

/ PRODUCT CATALOG





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

35,000 MORE THAN 35,000 UNITS DELIVERED

4 MILLION+

ACCUMULATED UAS FLIGHT HOURS (EST)

50 Allied Nations Using our tactical uas

WHO WE ARE

At AeroVironment, our purpose is to secure lives and advance sustainability through transformative innovation. Our solutions give our customers a fresh vantage point, positioning them to see the world with new eyes and extending their reach beyond the line of sight. That is the power of our breakthrough unmanned aircraft systems, perfected and refined over a half century.

As the pioneer and leader in Tactical Unmanned Aircraft Systems and Tactical Missile Systems, our product roadmap extends well into the future, ensuring that our customers will continue to enjoy a tactical advantage on the battlefield through new products, new capabilities and advanced technologies that will help them proceed with certainty long into the future.



PUMATM LE

The All Environment Puma LE delivers Group 2 capabilities in a Group 1 optimized, two-case mission packout. This ultra-lightweight Group 2 aircraft more than doubles the time on station of Puma 3 AE, featuring 6.5 hours of flight endurance and a 60 km range when used with the optional Long Range Tracking Antenna (LRTA) and Puma Smart 2500 Battery. Puma LE comes equipped with AeroVironment's Mantis™ i45 gimbaled sensor suite featuring dual Electro-Optical (EO) cameras, an Infrared (IR) camera, a low-light camera, and an NVG-visible laser illuminator. The aircraft is multi-mission capable, with a total payload capacity of 5.5 lb and a secondary payload bay with dedicated power supply and Ethernet connectivity. The Puma LE's secondary payload bay is designed for the integration of multi-mission payloads such as Electronic Warfare, RF Geolocation or Communications Relay. Puma LE is hand or bungee launchable, employing a precise, waypoint-controlled skid landing and does not require additional equipment for recovery.





SWITCHBLADE[®] 600

Switchblade 600 represents the next generation of extended-range loitering missiles. Featuring high precision optics and more than 40 minutes of endurance, Switchblade 600 provides unprecedented RSTA and precision strike capabilities against larger, hardened targets via an anti-armor warhead. This provides the ability to prosecute non-line-of-sight targets with precision lethal effects at a greater stand-off distance, without the need for external ISR or fires assets.

This all-in-one, man-portable solution includes everything required to successfully execute missions across ground, maritime, and air domains. Easily train, plan missions and execute flight operations through an intuitive, touchscreen tablet Fire Control System (FCS).



VAPOR° 55

The all-electric VAPOR 55 Helicopter UAS delivers precision flight control performance, endurance, and payload flexibility. Featuring military-grade components, intelligent HW/ SW system design, and a high-energy density, lithium-polymer battery, VAPOR 55 provides enhanced flight stability and up to one hour of flight time on a single battery charge.

With an expansive modular payload bay and up to 10 lb useable payload capacity, VAPOR 55 is multi-mission capable with access to a variety of available integrated sensors and third-party payloads including EO/IR, survey grade PPK mapping, LiDAR and hyperspectral sensors, and Drop/Delivery Mechanism. Every VAPOR Helicopter UAS incorporates proprietary HeliSynth[™] technology for system level optimization including advanced autopilot, payload control & operation, and mission performance efficiency.





QUANTIX" RECON

Quantix[™] Recon is a powerful, simple-to-use UAS that delivers rapid, automated reconnaissance and hands-free data collection. Mapping and scouting tasks are effortless with its fully-automated takeoff, flight and landing functions — even first-time users can successfully operate it. With its Radio Frequency (RF) Silent Mode, Quantix Recon flies undetected and undeterred by jammers to deliver accurate, up-to-date maps within minutes for quick mission planning and verification. On-board processing provides georeferenced, high-resolution imagery on the user's tablet as soon as Quantix Recon lands — no other devices, internet or software required. Due to its innovative hybrid design, Quantix Recon outperforms traditional quadcopters in range and efficiency. That means you can cover more ground faster and obtain aerial maps of remote, inaccessible areas and rapidly changing environments to ensure the safety of ground forces.

CRYSALIS[™] RVT

Crysalis Remote Video Terminal (RVT) provides the user with receive-only access to actionable intelligence from AeroVironment's family of unmanned aircraft systems (UAS). Its intuitive touch screen interface allows users to easily obtain vital battlefield information through real-time EO/IR video downlink, geolocation data, and the ability to record video and capture high-resolution imagery. These advanced capabilities give the user a distinct advantage in making informed, mission-critical decisions.

Compatible with Nett Warrior and AeroVironment's pocket DDL (pDDL) transceiver, the Crysalis RVT System seamlessly connects to the robust & secure DDL network while easily integrating into tactical vest/utility belt configurations.





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

TRAINING AND SUPPORT SERVICES

SUPPORT SERVICES

FLIGHT OPERATION SERVICES

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 & 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.

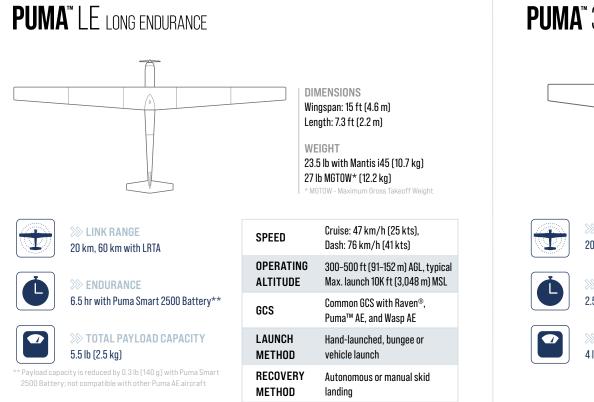
TRAINING

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.



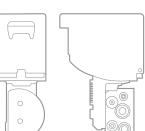


KEY FEATURES

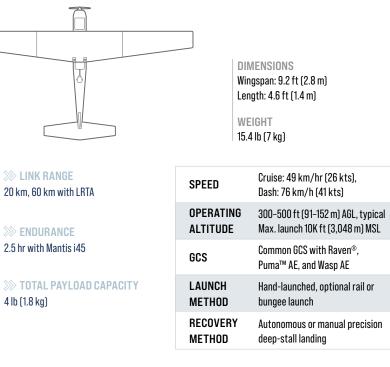
- » 6.5 hours of ISR capability in all environments
- Support 2 flights with 2-case packout
- Dedicated secondary payload bay with power supply and Ethernet

MANTIS™ i45 ALL ENVIRONMENT SENSOR SUITE

- » Dual 15mp EO cameras
- » 50x zoom
- » LWIR camera and Low Light camera for night operations
- » High Power Laser Illuminator
- » Compatible with Puma 2 AE, Puma 3 AE, and Puma LE







KEY FEATURES

- >> Increased payload capacity with optional underwing transit bay and reinforced airframe
- ≫ Shares Mantis™ i45 gimbal payload and common LRUs with Puma LE
- Single case mission packout for two full flights with a single aircraft

PUMA LE USES PLUG AND PLAY INTEROPERABLE COMPONENTS

By leveraging the existing Puma RQ-20B and Puma 3 AE Line Replaceable Units (LRUs), Puma LE allows any current Puma AE user to easily upgrade fielded systems. This interoperability builds on a legacy of Puma baselines with hundreds of thousands of operational flight hours. The Puma AE product line provides the warfighter with Intelligence, Surveillance and Reconnaissance (ISR) during day and night operations in All Environment (AE) conditions.



RAVEN[®] RQ-11B



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1-1.5 hr

KEY FEATURES

- Rugged for extended, reliable use in harsh environments

MANTIS™ i23 SENSOR SUITE

- » Advanced Gimbaled EO/IR Sensor
- » 5 MP EO camera
- » Laser Illuminator

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		DIMENSIONS Wingspan: 4.5 ft (1.4 m) Length: 3 ft (0.9 m)
		WEIGHT 4.2 lb (1.9 kg)
RANGE	SPEED	Cruise: 32 km/h (17 kts), Dash: 81 km/h (44 kts)
URANCE	OPERATING ALTITUDE	100-500 ft (30-152 m) AGL, typical Max. launch 14K ft (4,267 m) MSL
	GCS	Common GCS with Raven®, Puma™ AE, and Wasp AE
	LAUNCH METHOD	Hand-launched
	RECOVERY METHOD	Deep-stall landing

WASP[®]AE ALL ENVIRONMENT // RO-12A

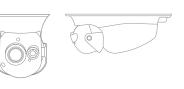
			DIMENSIONS Wingspan: 3.3 ft (1 m) Length: 2.5 ft (0.8 m) WEIGHT 2.9 lb (1.3 kg)	
	S LINK RANGE	SPEED	Cruise: 43 km/h (23 kts), Dash: 83 km/h (45 kts)	
	Sendurance 50 minutes	OPERATING ALTITUDE	300 ft (91 m) AGL, typical Max. launch 10K ft (3,048 m) MSL	
		GCS	Common GCS with Raven®, Puma™ AE, and Wasp AE	
		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

MANTIS™ i22 ALL ENVIRONMENT SENSOR SUITE

- » Advanced Gimbaled EO/IR Sensor
- » 5 MP EO camera
- » LWIR camera and Low Light camera for night operations

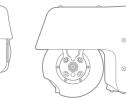




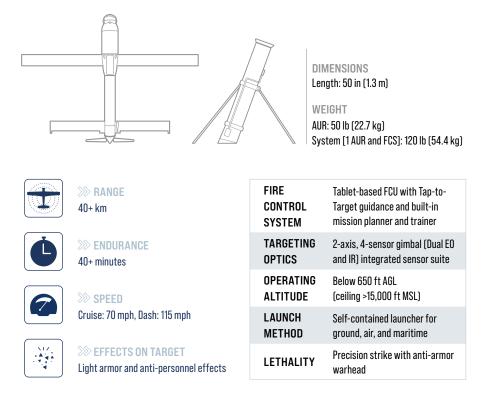
Backpackable lightweight & hand-launched

» Autonomous navigation and autoland

» LWIR camera and Low Light camera for night operations



SWITCHBLADE[®] 600 LOITERING MISSILE SYSTEM



KEY FEATURES

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



SWITCHBLADE" 300 LOITERING MISSILE SYSTEM

	Wir Ler Wi	MENSIONS ngspan : 27 in (68.6 cm) ngth: 19.5 in (49.5 cm) EIGHT R: 5.5 lb (2.5 kg)
>>> RANGE 10 km	GROUND Control System	Interoperable with Common Ground Control Station for Puma™ AE, Raven®, and Wasp® AE
Simple Sector Se	TARGETING Optics	Dual front and side look EO cameras and IR nose camera, Stabilized electronic pan-tilt- zoom
SPEED Cruise: 63 mph, Dash: 100 mph	OPERATING Altitude	Below 500 ft AGL (ceiling >15,000 ft MSL)
Sime EFFECTS ON TARGET Anti-personnel effects	LAUNCH Method	Self-contained launcher for ground, air and maritime. Optional Multipack Launcher
	LETHALITY	Precision strike with Northrup Grumman advanced munition

KEY FEATURES

- » Patented wave-off/recommit capability
- >> Automated waypoint navigation
- *Backpackable*

» < 2 minute setup and launch

KEY FEATURES

- » Rapid launch-rapid response ISR
- unmanned vehicles
- » Modular payload

MPL MULTIPACK LAUNCHER

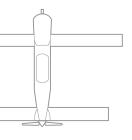


KEY FEATURES

- Compatible platforms-Switchblade[®] 300, Blackwing™
- Low observable remote ops

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BLACKWING[™] LOITERING RECONNAISSANCE SYSTEM



» C3 Tactical data relay—manned and

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



Rapid Reload -< 30 seconds per round Tactical Vehicle/Shipboard Integration

DIMENSIONS 36 in D x 30 in W x 36 in H WEIGHT

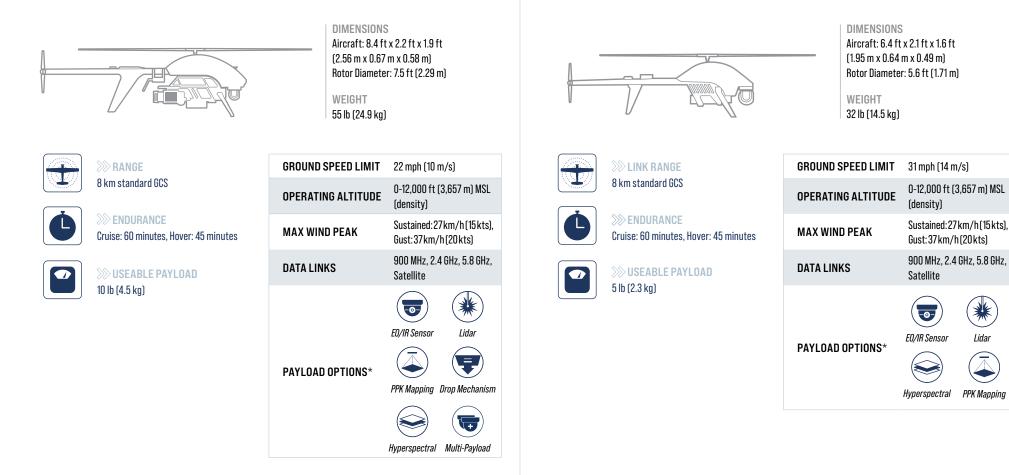
~130 lb empty, ~160 lb loaded

CONFIG- Urations	6-pack Standard (Alternates for 2-20 AURs possible)
MOUNTING	Hold downs for vehicle or ship board use
POWER	Solar panel and internal battery, Shore/TacVeh power augments to maintain internal operating temps
CONTROL	100' remote operation control cable (FOB/COP Ops Cell bunker/buildings, Tactical Vehicles, Ship CIC)



VAPOR° 55 ALL-ELECTRIC HELICOPTER UAS

VAPOR[®] 35 ALL-ELECTRIC HELICOPTER UAS



KEY FEATURES

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

KEY FEATURES

- » VTOL with advanced autopilot for precision flight control performance
- » Plan, simulate and execute automated missions
- » Versatile payload bay for integration of sensors and third party payloads
- » Economical one-man lift packout

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



HYBRID VTOL UAS

QUANTIX[™] RECON



DIMENSIONS Wingspan: 3.2 ft (97.5 cm) WEIGHT

5 lb (2.3 kg)



2 km radio limit (up to 40 km without radio link)

RANGE

Area: 3.24 km² max @ 800 ft Linear: 20 km roundtrip (out & back); 40 km one way max

>>>> INTEGRATED SENSORS GSD @ 150 ft (45.7 m)

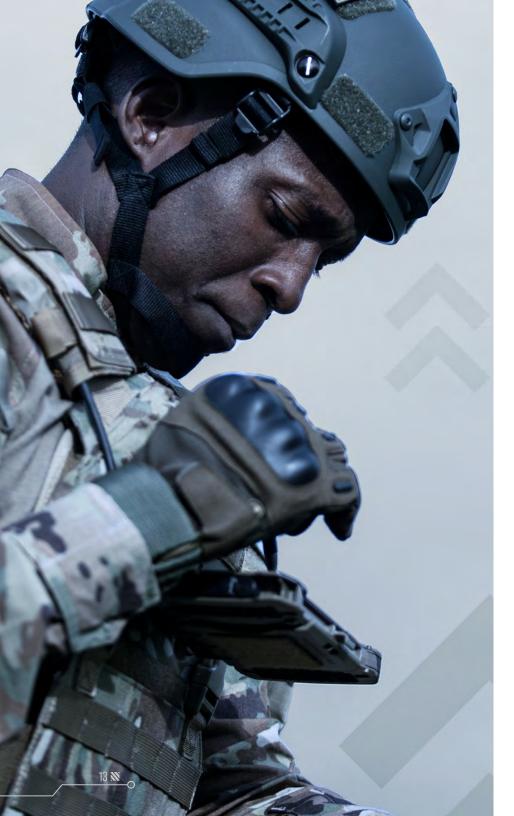
RGB: 0.4 in (1 cm) Multispectral: 0.8 in (2 cm)

MAX FLIGHT TIME	45 min
PROPULSION	4 direct electric drive motors
MAX ALTITUDE	7,500 ft (2,286 m) MSL (Density Altitude)
WIND LIMIT	20 mph (9 m/s)
DATA STORAGE	On-board SD card
COMMUNICATIONS	900 MHz Encrypted & wifi
NAVIGATION	Automatic navigation— Area, Waypoint, Linear
TEMPERATURE	0-120 °F (-17-49 °C)
LAUNCH AND Recovery	Vertical takeoff and landing

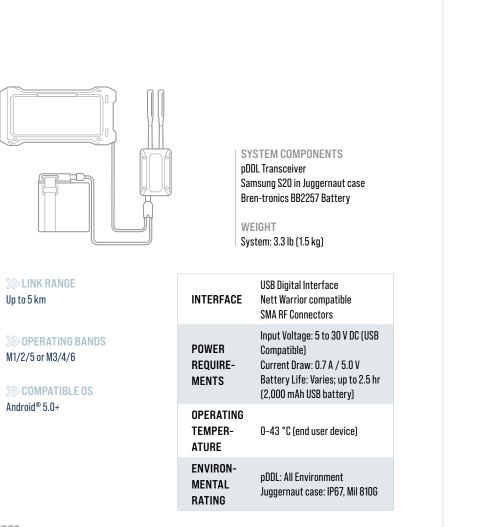
KEY FEATURES

- » 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
- » Quick and easy mission planning and verification, no connectivity required





CRYSALIS[™] REMOTE VIDEO TERMINAL



KEY FEATURES

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- » Intuitive touchscreen user interface with multiple view modes
- » Real-time, mission critical intel with EO/IR video downlink, geodata, high-res imagery
- >> Lightweight & portable with complete system weighing less than 3.3 lb
- » 3 km digital broadband data connection radius, with AES-256 data encryption





TX POWER

RX SENSITIVITY

POWER CONSUMPTION OPERATING VOLTAG DATA RATE

SUPPORTED

COMPRESSION

- INTERFACES
- ENCRYPTION

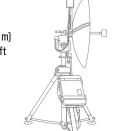


STANDARD ANTENNA	
(OMNIDIRECTIONAL & PATCH CONFIGURATIONS)	





DIMENSIONS Height: 4.25-7 ft (1.3-2.2 m) Base Diameter: 3.75-8.2 ft DIMENSIONS (1.1-2.5 m) Height: 6.5 ft (2 m) DIMENSIONS Base Diameter: 3 ft (0.9 m) 4 in x 2.25 in x 0.75 in WEIGHT (10.2 cm x 5.71 cm x 1.9 cm) 10.8 lb (4.9 kg) WEIGHT Note: excludes the GCS M1/2/5: 8.6 lb (3.9 kg) WEIGHT RF Head, hub and M3/4/6: 8.5 lb (3.9 kg) 7.1 oz (200 g) system battery **LINK RANGE** >>> LINK RANGE LINK RANGE I Ľ Up to 20 km Up to 40 km **OPERATING BANDS OPERATING BANDS** >>>> OPERATING BANDS M1/2/5 or M3/4/6 M1/2/5 or M3/4/6 M1/2/5 or M3/4/6



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), legs not extended

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



» LINK RANGE Up to 60 km



>>> OPERATING BANDS M1/2/5 or M3/4/6

	1.5 W	1.5 W	1.5 W	1.5 W
	-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
	9 W	20 W	20 W (pass through, not additional)	275 W (nom., heater off) 460 W (max., heater on)
AGE	5.5-16 V	5.5-16 V	5.5–16 V	90-250 V ac, 47-65 Hz
	4.5 Mbps	4.5 Mbps	4.5 Mbps	4.5 Mbps
	MPEG2 or H264 SD			
	USB	Ethernet/RS-232/RS-485	Ethernet/RS-232/RS-485	Ethernet/RS-232/RS-485
	AES-128/AES-256	AES-128/AES-256	AES-128/AES-256	AES-128/AES-256

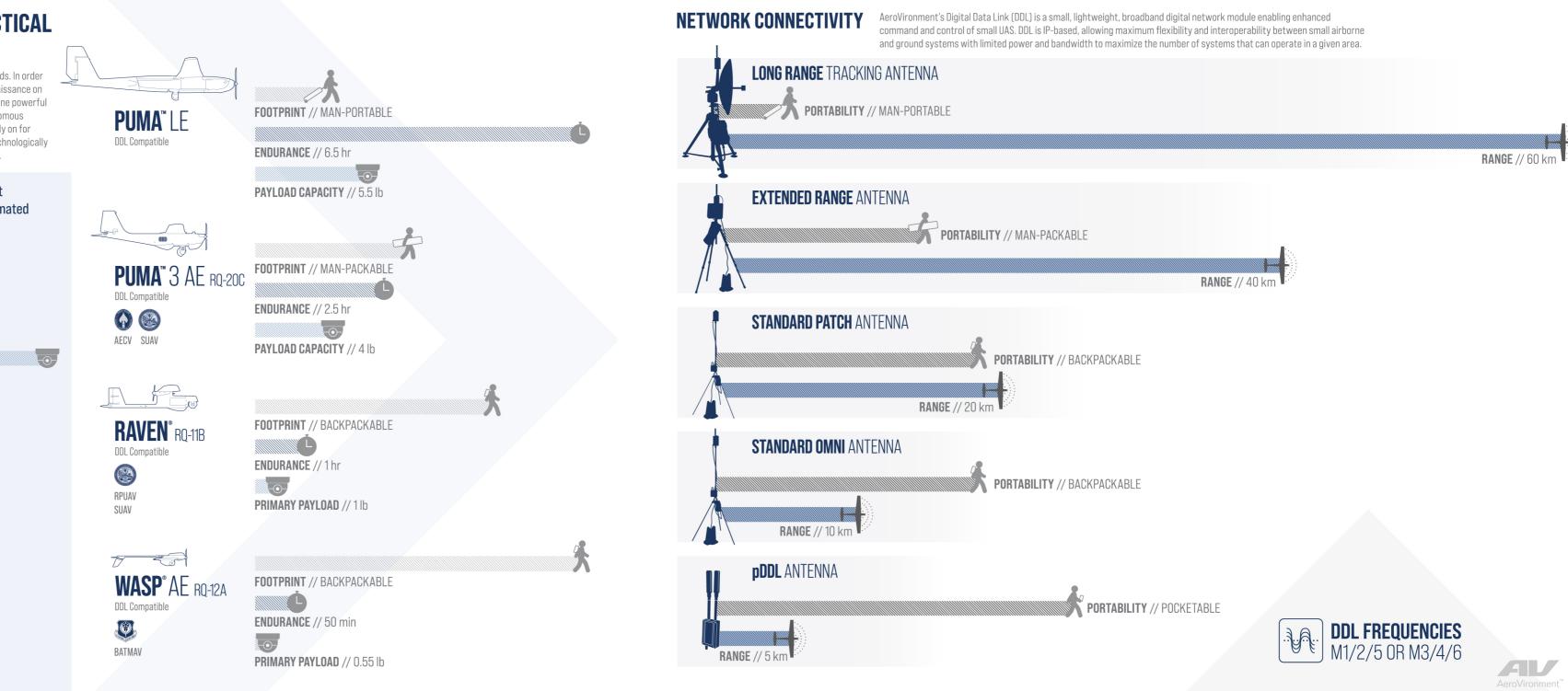


AEROVIRONMENT'S FAMILY OF TACTICAL UNMANNED AIRCRAFT SYSTEMS

Warfighters on the ground need to make mission-critical decisions in seconds. In order to do this, they need superior tactical intelligence, surveillance and reconnaissance on demand. AeroVironment's rugged, small, unmanned aircraft systems combine powerful sensors, secure communications, superior aerodynamics, manual or autonomous navigation, and intuitive ground control systems that the warfighter can rely on for situational awareness, life-saving information and mission success. Our technologically advanced products ensure our customers maintain a battlefield advantage.

Our VTOL systems come equipped with touchscreen tablet interfaces featuring easy-to-use flight planning and automated mission execution









PROCEED WITH CERTAINTY

For more product information, visit avinc.com







