



DOUGLAS SOCKWELL'S **185 SKYRANGER**

One of the beautifully restored vintage airplanes displayed at the AAA Cactus Fly-In at Casa Grande, AZ last March was a 1945 Commonwealth 185 Skyranger. It has been owned by Douglas Sockwell of Lewisville, TX for the past 30 years, during which time, he says, he has rebuilt it twice, has had four different paint jobs on it and has had three different engines in it.

While interviewing Doug for this article, it was interesting to watch spectators walk up, look the airplane over, read the prop card - then, with a puzzled look on their faces, ask the first person within earshot, "What's a Commonwealth?" That's really not so surprising when you consider that Skyrangers were built under that company name for only 11 months, from December 1945 to November of 1946 . . . and that the aviation world has had 59 years to forget the name "Commonwealth."

Now, if the name "Rearwin" had entered the conversation, it might have been a different story . . .

The Rearwin Connection

In 1928, a 50-year-old businessman from Salina, KS named Rae Rearwin de-

cidated there was money to be made in aviation. He was not a pilot and had no prior experience in aviation - he was simply an entrepreneur who saw opportunity in the wave of enthusiasm engendered by Charles Lindbergh's solo flight from New York to Paris the previous year. After hiring an engineer and having a three-place biplane designed and built, Rearwin and a partner founded Rearwin Airplanes, Inc. in nearby Kansas City in July of 1929. Three months later, however, the stock market crashed, triggering the Great Depression that ravaged the nation for most of the 1930s and seriously crippled the U.S. lightplane industry. Fifty aircraft manufacturers were forced out of business - but Rearwin was not among them. With income from his other business endeavors and uncommon persistence, Rae Rearwin hung on during the hardest of hard times in the early 1930s, producing a handful of inexpensive "flivver" planes, then in the mid-'30s tried to move upscale to attract wealthy sportsman pilots with a new design, the Rearwin Speedster.

The Speedster was sleek and fast, but could not meet the government's spin recovery requirements. The company spent three years trying to bring the airplane into

compliance, but it was not until Rae Rearwin hired a 22-year-old aeronautical engineering graduate of the Curtiss-Wright Technical Institute in Glendale, CA that the problem was licked. Robert W. "Bob" Rummel enlarged the vertical tail and made other changes, allowing the Speedster to finally be certified in October of 1937. By that time, however, rapid advances in aviation technology had passed the Speedster by and only 11 were built.

The Speedster was not a commercial success, but its certification did benefit Bob Rummel. He was promoted to chief engineer of Rearwin Airplanes and would hold that position until the company was sold in 1942. While still a student at Curtiss-Wright Tech, Rummel had been hired to do the stress analysis on the landing gear and wing skin of Howard Hughes' racer - which would be the start of a bizarre relationship with the eccentric millionaire that would extend well beyond Rummel's years at Rearwin.

In 1937, the same year the Speedster had finally been certified, Rae Rearwin bought the rights and tooling for the LeBlond series of radial aircraft engines - and made Bob Rummel chief engineer of

that part of the company as well. Purchased for a song, Rearwin was able to turn a tidy profit on the engine business and did moderately well in the late 1930s selling the company's line of Sportsters and Bob Rummel-designed Cloudsters - but another fork in the road was rapidly approaching. The horizontally opposed aircraft engine had finally reached a stage of development in which it was cheaper to build and operate and, with the incorporation of hydraulic lifters in the Continental A-50, more reliable than most of the small radial engines of the day. A whole new class of lightplanes - the Cubs, Aeroncas, Taylorcraft and others - quickly became the sales leaders . . . and Rearwin did not have an airplane to pit against them.

Again rising to the challenge, Rearwin had Bob Rummel design a completely new airplane, initially to be powered by a Continental A-65. Rae Rearwin always wanted his airplanes to be just a cut above the competition, so a lot of effort went into making the new design, which would be designated the Model 165, roomier and more stylishly appointed than the rest of the Cub-class airplanes. The 165 was a two-place, side-by-side, high wing taildragger. The fuselage and tail surfaces were welded steel tube structures, the wing was wood - and all were fabric covered. The cabin had doors on both sides and, inside, dual stick controls, plush seats and an automotive-like imitation wood grain instrument panel. Further setting the Rearwin apart from its competitors were fixed leading edge slots that kept the ailerons functioning at speeds approaching the stall break.

A feature pilots would love was excellent visibility. The Rearwin had a large, deep windshield and tall side windows, and the top of the instrument panel was low enough that the view straight ahead was fairly good even in the 3-point attitude.

About the same size as the rest of the Cub-class lightplanes, the Rearwin 165 had a wing span of 34 ft. and a length of 21 ft. 9 in. The wing area was 164.6 sq. ft. and the NACA 23012 airfoil section was used. Empty weight was 760 lbs., initially. Gross was 1,350 lbs.

The prototype Model 165 was flown for the first time on April 9, 1940 by company test pilot Bill Miller and was announced as a new Rearwin product in July. In that announcement, it was called the "Ranger," which immediately generated a demand from Fairchild, the manufacturer of the Ranger engine, to cease and desist using their well-established name. That, plus the availability of the 75 hp Continental A-75-8 engine, caused Rearwin to change the name of the airplane to "Skyranger" and to certify it (ATC #729) on August 16, 1940 as the Model 175. Although Rearwin continued to offer the 65 hp Model 165, it is difficult to determine in existing literature whether many or, indeed, if any were

sold. The production that began in August of 1940 was principally that of the 75 hp Continental A-75 powered Model 175.

Like all the Cub-class manufacturers of the late 1930s and early 1940s, Rearwin believed sales could be enhanced by offering a choice of engines. Consequently, as they became available, the Skyranger was certified for use of three additional engines - by means of amendments to ATC #729. They were:

Model 180 - 80 hp Continental A-80-8

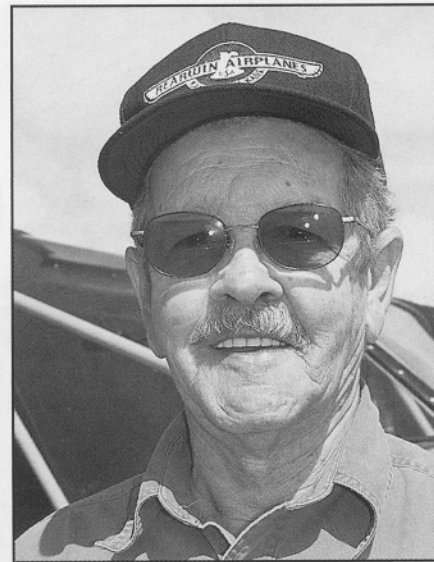
Model 180F - 80 hp Franklin 4AC-176-F3

Model 190F - 90 hp Franklin 4AC-199-E3

The Models 180 and 180F were approved on October 25, 1941 and the Model 190F was certificated on September 1, 1942 . . . the summer after Pearl Harbor. Only one 190F was built before Skyranger production was shut down so all the factory's resources could be brought to bear building Waco training and assault gliders for the war effort. Just 82 Skyrangers had been built to that point.

With big, potentially lucrative government contracts in hand, Rae Rearwin finally realized it was time to pick up his money and run. He was fully aware of what had happened after World War I. During that conflict, companies had built huge new factory buildings, bought expensive machinery and hired thousands of employees - only to be left holding the bag when the war ended and government contracts were suddenly canceled. Rearwin knew the same thing would happen after World War II, so in 1942, with the company worth what he believed to be as much as it would ever be, he and his sons, Ken and Royce, who were equal partners, put Rearwin Aircraft up for sale. A New York company bought them out in October of 1942 and promptly changed the name to Commonwealth Aircraft.

The Rearwin sons volunteered for military duty, but they and their father



Douglas Sockwell

eventually ended up in Southern California where they would become permanent residents - and forever out of airplane manufacturing business. The Skyranger designer, Bob Rummel, would remain in Kansas City, where he would become TWA's chief engineer and go on to a distinguished 35 year career. For nearly two decades, he also served as a personal aviation consultant to TWA owner Howard Hughes . . . which meant he was one of those subject to long phone calls at any time of the day or night - mostly at night - and clandestine meetings in out-of-the-way locales. After retiring from TWA, Bob established a successful aerospace consulting company, with clients in both government and industry. He served on many Washington-level aeronautics and space boards and committees and received many professional honors. As noted in the late Bill Wright's in-





valuable book, **Rearwin**, Bob was appointed by President Reagan to the commission to investigate the Challenger space shuttle accident. It's rather remarkable that the designer of several general aviation aircraft would ultimately rise to such career heights . . . which should be a point of pride for current owners of Rearwin Cloudsters and Rearwin/Commonwealth Skylanders.

During World War II, Commonwealth built Waco gliders and did subcontract machine work - and scrapped most of the Skylander tooling. Then, just as Rae Rearwin had foreseen, when the war ended late in 1945, the government contracts were canceled and Commonwealth quickly found itself scrambling to keep itself afloat. One obvious move was to restart Skylander production, but, initially, it was slow going due to the lack of tooling.

As related by Bill Wright, the first 12 delivered to dealers on December 21, 1945 were virtually handmade, apparently from factory drawings. A few were Model 175s but on February 2-12-47 a new model, the 185, was certified (again by amendment to ATC #729) with the Continental C-85-12. The remainder of the 276 Skylanders built by Commonwealth would be Model 185s.

For some reason, the management of Commonwealth decided to move Skylander production from Kansas City to Long Island, NY early in 1946. But in October when they were just getting production up to speed, they were hit by an employee strike that shut the company down - and the following month, the owners put the firm out of business forever. Between Rearwin and Commonwealth, a total of 358 Skylanders had been built . . .

and there would be no more.

So, now we see how Commonwealth slipped so quickly from the aviation scene and why its name is so little known today outside of antique airplane circles.

Doug Sockwell's N33384

Remember those 12 Model 185 Skylanders that were built largely by hand in December of 1945? They were Serial Numbers 1601 through 1612 - and right in the middle of the batch was 1605, the Skylander that 30 years and 17 owners later would be purchased by Doug Sockwell. Assigned the registration number NC33384, it would emerge from the Commonwealth factory on the Fairfax Airport at Kansas City, Kansas equipped with a wood prop, starter, generator, cabin heater, Goodyear wheels and brakes, a Scott tailwheel and position lights.

On December 21, 1945 it would be sold to Reed Pigman's American Flyers at Meacham Field in Ft. Worth, Texas. Famous for its flight training operations, American Flyers had purchased a batch of Rearwin Cloudsters that had been converted to instrument trainers shortly before World War II and would buy the rights to the Cloudster and the Ken Royce engines in 1946. Apparently the deal also included a Commonwealth dealer or distributorship, which would account for their acquisition of one of the very first Skylanders built after the war.

On February 15, 1946, N33384 was sold to Tomco Aviation of San Antonio, TX, which spent the next nine months upgrading the airplane. In March a Heath radio receiver was installed and a Grimes landing light was placed in the left wing. In May the rudder pedal torque tube bushings were cracking loose from the fuselage tubing and had to be reinforced, and a set of B-3A flares were installed aft of the baggage compartment and aimed to fire out of the left side of the fuselage in the event of a forced landing at night. In November, the Heath receiver was removed and a Waller transmitter made by Spartan Aircraft was installed. Then, four days later, on November 9, 1946, the Skylander was sold to J. H. Lapham's Hangar Six, Inc. in Bandera, TX.

For the next couple of years, Mr. Lapham would bounce the ownership of 33384 around between his Hangar Six, Inc. and himself, personally, at his Flying L Ranch before finally selling the airplane to Larry O'Mealy of San Antonio on June 13, 1949. The following month, on July 20, O'Mealy would sell it to Orville G. Mosher, also of San Antonio.

Thomas W. Curl of San Antonio became the 7th owner of 33384 on February 18, 1950 - for just \$750. Later that year, on December 4, the airplane was sold to D. M. Ridgeway of Palacios, TX, who, in turn,

sold it to Addison M. Fowler of Port Lavaca, TX on June 1, 1951. It would be during Mr. Fowler's 14 year ownership that the Skylander would suffer its first recorded damage and experience its first rebuild. In August of 1951 the left main gear had to be repaired after what appears to have been a ground loop incident - then in the spring of 1953, the airframe's eight-year-old cotton fabric had to be replaced. And although no supporting paperwork was submitted to the CAA, it appears a different C-85-12 was installed in the Skylander during the mid-1950s because the engine serial number on repair forms changes.

In January of 1957, the left landing gear was repaired again, this time along with the lower fuselage longeron where the gear attached. The left wing tip bow also had to be straightened and recovered, so the ground loop that had apparently occurred on this occasion must have been more severe than the first one in 1951. When the repairs were made, the entire airplane was refinished with pigmented nitrate dope and the N numbers were removed from the wings and replaced with 12 inch numbers on the sides of the fuselage - to comply with new CAA regulations that came about in part at the request of FBOs who complained that they couldn't read the N numbers on the wings of airplanes at their gas pumps from the comfort of their air conditioned offices.

In April of 1957, the wood prop, flares and Waller radio were removed and replaced by a McCauley Cliptip metal prop, a Hallicrafter transmitter and a Narco VHT-2 Superhomer. And, finally, in August of 1962, Mr. Fowler had the top of the fuselage and the right elevator recovered.

In 1965, the airplane's cotton fabric was running out again, so it brought only \$400 in the sale on August 17 to James M. Westbrook of Fort Worth, TX. That winter, it went into the shop for a new suit of Grade A cotton, butyrate dope . . . and two coats of enamel. The use of automotive enamel on fabric had come into vogue during this period because it provided a shiny finish without all the sanding, buffing and polishing required by dope finishes and because some believed it would make the cotton fabric hold up longer by helping block the sun's ultraviolet rays. Few anticipated the problems that would result - largely involving incompatibility between the enamel and the underlying dope layers.

Over the next five years, 33384 would pass through a succession of owners - all in the Dallas/Fort Worth area - without recorded incident. By date of purchase, they were:

June 6, 1966 - Robert Weese, Grapevine, TX

March 30, 1967 - William J. Pulley, Arlington, TX

May 2, 1967 - Perry W. Tong, Fort Worth, TX

February 9, 1970 - Danel A. Gillard, Fort Worth, TX

January 23, 1971 - Arthur W. Carlisle, Azle, TX

On June 3, 1971 - probably with the fabric needing replacement once again - the airplane was purchased by A&P Steve Marchand of Leonard, TX. This time some

fairly extensive lower longeron and diagonal tube replacement was necessary, apparently due to rust, before the airframe could once again be recovered in Grade A cotton . . . and once again it was finished in enamel. The plane's empty weight was reduced by 17.3 pounds by the removal of the old Hallicrafter and Narco radios.

Lawrence G. Molck bought 33384 on June 15, 1975 and sold it two months later, on August 21, to Doug Sockwell, the current owner.

Doug Sockwell

Doug Sockwell was born in Bogata, TX in 1935 but grew up in Carlsbad, New Mexico where his family had moved in the early 1940s. He joined the Air Force in 1955 and was trained to be a jet engine mechanic on B-47s, but actually ended up working only on T-33s, F-86s and F-100s. After completing his enlistment, he enrolled at New Mexico State University in Las Cruces, NM, but left after two and a half years to move to the Dallas area to go to work for Pittsburgh Plate Glass - which was later sold to ACI Glass. He retired in the late 1990s.

Doug bought 33384 for the specific purpose of learning to fly in it. He soloed it in nine hours, which cost him \$63 because his instructor was charging him seven dollars per hour (remember, this was in 1975). After solo, he had so much fun just flying the airplane around northern Texas that he had 300 hours logged before he finally got around to his check ride for his Private ticket.

When Doug bought the airplane, it was painted dark blue with orange trim - but the enamel was beginning to peel off.

"I went out to the airport one day with a putty knife, lifted up some of the edges of

the paint where it had cracked and found I could peel the enamel off in large sheets. My sister was able to peel the enamel off the entire tops of the wings in one piece. We worked for two days and got all the enamel off, then I sanded the whole airplane. Not knowing any better at the time, I bought a few gallons of automotive paint and put enamel back on it.

"In 1980, I was coming back from Blakesburg and had the fabric split down the back of the fuselage. I put a long piece of tape on it and flew it home, but I had a friend who threatened to take the prop off and hide it if I didn't take the plane apart and recover it. I took his advice, tore it down, took it home and started working on it. I was still employed at the time so it took me a long time to get it done. I covered it with Stits fabric and painted it the same as it is today, except where it is black now, it was red, and where it's red now, it was cream. I got it flying again in 1988 and won a lot of trophies with it."

Along the way, Doug also owned a Stinson 108-3 for a time, as well as a Bowers Fly Baby he bought for its Continental C-85-12, which he intended to use in the Skyranger. Both were eventually sold, because the Skyranger was Doug's favorite airplane.

In 1995, Doug took 33384 apart again and started on a second complete restoration. This time, he covered it with Ceconite 102 and used the Air-Tech paint system.

"I had seen a quarter scale model of a Skyranger in a **Model Airplane News** magazine that was painted really dark navy blue and red and I liked it so much that it gave me an excuse to recover the airplane again. I used black and red instead of navy blue and red. I did everything except the seats, which I had a professional upholsterer

cover for me, and I bought the headliner from Aircraft Spruce. I did the doors and side panels."

During the rebuild, Doug put the large numbers back on the wings, as they were in 1945. He masked them off, being very careful to get the tape down firmly to avoid bleed out. Everywhere tapes overlapped, he cut them and pressed down the edge next to the overlap.

The engine was totally rebuilt during this restoration - this time an upgrade using new Millennium cylinders and the STC approved switch to an O-200 crankshaft, connecting rods and pistons. The modification is supposed to increase horsepower from 85 to between 92 and 95, Doug says, but, whatever, he can tell a big difference in the airplane's performance, especially on takeoff and climbout. The 71" x 46" metal prop used with the 85 hp original version was retained. The gross weight of the Skyrangers was increased by Rearwin and Commonwealth as they installed higher powered engines in them, and Doug's Model 185 has a gross of 1,450 pounds. Its empty weight is 950 pounds - with a set of early model Cessna 172 wheel pants.

"It gets off quickly," Doug says, "climbs at 700 to 900 fpm and cruises at 100 mph. Once you are off the ground, you don't have to touch the rudder pedals again until you land. It's perfectly coordinated with just the stick. It's a really nice flying little airplane, and it seems to attract its share of attention when I take it to fly-ins. It's been a lot of fun to own."

And an education, we might add, for those in the present generation who have never heard of a "Commonwealth" airplane.

