

Rocket's Birthplace Described as Disorderly Scene

By ALVIN B. WEBB Jr.
United Press International
Huntsville, Ala. — (UPI) — The birth place of the rocket that will hurl U. S. astronauts to the moon resembles a combination of used sets from the movie "Cleopatra" and a year's supply of untidy basements.

—Inside a yawning hangar, bits and pieces of metal in nearly every conceivable shape lay helter-skelter on the floor. Lacking floor space they hang from the ceiling or protrude from the walls.

—Out in a shallow valley, four massive concrete pillars jut from the red clay ground like left-overs from some Pharaoh's pyramid project.

—On the side of a grassy hill, an odd-looking contraption intermittently bellows in a loud, low moan akin to the sound of an aging cow that hasn't been milked in a week.

This is the Marshall Space Flight center (MSFC)—the chaotic cradle for the fantastic machine that is supposed to send three-man teams of astronauts to the moon in 1968.

The space center is nestled in the rolling hills of green grass and red clay outside Huntsville, at the top of the "space crescent" that runs from Houston, Tex., where astronauts are trained, to the firing pads of Cape Canaveral, Fla., where they will blast off for the moon.

The importance of MSFC's role in the multi-billion-dollar

scheme of lunar things is underscored by the fact that its chief is Dr. Wernher von Braun, the famed ex-German scientist who, probably more than any man alive, is responsible for making America space-conscious.

Von Braun spearheads the bustling center's drive toward a single goal — to develop "a very fine and potent space transportation system" that will be suitable for a decade of U. S. exploration.

Someone else here had a more flowery description of MSFC's job — "to find a way

for man to get to heaven without dying."

The immensity of the tasks can be envisioned if you will let your imagination run rampant for a minute, and visualize a string of horses 200,000 miles long.

Distill horsepower

Now consider the problem of distilling the horsepower from all those horses and squeezing it into a stack of metallic cylinders 350 feet high and 33 feet across the base.

The result is the rocket called simply Saturn-5 — the

mighty "space wheel" that will propel three-man U. S. teams to the moon.

And suddenly, the five years between now and then seem terribly short.

Among some high officials who seem almost pathologically conscious of their positions in the U. S. space business, the luxurious office has come to be a sort of status symbol. The loftier the position, the more ornate the so-called "working quarters."

The office of Wernher von Braun is impressive in its modesty. It is a key to the

philosophy of operating the 1,600-acre Marshall Space Flight center, from the top man down through the wrench-wielding ranks:

All Hard Work

Forget the frills. Only hard work will buy success.

In this respect, the somewhat austere set-up of the Marshall Space Flight center differs from some other federal space agency installations such as Houston (where plush offices abound) and Cape Canaveral (where buildings such as Mercury control center come with landscaping).

But one doesn't argue with success. Von Braun knows what success is and, more importantly, he knows how to get it. History is his witness.

The powerfully-built rocket wizard and his small team of expatriate German scientists and technicians first stunned the world in the latter part of World War II when they built and perfected the terrifying V-2 rocket in the dying gasps of Adolf Hitler's third reich.

At the war's end, they moved to White Sands, N.M., for peaceful V-2 shots that produced knowledge import-

ant to space research even to today. Then, in the 1950s they moved to Huntsville as the core of America's foremost rocket team — first under the U. S. Army, then under the National Aeronautics and Space Administration.

Germans on Job

From here, the talented Germans generated the power for America's thrust into the space age:

—They designed and built the nation's first ballistic missile, the Redstone a rocket so reliable it was entrusted with the job of sending the first U.S. astronaut, Alan B. Shepard Jr., on a sub-orbital flight on May 5, 1961.

—From the Redstone, they built up a more powerful rocket called Jupiter-C and used it to launch America's first satellite, Explorer-1, into orbit Jan. 31, 1958.

—They paced the Marshall center's design and development of the mighty Saturn-1, this nation's first "super-boosters"—a rocket Von Braun himself believes is twice as powerful as any Russian rocket.

On a long wooden table at the rear of von Braun's office stand models of these and other U. S. rockets. The model of the Pershing missile is about six inches tall. The Saturn-1 model stands a little over three feet. The "real-life" versions all have flown for the United States.

One Hasn't Flown

All that is, except one—the model at the extreme right of the table.

This is the Saturn-5.

The model is so tall a hole had to be cut in the ceiling of Wernher von Braun's office before it could be stood upright.

Two years ago, President Kennedy made the landing of men on the moon a national goal for this decade. The machinery for the monumental task is being forged within a metallic cave at the Marshall Space Flight center.

This is the assembly building. It looks like a gigantic repair garage — except that everything seems doubled and redoubled in size. The machinery and parts that fill all but the walking space of the 107,000-square-foot floor resemble nothing ever before seen.

This is the raw material for the Saturn-5 Moonrocket.

Getting Ready

"We are in the process of fooling up for Saturn-5," said a space agency spokesman. His hand flashed a confident, 180-degree sweep. "The hardware is just beginning to pile in."

Piling in, rolling in, flying in from all parts of the country, the "hardware" indeed, is getting to be a massive stack. The Marshall center's task is to make a Saturn-5 rocket from it.

Its scientists and technicians have about 1,000 days to do it. The first Saturn-5 must make its sub-orbital ballistic flight from Cape Canaveral early in 1968, if a manned lunar landing is to meet the current target date in 1968.

The assembly building has been used to build America's present "rage" rocket, the Saturn-1. But parts for the last four Saturn-1 boosters already are being assembled, and after that production will shift to the Chrysler Corp. plant at Michoud, La.

Saturn-1 generates 1.5 million pounds of thrust. The Saturn-5 will turn out 7.5 million pounds of thrust — a five-fold increase.

Or put it another way. Saturn-1 could shoot your family automobile to the moon. **Toward The Stars**

Saturn-5 could send it clear out of the solar system toward the stars.

Your car tops a slight hill, and your eyes tell you that the spectacular sights of the space age are not necessarily confined to missiles and machinery and men flying into orbits.

There, jutting from the ever-present red clay, stand four curved, monolithic blocks of concrete as awesome in their own stolid, silent way as any rocket that ever blazed from Cape Canaveral.

They look like part of a set from a Biblical movie or grandiose proportions. In a way, they are a stage — for the first performance of the mighty Saturn-5 rocket.

These concrete pillars, anchored 40 feet into the ground and rising another 70 feet above the surface, form the base for a test stand that will rise 400 feet into the Alabama sky by mid-1964.

To Roar in '64

On this platform, the five-barreled booster for the Saturn-5 will utter its first thunderous sound next year. In late summer of 1964, the roar of a single one of the five 1.5 million-pound thrust engines will echo across the green hillsides.

And by October of 1964, all five engines will be fired up in unison while the 33-foot-diameter frame is latched to the test stand.

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