

# OPINION

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## Aerospace & defense: a quiet but potent part of the region's economy



**JOSHUA  
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As the moon eclipses the sun in a stellar northeast spectacular predicted for April 8, Long Islanders can pause and honor the event, for our legacy is forever on the lunar surface: the Grumman lunar module. And it is now possible that Grumman's 21st century corporate evolution may return to the moon with, of all things, a lunar railroad.

The nation's research arm, the Defense Advanced Research Projects Agency, has selected Northrop Grumman to study a concept that would see a railroad constructed on the moon that could transport astronauts, supplies, raw materials and other cargo from one point to another.

Northrop Grumman's study contract is part of a much larger envisioning of what a lunar base might look like a decade from now as private ventures such as Space X and Blue Horizon hope to plant their corporate flags on the moon.

The historic archives are full of imaginative lunar plans drafted by Long Islanders who worked for Grumman when it was awarded the NASA contract to design and build the LM in 1962. At the time, Grumman beat out eight other firms to win that contract. Some 3,000 Grumman engineers and more than 7,000 people would build more

than a dozen lunar modules. Not all of them made it to the moon, and one example is, appropriately, on permanent display at the Cradle of Aviation.

Today's Northrop Grumman says its engineers will consider how a lunar railroad might be built using autonomous robotic arms and lunar rovers. One suspects they could take a clue from how the LIRR's Third Track was completed in 2023, on time and on budget, albeit without the use of artificial intelligence or robots. Researchers will examine the potential of using lunar rock as ballast, how best to prepare the track's foundation, along with how to place, align, join, inspect and repair those tracks. If you think the LIRR's Long Beach branch has unique challenges, just think about the enormous trials that will face those operating on the lunar surface. Much like the Grumman engineers of the 1960s, no one has ever been challenged in this manner, but Northrop Grumman has inherited an essential part of the Grumman corporate culture of creating space innovation from a blank piece of paper.

Which is why Northrop Grumman is still a Long Island company to watch. No longer the employer of tens of thousands, its research facility in Ronkonkoma is very much on the radar of the Department of Defense as this is where the company is exploring scramjet technology designed to boost various weapons in our nation's arsenal into hypersonic speed.

Their research may have strategic importance to America's future, while technology is also being pursued by our

potential adversaries who appreciate that scramjets make missiles far more difficult to intercept.

For the Island's economy, it is important to recognize that while the mega-defense companies left a long time ago, according to the Manufacturing Consortium of Long Island, our bi-county region is currently home to one of the largest aerospace and defense communities in the world. They cite there are 250 companies employing some 24,000 Long Islanders.

For our municipal officials who determine zoning for industrial properties, it is important to recognize this crucial economic component when companies seek to expand or modify their buildings. The importance of this sector is already recognized by PSEG Long Island which offers electric rate discounts to what they describe as "excelsior-certified businesses." These include industries such as biotechnology, high-tech, and manufacturing. In an era when heavy dependence on any one sector makes a region's economy vulnerable, aerospace and defense remain a quiet but potent part of Long Island's ability to create and sustain meaningful careers.

And some of those Long Islanders can probably offer advice to Northrop Grumman that when their lunar train stops at Tyco Crater for transfers to Neil Armstrong Station, a monthly commuter ticket on the moon will still be between 29 and 31 days.

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