## The Fiery End Of '51Pops'

Here is the late Joan Merriam's own story of the burning of the famous Apache which carried her on the around-the-world solo flight that won for her posthumously a 1965 Harmon Trophy

am still upset about 51Pops. Losing this faithful Apache, which had taken me solo around the world at the Equator (the Amelia Earhart route) a few months earlier, was like losing a member of the family to me. I have tried to write this account of the fire in the air and the subsequent crash landing of the ship on a bleak, California desert road as it happened. This story would be incomplete, however, without some of N3251P's history and an explanation of my attachment—perhaps affection would be the better

word-to this turbocharged twin.

51Pops' end came on Jan. 9, 1965. I was on a flight to Long Beach, Calif., from Las Vegas, Nev., where I had picked up William Etchison, president of one of the companies for which I did contract flying. It was a beautiful day for flying and it was to have been one of 51Pops' last in the United States before a flight to Alaska and later retirement to a major air museum. There, thousands of people could see the thousands of autographs that 51Pops and I had picked up on the

EDITOR'S NOTE: This is an article that The PILOT did not plan to publish.

It was prepared only a few days before Joan Merriam (Mrs. Marvin G. Smith, Jr.) and a friend, Mrs. Trixie Ann Schubert (AOPA 260030), were fatally injured when the turbocharged single-engine plane in which they were flying crashed and burned on a mountainside near Big Pines, Calif. This occurred about five weeks after the burning of the Apache.

We liked Joan's simple account of the end of N3251 Papa (which she affectionately called "51Pops"). The story had been written at our request. It

had been written at our request. It revealed her deep feeling for an airplane which she had come to regard as a "member of the family." It also gave an insight to the spirit and loyalty of a courageous young woman, who regarded aviation as a big part of her life. However, we felt that publishing the article soon after her death would

not have been appropriate.

The Harmon Trophy awarded to her posthumously, and the awards cere-

monies held in Washington in mid-December, caused us to reverse our earlier decision. The awarding of the two Trophies-one to Joan and the other to famed transoceanic flyer Max Conrad (AOPA 95611)—by Vice President Hubert H. Humphrey was an impressive and dramatic event [February PILOT]. Joan's husband, Lt. Commander "Jack" Smith (AOPA 191607), was brought back to Washington from Saigon, Viet Nam, by the Navy in order to receive the award in her name; Conrad's wife, Betty, and their son Max, III, were present. The absence of the young woman who received the aviatrix award for 1965 was very much in the minds of all who attended the ceremony. The citation was duly read and the Trophy presented, but questions often asked there-and elsewhere after the announcement of the winners of the 1965 awards-were "What kind of person was Joan Merriam?" "What was she like?" etc. We believe that this article provides some of the answers. That is one of the reasons we are publishing it.

flight around the world. She was a sassy, defiant little ship that demanded attention, and drew visitors, wherever she flew

Jan. 9, 1965—Why was this superb VFR day (CAVU) destined to be N3251P's last? With the weather cooperating so beautifully and the Apache performing so smoothly, only a disaster could mar this routine flight from Las Vegas—and disaster did!

Bill Etchison, an accomplished pilot with almost 5,000 hour's flight time to his credit, was flying the plane when suddenly we discovered something was going wrong. The next five minutes seemed like an eternity—the plane was on fire! We were an hour out of Las Vegas, and had passed Daggett, Calif., when we smelled strong gasoline fumes, and then an odor similar to that of an electric iron burning. Then came smoke!

My first thought was that the gas heater in the nose was overheating. I shut off the gas valve to the heater, and the heater itself, but to no avail. As I shut off the master switch, the odor of burning metal or electrical wires became extremely acrid and the smoke became quite intense in the cabin. I tried frantically to locate the source of the fire. It appeared to be in the nose section, but where? Why wouldn't the smoke subside with power off? These were questions that ran through my mind.

Bill, beginning to cough, opened the side windows. Heat was radiating from the forward cabin section—around the vent ducts and rudder pedals—and the smoke was getting thicker. A decision was made to get down and out immediately. We could not take a chance with the gasoline fumes which might ignite at any minute and end it all for us.

Perhaps it was fate that caught us flying at 8,500 feet over the Mojave desert instead of my usual 14,000-16,000 feet where the Riley turbochargers would really pay off in higher true airspeed and performance. I had left my portable oxygen unit in Long Beach for recharging and a new bracket. This was part of the preparations being made for the cold weather trip to Alaska the following week. The heating and electrical systems also had been carefully checked a few days earlier.

For two minutes, which seemed forever, I scanned the area-Daggett was 25 miles behind us, Apple Valley airport, 27 miles ahead—we had to clear two mountain ranges, and it was necessary to maintain present altitude to do so. Neither airport was in sight. I had flown the Las Vegas to Los Angeles route hundreds of times and knew every inch of the desert even without a chart. Now this, and nothing familiar anywhere! Letting down immediately, I saw several dirt roads and wash areas in the valleys below at about the 4,000-5,000-foot level. We could not fly another 10 minutes "looking over the area," nor did we have time to make passes at a landing area. The first





Autographs on 51P's fuselage and wings attracted attention wherever she flew the twin-engine Apache. Here, in this picture taken at Hollywood, Fla., during the 1964 AOPA Plantation Party, Joan (right) is pointing out highlights of the itinerary of her flight around the world to her friends, Dr. and Mrs. Irving Title of Torrance, Calif.

Joan was honored posthumously last December when the Harmon Aviatrix Trophy was presented by Vice President Hubert Humphrey. Her mother, Mrs. Ann Merriam of Miami, Fla., and her husband, Lt. Commander M. G. Smith, Jr., are shown with the Vice President. Commander Smith was brought back from Saigon, Viet Nam, to receive the award Del Ankers photo

time had to be correct. While I was attempting to get out Mayday calls on 121.5 mc, Bill continued letting down to an altitude of around 6,000 feet, placing us about 1,000 feet above the valley

After three distress calls on 121.5 with no reply, I again shut off the electrical current and hoped Daggett or someone had heard of our predicament and had copied our position and aircraft number. We were on a VFR flight plan and due into the Los Angeles area in about 30 minutes.

This is one of the last photos made of Joan Merriam and her friend, "51Pops"



Smoke and heat were so intense during the next minute that our eyes watered and I moved my seat several notches back in the tracks to keep away from the heat at the rudder pedals. I remembered the fire extinguisher, behind the pilot's seat. I expected to use it if the fire broke through the lightweight aluminum separation, between the rudders and nose section. I could hardly breathe for the gas and fumes coming from burning insulation in the electrical system. We had decided to open the door just prior to touchdown in order to insure a safe exit. This would be a one-time attempt if we flipped or hit rocks or cactus and vucca plants of the desert. The fear of an explosion, with the more than 75 gallons of gas remaining on board, raced through my mind. A wheels-up landing would be the only answer on a rough desert road. Hopefully, 51Pops would come through it with only damaged props and belly. With luck, the fire would go out once the rushing air through the nose ceased. Flying through the air at 160 m.p.h. creates a lot of draft even in a closed area.

On final now, at just a few hundred feet from the wash area-which looked smooth-we checked seat belts and security of seats in the tracks. Rougher terrain loomed dead ahead. There was not enough smooth area to land and stop safely! "Full throttle!" I'd yelled, "keep going!" Bill, who would be calling out airspeed and following through on the landing with me, spotted a dirt road immediately up ahead which ran northeast and southwest. It ran almost perpendicular to the dry wash and was now well into the hilly region. It was about at the 4,000-foot level, with higher mountains at both ends of the road. The road seemed to be about five

miles long.

Turning northeast, along the road, the engines developed power as we flew along the road at 85 m.p.h., indicated, passing over several rough looking areas. Sighting a smooth, flat stretch, I knew this was it. Power was reduced and dropped to 80, 75, 70 and then "cut power!"

I cracked the door open. This created vibration for a second, and then the most excruciating sound I have ever heard-that of the props hitting the ground. A high shrill sound similar to a buzz saw followed by what seemed to be a gentle landing on the under side of the Apache. The plane skidded straight for 375 feet along the road and then swerved 90° to the left with a quick halt.

The very next thing I remember, I was 50 feet from 51Pops, on my knees looking at the desert. An alarming feeling hit me when I turned and saw the Apache in flames. I couldn't breathe-my side hurt, but all ill feelings disappeared when I heard Bill yell for me to run quickly. Petrified with fear of fire, I got up and ran away from the burning ship. I fell down several times on the rocky terrain. When about 300 feet from 51Pops, we heard two muffled explosions and we knew now we had made it to safety by the narrowest of margins.

The feeling of sitting on the ground and watching my beautiful red and white 51Pops burning cannot be described. All plans for this ship to be placed in the Movieland of the Air Museum at Orange County, Calif., were now on the scrap heap. 51Pops and I had been together for 14 months and 500 hours of flying-almost four times around the world in distance.

She was insured for I still had a



Corporate pilot Joan Merriam at the age of 22. She was flying for a gas company in Florida at the time

mortgage to pay off, but how could insurance ever replace an *Apache* as well equipped as this one or replace the historical value or the sentimental value to me? What could I do now, losing my number one asset? Build another duplicate—call it "City of Long Beach II"—but what about the 40,000 autographs?

I've had close calls before, four times to be exact. One was in a Cessna T-50 "Bamboo Bomber" in 1954 before I had my multi-engine rating. A double engine failure on takeoff at Tamiami Airport, Miami, had the owner (left seat) working full time to get down and stopped. The plane ran off the airport runway and stopped a few feet short of the boundary trees. A partial failure of a single-engine plane at night—with the Ocala, Fla., airport

just below me made this emergency simple. Twice in an Apache before—once in unforecasted icing conditions and another during training in 1955 when the instructor gave me a single-engine landing with an engine actually feathered (sin of all sins)—conflicting traffic sent us around again, but the Apache didn't want to climb on that hot, humid Alabama day. We did get around and land safely, but only after flying five miles at 100 feet on one until we got the dead engine started!

I felt too guilty in April 1964 when I was flying through Australia and was offered a \$10,000 profit to sell 51Pops to a charter firm most interested in a turbocharged twin for mountainous terrain. I could not part with the ship, nor could I think of giving up the completion of my world flight when only in Australia—but it was a temptation! In November 1964 I was again offered a fancy price by three parties and thought of selling, but to do so I would have to repaint her, thus destroying all the autographs and value to museums, so I declined.

51Pops was burning uncontrollably now from the nose into the cabin. The left wing was now on fire and feeding on spilled fuel. Large billows of black smoke filled the air. Tears smarted the scratches on my face and my nose and forehead hurt. Bill said I apparently hit the panel or door post as we stopped for he had to half drag me out of the ship. We then realized we had been unable to get anything out of 51Psurvival kits, water, thermos of coffee, colored 10 x 14 photos I was to have framed of 51P-all lost. Bill's jacket, wallet, and \$1,400 cash were also lost. So were two handpainted signs I always took with me when 51Pops was to be displayed at airshows and airports -handpainted: "Please do not autograph the plane-signatures from the World Flight must be preserved. Thank you, Joan Merriam". These would

never be needed again, I mused.

The places 51Pops had proudly been since the arrival home May 12, 1964, included trips throughout the country on my lecture and speaking tour, airshows, airport dedications, etc. I was invited to fly in an AF F-106B in September and 51Pops hurriedly flew to Castle Air Force Base, where after two days of tests and orientation, I was able to fly at speeds of mach II—quite a thrill!

Then 51Pops and I flew the officers and pilot of the F-106 for an "orientation ride at mach .296." The jet pilots had not flown a model this small and were amazed at the performance and simplicity of handling. Where no Apache belonged, 51 Pops went. At the 1964 AOPA Plantation Party at Hollywood, Fla., we landed on the Diplomat Golf course along with several other planes and taxied across highways, causeways, through a gas station (without buying gas) and in general had a lot of fun! We had flown together almost 300 hours since May.

We had set down at 1:30 p.m. At 2:15, as we sat staring toward the vast, barren desert, it occurred to me that I was overdue on my flight plan. I wondered, how long will we have to sit here? Our landing on this road gave us the opportunity of following it in either direction to civilization, perhaps 25-40 miles away. You are supposed to remain with the aircraft, but how long could a person stay here with no food or water, and with only lightweight clothing during the nighttime temperatures that must dip below 15° F at this 4,000 foot level. It was about 55° F now at midday. A few minutes later my dark thoughts were brightened to see what looked like a car approaching in the distance. A trail of dust was being stirred up along the route.

John Thiede, owner of a calcium mine nearby had raced to our rescue in his white pickup truck after seeing

## 'Probable Cause'

Questions about the causes of the two accidents in which 28-year-old Joan Merriam Smith was involved during the space of five weeks have been only partially answered. The Civil Aeronautics Board has come up with a probable cause for both. The official documents read like this:

Burning of the Apache, Jan. 9, 1965— "Probable cause: Fire or explosion in flight; undetermined origin; emergency circumstances; forced landing off airport on land; fire after impact."

Fatal accident on Feb. 17, 1965—
"Probable cause: Pilot entered an area of light to moderate turbulence at high speed [turbocharged single-engine plane], during which aerodynamic forces exceeding the structural strength of the aircraft caused in-flight structural failure."

The summary CAB report of the

fatal accident, issued recently, said that the flight was made "in conjunction with 'functional and reliability' tests of the experimental turbocharged engine installed in N8784T." It added: "The flight was to operate at or above 5,000 feet m.s.l., with turbocharger engaged and the pilot was to investigate climb performance not to exceed 23,000 feet, m.s.l. Clear weather conditions prevailed throughout the proposed flight area and no flight plan was filed. . . Witnesses differ as to the direction of flight at initial sightings but agreed the aircraft was flying at 1,000 to 1,500 feet above the terrain. Shortly thereafter they saw N8784T with the wings failed crash out of control and burn at the 7,260-foot elevation of a 50° upslope on Blue Ridge [near Wrightwood, Calif.] while on a northerly heading.

"Investigation disclosed the outer portion of both wings outboard of the lift strut attach points had failed in flight due to positive and negative bend-

ing loads. The wing portions, the left horizontal stabilizer, parts of both ailerons and the outboard portion of the right elevator and the right elevator balance weight were found 1½ miles south-southwest of the main impact area, showing a northerly heading of the aircraft when these separations occurred.

"Examination of the wing strut fittings revealed marked indications of severe loadings in the sense of a positive high angle of attack. In addition, the right fitting showed evidence of a crippling failure in the sense of a high negative angle of attack followed by separation from the strut in a positive high angle sense. The left and right wing spar caps showed crippling failures in positive and negative wing bending loads, or positive high angle of attack and negative high angle of attack, respectively. There was no evidence of fatigue or evidence of malfunction or failure of the aircraft prior to the in-flight structural failures. . . .'

51Pops go down and the fire that followed. Thiede told us we had landed on the Texas-Los Angeles gas-line maintenance road.

nance road.

We were taken into Lucerne Valley where I tried to call Jack Smith, my husband. Calling the closest FAA station, I notified it of the accident. We were then taken to Apple Valley Hospital and treated for minor injuries. Bill had injured his back and I had broken my nose and had bruises on my large and side. We felt very lucky!

legs and side. We felt very lucky!

My beloved *Apache* was a 1958 model with almost 3,000 hours on her airframe and less than 400 hours on new engines. She was purchased new by the State of Illinois Department of Aeronautics and was used for checking state-operated navigational facilities executive trips until 1963 when she was traded on a new faster ship. She had always received perfect care. I purchased her in November 1963, and then spent over \$35,000 preparing her for the world flight. This included new parts, components, extra equipment for the flight, and in making her as sound the flight, and in making her as sound as a new plane. Even new engines had to be installed due to a failure from noncompliance of a through bolt bulletin during the last overhaul which had been completed 200 hours prior at the broker's overhaul base.

Fire had threatened 51Pops' life once before. According to the log, the left engine caught fire during a cold weather start in 1960, but the quick thinking pilot continued to turn over the engine trying to start it and put out the fire. The engine would not start and before grows could get the start and before crews could get the

start and before crews could get the fire out, the left tire, gear, aileron and underside of the wing were damaged.

Last week, I was told that "The Movieland of the Air" at Orange County, Calif., still hopes to build a display with the remaining tail section and outer panels of the wings that were saved. Autographs still cover these areas, and with the help of models, and photographs, perhaps a suitable

play can be made. I am a pilot for the Rajay Company at Long Beach and try to keep my thoughts occupied while flying, testing turbocharger installations, and selling for the company. It is an interesting position and I am kept busy with the many single- and twin-engine aircraft that have been FAA approved and others which are undergoing approval for the Riley and Rajay turbocharging kits.

I now park my car in the spot 51Pops once occupied on Rajay's ramp. It close to the company's fenced are 51Pops was kept there so she could be seen by people visiting the airport. Since May I had intended to take photographs of all the autographs, but never did. My only possession of 3251P now is the manufacturer's nameplate which was removed from the tail after the loss. *Apache*, Serial Number 23-1196 will never fly again, but hopefully the number N3251 Papa will, on another red and white Apache.