

NASA/Rosman were at the forefront of weather forecasting

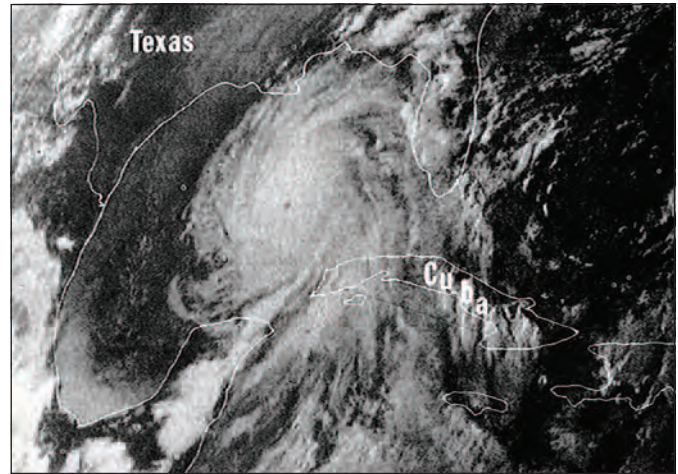
CRAIG GRALLEY
FOR THE T. TIMES

Editor Note: Author Craig Gralley's book, "PARI: An Untold History of Spacemen and Spies," tells the story of how a small community in the mountains of North Carolina helped to win the space race, the Cold War and became a model for student science education. The following book excerpt highlights the Rosman

Tracking Station during the NASA years (1963-1981).

In researching this book I couldn't help but be awed by the ability of ordinary citizens to accomplish extraordinary things. But the talented people who worked long hours during the NASA years weren't faceless bureaucrats, most

– NASA, 10A



Courtesy, NASA

Image of Hurricane Camille taken from the ATS-3 satellite commanded at NASA's Rosman Station.

★NASA

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lived in Transylvania County and were our friends, neighbors and family members.

Their accomplishments during the NASA years were extraordinary. For nearly two decades area residents served as engineers, technicians and administrators working around the clock, commanding, tracking and collecting experimental data from over 50 different manned and scientific spacecraft, monitoring up to 40 orbiting satellites a day.

When the Rosman Tracking Station was dedicated in October 1963 it became America's most

advanced ground station, the East Coast hub for NASA's burgeoning scientific satellite program.

NASA Rosman personnel commanded cutting-edge communications and imaging satellites that achieved little-known "firsts" in weather forecasting that saved thousands of lives; pioneered global positioning technology that guides us today, rain or shine safely to work and home; and helped develop cellular communications that keep us close to family and friends.

Today, we take these technologies for granted but collectively these achievements improved the lives of billions of

people around the globe, boosted America's economic growth and led to our country's material well-being. NASA/Rosman employees were not just present but helped birth our new age of satellite communications, meteorology and remote sensing.

Brevard resident and senior engineer Eugene "Joe" Collins tells the story of how Rosman ground station helped to establish the field of weather forecasting.

In August 1969 Rosman personnel, commanding the most advanced technology satellite of its day, warned of a dangerous tropical storm approaching America's gulf coast.

The storm became the deadly category-five hurricane, Camille.

"It started as a tropical depression off the coast of Africa," Collins said. "The Weather Bureau called: 'Can you take some pictures of this?' (The scientific satellite) ATS-3 was over the Atlantic, and, being in geostationary orbit, it could take a big picture of the entire ocean. Other weather satellites were in low-Earth orbit but only had small occasional views.

"The storm was called Camille, and as it picked up speed, it rolled into the Caribbean and then Biloxi, Mississippi.

"It was the largest hurricane in modern history,

with winds up to 175 miles an hour and it had a huge storm surge. When they told us Camille was slowing down, we stopped taking pictures. But then it gained speed and the Weather Bureau called again, 'It's going up the James River in Mississippi. Turn the camera back on!'

"The Weather Bureau said we gave them the information it needed to warn coastal towns that 20-foot waves would be rolling in. Weather forecasting was so new, some residents didn't believe us. They said, 'We've weathered these before,' so lives were lost. But we saved a lot of people, too. As Camille was rolling

out, Debby was rolling in. Then the Weather Bureau started putting up its own satellites. But Rosman was at the very beginning of hurricane watches."

Despite the warnings 259 people died and damage exceeded \$1.4 billion (over \$10 billion today).

"PARI: An Untold History of Spacemen and Spies," will be published April 24 and is available for pre-order at www.pari.edu/shop and at Highland Books in Brevard.

All author profits are being donated to further PARI's student science education programs.

For more information about Gralley and his work, visit www.craiggralley.com.