

A Handsome 1947 Piper Super Cruiser

Paying tribute to aviation's role in pipeline patrol

BY SPARKY BARNES SARGENT



MIKE STEINEKE



You might say that Jim Adams of Pontiac, Illinois, is the proud “papa” of one handsome Piper Super Cruiser. After all, it’s been part of his family since 1963, and he just completed its five and a half year, ground-up restoration. A retired Delta pilot who finished his career by flying Boeing 757s and 767s, Adams is one of those gregarious fellows whose affable laughter is contagious. Within minutes of meeting him, it’s apparent that he’s, well...just having too much fun, and loving every moment.

His affinity for Cubs started years ago, and eventually precipitated his airline career. He recalls:

“I was a farm boy from central Illinois, and some of my earliest memories are going with my bachelor uncle to air shows. I had to sneak off as a kid—I was probably 14—and pay a guy to take me for a ride, because my mother would have had a kitten if she’d have known! I just was in love with it,” he shares, laughing, “and when I went to the University of Illinois, I signed up for an aviation program even though I didn’t have the money. So I worked three different jobs, carried a full [course] load, stayed up all night, and got hooked on coffee—but I



Close-up view of the old trim system.



PHOTOS COURTESY JIM ADAMS

The aft section of the fuselage, after the old fabric was removed—note the wood stringers.



Fuselage with fabric and metalized headliner.



The wing, with the original truss-style ribs.

decreased demand and overabundant supply.

Super Cruiser

NC2827M (s/n 12-1306) rolled outside the Lock Haven factory on December 17, 1946, just seven months after a devastating flood nearly swallowed the manufacturing plant, which was located in a valley alongside the Susquehanna River. NC2827M was powered by a 100-hp Lycoming O-235C, with a Sensenich wood prop, according to the factory's final inspection form. Just two days later, it was purchased by Henry Brown of Rochelle, Illinois, and it stayed in Illinois until 1954, when it went to Wisconsin. It quickly went through more than half a dozen owners and remained in Wisconsin until September 1963, when the Rossville Flyers of Illinois (Jim Adams and Thomas Burwash) bought it.

"We bought the plane in 1963, when I was 25 years old," recalls Adams, blue eyes twinkling, "We had a partnership, and then he eventually put it in his name, but I did the maintenance and hanged it, so it was still part mine. He passed away, and I bought the plane 'back' in 1999. Now it's in my name and my daughter and son-in-law's names—Amy and Paul Lamer Mayer—they also fly."



PHOTOS COURTESY JIM ADAMS

The wing and cowling have been painted Tennessee Red. (The pipeline patrol Super Cub that Adams sold to his friend is in the background.)



The Super Cruiser, looking brand new from nose to tail.

Restoration Inspiration

In 2004, it occurred to him that it just might be a good idea to thoroughly rejuvenate NC2827M. “I had flown our grandkids in this Super Cruiser and thought, ‘This thing has only been re-covered—it’s never been completely torn down. Maybe we ought to look at it.’ So here it is, Tuesday, July 28 [2010], at Oshkosh, and we just finished it Friday! We flew it here on Sunday, and it took us exactly one hour and eight minutes. The engine and airframe total time is 1,368.4, and I have all the logs, starting right with the build sheet from the factory—Clyde Smith Jr. got that for me, and I’m really tickled with that! I’ve got every little piece of paper that’s ever had anything to do with it.”

SPARKY BARNES SARGENT

Adams decided to retain many of the PA-12’s original features, while updating it for safety, utility, and cabin comfort. He also owned a PA-18 Super Cub at the time, and the history of that particular airplane inspired him to finish the PA-12 in such a way that it would pay tribute to aviation’s role in the pipeline patrol industry.

“That Cub, N3286Z, belonged to Gleason Romans of Tulsa, Oklahoma, back in the early 1960s. It had the Gleason Romans Pipeline Patrol Company logo on it,” describes Adams, “and a low oil pressure warning horn that would wake the dead—which was a good idea if

SPARKY BARNES SARGENT



Updated avionics and radio were neatly combined with the original cream-faced instruments.



NC2827M left the factory with this engine; total time now is 1,368.4.



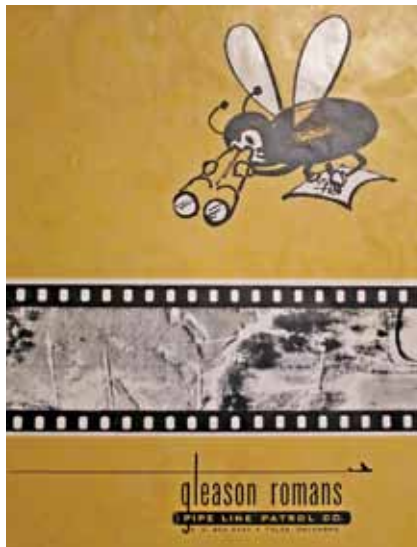
Fuselage with fabric and metalized headliner.



Right: Gleason Romans Pipe Line Patrol Company logo—note the multitasking bee peering through binoculars to detect oil leaks, and the oil derrick in the background.

your nose was outside watching for pipeline leaks!”

Adams intended to finish the PA-12, then restore the PA-18 so he would have two airplanes to represent the role of pipeline patrol planes in aviation history. But he says he altered that plan when “a friend of mine, who had lost his hangar and Cessna 195 in a fire, came to me one day, and he said, ‘Jim, I want your Cub.’ I told him it wasn’t for sale, and a day later he owned it. So anyway, I got hold of Gleason Romans Jr., through a friend, and asked him if I could use his father’s company logo, and he said it was okay.”



The front cover of a Gleason Romans Pipe Line Patrol Company catalog, the logo and a photograph taken with the aerial camera system he invented.

Romans’ Pipeline Patrol

In 1944, Gleason Romans Sr. started a flying school and maintenance facility in Tulsa, Oklahoma. He had five airplanes, which were making money only on the weekends. “I had to make some money with them [during the week], so I conceived the idea to use the planes to patrol the pipelines.”

He tested his idea in April 1945, when he hopped into his Piper J-3 Cub for his first trial pipeline patrol flight. Accompanying him was the chief engineer of Stanolind Oil and Gas Company, to help Romans determine the feasibility of aerial patrol for the pipelines. Both par-

ties were pleased with the outcome, and the engineer was enthusiastic about this new aerial method of inspecting pipelines for oil leaks and encroaching vegetation.

Romans then began cultivating his concept into a thriving business. His first patrol plane was a Taylorcraft L2M, which he modified with an extra fuel tank and an additional window in the cabin portion of the fuselage. As he acquired additional contracts with oil companies, he continued hiring pilots and buying patrol airplanes.

This entrepreneur continually studied ways to enhance the effectiveness of his pipeline patrol, and he developed some innovative devices. One of his inventions was a mechanical, electrically stabilized aerial camera system.

“I built a camera and ran a 5-inch-wide raw film across the slit. It photographed 240 miles of pipeline on one roll of film as the aircraft flew over the pipeline. It was sort of phenomenal,” recalls Romans with a chuckle, “and the pipeline companies liked it. We had to synchronize the camera with the aircraft, so another person would use a view finder to regulate the speed of the film as the pilot flew patrol. We installed a gyro in it, and the camera was mounted in a gimbaled ring inside the airplane’s belly, so the camera stayed straight no matter what the airplane did. The pilot flew at 2,000 feet AGL directly over the right-of-way to take the picture. That gave us a 1/2-mile width on the picture, which the pipeline companies used to count houses along the right-of-way—if it was a congested area, or people lived too close to the line, the companies were required to reduce the pressure in it.”

He also invented an electronic system to radio transmit operating data about ground-installed rectifier devices (used along pipeline routes to inhibit rusting of metal pipe casings) from ground stations to overflying pipeline patrol aircraft.

When asked if he or his pilots ever discovered a major leak, Ro-

mans chuckles and replies, “Oh yes, I was on standby in Tulsa to fly emergency patrol flights. They called me to go out and find something



wrong with a pipeline. So I set sail in a J-3 Cub, flying south over this pipeline. I came to the top of a little hill, and I could see that down below, it was solid black. So I went back and called them, and they sent a crew down there, and I went with them. It was a total black swamp, with oil inches thick, and we took boots and waded in there to stop the leak. I was smoking cigarettes at that time, and I started to light a cigarette, and there was dead silence,” he recalls, laughing and explaining. “That caught my attention, and I didn’t light up. If I’d lit up we’d all been gone! The gas cloud over the oil would have exploded.”

Pilots sometimes encountered another problem while patrolling. “We had a lot of liability problems with turkeys,” recalls Romans. “They’d fly one way and then the other [in front of us], as we flew over [the line]. But cattle would get accustomed to us; they wouldn’t run from us as we patrolled at about 500 feet. You can tell more about what you’re looking at from 500 feet, or as close as we could get without it blurring with the naked eye.”

At the height of Romans’s business, he had 21 airplanes flying from at least eight locations coast to coast and from the Gulf of Mexico to Canada, serving about 30 oil companies. By the late 1950s, his aircraft had flown more than 1 million miles on contract pipeline patrol flights, and his business continued into the 1980s. Romans was active in various facets of the aviation industry up until his death and received the FAA’s Charles Taylor Master Mechanic Award and the Wright Brothers Master Pilot Award in 2005. He passed away on August 25, 2006, at the age of 93. [The preceding information was obtained by the author during a personal interview with Gleason Romans in May 2006 for her article that

appeared in *The Southern Aviator*, September, 2006.]

Modifications

If Romans were here today to see the PA-12 that Adams has configured to honor the pipeline patrol, he would likely be quite pleased with Adams’ interest and efforts to promote awareness of this unique facet of aviation history.

The Super Cruiser was Adams’s first restoration project, and with the help of two A&Ps—Lovell Pulliam and Harry Pick—he included numerous modifications to the airframe and engine. “We increased visibility by putting a pipeline patrol window in a seaplane door, which replaced the original door; installing a skylight and diagonal cross-brace in the cabin overhead; and extending the rear windows by 16 inches. I’m sure they would have done that for pipeline patrol; Romans was pretty safety conscious. And I think they would have put the ‘47 square windshield in it, like we did, because the ‘46 had a little round windshield, and man, that’s right where you want visibility. We also installed micro vortex generators and strobes on the wingtips and belly. I just used the things I thought they’d use for safety, while having a little fun with it and honoring them.”

Additional modifications were made in the engine room, and for the fuel and electrical system. “We installed a new stainless steel firewall, boot cowl, and converted the engine to an O-235-C1, which gives it an additional 15 hp. And we went with an alternator, rather than a generator, along with an entire new electrical system and a new circuit breaker panel,” Adams details, adding, “we revamped the fuel system to a PA-18 system and installed a Piper Pacer ‘left – right – off’ fuel selector valve. We also put in a PA-18 trim system, because the

PA-12 trim was notorious for having a cable slipping—the double cable of the PA-18 system cured that.”

One glance inside the cabin reveals even more customized features. The updated avionics and radio neatly combine with the original cream-faced instruments, giving the panel a nostalgic yet modern appearance. “It could be the only PA-12 with color weather radar,” chuckles Adams, explaining, “I have the Air-Gizmos Box, a Garmin 396 and XM Weather.” Cabin enhancements include new plywood floor panels, an Airtex interior, and inertia reel shoulder harnesses. A metalized headliner, finished in plain polyurethane primer gray, matches the interior.

After installing new aluminum ribs and stringers, as well as a wing flap kit, Adams tackled the fabric installation. “I’m so impressed with the Superflite System VI,” he comments, explaining, “it’s so simple. I’ve never covered or painted anything in my life, and I’m proud of the way it turned out. I used an HVLP for painting, and it’s just easy to do, and easy to repair. I found out real quick how easy it was to repair. My buddy was using a ratchet screwdriver, which is like a lawn dart, and it slipped out of his hand and went right through the gear. Two hours later, I had attached the fabric patch and repainted it with an airbrush. I couldn’t believe it went that well.”

Adams’ Piper Patrol

Smiling happily, Adams declares that one unexpected reward gleaned from the PA-12’s restoration is that “now my wife, Sandy, loves to go flying with me!” As for future plans for the airplane, this proud owner/restorer says, “I’ll fly it to Sentimental Journey in Lock Haven and other fly-ins, and wherever I go, I’ll be honoring the pipeline patrol. I just love the freedom of it, and I can go out and fly it all day long and not feel guilty—because it doesn’t burn a lot of fuel. I plan to keep it forever!”