INTERMODAL SPACE

Smart endpoints. Minimal-electronics containers. Receiver does the work.

Michael E. Onofre, Founder · intermodal.space · contact@intermodal.space **Pre-Seed · April 2026**

The problem

In-space logistics today makes every shipment pay for a vehicle it throws away. Dragon cargo flies at ~$45K/kg to a single destination. Last-mile tugs (Momentus, Impulse, D-Orbit) charge $10–30K/kg and run on month-long cadences. Every 10 kg box brings 150 kg of propulsion, avionics, and guidance with it — and that vehicle flies once, for one customer.

The solution

Intermodal Space concentrates the intelligence in two fixed orbital endpoints — a Hub and a Receiver — and makes the thing in between a lightweight, mostly-passive container that carries only a position beacon, minimal trim propulsion, and a small solar array. The Hub ejects the container with a precise prograde pulse sized to d/(3T); the container coasts ballistically around a closed Hill ellipse and broadcasts its state continuously; the Receiver fuses that broadcast with its own state, actively maneuvers to match the terminal approach vector, and captures the container via a deployable linear glide rail that absorbs residual velocity with an eddy-current magnetic brake and locks it mechanically at the end of travel. Three elements: HUB-1 MERIDIAN (smart dispatch), CARRIER-1 PALLET (beacon-and-solar container), CATCHER-1 APEX (smart active receiver).

Does the physics work

Yes. A full Clohessy–Wiltshire derivation and a 10,000-trial Monte Carlo propagation are reproducible in the accompanying Python notebook. For a 100 km along-track transfer, a 5.87 m/s prograde pulse delivers the container to the Receiver in exactly one Hub period (94.6 min) with a 3σ miss of ~36 m and a 99.9% capture rate inside a 40 m funnel. The dominant error sources are release Δv magnitude and Hub velocity knowledge — both mechanical / sensor tolerance problems with clear engineering paths to the 0.5 mm/s regime used in the budget.

Why now

Four commercial stations are funded (Axiom Space, Starlab, Orbital Reef, Vast). 30,000+ LEO satellites projected by 2030. In-space manufacturing (Varda, Sierra Space) shipping product on recurring schedules. None has a recurring containerized logistics option. Kurs Orbital is the closest adjacent player — and their architecture (active rendezvous tugs) is complementary, not competitive. Launch costs have collapsed enough that deploying a Hub is now a Series A envelope, not a Series C envelope.

Where we are today

TRL 2, moving to TRL 3 by Q4 2027 on a lean operating plan. Completed: technical thesis, 10-page white paper v1, reproducible trajectory notebook, subsystem architecture design, competitive analysis, 75+ investor map, brand and domain live. In flight: Delaware C-Corp formation, whitepaper v2 with cis-lunar kick-mechanism and full subsystem design-out, NASA SBIR Phase I Q3 submission, Techstars Space 2027 application.

THE ASK

$50K pre-seed SAFE

$25K floor · $100K ceiling
24-month runway (plan + contingency)
Post-money cap: $6M · discount 20%
Lean operating plan. Built to work with or without a co-founder.

FOUNDER

Michael E. Onofre

Founder & CEO. Applied AI operator (ASU).
Author of the Intermodal Space white paper, the Monte Carlo trajectory simulation, and the full subsystem design-out. Owns thesis, narrative, investor pipeline, SBIR strategy, legal formation, brand.
Built to run lean through pre-seed and to grow fast the moment real capital or the right technical partner lands.

The box is the innovation — not the ship.