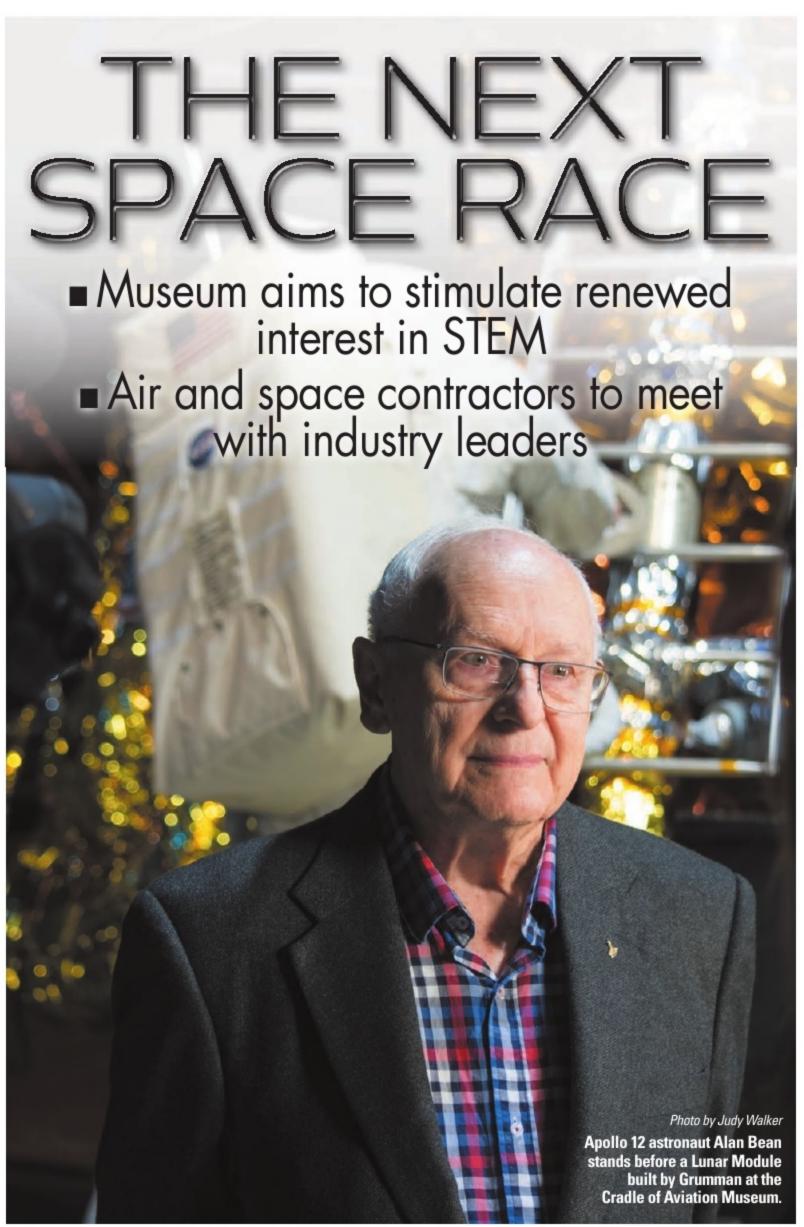
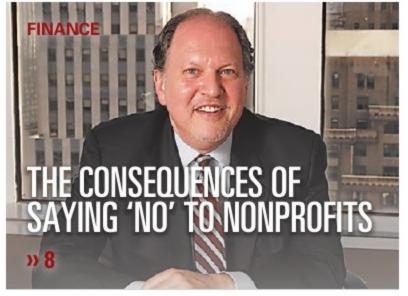
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COVERSTORY

THE NEXT SPACE RACE

Museum aims to stimulate renewed interest in STEM
Air and space contractors to meet with industry leaders

By JOE DOWD

When he was aboard the Space Shuttle in the 1980s, NASA astronaut Bill Shepherd believed space exploration would soon become a regular part of daily life.

"I always thought we should go as fast and as far as our vision takes us," Shepherd said on Long Island last week. "Mankind has always sought to explore and we haven't done great exploration in a long time."

There is evidence the time to explore again is approaching for Long Island.

If you were dropped here from somewhere else, or born after a certain time, you may not fully comprehend Long Island's contribution to aviation.

It's a high-flying business story of daring and entrepreneurship that took mankind from flying in motorized kites to landing on the moon, all in less than a century. The legacy of that industry is still alive today in scores of local companies that still make space-age components for use on earth and beyond. These companies could one day be on the forefront of a new space age, experts said.

Long Island's Cradle of Aviation Museum is determined to tell that story to a new generation who missed the space race. Their 18-month-long event, "Countdown to Apollo at 50," will tell that saga with renewed vigor and in the hope that it will stimulate new interest in the disciplines that got us to the moon and back: science, technology, engineering and math (in short, STEM).

"President Kennedy's challenge to go to the moon created a whole generation of people excited to work in the STEM disciplines," said Andrew Parton, the executive director of the Cradle of Aviation Museum in Garden City, which last week announced a major new initiative designed to reignite interest in those academic areas.

Past as prologue

The new exhibit will include video archives containing the memories of various astronauts, including many of those who call Long Island home. The museum plans to hold an academic conference with Hofstra University about the potential of future space exploration in spring



Photos by Judy Walker

Apollo Astronaut Alan Bean (left), the fourth man to walk on the moon, greets visitors to the Cradle of Aviation Museum.

2019.

"We can go incredibly far if we have the will," said Gail Simmons, provost and senior vice president for academic affairs at Hofstra.

Two Apollo astronauts and three Space Shuttle astronauts from Long Island were on hand for the announcement last week, joined by former Grumman Lunar Module workers, kicking off the 18-month celebration that will open in January.

"Countdown to Apollo at 50" will feature new exhibits, school initiatives and community programs for people of all ages, celebrating the anniversary of NASA's moon landing on July 20, 1969, organizers said. At the center of the celebration is Long Island's critical role in the success of America's space missions.

The museum is a living tribute to the thousands of men and women from Long Island who made all of this happen. A tour allows visitors to time-travel across the Hempstead Plain, from the experimental aircraft of aviation's pioneer era to the technological achievement of the Lunar Module.

The exhibit is "a monumental program as it celebrates one of the greatest achievements in U.S. history," Parton said. "Long Island's role in Apollo's success cannot be denied and must be underscored to our children."

Throughout the 18-month program, numerous school competitions and special STEM curriculum will take place including a student video and essay project, along with visits from notable astronauts, scientists and aerospace professionals. Additional programs are being developed with Hofstra University. The program is sponsored in part by the Robert D.L. Gardiner Foundation.

New momentum

In fact, there is growing momentum

See Joe Dowd: Pioneer's legacy lingers over Hempstead Plain – page 16

'I ALWAYS THOUGHT WE SHOULD GO AS FAST AND AS FAR AS OUR VISION TAKES US.'

here to expand opportunities to grow Long Island's aerospace industry. Local defense contractors have been invited to a Dec. 4 summit at the Tilles Center in Brookville to listen to several industry executives speak about new opportunities for business growth.

Rep. Thomas Suozzi, D-Glen Cove, is sponsoring the "Defense and Aerospace Supply Conference" to connect international contractors from the aerospace and defense industry with Long Island defense aerospace contractors and suppliers.

"We need to make sure the aerospace and defense industries on Long Island remain competitive for decades to come," Suozzi said, adding that his district, comprising much of the North Shore of Long Island, receives \$1.7 billion per year in defense contracts while all of Long Island receives roughly \$2.3 billion per year.

Suozzi's 3rd Congressional District is the largest recipient of federal defense contracts in New York, spreading across hundreds of suppliers, according to Suozzi's office. Many of these are the legacy companies of Grumman and Republic, the World War II-era giants that built fighter planes here in an industry that employed 100,000 people at its height. That legacy led to Grumman's contract with NASA to build the Lunar Module, the spacecraft used to land men on the moon's surface and then take off again en route to a rendezvous with the command module in lunar orbit.

Hundreds of smaller suppliers are also involved in the industry here and many need more highly skilled workers in order to expand.

"Think about what we've been able to accomplish right here on Long Island," Suozzi said. "In Bethpage, Grumman engineers built the Lunar Module that put a man on the moon. During World War II, the Island's aircraft industry took off with the demand for more fighter planes. By 1945, over 100,000 people worked for local aircraft makers here in our own backyard.

"The history is here and the right businesses are here," he added. "Now we need to bring it all together and look toward the future by ensuring we remain the 'high-tech Island."

From 1961 to 1972, Grumman employees, based in Bethpage, designed, assembled and tested the Lunar Module that successfully landed 12 men on the moon between 1969 and 1972. In all, six LMs landed on the moon. An LM intended for the Apollo 18 mission but never flown is on display at the Cradle of Aviation Museum. The mission of LM-13 to Copernicus Crater in 1973 was ultimately cancelled.

Aerospace remains a key element of Long Island's economy. Numerous area companies produce aerospace components for the defense and technology sectors. Among them are Betatronix



Some of Long Island's contingent in NASA's astronaut corps.



Shuttle astronaut Mary Cleave, of Great Neck, was on hand for last week's announcement.

in Ronkonkoma, which manufactures precision controls; Telephonics Corp. in Farmingdale, makers of surveillance and communications equipment; and Lockheed Martin in Uniondale, developer of the F-35 fighter jet among other defense initiatives.

Three others include Transaero in Melville, maker of aviation products and systems; Air Industries Group in Bay Shore, manufacturer of machined components and assemblies fabricated from hard metals; and EMT, which made a part of the wheel for the Mars Rover. There are scores of others involved in some various aspects of space and aviation technology.

Meanwhile, next month's conference at the Tilles Center will address how the local industry can remain competitive and grow. Is there a way to return to space in a big way?

"I want to make sure local suppliers know of the business opportunities that are available to help them grow and expand," Suozzi said. "I want to make the aerospace and defense industries on Long Island attractive to young people who are born here and go to school here. We can't afford to lose this incredible home-grown talent."

The Dec. 4 summit, which will run from 10 a.m. to 2 p.m., will feature speakers from the Department of De-



Shuttle astronaut Bill Shepherd standing before an Apollo capsule at the Cradle of Aviation Museum.

fense and leading aerospace companies including Deputy Assistant Secretary of Defense Eric Chewning.

Industry leaders Patricia McMahon, of Northrup Grumman, and Dave Logan, of BAE, will join Chewning to discuss how the local industry can remain competitive and grow. The event is being billed as an opportunity to introduce attendees to new business opportunities.

A full calendar of "Countdown to Apollo at 50" program events will be available at www.cradleofaviation.org beginning in January.

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