or tactile joystick control of UAS and payloads.

CRYSALIS™ TACTICAL GCS



PORTABILITY
Backpackable

SETUP TIME
10 min

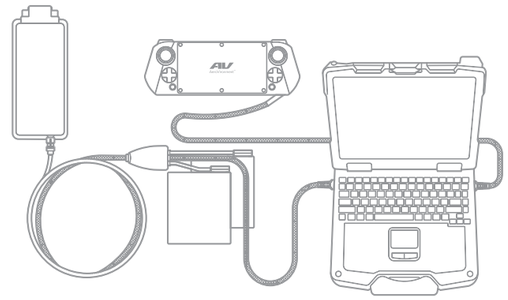
LINK RANGE
20 km

WEIGHT
System: 8.6 lb (3.9 kg)

USE CASE

Single operator deployment and launch, full control of UAS and payloads through virtual or tactile joysticks; backpackable, lightweight, and rugged for use in any environment with an operational range up to 20 km.

CRYSALIS™ COMMAND GCS



PORTABILITY
Man-packable

SETUP TIME
15 min

LINK RANGE
20 km

WEIGHT
System: 14.3 lb (6.49 kg)

USE CASE

Single or dual operator deployment; all-in-one modular and flexible ground control system and payloads through tactile joysticks; ideal for command-level operations; semi-fixed positions.

AeroVironment™

DDL NETWORK ANTENNAS

AeroVironment's Digital Data Link™ (DDL™) is a small, lightweight, broadband digital network module enabling enhanced command and control of small UAS. DDL is IP-based, allowing maximum flexibility and interoperability between small airborne and ground systems with limited power and bandwidth to maximize the number of systems that can operate in a given area. DDL is compatible with AeroVironment's network connectivity solutions and antennas, providing command and control ranges that extend from the wearable, short-range pDDL (5 km) to the Long Range Tracking Antenna (60 km).

DDL FREQUENCIES

M1/2/5 OR
M3/4/6

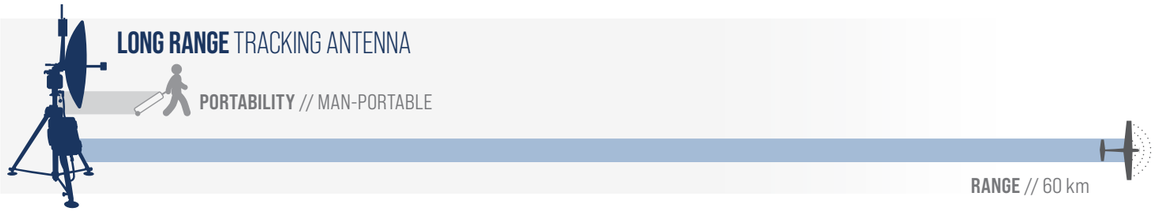
COMPATIBLE UAS

PUMA™ LE

PUMA™ 3 AE

RAVEN®

WASP® AE

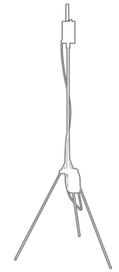


pDDL ANTENNA

DIMENSIONS
4 in x 2.25 in x 0.75 in
(10.2 cm x 5.7 cm x 1.9 cm)

WEIGHT
7.1 oz (201 g)

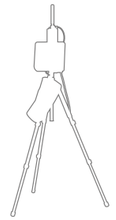
STANDARD RANGE ANTENNA



DIMENSIONS
Height: 6.5 ft (2 m)
Base Diameter: 3 ft (0.9 m)

WEIGHT
3 lb (1.3 kg)

ERA EXTENDED RANGE ANTENNA



DIMENSIONS
Height: 4.25–7 ft (1.3–2.2 m)
Base Diameter: 3.75–8.2 ft (1.1–2.5 m)

WEIGHT
10.8 lb (4.9 kg)

Note: excludes the GCS RF Head, hub and system battery

LRTA LONG RANGE TRACKING ANTENNA

DIMENSIONS
Height: M1/2/5: 5.8–9.4 ft (1.8–2.9 m)
M3/4/6: 5.25–8.8 ft (1.6–2.7 m)
Base Diameter: 5.3 ft (1.6 m)

WEIGHT
M1/2/5: 304 lb (138 kg)
M3/4/6: 300 lb (136 kg)

LINK RANGE	Up to 5 km	Up to 20 km	Up to 40 km	Up to 60 km
OPERATING BANDS	M1/2/5 or M3/4/6	M1/2/5 or M3/4/6	M1/2/5 or M3/4/6	M1/2/5 or M3/4/6
RX SENSITIVITY	-98 dBm @ 2 Mbps -93 dBm @ 6 Mbps	-98 dBm @ 2 Mbps -93 dBm @ 6 Mbps	-98 dBm @ 2 Mbps -93 dBm @ 6 Mbps	-98 dBm @ 2 Mbps -93 dBm @ 6 Mbps
POWER CONSUMPTION	9 W	20 W	20 W (pass through, not additional)	275 W (nom., heater off) 460 W (max., heater on)
OPERATING VOLTAGE	5.5–16 V	5.5–16 V	5.5–16 V	90–250 V ac, 47–65 Hz
DATA RATE	4.5 Mbps	4.5 Mbps	4.5 Mbps	4.5 Mbps
SUPPORTED COMPRESSION	MPEG2 or H264 SD	MPEG2 or H264 SD	MPEG2 or H264 SD	MPEG2 or H264 SD
INTERFACES	USB	Ethernet/RS-232/RS-485	Ethernet/RS-232/RS-485	Ethernet/RS-232/RS-485
ENCRYPTION	AES-128/AES-256	AES-128/AES-256	AES-128/AES-256	AES-128/AES-256

AeroVironment™

FIELD OPERATIONS AND CUSTOMER SUPPORT

SUPPORT SERVICES

FIELD OPERATION SERVICES

» AeroVironment provides world-class field operation services on a global scale. Our field operation services include fully-equipped and staffed turnkey solutions and outstanding OEM-certified operators, instructors and maintainers.

FIELD SERVICE REPRESENTATIVES

» Our Field Service Representatives (FSRs) provide on-site field service support and act as the liaison between customers and our engineering team. The FSRs are highly qualified to provide on-site flight standardization program development and training support package development.

PROGRAM MANAGEMENT AND SME SUPPORT

» We supply customer-focused program management and subject matter expert support. Our exceptionally skilled staff provides tailored mission planning and operational support, and we include engineering support from the original equipment manufacturer. We also offer on-site sustainment operations development and delivery.

SUSTAINMENT OPERATION

» We support our customers with sustainment operations, including professional inventory control and comprehensive logistical services. Our logistical support includes extensive planning, coordination and monitoring to successfully plan and maintain operations.

AIRWORTHINESS

» AeroVironment's airworthiness organization monitors and evaluates airworthiness regulation initiatives in key markets and regions across the globe to ensure our products conform to our customers' Airworthiness Certification needs.

TRAINING

» We specialize in student-centered learning using state-of-the-art, interactive 3-D digital training media that aids in the retention of information and promotes student participation. Courses include simulator-focused mission scenarios providing a real world digital experience, hands-on practical exercises, mission planning and live flight field operations. We offer all levels of operator training from basic to advanced courses in a safe and controlled environment. Our distinctive training program is recognized both domestically and internationally.

QUALITY

» AeroVironment's ISO-9001:2008 production and service facility ensures the highest level product and support quality. The company's unmatched experience and technology roadmap combine to deliver an outstanding customer experience in situations where reliability and effectiveness can make the difference between success and failure.