



**TACTIEN
GROUP**

VALOREM PER INTEGRITAS

VALUE THROUGH INTEGRITY

Proof of Concept



sUAS RFID for Asset Management



www.tactiengroup.com

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**sUAS-based RFID technology
for near real-time (nRT) asset
tracking**

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Introduction



Utility operations face a common challenge: asset management in large, complex lay-down yards. Spanning dozens of acres and containing thousands of near-identical assets, these sites are notoriously difficult to track with clipboards, spreadsheets, or out-dated legacy apps. The result? Lost productivity, idle labor, and costly project delays.

Tactien is committed to bringing innovative solutions to the utility sector—not by selling technology, but by validating it. Our role is to introduce promising concepts, oversee pilot testing, and most importantly, provide an independent, data-driven analysis of whether these tools are worth scaling. To further this mission, Tactien has partnered with an international asset tracking company to introduce a commercially-mature system to the industry, ensuring it is rigorously vetted and validated within real-world utility environments.

By leveraging advancements in both RFID tagging and small unmanned aircraft systems (sUAS), utilities can transition from reactive asset hunts to proactive, data-driven management strategies. This approach not only enhances visibility across sprawling laydown yards but also streamlines inventory audits, minimizes human error, and empowers teams to focus on higher-value tasks. The result is a smarter, safer, and more efficient operation that adapts to the evolving demands of modern infrastructure projects.

This collaboration enables utilities to evaluate proven technology solutions supported by global expertise, all under Tactien's independent oversight.

The POC



This proof of concept introduces a combined RFID + UAS (drone) asset tracking system. The project is designed to show how tagged assets can be scanned and mapped from the air and the ground, with results displayed on a GIS dashboard in near real-time

In a one-day demonstration, the process includes:



Blind Test Prep

Tagging a sample set of assets in the yard.



sUAS Deployment

Deploying UAS sweeps to detect and geolocate tagged assets.



Control/Validation

Conducting manual spot checks to validate system accuracy.



Near Real-Time (nrt) Deliverable

Delivering a live map and dashboard of asset movements.

This process allows utilities to see, firsthand, how this commercially available technology can reduce search times, prevent reschedules, and create persistent records that extend beyond construction phases.

Concept of Operations

Concept of Operations (CONOP)

- Safety Brief at Target Laydown Yard
- Tag 50-200 assets within yard (blind test to RFID company)
- Deploy sUAS for asset sweeping
- Manual spot checks for validation
- Data (location) capabilities discussion



OUTPUTS

- Live yard map with tagged assets
- Dashboard of detections and movements
- Same-day demo with summary and recommendations.

Request of Utility

- Access & Safety: Escort and gate access.
- Equipment: Forklift + operator, gate space for reader.
- Utilities: 120VAC power (or battery), optional hotspot.
- Info: Site map, safety rules, sample asset/PO list.
- Schedule: Backup weather day.



Independent ROI Analysis

What makes this approach unique is Tactien's independence. We have no financial incentive from the solution provider – an international company that has been producing infrastructure marking products for decades. Instead, we remain focused solely on the customer's best interest. As part of the POC exercise, the customer will receive an Independent ROI Analysis of the technology's performance.

The ROI deliverable includes:

- Operational KPIs (time saved locating assets, error reduction)
- Financial KPIs (labor savings, avoided crane reschedules)
- Scalability KPIs (effectiveness at full scale deployment)
- Side-by-side financial comparison with traditional methods
- Risk & sensitivity analysis to account for real-world variability
- Qualitative crew feedback on usability and safety



End-User Value

Utilities today are inundated with vendors claiming breakthrough technology. The challenge is not lack of innovation—it's lack of objective validation. By bringing structured, independent assessments into the mix, utilities gain confidence that the solutions they adopt are both feasible and financially justified.

This proof of concept is not about promoting a product. It's about proving whether the concept itself is viable. If the data supports it, utilities can scale with confidence. If not, they avoid wasted investments. Either way, the custom-



Better staging

Visualize congestion, plan deliveries, and picks.



GIS-ready

Direct fit into ArcGIS Survey123 and Field Maps.



Persistent data

Tag once during construction — same ID supports operations for years.



Stay on schedule

Right asset, right place, right time.



Save hours

Locate the right asset in minutes, not half a day.

FAQ

1. What qualifies Tactien to be my independent advisor?

Answer: Tactien's team brings decades of combined aviation and infrastructure experience, having led some of the largest unmanned and manned operations across the national airspace to date. Our credibility comes from being practitioners first—we've learned the difference between claims on a spec sheet and actual operational performance (the hard way).

2. Why does independence matter in a Proof of Concept?

Answer: Many technology providers are incentivized to push adoption regardless of fit. Tactien's independence ensures that our recommendations are unbiased, based solely on measurable ROI and operational feasibility for the utility.

3. What is the purpose of this Proof of Concept?

Answer: The pilot is designed to demonstrate how RFID combined with UAS can improve asset tracking efficiency, reduce lost productivity, and enhance visibility within utility laydown yards.

4. How does Tactien measure ROI in these projects?

Answer: We apply a structured framework that looks at operational KPIs (time savings, error reduction), financial KPIs (labor hours avoided, cost of delays prevented), and scalability KPIs (deployment efficiency, data integration readiness).

5. What happens if the technology doesn't prove ROI?

Answer: That's a win too. If the results do not support scaling, the utility avoids sunk costs and wasted investment. Our role is to deliver clarity, not to sell technology.

6. Will Tactien recommend scaling if results are positive?

Answer: Yes—if the data supports it. We provide a roadmap for how scaling could look, what financial impacts can be expected, and what risks must be managed. The decision always rests with the customer.

7. What does a one-day pilot project involve?

Answer: The process includes tagging sample assets, conducting drone sweeps for RFID detection, validating data accuracy with ground checks, and presenting results in a live dashboard—followed by ROI analysis and recommendations.

8. Does Tactien have any financial interest in the technology provider?

Answer: No. Tactien receives no commission, revenue share, or incentive from technology providers. Our only obligation is to deliver unbiased recommendations to the end-user.

9. How does this benefit my team in the field?

Answer: Crews save significant time locating assets, avoid costly delays, and gain better situational awareness through real-time dashboards that replace manual searching and paperwork.

10. How do I engage Tactien for a Proof of Concept?

Answer: Simply reach out to our team. We'll work with you to scope a pilot tailored to your yard operations, oversee execution, and deliver an independent ROI analysis that helps you make the right decision for your organization.

11. Can Tactien's services be tailored to my organization's unique needs?

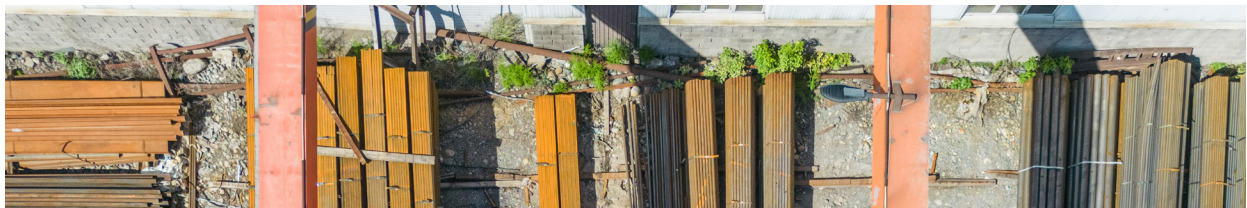
Answer: Absolutely. Every utility and infrastructure operation is different. We take the time to listen, understand your distinct challenges, and craft solutions—whether in CONOPS design, regulatory compliance, or training—that are customized for your organizational goals.



Contact

Tactien exists to bridge the gap between technology hype and operational reality. If your organization is considering new approaches to asset management—or wants to explore the potential of drone-enabled, RFID-based inventory tracking—reach out to our team. We'll design a proof of concept, evaluate it objectively, and deliver an unbiased ROI analysis tailored to your operations.

Because at the end of the day, innovation only matters if it works for you.



GET IN TOUCH WITH US.

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