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AEROVIRONMENT, INC.

JEFFERIES INVESTOR TOUR PRESENTATION / MAY 2023



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 ability to successfully integrate acquisitions into our operations and avoid disruptions from acquisition 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, including uncertainties in classification, pricing or potentially burdensome imposed terms for certain types of government contracts; availability of U.S. government funding for defense procurement and R&D programs; changes in the timing and/or amount of government spending; our reliance on limited relationships to fund our development of HAPS UAS; 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 unexpected legal, regulatory and government budgetary changes, including those resulting from the COVID-19 pandemic or future pandemics, such as supply chain disruptions and delays, potential governmentally-mandated shutdowns, travel restrictions and site access, 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.

Jefferies Tour Agenda

MAY 23

TIME	AGENDA ITEM	LOCATION
11:30 AM	SECURITY CHECK-IN	14501 Princeton Ave, Moorpark. CA. 93021

TIME	AGENDA ITEM	SPEAKER/HOST
11:35 AM	WELCOME	Jonah Teeter-Balin, Sr Dir. IR & Corp Dev
11:40 AM	AEROVIRONMENT COMPANY OVERVIEW	Wahid Nawabi, CEO. Kevin McDonnell, CFO.
11:45 AM	INTRO TO AI & AUTONOMY	Scott Newbern, CTO
11:55 PM	LUNCH SERVED	
12:00 PM	COMPUTER VISION & IMAGE UNDERSTANDING USER EXPERIENCE	Tim Faltemier, Sr. Dir, LEAP
12:30 PM	Q&A SESSION	
12:45 PM	TOUR & DEMO	Jonah Teeter-Balin (Moderator)
1:00 PM	SECURITY CHECK-OUT	



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INTRODUCTIONS



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COMPANY OVERVIEW

WAHID NAWABI, CEO
KEVIN MCDONNELL, VICE PRESIDENT & CFO

AeroVironment At-A-Glance

Pureplay unmanned systems company
providing air and ground vehicle solutions
for defense and commercial markets

 **50+** years of groundbreaking innovation since 1971

 HQ in Arlington, VA

 **~1,300** employees

 **\$2B+** enterprise value

Global footprint with sales to

50+ allied nations

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**

AVAV General Business Categories

Unmanned Systems



Global Franchise
in Group 1 Aircraft;
Group 2/3 Aircraft
Emerging Leader

Products Sold to
50+ Countries

Tactical Missile Systems



Global Market Leader
in Loitering Munitions

Switchblade 300 & 600 are
flagship products

Recently given ability to export to
20+ Countries

Advanced Solutions



Classified & Un-Classified
Projects for **U.S. Defense,**
Telecom & JPL

Center of Excellence for
Machine Learning, AI &
Autonomy



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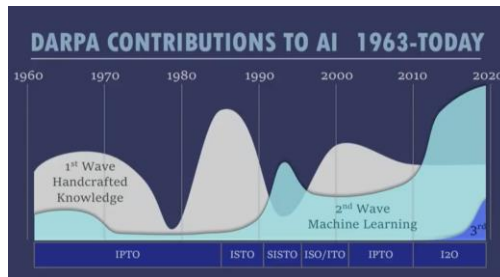
INTRO TO AI & AUTONOMY

SCOTT NEWBERN, CTO

Artificial Intelligence

Any machine or program that performs a complex tasks that usually require a human-like capability.

e.g. visual perception,
speech recognition,
decision-making



1308 → 1955 → 2009



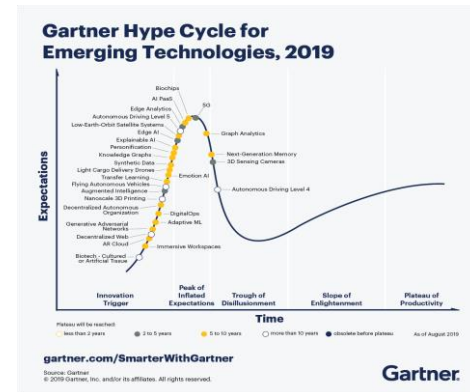
Ramon Llull



John McCarthy



Andrew Ng

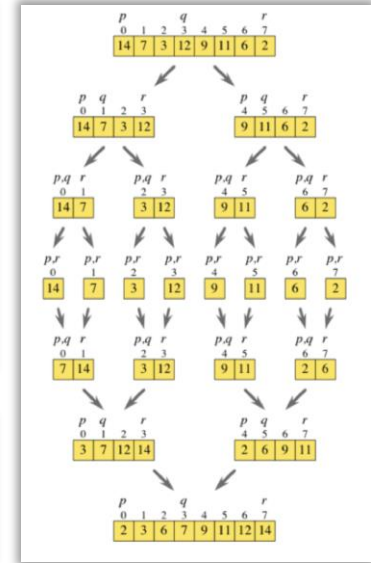
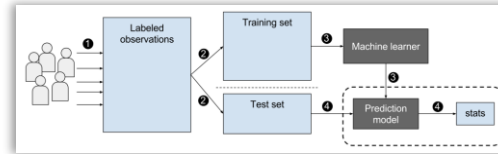
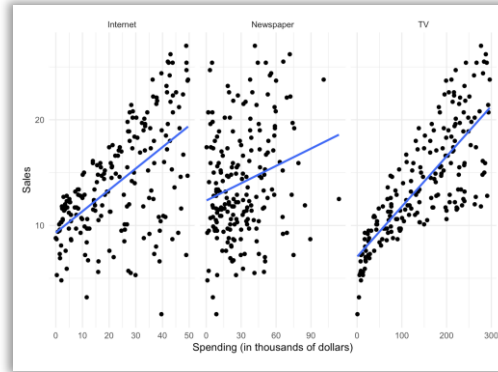


Autonomy vs. Artificial Intelligence vs. Machine Learning

Artificial Intelligence

Any machine or program that performs a complex tasks that usually require a human-like capability.

e.g. visual perception,
speech recognition,
decision-making



Machine learning

Automatic extraction of statistical patterns to discriminate between aspects of the data, often used for sensor processing

Autonomy vs. Artificial Intelligence vs. Machine Learning

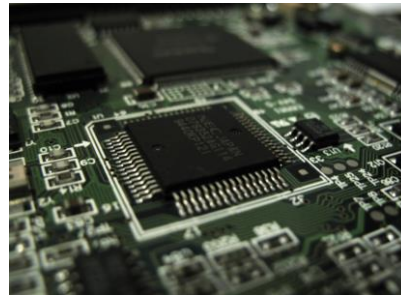
Perception

Sensor Processing to obtain information e.g. computer vision, automatic target recognition, alternative precision navigation

Artificial Intelligence

Any machine or program that performs a complex tasks that usually require a human-like capability.

e.g. visual perception, speech recognition, if-then decision-making



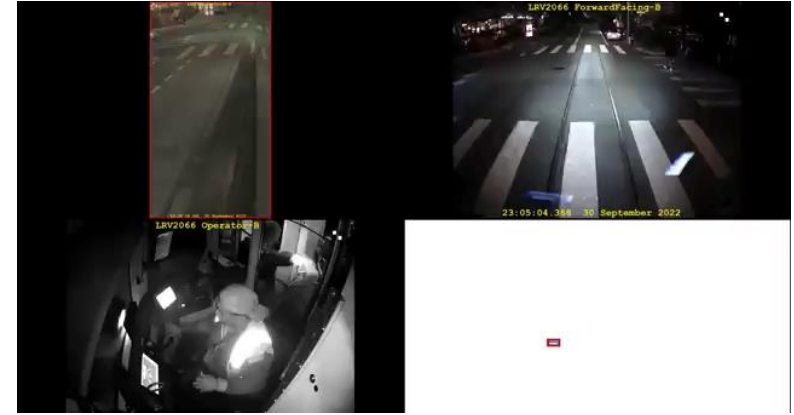


2017 Testing



Wired April 10, 2023 – Driverless Cars Clogging San Francisco

- <https://www.wired.com/story/dashcam-footage-shows-driverless-cars-cruise-waymo-clogging-san-francisco/>



Media sensationalism, continued hype and doom

OpenAI CEO tells Senate that he fears AI's potential to manipulate views

May 16, 2023 at 9:31 a.m. EDT

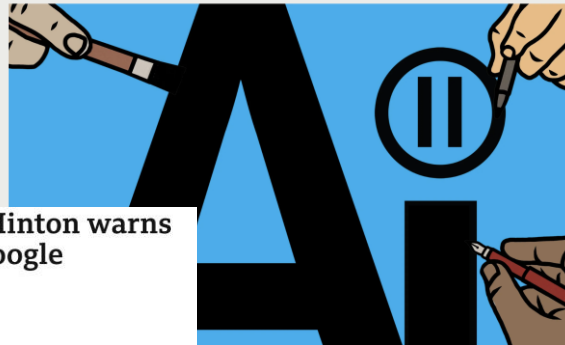
By [Cat Zakrzewski](#), [Nitasha Tiku](#), [Cristiano Lima](#) and [Will Oremus](#)



CEO of OpenAI Sam Altman said in May 16 hearing that interactive disinformation is a cause for concern especially with election year approaching. (Video: The Washington Post, Photo: Reuters/The Washington Post)

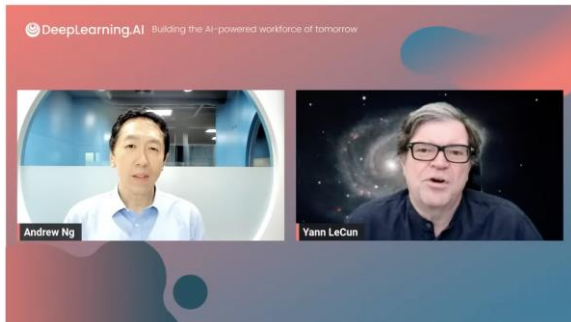
'AI Pause' Open Letter Stokes Fear and Controversy > IEEE signatories say they worry about ultrasmart, amoral systems without guidance

BY HARGO ANDERSON | 07 APR 2023 | 3 MIN READ |



AI 'godfather' Geoffrey Hinton warns of dangers as he quits Google

2 May · Comments



Yann LeCun and Andrew Ng: Why the 6-month AI Pause is a Bad Idea



DeepLearningAI
219K subscribers

Subscribe



3.3K



Share



Clip



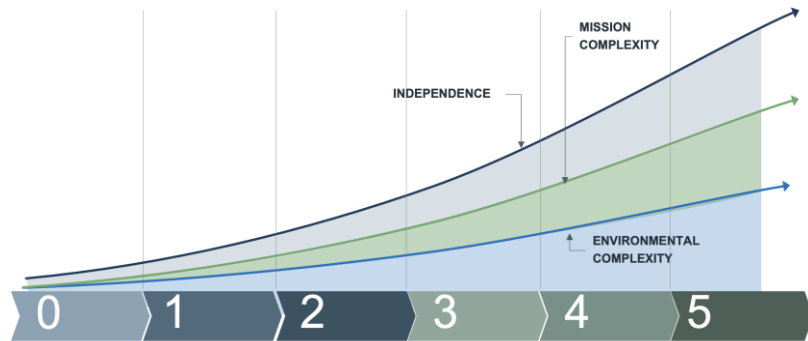
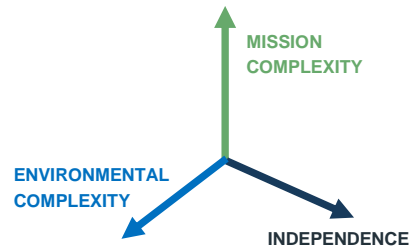
What is Autonomy and why do we need it?

Autonomy: freedom from external control or influence; independence

In the context of unmanned/robotic systems this means:

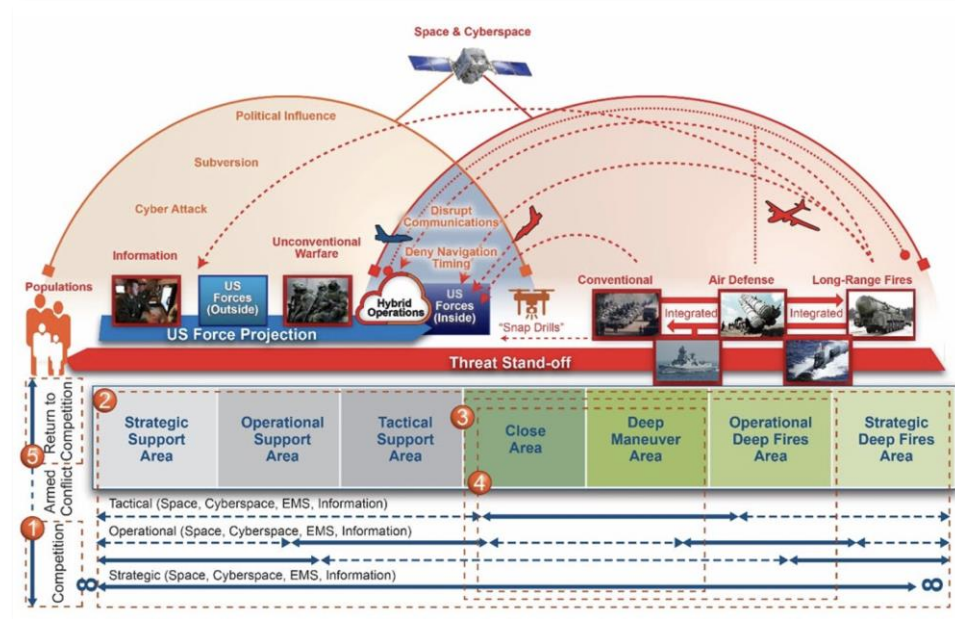
- **Safe:** The system can operate safely without constant oversight and stay within its own limitations
- **Cognitive:** The system understands it's role in the context of the mission and performs that function
- **Dynamic:** The system can adapt to unexpected situations or a change in mission status
- **System:** Autonomy is a system consisting of multiple components that have to work together

Primary Goal: Provide a beneficial mission capability with increased operational advantage while reducing human burden



Autonomy is key enabler for robotic mission solutions

- Advanced multi-domain mission operations
 - Cross-domain
 - All-domain
 - Integrated operations across forces
- Contested environments
 - Radio frequency spectrum challenges
 - Assured precision navigation and timing
 - Collaborative mission capability
 - Operator independent mission capabilities
 - Dynamic escalation





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BREAK

LUNCH PROVIDED

LEARNING & ACTIVE PERCEPTION

COMPUTER VISION & IMAGE UNDERSTANDING USER EXPERIENCE

TIM FALTEMIER

CUSTOMERS // USE CASE APPLICATIONS

USE CASES

PRODUCTS EMPLOYED

FORCE PROTECTION	OVERHEAD IMAGERY ANALYSIS	AIRBORNE COMPUTER VISION	SURFACE DETECTION	PERSON DETECTION & RECOGNITION	RUNWAY SURFACE DETECTION	DATA ANNOTATION
<p>U.S. Army FPS USMC G-BOSS USAF G-BOSS E</p> 	<p>U.S. Army TITAN DCGS-N BAMS-D NGA</p> 	<p>ONR- LOCUST/KOBOL MCWL-ACE ARMY-INVESD</p> 	<p>PMA-435 ISIS DOD ONR-SPRITE ONR-CODE 32 KOBOL</p> 	<p>DOD</p> 	<p>USAF-RADAS ONR-RESAT</p> 	<p>ALL</p>
<p>SPOTR WebRTC ClusterUI Automated Camera Control</p> <ul style="list-style-type: none"> Video analytics to detect, track, re-identify objects of interest Clustering visually similar objects and persons 	<p>SPOTR – GEO SansVisage</p> <ul style="list-style-type: none"> Satellite and overhead imagery analysis for maritime vessels, aircraft, vehicles, and HVT 	<p>SPOTR – Edge Drone Control UI GPS Denied Navigation</p> <ul style="list-style-type: none"> Processing video onboard of UAS to detect, track, and re-identify objects of interest. Navigating in GPS denied areas via visual terrain matching 	<p>SPOTR</p> <ul style="list-style-type: none"> Automatic detection of surface targets and tracking 	<p>ClusterUI Solution0 SPOTR</p> <ul style="list-style-type: none"> Person detection and recognition Clustering visually similar persons Digital Video Recorder (DVR) Web-based Video Player 	<p>SPOTR-Edge</p> <ul style="list-style-type: none"> Detecting craters and debris on runways Segmentation for navigability and object mensuration 	<p>VISION</p> <ul style="list-style-type: none"> Collecting and storing massive datasets for experimentation and development Annotating imagery and video to train computer vision and machine learning algorithms

TECHNOLOGY-DRIVEN STRATEGY

- We support varied customers with varying requirements through technology driven development
- Aim to develop underlying set of technologies as “Technology Legos” to:
 - Maintain flexibility / modularity → allow re-use and composition
 - Efficiently build on expanding capabilities



MODERN ANALYTIC REQUIREMENTS

Be agnostic to modality (EO/IR/Other)

Support “imagery” of all types: recorded full-motion video (FMV) to live video streams to still satellite imagery to

Support mixed mode edge/central processing

Embrace the tenant that *analytics aid*, *not replace*** humans**

- Build mechanisms for feedback at every stage of the pipeline

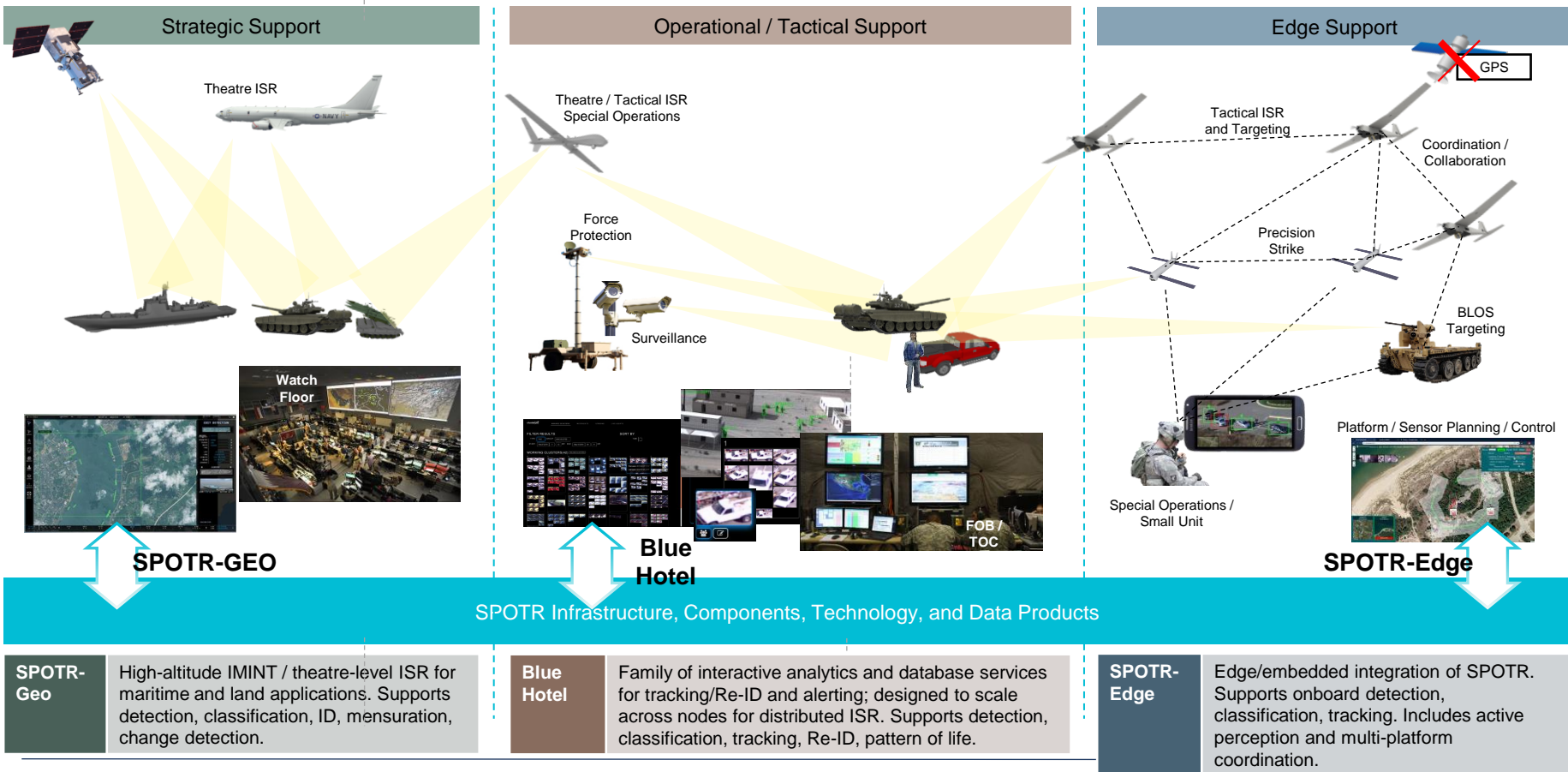
Easily integrate new technologies as they become available through an open API

Support access to a wide suite of analysis tools that go beyond “showing boxes on imagery”

Play well with others (either programmatically or socially)

- No company can do it all!

Importance of Multi-Domain Data Sharing



VISION ANNOTATION SERVICE

End-to-end annotation service to annotate video and imagery for model training and evaluation

Vision allows for rapid annotation of new data if we do not have a model for an object or specific object class.

Allows for an incredibly quick turnaround on new model development, testing, and deployment

Java based annotation client allows anyone with an internet connection to spend as little or as much time working on an unclassified task

- All annotators are US citizens and accuracy is tied in to payment
- Can be installed at government sites for sensitive or classified data

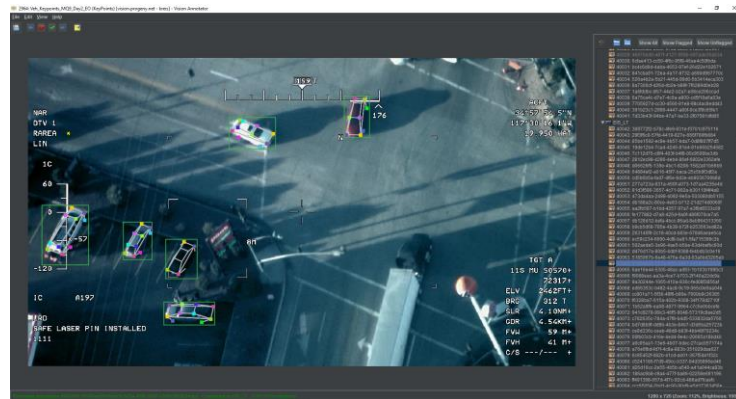
Web based management system for uploading data, reviewing, and viewing information about annotators

Ability to review annotation allows for improved annotations especially in difficult scenarios/tasks

- Can reject poor annotations to send back to the task "pool" to be re-annotated correctly

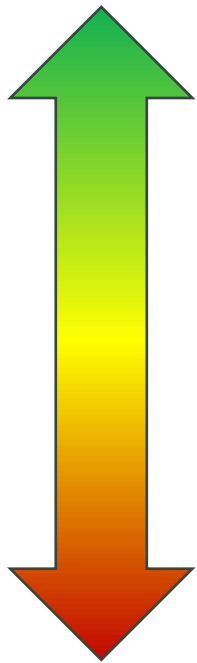
Multiple annotation types: Bounding box, keypoints, four points, batch classification, batch attribution, and clustering

- Extensible to allow for new types of annotation types as needed



Annotation Types

Simplest / Cheapest



Complex / Expensive

Bounding Box
4-Point
Batch Attribution



Clustering



Segmentation
Keypoint

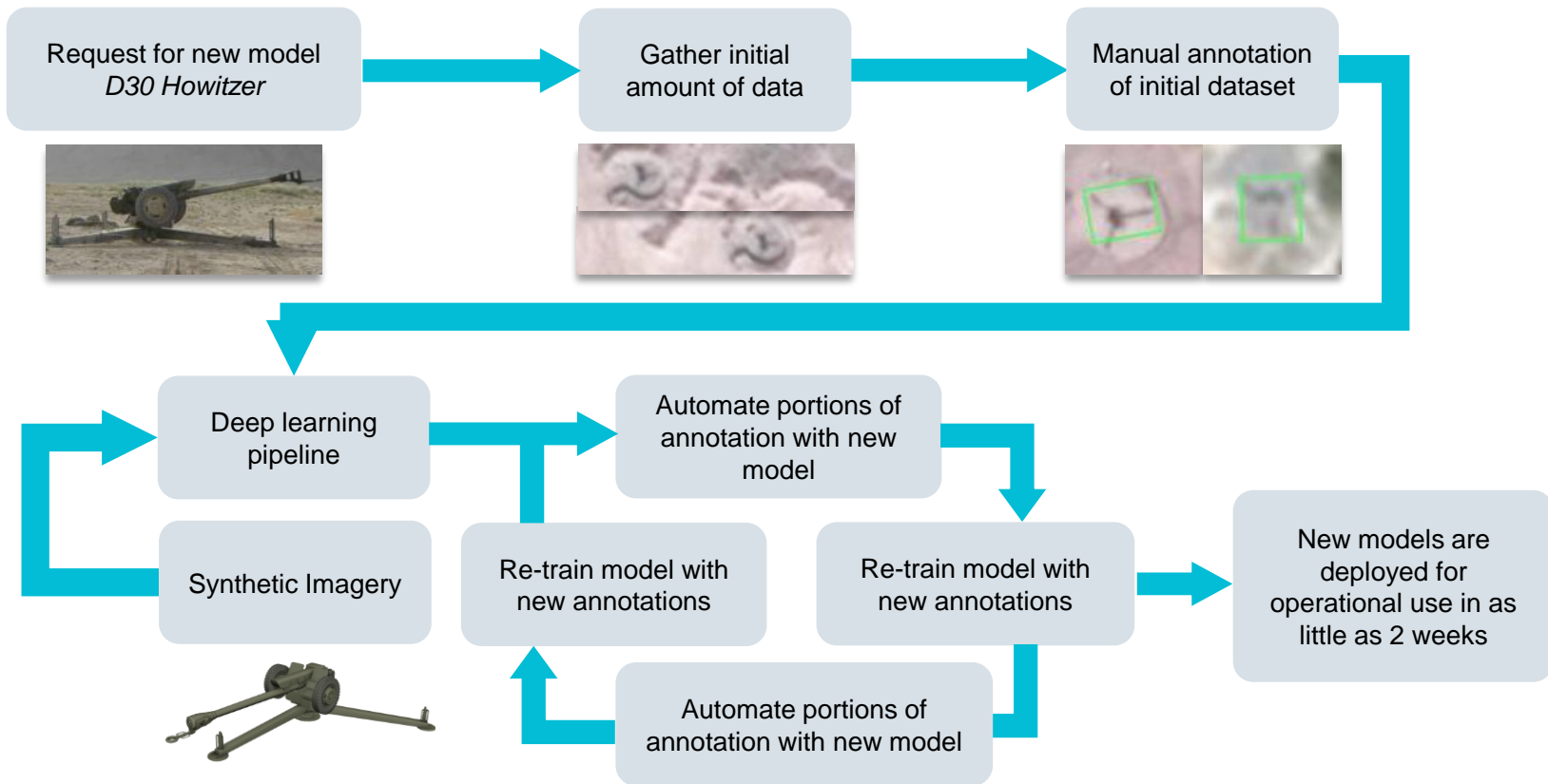


SYNTHETIC DATA GENERATION

- Data from commercial satellite is primarily captured at NADIR - +/- 20 degrees
- Synthetic 3D models obtained via gaming community
 - Allows variation of all main parameters: focus, blur, atmospherics, sun, clouds, haze, arraignment of objects, etc.
 - Fills in gaps in real data until it becomes available
 - Full annotation and segmentation provided INTEGRATED into the learning framework
- Geo-Specific reconstruction provided for Human-Like mission learning (ONR)

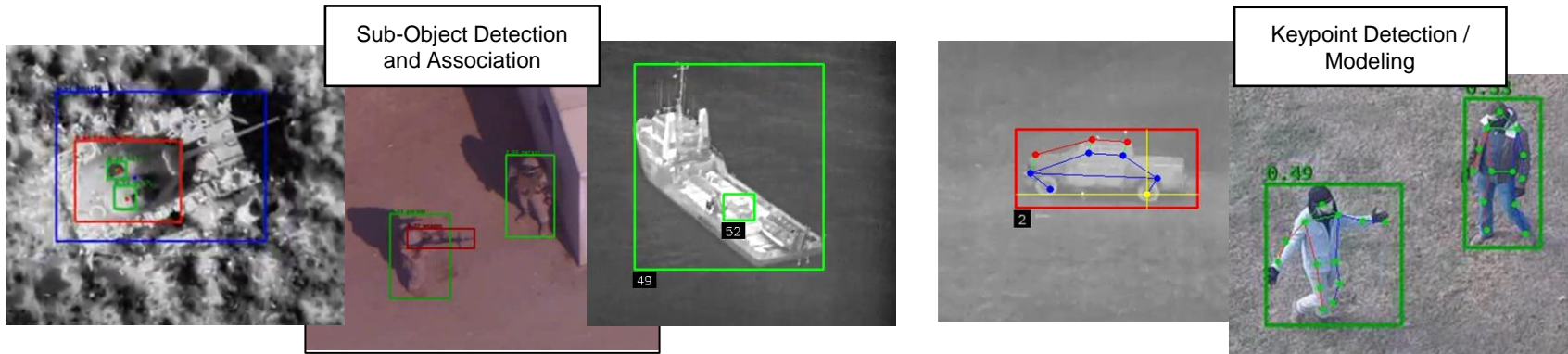


Model Training Workflow



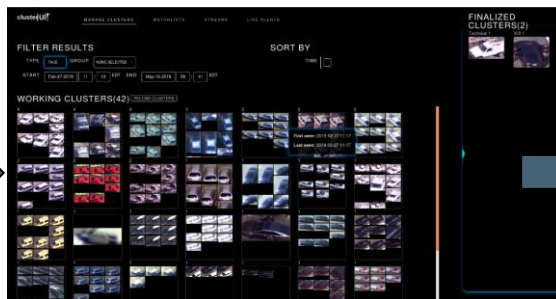
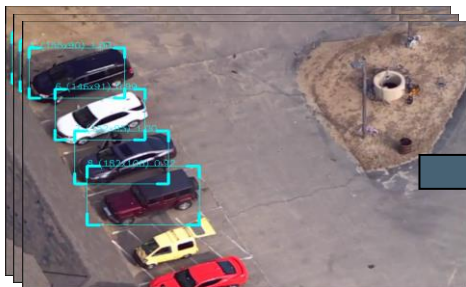
Detection & Image Understanding

- Sub-object detection and modeling capabilities include
 - Detection and association of discrete objects of different classes
 - Keypoint wireframe models
- Enables estimation of object articulation / posture and supports targeting sub-object aimpoints
- Track hierarchy concept associates objects / sub-objects with consistent tracks across scale



Object Re-Identification

- Create and store a “Fingerprint” for a unique object
 - Similar to face recognition but for a whole object
 - Learn invariant features across space and time
 - Perform dynamic enrollment, update fingerprint over time
- Enables:
 - Track handoff across sensors in different locations, across time, across missions
 - **Fusion and correlation with other sources (RF, SIGINT, etc.)**
 - Chained identity attributes, e.g. Long Range Recognition through track-back
 - Spatiotemporal accumulation of evidence for e.g. pattern-of-life



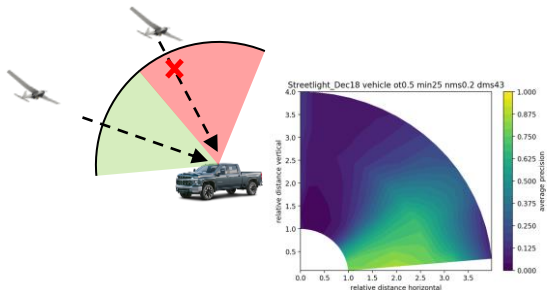
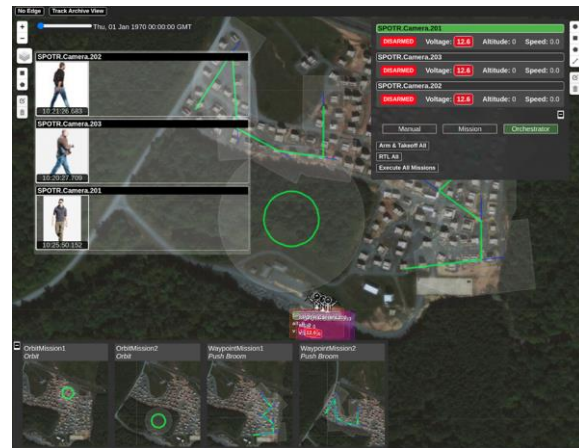
CLUSTER UI

Recognition Model



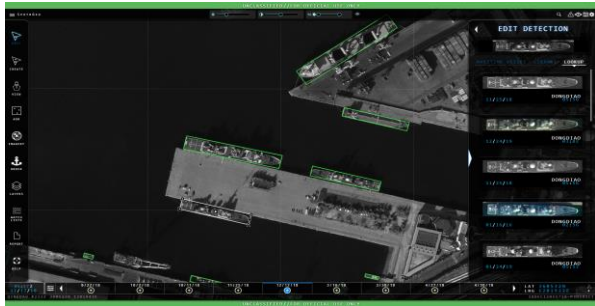
Algorithm-Aware Autonomy

- Autonomy to enable computer vision
- Taskable ISR sensing behaviors
 - Frame planning/control tasks in terms of sensor coverage and computer vision criteria
 - Composition of simple route building blocks for “taskable” and predictable behavior
- Investigation behaviors
 - Characterize models of computer vision performance
 - Employ to provide planning criteria



SPOTR-Geo - Automated First Phase Analysis

SPOTR-Geo is an overhead imagery analysis tool for Phase 0 and 1 analysis that automatically performs detection, classification, mensuration, change detection, and identification of objects of interest



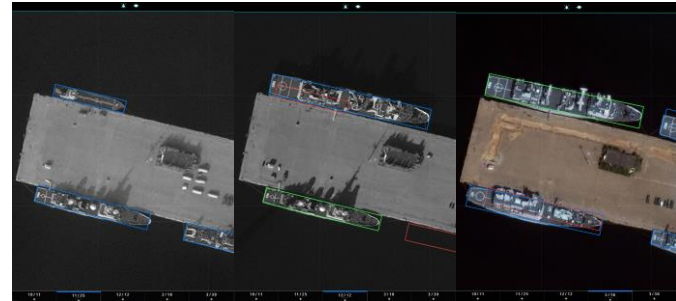
Visual Search:

- Ability for analysts to search databases of detections instantly for visual similarity
- As new images are processed and detections are made, all results are clustered and stored for future analytical and pattern of life interpolation



Automated Object Detection and Classification:

- Process every satellite image (EO, IR, SAR) / location of interest for all Order of Battle that
- Standards-based ontology to enable SIGINT to IMINT data fusion



Change Detection:

- Detections from one image and associated metadata are compared to another image to determine whether an objects has stayed (green), is new (blue), or fled (red)

Blue Hotel – Full Motion Video Analysis

- Blue Hotel has a feature-rich User Interface (UI) to ingest, analyze, and discover patterns in Full Motion Video (FMV)
- Features:
 - Image and video repository / distribution hub for real time analysis
 - Real time computer vision and analytics on all data feeds
 - FMV summarization to represent most important information and when / where it happened
 - Sensor agnostic
 - Digital Video Recorder (DVR)
 - Web-based user interface for team collaboration
 - Diverse library of object models and algorithms

Refresh System Counts

Start From: End: Sources: devil34-eo-07FebDet, devil34-eo...

☐ Filter Attributes
☐ Oldest First

Template Type: ship
☒ Final Tracks
☒ Merging true

Final Clusters (7)

USS-Puller
2022-02-11 06:22:06 EST

Ghost_10FebDet_Aerial
2022-02-11 06:13:30 EST

USS-Puller
2022-02-11 06:10:27 EST

USS-Puller
2022-02-11 06:10:17 EST

USS-Puller
2022-02-11 06:09:55 EST

USS-Puller
2022-02-11 06:09:52 EST

USS-Puller
2022-02-11 06:09:47 EST

USS-Puller
2022-02-11 06:08:50 EST

Ghost_10FebDet_Aerial
2022-02-11 06:08:44 EST

Ghost_10FebDet_Aerial
2022-02-11 06:05:37 EST

Ghost_10FebDet_Aerial
2022-02-11 06:05:36 EST

Ghost_10FebDet_Aerial
2022-02-11 06:05:36 EST

Ghost_10FebDet_Aerial
2022-02-11 06:04:46 EST

Ghost_10FebDet_Aerial
2022-02-11 06:02:51 EST

Ghost_10FebDet_Aerial
2022-02-11 06:02:51 EST

USS-Puller
2022-02-11 05:32:17 EST

USS-Puller
2022-02-11 05:31:24 EST

USS-Puller
2022-02-11 04:55:40 EST

USS-Puller
2022-02-11 04:46:22 EST

USS-Puller
2022-02-11 04:36:00 EST

USS-Puller
2022-02-11 04:35:50 EST

USS-Puller
2022-02-11 04:35:12 EST

USS-Puller
2022-02-11 04:34:16 EST

USS-Puller
2022-02-11 04:34:01 EST

USS-Puller
2022-02-11 04:29:37 EST

USS-Puller
2022-02-11 04:16:58 EST

USS-Puller
2022-02-11 03:55:15 EST

USS-Puller
2022-02-11 03:54:27 EST

USS-Puller
2022-02-11 03:50:57 EST

USS-Puller
2022-02-11 03:49:10 EST

USS-Puller
2022-02-11 03:48:35 EST

USS-Puller
2022-02-11 03:46:27 EST

USS-Puller
2022-02-11 03:46:17 EST

Profile: USS-Puller

Number of Tracks: 24

First Seen: 2022-02-11 02:26:25 EST

Last Seen: 2022-02-11 06:22:06 EST

Media Sources: devil34-eo Ghost_10FebDet_Aerial

Profile: USS-Puller

Number of Tracks: 23

First Seen: 2022-02-11 02:26:25 EST

Last Seen: 2022-02-11 06:13:30 EST

Media Sources: devil34-eo Ghost_10FebDet_Aerial

devil34-eo-10FebDet

Tracks Potential Tracks Pattern of Life Associates Alerts

Sources: devil34-eo, Ghos... Interval: 1 hour

Start End Hours: 0

Cameras: devil34-eo, Ghost_10FebDet_Aerial

Tracks Potential Tracks Pattern of Life Associates

Start From: End: Sources: devil34-eo, Ghost_10FebDet...

Blue Hotel – Ship Recognition / Summarization

The screenshot displays the CLUSTER UI interface for ship recognition and summarization. The interface is dark-themed and includes a sidebar with navigation icons. The main area shows a grid of ship images with timestamps. The right sidebar displays 'Final Clusters (2)' with two clusters: MARTAC and HVI-1.

CLUSTER UI

Refresh System Counts

Start From: End: Sources: default, puma1, puma1r, silver1 ☐ Filter Attributes Template Type: ship ☒ Final Tracks ☐ Oldest First

MARTAC

puma1r 2022-05-19 14:44:06 AEST

puma1r 2022-05-19 14:41:33 AEST

puma1r 2022-05-19 14:39:40 AEST

puma1r 2022-05-19 14:39:21 AEST

puma1r 2022-05-19 14:39:21 AEST

puma1r 2022-05-19 14:39:17 AEST

puma1r 2022-05-19 14:39:05 AEST

MARTAC

puma1r 2022-05-19 14:38:43 AEST

puma1r 2022-05-19 14:37:22 AEST

puma1r 2022-05-19 14:37:22 AEST

puma1r 2022-05-19 14:37:22 AEST

puma1r 2022-05-19 14:37:21 AEST

puma1r 2022-05-19 14:37:19 AEST

puma1r 2022-05-19 14:37:17 AEST

Final Clusters (2)

Time Count Name

MARTAC

HVI-1

As tracks are ingested into the system – automatically identify targets of interest in real-time and provide feedback to the operator

Blue Hotel – Visual Sorting of All Ships



For all ships that are ingested by the system – automatically sort and cluster based on available information and visual similarity

Blue Hotel – Tracks View

The screenshot displays the 'CLUSTER UI' interface, specifically the 'Tracks View' for a cluster identified as 'USS-Puller'. The interface is dark-themed and includes a sidebar on the left with navigation icons and a list of tracks. The main content area shows a grid of 16 track thumbnails arranged in two rows of eight. Above the grid, there are controls for the cluster, including 'Delete Cluster' (red button) and 'Unfinalize Cluster' (blue button). Below these are buttons for 'Merge Cluster' and 'Filter Attributes'. The 'Filter Attributes' section includes checkboxes for 'Filter Attributes', 'Oldest First', and 'Merging true'. The 'Start From' and 'End' fields are set to 'devil34-ee, Ghost_10FebDet_Aerial'. The 'Media Sources' are listed as 'devil34-ee' and 'Ghost_10FebDet_Aerial'. The 'Number of Tracks' is 23. The 'First Seen' timestamp is 2022-02-11 02:26:25 EST, and the 'Last Seen' timestamp is 2022-02-11 06:13:30 EST. The 'Tracks' tab is selected, and the 'No More Tracks' message is visible at the bottom of the grid.

CLUSTER UI

Profile: USS-Puller
Number of Tracks: 23
First Seen: 2022-02-11 02:26:25 EST
Last Seen: 2022-02-11 06:13:30 EST
Media Sources: devil34-ee, Ghost_10FebDet_Aerial

Delete Cluster Unfinalize Cluster

Merge Cluster

Filter Attributes
Oldest First Merging true

No More Tracks

Blue Hotel - DVR Integration

The screenshot displays a web interface for the Blue Hotel DVR integration. At the top, a header bar contains a small thumbnail image of a boat, a text area with the following information: ID: b4820dd7-7de4-4761-ab3a-eb9b2f7fa12c, Cluster: 15b9abdc-4d58-43ab-bff0-c0c501acbd4a, and Track Duration: 73s. To the right of this text is a 'Create Cluster' button and a 'Merge Track(s) Into' dropdown menu. Below the header, there are four tabs: 'Detections', 'Similar Tracks', 'Alerts Triggered', and 'Source'. The 'Source' tab is currently selected, showing a large video player with a green progress bar. The video shows a boat moving across a body of water. At the bottom of the video player, there is a timeline with a play button, a seek bar, and a timestamp of 00:30 / 01:54. A full-screen button is located in the bottom right corner of the video player.

DVR integration allowed for operators to automatically replay sensor agnostic data from feeds based on Blue Hotel tracks

The Next Level – West Vancouver

Gigapixel - 1739 Megapixels



Puma 720p Video

- Why is Intelligence, Surveillance, and Reconnaissance (ISR), the way it is?
- Next level processing and analytics will evolve our platforms to the next phase
- AI / Autonomy provide exponentially more information and effectiveness and transform the operator's role



The Next Level



The Next Level

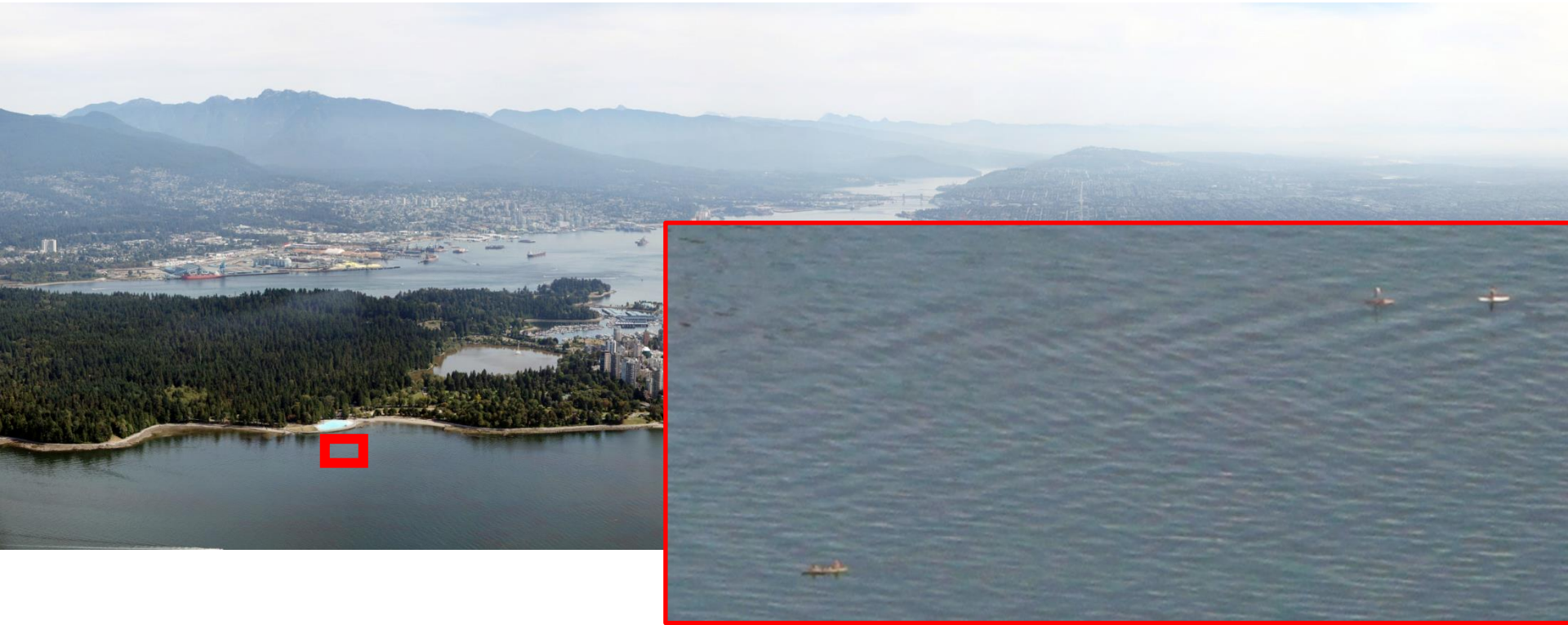


The Next Level – Vancouver Aerial

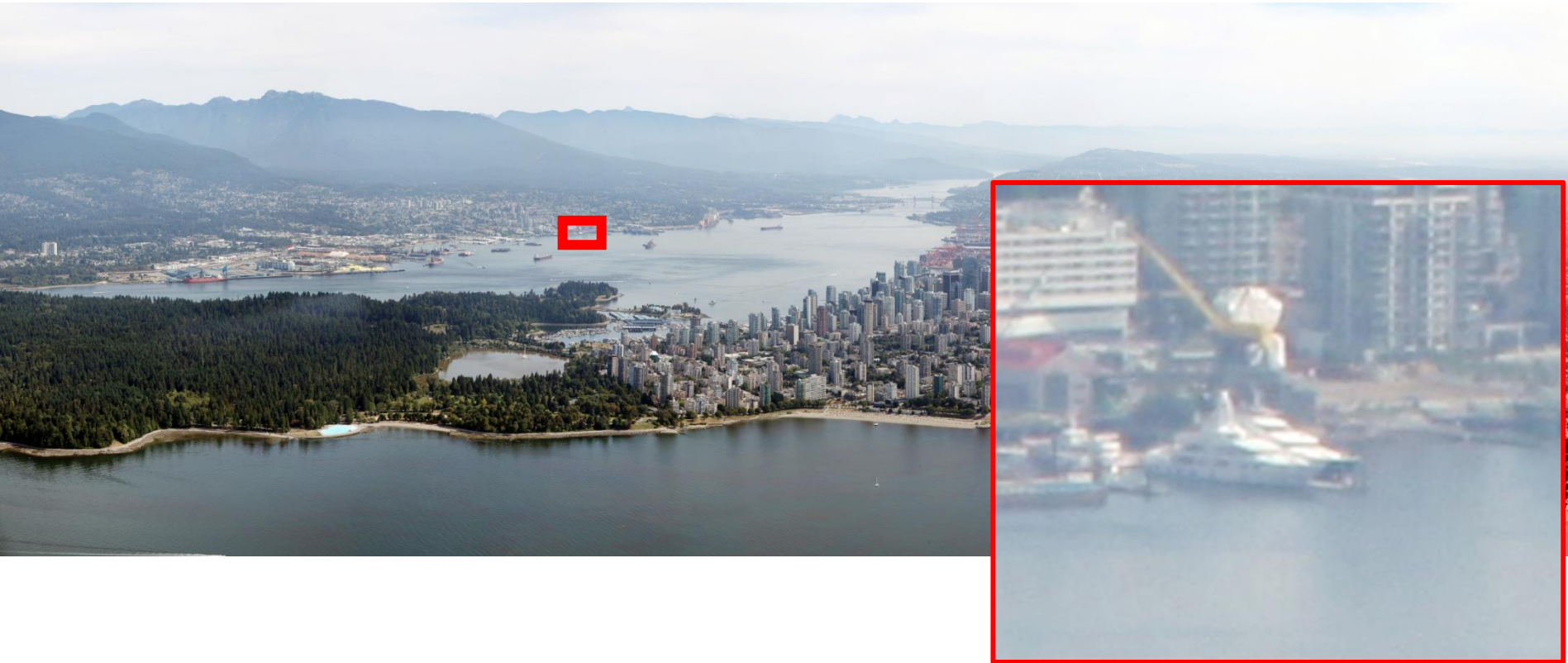
239 Megapixels



The Next Level – Vancouver Aerial



The Next Level – Vancouver Aerial



Summary

Computer Vision & Machine Learning solutions can dramatically reduce operator time and increase viability for historical queries and searches

Common approach for imagery processing allows for great flexibility and data fusion across multiple platforms

Low-power / edge / onboard processing is key given typical constraints in bandwidth

Real-time alerting allows for multiple UAS to be cooperatively working on mission sets

Flexible architecture allows for model changes based on active research and development efforts

Construction of a data pipeline and continual learning solution is the key to success

Q&A SESSION

MODERATED BY JONAH TEETER-BALIN



PROCEED
WITH
CERTAINTY

FACILITY TOUR

BACK-UP

Business Segments Key UAV Trends

Contested Environments

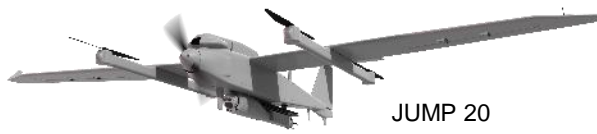


Visual Navigation Solution (VNS)



Vision Based Launch & Landing

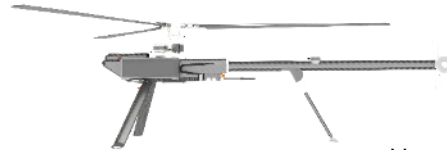
Vertical Take-Off & Landing



JUMP 20



PUMA VTOL



Vapor 55 MX

Armed Platform Integrations



Helicopter Mounted Jackal Switchblade Variant



SB300 on Vapor 55MX



Hatchet Drop from JUMP 20

Over the Years, our Evolution Continues



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

Well-Positioned Product Portfolio



MUAS

Medium Unmanned Aircraft Systems

A market leading domestic supplier of Group 2 and Group 3 unmanned aircraft and associated ISR COCO services



SUAS

Small Unmanned Aircraft Systems

The dominant global supplier of Group 1 unmanned aircraft used for ISR with sales to over 50 allied nations



TMS

Tactical Missile Systems

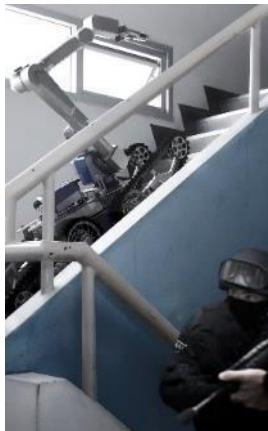
Category innovator and current domestic leader of loitering munitions with recent approvals to sell to over 20 allied nations



HAPS

High altitude Pseudo Satellites

Telecommunications and ISR unmanned platform with defense and commercial applications. Key partnership with Softbank to develop market



UGV

Unmanned Ground Vehicles

Leading international supplier of small and medium sized unmanned ground vehicles used for explosive ordnance disposal and handling of hazardous materials



MW

MacCready Works Advanced Solutions

Develops cutting edge technologies to deploy within current portfolio. Explores adjacent market opportunities and incubates potential new business segments

ESG Focus and Goals Aligned with Value Creation



RESPONSIBLE BUSINESS

100%

Training on code of conduct

100+

Investor meetings

>50%

Business conducted with diverse suppliers

\$55M

Spent with diverse suppliers

ENVIRONMENTAL MANAGEMENT

66%

AeroVironment facilities using renewable energy

77%

Renewable energy used across AeroVironment facilities

80%

Products in our portfolio powered by batteries instead of fossil fuels

PEOPLE AND COMMUNITIES

94%

Employees say this is a physically safe place to work

94%

Employees feel they are treated fairly, regardless of their race

92%

Employees feel they are treated fairly, regardless of their gender

91%

Employees are proud to say they work at AeroVironment



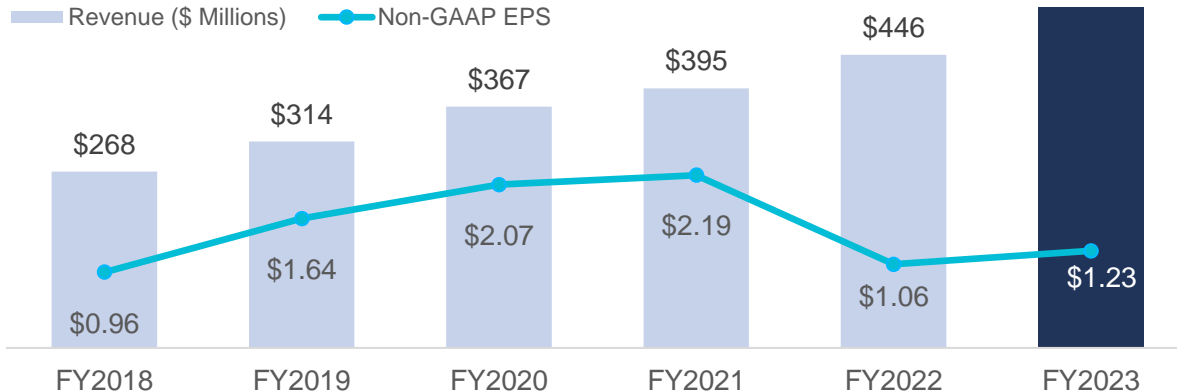
AeroVironment, Inc.

Updated: July 2021



Revenue and Non-GAAP EPS (Continuing Ops)

NON-GAAP EPS



- Continued double digit revenue growth
- FY22 organic growth was negative as a result of supply chain issues and reduced U.S. SUAS demand
- FY23 revenue result of organic growth with FY24 revenues projected to in project to increase double-digits given favorable tailwinds

ACQUISITIONS

PULSE
AEROSPACE

ARCTURUS UAV™

planck
AEROSPACE

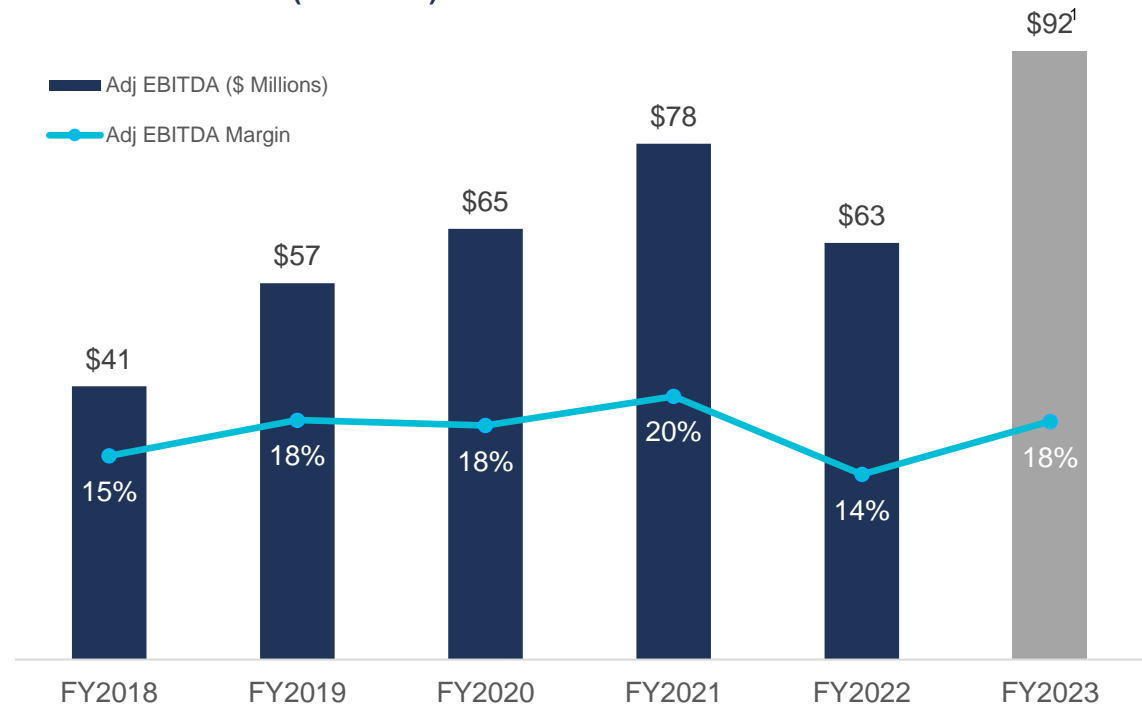
Progeny Systems
Engineering Solution That Los Generation

TELEA
AEROSPACE

¹ FY23 estimated Revenue is based on mid-point revenue and non-GAAP EPS guidance.

Adjusted EBITDA and EBITDA Margin

MARGIN & REVENUE (MILLIONS)

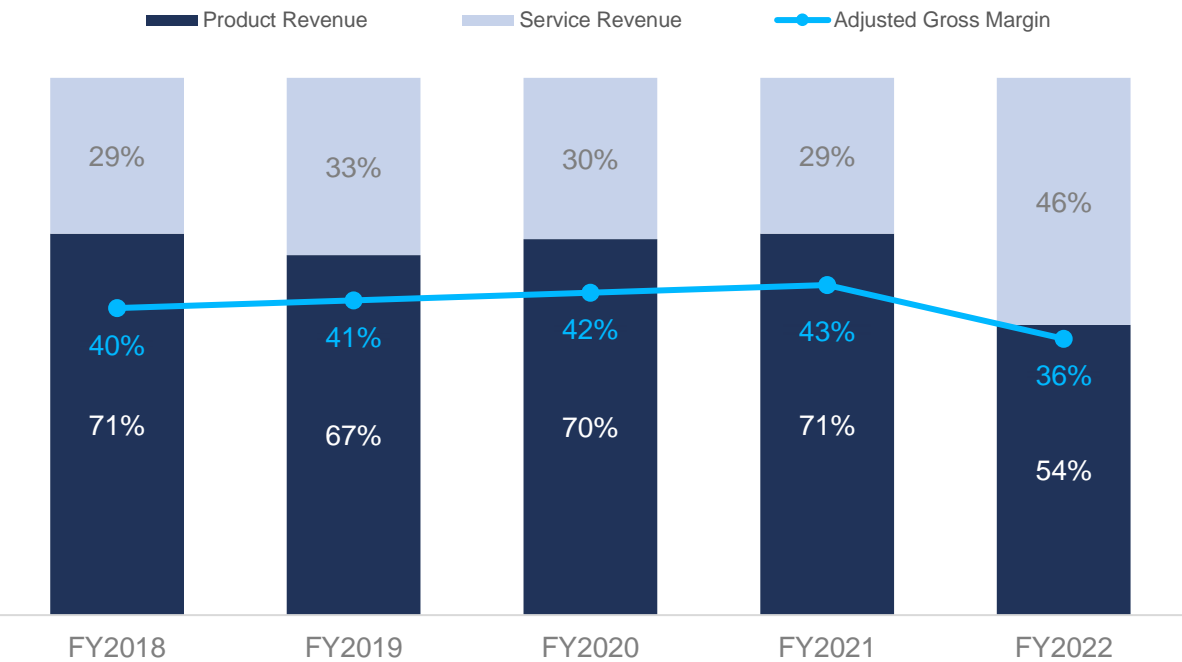


- Historically strong Adjusted EBITDA Margins and >50% improvement over FY22
- FY22 Adjusted EBITDA Margins impacted by lower gross margins as a result of mix shift to lower margin service revenues.
- Also negatively impacted by higher operating expenses as result of acquisitions.

¹ FY23 estimates are based on mid-point Adjusted EBITDA guidance range

Mix of Product and Service Revenues

REVENUE SOURCES



- Shift to higher service mix as a result of acquisitions and lower SUAS product sales.
- Higher mix of service negatively impacted Adjusted Gross Margins.

Refer to Appendix C

Product Scenarios

SUAS



MUAS



TMS

