



Hoot Gibson Has the Right *It's*

Job description: Fly a quarter-million-pound spacecraft and link up with the Russians as a billion people watch. All it takes, comrade, is a pilot with a couple of "steel eggs."

By James Reston Jr.

THE LAST TIME I HAD SEEN Hoot Gibson in his natural habitat, only seven months had passed since the *Challenger* accident, and I lay in the poppies next to an airstrip in Friendswood, Texas, about fifteen miles from the Johnson Space Center. He banked low over the cottonwoods in his mint-green Cassutt Racer and leveled off ten feet over the tarmac. His "hot rod" made a terrible racket as he whizzed past me at 230 miles per hour. He did not turn my way as he went past. His profile in the tiny cockpit was fixed, expressionless, but I knew he had that bemused glint in his eye. He was in his element. Far down the runway, he pulled up steeply, pushing the toy airplane to its maximum climb rate, and he was gone. Then a quieter sound pressed itself on my ears, the put-put of a Piper Cub overhead. The yellow plane was moving

very slowly, tipping its wings oddly from side to side, and there was an audible clatter inside the plane as if something was shifting around. A cowboy's holler pierced through the engine noise, and then, slowly, cautiously, the pilot's bare ass emerged. So much for the grace of aviation—this was Texas.

And so, to see Hoot nine years later, this time in Moscow, moving about with ease in the camp of his lifelong enemy, seems unnatural in the extreme. It is a cold March day, about 10 degrees—"When March comes, put on three pairs of underpants," goes the Russian proverb—and Gibson stands outside a security fence at the Kaliningrad Mission Control Center. Clerks scurry around with different lists, pushing certain persons through the gate and directing others to stand aside. Hoot and his crew don't seem to be on the list. They are here for the launch this morning of a Russian Soyuz rocket, which has an American astronaut, Dr. Norman Thagard, onboard. And they are here for a pretty

good reason. It is their job, in June, to launch in the space shuttle, dock at Russia's Mir space station, deliver two cosmonauts to *their* natural habitat, and pluck Thagard from the clutches of the Russians.

"I think Norm will be in exceptionally high spirits when we get up there," Hoot says. "When we get about thirty feet out, I think I'll negotiate a price."

As he patiently waits for the list situation to sort itself out, Hoot looks decidedly preppy in a tweedy jacket, red V-neck sweater, and Windsor-knotted striped tie. Someone remarks that he resembles an English squire. He smiles. No change of costume can alter what he is: a consummate pilot, a naval officer who had spent his whole life trying to figure out how to defeat Russian plane and ship defenses

The return of the cowboy astronaut: Gibson in his Formula One air "hot rod" over the Johnson Space Center in Houston.

PHOTOGRAPHS BY MARK PETERSON

Lacrosse was meant to usher in a new era of spying over the Soviet Union and Eastern Europe. But there were problems. Hoot will not discuss them. For his work, he received a medal of achievement from the director of the CIA. The citation mentions an unscheduled re-*rendezvous* with a satellite in space.

"So you had trouble up there?" I prodded.

"Uh-huh."

"How close to the satellite?"

"I would love to tell you, because that mission was the most fascinating I've flown. But I can't."

"Are your new Russian friends aware of your intelligence past?"

"I don't think they've connected the two things."

As it turned out, *Buran* never flew again. The program was canceled almost immediately after its perfect flight. A prototype of the Russian shuttle has been placed in Gorky Park in Moscow, and there's talk of turning it into a restaurant with good food in a mock-weightless environment.

GIBSON LOVES that tiny, mint-green racer. He has preened its shape, cut its weight down to 550 pounds, and souped up its hundred horsepower, because you want to throw as much power to weight as you can. When his astronaut days are over, he plans to go "heavily" into Formula One air racing. But the midget plane is also the instrument of his near disgrace and very nearly the instrument of his death.

It happened in the most innocent of ways. After his classified mission, Hoot was assigned to a flight whose prime objective was to unwind a satellite on a long tether and test the potential to generate power in space. Because the mission was a joint production with the Italian Space Agency, its crew was named far earlier than normal, three years before the flight. That was a long time to wait, and a guy could get itchy. How does a pilot stay in fighting trim?

On July 7, 1990, Hoot climbed into his hot rod and popped over to New Braunfels, Texas, for an air show and some Formula One air racing. Among his competition that day was Deke Slayton, one of the original Mercury astronauts and a veteran of the 1975 Apollo-Soyuz mission. Also flying would be the granddaddy of midget air racers, a sixty-nine-year-old former test pilot named Rocky Jones. Four thousand spectators lined the dusty airstrip.

Around the second pylon, traveling at 220 miles per hour at 150 feet off the ground, Hoot was leading and Rocky was in third place. Banking steeply around the third pylon, Hoot pulled three g's and made for the finish line. Rocky was above the two planes ahead of him. As he came around the pylon, the old veteran saw an opening. He dove past the second plane.

When the shuttle moves within ten feet of Mir, Hoot will lose contact with Houston. "It takes," he says, "a little bit of piloting skill."



The diplomat: With cosmonaut Sergei Krikalev and pilot Charles Precourt.

Hoot heard a sickeningly loud bang, and his plane started to vibrate. His first thought was that he had thrown a propeller blade, and so he chopped the throttle and killed the engine. Otherwise, the engine might run wildly fast and drop right out of the airplane.

Preparing for a dead-stick landing, he looked out and saw that his right wingtip was shredded. Maybe that explained it. He hit the ignition switch, rammed the throttle forward, and the engine responded. He landed immediately.

"What in the world happened?" he asked the first guy who ran up. "Don't you know?" the man answered. "Rocky hit you... and he went in."

Rocky went in... into the cornfield, killed instantly. In the investigation that followed, it was determined that Rocky Jones's propeller had hit Hoot's right wingtip, and the impact had snapped off his left wing.

"I was very fortunate," Hoot says. "I'm not proud to say I survived a midair. Usually, nobody survives."

Two days later, Hoot Gibson was suspended from flight status, removed from the command of the Italian tether mission, barred from flying even the T-38 jet trainers. This was the first time an astronaut on a crew had ever been replaced for disciplinary reasons. NASA, in a wonderfully disjointed statement of explanation, said, "We hire test pilots because they have the ability to fly on the edge. We want that. But we want them to be conservative about it."

To all appearances, his career was finished.

"There was talk of getting rid of me entirely. That would have been a very poor way to leave the astronaut corps."

In disgrace, the normally easygoing Hoot could be tart-tongued. For the tether mission, he was replaced by another veteran commander, Loren Shriver, and several months later, they were both asked to talk to a group of new astronauts. It fell to Hoot to speak first and then introduce Shriver. Nodding toward his fellow commander, he told the rookies, "Look out for guys who will screw you out of your mission." Months later, the tether mission flew and it turned into a Fellini farce. The tether was supposed to unravel to a length of twenty kilometers but got stuck at eight hundred feet. When the shuttle landed, Hoot greeted Shriver on the runway. "Hey, Loren," he said brightly, "I sure want to thank you for taking that mission for me."

Quickly forgiven by NASA, Hoot was named commander of the very next mission, a complicated science venture in collaboration with the Japanese. Shortly after completing it flawlessly, he was appointed chief of the astronaut office.

This is the very top of the profession. Icons of manned space flight had preceded him in the post: Alan Shepard, Deke Slayton, and John Young. Still, to the world outside NASA, he remained virtually unknown. Two years later, Hoot learned that the price of commanding the highest-visibility flight of the shuttle era was to give up the post.

A FEW SUBWAY STOPS north of Red Square, the remnant of Stalin's exposition of glorious Soviet achievements spreads across a vast theme park. Beyond the entrance, pavilions are set around a circular fountain where gilded statues commemorate the fifteen republics of the former Soviet Union. Each of the stolid Greco-Roman structures is devoted to a different accomplishment—agriculture or people's education or atomic energy or space. The park is now the largest discount supermarket in Moscow. In hundreds of seedy stalls, Georgian or Korean salesmen will sell you a snowy television at a great price.

The cosmos pavilion is situated toward the back of the park. Outside, a Vostok capsule and rocket of the type that carried Yuri Gagarin into space in 1961 hangs suspended by a crane, as if it is being lynched. Only toward the back is there a hint of what this place once was. Space junk, satellites of various shapes, broken blue glass of solar arrays, and spent antennae sit in a heap as if shoved by a bulldozer. Behind a temporary Sheetrock divider, there is a fifteen-foot bust of Gagarin, haphazardly placed on a wooden pallet. Next to the bust, in a corner at the old pavilion, a man is under the hood of his car, working on his carburetor.

"It's history. It's nothing," my translator says in disgust. "Nobody cares anymore about the cosmos. They don't care about the past or about the future. Only about this day."

The chaos and decay of present-day Russia provide a surreal backdrop for the glorious symbolic joining of Russia and the United States in space this month. The current collaboration, which was born at the Vancouver summit in 1993, is a marvelous celebration of mutual weakness. To Yeltsin, the Russian space program was the last world-class commodity to survive the current distress, and he desperately wanted to save it from the trash heap. Clinton in turn had come into office promising to reduce the deficit, and NASA's \$30 billion space station was the easiest of targets. If Congress scrapped the space station, there was no rationale for a fleet of expensive space shuttles. Where would they go? What would they do? The Vancouver agreement saved both programs.

A good deal of thought, therefore, has gone into the ceremony for when the doors are thrown open. What gift should Hoot give to Mir's crew? Should he have flowers for the female cosmonaut? Perhaps the fliers could exchange flight wings. But first and foremost are the camera angles, because in 1975, "the first thing the world saw from space," Hoot says, "was a fine shot of Deke Slayton's butt."

TWO DAYS AFTER the American astronaut, Norm Thagard, soared into space on a Russian rocket, the crowd in Russian mission control has doubled. The American ambassador is here, along with the portly commissars of the Russian space program. At last, we will see the docking with Mir.

This is what Hoot Gibson has come from Houston to see. Especially because the Russians close on the target eight times faster than his shuttle will. There is one huge difference: Theirs is purely automatic, whereas Hoot's will be strictly hands-on. In the American way, the human factor is central.

"It takes a little bit of piloting skill," Hoot says.

On the video screen, the target flashes up. Mir's wings

are spread wide and welcoming. In the center, its orifice is exposed. The familiar voices of the controllers chatter in the background, except the language is Russian. Will it be Russian in June? I ask Hoot. Negative. "But I can say 'ten feet' in Russian." I know he can say more. A few weeks before, they had had their weekly Russian lesson in Houston and then went into the simulator and were patched through to the cosmonauts on Mir. Someone handed the microphone to Hoot. Say something in Russian. With the week's lessons fresh in mind, Hoot said cheerfully, "We have a new apartment!"

Slowly, gradually, pulled by magnetic force, the target draws closer. In mechanical language, the port on Mir and the coupling device on the shuttle are called androgynous. They have no pistil or stamen, no male or female qualities, but combine the features of both sexes. The goal is a "hard mate." The sexual imagery seems strangely out of place. When the shuttle comes within ten feet, it will make its first touch with three metal fingers, groping for a perfect fit on Mir's docking ring. Inching closer, hooks will grab the two bodies and slam them together with considerable force.

Two quarter-million-pound masses, drifting in zero gravity. "You cannot dock too softly," Hoot is saying, "because then you will bounce off." On the other hand, you cannot hit too hard. The docking rings can only withstand a force of six hundred pounds. The coupling port on the shuttle is forward of the spaceship's center of gravity. If the impact is too hard and only a few of the hooks attach, the shuttle's tail, housing its heavy main engines and fuel, could continue on its inertial path, swing around, and plow into Mir with catastrophic force. That would have, in Hoot's downplayed parlance, "explosion potential."

He thinks of docking with Mir as a nine-dimensional problem. The locations of the shuttle and Mir and their relation to a specific point on earth make three dimensions; the pitch, roll, and yaw of the shuttle, relative to Mir, make six. Then there are closure rate and the time of docking, for it is important that as the two spacecraft hurtle around the globe at 17,500 miles per hour, the docking takes place over a ground station in eastern Russia. Lastly, there is the ninth dimension. When the shuttle is within 250 feet, Hoot "modes" the ship to free drift, and the craft is completely in his hands. He must enter a tight, well-defined eight-degree cone. Within thirty feet, the cone narrows to five degrees.

The margin for error is very small. He must dock in a ninety-second time frame. His alignment cannot be off more than three inches. He has a two-degree margin for the angle of attack. He must close on Mir at a speed somewhere between .07 and 1.3 feet per second. His line comes back to me: "It takes a little bit of piloting skill."

During those final minutes, a massive amount of information is thrown at him. "But I have to fly without thinking about it," he says. "My movements have to be reflexive." And then, ever the team player, he reverts to his training as a shuttle astronaut. "I'm not doing it alone," he says. "If I had to do it alone, it would be sensory overload."

But in the end, he will be alone. When the shuttle moves within ten feet of Mir, the spaceship will lose direct communication with Houston. The last part, blacked out in the blackness of space, Gibson has to do by himself.

"Stepka!" comes the call, and mission control at Kaliningrad bursts into applause.

Later this month, Hoot will get the applause line.

"Houston, we have capture!"

and how to best them in space, the commander of a shuttle mission that only six years ago had deployed a spy satellite over Russia, and now suddenly an ambassador of the new harmony. Outside the barrier, he kibitzes in Russian with his minders. He is only three months away from performing the most symbolic act of cooperation that Russia and the United States have yet undertaken in their strange new relationship. A television audience of one billion people worldwide will watch as Hoot eases the shuttle into free drift and floats toward his docking with Mir.

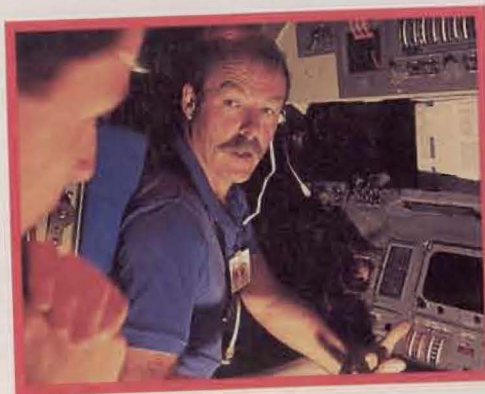
Finally, we are swept past the clerks and enter the nerve center of the old adversary. Kaliningrad is named for Mikhail Kalinin, the grandfatherly formal head of the Soviet Union under Stalin, the marionette who acquiesced in Stalin's crimes and sadistic punishments, including the purge of his own wife. In the new harmony, no one mentions that. It's a bargain. We won't talk about that if you don't harp on Hoot's military or intelligence past.

On the large screen in the center, an electronic board plots the trajectory of the Soyuz launch. All the usual dangerous milestones are indicated: first-, second-, and third-stage separation; maximum dynamic pressure; and the moment that always gets the applause: main-engine cut-off. No matter where you are, what you believe, who your enemies and newfound friends are, the first eight minutes of any space mission are the most dangerous. Hoot seems unconcerned. He's impressed with the Russian record.

"You look at the rudimentary nature of their system, and you wonder how their rockets ever fly. But their machines are robust, hard to break. They launch on time, every time, no matter what the weather. Three hundred thirty-nine Soyuz launches, three hundred thirty-nine successes. That's quite a record."

That is a ten-year figure. It does not take into account the launchpad fire only six months before space pioneer Yuri Gagarin flew, which started with a general smoking a cigarette in the wrong place and ended with fifty-five people killed. Nor does it include a little mishap that occurred twelve years ago. On September 26, 1983, the Soyuz engines fired, there was a malfunction, and the rocket started to quiver. The emergency system triggered and the capsule was catapulted at twelve g's from the top of the smoldering rocket. A few minutes later, the cosmonauts came down safely in a plowed field three miles away. Aboard that near disaster was Vladimir Titov, who flew last year on the U.S. space shuttle in its first close approach to Mir. As Russian lore goes, Titov climbed out of the hatch and hailed a passing truck. When the emergency crews rushed up minutes later, he was leaning against the truck, smoking a cigarette. Russians love the story (although it can't be true, since the hatch to their capsule must be opened from the outside).

"After Challenger, we never again looked at the shuttle in the same way," says Gibson. "I'll never forgive it for what it did to my friends."



The commander: In the flight simulator, training for June's space détente.

has logged thirty days in space. Theoretically, she could have been named to the crew of the June docking mission. The mission needs a doctor to perform a thorough physical on Thagard while he is still in space. But as chief of the astronaut office, Hoot was doing the crew-naming a year ago, and his wife did not fit the profile. Anyway, the family has a policy against flying together on the space shuttle. There's another incidental consideration: Rhea Seddon, age forty-seven, is pregnant. "If our mission is delayed a few weeks, as they're now saying might happen," Hoot says, "Rhea will hatch when I'm in space."

IN THE PANTHEON of American heroes, astronauts have always had a special niche. The men of Mercury and Apollo made a vivid cast of characters: Glenn, Borman, Slayton, and Young. Their craggy faces and swaggering ways, their abbreviated speech and tremendous courage, formed the lore of playgrounds. With the triumph of the moon landings, a whole generation of Americans grew up wanting to go into space.

Somehow, this longing and wonder disappeared in the shuttle era, and it disappeared for reasons deeper than the explosion of *Challenger*. After the first flight of the space shuttle, with John Young and Robert Crippen—veterans of the Gemini and Apollo programs—astronauts became nameless and faceless. They could roar off the pad at the Cape, circle the globe every ninety minutes for a few days, and not be noticed at their local bank the following week. Crew members became fungible and redundant, as if they were spare parts that could be changed out like a heat pump. The only way to get noticed as an individual was by screwing up.

NASA wanted it that way. The agency had had enough of rugged individualists. The new astronauts were presented to the press and the public in canned and boring settings: on a dais, in a sterile government office. They were given courses in how to fend off the press and how to give the flat-

That's it, the right stuff, "steel eggs."

The video of the Soyuz rocket flashes up. At the launchpad, two thousand miles away in Kazakhstan, it is 3 degrees above zero, and ferocious winds whip across the tableland. But here, there is no worry about the limberness of O-rings. The rocket is beyond criticism, Tass had blustered the day before. Slowly, the gantry retracts down and away, revealing the slender white rocket, elegant and simple. This is their Porsche, as Hoot thinks of it, compared with our Cadillac. And then comes the video of the crew cabin. Thagard peers out of his visor, with white half-glasses, looking calm, almost professorial. The last seconds tick down. "Whenever my friends launch," Hoot says, "my palms get sweaty and my heart starts to pound."

Not only have his friends launched but also his wife, Rhea Seddon. A surgeon by training, she has flown three shuttle flights and

test answers. It was as if NASA set out to kill its own heroes.

For any astronaut who might step out of NASA's all-purpose model, a quiet word was passed that grandstanding could affect future flight assignments. The focus must be on the magnificent flying machine, and launches at the Cape were staged with son et lumière as if the gleaming machine itself was an object of worship.

Even within this institutional straitjacket, Hoot Gibson always stood out. Not everyone was amused when he started an all-astronaut band, calling it Max Q, the term for the point of maximum stress during the shuttle's ascent. Besides having good looks and a soft, singsong voice, he was less wooden, less rehearsed than the others. He was also the most forthcoming of all the astronauts after the *Challenger* accident, even allowing his bitterness to seep through. President Reagan, Hoot recalls, had declared the shuttle to be operational after only four flights. "We always called X-15 an 'experimental rocket plane,' and it was not 'operational' until it had made two hundred flights," he told me in July 1986. "I think most astronauts just smiled when we said the shuttle was operational."

Recently, in Moscow, Hoot again thought back to 1986. "After *Challenger*, we never looked at the shuttle in the same way," he said. "It's the most fascinating machine ever built by man, but I will never forgive it for what it did to my friends. We keep a wary eye on the thing. I hope we're not slipping back into the same hubris as before."

LIKE A LOT OF MEN with the last name of Gibson, he acquired the nickname "Hoot," after the famous cowboy and silent-film star. Born Robert Lee Gibson in Coopers-town, New York, in 1946 and raised on Long Island, Gibson is the son of fliers. During World War II, his mother bought a Taylor Cub and cavorted over the farms of southern Rhode Island. And his father flew the mail, bringing some of the first airmail from the West to the East Coast in a B-7 bomber. Hoot remembers that at age four, he would run down the street with his arms outstretched, trying to fly. At seventeen, he had his pilot's license.

After earning a degree in aeronautical engineering from California Polytechnic, Hoot joined the Navy as the Vietnam War began its final, furious stage, flying fifty-six combat missions over Hanoi and Haiphong. He achieved Top Gun status in F-14A's and became a test pilot.

Gibson graduated in the first class of pure-shuttle astronauts. The class of 1978 had thirty-five members, fifteen of them pilots. The rest were mission specialists, men and women who would handle the work in the back of the spaceship and do the spacewalking. At the Johnson Space Center in Houston, a rivalry grew between the two groups. The pilots looked down on their passengers as wimpy. If a teacher or a journalist, a congressman or a Saudi prince, could be an astronaut, whither the "right stuff"? The mission specialists, in turn, believed that the real grown-up business of the shuttle happened in the cargo bay, not in the cockpit, and viewed the pilots as bus drivers and a tad immature, prone to silly rituals. Hoot's favorite since test-pilot days is drinking a "Flaming Hooker." (Definition: Light a glass of cognac. Down it and replace the empty glass on the bar, still flaming. "The one way you can fail," Hoot instructs me, "is if you burn your face off.")

His first shuttle flight came in 1984, and it was noteworthy as the first landing at Cape Canaveral. Hoot's photograph of a crewmate suspended against the blue band of the earth's curvature was recommended for a Pulitzer prize in news photography.

In late 1985, Hoot readied for his first shuttle command. Aboard would be Congressman Bill Nelson of Florida, whose top priority seemed to be a heroic shuttle landing in his home district. Nelson's presence on the flight occasioned a good deal of resentment in the astronaut corps. To make room for Nelson, an astronaut named Greg Jarvis was bumped from the crew and shifted to the next shuttle mission, the flight of *Challenger*.

The last flight before catastrophe was full of warning. Liftoff was delayed five separate times, the most of the shuttle era. During one of the attempts, fourteen thousand pounds of liquid-oxygen fuel had been mistakenly siphoned from the fuel tank. Had there been a launch, the mission would have been aborted within minutes, and Hoot Gibson would have attempted a first: a U-turn in the stratosphere at supersonic speed, with the fuel tank still attached. The computers say it can be done, but no flying machine has ever tried it.

On January 12, 1986, the mission finally got off the ground. But within seconds, an alarm flashed: a large helium leak in a seal that separated the oxygen and the hydrogen. If the seal was lost and the gases blended, explosion.

The country yawned. Just another routine flight. Another communications satellite launched; some obscure experiments in astrophysics conducted, something about "materials processing." To Congressman Nelson's despair, the shuttle was waved off several times from the Cape and finally touched down at night in California. It was January 18, 1986, and the shuttle program was looking ahead. If interest in the program could be sparked, it awaited the next mission. *Challenger* was set to blast off in ten days.

IN THE TWO AND A HALF years that the shuttle was grounded, Gibson joined his colleagues in the horrible task of investigating the accident. With great uncertainty about when, or if, the shuttle would ever fly again and, if it did, how often, many senior astronauts reconsidered their careers. The competition for the first few flights would be intense, and Hoot expected that it would be a long time before his turn came up again.

Meanwhile, another competition was under way. Across the water, in their secret base called Baikonur, the Russians were building their own space shuttle. They called it *Buran*, or "blizzard." If *Buran* launched before the American shuttle, it might be another *Sputnik*.

A year and a half after the *Challenger* accident, the first assignments were quietly made. To the surprise of many and the grumbling of some, Hoot got the second flight. It was a secret military mission, due for launch in December 1988, and it revealed the shuttle plainly as a weapon of the cold war. Six weeks after the first American shuttle flight after *Challenger*, the Soviet shuttle made a flawless maiden voyage, completing two orbits and landing exactly on its mark on the salt bed of western Kazakhstan. The race was on.

Two weeks later, under a cloak of secrecy, Captain Gibson, with his crew of military officers, blasted off. At 240 miles above earth, higher than Hoot had ever been, they released a half-billion-dollar satellite code-named *Lacrosse*.