

The Launch-Range Resilience Decision Gap

Why the most important question about Cape Canaveral isn't about a wall.

We're Asking the Wrong Question

Every conversation about protecting Cape Canaveral from rising seas starts the same way: "How high does the wall need to be?"

It's the wrong question. The right one is: **"How much assured access to space do we buy per dollar — and which resilience architecture actually survives the next 50 years of water?"**

A seawall is a single point of failure. The ocean doesn't have to climb it — it only has to outlast it. We don't engineer anything else this way. We don't run a single data center and call it resilient. We don't route all network traffic through one cable. Yet we treat the nation's primary launch range as a fixed asset to be walled off, rather than a launch capability to be distributed.

The Gap Nobody Is Filling

The Department of Defense already mandates sea-level scenarios for its coastal installations through the Regional Sea Level (DRSL) framework. Installation planners know their exposure. What they don't have is a way to compare hardening, distributing, and relocating a launch range on the only three metrics that matter at budget time: lifecycle cost, mission availability under uncertainty, and resilience across a 50-year planning horizon.

That gap is where billion-dollar decisions get made by whoever argues loudest. The result is a debate about walls when the real conversation should be about **assured-access-per-dollar — a score, not an opinion.**

What a Defensible Answer Looks Like

A decision engine that scores competing resilience architectures against the same mandated scenarios would let a program officer answer, with evidence:

- Does \$400M in distributed launch buy more assured access than \$400M in hardened seawall?
- At what point does the cost of delaying a decision exceed the cost of picking any option today?
- Which architecture portfolio still works if the worst-case DRSL scenario materializes by 2060?

These are answerable questions. The data exists. The gap is the model that connects them.

Why This Is Urgent (and Not Because We Said So)

Construction costs compound — and in the specialized coastal and marine construction market, escalation has run well above the general building index. Every year of delay quietly removes the lower-cost architectures from the menu: an option that could be permitted and built today costs meaningfully more for each year it waits, and a sea-based option with a multi-year development cycle simply can't be in the water when you need it if you start the clock late.

The expensive part isn't acting. It's deciding late — after escalation has compounded and the cheapest options have already dropped off the table. Indecision isn't free. It's just an invoice that arrives later.

Who We Are and Why We're Saying This

MilkyWayEconomy is an economics advisory firm. We model infrastructure cost and risk — including the public cost estimates for protecting Cape Canaveral that have circulated in the space community. We hold an active federal research relationship in this domain. We don't sell a wall. We don't sell a launch platform. We build the decision models that let someone else build the right thing.

This brief is the public version of a conversation we think the space-launch community needs to have. No proprietary data. No scare numbers. Just the argument — and an open invitation to debate it.

Read the framework or open the debate with us → official@milkywayeconomy.com