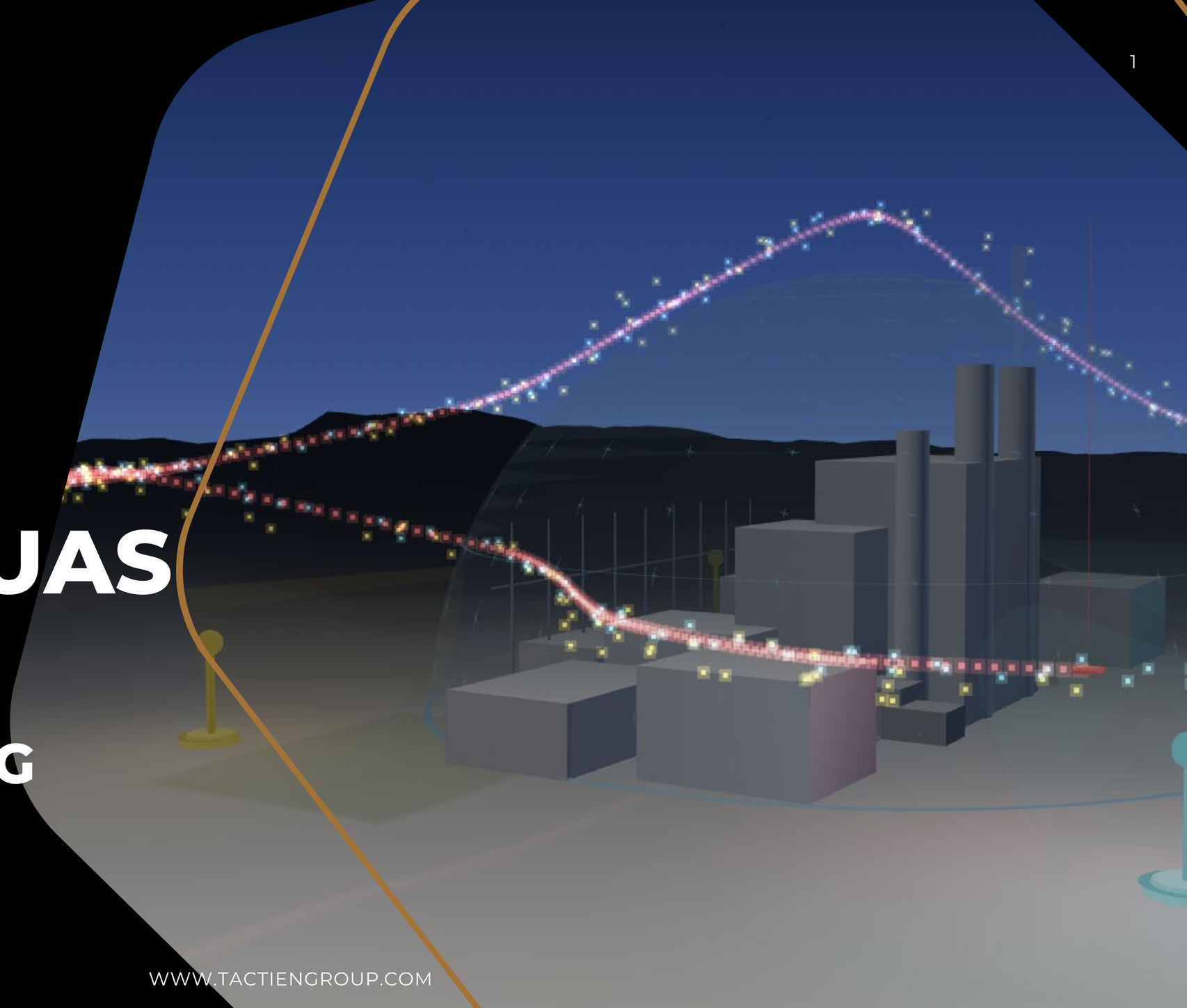
TACTIEN GROUP

COUNTER-UAS

VETTING
VALIDATION
& COMMISSIONING

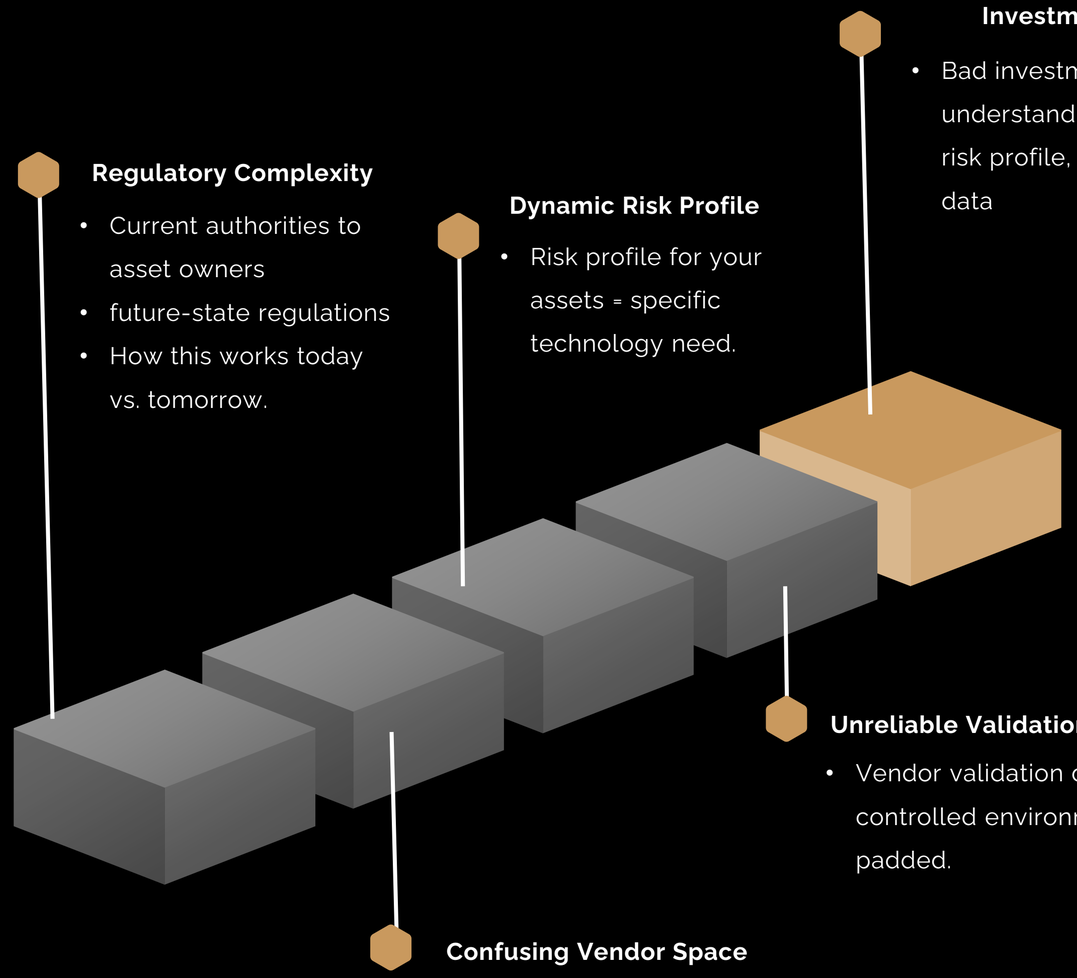


Ensuring end-users understand CUAS, utilize the best CUAS technology for their assets, and maximize scaling effectiveness

THE CHALLENGES

The C-UAS market is moving fast and the stakes are high.

Without the right framework, organizations risk bad investments, uncovered gaps, and solutions that either under perform or fail.



Regulatory Complexity

- Current authorities to asset owners
- future-state regulations
- How this works today vs. tomorrow.

Dynamic Risk Profile

- Risk profile for your assets = specific technology need.

Investment Target

- Bad investments due to not understanding regulatory, specific risk profile, and unverified vendor data

Unreliable Validation Data

- Vendor validation data is often in controlled environments and padded.

Confusing Vendor Space

- Many technology options with varying prices & capabilities
- New entrants
- Over-promised capabilities.

Tactien exists to replace opinion with evidence.

OUR PROCESS

1. EDUCATE & INFORM

Advising end-user on the State of the Industry

2. DEFINE REQUIREMENTS

Determining end-users' specific needs, technology type(s), and program budget

3. INDUSTRY RFP

Solicit down-selected vendors to compete in V&V exercise.

4. LIVE TESTING & DATA VALIDATION

Tactien red-teaming. Blind testing. Data analysis on all flights with KPI scoring.

5. FINAL REPORT & RECOMMENDATION

Quantitative proof of performance within end-user's environment.

6. COMMISSIONING

Strategic rollout of selected CUAS(s)

1. EDUCATE & INFORM

WHAT WE COVER

- How CUAS detection technologies work; RF, radar, optical, acoustic, and multi-sensor fusion
- Pros & Cons of each technically type
- Federal regulatory framework: what's authorized today vs, tomorrow
- Operational constraints: i.e., RF interference, safety exclusion zones, jamming restrictions
- The need for a company CUAS response policy
- The true cost of program ownership

THE COST SPECTRUM

$5,000	Basic sensor: limited range, limited/no classification
$50K–$150K	Lower/Mid-range (i.e., RF + optical) stack
$250K	Mid-range (i.e., RF + optical) stack
$1M+	Mid/Upper-ranger integrated platforms (i.e., RF + optical + Infrared)
$2M+	Upper-ranger integrated platforms

2. DEFINE REQUIREMENTS

Asset Risk Profiles

Identify critical assets, threat vectors, and consequence of detection failure

System Architecture

Data flow, integration with existing security platforms (TAK, PSIM, SIEMs)

Operational Performance Criteria

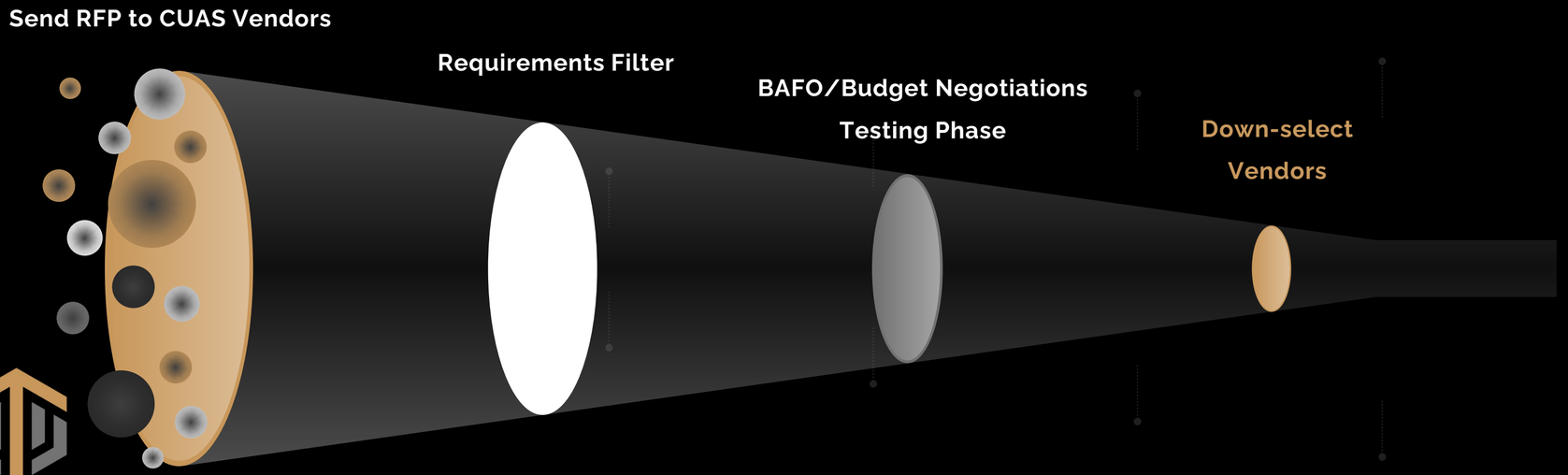
Detection range, latency, false positive tolerance, classification requirements

Vendor Support & Sustainment

Warranty, SLA, update cadence, training, and long-term supportability

OUTCOME: CUSTOMER-SPECIFIC RFP FOR CUAS SOLUTION COMPETITION

3. INDUSTRY RFP



Intent of Phase

- Filter out vendors who can't meet your operational and budget requirements
- Negotiate best-value pricing before committing to live testing
- Arrive at testing with only the vendors most likely to succeed in your environment

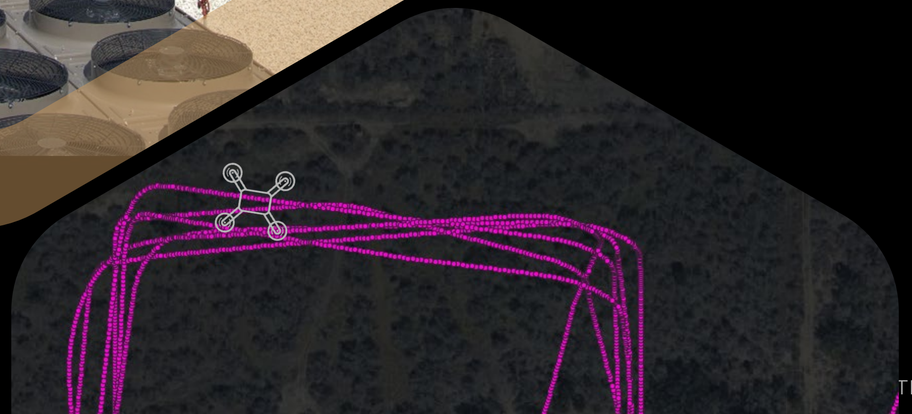
01 Test Card and Plan Development

Custom test card procedures per specific site & risk profile

- Incursion profiles
- Terrain masking
- EMF spoofing
- Hillshade exploitation
- Dynamic flight profiles
- Multi-aircraft scenarios (swarm)
- Night / low-visibility operations
- Obstacle / urban canyon environments
- Varying RF signature profiles

Test cards are reviewed, justified, and approved jointlyby Tactien and the customer prior to execution.

4. LIVE TESTING & DATA VALIDATION



Blind Red-Team on Tactien Terms 02

Vendors never know the aircraft type, flight path, frequency, or timing.

- Varying altitudes, speeds, and times of day
- Includes night ops.
- Multi-aircraft / simultaneous sorties
- Group 1 sUAS: multi-rotor, fixed-wing, VTOL, and custom (i.e., "dark drone") platforms
- Group 2 & 3 UAS available for advanced threat simulation
- Access to manned helicopter and fixed-wing assets if required

Flight Authorization & Competency

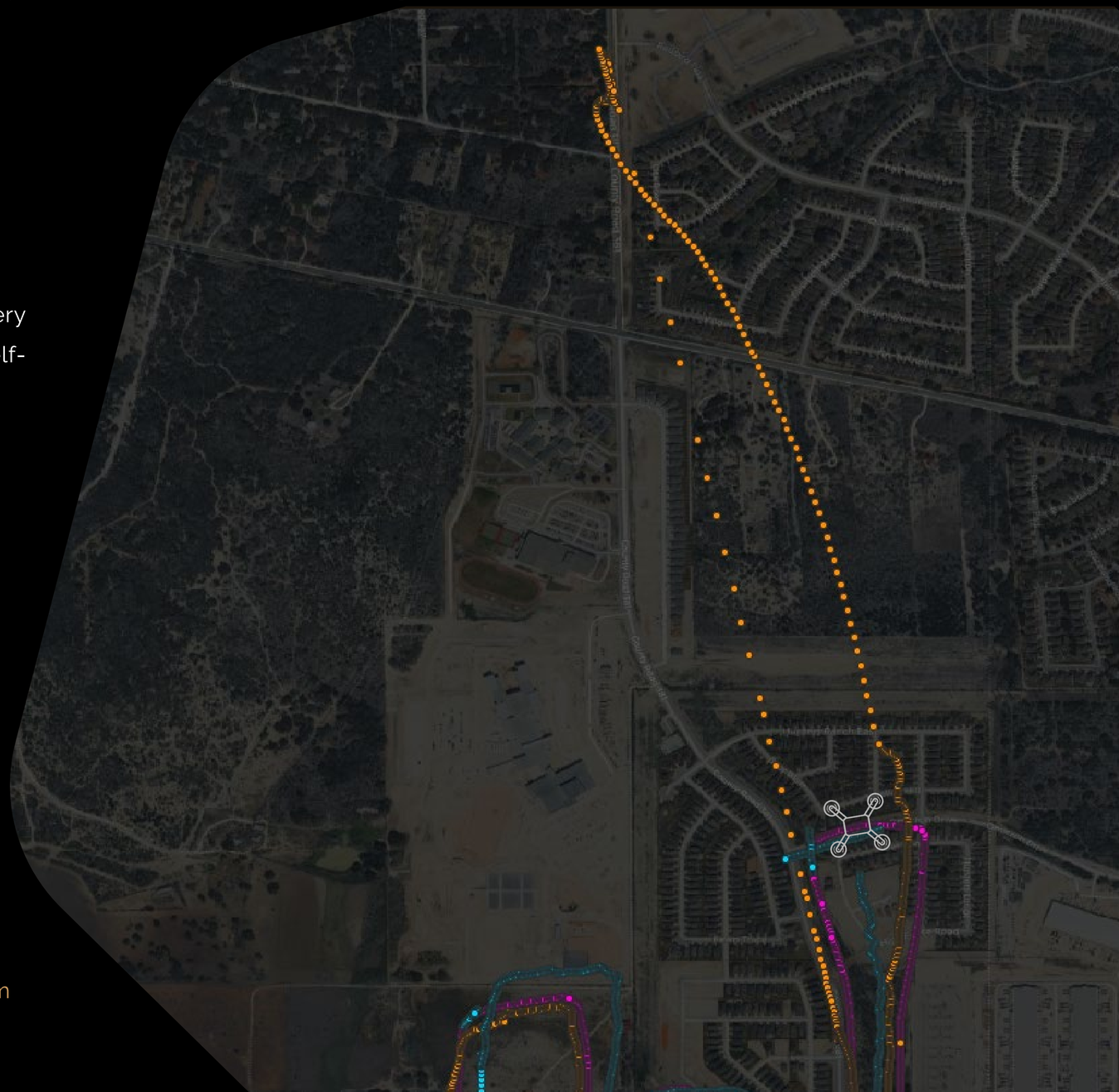
- FAA Part 107 certified pilots with complex airspace operational experience
- Part 91 COA and waiver experience, BVLOS, and controlled airspace
- Coordination with ATC, local authorities, and landowners as required
- All operations conducted under documented flight ops procedures with designated PIC and safety officer

03 Aircraft Telemetry = Truth

sUAS flight telemetry is the independent control. We cross-reference every vendor's detection output against Tactien-verified flight logs, eliminating vendor self-reporting bias and ensuring conclusions are based purely on objective data.

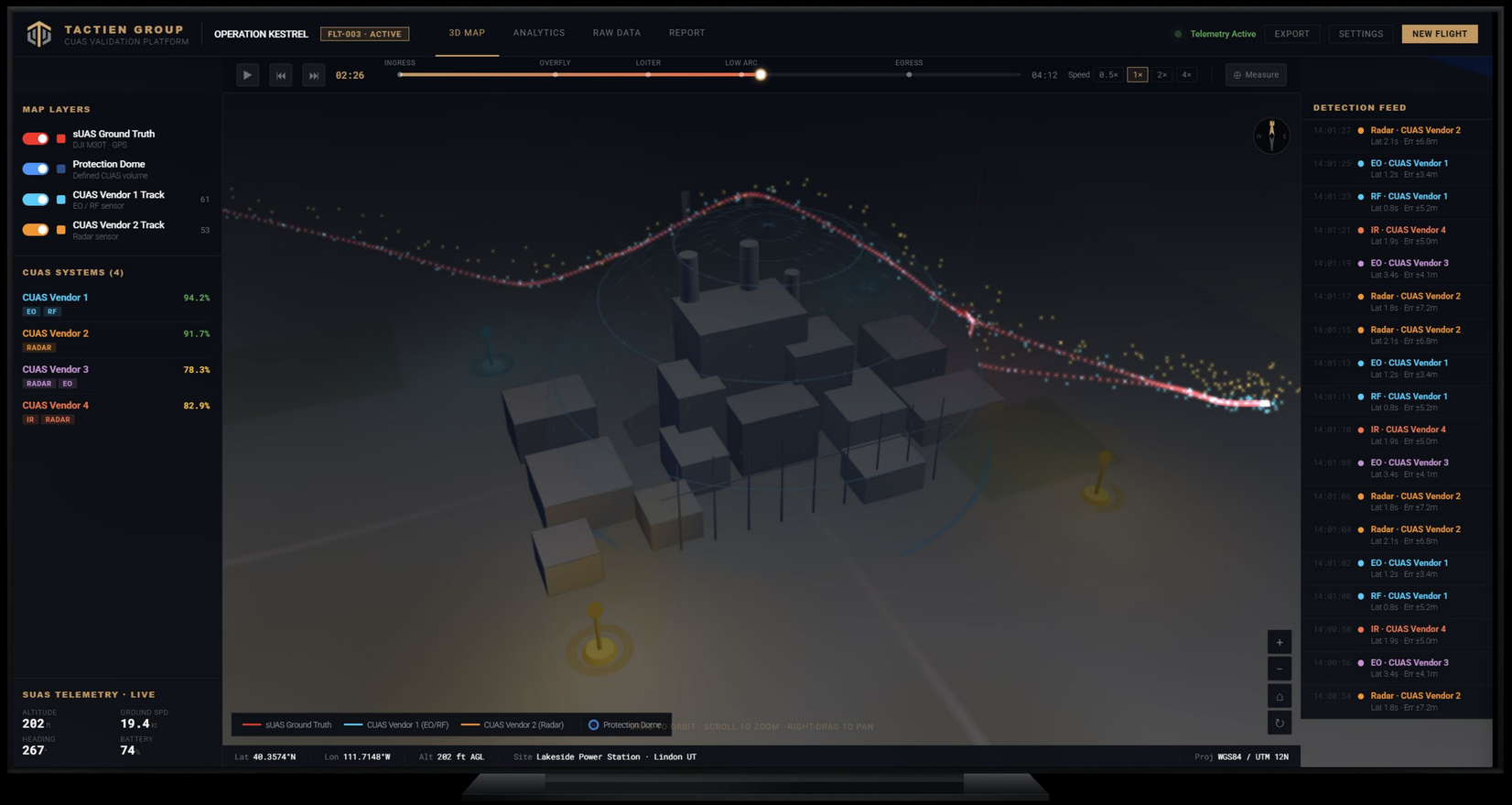
Methodology

- Aircraft GPS telemetry logged at high frequency, timestamped, and archived for every sortie
- Vendor tracking output collected independently and aligned to the same timeline
- Positional delta calculated at each telemetry point to measure detection accuracy (among other KPIs)
- False positives, track dropouts, and classification errors flagged against the flight record
- All data ingested into Tactien's analysis platform for scoring



No vendor sees the flight logs until after testing. Their system either perform well, or it did not.

4. LIVE TESTING & DATA VALIDATION



Quantitative KPI Scoring 04

Every flight generates a scored record. Tactien's platform ingests telemetry and sensor data from all vendors simultaneously, scoring each against a defined KPI framework, flight by flight, sensor by sensor.

KPI Methodology

- **Detection Rate (Pd)** — probability of detection per aircraft type and flight profile
- **Tracking Continuity** — percentage of flight time the target was continuously tracked
- **Positional Accuracy** — horizontal and vertical offset from ground truth telemetry
- **Latency** — time from aircraft entry to first valid detection alert
- **False Positive Rate** — unwarranted alerts generated against non-threat traffic
- **Classification Accuracy** — correct identification of aircraft type where applicable
- **Custom KPIs** — added per customer requirement at no additional scope change

Scores are calculated across all flights and aggregated into vendor scorecards, giving customers a quantitative, side-by-side comparison that quantifies the stress-test.

Quantitative Proof of Performance

Vendor Scorecards

Per-flight KPI scores for every vendor, ranked by performance category

Comparative Analytics

Side-by-side graphs showing exactly where Vendor A outperforms Vendor B (and why)

Site-Specific Assessment

Analysis of how the local RF environment, terrain, and interference affected performance

Detection Gaps Identified

Clear documentation of what each system missed, and under what conditions

Procurement Recommendation

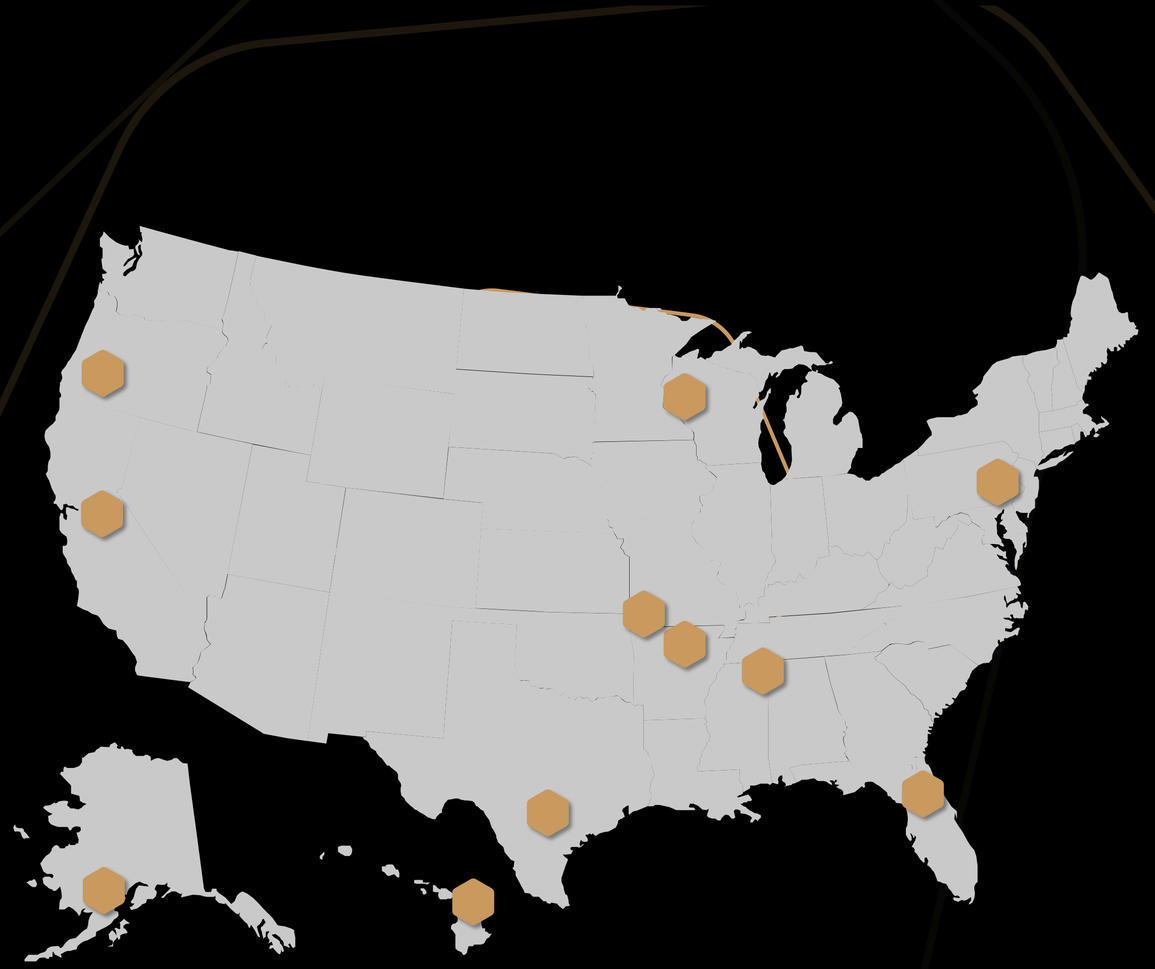
A single, data-backed vendor recommendation with full reasoning

DELIVERABLE VALUE

- ✓ Clarity on the CUAS vendor landscape
- ✓ Quantitative evidence to support and defend procurement decisions
- ✓ The best-fit vendor for their specific operational environment
- ✓ Documented proof that the selected system was tested under real conditions
- ✓ Protection against costly mistakes driven by vendor claims

ASSET-WIDE DEPLOYMENT

Validation findings drive the scaling strategy. Tactien delivers a site-by-site deployment roadmap tailored to the customer's risk profile, asset footprint, and budget, ensuring the right sensor mix at every location."



- **Scaling Strategy**— V&V findings inform sensor selection at each site. No two facilities carry the same risk profile. Tactien maps the right technology mix across your full asset footprint.
- **Sensor Layering**— Single-sensor solutions rarely cover every threat vector. Tactien's scaling roadmap identifies where RF, radar, acoustic, and EO/IR technologies complement each other across distributed locations.
- **Commissioning Support** — Tactien supports end-to-end commissioning, hardware installation, system integration, operator training, and performance verification, ensuring every site reaches full operational capability.
- **Ongoing Performance** — Post-commissioning, Tactien remains available for re-validation as the threat environment evolves, new assets come online, or system upgrades are introduced.
- **False Positive Rate** — unwarranted alerts generated against non-threat traffic

SUPPORT OPTIONS

LEVEL 1
EDUCATION & STRATEGY

- CUAS industry landscape overview
- Current capabilities & limitations
- Regulatory & operational context
- Requirements framework development

LEVEL 2
VALIDATION & SELECTION

- Everything in Level 1
- Tactien-managed red-team operations
- Side-by-side vendor testing on your assets
- Full Telemetry Analysis
- Vendor scorecards and KPI comparison

OUTCOME: DATA-BACKED PROCUREMENT DECISION

LEVEL 3
FULL PROGRAM INTEGRATION

- Everything in Level 2
- Commissioning, calibration & integration
- End-to-end project management
- Operator and staff training
- Multi-site scaling roadmap
- CUAS Company Response Plan & Policy
- Local, State, & Federal Agency Coordination

OUTCOME: FULLY OPERATIONAL CUAS PROGRAM

TACTIEN CUAS SME TEAM

NATE ERNST

FOUNDER/PRESIDENT
AIRBORNE TECHNOLOGY SUBJECT MATTER EXPERT (SME)

- 16 years experience – aviation technology for linear infrastructure
- Worked with the largest electric and O&G operators in the United States
- Special Projects – FAA, NASA, Defense Logistics Agency (DLA)/DOD

Aviation Operations Highlights

- UAS | Group 1-4 (up to 1,300 lbs.)
  - Some of the longest BVLOS operations in the United States (as of 2024)
  - Operations in 26,000 miles of Part 91 COA Airspace for BVLOS UAS Operations
  - FAA 44807 certification pursuit
- Helicopter | Single and Twin turbine
  - Inspection, ISR, Vegetation, Powerline Construction
- Fixed Wing | Single and Twin engine
  - ISR, Mapping, Patrol, Custom Sensor Capabilities

ED CELIANO

VP, STRATEGIC OPERATIONS
AVIATION TECHNOLOGY READINESS (SME)

35+ years' experience managing organizations focused on the delivery of products and services to the Department of Defense, Homeland Security, and various Federal Agencies. Ed's expertise is the management of complex multidisciplinary organizations and partnerships supporting the Department of Defense, federal agencies, industrial and academic partners. 30 years of experience directing vertically integrated engineering and support operations consisting of RDT&E, systems design, manufacturing, integration, test, and systems qualification.

In the private sector, Ed has a lengthy track record of UAS airspace integration. To date, Ed is responsible for facilitating 26,000 square miles of FAA-approved UAS airspace authorizations. In addition to working with dozens of Unmanned Aircraft Systems operating within his airspace designations, Ed's airspace has specifically facilitated hundreds of Category 3 UAS operations in 7 states. Ed is a corporate strategist and tactician with an unwavering work ethic and irreproachable integrity. Ed possesses a consistent track record of developing new clients and expanding existing revenue streams.

SCOTT PARKER

CUAS POLICY SME

Scott Parker advises critical infrastructure and public safety agencies on managing cyber and physical risks associated with unmanned aircraft systems (UAS). As an FAA Part 107-certified drone pilot, his work focuses on practical governance, preparedness, and incident response, helping organizations integrate aerial risk into broader security and risk management programs.Scott served in senior leadership roles at the Cybersecurity and Infrastructure Security Agency (CISA), most notably as Chief of UAS Security. In that role, he established and led the agency's first UAS security capability, coordinated national security flight restrictions over critical infrastructure, and helped shape national drone policy through interagency collaboration. His work included conducting vulnerability assessments, leading workshops to enhance security, and facilitating readiness exercises to test and strengthen preparedness and risk management efforts. Earlier, as Chief of Advanced Threats Security, he led national initiatives addressing the convergence of cyber-physical systems and autonomous vehicles and chaired interagency executive-level committees on soft target security.

He previously served 27 years in the U.S. Army and U.S. Special Operations Command.

ABOUT TACTIEN

The Full Stack of Advisory

TACTIEN IS A TEAM OF SPECIALIZED AVIATION SMES WHO WORK WITH INFRASTRUCTURE OPERATORS TO DESIGN, BUILD, AND SCALE AVIATION PROGRAMS BY BRINGING TOGETHER THE BEST CAPABILITIES ACROSS INDUSTRY.

Aviation Program Development
- Strategy & Scaling
- Use-Case Dev
- Regulatory Support
- Business Case Analysis

Ops Enablement
- CONOPS Dev
- Airspace Dev
- BVLOS Dev

Technology & Industry Vetting
- Aircraft/Tech Vetting
- Red Teaming / POC Validation

Operational Architecture
- Special Flight Operations
- Manned & Unmanned Integration

Program Execution
- SMS / SOP Development
- RFP Development

TACTIEN GROUP

Airborne Solution Assembly for Infrastructure

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