

NSM



A Quarterly Journal
of the National Soaring Museum
Spring, 1985 Vol. 7, Number 4

From the Editor:

What an exciting Spring for the National Soaring Museum! To again host The Soaring Society of America's U.S. Soaring Hall of Fame Induction Ceremonies and to have Mrs. William Hawley (Ruth) Bowlus and son Jack from CA attend our 1985 exhibit opening of "William Hawley Bowlus: a man of many facets." Can you guess that our Exhibits Committee watched her face very closely for the slightest inclination of expression????? I believe that Ruth and Jack were pleased with our treatment of such a diversely creative and talented gentleman.

We have many people to thank for their part in making this exhibit focus possible; primarily Mrs. Bowlus, and, The Arnot Mall, Richard Benbough, Bob Blaine, C.D. Bowlus, Glen Bowlus, Robert Bowlus, Ralph Burdick, Bruce Burr, Howard Burr, Bruce Carmichael, Phil Charwood, Chicago's Museum of Science & Industry, James Campion, Dr. L.P. Clarke & family, Robert Colby, Robert Dart, Ben Dysart, Elmira College, Edward Fox, Harbor Sales, Fred Hefty, Bruce Henderson, Malcolm Hughes, Frank Hurtt, Eugene Husting, Wm. Frank Kelsey, Richard Kurzenberger, Len McClain, Don Mitchell, Frank Nixon, Philadelphia Glider Council, San Diego Aerospace Museum, Ernest Schweizer, Paul A. Schweizer, Michael Shoen, The Soaring Society of America, Herman Stiglmeier, Robert & Pat Storck, Jeff Storck, Paul Tester, the Vintage Sailplane Association, Richard Wagner and Warren Watson.

A secondary exhibit this year is "U.S. Soaring Sites and Clubs". It is our intent to convert this mini exhibit into a permanent display in our effort to develop and archive this particular in-

formation. If your soaring site or club did not participate, I urge you to contact the NSM office and we will send you an outline of what we requested for this exhibit.

At the reception Friday evening, May 24th, we unveiled the Edward A. Mooers Memorial Audio Visual Video System which was possible through a matching grant and the relative memorial contributions received. The 45" screen television allows the Museum to give a more sophisticated and efficient hourly presentation in the theatre. The VCRs and camera equipment allow the Museum a diverse capability in creating educational video productions, recording oral histories, preserving The SSA's film library and other historic film footage in the archives. Spearheading the film archiving effort for the Museum have been Jan Scott and Jim Furlong. Mr. Mooers was an intense advocate of educating people about the history and beauty of motorless flight. This new memorial equipment will continue one of his lifelong endeavors.

Artists!!

Interested in the National Soaring Museum's Gold Medal Design Contest? Contact the Museum for information and guidelines.

ON THE COVER:

1939 photo of William Hawley Bowlus from the Bowlus Family collection.

CALENDAR

Date	Event	Location
May 24, 1985	Evening Open House — Exhibit Opening "William Hawley Bowlus: A man of many facets", and "U.S. Soaring Sites and Clubs"	NSM
May 25	NSM Board of Trustees' Annual Meeting Oral History Forum U.S. Soaring Hall of Fame Banquet	NSM
May 24, 25, 26	Vintage Sailplane Regatta	Harris Hill/NSM
June 5, 6	N.A.S.A. Langley AEROVAN Exhibit (To observe National Soaring Week)	Adjacent to NSM
June 29	Dedication of 3rd National Landmark	Akron, OH
August 8	Twin Tier Pilots' Hangar Fest	Harris Hill Park
August 31 - Sept. 2	East Coast Sailplane Homebuilders' Association Workshop	NSM/Harris Hill
Oct. 5, 6 & 12, 13	Harris Hill Fall Foliage Weekends and Film Festival	Harris Hill/NSM
Oct. 4, 5, 6	Northeast Aero Historians Meeting	NSM
Oct. 6	Deadline for Gold Medal Design Contest entries	NSM
Oct./Nov.	Annual Ralph S. Barnaby Lecture and NSM Trustee Meeting	to be determined
Nov. 29, 30	42nd Annual Snowbird Meet and Banquet	Harris Hill/NSM
Dec. 13	NSM luncheon honoring the Community Soaring Committee Volunteers	NSM

Edward A. Mooers Memorial Audio Visual Video System Presented to NSM

Director Sliwa describing the potential benefits of the new video system for the history of soaring to the daughters of Mr. Mooers, center, Nelson Mooers van den Blink and right, Mary Welles Mooers Smith.



The Edward A. Mooers Memorial Audio Visual Video System had been presented to the Museum the evening before, so we were very anxious to see what our oral history taping session would produce the next morning of Hall of Fame Weekend.

Spielberg, Huston and Wilder couldn't have wanted more . . . From 10 in the morning to midafternoon we were regaled by vivid accounts of aerial triumphs and pratfalls, going all the way back to the days of Chanute and the Wright Brothers, right up to last month, with the restoration of the Baby Bowlus, which is now part of the Museum's 1985 exhibit focus.

Captain Ralph S. Barnaby reached back through the decades to his meeting the Wright Brothers while he was going to school. It was in a hangar at the 1910 Gordon Bennett Air Races in Belmont Park (Long Island) and Barnaby was helping his brother James, a mechanical engineer who worked for the American Bosch Company that made magnetos for the Baby Grand plane. James Barnaby also worked for Manly Drive, the builder of the engine for the Langley attempt at motor flight in 1903. "I stood in great awe of the Wright Brothers because they were wonderful people, family people, shy in public, but talkative and open with people who were interested in what they were interested in." After Belmont Park, Wilbur went back to Dayton, OH to start up a factory to build airplanes, and try to sell one to the Army. Within 2 years he contracted typhoid fever and died there. "I knew Orville from then on. Later on in Washington he was on the National Gliding Committee when I was, and head of the Contest Board of the National Aeronautical Association. It was he who signed my certificate." (Glider Pilot Certificate No. 1).

"The Wright Brothers had a different concept of flight. After studying the birds they knew that the only way man could fly was to learn by trying; by going into the air and controlling your flight like a bird controls its axes. They realized that you had to move on three axes — up and down, roll and right and left to fly safely. In talking about it among themselves the Wright Brothers said that if you wanted to learn to ride a horse, you didn't sit on a fence and watch the horse. You had to get out and ride it. They learned to ride, then learned about motion and what had to be done."

Eugene Hustung, Long Island, NY commented on the 1896 Chanute KATYDID, an original model of which is on loan to the NSM from the Chicago Museum of Science and Industry.

Gene backgrounded the Katydid's design, explaining that it was a pure hang glider and that it was supposed to have "automatic stability". The five layers of wing surfaces pivoted from the roots and the angle of incidence of the wings changed at the same time. Because Octave Chanute was 64 at the time, he did not fly the full scale craft.

Husting recounted the Katydid's demise at Kitty Hawk, NC, where it did not perform well and was abandoned to the locals who used its fabric to make clothes for their children.

The comments on "automatic stability" led to discussion of the Wright Brothers concept of 3 axis control, then on to some hilarious stories by Hustung, Barnaby and Frank Hurtt, Ithaca, NY, concerning stability and the "automatic pilot" of a later era.

Mrs. Ruth Hawley Bowlus of San Fernando, CA, attended the session along with son, Jack Bowlus, as did Mrs. Carol Kolts, Glendale, CA, a childhood friend of Bowlus. "He was always taken with trains and I used to make curtains for the dining cars."

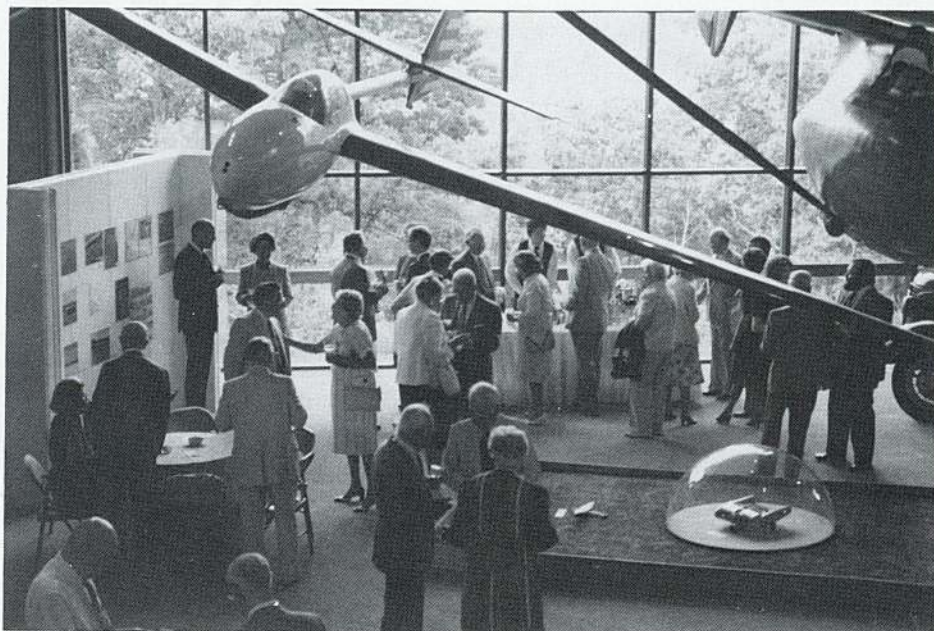
VSA restorer Bob Storck, Waldorf, MD, related his organization's coast to coast hunt for parts, components, and help in bringing the born-again Baby Bowlus to completion. The quest started in 1983 at Monrovia, CA in a bee-infested Bowlus hull and ended a couple of weeks before the May 24-26, 1985 Hall of Fame weekend.

This new audio visual video equipment expands the Museum's archival capability to much more significant levels. People speaking spontaneously with all their body language inflections, and events as they happen, will now be recorded so that future aero historians will have a more precise optic with which to evaluate past accomplishments.



Left to Right: Curator of Education Bill Gallagher, Eugene Hustung, Ralph S. Barnaby, Mrs. Carol Kolts, and Mrs. Victor (Martha) Saudek.

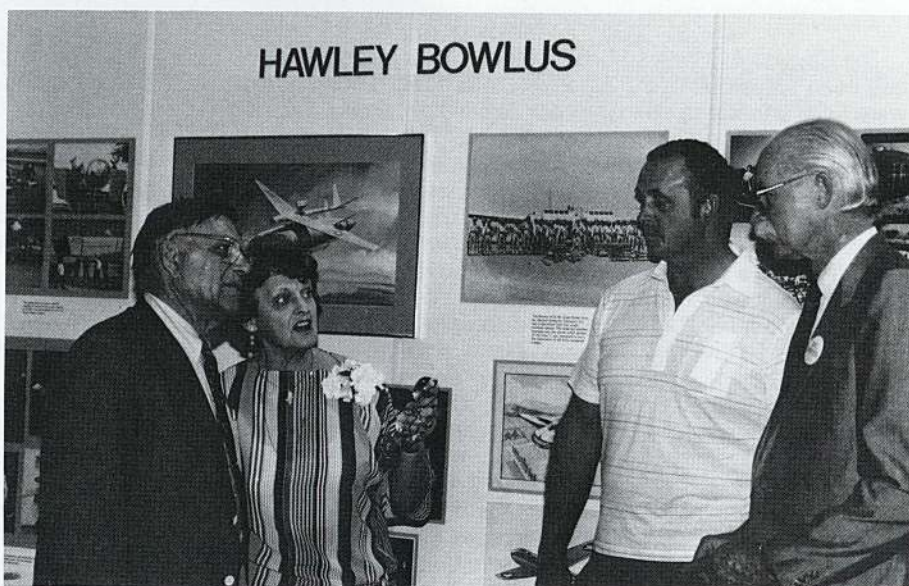
Photos: Peg Gallagher



United States Soaring Hall of Fame

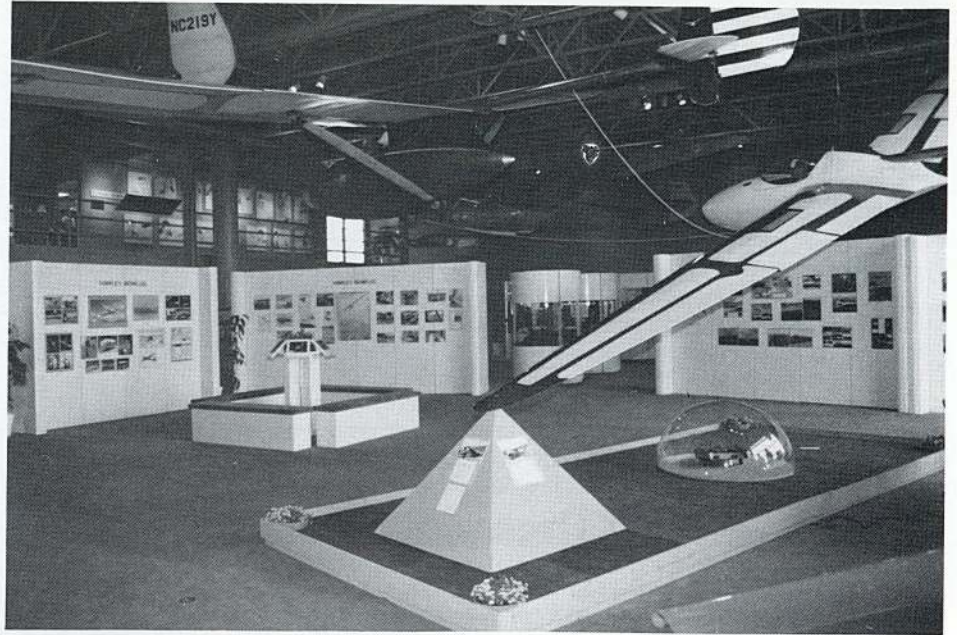
With the Super Bowlus (Left) and the Baby Bowlus overhead, visitors to the United States Soaring Hall of Fame reception renew acquaintances before the banquet presentations and induction ceremonies.

Inductees William Schweizer, Elmira, NY (Left) and Bernald S. Smith, Fremont, CA (Right) in conversation with special Hall of Fame visitors Mrs. Hawley (Ruth) Bowlus, San Fernando, CA and son Jack Bowlus, Hollister, CA.



Hall of Famers gather around the presentation Barnaby bust to welcome the two 1984 Inductees. Seated from the Left, Bernald S. Smith, Fremont, CA, 1984; Captain Ralph S. Barnaby, USN (Ret.), Philadelphia, PA, 1955; and William Schweizer, Elmira, NY, 1984. Standing from the left, Floyd J. Sweet, McLean, VA, 1963; Virginia M. Schweizer, Elmira, NY, 1971; Paul A. Schweizer, Elmira, NY, 1955; and Victor M. Saudek, Los Angeles, 1980.

1985 NSM
Exhibit Focus
William
Hawley
Bowlus
.... a man of
many facets



... and
U.S.
Soaring
Sites
and
Clubs

Highlighting the exhibit are the three restored Bowlus designed sailplanes, the 1933 Bowlus-duPont ALBATROSS, the 1937 Bowlus BABY, and the 1939 Bowlus SUPER, all suspended overhead in a simulated thermalling configuration.

Bowlus, who died in 1969, is remembered for his revolutionary glider and sailplane designs and record-breaking soaring flights. He began gliding at 14, when he strapped on his first redwood

and spruce hang glider and soared off a hill on his parents' chicken ranch at San Fernando, CA.

Models and photos on display include Bowlus military gliders, model trains, landing gear for the Ranger moon probe, and BUMBLE BEE, a motor-powered plane. A full scale section of the famous paper-wing from the 1929 original ALBATROSS Model SP-1, is also on display.



Photos:
Frank Hurtt

Barnaby Bust Presented to The NSM

An accomplished and recognized sculptor, Capt. Barnaby has many works on exhibit in museums and military establishments throughout the country, including a bas-relief of Wilbur & Orville Wright on permanent display at the Wright Brothers National Memorial at Kill Devil Hill, N.C. (See NSM Vol. 4, Number 3, 1981. The NSM has a copy of this historic plaque on exhibit in the lobby.)

Among other significant works are busts of Admiral W. S. Sims, now at the Mariner's Museum, Newport News, VA; and of James Forrestal, the first Secretary of Defense.

He also did one of Admiral W. H. Moffett, first Chief of the Bureau of Aeronautics. The bust was very near completion and Barnaby told the Admiral that all he had to do was dress him up; put on his collar and his shoulders. He continued, that the next time the Admiral was in uniform all it would take was a half an hour.

Barnaby met the Admiral shortly thereafter and asked him if he could put on the finishing touches that day. "Barnaby," he said, "I can't today. There's a car waiting for me right now to take me to Lakehurst, I'm going out on the (airship) AKRON."

He never came back.

He was drowned that night when the AKRON was wrecked out off Atlantic City.

Capt. Barnaby put on his own uniform, took a mirror and finished the job.

Admiral Moffett's bronze is on display in Memorial Hall at the U.S. Naval Academy.



Captain Ralph S. Barnaby poses beside the first casting of the self-sculptured bust he donated to the NSM during the Hall of Fame ceremonies.

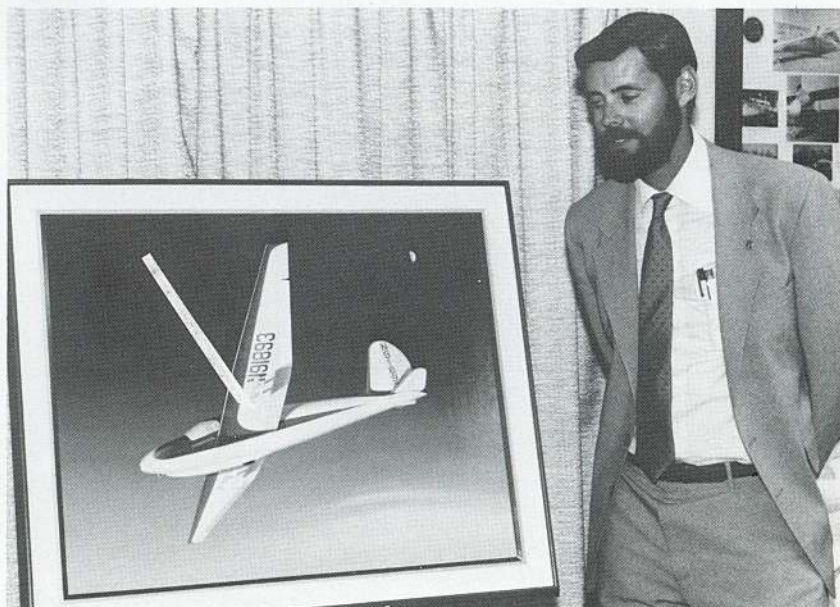


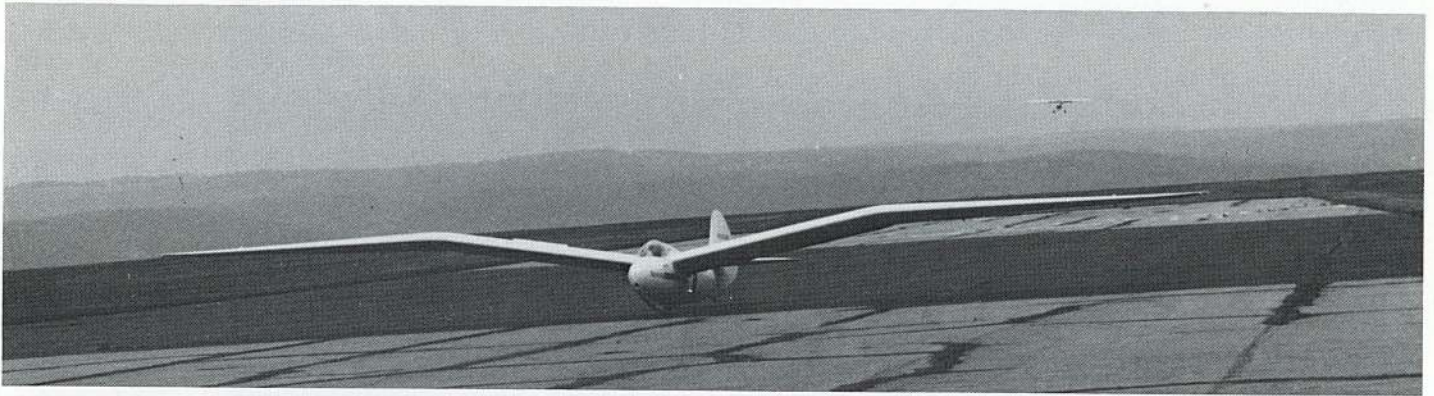
NSM Trustees and Advisors planning, reviewing, setting goals and standards at their Annual meeting.

Flight Level 460 by Mike Machat presented at the NSM by SSA.

John C. Lincoln, II, President of the National Soaring Museum accepts FLIGHT LEVEL 460, an oil painting depicting soaring pilot Paul Bickle's Absolute World Record of 46,267 feet, set in a Schweizer 1-23 on February 25, 1961. The painting by well-known artist Mike Machat, is one of a series from the Soaring Society of America's MACHAT CHRONICLES. (Prints of the painting are available through The SSA or NSM office.)

Photos: Peg Gallagher





The 1985 Vintage Regatta at The U.S. Soaring Hall of Fame Weekend, May 25-26

She was standing there in the Harris Hill Glider Field observation pavilion; an older gray-haired lady. As the sleek wartime-painted LK-10A started down the runway, you could hear the lady's low hum, almost reflexive, "... Off we go — into the wild blue yonder ...". The LK's star and meatball-sided blue fuselage, the striped rudder and the bright yellow wings beamed bystanders back 41 years, and the lady articulated the mood.

But then that's what Vintage Sailplane Regattas are supposed to do. Harris Hill, NY visitors Saturday and Sunday found themselves in a sort of sailplane time warp. They could watch a war party of Cherokees, a LK-10A, a Minimoa and a swarm of Schweizers.

Saturday's fantastic weather was responsible for a significant amount of flying, especially in Gene Reynolds' 2 place Laister-Kauffmann-10A (WWII TG-4A). Many people had a chance to fly in a ship that is no longer available.

Jim Furlong, in his Cherokee II, culminated at least a dozen tries over the last 8 years and succeeded in making his "Silver C" Distance that Saturday.

Flying was cut short on Sunday, May 26th, by a rain squall, that gave everybody an excuse to close shop and come down early for the VSA Meeting held at the Museum.

Mai Scott, Lovettsville, VA, was elected Treasurer and all current VP's were reelected, including Paul Schweizer, Elmira, NY, Eastern VP, Stan Corcoran, New Lenox, Ill, North Central VP, Al Backstrom, Frisco, TX, South Central VP, and Les Arnold, Brownsville, CA, Western VP. Secretary for the last five years, Pat Storck, stepped aside and Greg Reynolds, Woodbridge, VA, finished her term. (New VSA address is Scott Air Park, Route 1 Box 239, Lovettsville, VA 22080).

Awards included: The Robert Stanley Award for Achievements in Meets & Functions to Bob Fronius, San Diego, CA for his efforts in organizing several West Coast Meets. The Harlan Ross Award for Significant Flights in a Sailplane went to Steve Leonard,

Wichita, KS, for a Gold Distance Diamond Goal flight of over 200 miles, in a modified Cherokee.

The premier award, the Dean McMillan for Contributions to the Vintage Sailplane Movement was given to Bob Abbott, Reston, VA, for organizing computer mailing, member, and sailplane lists.

The VSA annual Memorial Meet will be held Saturday & Sunday, September 21st & 22nd, on the duPont family estate near Wilmington DE. The Meet commemorates one of soaring pioneer Richard duPont's most memorable flights that took place September 19th, 1933 from around Waynesboro, VA to near Frederick, MD. The flight is significant to vintage buffs, in that, on the fortieth anniversary of the flight, the Vintage Sailplane Association was created in 1973.

The VSA'ers recounted their experiences in the restoration of the Baby Bowlus. Special thanks were in order for: Fred Hefty, Howard Burr, Bob Blaine, and Bruce Carmichael, all of whom helped on the California end, Mike Shoen for transportation to Phoenix and VSA President Bob Colby from Phoenix to Washington, DC.

East Coast restoration people were Bob Dart, Len McClain, Bob Storck, and Phil Charlwood. And they had help from Bruce Henderson, Paul Tester, and Pat & Jeff Storck.

Parts of three different gliders were used to make up the "Baby". The wings, stabilizer and rudder came from Ben Dysart's ship #2, with the pod & boom from the Charles Burdick Estate. Many parts were donated by Harbor Sales, but several components had to be scratch-built.

The VSA restoration team relied on advice given by Don Mitchell, who helped Hawley Bowlus build the first Baby Albatross.

"We strived to created the glider close to the way an individual would have finished it in the '39-'40 era," said VSA's Archivist Bob Storck.



Photo: Frank Hurtt



Photos: Peg Gallagher



Photo:
Jim Gill,
Corning Leader

From the Curator of Education:

"Is it real?", "I didn't think it was that big! . . .", "How did you catch it . . .?" Schoolchildren from all over Southern NY & Northern PA comment on the American Bald Eagle, exact replica on display in the NSM Lobby. Many have never before seen one, and are impressed by its size. It's appropriate that the first thing they see on arrival at the NSM is the symbol of our nation, one of nature's premier soaring birds and also a bird whose flight characteristics man aspired to, in his attempt at flight.

They stare at the Waco CG-4A Cargo Glider fuselage in the NSM exhibit hall and wonder if it's a tank or a van and, "How does it get off the ground?"

Wide-eyed, these children try to grapple with the basics of flight. They try to accommodate the Wright Brothers' primitive control systems to the retro rockets of interplanetary video games they played at school.

We show them movies or tapes of "The Joy of Soaring" or "Goofy's Glider" depending on the age of group. To reinforce what these students have seen, we go in a more detailed tour of pertinent exhibits.

Then they get in the Museum's 1-34 sailplane simulator. Watch their eyes — They're at 800 ft. AGL on the ridge, shrieking along at red line. Watch out Striedieck, Knauff and associates. You've got company!

The Museum offers programs for all ages, single or multiple sessions on sailplanes, history, aerodynamics, weather, local geology and Federal Aviation Rules. Over 70 such school groups have toured the Museum facility so far this year. We go to service clubs with slide, tape & movie presentations.

The Museum's newest, and, surprisingly popular program is a mini-course on "The Dynamics and Aerodynamics of Paper Gliders".



Structured to teach youngsters the basics of flight by hands-on construction techniques, this course demonstrates the axes of flight and the forces acting on an aircraft.

We fold, crease, and scotch tape our way through simple dart types to the more complicated origami models.

We've found more and more adults slipping into these classes to try their "hand" at a pure fun, relaxing and inexpensive pastime. All are welcome!

Last April, for National Library Week, the NSM held "Paper Glider Ground School" at the Corning, NY Area Public Library and the Chemung County Steele Memorial Library System in preparation for the Second Great International Paper Airplane contest at the Seattle Museum of Flight. Sadly our entrants didn't win in Seattle, but we're developing some innovative designs for '86!

This summer, plans call for an expansion of the paper glider ground schools to day camps and park recreational programs.

To celebrate National Soaring Week, the first week in June, NASA's newest traveling exhibit, the AEROVAN, visited the Museum.

Under the direction of NASA's Dale "Chris" Christensen, the AEROVAN is a walk-through exhibit on current research in air safety, energy efficiency, environmental compatibility and improvement of passenger comfort. It features nine exhibits, including videos, models and a miniature wind tunnel. Admission was free and over 800 people toured AEROVAN in two days.

With NSM's new audio visual-video capability, we envision taping and expanding these and other efforts for archival use and for programs to be used beyond our immediate area.

Of course, member suggestions will be welcomed and evaluated. Write or call.

Bill Gallagher

NSM is a publication of the National Soaring Museum, Harris Hill, RD3, Elmira, New York 14903. Anyone is invited to contribute material and pictures with identification about historical soaring activities, renovation of old sailplanes, soaring pioneers, unusual uses of sailplanes, etc. Manuscripts are subject to whatever revisions, additions or deletions are necessary to make the material conform to the space limitations and standards of NSM. Material that is to be returned must be accompanied by a stamped, self addressed envelope. No compensation other than credit will be made.

Publisher — National Soaring Museum
Director/Editor — Shirley Sliwa
Assistant Editor — Bill Gallagher