SELECTION NOTICE —

ORBITA™ x SR///// MOJAVE ARES

(Accelerated Response Environment for Space)

Program Structure – Hackathon-style contracting sprint 15 Tiger Teams (9 AdvMan, 6 AI)

FRI, SAT, SUN **NOV 7, 8, 9 2025** 8:30 am - 5:30 pm

Mojave Air and Space Port (MASP), 1434 Flightline, Mojave, CA 93501

Issued by **SpaceReturn///// The California Space Cluster™ www.spacereturn.org**

In partnership with **Rakar Aerospace**, **Melrose INC**, and **Mojave Air and Space Port (MASP)**

By Invitation and Referral **ONLY**

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EVENT REGISTRATION LINK

Cost: $0 for approved Teams/ Individuals

Registration: $100.00 per company (5 individuals) or $50.00 per Individual

Travel and lodging: Own Cost

Prepared Members Only - SpaceReturn///// The California Space Cluster

INDUSTRY BACKGROUND The space economy is expanding fast, but U.S. advantage is lagging on **launch cadence, proliferated architectures, and counterspace resilience**—areas where competitors are accelerating.

ORBITA x SR///// MOJAVE ARES prioritizes projects that translate lift into deterrence and service continuity guided by the end users.

Market pressure is real.
The global space economy reached **$613B in 2024** with record launch tempo, raising the execution bar for U.S. programs. Space Foundation

Adversary launch pace.
China targeted **~100 launches in 2024**, signaling industrial depth and tempo advantages with dual-use implications. China Daily+1

U.S. cadence is moving—but must translate to resilience.
SpaceX's surge in 2024–2025 improved U.S. lift capacity; the strategic question is **how quickly** we convert lift into **fielded, resilient constellations** and logistics. NASASpaceFlight.com+1

Counterspace risk is rising.
Open-source assessments document expanding **jamming/spoofing, DA-ASAT, co-orbital RPO**, and debris-creating behaviors by major powers. U.S. constellations must assume a **contested spectrum and orbital environment**. CSIS+1

Proliferation is U.S. doctrine.
DoD's **PWSA** pushes **hundreds of optically linked LEO satellites**, spiraling capability every ~2 years—shifting from few exquisite targets to **many interoperable nodes**. Suppliers who can build to this model win. SDA

Budget signals align.
FY25 space budget analysis shows a continued pivot toward **"proliferated sets of lower-complexity satellites"** and away from single high-value assets—rewarding **rapid, modular small-sat bus** suppliers. csps.aerospace.org

Environment risk is non-trivial.
ESA's 2025 debris report flags dense LEO shells (≈550 km) where **debris densities approach active satellite counts**, raising the bar for **SSA, maneuver, and cyber-safe ops**. European Space Agency

OPPORTUNITY 1

ESSCA II

(NASA 2.2B Contract Opportunity with Small Business Set Asides)

Engineering augmentation,

Hypersonic defense enablers,

USSF small/medium bus architectures for proliferated LEO, and

AI/ML for **M&S** and **radiation-tolerant edge autonomy**.

Your company is **selected** for **ORBITA X SR///// Mojave ARES**

3-day HACKATHON-STYLE CONTRACTING SPRINT with **NASA & DoD end-user input**

The sprint is **timed to NASA's ESSCA II window** to convert capability into **file-ready packages**.

Schedule & Venue

Fri–Sun, Nov 7–9, 2025

8:30 AM–5:30 PM (doors 8:20)

Stuart O. Witt Event Center

Mojave Air & Space Port —

(MASP1434 Flightline Mojave, CA 93501)

SpaceReturn///// The California Space Cluster Approach

RESPONSIVE DEEP TECH FOR DYNAMIC ENVIRONMENTS IN SPACE

Agile dual-use solutions for critical and complex requirements.

We created the first North American Space Industry Cluster to **guide U.S. small businesses into low-risk, high-reward projects** with small-business set-asides or sole-source opportunities within the domestic ecosystem—by addressing three blockers: **lack of qualified workforce**, **access to capital**, and **transition to advanced manufacturing**. Our role is to connect directly with end-user needs and close the production gap—moving qualified small businesses from capability to contract-ready execution in lanes where output and tempo determine advantage. This model reduces time-to-file and enforces chain-of-custody and compliance at production speed.

TECH FOCUS

ESSCA II (NASA/MSFC 2.2 Billion Dollar NASA CONTRACT):

systems engineering; payload/test; **AI/ML for M&S & autonomy**; flight software/GNC; ground systems; I&V; mission assurance; cyber/compliance.

Hypersonic interceptor / counter-hypersonics (DoD/MDA/USAF/USN):

high-G GNC; seeker/sensor fusion (RF/IR); **advanced materials & TPS**; propulsion/booster integration;

HWIL/flight test; **digital engineering/MBSE**; C2/kill-chain interfaces.

USSF space-bus technology: small/medium buses (tactical/ESPA+); power/thermal/avionics/ADCS; in-space propulsion; **rad-tolerant compute & AI at the edge**; cyber-hardening; rapid integration for responsive launch.

Capability and Capacity Participant baseline (preferred/ not compulsory): TRL 5+ in at least one lane; AS9100 (or ISO 9001→AS9100 plan); ITAR/EAR-aware; NIST 800-171 / CMMC L2 path; named Program Lead + Cost/BOE POC; delivery signals (SBIR/STTR, OTA, task orders, prime subs, or relevant flight/test).

Cluster compliance umbrella: For accepted projects, SpaceReturn///// provides the AS9100-aligned QMS, NIST 800-171/CMMC L2–aligned controls, ITAR/EAR handling, Secure Data Vault, and submission-integrator role—so teams without full certifications can operate under Cluster governance for the project scope without delaying submission.

Access, capacity, and cost

Small businesses only by invitation or referral,
15 Tiger Teams, up to 9 people each (2–3 companies/team)
Program fee: $0 Application/registration (non-refundable) : $100 per company $50 Individual
Travel & lodging in Mojave: participant responsibility

EVENT REGISTRATION LINK

Legal & Governance (summary)

No guarantee of award. Participation does not assure selection, teaming, or contract.

Federal status. Industry-hosted; any federal participation is **official and non-endorsement** (no agency logos).

Fees. Application fee only: $100/company or **$50/individual** (non-refundable). **Program fee: $0** for accepted participants.

Custody & submission. Proposals and work product remain in **Cluster custody** (Secure Data Vault) until **submission, award/contract, or formal end-user follow-up**. **SpaceReturn** (prime integrator) compiles, finalizes, and **submits on your behalf**.

IP. Background IP stays with contributors. **New IP created within a specific ORBITA project** is **managed by the Cluster and shared only with that project's participants**; cross-project rights do not apply. Cluster-wide collaborations will have **pre-disclosed terms**.

Compliance umbrella. Participants lacking full certifications (AS9100; NIST 800-171/CMMC L2; ITAR/EAR workflows) **operate under the Cluster's compliance framework** for the project scope.

Security posture. ORBITA runs as a **controlled, unclassified, ITAR-restricted** environment; the Cluster can **escalate to a classified facility** if required.

Schedule contingencies. Timing may shift due to facilities, range, appropriations, or **government-shutdown** events.

Liability. Organizers disclaim indirect/consequential damages to the fullest extent permitted by law. Participation is subject to NDA, Export-Control Acknowledgment, Participation Terms, project-specific IP Appendix, and any Teaming/Subcontract/NewCo agreements

Full legal terms: www.spacereturn.org/orbitamojave

Apply: EVENT REGISTRATION LINK

Accept your seat (24–72h hold)

Reply **“ACCEPT — ORBITA”** to lock your pod and receive calendar + pre-reads, or confirm at
EVENT REGISTRATION LINK

by **October 22, 2025**.

If you can’t attend, **nominate a delegate** (name, title, email).
Note: Once pods fill, we move to the **waitlist**; seats backfill rapidly.

Your participation and support is appreciated,
The Team at Space Return///// The California Space Cluster

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SR///// CAPABILITY STATEMENT LINK
SR///// BY LAWS
SR///// MEMBERSHIP APPLICATION (NO COST/ NO OBLIGATION)