

Hometown

From sharecropper's son to launching the Webb

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Mission accomplished.

One of NASA most well-known phrases now applies to Gregory Robinson, the Pittsylvania County native who led the launch of the James Webb telescope, which last month began sending details of planets and regions in space never before seen by human eyes.

The revealing images of stars, black holes and galaxies have electrified both scientists and the general public.

Robinson retired last week from his job as director of the \$10 billion program — after successfully turning around the formerly troubled mission that got its start in 2002.

“I worked myself out of a job,” he said.

When Robinson took the reins of director in 2018,

the program was behind schedule and over budget.

Robinson said that since the project had already been underway for years, much of the work had already been accomplished. It was an enormous undertaking, with more than 20,000 people having worked on it, along with a vast supply chain of contractors and the space agencies of both Europe and Canada — spread out over 29 states and 14 countries.

By 2018 it needed to get over the goal line, said Robinson.

To get to that point, Robinson said several things had to occur — creating greater transparency through all layers of the project to restore stakeholder confidence, instituting better advanced planning and creating peer reviews to eliminate human error, the latter of which had plagued the project on

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Gregory Robinson

on seeing the first images from the James Webb telescope

several occasions.

Robinson said many of those elements were already, but they just needed to be improved upon.

Robinson, who had been working as the deputy associate administrator for programs, believes he was tapped to take over the Webb telescope mission because his boss, Thomas Zurbuchen, associate administrator for NASA's Science Mission Directorate, thought he had necessary experience through launch and opera-

tions, as well as having developed policies for 20 years. He also had a leadership style — described by many as calm — that was acknowledged and appreciated.

Robinson chuckles at notion of calmness.

“There's still a lion in there that can roar if need be.”

There was enough lion in Robinson to get the telescope to its launch site in French Guiana on

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Submitted photo

Gregory Robinson recently retired from NASA where he oversaw the successful launch of the James Webb telescope.



Images courtesy of NASA

Gregory Robinson said this is one of his favorite images so far. It is a star as it sloughs off its outermost layers.



Dubbed the cosmic cliffs, this is one of the first images from the James Webb telescope and it shows the edge of a nearby, young, star-forming region called NGC 3324 in the Carina Nebula.

Webb

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Christmas Day last year. Robinson was there.

During the count down to the launch, Robinson wasn't worried about the reliability of the infrared space observatory or the mechanisms to get it up in the air.

"I really had none," he said and complimented the team that got the project to that point.

The real challenge, he said, was completing the project in a reasonable amount of time and cost.

When the images began to arrive on July 12, Robinson said he was like anyone else.

"I was star struck. I was in awe like most of the world," he said.

Robinson was most impressed with the clarity and depth of the images coming from space. The difference between those obtained from the Webb versus the Hubble, its predecessor, was striking.

"The difference in clarity just blows your mind," said Robinson.

As to which image is his favorite, Robinson admits to liking them all.

"I'm like a kid in a candy store," he said, but did express an affinity for the image of a dying star, as well as the views of exoplanets. The way they move in front of their stars allows scientists to look for habitability, he said.

Robinson believes the suc-

cessful launch and operation of the telescope is a milestone for knowledge about space that has been building and growing for centuries, from the discoveries of Italian astronomer Galileo in the 1500s, to the work of theoretical physicist Albert Einstein in the early 1900s and beyond.

This will allow scientists to learn more about physics and how that knowledge can be applied to day-to-day life, he said. The telescope will also provide more information about the earth's solar system and allow scientists to learn about the potential habitability of other planets, said Robinson.

The successful completion of the project was also a way to restore public confidence in NASA and the industrial base that helped get it done, said Robinson.

It also solidified the United States' global leadership in astrophysics, he said.

Son of a sharecropper

Leading the launch of the \$10 billion James Webb telescope for the world's largest space agency was long a journey for an African American boy who grew up as one of 11 siblings and the son of sharecroppers on a tobacco farm.

Robinson would counter any consideration of how he rose in the ranks of NASA with how on earth did he get out of rural

Pittsylvania County in the first place, given his very humble beginnings?

That was the hardest first step, he said.

Robinson began attending school before racial integration was complete in 1970, and went to Southside, Mount Hermon and Glenwood elementary schools, followed by Blairs Junior High School. He graduated from Dan River High School in 1978, noting that he excelled in math and science. He simply loved to learn new things.

"I always had that fire burning," said Robinson.

As a child in a rural community, Robinson said it was natural for him to gaze at the night sky — made more vivid due to the lack of city lights. Robinson remembers trying to find the various constellations.

"What else do you do in the country at night," he said.

He also followed the NASA space program as a child, as the Apollo space mission figured prominently in the nation's attention in the late 1960s and early 1970s.

There was a lot of energy in the country for that program, said Robinson.

But it wasn't a celestial event that got Robinson out of Pittsylvania County, it was a football scholarship to Virginia

Union.

That was the ticket out of Danville, he said.

After that, the stars and planets aligned for Robinson, as he earned a degree in math from Virginia Union and a degree in electrical engineering from Howard University. In 1993 he obtained an MBA from a satellite campus of Averett University.

Robinson got his start at NASA's Goddard Space Flight Center in Greenbelt, Maryland where he held several leadership positions. In 1999, Robinson was assigned to NASA Headquarters in where he served as deputy chief engineer, as well as deputy center director at NASA's John H. Glenn Research Center in Cleveland, Ohio. Other posts included work at NOAA, managing the nation's environmental monitoring and weather forecasting satellites.

For Robinson, being a black man in a white man's world was not unlike the other areas of his life.

One learns to navigate and tries to contribute to the diversity of the organization, he said, adding that there weren't many women in NASA at the time, either.

Robinson believes he was able to make the leap into leadership by mastering what he was good at, building a strong network and always striving to go further.

It's still tough to rise through the ranks, and if you're a minority, the competition is even harder, he said.

Robinson was keen on observing the leadership skills and techniques displayed by others, learning from mentors and completing the NASA leadership program.

He also admits that some of his abilities are innate — such as his naturally calm disposition.

Robinson is proud of what he has accomplished with the Webb telescope — along with all the thousands of others who have worked to get it into space.

"It's truly an accomplishment," he said.

Robinson said his retirement had already been planned prior to the images coming in from the Webb.

"It's just time," he said of leaving NASA and his career, adding that at some point you have to establish and date and get on with it.

As for the possibility of life beyond earth, "I have no idea, but hopefully as we explore, we will learn more if there is or not. We may never know," he said.

One thing that has been revealed by the Webb telescope is the evidence of water.

Water is an essential element for life as we know it, said Robinson.