

Fahrenheit.

"It would be too hot and couldn't sustain water," Cuntz said. "The planet has a sick atmosphere and generates extra heat."

But they kept looking and began to examine another planet known as Gliese 581d.

At first they thought it would be too cold, but then they realized that the same greenhouse effect that would make Gliese 581c too hot could warm the second planet enough to sustain water or life.

"It's very intriguing to find that the planet originally overlooked was actually habitable," Cuntz said.

The discovery, on which the group wrote a paper for the *Astronomy & Astrophysics* journal, has been cited in articles from New York to France.

"We wanted to be first with the discovery," Cuntz said of the study, which took less than two months. "We were prompted by the urgency of research."

"I was told by colleagues: 'You want to work on this? Work fast,'" Cuntz said with a grin.

Some astronomers question whether this research is exact or whether the results could be swayed by other factors such as whether a planet's atmosphere is thin or thick.

But they say the way to find out is to wait for planned NASA missions such as the Terrestrial Planet Finder or the Kepler Mission, which could provide information to support or disprove theories.

Texans at work

Other Texans are playing a role, at six universities working with NASA to advance aircraft and aerospace science through a research program. Workers from Texas A&M, Rice, Prairie View A&M, the University of Houston, Texas Southern and UT-Arlington have been building structures for spacecraft and aircraft.

This work began in 2002 and should wrap up at the end of the year, said John Junkins, a distinguished professor in the Texas A&M department of aerospace engineering.

Meanwhile, TCU professor Pamela Marcum is on leave from the university, working at NASA in Washington, D.C., as the discipline scientist for the Kepler Mission, which will search for Earth-like planets.

And scientists in West Texas are using telescopes at the McDonald Observatory to try to examine possible exoplanets.

Looking ahead

As this research proceeds, President Bush's proposal to build a space vehicle that could put people back on the moon continues to draw resistance in Congress.

His 3-year-old plan puts billions of dollars toward the moon and Mars missions, changing the focus from the space shuttle to next-generation space vehicles that are still being developed. But competition for federal dollars is fierce, and Bush's plan is far from a done deal.

No matter what happens in Congress, researchers say, the search for planets with the potential to sustain life continues.

"There are many groups worldwide using a variety of techniques to discover new planets," said Craig Wheeler, an astronomer with the University of Texas at Austin. "The goal is to find one like, and as small as, Earth.

"Finding life of any kind elsewhere would revolutionize science, and likely humanity."