SPA
SYSTEMS PLANNING & ANALYSIS

RED 6
AN SPA COMPANY

Stay Ahead of the Threat

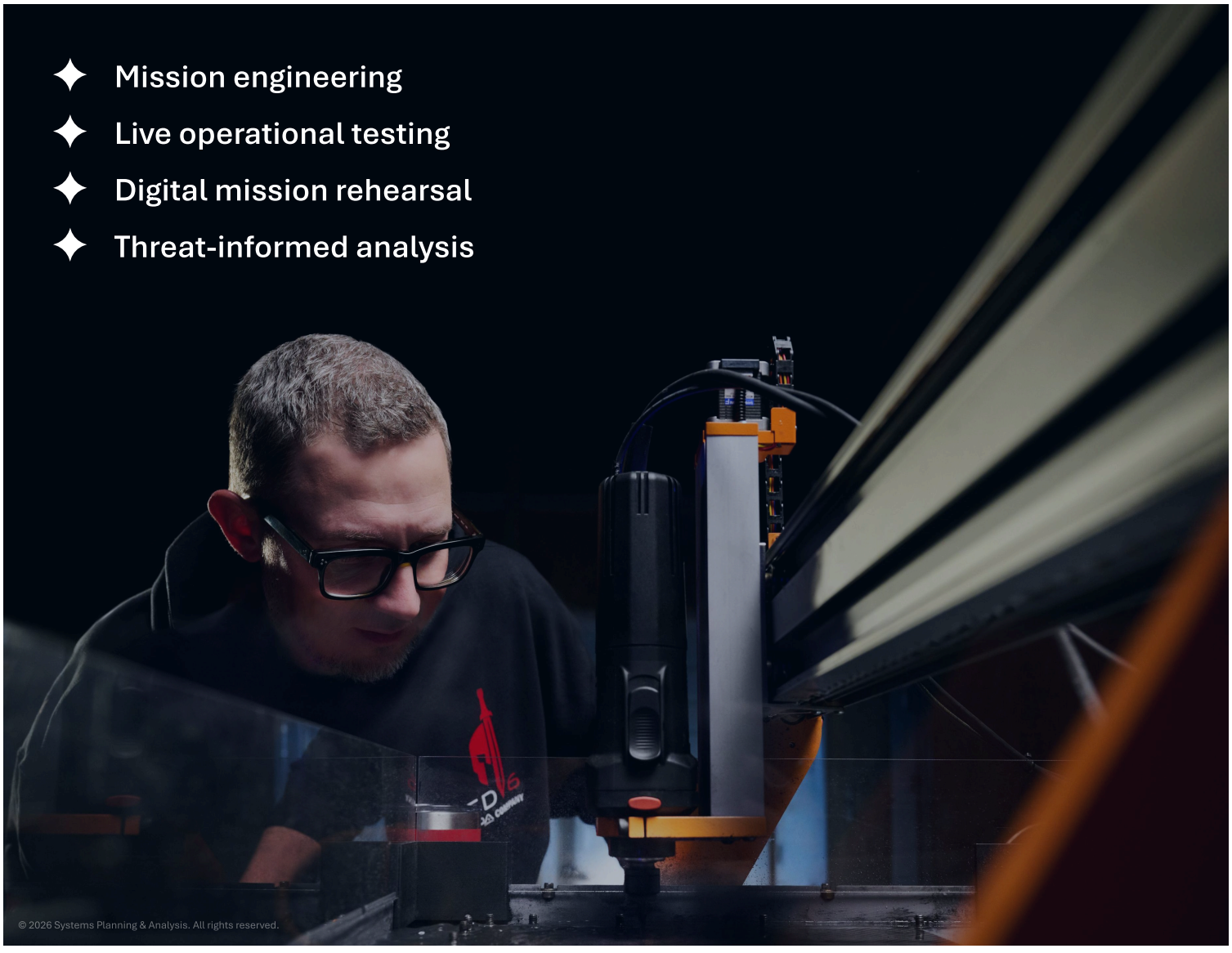
Full Lifecycle Counter-UAS Mission Assurance

Trusted across defense, homeland security, and critical infrastructure mission environments.

Unmanned aircraft systems are evolving at a breakneck pace.

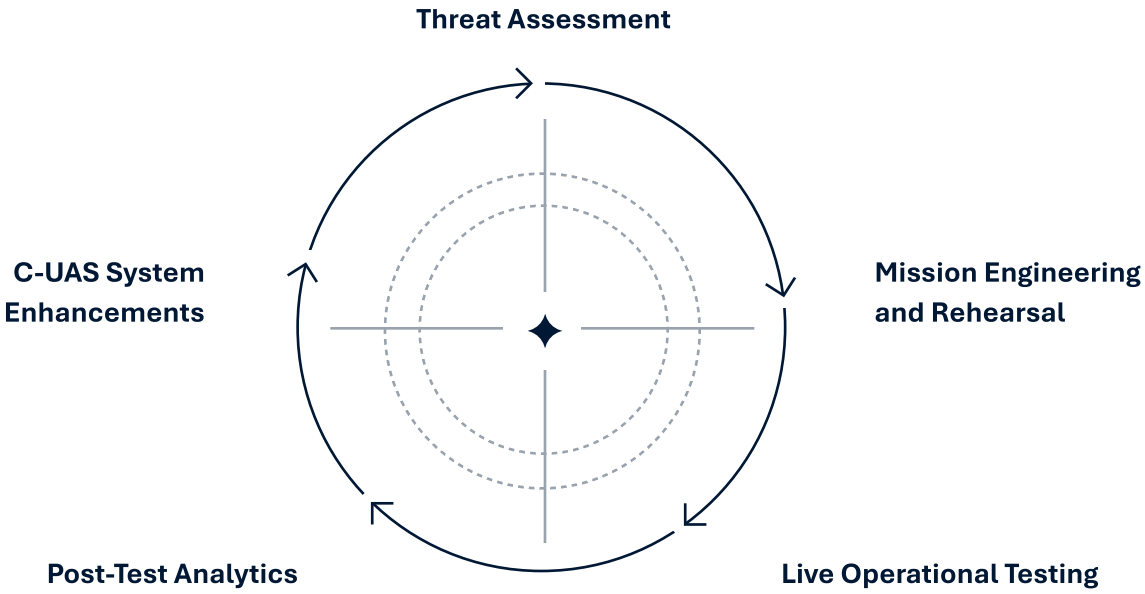
Solutions that worked even months ago may not be sufficient to counter the latest threats on their own. New threats, tactics, and technologies emerge constantly, while many counter-UAS solutions are still evaluated in controlled environments far removed from operational reality.

There is no single technical solution to the drone threat. Systems Planning & Analysis (SPA), together with Red Six, an SPA Company, delivers full lifecycle counter-UAS mission assurance to expose vulnerabilities and improve layered defenses through:



Operationalizing Layered Defense

SPA delivers integrated mission engineering, mission rehearsal, live operational testing, and threat-informed analytics to evaluate and improve layered counter-UAS defenses.



Threat-Informed Analysis

Monitor evolving UAS threats and identify operational vulnerabilities before adversaries exploit them.

Mission Engineering and Rehearsal

Design layered defenses, develop mission plans and concepts of operation, rehearse missions, and refine operational decisions before deployment.

Operational Testing and Red Teaming

Stress-test defenses against adversary-representative drones, realistic tactics, and multi-model swarm scenarios.

C-UAS System Enhancements

Apply insights from operational testing and analytics to refine layered defense laydowns, optimize technology selection, inform future planning, advance training, and improve mission readiness.

SPA Red Six Mission Assurance Program (MAP)

SPA established the Red Six Mission Assurance Program (MAP) to deliver realistic operational testing, advanced threat emulation, and mission assurance through live adversarial flights.

Developed by Red Six, an SPA company, the Red Six MAP brings together expert UAS pilots, technologists, and analysts with modeling, simulation, and mission assurance capabilities to anticipate evolving threats, expose vulnerabilities, and improve operational readiness before real-world engagements occur.

Operational Realism Beyond Vendor Demonstrations

Red Six MAP pilots bring tactics and representative UAS threats directly to client sites to stress-test defenses before real-world operations expose vulnerabilities. Using adversary-representative drones, multi-model swarm tactics, and realistic flight profiles, the team identifies capability gaps in individual C-UAS performance or layered drone defenses and provides the data that allows the gaps to be quickly filled.

Red Six MAP Capabilities

- Red team UAS flight support across Group 1-3 platforms, including high-speed jet-powered platforms
- Custom heterogeneous swarms of any number of aircraft
- Critical site vulnerability assessments
- Threat intelligence and monthly UAS incident reporting
- Tabletop exercises and operational planning support
- Drone incident response and forensics training
- Specialized Counter-UAS training and courses
- Custom UAS solutions

Proven Operational Experience

400+

Government and commercial tests, evaluations, and demonstrations supported

300+

C-UAS systems tested

600 years

Combined flight experience across Red Six personnel

SPA Red Six Mission Assurance Center (MAC)

The Mission Assurance Center (MAC) is a physical innovation hub and threat prototyping center supporting the Red Six Mission Assurance Program.

The MAC serves as the headquarters of the Red Six MAP, bringing together innovators, engineers, operators, and analysts to develop representative threat technologies, support mission planning, and strengthen counter-UAS capabilities.

Advancing Threat Realism Through Rapid Innovation

The Red Six MAC combines modern technologies, operational expertise, and development capabilities to rapidly prototype emerging threats and advance threat emulation capabilities from concept development through testing and fielding.

MAC Capabilities

Aircraft Fabrication and Modification

Large-scale threat emulation platform development

Prototyping and Engineering Workspaces

Secure digital engineering, modeling, simulation, and analytics environments

Custom and Commercial UAS Integration

Mission planning and counter-UAS strategy support

Staying Ahead of the Threat

Modern counter-UAS readiness requires continuous adaptation informed by mission engineering, threat intelligence, operational testing, and strategic planning.

SPA delivers integrated counter-UAS mission assurance designed to expose vulnerabilities and strengthen layered defenses from strategy and planning through operational testing and continuous capability improvement.

Red Six UAS

SPA maintains a diverse fleet of Group 1-3 unmanned aircraft systems designed to support threat emulation, sensor stimulation, operational testing, and air and missile defense evaluation. These platforms enable realistic replication of emerging threats across a wide range of mission environments.

The platforms featured below represent a selection of Red Six's advanced UAS capabilities.

Group 1 UAS

Menace

Precision Target Drone

The Red Six Menace is a Group 1 multirotor UAV engineered as a rugged, cost-effective target drone for C-UAS testing and training. Built for sustained use in high-tempo environments and purpose-built for scalable threat emulation, sensor stimulation, and live-fire exercises, the Menace delivers a dependable, repeatable solution for government and commercial users in demanding test environments.

Dimensions	495 mm motor-to-motor
Weight	4 lb.
Max Indicated Airspeed	35 mph
Flight Time	25-30 min.
Max Flight Range	3.5 mi.
Payload Capacity	2 lb.
Max Flight Time – Full Payload	12-18 min.

Group 2 UAS

Kraken

Threat Emulation Platform

The Red Six Kraken is a Group 2 multirotor UAV designed to replicate larger and more capable drone threats in operationally realistic environments. Built for sensor evaluation, live-fire testing, and high-tempo threat emulation, the Kraken bridges the gap between lightweight multirotor targets and larger fixed-wing systems.

Dimensions	-
Weight	24 lb. (empty)
Max Indicated Airspeed	35 mph
Flight Time	40-45 min.
Max Flight Range	8 mi.
Payload Capacity	20 lb.
Max Flight Time – Full Payload	-

Group 3 UAS

Nemesis 320

High-Speed Jet Threat Emulator

The Red Six Nemesis 320 is a jet-powered Group 3 UAV engineered to replicate high-speed aerial threats for C-UAS and air and missile defense testing. Designed for extended-range operations and realistic threat emulation, the Nemesis 320 supports evaluation of advanced sensors, intercept systems, and layered defenses.

Dimensions	Length: 130 in. Width: 118 in. Height: 37⅞ in.
Weight	155 lb.
Max Indicated Airspeed	217 KIAS (250 mph)
Flight Time	50 min.
Max Flight Range	25 mi.
Payload Capacity	15 lb.
Max Flight Time – Full Payload	-

Group 3 UAS

Banzai

Cruise Missile Surrogate

The Red Six Banzai is a twin-jet Group 3 UAV engineered to emulate high-speed cruise missile threats in operational test environments. Designed for air and missile defense testing, the platform provides realistic speed, maneuverability, and threat-representative flight profiles for advanced system evaluation.

Dimensions	Length: 12.5’ ft. Width: 6.7’ ft. Height: -
Weight	180 lb.
Max Indicated Airspeed	348 KIAS (400 mph)
Flight Time	45 min.
Max Flight Range	-
Payload Capacity	15 lb.
Max Flight Time – Full Payload	-

Explore the Full Portfolio

The platforms here represent only a portion of SPA's counter-UAS portfolio. Contact the team to learn more about the full portfolio and discuss mission-specific requirements.

For more information, email: RedSixInfo@spa.com.

spa.com/cuas

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