

RPPI Futures: A New Tool for Pricing and Risk Management in Launch Markets

Rocket Payload Price Index (RPPI) — rppi.space

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Last Updated: January 22, 2026

Launch services are a foundational input to the satellite economy, but pricing and availability are difficult to hedge. Capacity is forward-booked, the service is heterogeneous (orbit, schedule, integration scope), and supply shocks (vehicle anomalies, manifest disruptions, regulatory or geopolitical events) can cause discrete jumps in effective USD/kg costs.

RPPI Futures are cash-settled financial contracts referenced to the **Rocket Payload Price Index (RPPI)**, a booking-price benchmark published by rppi.space. The goal is to enable price discovery and risk transfer for the standardized cost of orbital freight without requiring physical delivery of launch services.

RPPI Anchor (v1)

Symbol:	RPPI-SSO-RS-6x12
Unit:	USD/kg (booking price)
Hub:	500–600 km SSO, 97–98° incl.
Grade:	RS (Rideshare Standard)
Lead-time:	6–12 months from booking acceptance to expected separation window

1 Market Need

Satellite operators and mission teams must procure launch capacity long before their missions generate revenue. At the same time, the effective USD/kg booking price of capacity can change due to shifts in supply (vehicle availability, manifest composition, launch cadence) and demand (constellation deployments, defense demand, and mission timing).

Launch providers, brokers, and integrators face the opposite risk: heavy fixed investment in vehicles, integration infrastructure, and launch operations, while booking prices can fall as new capacity enters or as demand shifts. These asymmetric risks create a need for transparent benchmarks and financial instruments that allow participants to hedge forward costs or revenues.

2 Value for Buyers

Buyers of RPPI Futures are market participants naturally exposed to launch prices, including satellite operators, constellation programs, managed procurement services, and compute/EO/communications companies with recurring launch needs. These buyers want certainty around forward launch budgets and bid pricing, and they seek protection against cost spikes that can compress margins or force program delays.

Catalysts that can keep USD/kg booking prices elevated include:

- Vehicle downtime or grounding events that temporarily reduce supply.
- Manifest delays that compress availability into fewer near-term windows.
- Demand surges from large constellation deployments or time-sensitive missions.
- Supply chain or geopolitical disruptions affecting launch cadence or components.

Rather than over-committing to bespoke long-term contracts or bearing the full risk of volatile booking prices, buyers can go long RPPI Futures to lock in an effective forward USD/kg rate for a standardized service grade. They retain flexibility to procure launches opportunistically while keeping budget outcomes within predictable ranges.

3 Value for Sellers

Sellers of RPPI Futures include launch providers and resellers whose revenues are sensitive to booking-price levels, as well as brokers and integrators that intermediate capacity. By shorting RPPI Futures, sellers can lock in forward revenue levels, stabilize cash flows, and support financing for fleet expansion or infrastructure.

Financiers and lenders underwriting launch-related projects can also benefit: hedged revenue streams can improve credit profiles and reduce the cost of capital. Organizations with long-term launch commitments may use futures as a financial hedge for the economic value of those commitments when resale or reallocation is constrained.

4 How Cash-Settled RPPI Futures Work

RPPI Futures mirror the structure of traditional futures while adapting to the forward-booked nature of launch. Each contract references an RPPI index series (e.g., RPPI-SS0-RS-6x12) that reflects the current booking-market value of a standardized kilogram of payload capacity for a defined hub, grade, and lead-time bucket. RPPI is derived from validated market observations (executed bookings and firm quotes) and is published as a daily fix with transparent status flags.

To open a position, market participants post initial margin into a margin account (set by the venue and expected to be conservative in early-stage markets). Positions are marked-to-market at a defined cadence using the current RPPI index level, and variation margin is exchanged through a neutral clearinghouse or third-party custodian to reduce counterparty exposure. If losses reduce an account below a maintenance threshold, additional margin may be required to maintain the position.

Positions can be opened, closed, or rolled forward subject to market liquidity. At expiration, settlement occurs in cash: counterparties exchange the difference between (1) the arithmetic average of RPPI daily fixes over the contract period and (2) the contracted trade price, multiplied by the contract's kilogram notional. Physical delivery of launch services is not required.

This framework can provide price discovery, liquidity, and hedging for orbital freight costs without requiring standardized physical delivery in a heterogeneous service market.

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