The Stargazer

By Tommy Deas
Photo by Jason Getz
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Bill Keel makes a living looking into space and time, peering at images made a long time ago by galaxies far, far away.

The University of Alabama professor is one of the privileged few with regular access to the Hubble Space Telescope and has been involved with projects for NASA’s space shuttle program. He is UA’s resident stargazer, in charge of the school’s telescope in Galilee Hall.

Keel’s interest in space started when he traded one childhood fascination for another. “I think I transitioned immediately from dinosaurs into space,” he said. “By the time I got into junior high school, I started looking toward careers in space. Growing up in the ’60s, space was in.”

Keel mowed lawns all summer to buy his first telescope while he was in middle school and was moved by what he saw when he gazed through the eyepiece of that telescope. He’s been smitten ever since. His office reflects that interest, with galactic images on the walls and models of items ranging from the Mercury capsule to the Apollo moon buggy to the International Space Station cluttering his desktop.

As UA’s keeper of the telescope, Keel got a boost earlier this year when the school replaced its 55-year-old model for a newer version that has computer control, digital technology and a 16-inch diameter mirror for better range and clearer images. Keel wasn’t sorry to see the old one go.

“There are some old telescopes I feel nostalgic for, but that’s not one of them,” he said. “We’ve come forward about a century in what
Keel became involved with the orbiting Hubble Space Telescope soon after it was launched in 1990. His work on reducing blur in astronomical images by using digital technology made him a natural for the project. Scientists have to vie for time on the Hubble and submit proposals to a board that decides where the telescope will be aimed, with about 10 percent to 20 percent of the requests granted. Keel’s first project was approved about 10 year ago, and he’s been involved with similar projects ever since.

“I’ve looked at images [produced] 11 billion years back, when the universe was a little under 20 percent of its present age,” he said.

Keel also was part of the 1998 space shuttle mission that returned John Glenn to space. Keel was part of a group of scientists involved in a project that provided a 16-inch telescope designed to look at ultraviolet images from galaxies that the Voyager spacecraft had previously photographed to get addition images to compare.

“The shuttle project was interesting,” Keel said. “A bearing on one of the mounts froze. There were three of us in a room doing trigonometry, trying to figure out what stars we could aim at [with the telescope frozen in place]. We didn’t get near as much data as we planned out of it.”

Keel’s fascination with space came full circle almost a decade ago. As a youth, he watched the Leonid meteor shower and logged his impressions of the event in his astronomy notebook. In 2001, when the Leonid shower returned, he got to experience it with his son, Nathan, and shared his notes and sketches from his viewing in the 1960s.

Even after decades of looking at planets and stars, Keel still experiences the same feelings when he ponders the vastness of space.

“The universe is big,” he said. “The sense of awe is what goes on in your brain behind your eyes. You see the immensity of creation.

“I think it’s good to be boggled once in awhile. You can deal with the numbers, but to think about it, it has a really deep impact.”

Title: Professor of astronomy

Age: 47
Education: Bachelor’s degree in physics and astronomy from Vanderbilt University; doctorate in astronomy from University of California at Santa Cruz

Hometown: Born in Jackson, Miss., Family moved to Nashville, Tenn., when he was 3 months old.

Family: Wife, Terri; sons Nathan, 12, and Christopher, 16.

What do you like best about summer?
?Just being a university type, your life gets a little more flexible over the summer. If you?ve got a bunch of errands, it doesn?t matter if it?s 9:30 or 10 o?clock when you get home.?

What inspires you the most in your work?
?Oddly enough, it?s just the chances which really don?t occur in research to go out and stare into space that connect with the universe, the beauty and meaning of it.?