



Valkyrie Enterprises Company Profile

15 April 2025

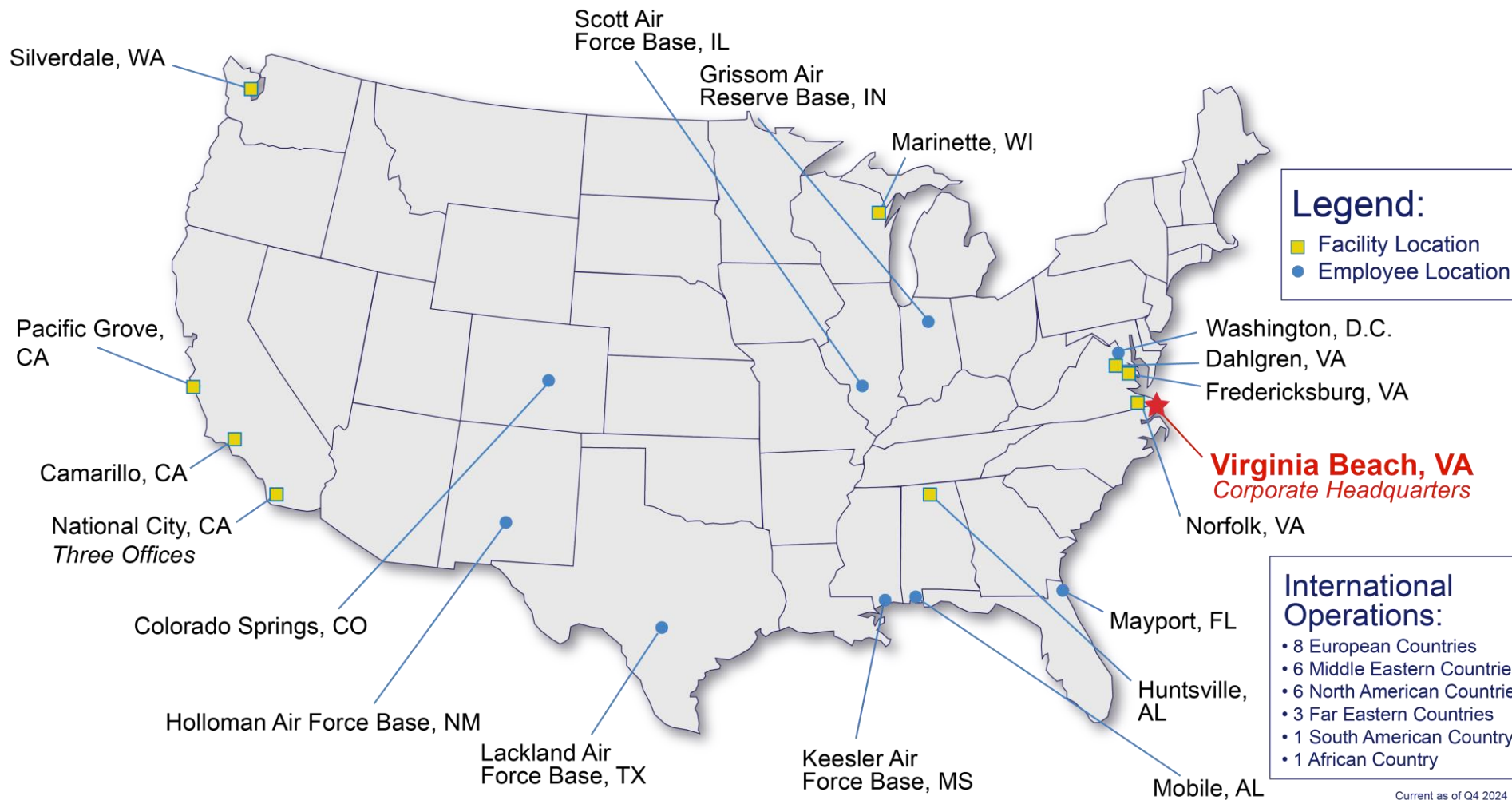


Introduction

Valkyrie Enterprises is a diverse company with unique expertise, tools and products which enable us to deliver advanced capabilities and systems from Operational Concept Development and Design through Production, Test, Fielding, Training, and Support.

Our expertise and work extend across all military services, Department of State, and international partners and include Distributed Command and Control, Hypersonics, Missile Defense, Space, Counter-UAS, and Advanced Training.

Global Operation



~750 employees

94% security clearance

\$200M+ Revenue

ISO 9001-2015 & 14001 certified

Valkyrie Background



Operational Modeling and Analysis

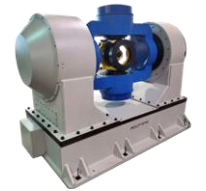
Valkyrie provides unique COCOM and Partner analysis and tools

- Valkyrie develops Joint Theater Level Simulation – Global Operations
 - Support multi-national COCOM and NATO Exercises
 - Distributed C2 and integrating with Joint LVC architecture
 - Navy and Air Force Wargaming
 - Army Futures Command Analysis Tool
 - US Joint Staff and NCIA cyber accredited
 - Used by 30 US commands and 25 nations

Digital Engineering and Test

Valkyrie is an industry leader in advanced kill chain architectures, missile engineering and test solutions

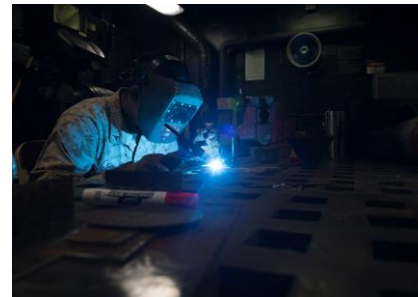
- Digital Engineering, MBSE and AIML
- C2BMC Planner and Common Threat Service
- Navy and Joint LVC Architectures and Equipment
- “Hypersonic Architecture, Modeling, Requirements and Simulation” lab
- Architecture & Requirements for HTBSS and Glide Phase Interceptor
- Missile Hardware in the Loop Facilities (HWILs)
 - LRHW, GPI, GBI, NGI, PAC-3, NGSRI, PrSM, Targets



Infrastructure Engineering and Technical

Valkyrie brings presence in every US Naval construction and repair yard and has updated over 100 US Embassies and Weapon Facilities

- AIML-aided security systems
- Installation & Check Out (INCO)
- Certified welders, electrical, fiber-optic
- Test Planning, Conduct and Witness
- Material Management



Presence in 17 countries

Maritime and CUAS Electronics

Valkyrie develops, supports and repairs shipboard aviation products and integrated Counter Unmanned Aerial Systems

- NAVAIR certified wind, metrology, decision aids, displays on over 150 ships
- Integrated with fleet data systems, shipboard sensors and directed energy weapons
- CUAS radar, jammers, passive detect/ID systems





Multi-Domain Military & Civilian Operations (Land, Air, Maritime, Space, Intelligence, Logistics, SOF)



CAX, Wargame, CONOPS, Analysis

Pedigree

- US Joint Staff J7 Executive Agent
- INDOPACOM PWC Sponsored, also used by other COCOMS
- Joint Staff and NATO cyber accredited
- Employed by Army, Navy, Air Force, NATO and 25 nations

Functionality

- All domains represented, including space effects
- Up to 20 sides/factions with variable intel sharing
- LVC enabled and multi-echelon capable/integrated
- Interfaces with tactical C2 (ADSI, L-16, GCCS,)
- SOF, PsyOps, EW, Intel sources are supported
- CBRN effects are incorporated

Contested Logistics Support

- Automated logistics functions (resupply order, shipment, transit)
- Distribution & Shortage of Critical Supplies limit tactical operations)
- Distribution and delay times impacted by enemy actions/damage
- Civilian population, refugee, and HA/DR elements are represented

System Description

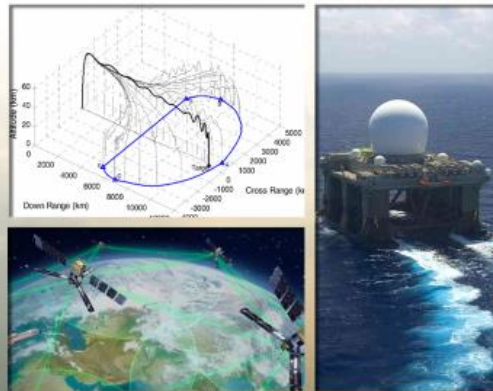
- Flexible deployment: desktop, virtual machines, cloud
- Scalable: from laptop studies to multi-million entity distributed CAX
- Statistical representation of surveillance and engagement results
- Batch run capable

Customized Databases; Supported Units and Capabilities can be Modified In-Game

MBSE and Physics-Based Modeling Example



HYPERSONIC ARCHITECTURES, MODELING, REQUIREMENTS, AND SIMULATION (HAMRS) LAB



- **PURPOSE:** Provide engineering support for Hypersonic Defense architecture conceptualization, development, integration, testing and analysis

- **MISSION:** Deliver an independent Government laboratory and analysis capability to perform analysis of current and future hypersonic defensive architectures and concepts to counter near, mid and far-term hypersonic enemy threats

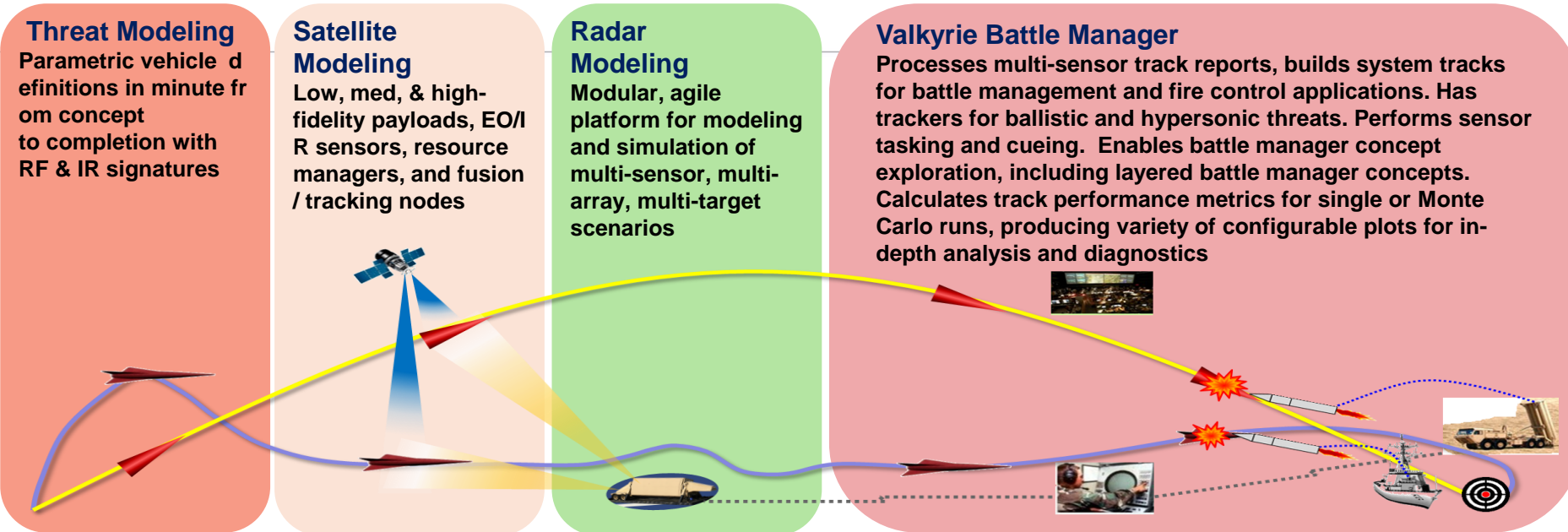
- **APPROACH:** Use Digital Engineering principles and processes to develop, enhance, and exercise models and simulations tailored for hypersonic weapon system and associated architecture analysis

- **CAPABILITIES:** Army-owned hypersonic defensive and offensive modeling and simulation capability has been *specifically* developed to support DoD enterprise analysis, assessment, and acquisition

- **PRIMARY STAKEHOLDER:** Lab commissioned by MDA/CA/CAH to support hypersonic defense future architecture analysis in support of development of HD system and component level requirements

HAMRS directly supports MDA hypersonic defense future architecture design with modeling, simulation, and analysis to support requirements and acquisition

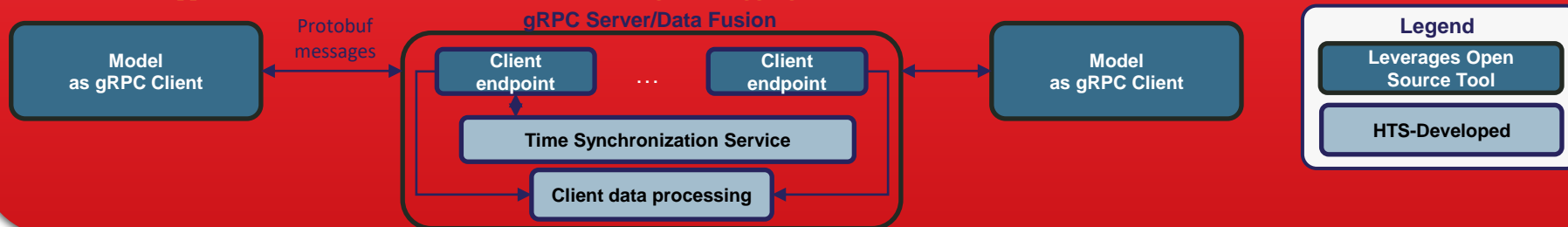
RAAPS – Run-time Agnostic Architecture Prototyping System



RAAPS underpinned by modern framework infrastructure

Valkyrie Message Service uses gRPC (Google Remote Procedure Call) enabling component models communication using a client/server approach

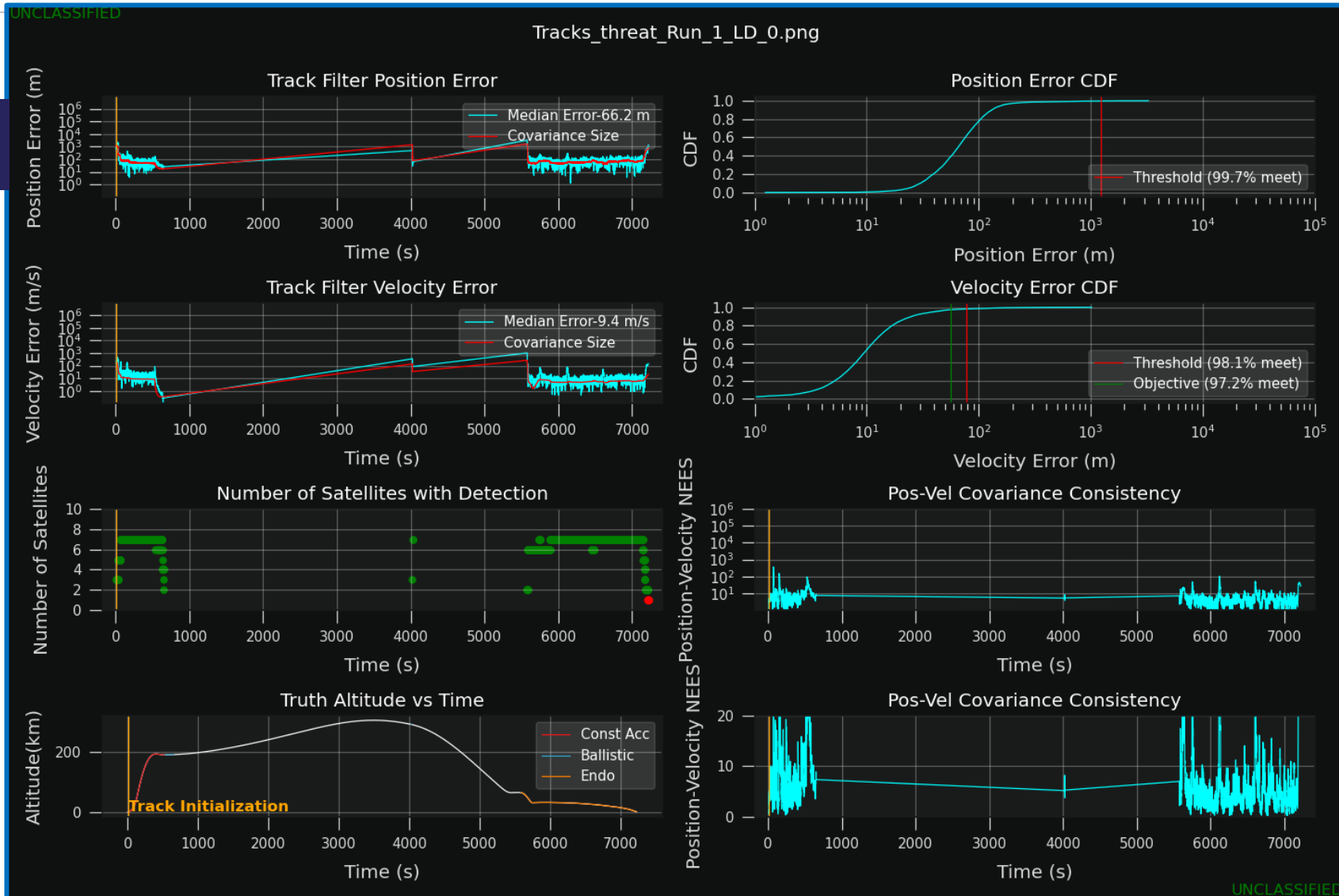
- gRPC is a high-performance, open-source universal RPC framework developed by Google
- It is language-agnostic, and uses Protocol Buffers as its interface definition language (IDL)
- It supplies features of authentication, load balancing, and logging



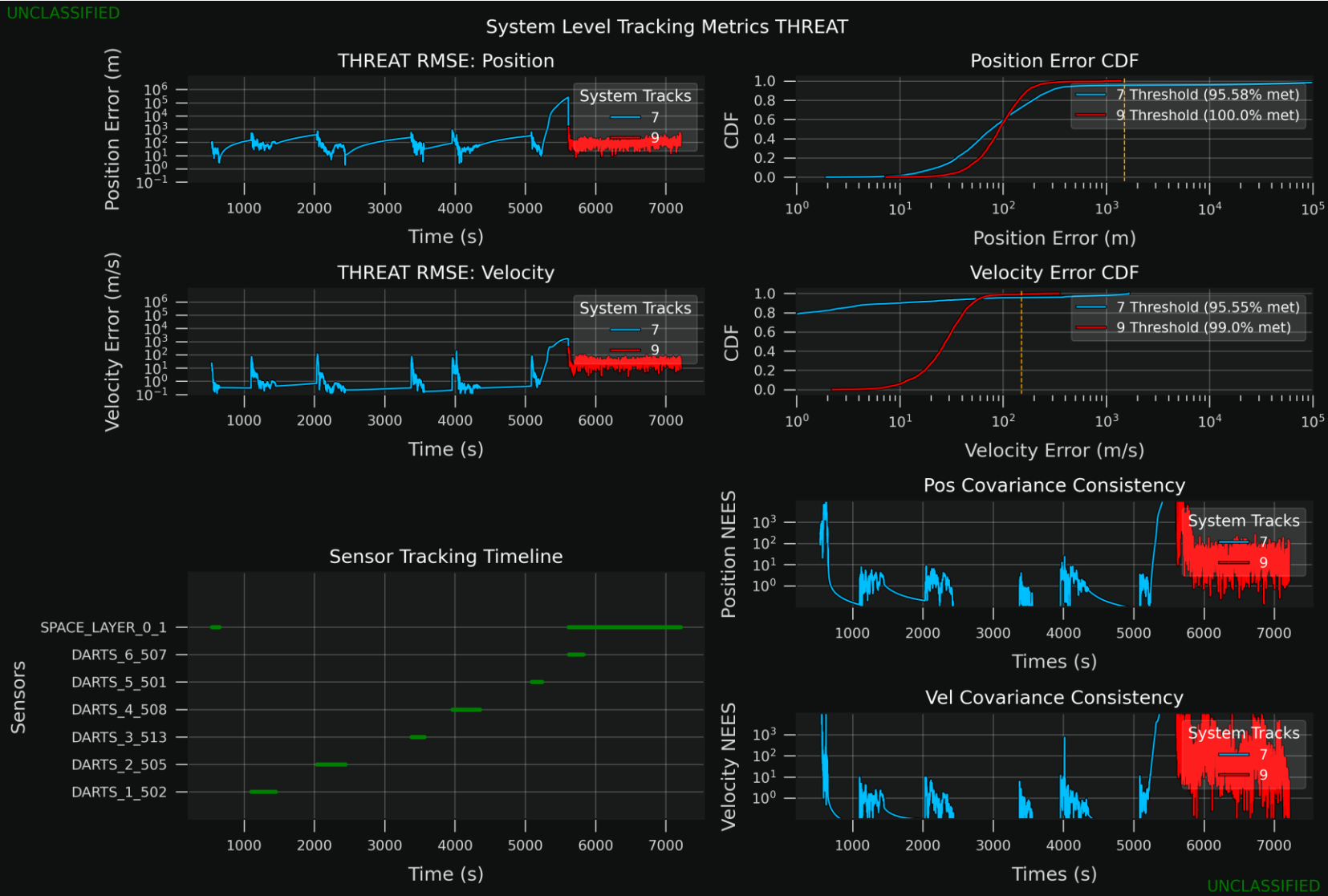
RAAPS Space Layer Metrics (continued)



Space Layer Tracking Analysis



RAAPS Battle Manager System Metrics

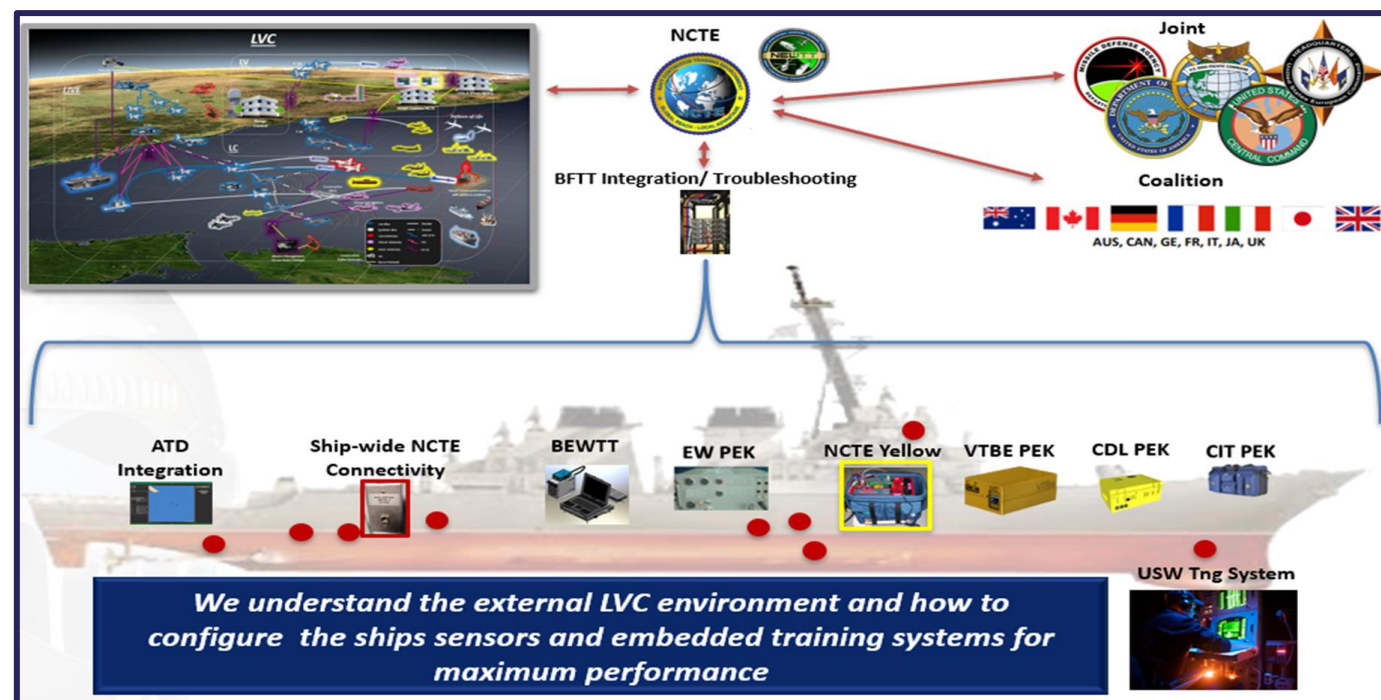


Live Virtual Constructive Test and Testing



► Valkyrie is an expert remote/distributed test and evaluation company

- Co-developer of Fleet Synthetic Training since inception (NCTE, BFTT, BFAS)
- Information Warfare lead developer, integrating NIWC space labs (GENSER & Yellow)
- Design and maintain CEC LVC systems
 - CEC Pickup Engineering Kit (PEK)
- Design and maintain EW LVC systems
 - NEWTT, BEWTT, EW PEK
- Developed safety approach and guidance for Continuous Test, Training and Operations
- Remotely integrate hypersonic missile HWILS with test ranges for qual & safety
- Support to Self Defense Test Ship



Hardware-in-the-loop



Success before live-testing.

Expertise

- ▶ Connect systems into a virtual environment to confirm hardware response.
- ▶ Plug & play with modeling and simulation.
- ▶ Real-time 3D visualization during tests.
- ▶ Cost saving testing environment.
- ▶ Evaluate sensors and missile guidance control on motion tables and virtual environments.

Achievements

- ▶ Industry-leading EOIR large format projectors for Ballistic Missile Interceptors, Air Defense Missiles, EOIR sensor suites and Space Based sensors.
- ▶ Created “ICADAMS” HWIL control system.
- ▶ LRHW, CPS, NGSRI, GBI, NGI, PAC-3, PrSM, Targets, AEDC, NAWC PAX, Redstone



Hypersonic Target Launch Vehicle

Transport and launch hypersonic missiles in an easy-to-maintain-and-operate carrier.

Expertise

- ▶ Haul & launch short-range ballistic (SRBM) or hypersonic missiles from any SRBM vehicle.
- ▶ Versatility to transport missiles by road, boat, train, or plane.
- ▶ Accuracy and interface makes it easier to operate.

Achievements

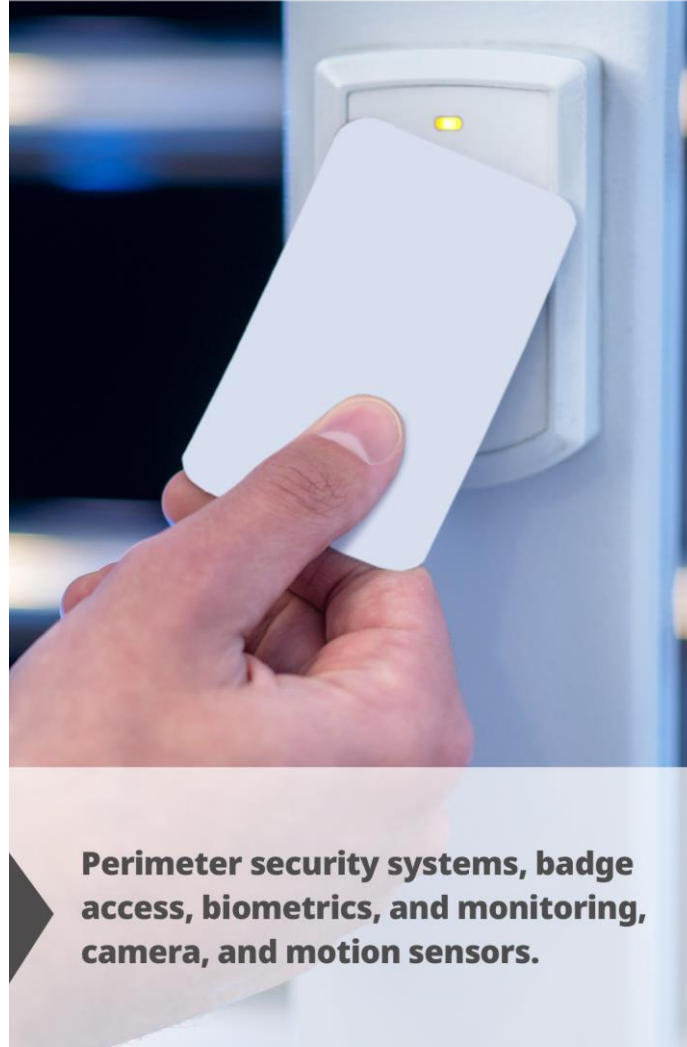
- ▶ Launch multiple missiles from a single location, or several missions from various areas.
- ▶ Handles one, two, or three booster stages.



Critical Communications & Security



Inside-outside plant fiber optic installation, wired, wireless, satellite, audio-visual systems, closed-circuit TV, and public address systems.



Perimeter security systems, badge access, biometrics, and monitoring, camera, and motion sensors.



Tier 1-3 maintenance and troubleshooting, risk management framework, 24/7/365 help desk, network and system administrator for SIPRNET, NIPRNET, and JWICS, monitor threats, test vulnerabilities, and validate and test methods.



Closing



As an innovation-focused company, Valkyrie Enterprises elevates customer goals from baseline to astounding.



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