

Architecting Adaptive, Intelligent Systems

Autonomous Defense.

Cognitive Precision.

Joel Nelson

President & CEO

Raptor Solutions

Embedded Cognitive Reasoning

Differentiating with an advanced cognitive reasoning engine for real-time situational awareness, mission adaptability, and decision-making without humans in the loop



Space Warfighting



Counter-Unmanned Aerial
Systems (C-UAS)



Mission Operations and
Time-Sensitive Kill Chains

Space Domain Awareness Gaps and Needs

Space domain awareness systems (SDA) are struggling to keep pace with the explosive growth in satellites, space debris, & adversary anti-satellite weapons.

- Gen Salzman, Chief Space Operations
Sep 2025



Impacts to the \$90B commercial markets, human spaceflight, and US Space Force

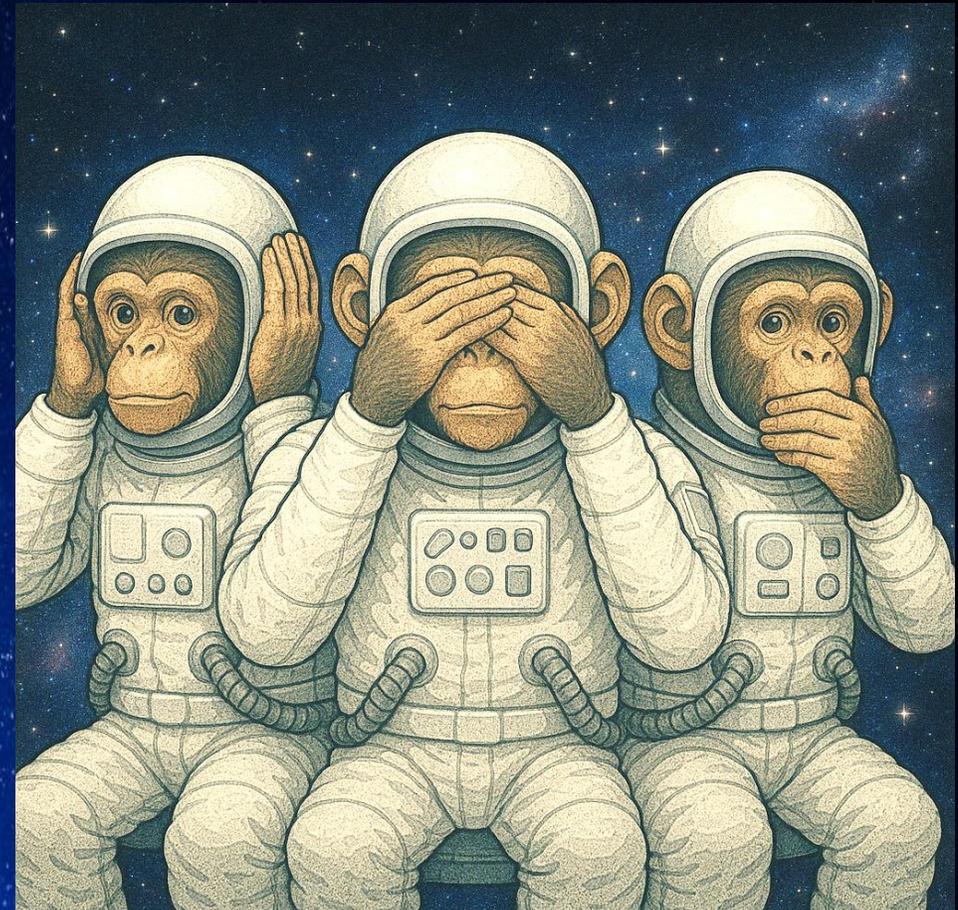
Underlying Problem:

Today's Space Systems are Blind, Deaf, and Dumb

Space Systems rely on constant human oversight. This reliance results in massive delays in real-time reaction.

Major Problems:

- Threat Classification taking hours/days
- Limited autonomy in Rendezvous and Proximity Operations for on-orbit servicing
- Overtasking operators



Raptor Dynamix:

A new frontier in space intelligence

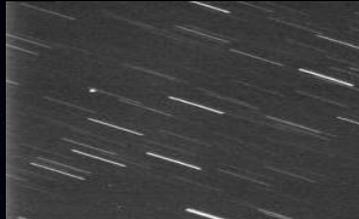
Raptor is building the brain that changes everything— integrating real-time data and turning space platforms into smarter, more autonomous systems – seconds vs days



Through advanced algorithms and edge computing payloads, we will
convert existing satellites into Advanced Cognitive Reasoning Satellites

RDX Products:

Enabling Real-Time Threat Detection and Response

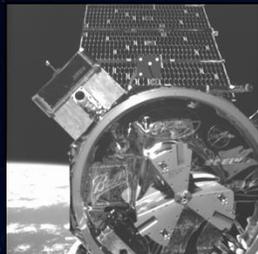


**SpaceGuardian™
Software**

Proprietary on-orbit algorithms for real-time threat detection – seconds vs days

**ShadowSentinel™
Hardware**

An integrated edge-computing payload for real time operations



**ShadowMind™
Software**

Autonomy architecture to enable onboard threat response and anomaly resolution

Our product suite is ready to be the solution to the ever-changing space landscape

Dual-Use Market Opportunities

Growth in Artificial Intelligence for Space



AI in Defense Space

Segmented Market
Payloads/Edge Computing

\$500M
2025

+58.5% CAGR

\$5B+
2030



AI in Commercial Space

Segmented Market
Payloads/Edge Computing

\$800M
2025

+53.6% CAGR

\$7B+
2030



**A Non-Traditional Payload Leader
Building Out the Supply Chain for Operational Missions**

Traction

US Air & Space Force



“We cannot be satisfied if it takes us hours to detect on-orbit activity...” Gen Saltzman, Chief of Space Operations



Est. Aug 24



Space Domain Awareness Tap Lab
Nov 24



Awarded SpRCO Phase 1
Jan-Mar 25



Space Enterprise Consortium
April 25



Commercial Award
\$500K Capital
Jul 25



CRADA & Facility Clearance Award
Sep 25



Awarded STTR
\$200K
Oct 25



Traction

Commercial Partnerships



“Space-based cloud infrastructure is the next frontier...to enabling AI workloads at the orbital edge.”
– Travis Steel, Chief Architect, Red Hat



\$2M in bids
Nov 25



Launch to ISS
Sep 25



\$9M in bids
Aug 25



\$6M in bids



Hosted Payloads



\$100K Credits
Spring 24



Discounted GPUs
Aug 25



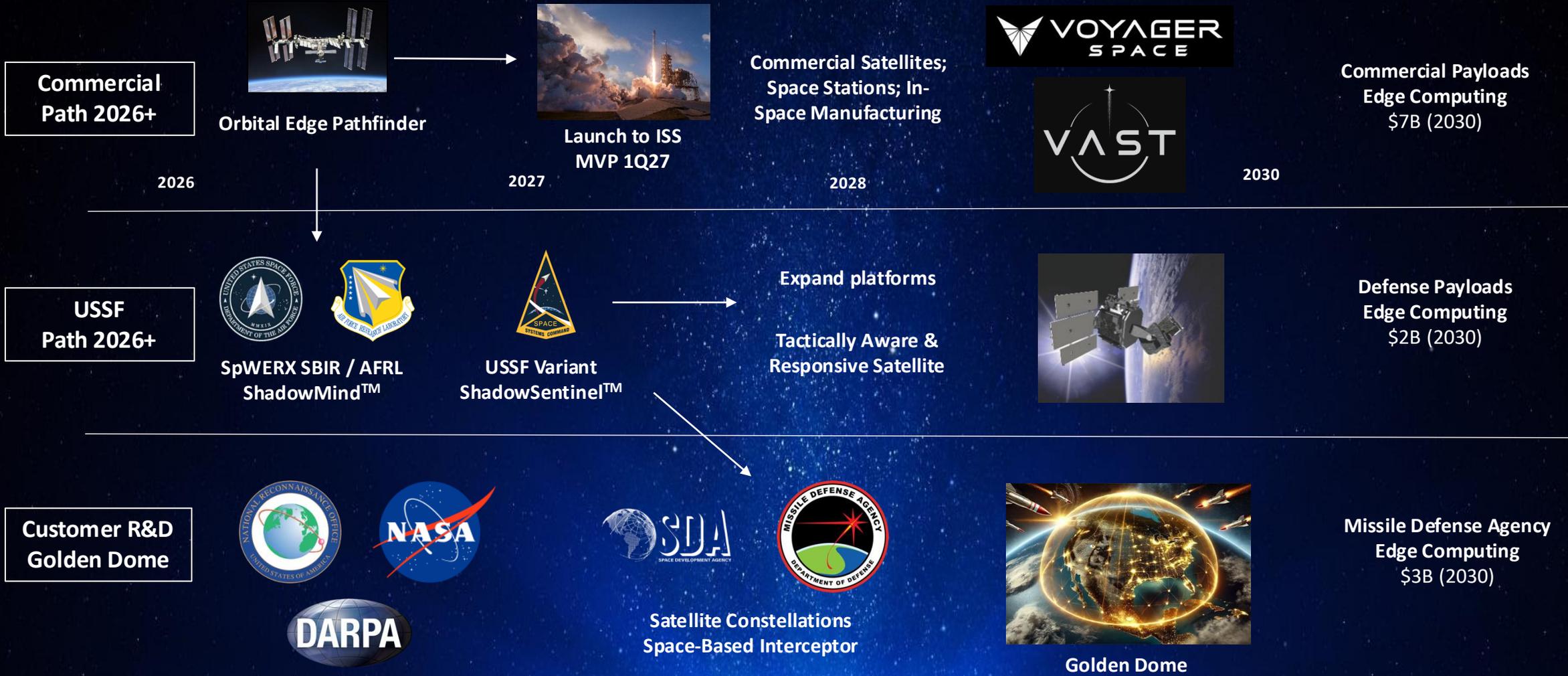
**RAPTOR
DYNAMIX™**

Est. Aug 24



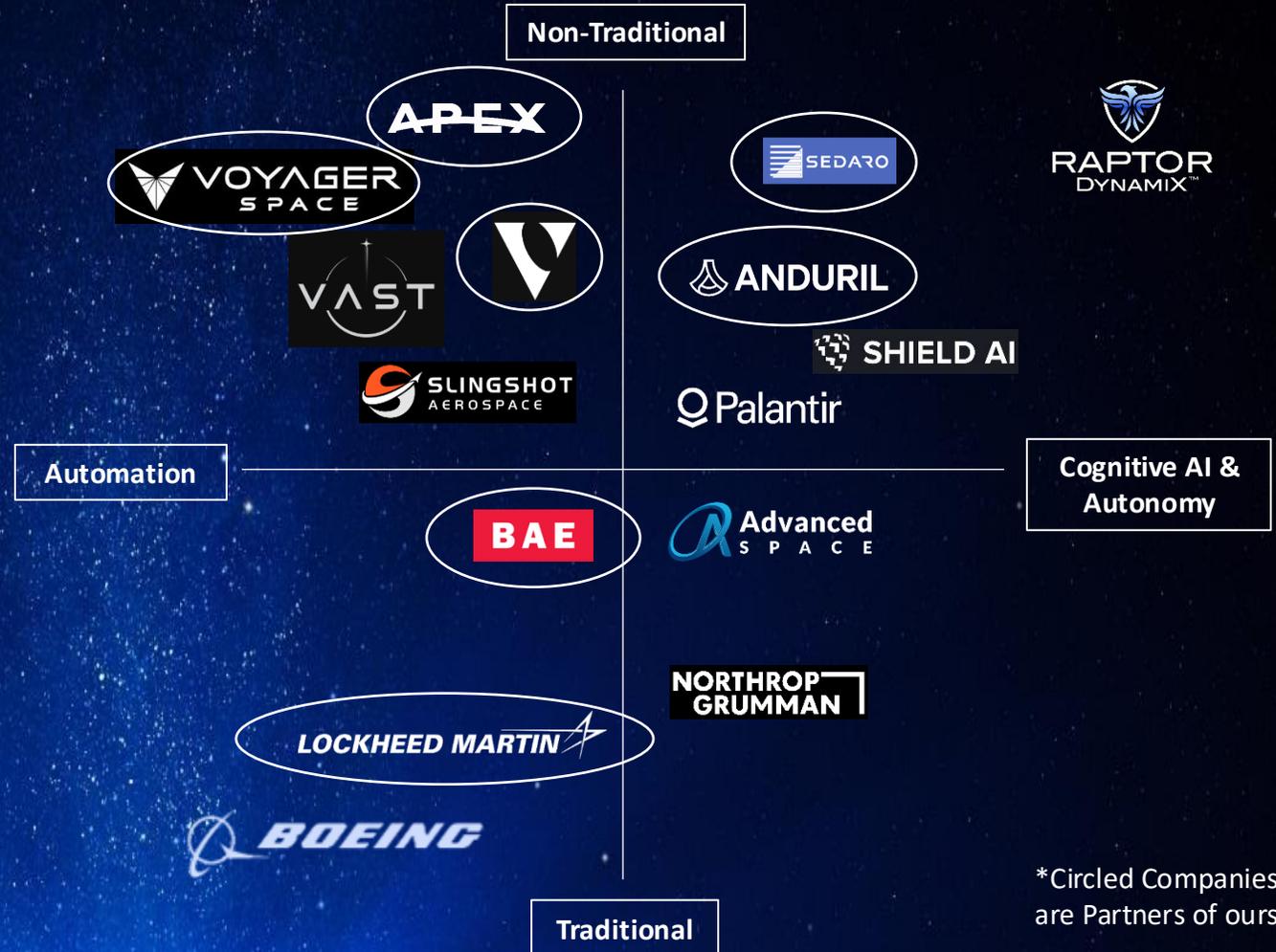
Go-to-Market Strategy

MVP, Scalability, & Growth



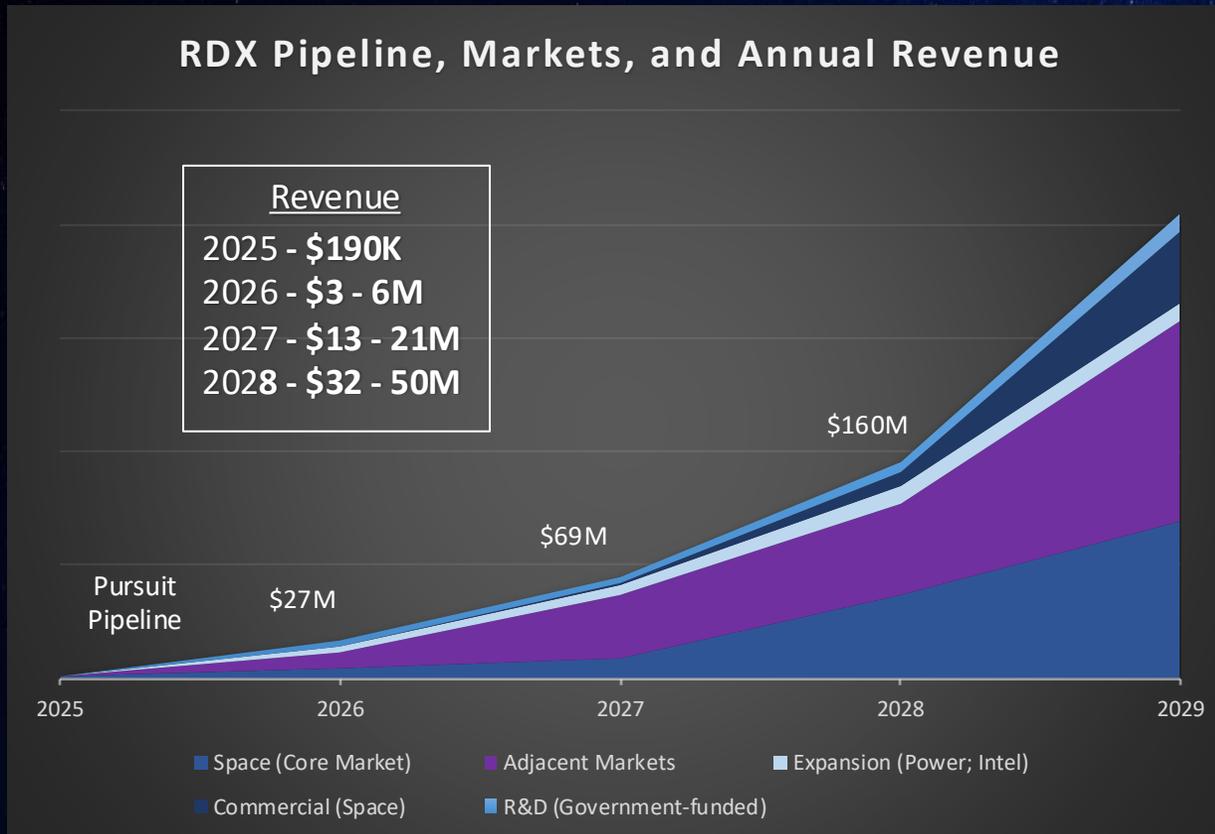
Competitive Landscape

- Limited competition developing Cognitive Reasoning Engines – Raptor brings a differentiator
- US Government shifting to Non-Traditional developers
- Raptor Competitive Advantage
 - Technical Differentiation
 - Adaptable to Threats
 - Team Talent and Relationships
 - Customer Traction
 - Scalable & Upgradable



Financials

AI, Edge Computing, and Payload Solutions



- Path to \$1M in Revenue & 10x growth
 - USSF new starts for Intelligent Space Systems (\$6.5M+)
 - Space-Based Interceptor program (\$3M+)
- Adjacent Markets
 - Counter – Unmanned Aerial Systems (\$2M+)
 - Data fusion / analytics for Operations (\$2M+)
- Commercial and Strategic Partnerships (e.g. Anduril and Apex)
- Government R&D Awards

RDX Leadership

Right Team to Develop & Grow



Joel Nelson
President & CEO

- 25-years building Payloads & Satellites
- Strategy & Business Development



Del Christman
VP, AI & Autonomy

- 40-years Aerospace and Artificial intelligence
- Cognitive & Neural Systems (since 1990s)



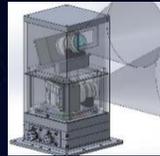
Advisory Board (being finalized)



ShadowSentinel™ Pathfinder Orbital Edge

Full Motion Video

- Event-based Imaging
- 100-1000x less data



Edge Computing GPU

- Commercially deployable
- NVIDIA® Jetson AGX Orin™
- Processing in seconds



SpaceGuardian™

- AI Algorithm suite
- Deployed on-orbit
- Real-time knowledge



2025-05-23 20:55:36.757661
60 fps (real-time)



Data collected from ISS 5/23/25
ShadowSentinel will Upgrade

Seed Raise

Use of Capital and Path to MVP

Raise Allows

- SpaceGuardian™ Algorithms (\$350k)
 - ✓ Onboard AI Developer
 - ✓ Develop & Test Algorithms
- ShadowSentinel™ Payload (\$500k)
 - ✓ Onboard Payload Engineer
 - ✓ Payload Development
- Go-to-Market Activities (\$150k)
 - ✓ Marketing / Advisors
 - ✓ Develop Opportunities





RAPTOR
DYNAMIX

Joel Nelson

www.raptordynamix.us

Joel.nelson@raptordynamix.us

719-429-7463

Business Model

AI, Edge Computing, and Payload Solutions

Four distinct revenue streams will allow for us to succeed in market capture

- License Model for AI Algorithms
 - **SpaceGuardian™** will generate revenue through subscription services (as developed or annual pricing), licensing, and/or data services for space threat alerts.
 - Recurring -- \$25M/yr by 2029
- Maintenance (Mx) and Update Subscription to Models
 - Software can learn and be updated
 - Recurring -- \$10M/yr by 2029
- Sales for Threat Detection and Autonomy Payloads
 - **ShadowSentinel™** – Cognitive Autonomy Engine and Edge Computing payload for any spacecraft
 - Payload Development -- \$50M/yr by 2029
- Operations & Predictive Analytic Services (\$25M/yr)



RaptorEye™

Counter–Unmanned Aerial Systems (C-UAS)



A C-UAS detection system (TRL7) acoustically detects UAS threats which provides a scalable, low-cost counter-UAS detection layer for defense and critical infrastructure

Operations Gaps

- Avoid Operational Surprise from UAS Swarms
- Identify Threats Early in Cluttered Environments
- Cognitive Artificial intelligence for responsible autonomy

RaptorEye in Operations



RaptorEye™ Prototype



FusionEdge™

Data Fusion, Threat Detection, and Decision-Making



Proliferated Warfighter Space Architecture

- Real-time ingestion and fusion of data from PWSA space systems
- Deploying AI/ML-driven analytics for anomaly detection, threat identification, and predictive situational awareness
- Enabling real-time tasking, automated decision-making, and timely kill chain

