

INVESTOR DAY 2022

Beyond the Horizon

October 5, 2022

Today's Agenda

INVESTOR & ANALYST DAY // AGENDA DAY 2

OCTOBER 5

TIME	AGENDA ITEM	LOCATION
7:00 AM	BREAKFAST	<i>Sheraton - Marina Room</i>
8:00 AM	SHUTTLE BUS: SHERATON TO PETALUMA FACILITY	<i>Sheraton Parking Lot</i>
8:15 AM	SECURITY CHECK-IN	<i>MUAS Facility</i>
8:45 AM	WELCOME	
9:00 AM	AEROVIRONMENT TODAY & TOMORROW	
9:30 AM	FINANCIAL UPDATE	
10:00 AM	MEDIUM UNMANNED AIRCRAFT SYSTEMS (MUAS) UPDATE	
10:30 AM	BREAK	
10:45 AM	FACILITY TOUR	
11:15 AM	SMALL UNMANNED AIRCRAFT SYSTEMS (SUAS) UPDATE	
11:45 AM	TACTICAL MISSILE SYSTEMS (TMS) UPDATE	
12:15 PM	LUNCH	
12:30 PM	Q&A PANEL	
1:00 PM	CLOSING REMARKS	
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4:00 PM	SHUTTLE BUS: DEMO SITE TO HOTEL	

WELCOME!

Jonah Teeter-Balin

Sr Director, Corporate Development & Investor Relations

WATCH THE VIDEO [HERE](#)



Safe Harbor Statement

Certain statements in this presentation may constitute "forward-looking statements" as that term is defined in the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, without limitation, any statement that may predict, forecast, indicate or imply future results, performance or achievements, and may contain words such as "believe," "anticipate," "expect," "estimate," "intend," "project," "plan," or words or phrases with similar meaning. Forward-looking statements are based on current expectations, forecasts and assumptions that involve risks and uncertainties, including, but not limited to, economic, competitive, governmental and technological factors outside of our control, that may cause our business, strategy or actual results to differ materially from the forward-looking statements.

Factors that could cause actual results to differ materially from the forward-looking statements include, but are not limited to, the impact of our recent acquisitions of Arcturus UAV, Inc., Telerob GmbH and the Intelligent Systems Group of Progeny Systems Corp. and our ability to successfully integrate them into our operations; the risk that disruptions will occur from the transactions that will harm our business; any disruptions or threatened disruptions to our relationships with our distributors, suppliers, customers and employees, including shortages in components for our products; the ability to timely and sufficiently integrate international operations into our ongoing business and compliance programs; reliance on sales to the U.S. government and related to our development of HAPS UAS; availability of U.S. government funding for defense procurement and R&D programs; changes in the timing and/or amount of government spending; our ability to perform under existing contracts and obtain new contracts; risks related to our international business, including compliance with export control laws; potential need for changes in our long-term strategy in response to future developments; the extensive regulatory requirements governing our contracts with the U.S. government and international customers; the consequences to our financial position, business and reputation that could result from failing to comply with such regulatory requirements; unexpected technical and marketing difficulties inherent in major research and product development efforts; the impact of potential security and cyber threats or the risk of unauthorized access to our, our customers' and/or our suppliers' information and systems; changes in the supply and/or demand and/or prices for our products and services; increased competition; uncertainty in the customer adoption rate of commercial use unmanned aircraft systems; failure to remain a market innovator, to create new market opportunities or to expand into new markets; unexpected changes in significant operating expenses, including components and raw materials; failure to develop new products or integrate new technology into current products; unfavorable results in legal proceedings; our ability to respond and adapt to an unexpected legal, regulatory and government budgetary changes, including those resulting from the ongoing COVID-19 pandemic, such as supply chain disruptions, vaccine mandates, the threat of future variants and potential governmentally-mandated shutdowns, quarantine policies, travel restrictions and social distancing, curtailment of trade, diversion of government resources to non-defense priorities, and other business restrictions affecting our ability to manufacture and sell our products and provide our services; our ability to comply with the covenants in our loan documents; our ability to attract and retain skilled employees; the impact of inflation; and general economic and business conditions in the United States and elsewhere in the world; and the failure to establish and maintain effective internal control over financial reporting. For a further list and description of such risks and uncertainties, see the reports we file with the Securities and Exchange Commission. We do not intend, and undertake no obligation, to update any forward-looking statements, whether as a result of new information, future events or otherwise.

For a further list and description of such risks and uncertainties, see the reports we file with the Securities and Exchange Commission, including our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, which are available at www.sec.gov or on our website at www.investor.avinc.com/financial-information. We do not intend, and undertake no obligation, to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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AEROVIROENVIRONMENT

Today and Tomorrow

Wahid Nawabi

CEO, President and Chairman

Since Investor Day 2018

We support a much larger set of international customers today - **55 countries and growing!**

We are a truly **global company** – not just “Simi Valley, CA centric”, but with staff in Germany, UAE, and 7 sites across the USA, plus forward-deployed and **in harm’s way with customers and supporting customers**

Our workforce has doubled from ~600 to **over 1200 employees today**

Our revenues have doubled, allowing **R&D investments** at record high levels, **and outpace competitors**

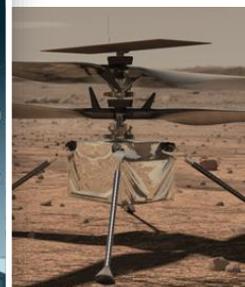
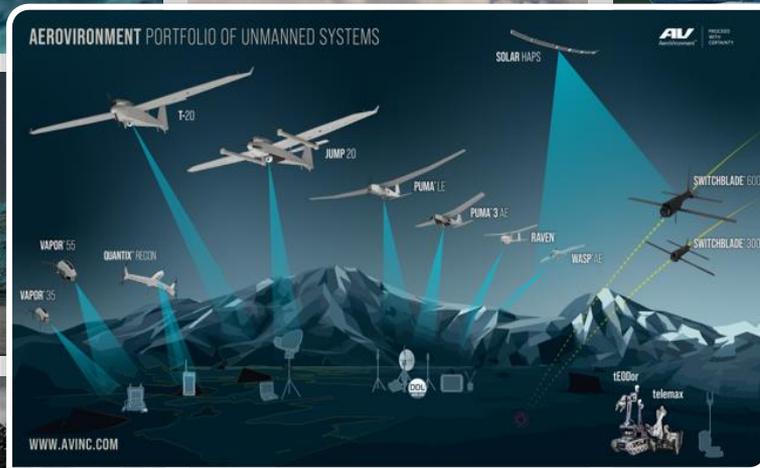
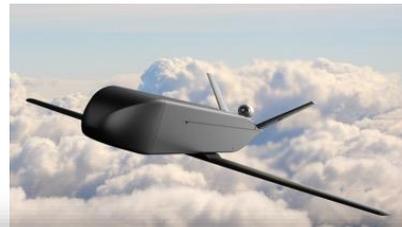


*The last 5 years have been great,
and we have **similarly high expectations for the next 5 years***

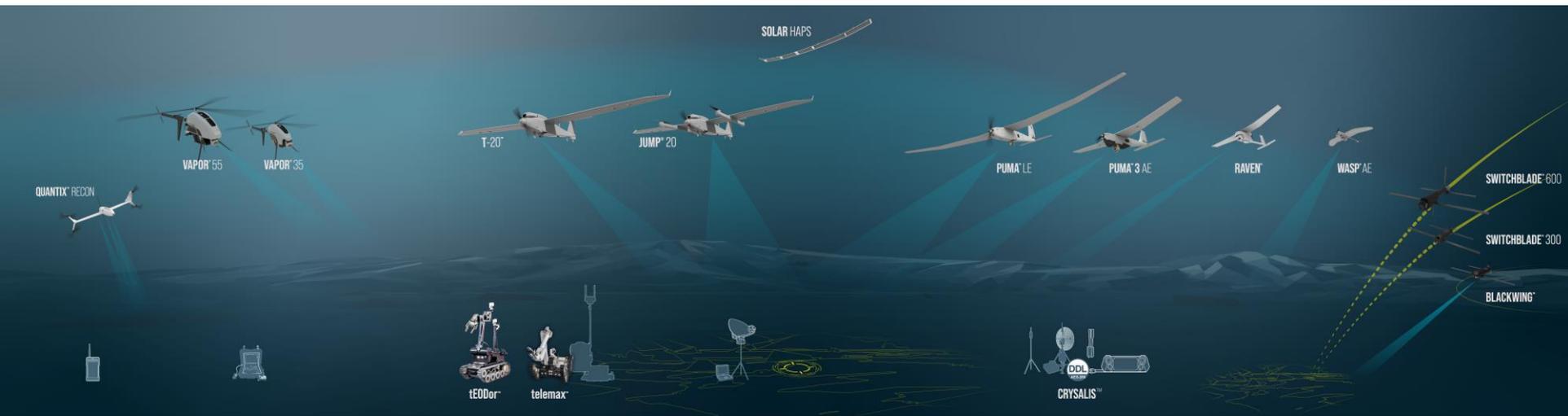
Our Future State Evolving for our customers

Integrated Portfolio of Intelligent, Multi-Domain Robotic Systems for Defense and Commercial Markets

- Mission-centric solutions
- Operate in the presence of near peer adversaries
- Seamlessly integrating robotic systems with humans



Comprehensive Business Strategy



AV's product portfolio is shaped so that we **serve our customers** as the world's leading provider of **"intelligent, multi-domain robotic systems"**

We operate different business models - **providing hardware solutions & services**

We have **6 product lines** today, geared toward customer success in all domains (SUAS, TMS, MUAS, UGV, HAPS, MW)

We stretch from below the waves of Earth's oceans to the red surface of Mars – **going where our customers go and where they can't**

Since Investor Day 2018, Our Evolution Continues

Added to
Our Portfolio

Jun 2019



**VTOL
SUAS**

Pulse Aerospace
Lawrence, Kansas

Feb 2021



**AI/ML
Autonomy**

Progeny Systems, ISG
Manassas, Virginia

Feb 2021



**MUAS/
CO-CO Svc.**

Arcturus UAV
Petaluma, California

May 2021



**UGV/
EOD**

Telerob
Stuttgart, Germany

Aug 2022



**UAS
Navigation**

Planck Aerosystems
San Diego, California

Long-Term Objectives

Our aim is to double revenue by increasing:

- Our presence internationally to better serve growing customer base
- Our investments in R&D
- The size of our team and our areas of expertise
- The “resiliency” of our solutions (Contested airspace operations)
- Our investments in AI & Autonomy

And building onto our legacy by:

- Expanding our product portfolio & solution offerings to meet customers’ evolving needs
- Continuing to have a diverse, talented workforce
- Improving our business processes to be “easier to do business with”
- Continuing to earn the “Great Place to Work” certification for many years to come
- And earning our stakeholder trust and respect each day

Why do we believe this is achievable?

Lots of Positive Trends

The Ukraine war has “awoken” the US and our Allies regarding the seriousness of global threats, especially from Russia and China

US DoD & most of our allies’ defense spending should continue to be at healthy and record levels

The Ukraine war has validated again the importance and relevance of drones and loitering munitions. This is a historic shift in mindsets and AV is at the forefront of this revolution!

We are well positioned to support our allies and we **MUST** continue to invest in our solution portfolio.

In Conclusion

one — two — three — four

The **future** for
AeroVironment
has **never**
been
brighter

We have a
clear and
compelling
plan for growth,
supporting
our growing
global
customer base

We work hard to
remain
leaders
in the markets
we serve

We are in the middle
of our transformation,
which is positioning
us for **decades of**
continued growth and
success supporting
our customers

***We have
much to do!***

*Understanding
customer needs
and effective
execution
are keys to
success*

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FINANCIAL UPDATE

Long Term Growth Potential

Kevin McDonnell

CFO

Business Segments Market Outlook

SEGMENT	GLOBAL TAM (1)	OUTLOOK	HIGHLIGHTS
 SUAS Group 1/2 UAVs	\$1B+ 	 Growing	<ul style="list-style-type: none"> Global Leader Position in Group 1 – Over \$2B of revenue over last 15 years Adding Group 2 to Target Market Multiple New Product Introductions and Add-ons Well Positioned for Future U.S. DOD Programs of Record
 MUAS Group 2/3 UAVs	\$2B+ 	 Disrupter	<ul style="list-style-type: none"> Targeting Group 2/3 Leading the way to next generation products Sole Selected for Increment 1 of Future Tactical UAS Program - \$1B+ Program Leveraging AV Global Franchise for U.S. and International Sales
 TMS Loitering Munitions	\$2B+ 	 Growing	<ul style="list-style-type: none"> Global Leader in Loitering Munitions; Patented “Wave Off” Technology Expanding U.S. DOD Footprint; Authorized to Sell in 20+ Countries Targeting Multiple \$1+ Billion Programs Preferred Partner to integrate on aircraft, ground vehicles and ships
 HAPS High Altitude Comms	\$50B+ 	 Innovating	<ul style="list-style-type: none"> Goal to deliver stratospheric cell service via solar powered platform Softbank primary customer for telecom application Targeting Large U.S. DOD Opportunities
 UGV Unmanned Ground Vehicles	0.5B+ 	 Adapting	<ul style="list-style-type: none"> Part of Multi-Domain Solutions Benefits from Growing Defense Budgets Globally Positioning for future U.S. DOD programs
 MW McCready Works	\$2B+ 	 Innovating	<ul style="list-style-type: none"> Significant Increased Spending for Classified U.S. DOD Programs Center of Excellence for Autonomy and Machine Learning Source of Potential New Products

(1) Data from Renaissance Strategic Advisors, Detecon Consulting and Company Estimates

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Global TAM For AVAV Product Portfolio Has Expanded Significantly Over Last Two Years

(1) Data from Renaissance Strategic Advisors, Detecon Consulting and Company Estimates

Long Term Growth Drivers

ONE

Increasing Defense Budgets Globally

TWO

Increased Demand for Loitering Munitions (TMS) within U.S. DOD

THREE

Several \$1 Billion+ U.S. DOD Program opportunities for Tactical Missiles (TMS), Small UAS (SUAS) and Medium UAS (MUAS)

FOUR

Increasing International Demand for TMS and MUAS Products

FIVE

Upgrades and Replacements for SUAS Installed Base

SIX

Growth of U.S. DOD Classified Programs driving demand for McCready Works

SEVEN

Longer Term – the commercialization of HAPS for Telecom and DOD applications

Multiple Growth Drivers Give Confidence in Long Term Outlook

Examples of Large \$1 Billion+ Programs on Horizon



TMS

- Long Range Precision Munition (LRPM)
- Optionally Manned Fighting Vehicle (OMFV)
- Ground Organic Precision Strike System (GOPSS)
- Organic Precision Fires-Mounted (OPF-M)
- Organic Precision Fires-Light (OPF-L)



MUAS

- Future Tactical UAS (FTUAS)
- Medium Endurance UAS (MEUAS)
- NAVY ISR



SUAS

- Long Range Reconnaissance (LRR)
- Medium Range Reconnaissance (MRR)

AeroVironment is well positioned to compete in each of these programs

Financial Performance

	AVERAGE FY18-FY22	MID-POINT ⁽¹⁾ FY23	LONG TERM
Revenue Growth	14%	12%	Growth should accelerate with Large Program Wins
R&D Investment	12%	10% - 11%	R&D Investment will Continue
Adjusted EBITDA % ⁽²⁾	17%	17%	Growth is Priority

(1) Mid-Point of Revenue and Adjusted EBITDA Guidance Range of \$490M to \$520M for revenue and \$82M to \$92M for Adjusted EBITDA

(2) Adjusted excludes intangible amortization, deal costs, stock-based compensation and other extraordinary items. See Appendix A and B for Adjusted EBITDA reconciliations.

Potential of Accelerating Growth in Next Five Years

Financial Performance

	AVERAGE FY18-FY22	MID-POINT ⁽¹⁾ FY23	LONG TERM
Revenue Growth	14%	12%	Growth should accelerate with Large Program Wins
Expect continued double digit organic revenue growth with R&D investment and Adjusted EBITDA percentages in line with historical averages			
Adjusted EBITDA % ⁽²⁾	17%	17%	Growth is Priority

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Potential of Accelerating Growth in Next Five Years

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MEDIUM UNMANNED AIRCRAFT SYSTEMS (MUAS)

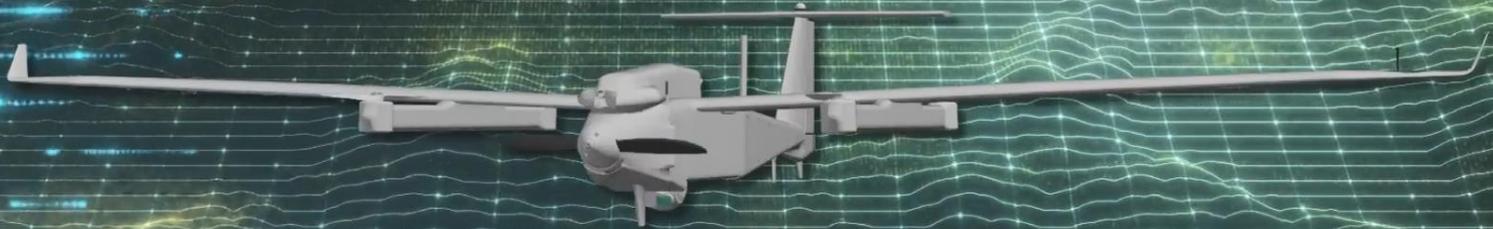
FTUAS Program & Key Technologies

Gorik Hossepian

Vice President and Product Line General Manager
Medium Unmanned Aircraft Systems

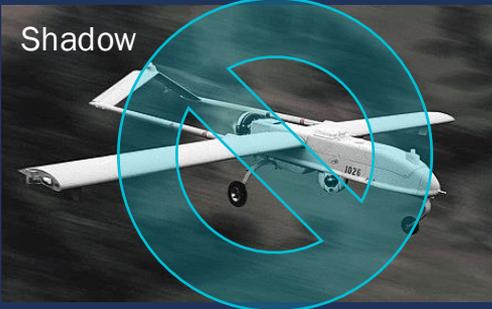
JUMP[®] 20

VTOL FIXED-WING MEDIUM UAS



WATCH THE VIDEO [HERE](#)

FTUAS Program Purpose



Replacement for RQ-7B Shadow in US Army brigade combat teams

- Seeking VTOL, runway-independent, reduced acoustic signature, easily transportable
- Requires at least 6-hour duration and operating ability out to 100km
- More than 500 shadows fielded globally



JUMP 20



FTUAS Program Details



Increment 1

- Sole source \$8m award for one Jump 20 system → *AV front runner for full program with win*
 - Each system includes 6 air vehicles, ground terminals and control stations
 - Army may field up to 7 additional systems
- Result of more than one year of competitive evaluations using existing proven technologies
- Experience will feed Increment 2 award requirements

Increment 2

- Fields systems that fully comply with FTUAS program requirements
- Separate program from Increment 1 and may have multiple awardees
- Will field systems with additional combat brigades
- Awards expected in next 9-12 months

Final Award

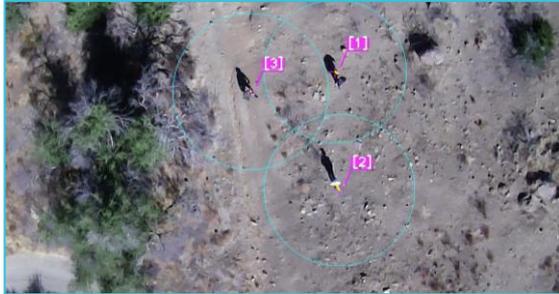
- Expected award in late GFY24 with initial fielding in GFY25
- Total award value of \$1B+ over 10 years
- 60+ Brigade Combat Teams in Total

AeroVironment JUMP 20™ is already best in class

- 14+ hour flight duration with operating range of 185 km
- Industry leading payload capacity and range trade-offs
- Market share leader in MEUAS SOCOM contracts
- Over 115,000 operational hours to date

Planck Acquisition improves competitive position

- Necessary technology to meet FTUAS requirements for GPS denied operation
- Opportunities to make better through internal integrations and future developments
- Enables more GNC and Autonomy capabilities+



OpTrack

- Real-time, AI/ML-based object detection and geolocation
- Deployed with Border Patrol to detect humans on rough terrain
- Extended to detect ships, humans in the water, and marine mammals



Automated Control Engine (ACE)

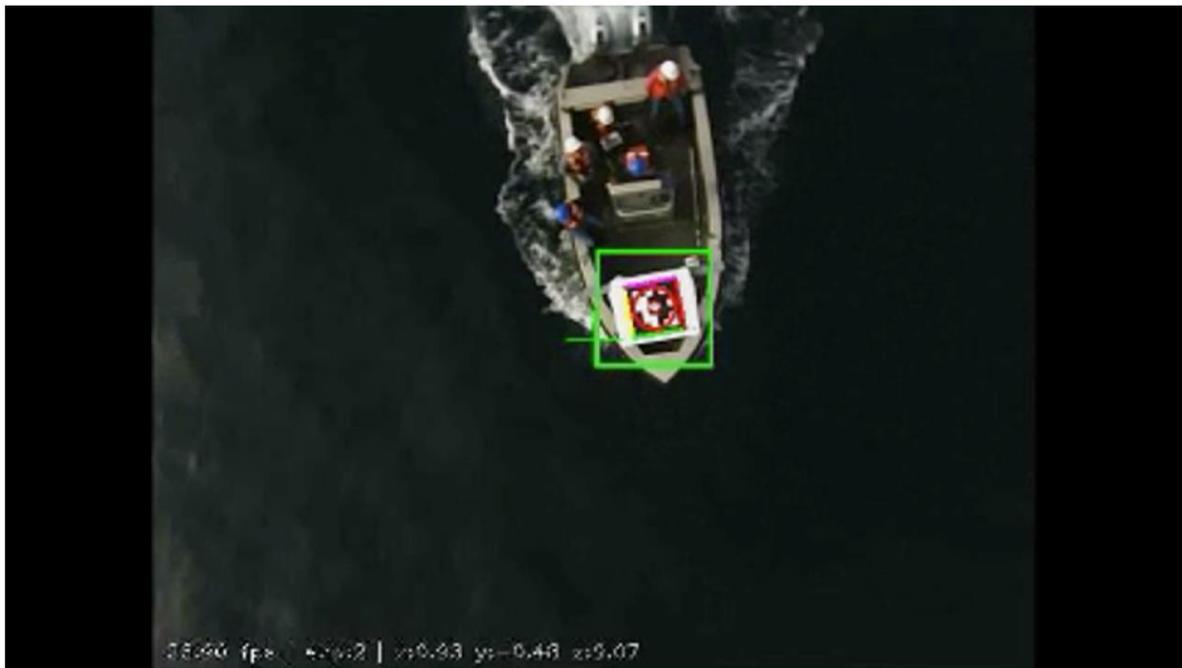
- Enabling technology for deployment of organic sUAS on vessels & vehicles
- Vision-based precision launch, tracking and landing
- GPS optional



AVEM - Tethered

- Fully-integrated, persistent aerial sensor system for moving vehicles/vessels
- GPS denied, RF silent
- Up to 100ft altitude, 20 mph cross winds

Vision-Based Launch & Landing



Planck Aerosystems
Automated Control Engine (ACE)

Utilizes AprilTags for a visual
fiducial navigation system

- Developed originally for mobile-landing applications
- Reworked to provide a position solution from a fixed target reference



ACE & JUMP 20: Maritime Operations

- Enables ship-based ISR/SAR
- Maritime logistics: Ship/Shore, Ship/Ship
- Integrates with USN/NATO flight decks
- Automated SAR when integrated with OpTrack



Air-Launched Effects Concepts



Switchblade® 300

- Under-wing launch of SB300 from standard launch tube



Switchblade® 600

- Early concept modeling for under-belly, internal, and under-wing mounts



Hatchet & BMS

- Interior air-drop from standard deploy mechanism

An aerial view from the perspective of someone looking out from the wing of an aircraft. A sensor pod is mounted under the wing. The landscape below is a mix of green fields, dense forests, and a farm with a large red-roofed barn and several vehicles parked nearby. The sky is blue with scattered white clouds.

WATCH THE VIDEO [HERE](#)

FACILITY TOUR

Please leave all electronic devices in this room.

Photos and videos prohibited.

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SMALL UNMANNED AIRCRAFT SYSTEMS (SUAS)

Next Gen Needs for Near Peer Conflicts

Trace Stevenson

Vice President and Product Line General Manager
Small Unmanned Aircraft Systems

Evolving AeroVironment's Portfolio

Legacy AV Fixed Wing FoS



- Reliable, Proven Group 1/2 sUAS
- Common User Interface and GCS
- Hand launched, fixed wing vehicles
- Custom high-performance payloads
- Gov't waveform DDL radios

Future AV eVTOL FoS

Future
Systems



- Build and Expand on Legacy FoS to provide full suite of solutions across Groups 1-2
- Portable, Modular, Denied Environment Multi-payload
- Adaptable communications architecture supporting DDL / MANET / others

Enable the mounted or dismounted soldier to transport a system, quickly deploy, and easily control a medium/long endurance multi-payload VTOL UAS

Key Performance Areas

EO/IR capability – take the best performance video capability and build around that

Endurance – Increased performance to match customer needs

Contested environment capabilities – GPS denied NAV/robust RF comms for contested missions

VTOL – Easier take-off and landing, especially in confined spaces

Autonomy – Hardware to support development and integration of future autonomy improvements such as target detection and classification, improved GPS denied navigation, etc. Reduce

Develop flexible product architecture for the future

Modular payload compatible (ISR, comm relay, SIGINT, etc.)

Versatile communications architecture

High Portability – Minimal pack-out for mounted operations (Humvee, RHIB, Helicopter, SUV)

Scalable architecture to enable lower-cost versions for commercial applications and high-performance versions for military customers

Expandable autonomy architectures

Current SUAS + VTOL + RF/GPS Denied + Autonomy to meet current, emerging and adjacent market needs

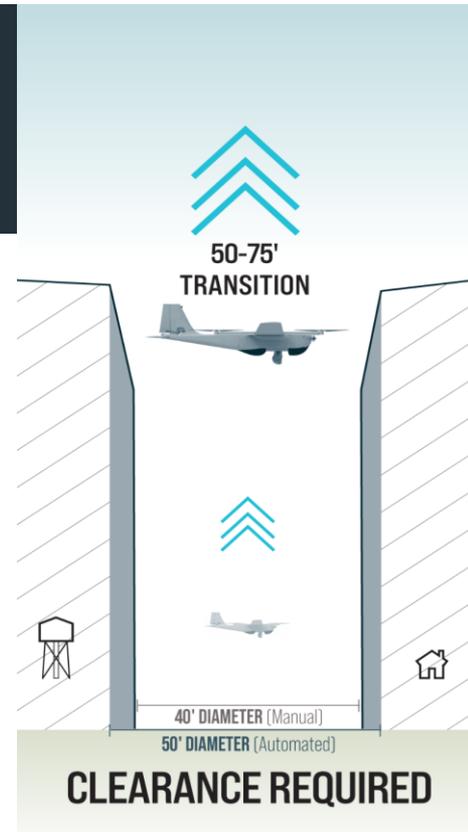
VTOL Benefits



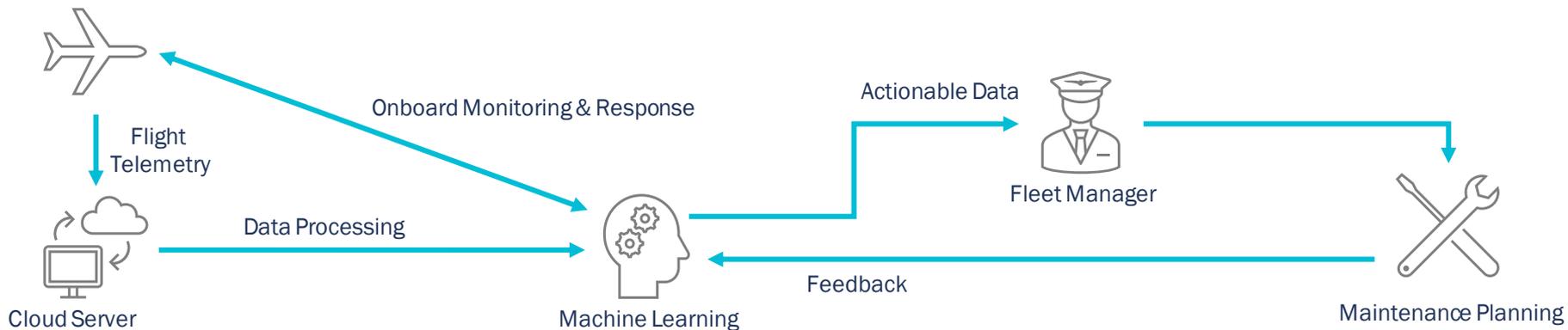
No launch mechanism needed – launch anywhere in any environment ideal for confined environments

No runway or open space required for launch and recovery

Maintains all-weather capability – minus water landing



Autonomy Process & Benefits



Reduce Cognitive Load on Operator

- Pre-planned Mission Execution
- Execution with and without Comms Link
- Target Tracking with Flightpath Updates
- Automatic Response to Emergencies

Aircraft Health Monitoring

- Detect anomalies before mishaps occur
- Use learning algorithms for post-mission data review
- Embed algorithms onboard for live telemetry processing

Addresses Evolving Customer Needs By Investing in Autonomy

WATCH THE VIDEO [HERE](#)

VAPOR[®] 55 MX
ALL-ELECTRIC HELICOPTER UAS



VAPOR® 55 MX Mission Options



Expeditionary Scout

Forward operator, mechanized insertion, day or night reconnaissance

Payload Delivery

Ideal for emergency response operations. Deliver life-saving equipment in challenging environments

Mapping / Inspection

Provide detailed position data and imagery to inspect infrastructure

Maritime Patrol

Provide perch and stare capability to inspect infrastructure

Small Munition Firing

Provide the ability to carry munitions and hit targets in defilade, perform BDA and then reload and do it again.

NEW PUMA ACCESSORY

PUMA™ VTOL KIT

ENDURANCE: 1.5 HR

LAUNCH/LANDING POINT
20 FT FROM TARGET LANDING POINT

LAUNCH & RETURN TO BASE

PUMA 3 AE WITH VTOL KIT

ENDURANCE
(WITH i45 PAYLOAD)

PUMA 2/3 AE: 1.5 hr

PAYLOAD

PUMA 2/3 AE: Allow for flight with i45
and secondary payload in transit bay

New Accessory Visual Navigation System



Determines Precise Location without relying on GPS – accurately navigate in GPS denied environments

Upgrade kit for Puma 2/3 AE SUAS includes suite of down-looking sensors that gather imagery and compute modules to determine location

System transitions to and from GPS-denied navigation mode automatically without operator input

System will enable future advanced navigational capabilities through future updates



Where We're at in Today's Agenda

INVESTOR & ANALYST DAY // AGENDA DAY 2

OCTOBER 5

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TACTICAL MISSILE SYSTEMS (TMS)

Family of Loitering Munitions

Brett Hush

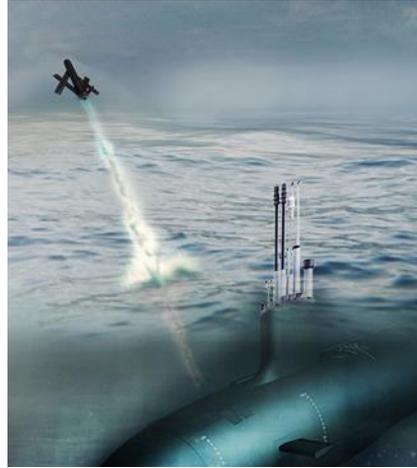
Vice President and Product Line General Manager
Tactical Missile Systems

Family of Loitering Munitions



Switchblade® 300

Man packable
Multi-pack Launcher
In Production for over decade
Built over 5,000
Integrates with ships, aircraft,
and ground vehicles



Blackwing

Launched from US Navy
Submarines
In production



Switchblade® 600

Man portable,
In production
Integrates with ships, aircraft,
and ground vehicles



Jackal

Air Launched,
sprint-loiter,
teamed with NGC,
in development
Award expected GFY24

WATCH THE VIDEO [HERE](#)

EFFECTS ON TARGET

JAVELIN MULTI-PURPOSE WARHEAD
ANTI-ARMOR AND ANTI-PERSONNEL EFFECTS

TARGETING OPTICS

2 AXIS - 4 SENSOR GIMBAL
(DUAL EO AND IR)

RANGE/ENDURANCE

40+ KM
40+ MINUTES

SWITCHBLADE® 600

AV
AeroVironment™

Switchblade® Loitering Missiles



Soldier Portable

All-in-one, man portable missile system provides the warfighter with increased mission capabilities

Minimized Soldier burden, light weight man portable mission system

Self-contained units enable portable, fast-response launch flexibility from its stowed configuration



Time Sensitive

Quick response to troops in contact and/or fleeting targets, ready to fire 2 minutes (SB300) and 10 minutes (SB600)

Enables ground teams to dictate the terms of target engagement.

Maintain direct oversight and situational awareness across complex battlespace without external ISR or fire assets support.



Operator-in-the-loop

Wave-off/Recommit – operator is capable of aborting up to four seconds before impact.

Operator may re-engage same or new targets multiple times.

Intuitive tablet FCU offers manual or automated flight control for accuracy of mission execution.



Precision Strike

FCU with target lock-on capability ensures precision strike.

Missile tracks changes in angle, range, and sudden movement of designated target with no further operator input.

Optimized EO/IR camera with processing and image stabilization automatically tracks and continually adjusts.



Low Collateral Damage

Wave-off capability enables operator to cancel an engagement mid-flight, reducing non-combatant or collateral damage effects.

Ability to loiter before striking, allowing operators to more precisely detect, track and engage appropriate targets.

SWITCHBLADE[®] 300

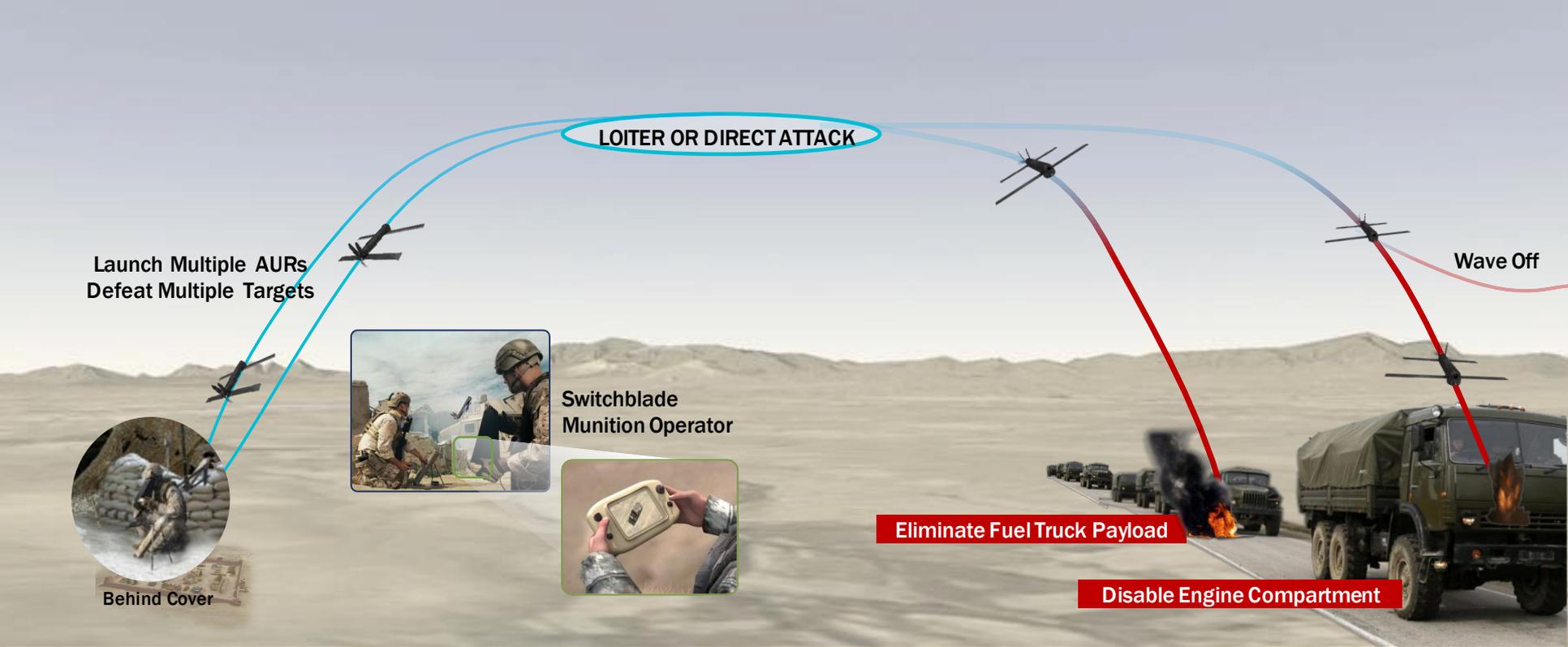


KEY CAPABILITIES

- Battle-proven beyond line-of-sight precision strike loitering munition
- Small size, light weight, backpackable, up to 3 across in medium rucksack
- One-person operation, rapidly deployable in < 2 minutes
- Advanced munition, low collateral damage, patented wave-off/recommit
- Ruggedized Fire Control Unit (FCU), mission planner laptop, training simulator
- Onboard image tracker, supports day and night operations
- Full motion video streamed to FCU over encrypted digital data link

SPECS

Wingspan and Length		27 in (68.6 cm) 19.5 in (49.5 cm)
Weight		5.5 lb (2.5 kg)
Link Range		10 km Standard GCS
Endurance		15 minutes
Speed		Cruise: 63 mph (24 kts) Dash: 100 mph (41 kts)
Total Payload Capacity		Modular payload bay .87 lb (395 gm)
Operating Altitude		Below 500 ft AGL (ceiling >15,000 ft MSL)
Launch Platforms		Self contained ground launch and multipack
Effects on Target		Anti-Personnel Effects



Portable <12lbs



Rapid Engagement <2 min



Target ID or Orbit



Target Lock and Engage



Wave Off or Arm

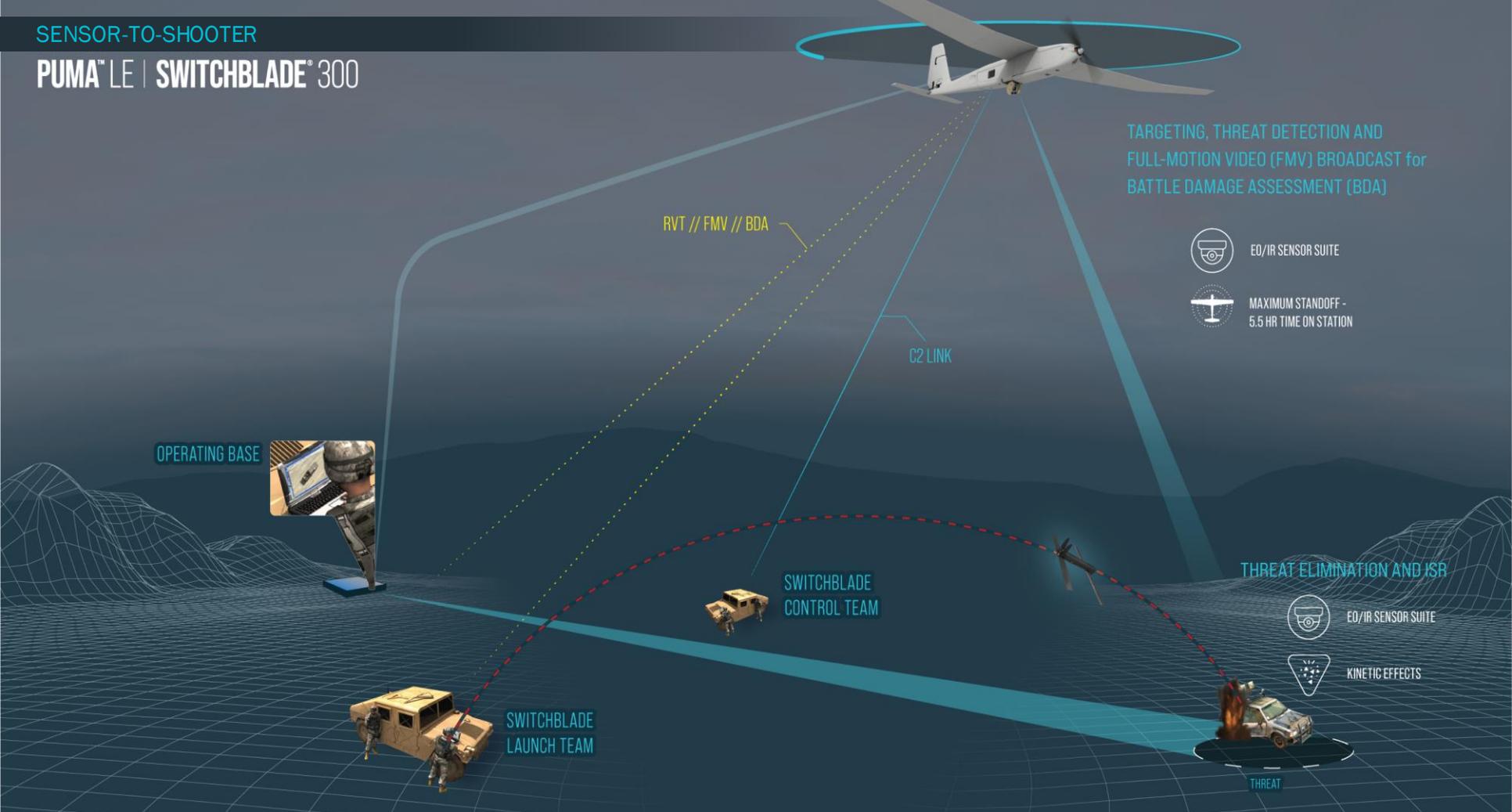


Re-engage or Destroy



SENSOR-TO-SHOOTER

PUMA™ LE | SWITCHBLADE® 300



TARGETING, THREAT DETECTION AND FULL-MOTION VIDEO (FMV) BROADCAST for BATTLE DAMAGE ASSESSMENT (BDA)



EO/IR SENSOR SUITE



MAXIMUM STANDOFF - 5.5 HR TIME ON STATION

OPERATING BASE

RVT // FMV // BDA

C2 LINK

SWITCHBLADE CONTROL TEAM

THREAT ELIMINATION AND ISR



EO/IR SENSOR SUITE



KINETIC EFFECTS

SWITCHBLADE LAUNCH TEAM

THREAT

SWITCHBLADE[®] 600



KEY CAPABILITIES

Man portable, quick setup shoot and move

Target ID - capable beyond 2 km

All-in-one RSTA and NLOS precision strike with network integration capability

Anti-armor EFP warhead and blast frag with patented wave-off/recommit

High-Performance Optics – 2 axis EO/IR gimbal for Day/Night Operations

AES-256 encrypted digital C2 and SAASM GPS with DDL handoff capability

Touch Tablet C2, mission planning, integrated training sim and mission record

Man portable, quick setup shoot and move

SPECS

AUR Dimensions



Length: 60 in
Diameter: 7.55 in

System Weight



System: 120 lb (54.4 kg)
1 AUR, 1 FCS

Link Range



Threshold: 40 km
Objective: 90+ km

Endurance



40+ Min

Speed



Cruise: 70 mph
Dash: 115 mph

Total Payload Capacity



7 lb (3.17 kg)
Anti-Armor Munition

Operating Altitude



650 ft AGL nominal
(ceiling 15,000 ft MSL)

Launch Platforms



Self contained launcher
for ground, air, and maritime

Effects on Target



Anti-Armor and
Anti-Personnel Effects

FORCE PROTECTION + SUPPRESSIVE FIRE

WITHOUT CLOSE AIR SUPPORT

SWITCHBLADE 600

90+ km RANGE

SWITCHBLADE 600

CAPABILITY GAP // UNIT-BASED FORCE PROTECTION FROM 20-90 km

90 km
ADVANCING THREAT



AT4



60MM



TOW



JAVELIN



M120A1 MM



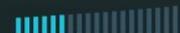
105MM ARTY



155MM ARTY



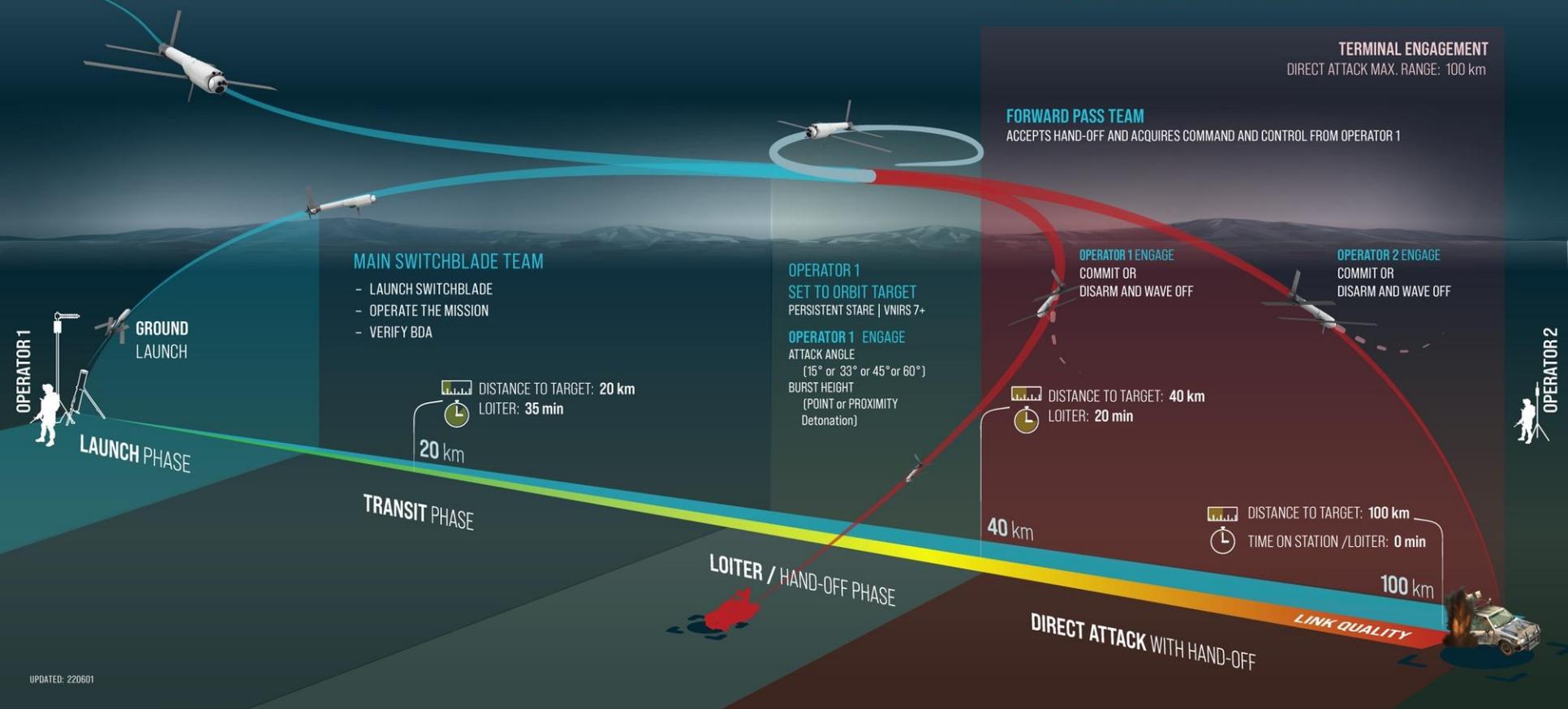
SWITCHBLADE 600



AIRBORNE LAUNCH
15,000 MSL OPERATIONAL CEILING

SWITCHBLADE®600

AIR AND GROUND LAUNCH LOITER AND DIRECT ATTACK MISSIONS



MAIN SWITCHBLADE TEAM

- LAUNCH SWITCHBLADE
- OPERATE THE MISSION
- VERIFY BDA

OPERATOR 1

SET TO ORBIT TARGET
PERSISTENT STARE | vNIRS 7+

OPERATOR 1 ENGAGE

ATTACK ANGLE
(15° or 33° or 45° or 60°)
BURST HEIGHT
(POINT or PROXIMITY Detonation)

FORWARD PASS TEAM

ACCEPTS HAND-OFF AND ACQUIRES COMMAND AND CONTROL FROM OPERATOR 1

OPERATOR 1 ENGAGE

COMMIT OR
DISARM AND WAVE OFF

OPERATOR 2 ENGAGE

COMMIT OR
DISARM AND WAVE OFF

UPDATED: 220601

Northrop Grumman Jackal

Response to Army Program-of-Record (POR) to develop Long Range Precision Mmunition (LRPM)

- Increase standoff distances of soldiers and aircraft/helicopters
- Operate in Anti-access, Area-denial (A2AD) and GPS/PNT denied environments
- 3-5 year development cycle beginning this GFY

AeroVironment and Northrop partnering on program

- Jackal is a turbojet loitering munition
- Provides extended range at tactically relevant speeds combined with ability to loiter near targets
- Supports multiple warheads, ISR, and EW payloads



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Q&A Panelists



Wahid Nawabi // CEO, Chairman & President

Kevin McDonnell // Sr. Vice President & Chief Financial Officer

Gorik Hossepian // Vice President and Product Line General Manager of Medium Unmanned Aircraft Systems

Trace Stevenson // Vice President and Product Line General Manager of Small Unmanned Aircraft Systems

Brett Hush // Vice President and Product Line General Manager of Tactical Missile Systems

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CLOSING REMARKS

Wahid Nawabi

CEO, President and Chairman

Today's Key Messages

Our Last 5 Years have been great

We Have Very Attractive Opportunities in front of us

We are Well Positioned to capitalize on these opportunities

We Have High Expectations for ourselves and our teams

We are Committed to strong returns for shareholders

Demo Products You will See

- Intro of Field Operations Team
- Puma AE flight demonstration
 - Cover standard Puma AE and Puma LE use cases
 - Discuss VNS capabilities and use cases
 - Demonstrate how Sensor to Shooter operates
- UGV demonstration with Telemax Evo Plus
 - Demonstrate ease of control to search a car
- Raven i23D
 - Discuss rapid deployment capabilities
 - Ground side by side comparison of i23 to i23D demonstration

THANK YOU

Time for security check-out and shuttle bus to demo field



APPENDIX A – Historical GAAP to NON-GAAP Reconciliation of Adjusted EBITDA

	FY18	FY19	FY20	FY21	FY22
Net income from continued operations	\$ 21,750	\$ 41,912	\$ 41,339	\$ 23,331	\$ (4,188)
Interest Expense (Income)/net	(2,240)	(4,672)	(4,828)	618	5,440
Tax provision / (benefit)	9,800	4,641	5,848	539	(10,369)
Depreciation and amortization (1)	5,982	7,669	9,888	19,262	60,825
EBITDA (Non-GAAP)	\$ 35,292	\$ 49,550	\$ 52,247	\$ 43,750	\$ 51,708
FV Step-up amortization incl. in loss of disposal of PP&E	—	—	—	—	1,280
Cloud Amortization	—	—	—	—	339
Stock-based compensation	4,956	6,985	6,227	6,932	5,390
Acquisition-related expenses	1,238	—	1,049	7,982	4,853
Equity method investment activity	(216)	3,944	5,487	10,481	(4,589)
Non-controlling interest	—	(19)	(4)	14	3
One-time (gains)/losses, net	—	(3,602)	—	—	—
Legal accrual related to our former EES business	—	—	—	9,300	10,000
Sale of ownership in HAPSMobile JV	—	—	—	—	(6,383)
Adjusted EBITDA (Non-GAAP)	\$ 41,315	\$ 56,858	\$ 65,006	\$ 78,459	\$ 62,601

(1) as reported

APPENDIX B – FY23 Forecasted GAAP to NON-GAAP Reconciliation of Adjusted EBITDA

<i>(in millions)</i>	Fiscal year ending April 30, 2023
Net income (loss)	\$ 11 - 18
Interest expense, net	5
Benefit from income taxes	(4) - (1)
Depreciation and amortization	60
EBITDA (Non-GAAP)	72 - 82
Stock-based compensation	8
Equity method investment loss (gain)	1
Acquisition-related expenses	1
Adjusted EBITDA (Non-GAAP)	\$ 82 - 92

INVESTOR DAY 2022

Beyond the Horizon

October 5, 2022