

# RIFF RAFF

## The Hawker Sea Fury that forced an Astronaut back down to Earth BY JAN TEGLER

On a hot afternoon in late August 1996, Robert "Hoot" Gibson was making an approach to Greater Kankakee Airport, 50 miles south of Chicago, at the controls of "Riff Raff," a Sea Fury modified with an 18-cylinder Wright R-3350 radial in place of its original Bristol Centaurus radial.

"I had extended my downwind and I'm out there just about to turn base leg and the engine quit ... just quit," Gibson recalls.

If Hoot's name is familiar, that's not surprising. By 1996, he had flown Space Shuttles Challenger, Columbia, Atlantis, and

Endeavour as a pilot or mission commander on five missions between 1984 and 1995. He'd flown F-4B/F-4N Phantoms in combat during Vietnam, made the Navy's first deployment with the F-14A Tomcat, and then became a Navy Test Pilot at NAS Patuxent River. By 1978, he was selected by NASA to become an astronaut.

**Hoot Gibson (right) stands next to famous fellow aviators and Unlimited class racers Tom Dwelle (left) and Skip Holm (middle) prior to the 2003 Gold championship race. Holm, a decorated fighter pilot in Vietnam, Lockheed test pilot for F-117/F-22 fighters, and five-time Unlimited class champion, flew the P-51D "Dago Red" to victory at a 487-mph race average that year. Dwelle, awarded the DFC in Vietnam while flying Skyraiders in combat, finished in third place flying his Sea Fury "Critical Mass." Gibson raced "Riff Raff" to a seventh-place finish at 428 mph. (Photo by Eric Tegler)**



Hoot Gibson, down low in "Riff Raff," races wingtip-to-wingtip with Stewart Dawson in another Sea Fury, "Spirit of Texas," at Reno. (Photo by Neal Nurmi)

From riding the shuttles at 17,500 mph on the way to low earth orbit and rounding earth every 90 minutes to piloting a host of different aircraft—Piper Cubs to the F-101 Voodoo—Hoot’s wide experience led to repeated questions from the media.

“Frequently I’d be asked, ‘You’ve flown jet fighters, you’ve been a test pilot, an astronaut. Is there something in the world of aviation that you’ve never done that you’d like to do?’”

“The answer was always, ‘Yes.’” Hoot says. “I would dearly love to race in the Unlimited class at Reno.”

Air racing was the reason Gibson was aloft in owner Mike Keenum’s Sea Fury that afternoon. Keenum had intended to race in the Unlimited class himself and in 1995 had purchased the airplane Hoot was flying. But after witnessing an accident at the Reno National Championship Air Races that year, Keenum’s wife forbid her husband to race.

Dejected but not defeated, Keenum asked a friend, ex-Navy pilot Chuck Scott, if he knew anyone interested and talented enough to race the converted (to single-seat) T Mk. 20 Sea Fury at Reno. Fate intervened when Keenum, Gibson, and Scott happened to be at an airshow in

Quincy, Illinois. Keenum had flown the Sea Fury in for the show, and Hoot was on hand to fly a two-seat MiG-21.

Scott asked Hoot if he’d be interested in racing Keenum’s Sea Fury. “I told him I’d love to,” Gibson answered.

### “Wright Up Front”

It was a deal. Keenum would have one of the nation’s most famous astronauts race the airplane he initially dubbed “Wright Up Front,” a riff on the Sea Fury’s big Wright-designed radial engine.

There was a small wrinkle, however. Though Hoot had considerable tail-dragger time in Aeroncas, Luscombe Silvaires, Globe Swifts, and the de Havilland Beaver and Otter he’d flown in U.S. Navy Test Pilot School, he didn’t have experience in warbirds.

Hoot phoned Sanders Aeronautics chief Dennis Sanders, a good friend and part of the Sanders family, renowned for their Sea Fury expertise and their racing exploits in the 4360-powered Sea Fury “Dreadnought” and other racing Sea Furies.

“He was completing the annual for Wally Fisk’s two-seat T Mk.20 and needed to do a test flight. ‘Is there any way you’d consider

**Mike Keenum’s Sea Fury in 1996 sporting the name “Wright Up Front,” a play on words referencing the Wright 3350 radial that replaced the fighter’s original Bristol Centaurus engine. This was the name the airplane carried prior to racing as “Riff Raff.” (Photo courtesy of Hoot Gibson)**

**“Wright Up Front” rests on its belly in a soybean field short of the runway at Greater Kankakee Airport, Illinois. The Sea Fury would rise again to race in the Unlimited class at Reno with Gibson in the cockpit from 1998 to 2009. (Photo courtesy of Hoot Gibson)**



doing a check out for me in the Sea Fury?” Hoot asked. Sanders said, “Sure.”

“Dennis coached me right from the start on things to watch out for,” Hoot says. The flight went well and Sanders signed off on Gibson’s Sea Fury rating.

But Mike Keenum wanted his race pilot to accumulate time in the backseat of a T-6 to become more familiar with landing a long-nosed warbird like the Sea Fury.

“That was my initiation rite,” Hoot jokes, adding that his “penance” was flying in the Texan with Ralph Royce, longtime air show pilot and president of the Lone Star Flight Museum in Houston. Well known for his safety advocacy in the airshow world and his sign-off at pre-flight briefings—“Don’t do nuthin’ dumb!”—Royce was just the guy to put Gibson through his paces.

Having successfully completed a batch of touch-and-gos and landings with Royce, Hoot went to Kankakee on August 26 for his first flight in “Wright Up Front.” The flight “went great” Gibson recalls, and he and Keenum were ready to go air racing.

“Not so fast,” said the Unlimited class

check pilot and president Art Vance.

“Art told me, ‘I understand you’ve got all this flight time and that you’re a Space Shuttle pilot and all that, but we’re going to want you to have 80 hours in that airplane before you show up to race.’”

Even for astronauts, pushing a warbird around the pylons at Reno at nearly 500 mph isn’t something you can do without preparation and a trial period of acceptance into the class. With his usual quiet determination, Gibson put his head down and worked on building 80 hours in the Sea Fury that he would race under a different name.

### “Riff Raff”

Gibson credits Keenum’s wife with the ultimate name for the racer. “She said, ‘We’re the new guys. We’re the Riff Raff.’”

To rack up 80 hours in “Riff Raff” as quickly as possible, Hoot was making the trip to Kankakee on weekends to fly the Sea Fury. On the weekend of August 24, he had flown one of NASA’s T-38A/Ns up from Ellington Field, Houston to Rockford, Illinois,



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then drove to Kankakee to bore holes in the sky locally in "Wright Up Front"/"Riff Raff."

"It was kind of dumb really because what I was doing was taking off, throttling way back to max endurance and cruising for two and a half hours. Then I'd land and refuel and go up again. The object was just to get hours in the airplane."

On one of the flights, "Unbeknownst to me, an oil line had blown down under the belly of the airplane and was dumping all of the oil out of the 3350 fast," Hoot remembers.

Already close to the airport, Hoot entered the pattern for landing, unaware that a 1.5-inch oil line "that carried 90 psi of oil pressure" had separated from the clamp holding it.

"On downwind, there was a Cessna Cardinal in front of me. I had already done a 360-degree turn on downwind to get some spacing. But the Cardinal flew a B-52 pattern ... a long, long final."

"So, I had extended, turned base and ... no engine."

In characteristically honest fashion, Hoot says, "Part of my excuse was the engine oil pressure gauge was low on the panel behind the control stick. The stick blocked your view or maybe I would have seen when it ran out. There's no warning light for it."

The Sea Fury's big prop was still turning but "with any airspeed at all, that prop goes to flat pitch, otherwise called a 'speed brake,'" Gibson notes.

Hoot was turning hard to line up with the runway when the engine momentarily came back to life.

"I had jammed the throttle forward one time and it sputtered for a second. I thought, 'My gosh. Maybe it'll come back.' It didn't. I don't why it sputtered like that because it had sheared the drive to the accessory section of the engine. The magnetos were gone, the fuel pump's gone, everything's gone."

### Gibson was in trouble

"I was at 1,000 feet, but the problem was I was too far out because I hadn't been able

Hoot Gibson taxis "Riff Raff" just prior to qualifying laps at Reno in 2000. (Photo by Birgitta Nurmi)



ABOVE: Gibson on the takeoff roll down runway 8/26 at Reno-Stead Airport, the site of the National Championship Air Races. (Photo by Wayne Sagar) BELOW: "Riff Raff" owner Mike Keenum (head in hand), Hoot Gibson (in cockpit), and the racer's crew chief consult with famed Lockheed thermodynamicist/air-racing-carburetor/cooling-systems guru Pete Law about gremlins plaguing the racer's complex Wright 3350 radial in 1998. (Photo by Eric Tegler)





Gibson banks "Riff Raff" around the 8-mile race course at Reno. Between 2005 and 2007, he pushed the once-wrecked Sea Fury to race averages in the high 430-mph range. (Photo by Neal Nurmi)

**SEA FURYS ARE KNOWN FOR NOSING OVER IF LANDED WITH THE GEAR DOWN OFF-RUNWAY. ... "IF THE GEAR HAD COME DOWN, IT WOULD HAVE KILLED ME."**

to fly the pattern I wanted to fly. Not even halfway to the runway, I got into wing rock. I recognized that, 'Hey, I'm about to stall this airplane.' What happens is that the ailerons get real light as you approach the stall and the stick will actually start moving back and forth."

"I thought, 'You stall this thing, you're a dead man.'"

Still at least half a mile from the runway, Gibson knew he had to lower Riff Raff's nose and attempt to land short of the runway.

"One of the mistakes I made was thinking, 'Oh I can't put it on its belly. I've got to get the gear down!'"

Sea Furys are known for nosing over if landed with the gear down off-runway.

Hoot reached down to the left of his left leg on the floor, unlatched the gear safety lever, then pulled the handle backward to lower the gear. "I was trying to hold the aircraft off the ground as much as I could without stalling it, but I touched down before the gear could ever move, fortunately! If the gear had come down, it would have killed me."

"Riff Raff" went careening through a soybean field off the end of runway 4/22 but only for a short distance.

"The tail came down first and then the forward part of the airplane came down pretty hard. It dug into the dirt and it was about the shortest landing roll I've ever had, maybe only 150 feet. I got out of the cockpit really fast! I didn't even remember shutting off the fuel, shutting off the mags, or killing the battery and then opening the canopy, jumping out, and getting clear of the thing."

Seeing that the Sea Fury wasn't going to burn, Hoot went back to the cockpit to make sure he'd shut everything down. He was concerned that he'd somehow flown "Riff Raff" with the fuel shut off. The next day he and Keenum went back to the wounded Sea Fury along with the racer's crew chief and a mechanic.

Gibson was slightly relieved when "the mechanic hopped up on the wing, pulled the engine dipstick out and said, 'Yup, there's no oil.'"

**From "Riff Raff" to Champion**

The beginning of Gibson's racing career in the Unlimited class was inauspicious. But sheet metal work fixed the damage to the underside of the aircraft, and a rebuild of the racer's 3550 made it flyable again by the summer of 1997. Hoot, Keenum, and his crew were looking forward to finally racing in 1997.

That is, until Keenum took "Riff Raff" up for a test flight.

"Mike landed and was just about to shut it down when he saw a chip light," Hoot remembers. "The oil was full of metal and the engine was done. There goes 1997."

Hoot finally got to race "Riff Raff" in 1998 and went on to compete for 10 years in the airplane he'd once belted into a bean field. The Sea Fury and Hoot got faster and faster, and for three consecutive years (2005-2007) scored fourth place finishes in the Gold championship race, pushing "Riff Raff" to high-430 mph race averages.

By 2011, Gibson was flying another racing Sea Fury named "September Fury." Sporting a much more modified 3350 radial with a boil-off cooling system, the airplane became the fastest Sea Fury in history in 2006 with previous owner/pilot Mike Brown, when it won Gold at Reno with an average of 481.619 mph. Gibson flew "September Fury" to second place overall in 2012, but an Unlimited championship still eluded him.

In 2015, Hoot came out on top, flying the famed P-51D "Strega" to victory. His first lap was clocked at 503 mph, and he went on to beat "Rare Bear" at a record Unlimited Gold race average of 488.983 mph. He had finally climbed Unlimited air racing's mountain—nearly 20 years after "Riff Raff" forced him down to earth. →