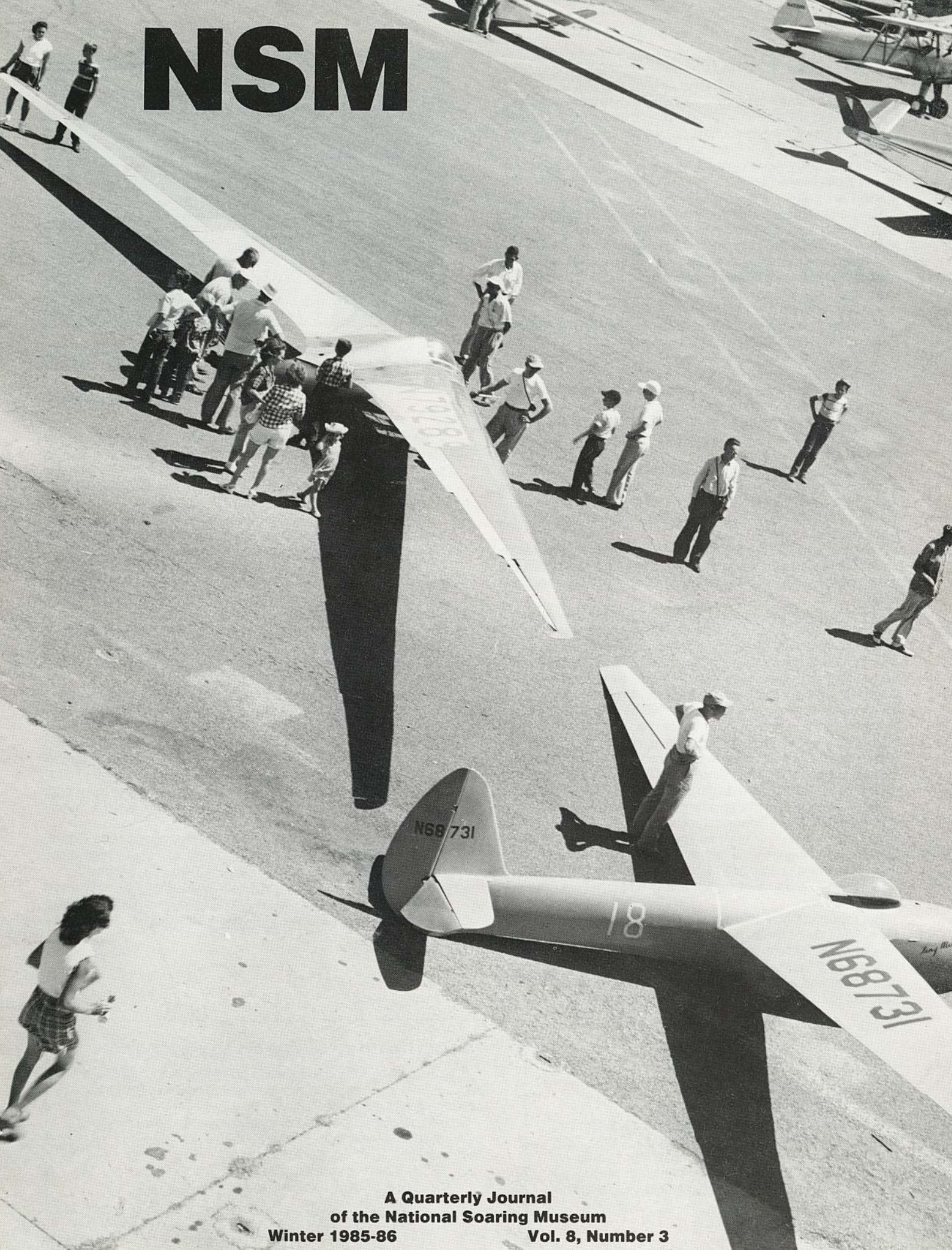


NSM



A Quarterly Journal
of the National Soaring Museum
Winter 1985-86 Vol. 8, Number 3

From the Editor:

Even though the Museum is wrapped in a mantle of snow it doesn't seem like the activity level has slowed noticeably from Fall. 1986 just crowded in on us before we were through with 1985.

Cross Country skiers shush by the building, tobogganers thump down the run behind, and ice skaters face off at the Harris Hill Park rink.

Then on weekends the whine of towplanes rises above the frosty ridge, as sailplane pilots and visitors view the quilted winterscape of New York and Pennsylvania from the air.

Museum visitors are impressed with the three-ship Bowlus display with the white winter background gleaming through the large main hall window. Cameras are quickly unlimbered to frame the moment.

All of staff's energies and thoughts are fixed on the National Soaring Museum's million dollar expansion and the 1986 exhibit focus, "The 75th anniversary of the first soaring flight in 1911, by Orville Wright in Glider #5."

We are encouraged by the pledges and contributions that continue to arrive. Expansion plans are on track, with further developments on the agenda for the Trustees meeting to be held during the February-March Valley Forge SSA Convention.

Tracing the Wright Brothers 1911 Glider #5 turned out to be a more exciting and, in many ways, frustrating task than we had anticipated. While it will be detailed in a later NSM story, it began with Paul and Ginny Schweizer's visit to Dayton, OH, last October.

The purpose of the trip was to gather more information about the Wrights for a book that he is writing and to get more data and pictures of the Wrights' Glider #5 for the NSM project.

The quest started at the Archives and Special Collections section of Wright State University, then to the Wright-Patterson Air Force Museum, where hours were spent pouring over Wright Brothers files and examining the Wright Model B and other early aircraft on exhibit there. Next was a stop at Dayton's Carillon Park which features a reproduction of the Wright Bicycle Shop and a Wright 1905 airplane. This aircraft is almost 60 percent of the original. Paul said that the most memorable event of their trip was a visit with Horace and Susan Wright at their home in Bellebrook, OH. The 84 year old Horace is the nephew of Wilbur and Orville Wright, the son of their brother Lorin. Here are excerpts from Paul's interview.

"He was on the 1911 expedition to Kitty Hawk during which Orville set the World Soaring Duration Record of 9 mins. and 45 secs., which was the start of the soaring movement in the world. By coincidence the day we had called to make arrangements for the visit was the 74th Anniversary of their flight. He was 10 years old at that time. I asked him what was the purpose of the trip.

His recollection of the trip was that it was to have a good time. They spent three days fishing while they awaited the arrival of the box of parts of Glider #5. He felt that Orville was a "natural pilot" and seemed to enjoy getting back to flying gliders. We asked a lot of questions about the brothers and he seemed to have a clear memory about them.



Pictured assembling wing ribs for the Museum's Wright 1911 Glider #5 are, left to right, Richard Kurzenburger, Howard Reese, Norman Griswold and Pat Ryan.

Photo: Peg Gallagher

He and his sister, Ivanette, represent the Wright family at historical Wright events. We told them of the NSM's plan to build a replica of Glider #5 for the special NSM Exhibit for 1986. We invited them to attend the opening of this 75th Anniversary of the first soaring flight."

From his findings in Dayton, Paul concluded that there really was not much information on Glider #5 or the 1911 trip to Kitty Hawk, and that some further searching should be done.

The ensuing investigation took us to the Library of Congress, The National Air and Space Museum, the Glenn Curtiss Museum, the Olin Library at Cornell University, The Berkshire County Historical Society (MA), Chemung County's Steele Memorial Library and the Department of Industrial Technology of Northern Iowa University.

The list of experts with whom we consulted reads like a Who's Who in Wright memorabilia.

When all the notes, transcripts, tapes and conversations were distilled, a picture of the #5 emerged that was valid enough to start the replica.

Ernie Schweizer, Paul's brother, drew up a set of working plans and a party of skilled volunteers started work constructing an exact and full scale double of the Wright Brothers 1911, Glider #5. When completed, it will be the only one in the world, experts tell us; the original having been destroyed in a clumsy restoration attempt in the 40's.

It should be ready for display at the Museum's 1986 Exhibit Opening, during the U.S. Soaring Hall of Fame ceremonies held for the Soaring Society of America, May 23, 24, and 25.

Oh, by the way, if you haven't filled out your expansion pledge card yet, please do so. Your Museum is going to need a lot more room for historic projects such as this one, in the years ahead.

Bill Gallagher

ON THE COVER:

From the NSM's Warren Watson photo collection, the 1952, 19th Nationals at Grand Prairie, Texas. Top left: the German Horten IV Flying Wing, piloted by Rudy Opitz to 7th place. Lower right, 5th place Ray Parker's "Tiny Mite". (Sister ship "Rigid Midget", is on exhibit at the Museum.)

You can help in preserving our soaring heritage.

If you have historic memorabilia and excess or duplicate publications, send them to the National Soaring Museum for cataloging and archiving.

Share your collection of soaring artifacts and reminiscences with interested succeeding generations.

Address: Shirley Sliwa, Director
National Soaring Museum
RD#3 Harris Hill, Elmira, NY 14903

THE TWENTY-FIRST ANNUAL NORTHEAST AERO HISTORIANS MEETING "NON-POWERED FLIGHT"

They came from Canada, Ohio, Virginia, Maine, and one visitor from as far away as Seattle, WA. The represented groups had names like LIGHTER-THAN-AIR SOCIETY, THE LONG ISLAND EARLY FLYERS CLUB, and the SOCIETY OF WORLD WAR I AERO HISTORIANS-CROSS & COCKADE.

They were all at the National Soaring Museum on Friday and Saturday, October 4th and 5th 1985, to listen, discuss, eat, drink and laugh and think about flight — particularly, motorless flight.

The 71 Northeast Aero Historians attending were from a diversity of backgrounds: there were published historians and writers, MD's, attorneys, space specialists, professional pilots, retired military, businessmen, homemakers, teachers and students.

The program started with a Friday evening socializer where acquaintances were renewed, and news of historical and aero finds discovered since the last meeting were evaluated.

The evening was capped with a selection of films from the Museum's archives including "Peter Reidel on The Beginning of Soaring", "Wolf Hirth and Hanna Reitsch", "Soaring at Cape Cod in 1929", "The 1930-31 Nationals in Elmira", "D.Z. Normandy", and, of course, no oldtime movie bill would be complete without a cartoon "Goofy's Glider".

Saturday morning, after welcoming remarks by this year's host, Kenneth Sweet, President of the Aviation Society of Cen-

recounted many of the flamboyant experiments and colorful personalities that characterized the wartime glider program.

Floyd concluded with a story about the urbane radio reporter who was a passenger in a CG-4A at a public demonstration of a glider snatch. The reporter was describing the towplane approach in a well modulated radio voice, "Well, ladies and gentlemen, we are now awaiting the approach of the towplane that will snatch us off the ground . . . I can hear it coming . . . close now . . . any second now it will engage that loop in front of our glider and sling us up . . . here it comes . . . J---- C-----!" screeched the reporter as the CG-4A whipped off the runway.

Leo Boyle, of the Maine Aviation Historical Society, led off the Saturday afternoon schedule by recalling John Domenjos' unique and controversial "Sailing Glider". Built in Old Orchard Beach, Maine, Domenjos' design sported a mast-mounted, vertical jib and mainsail, horizontal wings with a 41-foot span and air paddles, and a tail assembly. The craft was 29 feet long and weighed 529 pounds. Leo commented, "His knowledge as a WWI pilot should have sent him down a different path, but Domenjos' efforts to prove his concept became a small dead end in aviation history". Leo showed a copy of a photo of the machine on tow, completely off the ground. With Domenjos as pilot, the Sailing Glider reportedly made 50 hops between 1929 and 1930, being towed aloft by a Studebaker roadster. He

Left to right, host of this year's meeting, Kenneth W. Sweet, with speakers Paul A. Schweizer, Douglas H. Robinson, Floyd J. Sweet, Eugene H. Husting, Leo Boyle, and Northeast Aero Historians President, Robert H. Stepanek.

Photo: Peg Gallagher



tral New York, the program series began with Eugene E. Husting of Locust Valley, Long Island and the Long Island Early Birds, on "The Beginning of Non-Powered Flight". In this meticulously researched slide lecture, Gene traced the early history of gliding through the 18th and 19th centuries, inter-relating events and personalities that led to the final goal of controlled flight.

Husting was followed by Dr. Douglas H. Robinson of Pennington, N.J. and the Lighter than Air Society. He was sporting his contestant's badge from one of the soaring meets of the early 40's. It was most appropriate since Doug was speaking on "Soaring at Frankfort and Elmira Contests, 1939-1941". His slide presentation and talk were interspersed with asides on the constant objections his father raised to his soaring pursuits. At the end of his presentation, he congratulated himself in that he didn't once mention dirigibles. He is a recognized and published expert on lighter-than-air flight.

Floyd J. Sweet, Past President of the Soaring Society of America, Past President and presently Trustee of the National Soaring Museum, spoke on, "The U.S. Military Gliding Program in World War II". Floyd was a wartime glider project engineer, experimental test pilot, and director of military and assault aircraft development. He detailed some of the lesser known technical approaches the military took, such as the removal of the engines and the conversion of a DC-3 to a glider configuration, and a unique method of towing a giant CG-10A with two DC-3's as towplanes in a line-ahead arrangement. He

stored it in an Old Orchard Beach garage, where it remained until the property was sold. The new owners donated the badly deteriorated Sailing Glider to the Owls Head Transportation Museum, Owls Head, Maine in 1976. Interested volunteers restored it and it is now on display at the Museum.

The afternoon closed with a talk by William Schweizer, Chairman of the Board of Schweizer Aircraft Corporation and NSM Advisor. Bill described himself and his brothers, Ernie and Paul, as "children of the Lindbergh age". Their first full scale aviation venture was a shock cord launched glider built at their home in Peekskill, N.Y., while Ernie and Paul were still in high school and Bill was in junior high. Bill chronicled the brothers competition activities in the 30's and 40's, the formation of the Elmira, N.Y. Schweizer Aircraft plant, and the wartime activities that followed. The post-war glut of surplus sailplanes nearly swamped the young company. However, the development of sub-contracting of aircraft related components gave them time to develop new lines of sailplanes. To date, the Schweizer Aircraft Corporation has built about 2,200 sailplanes.

While not building sailplanes currently, Schweizer is making Ag Cat crop dusters, Hughes 300 small reciprocal-engined helicopters, the Schweizer 2-37 special purpose motor glider, parts for the Black Hawk Amphibian, the Boeing 757, the 747, and the 737, and a wide range of aircraft-related components. Bill then invited the historians for an afternoon tour of the plant facility.

(Continued next page)

The evening banquet speaker was Paul A. Schweizer, Past President of the Soaring Society of America and the National Soaring Museum, and present Museum Trustee and Chairman of the Museum's exhibit committee.

After Orville Wright's 1911 record breaking flight of 9 minutes and 45 seconds, gliding interest was centered mainly in American colleges; while in Europe the Wasserkuppe Mountain in Germany became the center of gliding. At the end of WWI, the Treaty of Versailles restricted the Germans from building powered aircraft, but not gliders. They used gliders to continue their aviation interests. Paul described the intense gliding and soaring activity in France, Britain and especially Germany in the 20's, and the record flights of Klemperer in his Black Devil and Blue Mouse.

Gliding interest was rekindled in the United States in 1928 when J. C. Penney financed the development of a soaring school at Cape Cod, MA and several German pilots were brought there to staff the American Motorless Aviation Corp. It was here, while attending that school in 1929, that Ralph Barnaby became the first American to break Orville Wright's record — with a 15 minute, 6 second flight and also became the first "C" pilot in the United States. This same year the National Glider Association was formed. Another big event was the Cleveland Air Race's Famous Motor Pilots Glider Derby that was won by Capt. Frank Hawks and included such luminaries as Maj. Reed Landis, Lady Mary Heath, "Speed" Holman and Amelia Earhart.

Around this period, the NGA delegated Wolfgang Klemperer to search for a suitable site to hold a glider contest. Klemperer, who was working for the Goodyear Zeppelin Co. of Akron, OH, had flown at Uniontown, PA where he had a 15 mile flight, but was not convinced that the proper conditions existed there for a contest. While on a visit with his friend Martin Schemp in Syracuse, NY, he was approached by Warren Eaton of Norwich, NY and urged to investigate the Elmira area, where ridges faced the prevailing winds and where open valleys provided plenty of landing space. It was suggested that Jack O'Meara, a Baker McMillan Cadet Co. test pilot, check out the area. His subsequent soaring flight of almost two hours resulted in the First National Soaring contest being held here. Fourteen ships took part and it was an overwhelming success.

The Second National held at Elmira the following year, although successful, saw four accidents. There was much discussion on setting up a new organization featuring soaring rather than gliding. The matter was acted on at a meeting in New York City which was attended by Franklin Iszard, Warren Eaton, Gus Haller, Arthur Lawrence, Jacob Fassett III, Bill Enyart, E. P. Warner and Charles Gale. The Soaring Society of America was formed and its first project was to work out plans for the Third National Soaring Contest to be held in Elmira.

Paul noted that living costs in Elmira at the YMCA were \$3.00 each per week for a double room, a breakfast 10¢ and up, and dinner 50¢ or less. There were six sailplanes and ten utility gliders and 45 pilots entered in this meet.

Paul closed his remarks with the story of Warren Eaton, first President of the Soaring Society of America, who along with E. Paul duPont, Harold Bowen, and Earl Southee, went to south Florida to start a soaring school. While flying on a double tow over Miami's Municipal Airport, Eaton's canopy came off, hitting him in the eye and incapacitating him. He released his safety belt and had fallen clear; but his parachute ring was never pulled and he fell to his death.

The twenty-first annual meeting of the Northeast Aero Historians was closed with Bob Stepanek's announcement that the 1986 meeting will be held in Ottawa, Can. and will be co-hosted by the Canadian Aviation Historical Society and The Canadian National Aeronautical Historical Collection Museum. Bob is with the Connecticut Aeronautical Historical Association, New England Museum.



JACK LAISTER DELIVERS THE 12TH ANNUAL BARNABY LECTURE IN ST. LOUIS

Pioneer sailplane designer John W. Laister, Sierra Madre, CA, delivered the 12th Annual Ralph Stanton Barnaby Lecture, sponsored by the National Soaring Museum and hosted by the St. Louis Soaring Association, November 9th at the Sheraton St. Louis Hotel.

The Lectures, named for Capt. Ralph S. Barnaby USN, (ret) have been held for the last 11 years at cities across the nation. They honor outstanding personalities and significant achievements in motorless flight.

Laister was introduced by his wartime chief test pilot and quality control chief and a present National Soaring Museum Advisor, Howard Blossom. Blossom recounted several of his experiences with the old Laister-Kauffmann organization and, "how great it was working with a boss who knew every phase of the design and production operation. That was rare in a plant manager."

Jack traced his interest in flying back to Toronto, Can., where during World War I, he watched training ships flying over the city. In 1923, his father moved Jack and his older brother to Wyandotte, MI. There, in 1924, he got his first ride from pilot Bill Munn, in an OX-5 Jenny, and was "so excited and thrilled by that ride that it probably cinched my future life."

In 1927, at Wyandotte's Theodore Roosevelt High School, Laister credits teacher, Clair Jones, for encouraging student interest in aviation and introducing students to aviation leaders.

"Even Mr. Ford threw a party for us under the wings of a couple of the big Ford Trimotors," he said.

By 1931 Laister had started work on a glider of his own design, based on a Franklin. The materials were paid for by a \$10 a week job he had with the Automobile Club of Michigan.

He won his first meet in 1933 at the Wayne County Airport, competing against pilots from Akron and Toledo, with the glider he built in high school. He went to the nationals in Elmira in 1933, and although he didn't win, one experience stands out.

"Dick duPont had a beautiful two-place ship and he was going to take his father (A. Felix) for a ride. They took off, but didn't quite get enough speed and dragged a wing. Both Dick and his father wound up in the trees, but neither was hurt. I recall his father saying, 'How do I get out of this damn violin?' ... and the airplane really did look like a violin," Laister said.

Laister at this time was a student at the Lawrence Institute of Technology, Highland Park, MI, where he taught gliding, and started the Lawrence Institute of Technology Soaring Society.

In 1936 he started work on a new sailplane. He was approached by Dr. George Lawrence, head of the school, who suggested that he get another sailplane project going. Jack said that he had just the thing. Dr. Lawrence told him to design it, direct its construction, and the school would pay for it. "I started in the Spring of 1937 with George Dalton and we finished, 'Yankee Doodle' in time for our graduation in 1938," Laister said.

He showed a 1939 film of "Yankee Doodle" at Triangle Field, near Detroit, MI. It had 46 ft. gull wings, spoilers top and bottom, automatic aileron hook-up and a retractable pitot tube.

Top Left: Laister's colorful "Yankee Doodle" in 1941 at Harris Hill, Elmira, from the NSM's Loomis photo collection. Below, a Clinton AAF, Wilmington, Ohio, picture of the giant Laister-Kauffmann XCG-10A "Trojan Horse" cargo glider on tow.

The film showed Randy Chapman doing inverted circles, loops and snap rolls. Laister said that this ship subsequently was flown at 200 mph. "While it was red-lined at 132 mph, Randy didn't always observe that", he said.

In 1939 "Yankee Doodle" was invited by the Paris Air Club to represent the United States at an international competition that was the forerunner of the now-famous Paris Air Show. Dick Randolph was selected by the Lawrence Institute to fly it. The ship went over at the expense of the Paris club on the "Normandie", but didn't do too well. Randolph cracked it up when he hit a parked car.

While "Yankee Doodle" came back wrecked, the publicity was very effective and may have been responsible for Laister's getting a government contract for building a two-place version that later became the Laister-Kauffmann TG-4A.

After acquiring a partner, John Kauffmann, and a converted grocery market as a production facility, Laister and a staff of about 14 worked feverishly on the new TG-4A. It had to be delivered to Wright Field for static testing by December 1, 1941.

"Major Fred Dent met us at the Wright Field gate. The TG-4A was not only the first airplane to be delivered ahead of schedule at Wright Field, but it was also the first airplane to go through static tests ahead of schedule", Laister said.

Later he was asked by Major Dent about going into production of the English Horsa glider. Laister said that the Horsa would be extremely difficult to load because it had doors on the sides and that it was worse than the nose loading CG-4A. Dent said, "If you think you're so damn smart, why don't you come up with something better". Laister came back to Wright Field with a proposal drawing for what became the XCG-10. He got approval to build it but didn't think that his present facility was big enough. "Why not let a larger company build it and we'd license it", Laister inquired. Dent told him that the government would finance the building.

"I don't think that there is any aircraft that you can point to today that has been copied as much as the CG-10, beginning with the 123, the 133, and the C-5A, Laister said.

A 2½ ton Army truck off-loading from the innovative Laister-Kauffmann XCG-10A "Trojan Horse" Cargo Glider. Note clam shell doors. Clinton Co. AAF, Wilmington, Ohio, photo.

12th Annual Barnaby Lecturer John W. Laister. Chavez photo from Spring 1985 Lawrence Institute of Technology Magazine.



The CG-10 was the first aircraft to carry such heavy material as a 2½ ton truck, a 155 howitzer, a 3/4 ton truck and a 105 howitzer, or an earth mover with an eight foot blade.

While designs for the CG-10 were proceeding, the Laister-Kauffmann Co. started to make TG-4A's, eventually producing 156. The Museum has a TG-4A (LK-10A-N54191-serial# 60) in its collection.

"Laister-Kauffmann was negotiating a contract for 1,000 more when Lew Barringer came up with the brilliant idea of taking motors out of Aeroncas and making training gliders out of them. They flew more like cargo gliders than the TG-4A would anyway," Laister said. At that time L-K also produced the Waco CG-4A cargo glider.

The first flight of the Laister-Kauffmann CG-10 came on November 6, 1944.

"Within a month someone decided that they wanted a larger fuselage so they could get a 2½ ton truck in. So, to accommodate them, we put the same wing and tail boom on a newly designed fuselage," he said. Laister showed films of a series of glider pick-ups at Camp McCall, and the wide CG-10A rolling through the streets of St. Louis in sections.

"It was supposed to be a secret. The people of St. Louis didn't even know what they were looking at", Laister said. The CG-10A could carry 40 men.

(Continued next page)



He described the proper deployment of a cargo glider such as the CG-10A. "It should be used to move large equipment, not men. They could best get men in by parachute. The advantage of a glider over anything else is that it can land in an unprepared field without a fire hazard. You can't do that with a helicopter or an airplane.

We saw that in Iran. Iran would have been the ideal situation to have a bunch of these modern gliders going in," he said.

He commented on a film clip showing a 2½ ton truck loading.

"With this aboard, they (CG-10A) did a full stall, straight ahead at 10,000 ft., and it was 5,000 ft. before they got it straight and level again!" he said.

Laister described the difficulties that he encountered when a debate between the Air Force and the Army Ground Forces over the Bowlus XCG-16 almost ended the CG-10A program. Dick duPont and the Air Force saw the XCG-16 as a fuel carrier, and thought it could get fuel "over the hump" (The Himalayas, to China) more efficiently than the Laister-Kauffmann CG-10A. Laister and the Army Ground Force contended that both were needed, and that it would be unheard of to go into a 1,000 plane XCG-16 production without first submitting it to a flight test program. Through the efforts of Harry Truman, (before he became President) Laister obtained a hearing with Air Force Chief, Gen. "Hap" Arnold. Arnold looked closely at a CG-10A model fuselage with clamshell doors. Clamshell doors were an innovation that started with that ship and were so nicknamed by L-K people.

The General asked many questions, especially about how short a landing roll it had. "800 feet", the Laister group answered. Arnold snapped, "You can't land that damn thing in 800 feet with those little wheels and little brakes". With that he ordered the CG-10A to Orlando, FL for further testing. There,

in one test, the landing roll was 250 feet at gross weight.

Laister showed another clip of a snatch pick-up of the CG-10A. In his words, "The towing B-17 was to be flown by Chet Decker, who had never flown that type ship before. The regular pilot flying with him was very much worried that a glider that big would stall them out. The B-17 went from 130 to about 105 mph during the snatch, and Chet told me later that he had to slap the regular pilot's hand away from the throttles. The glider pilot said that they never even felt 3/4 of a G, if they felt that much. The glider was almost empty, so it was about 15,000 lbs. . . . 90 feet and it's off!"

Laister described in the bickering involved in getting the CG-10A program going, and how his company finally ended up with a 1,000 plane order.

He said that each month disruptive changes were ordered. "We were working against a letter of intent for the first 100 of that contract when the war ended," Laister said. "Chase Aircraft finally wound up building a metal version of the CG-10A, and that's where the program took off from."

Closing, Laister said, "Well, what have I been doing lately? I had an excellent design a few years back in 1975. It was called the 'Nugget' and it won a national competition. It was the only United States built ship ever to win a 15 meter." A Laister "Nugget" (LKN3NH-serial #3) is part of the NSM's sailplane collection.

He then recounted a project to fly around the world, non-stop. "The boys out in the Mojave had me build them a set of "Nugget" wings that were fueled leading edge to spar and tip to tip. Wing tanks were added to give them enough fuel to fly 4½ days. Flying the right direction on the jet stream at 30,000 ft., they could make it. The airplane flew very well," he said.

A lively question and answer period followed the lecture.

For the over 85 attendees, Laister provided an illuminating, first-hand tour of the progress of American motorless flight from the late '20s onward.

CALENDAR

Date	Event	Location
Feb. 24	"Dynamics and Aerodynamics of Paper Gliders" Teacher Workshop	Addison, NY
Feb. 28	SSA Convention Museum Trustee Winter Meeting Announcement of Winning Gold Medal Design	Valley Forge, PA
June 7 June 14 (rain date)	Chemung County "Seskitennial" Kite Fly Off	Harris Hill/NSM
May 23-24-25	1986 Exhibit Opening Hall of Fame Vintage Sailplane Regatta	NSM/Harris Hill
Aug. 14	Twin Tier Pilots "Hangarfest" Outing	Harris Hill Park
Aug. 29-30-31	East Coast Sailplane Homebuilders Association Workshop	NSM/Harris Hill
Sept. 6-7	Chemung County Sesquicentennial Air Show sponsored by Joint Aviation Council of the Greater Corning Chamber of Commerce and the Chemung County Chamber of Commerce	Elmira/Corning Regional Airport
Oct. 4-5 Oct. 11-12	Harris Hill Fall Foliage Weekends and Film Festival	NSM/Harris Hill
Nov. 28-29	43rd Annual Snowbird Meet and Banquet	NSM/Harris Hill

FRANK "SPEED" HAWKS AND THE EAGLET'S GREAT CROSS COUNTRY FLIGHT — ALL THE WAY ACROSS!



The transcontinental, "Texaco Eaglet" bungee launched off South Mountain, Elmira, during the First National Gliding Contest, Sept. 21st to Oct. 5th, 1930. (Note enclosed cockpit.) Below: Captain Frank M. "Speed" Hawks, famous racing pilot and first to fly a glider across the country, at the First National Gliding Contest. From NSM Archives.

March 30, 1930, Lindbergh Field, San Diego . . .

Frank Hawks, in a modified Franklin utility glider named "Eaglet" skipped down the earthen runway behind 500 feet of cable, attached to J. D. "Duke" Jernigen's Waco 10 two-place biplane, on the first transcontinental glider tow.

Destination: New York City, over 2,800 miles of treacherous mountains, wrenching rope breaks, and a series of risky, unplanned landings.

The United States was hurtling ever deeper into its worst depression. Sidewalks of major cities were unsafe because of falling, suicidally despondent businessmen.

To survive in this maelstrom, a company had to demonstrate reliability, versatility and daring, the very personality profile of the flamboyant ex-air service pilot, Capt. Frank Hawks.

He was Superintendent of the Aviation Division of the Texas Co. (Texaco), a transcontinental "speed flier", barnstormer, a U. S. and European record holder, and generally acclaimed "meteor man".

What more of a promotional paradox could you find than a trans-American glider flight — sponsored by a gasoline company?

Peter M. Bowers, in the July-August '54 Soaring Magazine, notes that at the time, aero-towing in the United States was almost unheard of, only recently having been introduced from Germany, where it had been done since 1926.

Hawks special Franklin utility was the first to feature a welded steel tube fuselage. Its 42-foot tapered wing replaced an earlier 36-foot wingspan.

"Duke" Jernigen's passenger, in the 220 horsepower J-5 Whirlwind-powered Waco, was Wallace Franklin, brother of Eaglet's designer and builder, Prof. R. E. Franklin.

So it began, after many practice flights over mountains, Hawks knew what he and Eaglet were in for. As cargo, Hawks carried a 12½ pound packet of "glider air mail". (A letter cover from this packet is in the National Soaring Museum's Historic Glider Postal Exhibit.) Also aboard was a potted palm to be planted at flight's end.



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FRANK "SPEED" HAWKS, continued

Hawks was protected from the elements by his "Pyrex glass house", making Eaglet perhaps the first "cabin glider". In his book "Speed" published by Brewer, Warren & Putnam, New York 1931, Frank Hawks describes the towing and communication arrangements. "We decided on a 500 ft. tow line with a built-in telephone cord equipped with a plug that would pull out when I should cut loose over an airport-of-call and so arranged that Duke could also disconnect his end in an emergency. On other occasions, however, Duke's companion, in the front cockpit of the Waco, was to wind in the cable with a reel installed for that purpose, as soon as I had cut loose and started my exhibition of gliding."

The end of the first day's flight found Eaglet drifting down after dark in Tucson, Ariz., landing in a field lit by automobile headlights. Four hundred miles had been covered — with only two rope breaks.

Hawks speaks of his difficulties over the mountains in "Sky Sailing, The Book of Gliders" by Edwin Way Teale: "Violent upcurrents of air carried the machine straight up. 'Dive her, Duke!' I called on the telephone. Both machines nosed down gently at first, then sharper and sharper. Gradually the Eaglet gained on the (tow) plane, slackening the towline and making me feel it might part again. 'Give her the gun,' I shouted, and down into a power dive we went. 'Easy, easy', I cautioned as the line straightened and finally became taut. I know now but for the telephone, we should have lost our cable again."

A new unofficial altitude record for towed gliders of 10,000 ft. was established beyond El Paso.

Near Terre Haute, Ind., at 1,200 ft., the "flying train" experienced another break, severing telephone contact. Hawks soared two miles to a landing at a race track.

In his book, Teale speaks of Hawks' constant battle with fatigue: "On the way, the surging of the wind through the struts of the glider began to put Hawks to sleep. Fighting to stay awake, he began singing over the repaired telephone to Jernigen and Franklin . . . followed by a running fire of conversation."

A new speed record of 96 miles an hour was set on the Columbus, Ohio to Cleveland leg.

The last segment of the flight, from Buffalo, east, then down the Hudson River, gave the transcontinental pioneers the most difficulty, with "stiff uneven winds", bouncing the Eaglet around "making piloting a constant strain".

Don Wiggins, in his "Adventures in Flight—On Silent Wings", quotes Hawks as saying, "Twice I began to fear that I might be forced to quit the ship and join the Caterpillar Club, via my parachute." At one time, Hawks reported the strain of flying blind was too much for him, after Duke telephoned him that he was tired of dodging mountains in the rain and sleet and wanted to fly the Waco through the overcast.

"Let's get down out of this," Hawks finally pleaded.

"You're crazy" Duke replied. "I've been under the weather for the last 20 minutes!"

Only then did Hawks realize he had been flying the high-tow position, inside the clouds, while his friend was down below in the clear.

The strong and gusty winds took more than a human toll. Said Hawks: "This, I fear, strained the control surfaces. By the time we reached Albany, 'Eaglet' was very heavy in the right wing and continued to be all the rest of the flight. With controls centered, it soared along atilt, like an injured, tired bird, dragging a limp wing. Up and down, swinging to right and left behind the towplane, we flew on. Had it not been for the telephone and coordinated flying of plane and glider . . . we should have never reached New York City."



Designer and manufacturer, Roswell E. Franklin confers with Frank Hawks sitting in the cockpit of a Franklin PS-2. A Loomis photo from the NSM Archives.

At Yonkers, N.Y., it started to rain.

"It was still raining when I cut loose and banked away at 5,000 ft. and soared down toward the waiting throng at Van Cortland Park," Hawks said.

On April 6, 1930, eight days and 2,816 miles from San Diego, the "flying train" had arrived in New York City.

In 19 hops, "the trip had taken eight days elapsed time and 44 hours and 10 minutes of actual flying, 35 hours of this being in tow of the Waco and the remainder spent in soaring exhibitions at the towns and cities we stopped en-route," according to Hawks.

Eight years later, in 1938, Hawks was killed when a Gwinn Aircar he was demonstrating struck high tension wires in East Aurora, N.Y.

"Eaglet" is now part of the National Air and Space Museum's collection.

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