



NSM

A Quarterly Journal
of the National Soaring Museum
Fall 1986 Vol. 9 Number 2

CALENDAR

Date	Event	Location
1986		
Oct. 4-5	Harris Hill Fall Foliage Weekends	NSM/Harris Hill
Oct. 11-12	Film Festival	
Oct. 11	NSM Ses-KITE-nnial Kite Fly	NSM/Harris Hill
Oct. 24	75th Anniversary Celebration of Orville Wright's Record Soaring Flight	NSM/Harris Hill
Oct. 25	13th Annual Ralph S. Barnaby Lecture by Paul E. Garber, Historian Emeritus, Smithsonian's National Air and Space Museum	NSM
Nov. 28-29	43rd Annual Snowbird Sailplane Regatta and Banquet	NSM/Harris Hill
Dec. 19	Community Soaring Committee Luncheon	NSM
1987		
March 21	Safety Seminar-SSA Region III Meeting. Banquet, Doug Jacobs former 15 Meter World Champion, Speaker	NSM/Harris Hill
May 18	International Museum Day	NSM
May 23, 24, 25	Vintage Sailplane Regatta	NSM/Harris Hill
May 29, 30, 31	1987 Exhibit Opening United States Soaring Hall of Fame National Soaring Museum Trustees Meeting	NSM
June 1-7	National Soaring Week	NSM/Harris Hill
June 2-4	NASA Aerovan	NSM
June 6	Dedication of Harris Hill Soaring Corporation Visitor Center	Harris Hill
June (date to come)	Dedication of Route 17 Soaring Capitol of America Monument	Southern Tier Economic Growth
June 30 - July 9	U.S. National Sports Class Sailplane Championship (Soaring Society of America sanctioned)	NSM/Harris Hill
Aug. 13	Twin Tier Pilots Hangarfest Outing	Harris Hill Outing Center
Sept. 5-6-7	Labor Day Weekend Informal Sailplane Regatta	NSM/Harris Hill
Oct. 3-4, 10-11	Harris Hill Soaring Corporation Fall Foliage Weekends	NSM/Harris Hill
Oct. 10	National Soaring Museum Kite Fly	NSM
Nov. 27-28	44th Annual Snowbird Sailplane Regatta and Banquet	NSM/Harris Hill
Dec. 20	NSM Luncheon honoring the Community Soaring Committee Volunteers	NSM

The National Soaring Museum is expanding with Bricks of Recognition. Become a part of one aspect of soaring history for succeeding generations by having your own brick, laser engraved with your name in our permanent wall display; or be recognized on the special Diamond Plaque.



Photos by Peg Gallagher

THE 1986, 13th ANNUAL RALPH STANTON BARNABY LECTURE BY PAUL E. GARBER, HISTORIAN EMERITUS OF THE SMITHSONIAN'S NATIONAL AIR AND SPACE MUSEUM.

Paul Garber's slide was of a painting that showed Orville Wright with passenger Frank Lahm at a 1909 U.S. Army demonstration flight at Fort Myer, Virginia. The painting also showed a young boy in the lower right hand corner. "There I was," Garber said, "The little fellow at the extreme right. I learned about the flight from a newspaper, and I asked my father if I could go and see the airplane. He handed me a half dollar carfare, and when I got there, I could hear the sound of the engine. I fell over backwards looking at it as it went by overhead."

"When it landed, I made my way through the crowd and got up close to it. There was Wilbur, Frank Lahm, Orville and 'Benny' Foulois. The flight that I saw was for duration; one hour, pilot and passenger. The next flight would be a speed test from Fort Myer to Alexandria, Virginia and return. Foulois did it at a speed of 42.573 mph; and the Wrights were paid \$25,000 plus \$5,000 for the additional 2.573 mph over the 40 mph contract specifications. (Foulois later became head of the Air Service in France and during WWI and in 1931, Chief of the Air Corps.)

The 1986 Barnaby Lecturer recalled the event of seventy-seven years ago with such clarity and detail that the audience almost expected to see the Wright Brothers walk into the National Soaring Museum's Community Room and ask what happened to that little boy who pestered them so long ago.

He became Paul E. Garber, Historian Emeritus for the Smithsonian's National Air and Space Museum. He authored several books, pamphlets and articles on the Smithsonian's aeronautical collections, building and flying model aircraft kites, and Navy target kites. He saw service in both wars, joined the Postal Aviation Service in 1918, and has been associated with the Smithsonian since 1920.

He is a Ramsey Fellow, a member of the Early Birds (American pilots who flew before 1916), and has received many awards, citations and honors for his contribution to aviation.

The Barnaby Lectures were named for the late Capt. Ralph Stanton Barnaby, USN, who in 1929 broke Orville's 1911 soaring record with a 15 minute 6 second flight at Corn Hill, Cape Cod. In 1930 he demonstrated the feasibility of a glider launch from the U. S. Navy airship, Los Angeles. Barnaby was also responsible for many other developments in gliding and soaring.

Garber began his slide presentation with a tribute to his friend and fellow Early Bird member, Ralph Barnaby, recalling

several anecdotes from their long association. Garber, one of the world's leading authorities on the Wright Brothers, said he felt "privileged to be here in Barnaby's name." He continued, "The Wright Brothers were most stimulating, most excellent, not merely lucky bicycle makers but as geniuses, because there is occasionally a merging of persons . . . that is much more than one and one is two. So it was with the Wright Brothers. They were the minds of many. They combined those minds and hands to produce their marvelous results."

Garber piloted his audience back through the 19th century to the experiments and writings of the aero-engineering giants whose ideas inspired the brothers. Garber commented on Alphonse Penaud (1850-1880) developer of models of all three types of aircraft, the airplane, the helicopter, the ornithopter, and also the discoverer of longitudinal dihedral, for stability. "When Penaud went before the French Academy to show them what he'd done, they laughed at him. He went home and shot himself," Garber said.

"I think of that so often at the Museum. When people come in with peculiar ideas, I always try to find out what is good about them and to help them. I'm in mind of Alphonse Penaud; he should have been encouraged, he deserves to be remembered," the speaker said.

The Wrights heard about the experiments of the Lilienthals, Otto and Gustav. In order to learn more about the work that was being done they decided to get in touch with the Smithsonian Institution, where the original Lilienthal gliders were. They had heard that the head of this the country's greatest scientific institution, Dr. Samuel P. Langley was, himself interested in aviation. They were sent pamphlets describing Langley's & the Lilienthals' work.

Garber described Langley's shop where he worked on his models for aircraft and engines. He also mentioned how much he wanted this preserved; but it was razed to make room for the old aircraft building. Garber detailed Langley's models, one of which measured 14 feet in span, 16½ feet long, weighing 26 lbs. with a one horsepower steam engine. The Number 6 was photographed by Dr. A. G. Bell and flew for one minute and a half, almost three quarters of a mile. Then came the involvement of Theodore Roosevelt, Secretary of the Navy with Langley's full sized machine. Garber continued, "There is that wonderful engine built by Charles Manly. Mr. Norwich, who made the 'Wright Whirlwind' engine, with some assistance,

(Continued on page 4)



Facsimile of newspapers, photos, books and pamphlets from, "The Wright Era," on display at the Barnaby Lecture.

(Continued from page 3)

said of this Manly design, 'that it was the first ever true aeronautical engine.' It developed 52.4 HP, 950 RPM's, with a weight of less than 3 lbs per HP. Remarkable for 1901, when it was first made . . . It was the 15 FT scale model that had the first ever gasoline engine . . . heavier than the aircraft. The full size Langley aircraft (with the 52.4 hp Manly engine) was not successful on either its October 8th or its December 9th flights."

Garber noted that Wilbur Wright's first letter to the Institution was dated May 30th, 1899, and Garber was born on August 31st, 1899. "So I have lived to see the whole development, from its very beginning. I think that it is a great privilege to have this recollection of what I've been through and what mankind has accomplished." Langley sent the Wright Brothers accounts of his own as well as others' experiments in aerodynamics. Octave Chanute was especially helpful, describing his biplane type gliders piloted by Avery and Herring. Garber noted that in 1916, he made and flew a glider like one of those made by Chanute, and it was flights in this glider that enabled him to be one of the "Early Birds". Perhaps Chanute's greatest accomplishment in helping others was his wonderful book, "Progress in Flying Machines" a summary of what had been achieved in aeronautics up to 1894, its publication date. The Wrights were told about James Means' Aeronautical Annuals of 1895, 6 & 7. They described the works of Lawrence Hargrave of Australia who had developed a series of cellular wings and the box kite. The brothers made a box kite from which they evolved the Glider #1. "It is simplicity itself, but nevertheless shows control, and control is the most important word to use when speaking of the Wright Brothers." Garber continued, "There's been power since the end of the 18th century. There's been wings since the first bug, but there's never been control until now, 1899." The Wrights wrote several places to find where best to conduct their experiments. They received a letter from Captain Tate of Kitty Hawk, NC, in which he said that, yes we do have strong winds, soft sand and are an hospitable people. "I think that the last line got to them," Garber said. Their first glider, the 1900 had a span of 17½ feet and a 6 foot chord. The 1901 was much larger with a 22 ft span. Garber described how the gliders were controlled and said that in the course of his interest to learn more about their aircraft, he found that control was so important to them that they experimented with many different methods. And they were learning about airfoils. At times, discouraged by their lack of progress, they were urged on by Chanute who told them that they were farther ahead than anybody else in the world. They designed and built a wind tunnel, 60' square and 6' long, in which they

tested the lift and drag of shapes and airfoils at different velocities. Page after page of their computations show the way in which they were learning. "They were not bicycle rookies," Garber declared, "they were geniuses." . . . The Brothers often changed ideas and would sometimes argue against each other but the net result would be positive. Having lift and control, the next step was power. After contacting a number of engine manufacturers and finding none that produced the type of engine that the inventors wanted, they built their own with the help of their assistant, Charlie Taylor. Garber told of his conversation with Taylor and how he made the crank shaft for that first engine. Taylor got a block of steel about a foot wide, about 2 inches thick and about two feet long, and marked out the four turns of the crank shaft, one for each cylinder. Then he made a drawing of that outline and proceeded to drill holes around the outline and chisel his way to the desired shape from that big lump of steel.

The lecturer remarked that the propellers weren't just butterblades that many others were using, either. These were curved wings, with the same airfoils that the Wrights found best shaped for that purpose. Flight instruments consisted of a rotary wind indicator, beneath that a stop watch, and a counter for the engine. All were activated by a string controlled stick, which was pulled on take-off. The ship was finished and ready for testing on the 14th of December 1903. Wilbur was supposed to have the first flight, but the aircraft was damaged and didn't fly that day. Repairs were made, and it was Orville's turn, on the 17th. Garber described how Orville arranged to have the now famous picture taken by a witness that had never handled a camera before. Of the take-off picture, Garber quoted the September 1908 issue of Century Magazine, "Our first flight was for only 12 seconds, a very modest flight compared to that of birds. Nevertheless, it was the first flight in the history of the world by a man, who took off with his own power, flew forth under control, without loss of speed and landed at a point equally as high as the take-off . . ." "Try that on Whitehead and the rest that thought they flew," Garber said. There were four

From the left: Ernest Schweizer, Horseheads, NY, Susan and Horace Wright, Xenia, OH, Dr. Tom D. Crouch, Washington, DC, Paul A. Schweizer, Elmira, NY, Paul E. Garber, Arlington, VA. (Photos by Peg Gallagher)



flights made that day, the longest being Wilbur's and the last of 59 seconds duration.

A patent was applied for in 1903, which mentioned nothing about the engine, but emphasized the structure and the control system. When the Wrights returned to Dayton, Ohio, their launchings were impeded by the lack of the sea breeze that they had enjoyed at Kitty Hawk, so they devised an ingenious derrick catapult. A heavy weight was hauled to the top of the quadraped structure. The weight suspended on a pulley, was connected to a rope that ran to the base then out on the underside of a track on which the plane sat. On the end of that track another pulley reversed the rope back to the plane. When the weight was released, the plane, which was at full throttle, received a catapult-like boost for take-off.

By 1905 the Wrights were demonstrating the practicability of flight with hops of 38 minutes duration and 24 mile distances.

Repeatedly getting no responses from the War Department, to their demonstration offers the Brothers shifted some of their interest to Europe, where they were lionized. As Garber puts it, "Then the Brothers realized that they had to protect what they had done so far. They stopped experimenting in gliding, but did advance the engines." So instead of having only 12 horsepower, they reached 35, and changed the positioning of the engine from horizontal to vertical. Their patent was granted in 1906. Now they had protection.

Amid great popular skepticism the Wrights arranged to give demonstrations at LeMans, France. Some thought the idea was a great hoax, and they began to think of Wilbur, (Orville stayed home) as some kind of imposter. He lived in the shed with the aircraft. There even was a French cartoon entitled "The Bluffer (Bluffere)," but as Garber said, "Wilbur was no bluffer" and he showed several slides of Wilbur's history making flights there.

It was interesting to note that Wilbur used a different set of controls from Orville. The Wrights during their lifetimes used a total of eleven different control arrangements . . . "Control,"



Susan Wright, with husband, Horace alongside, shows the audience a gemstone ring given to her by Horace. The stone originally had been given to Orville by Kaiser William II of Germany.

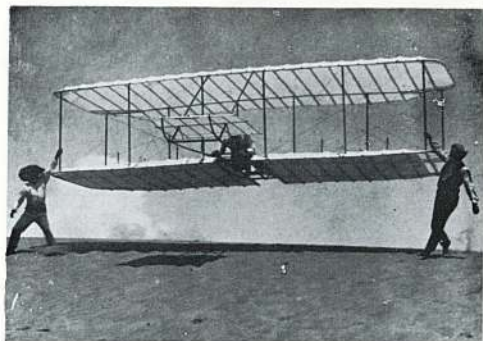
Garber said " . . . again, is very important throughout this whole study that I have made. Wilbur had absolute control, circles, figure eights, absolute control . . . coming in for a perfect landing . . . and those who saw it were in tears wondering how such a thing could be. In the meantime, back at Fort Myers, (Va.) our army had awakened and arranged to have some flights by a Baldwin Airship. Tom Baldwin was at the aft end of the ship with Glenn H. Curtiss, who built the engine at the fore, operating a cellular horizontal rudder . . . and off they went." Garber referred to a newspaper account of the flight in which Baldwin hollered commands to raise the nose at Curtiss, but Curtiss didn't respond because of the roar of the engine. The less Curtiss heard the louder and more profane Baldwin became. The crowd had quite a treat with all the varieties of profanity. "At any rate, it was finally straightened out, and the ship was purchased by the Army." Garber mentions Frank Lahm, Wright passenger #1 and the man who helped get the Wright Brothers from France to President Theodore Roosevelt. It was Frank Lahm who was instrumental in getting Garber into the Early Birds.

Lt. Tom Selfridge was the first military pilot to fly a military plane and was also the first to be killed in a powered plane. Orville, who was flying, was in the same wreck. He survived, but was in varying degrees of pain for the rest of his life as a result of that crack-up.

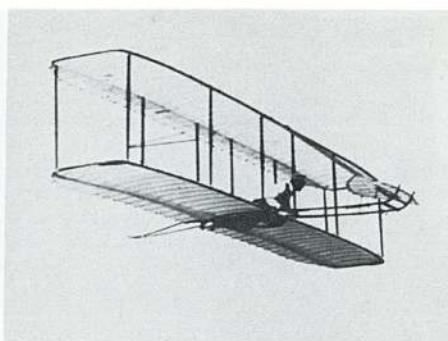
Orville, with sister Katherine as his nurse, joined Wilbur in Paris. Garber comments on the picture showing Katherine sitting in a Wright machine with skirts securely tied for modesty's sake. "You see how necessary it was for ladies not even to show an ankle in those days. Gosh, when I was a youngster an ankle was a treat . . . nowadays . . . gosh . . . the back of the neck, I guess." The crowned heads of Europe came to see the Wrights, not the other way around, such was their fame. Garber described how his family had plans for him to become a medical doctor and go to the University of Pennsylvania, "But from the moment that I told them that I wanted to fly, up went their hands in despair, and there was no more thinking about the University of Pennsylvania."

From then on I tried to become a pilot; I learned more about my kites and model airplanes . . . started a model airplane club in school in 1913, made my own glider and flew it in 1915, and went into World War I to fly." . . . Garber chuckles, "But they saw me coming, and thought they'd better quit . . . I was the cause of the Armistice." He mentioned Wilbur's October 1909, 20 mile flight from Governor's Island in New York Harbor, past the Statue of Liberty to Grant's Tomb and back. Wilbur was concerned that he might come down in the water so he bought a large red canoe, and stashed it under the center section of the lower wing, just in case.

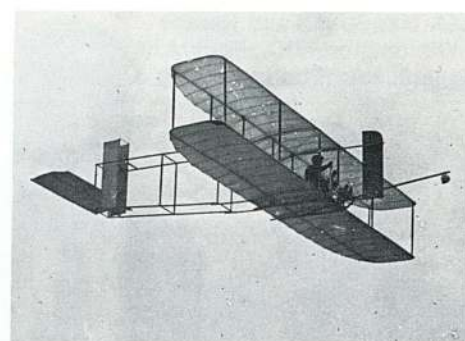
(Continued on page 6)



Dan Tate, (left) and Edward Huffaker launch one of the Wright Brothers in the 1901 Glider at Kitty Hawk.



Wilbur flying the 1902 Glider at Kitty Hawk.



Orville flying the 1911 Glider #5 at Kitty Hawk. (Photos from the Library of Congress.)

(Continued from page 5)

The eminent historian then moved on to detailing the first Wright production facility in Dayton, and the Wright exhibition team. He showed slides of Knabenshue, Parmalee and Brookins getting ready to fly over Indianapolis, to help with the inauguration of the automobile track in 1910. In one of his slides Garber pointed out the unique Wright dual control arrangement where the students were either left or right-handed pilots, depending on which side they sat on because of the common centrally mounted dual control levers and common outboard mounted control levers.

Garber touched on the first air express, a package of silk flown from Dayton to Columbus to be made into neckties and handkerchiefs. He detailed Orville's 9 minute and 45 second record setting 1911 soaring flight in Glider #5 and mentioned that this mark stood until his friend, Ralph Barnaby broke it in the US in 1929. Then came William Randolph Hearst's 1911 offer of \$50,000 for the first coast to coast flight within a month. A number of pilots tried, but the most serious was Calbraith Perry Rodgers, a descendant of the Perry who won the Battle of Lake Erie, and the Perry who opened Japan. "Cal Rodgers flew a Wright EX, slower than the Type B, but with a similar engine, and had the "Vin Fiz" name all over it. "Garber continued, "Vin Fiz was advertised as the ideal grape drink . . . I doubt if it ever saw a grape. It sold for 5¢ a bottle. So anyway, they must have sold enough of it to help fly the aircraft across the continent." He described the flight, about 75 landings, 16 washout crack-ups and only two parts remained that survived the whole trip. Rodgers was killed 4 months later in a demonstration flight, when a sea gull got wedged between the control line and the back of the elevator, and he couldn't pull out. "Vin Fiz" was restored and is on display in the Pioneers Gallery of the NASM.

In 1912 Wilbur died of typhoid fever. Garber remembered, "Orville told me that, had it not been for the terrible exhausting time his brother spent so often in litigation defending their patents, he would have lived through the illness as he (Orville) did in earlier years." With an enthusiasm that belied his years the distinguished historian moved on to his fourth slide carriage. (He had six). He described a 1913 picture of Orville experimenting with an automatic control and balance invention, an idea that he had as far back as 1907. Garber demonstrated it to members of the Aero Club of America by taking his hands off the controls and having the aircraft fly on with complete stability. It was for this that Orville was awarded the prestigious 1913 Robert J. Collier Trophy. Garber went on to describe the Wright Type H, or HS (S for Small) and another change in control, this time a wheel that is rotated side to side for balance. The rudder was moved by holding the sector and moving it up and down as you made the turn for balance. Pitch was by push and pull of that segment. This was the last control developed by Wright.

Garber traced the evolution of the Wright aircraft to the Type

L, a fuselage job, produced with the help of Knabenshue, and the last co-designed by Orville to carry the sole Wright name. The firm then became the Wright-Martin Company; Orville selling out to Glenn Martin. That organization eventually became the Wright Aeronautical Corporation.

The versatile historian then shifted to the famous Stinson family. Catherine and Marjorie both learned to fly in Wright machines. Marjorie had planned to fly the mail, but never did. The next slide showed the famous flying Stinsons, Eddie, John, Catherine and Marjorie.

With the beginning of WWI the Dayton-Wright Company came into being, with Orville as director. They made copies of the general purpose British DH-4. Orville was also involved in a company project to build a guided missile and Garber showed a slide of its design. "They made some flights to show that it had the ability to go toward an object, but it was never used because of the Armistice," Garber said. He continued, "I like to make scale models - those of the Wright Brothers. As I consider the Types A to L . . . think of the variations . . . close to fifty different variations produced by the Wright Brothers and the Wright Brothers' company." The famous Wright Whirlwind engine used in Charles Lindbergh's "Spirit of St. Louis" had no part of the Wright Brothers, but it carried the Wright name because of the corporation. Garber related his experience in bringing the original 1903 Kitty Hawk Flyer back from England after WWII. "It was my great privilege to meet the Mauritania, on arrival at Halifax, N. S. where there was a dock strike in progress. But I got hold of the Navy and said, "this is Commander Garber, Sir, and I'm at Halifax without even a wheelbarrow, and I've got the Wright Brothers Airplane in three boxes . . . can you help me?" The Navy told him that the Aircraft Carrier "Palau" was off Argentina, (Newfoundland) and they didn't know when it would be in . . . "And I had nothing on more than I have now . . . not as much really, and it was colder than a polar bear's feet . . . anyway we finally got it to the Museum." The Smithsonian's Dr. Whitmore asked Garber where he wanted to put the Kitty Hawk Flyer. "In front of the St. Louis," Garber answered. "Lindbergh won't like that Garber," responded Whitmore. "So I called 'Slim' (Lindbergh) and told him about it; and he said, "Paul, the fact that my airplane will occupy the same hall as the Wright Brothers is a great honor . . . one of my greatest . . ." On the next slide Garber commented, "So there they are together, The Kitty Hawk Flyer and the Spirit of St. Louis and there's the Smithsonian today. So as I thank you for your kindness to me, I welcome you to come to where I work at the National Air and Space Museum, and there you will see the Kitty Hawk Flyer, the Wright Brothers first military Flyer, the Transcontinental Flyer and the many scale models of the other types produced by Wilbur and Orville Wright."

With that, one of the few living witnesses to the beginnings of powered flight closed his remarks. "Benny", "Cal", "Hap", "Slim", Garber knew them all, and when he finished, somehow you thought you did too.

From the Editor:

Popular museum mythology has it that Fall is a time of winding down from the Summer activity high: assessing the year and planning for the next.

Well, we assessed and we planned, but it seemed like there was no let-down in the activity level.

Quite the opposite.

It felt like we had as much going on as at any time during the year, with the exception of the May, Hall of Fame weekend.

September saw a stream of visitors, especially seniors and overseas Tourists.

Saturday, October 11, we were graced with perfect weather for our, Ses-KITE-nial kite flying contest. Keyed to the 150th anniversary of New York State's Chemung County, we had about 20 kite flyers for the event. They ranged in age from tiny 5 year old Jonathan Lindley to 71 year old expert, Arthur Jewett. Jewett remarked on the timing of the contest, "I've been flying kites since I was 10 years old. People used to think that March was the only time to fly kites, but two years ago, I was flying them the day before Christmas."

We had sharks, deltas, stars, tetrahedrons, sleds, and some kites that defied classification.

Museum kite advisor and award winner of the prestigious Washington, DC Mall Kite Fly, Bill Connors, identified the airborne kites by the names of their inventors for us. Bill is a member of the American Kite Flyers Association, and will be back next year to help the NSM with an even more elaborate Kite Fly.

The local press and TV probably had as much fun as the participants, occasionally setting aside pad and cameras to fly a proffered kite.

October 24th marked our celebration of the 75th anniversary of Orville Wright's 1911, record breaking flight in Glider #5. Horace and Susan Wright were flown here from Xenia, Ohio to attend. Horace, the nephew of Orville and Wilbur is the only survivor of the 1911 expedition to Kitty Hawk.

A Friday evening reception followed Museum Director Shirley Sliwa's dedication of a Wright Commemorative plaque.

The Saturday morning program started with, "Leading To Powered Flight," by Dr. Thomas D. Crouch. Dr. Crouch is a well known aero-historian and prize-winning author of, "A Dream Of Wings, Americans and The Airplane, 1875-1905." He is also a curator at the Smithsonian's Museum of History. The afternoon session featured a talk by Horace Wright on his recollections of his famous uncle, and of the October, 1911 Kitty Hawk expedition. The afternoon's program closed with a discussion on the building of the Wright Glider #5 reproduction; The Challenge, by Paul Schweizer, The Research by Bill Gallagher, and the Construction by Richard Kurzenberger.

That evening, Historian Emeritus of the Smithsonian's Air and Space Museum, Paul E. Garber delivered the 13th Annual Ralph S. Barnaby Lecture on The Wright Brothers and their contributions to aviation. Garber, one of the world's foremost



Dr. Tom D. Crouch, Washington, DC, author and curator of the Smithsonian Institution's Museum of History, speaking "On Leading to Powered Flight," at the NSM.

authorities on the Wright Brothers, has authored several books, pamphlets and articles on the Smithsonian's aeronautical collections, the building and flying of model aircraft, kites and Navy target kites. He saw service in both World Wars, and joined the Postal Aviation Service in 1918. He has been associated with the Smithsonian Institution since 1920. Paul Garber is a Ramsey Fellow, a member of the Early Birds, (American pilots who flew before 1916) and has received numerous awards, citations and honors for his contributions to aviation.

The eminent aero-historian viewed the Museum's #5 Reproduction and commented favorably on its workmanship.

Most of November and December was taken up with the Museum's million dollar expansion campaign and in preparing the "Brick of Recognition," ad campaign that will be appearing in Soaring magazine.

December 19th, Robert Bivens, Executive Director of New York's Southern Tier Economic Growth organization announced plans for the building of a New York State sponsored soaring monument to be erected along I-RTE 17 at the foot of Harris Hill.

At the same meeting, Guerry Howard, President of the Harris Hill Soaring Corporation, announced that the SSA 1987 National Sports Class Championships will be held here, June 30th thru July 9th.

The Museum's Fall has been a stimulating rewarding season, and we hope to keep up the momentum right on through 1987.

(Did you buy your "brick" yet?)

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

ON THE COVER:

Horace and Susan Wright were among the distinguished guests of the National Soaring Museum for the 75th Anniversary Celebration of Orville Wright's 1911 world record soaring flight. Horace, with his father, Lorin (Orville's brother), were at Kitty Hawk, NC, during the 1911 expedition and witnessed many flights of the Wright Glider #5. Mr. and Mrs. Wright shared recollections of Horace's famous uncles with Museum attendees at a special afternoon session. Highlights of these reminiscences will be featured in the Winter 1987 NSM Quarterly.

Horace and wife Susan reside in Xenia, Ohio.

Photo: by Matt Wascavage, The Leader, Corning, New York

THE MUSEUM'S SAILPLANES AND GLIDERS

Visitors, after touring the Museum, sometimes comment on the variety and number of gliders and sailplanes that are on exhibit in our 16,000 sq. ft. facility; a total of 14 are currently on display. When we tell them that they are viewing only the smaller portion of the NSM collection, they are surprised. Probably many of our NSM members too, would be surprised to know how extensive the Museum's collection is; not only in the number but also the diversity of historically significant aircraft. Here is a listing of the NSM's sailplanes along with the dates of receipt, the "N" numbers, the dates built, and the serial numbers.

AIRPLANE	REC'D	N#	BUILT	SERIAL #
du Pont Winch	'61/'72	—	—	—
SGS 1 - 19 frame	'72	—	'45	# 1
SGS 1 - 29	'72	—	'48	# 1 (of-a-kind)
Minimoa	'72	N16923	'35	# 56
Primary	'72	—	'29	(replica)
SGS 1-23D (Cirro-Q)	'75	N91899	'64	#36
& trailer	'75	—	'64	—
SGS 1 - 26	'76	N91889	'54	#1
Hutter 17	'76	CF-RCD	'34	#WB153624
SGS 2 - 32 (Cibola)	'76	N2767Z	'64	# 11
& trailer	'76	—	—	—
SGS 1 - 19	'77	N91806	'46	# 14
& trailer	'77	—	'46	—
Bowlus-duPont Albatross	'77	N6219Y	'33	#(25)
Sisu 1 - A	'77	N255JB	'64	#106
& trailer	'77	—	'64	—
BG - 12 BD	'77	N12RK	'72	#162
Mitchell Nimbus	'78	N7864C3L	'56	# 1
& trailer	'78	—	—	—
SGS 2 - 32	'78	N8600R	'64	# 1
& trailer	'78	—	—	—
Rigid Midget	'79	N90871	'47	#1001
& trailer	'79	—	—	—
Beta I	'79	N12HL	'74	1-of-a-kind
& trailer	'79	—	'74	—
Hang glider	'79	—	'72	—
Tern	'79	N8591	'65	# 9
& trailer	'79	—	—	—
Franklin PS - 2	'80	G12185	early	# 129-A
			'30's	Warren Eaton's
RJ-5/instruments	'80	N79T	'48 - '50	1-of-a-kind
& trailer	'80	—	—	—
HP-8/instruments	'80	N34Y	'58	1-of-a-kind
Teasdale's Herring-	'81	—	'80 - '81	1897
Arnot Hang Glider				reproduction
CG - 4A section	'81	—	—	—
Super Bowlus Albatross	'82	N33658	early	1-of-2
& trailer	'82	—	'40's	—
Monerai	'82	N8479B	'80 - '81	# 166
Franklin Frame	'82	—	—	—
Baker-McMillen Cadet	'82	G10265	'29	# 113
Scheibe L-Spatz 55	'82	N1346D	'55 - '56	# 777
Wolf	'82	N31635	'35	CPS-1
TG - 3A	'83	N61279	'43	# 43
Laister Nugget	'83	N3NH	'70	# 3
DP-8 (trailer rig)	'84	N5053K	'63	# 001
ASW - 12	'84	N491V	'65	# 12013
& trailer	'84	—	'65	—
Austria SHK/instrument	'84	N801M	'65	# 54

Overview of part of the National Soaring Museum's main exhibit hall. Fourteen historically significant gliders and sailplanes are on display. (Photo by Jeff Richards, Star Gazette, Elmira, New York.)



LK-10A	'85	N54191	'42	# 60
HP-11A	'85	N4777G	'64	#7
& trailer	'85	—	'64	—
Mitchell U-2	'85	N103WT	'84	# 175
SGS 2 - 25 (on loan)	'86	N91892	'54	1-of-a-kind
SGS 1-19 fuselage	'86	—	'45	—
Ibex	'86	N63P	'67	# SAH - 8
HP - 10	'86	N4718G	'61	# AC-1
& trailer	'86	—	—	—
Aeronca C - 3	'86	NC15746	'36	# A-641
Franklin Gull Wing	'86	NX20646	'38	#1234-7
Wright Glider #5	'86	—	1911-'86	reproduction
Baby Bowlus	'85	—	—	—
SGS 1-23 HM	'86	N94298	'54/'63-65	# 70
& trailer				
HP - 18 (home built)	'86	N1YV	'76-'84	# 18-107

Several, not presently on exhibit, are stored in security guarded T-hangers, or on loan to museums, and universities throughout the country. All of these aircraft will eventually be exhibited in the NSM's main hall, on a revolving basis. We are earnestly looking forward to the completion of the current fund drive, and subsequent 12,000 square foot addition to our facility. With that addition, many of these old birds can be more efficiently restored and cared for.

The Museum currently has 14 gliders and sailplanes on display in the main exhibit hall.

ISSN #0892-0516

NSM is a publication of the National Soaring Museum, Harris Hill, RD3, Elmira, New York 14903. Phone (607) 734-3128. 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 — Shirley Sliwa

Editor — Bill Gallagher