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Rocket pioneers retain their passion

**Only a handful
of 118 German
rocket scientists
are still alive**

Wernher von Braun, former
German V-2 rocket expert,
explains his design for a
rocket to take man on his first
flight to the moon.



AP file

By Marcia Dunn
ASSOCIATED PRESS

HUNTSVILLE, Ala., July 15 — Rudi Beichel is still crunching numbers for a better rocket engine. Ernst Stuhlinger is still writing about rocket science. So is Gerhard Reisig. And Konrad Dannenberg is still going to launches and organizing space confabs, only now they're really just reunions, and they are getting smaller and fewer each year. These men are Apollo's rocketeers, old and overlooked but as passionate as ever about the frontiers they blasted open, with the world's first space shot in 1942, and

then by helping put human beings on the moon
30 years ago July 20.

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‘My friends, there was dancing here in the streets of Huntsville when our first satellite orbited the Earth. And there was dancing again when the first Americans landed on the moon. I’d like to ask you: Don’t hang up your dancing slippers.’

— WERNHER VON BRAUN
1970

AT BEST GUESS, only 30 of the 118 original rocket men who came here from Hitler’s Germany are still alive. Many are too frail to leave home because of strokes and arthritis. Those who can — Dannenberg, most notably — speak for all when they say that what NASA needs is another Wernher von Braun.

Yet many of them fear there will never be another von Braun, the mastermind who led them to America and America to the moon.

DEPRIVED OF RECOGNITION

And even now, in their late 70s to early 90s, they have yet to outlive the Nazi taint, and they feel deprived of the recognition they deserve.

The fact is that these scientists have led two very different lives: first as loyal subjects of the Third Reich, then as loyal Americans.

Wernher von Braun’s wartime rockets indiscriminately killed thousands of people and were built with slave laborers provided by concentration camps. But as World War II ended, the Soviets and Americans found themselves in competition to acquire Germany’s rocket expertise. The moral debate was sidelined and von Braun and his men were transformed from servants of Hitler’s war machine to heroes of America’s race to space.

Rocket scientists Gerhart Reisig, left, and Rudi Beichel confer during a reunion of the former Apollo rocketeers at the Space and Rocket Center in Huntsville, Ala., on June 11.



Dave Martin / AP file

Von Braun died of cancer in 1977, at age 65, without realizing his fondest dream: leading America to Mars.

GATHERING IN HUNTSVILLE

Five of his team's sturdier souls gathered last month at the U.S. Space & Rocket Center in Huntsville, their adopted hometown and birthplace of the Saturn V moon rocket, to celebrate their achievements and reminisce in fluent but still German-accented English.

"This work we did changed the whole society, the whole life, the whole technology," said the small, smiling Beichel. At 85, he had traveled all the way from Sacramento, Calif., for the big event and was savoring every moment.

"We go to the moon, the biggest industrial revolution the world has ever seen ... and that's only the beginning, ja."

Although as many as 400,000 Americans worked on the \$24 billion Apollo program, the Germans contend that without them, the nation never would have put men on the moon by the end of 1969 as President Kennedy decreed.

VON BRAUN CREDITED

"It was von Braun's initiative and his drive and motivation and his gift of persuasion, of interesting other people, which enabled us to go to the moon at that relatively early time," said Stuhlinger, also 85, who was von Braun's chief scientist.

As incredible as man's journey to the moon was, so too was these men's journey: launching the first rocket to skim space, the German V-2, V for Vengeance, in 1942; the first American satellite, Explorer I, in 1958; the first American into space, Alan Shepard, in 1961; the first men on the moon, Neil Armstrong and Buzz Aldrin, who blasted off on July 16, 1969.

Of all the launches, the one that stands out most for Dannenberg, an 86-year-old propulsion expert, was the first successful test flight of the V-2.

‘For us, it was a huge rocket, much bigger than any amateur rocket I’d ever seen or even imagined.’

— KONRAD DANNENBERG

The rocket took off Oct. 3, 1942, from Peenemunde, a German Army research center north of Berlin on the Baltic Sea. It soared 53 miles high (space officially begins 50 miles up) and 118 miles downrange. The army officer in charge of rocket research proclaimed: “Today the spaceship has been born!”

A HUGE ROCKET

“At that time, it was clear it would be used by the military,” Dannenberg explained. “On the other hand, of course, it was a big step ahead and if you look at the V-2 today and see it next to the Saturn V, you probably think it’s tiny. But for us, it was a HUGE rocket, much bigger than any amateur rocket I’d ever seen or even imagined.”



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The V-2 was 47 feet tall. The Saturn V was 363 feet, more than twice the height of the space shuttle and the biggest, mightiest rocket that ever carried a human being. A 6.4

million-pound monster, it had up to 5 million parts.

Within months of the first successful V-2 launch, Adolf Hitler ordered the production of thousands of these “wonder weapons” and put the SS in charge. Production moved to an abandoned mine near the Harz Mountains of central Germany after Peenemunde was bombed by the Royal Air Force in 1943. Slave labor was used in the underground factory.

In an attempt to lure him over from the army, the SS made von Braun an honorary second lieutenant, then major. He accepted for fear of retribution but stuck his SS uniform in a closet, Stuhlinger said.

The Gestapo, nonetheless, arrested von Braun in 1944. The charge: He intended his rockets for space travel, not weaponry. He spent only two weeks in jail.

SURRENDERED TO U.S. ARMY

By fall 1944, V-2’s were being launched at Paris and London. But Germany was losing the war and in May 1945, following Hitler’s suicide, von Braun and his team surrendered to the U.S. Army. That September, the exodus began under the code name Operation Paperclip; 118 Germans were brought to America along with blueprints and enough parts to build 100 V-2’s. Twenty-four more Germans eventually followed.

They quietly settled in Fort Bliss, Texas and helped the

Army launch rebuilt V-2's from White Sands, N.M. (One accidentally soared across the border into a hill next to a Mexican graveyard.)

When the rocket and missile effort moved to the Army's Redstone Arsenal in Huntsville in 1950, so did the Germans. They became U.S. citizens five years later. When NASA's Marshall Space Flight Center opened at Redstone Arsenal in 1960, von Braun was its first director.

The Germans' presence initially posed a public relations challenge to the U.S. government. On one occasion soon after their arrival, to avoid inflaming the fresh wounds of World War II, they were passed off as a Hungarian Gypsy band.

LAMPOONED IN SONG

Later, when von Braun emerged as America's top rocket scientist, Tom Lehrer, the satirical songwriter, lampooned him as an opportunist tailoring his loyalties to whoever employed him: "Don't say that he's hypocritical, say rather that he's apolitical. 'Once the rockets are up, who cares where they come down? That's not my department,' says Wernher von Braun."

Irene Willhite was walking with her husband, a missile instructor, and their five children through a dark parking lot in Huntsville in 1957 when she first saw the Germans.

"I can see this to this day: four long, black, leather coats. And I thought, they didn't even leave the coats behind," she recalled. "I had total resentment. And I'll tell you the truth, only since I have come to work here, I know their contributions."

"Here" is the U.S. Space & Rocket Center, a visitor complex and Space Camp hub, where she has been the archivist for four years.

GOOD FRIENDS

She counts the Germans as good friends, and they are entrusting their most valuable possessions to her: books, journals, anything to do with rocketry.

Reisig, 90, wants her to get a truck to empty his house. Stuhlinger and Dannenberg already have sent over loads of boxes.

Stuhlinger published a definitive biography of von Braun in 1994 and still writes scientific essays. Reisig recently published a book about rocket technology in German. Dannenberg is collaborating on a book about early rocketry. Beichel is a consultant for Aerojet, a California-based aerospace and defense company, and works on calculations for future

generations of rockets.

Cartons of their work crowd the hallway outside Mrs. Willhite's cluttered office. Some 3,800 books already fill ceiling-to-floor shelves. There are six V-2 parts, as well as the Army's microfilm of the translated V-2 documents and albums filled with photos of a smoldering Peenemunde.

The subject of Nazis and World War II never came up during the space race, said Ed Buckbee, a NASA PR man in the 1960s who went on to direct the center.

THE RUDOLPH CASE

It wasn't until after the rocketeers had retired that stories resurfaced linking at least one of them to the slave labor at Mittelwerk, the underground V-2 factory. Old and ailing, Arthur Rudolph relinquished his U.S. citizenship and returned to Germany in 1984 rather than fight war crimes charges, which he denied. He died in 1996 at age 89.

Of the survivors, Reisig is most distressed by the accusations. He refuses to talk to reporters, saying he has been "back-stabbed."

"It's a situation which is very depressing for us old-timers," Stuhlinger said.

After everything the Germans did for NASA and America, it seems terribly ungrateful, Buckbee thinks.

"We were all working as a team, working day and night," he said. "As von Braun used to say, 'Late to bed, early to rise, work like hell and advertise.'"

Dan Heald was a young Army corporal assigned to von Braun's team in the early 1950s.

'HARDWORKING AND THOROUGH'

"I don't know if I can judge genius. What I can judge is hard-working and thorough," said Heald, 71, a retired engineer. "Often a boss, particularly a big boss like von Braun, will sit in an office and act important. These guys never were sitting and doing nothing. They were always checking on every single little detail, asking questions. 'Is that right? Is that right?' Even in the shop."

They still take pride in their meticulousness. When name tags issued at the reunion kept falling off, 86-year-old rocketeer Dieter Grau remarked with a chuckle that they should have been sent to his lab for a checkout.

Their painstaking approach paid off in six moon landings from July 1969 through December 1972. Three additional missions were canned; President Nixon had had enough,

especially after the harrowing Apollo 13. President Bush tried to resurrect the program on the 20th anniversary of Apollo 11 in 1989, but his pitch for moon colonies and a Mars expedition went nowhere.

Nothing has been officially done — or said — since.

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‘AMAZING’ IT WORKED

“To make it happen that somebody went to the moon and came safely back to Earth ... it was amazing that it all worked,” said Ursula Mueller, 77, who worked with von Braun in Berlin.

“And then what we have now is the shuttle to go a little bit around.” She sadly shook her head.

Mrs. Mueller went alone to the reunion; her husband, Fritz, 91, one of the 118 original rocketeers, was under doctor’s orders to stay home.

The official reason for the get-together was a rare visit by von Braun’s thirtysomething nephews (his niece, their sister, just moved to Huntsville), not to mention the 30th anniversary of that giant leap for mankind.

The real reason, Elizabeth von Braun confided, was that the only other excuse to gather the old-timers is a funeral, “and we just felt that we need to get them together, as many as we can ... it may be the last time.”

FRAGILE RELICS

The five rocketeers in attendance seemed as much a relic as the artifacts surrounding them, only far more fragile.

Image: Encarta

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A Saturn V rocket lay majestically on its side, collected piecemeal by von Braun in the late 1960s for exhibit at the Space & Rocket Center. Nearby, ground had recently been broken for a full-scale, vertical model.

Down the hall from the gathering was a recreation of von Braun's 1960s office at Marshall Space Flight Center; two of his slide rules were displayed in a quaint, quiet reminder of the times.

Hardly any NASA brass attended the reunion, but Jim Dunn, one of two latter-day space station engineers who dropped by, couldn't help but marvel at the Germans' accomplishments.

"And they did it without computers!"

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