

Humble Mississippian helps create history

Engineer began career with space program

By **DIANE L. GODWIN**
Mississippi State University

The Broadway box office hit and Pulitzer Prize-winning musical “South Pacific” is an adaptation of James A. Michener’s Pulitzer Prize-winning 1948 novel, “Tales of the South Pacific.” It weaves the stories of how the American Navy and Marines’ military service and personal lives interconnected with the indigenous people while serving on the southern islands during World War II.

One of those Marines who spent time on the Solomon Islands is Mississippi State alumnus Bill Pittman. The 1951 electrical and computer engineering graduate spent exactly five years and 10 months in the Marines, part of which was on the various islands that surround the Coral Sea. However, his recollection of his time there isn’t as romantic and glamorous as the story told in the Tony award-winning Broadway production.

“The mission of my battalion was to provide perimeter defense for the construction of a new airfield to take the heat off Henderson Field. I was a communication specialist, which meant that my job involved assignment as a telephone operator and repairing communication equipment, stringing telephone lines on coconut trees and repairing those lines,” Pittman said. “That part of my career wasn’t as glamorous as Broadway and Hollywood portrayed our military service; in fact, it was pretty grueling and dull.”

It was a time in Pittman’s life where one could say he was paying his dues and gaining experience for what was to come. Growing up during the depression years in Pontotoc, Miss., Pittman was used to hard work and the concept of being frugal. It was these hard times that created that generation’s mindset of hoarding everything and throwing away nothing.

“The enticement for me to join the



Photo by Merv Brokke

SPACE PIONEER— AMRDEC engineer Bill Pittman stands before a Redstone Rocket displayed on Redstone Arsenal.

Marines was, basically, for a poor guy to get a good meal and a place to sleep,” Pittman said. “The Marines gave us our room, board and meals. That’s how we could save our money. My plan was to use it to pay for my college education.”

In 1946, Pittman enrolled at Mississippi State and used his well-deserved GI Bill to pay for his degree. As he told the story of his college days and meeting his wife Eloise on a blind date, a series of events occurred that propelled him toward his life’s purpose. His story of becoming one of the world’s most prominent rocket scientists begins during World War II; however, how he came to be at Redstone Arsenal started when he took a drive to Columbus, Miss., to visit his significant other. She worked as a secretary at the Gilmer Hotel.

“I was driving down the street in Columbus and heard on the radio that a recruiter from Redstone Arsenal was at the Gilmer Hotel taking applications for jobs in electrical engineering,” Pittman said. “I was invited to Huntsville, Ala., to interview with a gentleman named Hans Heuter. I didn’t realize it at the time, but he was the chief mechanical engineer for Dr. Wernher von Braun.”

When von Braun’s chief mechanical engineer interviewed Pittman they were in the process of building a team with American colleagues that would eventually be responsible for taking Americans into space and to the moon. However, Hans Heuter was expecting a candidate with a mechanical engineering background.

“I was waiting to see him and I overheard him dialing the phone and then saying to personnel, ‘I need a mechanical engineer and you sent me this electronics guy,’” Pittman said laughing. “I was pretty intimidated and Heuter must have realized it and felt sorry for me, so he gave me a chance and handed me a huge file of declassified V-2 documents and told me to read them and report back.”

Pittman took advantage of the opportunity and practically memorized the huge stack of papers. Impressed by his scientific ability, Heuter hired Pittman as an electrical engineer at Redstone Arsenal, and recommended that Pittman be assigned to work in the radio and telemetry group. It wasn’t long before Pittman was promoted to project leader of the group that designed the telemetry system for the Redstone Rocket — the first rocket successfully launched into space and what NASA used to launch the first Mercury capsules. Upgraded versions of those same rockets are what helped the Americans land the first man on the moon with the Apollo capsule.

“In those days, we had to turn the telemetry systems on and wait for the subcarrier oscillators to stabilize with temperature to tune them up before the launch. So, I’m tuning the equipment at the top of the rocket, which is on the launch pad at Cape Canaveral. I turned to see Dr. von Braun looking over my

shoulder. He asked me to explain the equipment. I gave him the best tutorial on the telemetry system that I could. He joked and said, ‘Too complicated for me,’” Pittman said laughing. “He wanted to see if that guy Pittman really knew what he was doing.”

What happened next made history.

“When we saw that first Redstone Rocket take off, we realized that we were in the hands of a genius and were part of a great historical event,” Pittman said.

From 1953-58, 37 Redstones were fired to test structure, engine performance, guidance and control, tracking and telemetry. Through it all Pittman’s work on the Redstone and other rockets involved studying the effects of space’s atmosphere on telemetry systems and space tracking systems.

“I’m a good example of what a good education and chance can do for young people, so my advice is don’t stop your education, continue learning throughout life,” he said.

“I’m impressed with the dedication and enthusiasm that I see in the younger engineers that are graduating today. They’re a great generation,” he said.

Pittman not only gives back in the working world, but believes in volunteering his service to the community. He is the recipient of the Daughters of the American Revolution Medal of Honor and the Sons of the American Revolution Patriot Medal and Good Citizenship Medal, as well as the Martin Schilling Award from the American Institute of Aeronautics and Astronautics.

He is active in several organizations and professional societies, including the Disabled American Veterans, First Marine Division Association, 9th Marine Defense Battalion Association, Association of the U.S. Army, Sons of the American Revolution, Institute of Radio Engineers, Institute of Electrical and Electronic Engineers, and the American Institute of Aeronautics and Astronautics.

Editor’s note: Diane L. Godwin is a writer at the Bagley College of Engineering at Mississippi State University. Her article was originally published in the university’s Momentum Spring 2009.