

# Apollo 11 moon mission drew space-related companies to Central Florida

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On May 25, 1961, President John F. Kennedy announced that the U.S. would land astronauts on the moon "before the decade is out."

But the pressure and responsibility of achieving that did not fall on him.

Instead, it was up to NASA and the companies working with them to build launch vehicles, spacecraft and other hardware that would work together to ferry astronauts to the moon.

To do that, several companies either opened or expanded operations in Central Florida. So the moon mission brought companies such as Martin Marietta, Grumman and Lockheed into the forefront of the region's economy.

"It introduced Central Florida into the national

economy in a way that it had never been before," said UCF political science professor Roger Handberg, who has written several books on the [space](#) industry. "The [space industry](#) totally changed the dynamics here because there was nothing here. It was all orange groves."

Handberg said he played high school football, and his team would often travel to Orlando, down roads along miles of empty land.

But once Space Coast-related activity grew, it created the need for a highway that connected Orlando to the coast, with the introduction of what's known now as the BeachLine Expressway changing how Central Florida motorists got around.

Initially known as the Bee Line Expressway because it offered a direct route to the Space Coast, the first portions of what would eventually become the 41-mile road that connects Interstate 4 to U.S. Highway 1 debuted in 1967.

"It improved transportation," Handberg said. "A lot of people decided to live in Central Florida and commute to the Cape during Apollo and later the shuttle."

That growth was only natural in an area watching a new industry develop, said Charlie Mars, who was NASA's program chief for the Apollo's lunar module.

"You just didn't increase the total population by 24,000 and not affect things from an economic standpoint," Mars said. "They worked at Kennedy, they represented some 20 companies and supported the programs. I can't think of one industry that didn't benefit from those people coming here."

In college, Mars worked with Martin Marietta during Project Mercury, the first human spaceflight program for the U.S. He later became a liaison for

NASA with Northrop Grumman as it worked on the lunar lander.

He said an energy around the country helped buoy the region's early efforts to reach the moon.

"It was all new," he said. "We could feel and see that we had the nation behind us as we tried to do something that had never been done before."

As the 50th anniversary of the Apollo 11 mission to the moon approaches, here is a look back at some of the companies that came here to support the iconic program.

The Glenn L. Martin Company arrived in Central Florida during the 1950s, when it served as a prime contractor to build the U.S. Army's stock of Pershing missiles at its Orlando site. The [company](#) would also produce the Vanguard, one of the first rockets used by the American space program built from scratch.

Up until then, most were modified or re-purposed ballistic missiles or rockets.

Martin Co. merged with American Marietta Corp. in 1961 to become Martin Marietta, which built the Viking Mars Lander. That vehicle became the first to touch down on the Red Planet and successfully executed its mission in 1976. With its Central Florida location, Marietta competed—and ultimately lost out to Grumman—for the lunar lander.

Boeing, along with firms like McDonnell Douglas and Rockwell International that it eventually merged with, built most of the major components of the Apollo spacecraft, including all three stages of its Saturn V rocket.

Boeing sent a lunar orbiter to take pictures of the moon's surface ahead of the first landing mission. Boeing last month announced that it would relocate its space and launch headquarters to the Space Coast.

Harris Corp.'s presence in Melbourne predates the Apollo program. However, it landed several contracts for the mission, primarily for communications gear that allowed astronauts to

contact ground control from the moon.

A large portion of Harris' work today remains focused on telecommunications hardware. The company has also jumped into the satellite industry, having sent small cube satellites into space as a proof of concept about two years ago. Harris helps inform weather forecasters with an upgraded satellite sent into space last year.

The propulsion, escape and pitch control systems for the Apollo spacecraft were built and designed by Lockheed Propulsion Co., shortly before the company built Walt Disney World's first monorail system in 1970. Today, Lockheed Martin employs 8,000 workers in Central Florida and expanded its workforce at its Cape Canaveral site in 2015 to support a missile contract with the U.S. Navy.

Aerojet was a predecessor of what is now Aerojet Rocketdyne and created the solid fuel technology used in Apollo's Saturn V first stages. In 1963, the company landed \$3 million from the U.S. Air Force to build a manufacturing and testing site in Homestead. When the company designed a rocket motor, it was transported by barge to Cape Canaveral.

In 2017, Aerojet Rocketdyne Holdings opened an integration and testing facility on the Space Coast following the acquisition of L3.

Aerojet's Coleman Aerospace division remains based in Orlando near Sand Lake Road.

Grumman Corp. first arrived in Central Florida to support Apollo in the 1960s. The company, now known as Northrop Grumman, built the lunar lander that ferried astronauts to the moon's surface 50 years ago. That deal was valued at \$350 million when it was first awarded.

The lander became what some experts have called the most reliable component of the Apollo missions. About three years ago, Grumman announced it would expand its Space Coast facilities to accommodate nearly 2,000 new employees at Orlando Melbourne International Airport after landing a contract to build the U.S. Air Force's next-generation bomber.

That \$21.4 billion contract could ultimately be worth as much as \$80 billion.

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