

NSM

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Sixth Annual Soaring History Symposium

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Photo Front Cover:

"Grand Prairie Airport Southwestern Soaring Contest August 1949"

Triple tow gets started with Laister Kaufmann Flat Top and two standard LKs. The Minimoa sitting just off the runway now hangs in the Johnson Gallery at the National Soaring Museum.

Photo Back Cover:

August 1938 Maine Aero Rendezvous, Augusta, Maine. Photographed by E.G. Zee. Photo shows glider piloted by Emil A. Lehecka taking off and being towed to 4,000 feet before cutting loose.

In background Stinson tri-motor airliner (right), Waco Sport Bi-Plane (left)

Historical Symposium Opening Ceremony

On Friday, May 1, National Soaring Museum Director Peter Smith welcomed over 100 attendees to the annual Community Soaring Luncheon and to the Museum's Mooers Community Room. He said, "This is our annual thank you event to our many friends and supporters and especially our three partners, the Soaring Society of America, Harris Hill Soaring Corporation and Chemung County."

The luncheon preceded the afternoon and Saturday's events, including the Sixth Annual Soaring History Symposium, the annual Board of Trustees Meeting, the Hall of Fame Induction Banquet honoring the 2009 inductee, James Payne, and dedication and renaming of the main gallery in memory of Richard H. Johnson.

Smith called attention to some recent additions: the Zoegling, one of the world's oldest gliders; the revolutionary Ross Johnson RJ-5; the recently restored Kirby Gull; and the Franklin PS-2, number 451Y. "The PS-2 is near and dear to my heart personally. My father won his first national championship in that glider in 1933," he said, adding that "There is a story to every glider in this collection." He emphasized that the NSM is not a glider museum, it is a people-oriented soaring museum.

He reminded us that there are two major events coming this summer here on Harris Hill, our fourth International Vintage Soaring Meet June 27th to July 4th, where visitors will

be able to see at least 40 vintage gliders, and the National Sports Class contest July 19th through 30th. It was 75 years ago that Chemung County spent \$10,000 (about \$161,000 today) to clear this hill

and create a site for staging national soaring contests.

As a Soaring Society of America board member, Smith said that he was happy to report that the SSA has survived its financial travails and is currently in pretty good shape, despite the economy.

He recognized NSM staff and especially volunteers Pat Helm and Norm Hosey for their work.

Regarding the upcoming National Sports Class Contest, he called on Harris Hill Soaring Corporation board member and contest manager Ron Ogden for a preview.

Ogden said that this year is the 75th anniversary of the 1934 National Contest and Harris Hill is inviting competitors from all over the country to participate. So far 41 have responded, mostly from the Northeast, "but we do have one Californian who is coming." In explaining what makes the Sports Class unique he said that at one time there was only one national contest.

Now sailplanes are divided into separate classes and contests are held on the basis of sailplane performance and size. He said that the Sports Class is the most democratic in that there is a handicap that is applied to the pilot's score each day. It is an attempt to remove from the calculations the characteristics of the glider being flown. "These handicap factors range from a low of about .7 to a high of 1.8. If you have a sailplane that completes the course flown at 60 mph and it has a handicap of .8 it would get credit for 48 mph. At the same time if another glider completes the same course at 40 mph and has a 1.3 handicap factor, it would get credit for having flown 52 mph and it would be the winner for that particular contest day."



The 1934 national contest was the fifth held in Elmira and the first on Harris Hill. Ogden showed some microfilm copies of newspaper clippings at that time from the Elmira Star Gazette and other newspapers. The clippings included a map showing new and widened roads with three new bridges to the hill. Among some of those pictured were Warren Eaton and Franklin K. Iszard, two of the founders of the SSA; William McGrath, president of the Elmira Association of Commerce; Frank Christian Jr. and Mrs. Rhodes. "She was given credit for directing the work," Ogden said.

There will be a welcoming dinner for the Sports Class pilots on July 19th, underwritten by Schweizer-Sikorsky. Ogden concluded by extending an invitation to "Come up, take part in the activities and watch the gliders fly."

Smith said that since 1930, Elmira has been known throughout the world as the Soaring Capital of America, and as Ron Ogden mentioned earlier, these contests actually got started through the efforts of the Elmira Association of Commerce, forerunner of the present Chemung County Chamber of Commerce, "and we have never been without their encouragement and support." He said that they staffed the contests from 1930 through the early 1960s. He thanked Kevin Keeley, current Chamber President and CEO, for carrying on that tradition. He also thanked members of the Chemung County Legislature who were present, Connie Milliken, Sid Graubard and Ted Bennett. He noted that Bennett is a recently appointed member of the NSM board, as is Ann Crook, Elmira/Corning Regional Airport Manager. He expressed special thanks to Jim Stuart, the Harris Hill caretaker, "for all he does to keep things shipshape around here. He's a dear friend of the National Soaring Museum and of Harris Hill."

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Stuart is experiencing serious medical difficulties and all were asked to keep him in their thoughts. Director Peter Smith also extended his thanks to New York State Assemblyman Tom O'Mara for coming.

New York State Senator George Winner said that in difficult times such as we are now experiencing, "you reflect back on how fortunate you are that you have organizations such as this that perform such a great



NYS Senator Winner

function in preserving the identity, character and history of the community. and the National Soaring Museum does just that..... we are proud of your presence."

When called to the podium, Chemung County Executive Tom Santulli said, "This is a very difficult environment that we live in right now, something that we haven't seen in years. But the one thing that seems to be doing quite



Chemung County
Executive
Tom Santulli

well is tourism, bringing people here. In this community the National Soaring Museum and Harris Hill Park are used by a lot of people from here and elsewhere for a lot of things, and that is what is important. It is not just a museum, it is a place that has become a very significant attraction to the community.

A Recent Retro Soaring Event in Switzerland: Bungee Launching Only!

Jan Scott

Bungee Launching in Switzerland at Maurborget in the Alpine Jura Mountains is an annual event arranged by the Swiss Old Timer club and held in various locations. Jan Scott showed a series of photos of such a launch at the German Wasserkuppe in 1937. Ten so-called "Grummhunde"



*Holding Glider Back Before
Launch*

(Rubber Dogs) stretch the bungee rope in preparation for a glider launch. Four people hold back the glider while tension

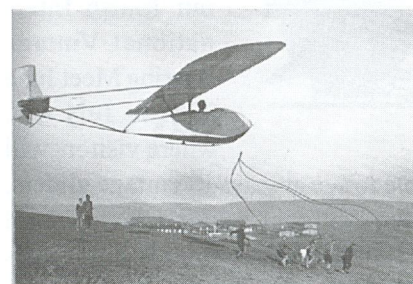


Jan Scott

builds on the bungee rope. The launch master gives the commands, "Walk-Run-Let Go!"



"Grummhunde" (Rubber Dogs) Preparing for Launch

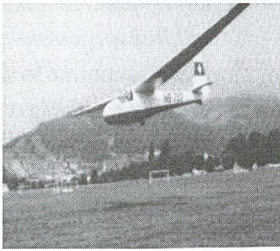


Bungee Release

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Next was a photo of Scott in a Schleicher Ka-8 preparing to be bungee-launched during the Jungfrauoch 50th anniversary flights. The launch site is from the 14,000 foot Jungfrauoch Glacier. Scott said that it was the first time that he had seen the launch rail and fixed release arrangement. The launch rope consisted of a V-shaped bungee with a rope leader attached to the front of the glider and a hold back cable attached to the tail. The bungee is stretched - with the launch crew at the extended ends applying as much tension as possible.

How does one get to the top? In 1935 gliders were loaded on railroad cars for the trip part of the way, then hauled on various devices up the steepest part. "In 1985 it was much easier. The gliders were loaded on special pallets at Lautenbrunnen and carried to the top by a powerful helicopter. The glider pilot rode along in the helio."



*Scott in a Ka-8
After Bungee Launch*

Participating gliders were: Spalinger 10, Grunau Baby 11b, Moswey 3, Fauvel AV36, Scheibe L-Spatz, two A 60 Fauconnets (a French version of the Scheibe L-Spatz), Karpf Baby, Schleicher Ka-8, and Fladi Foot-launchable.

Scott said that pilots with fewer than six successful bungee launches entered in their log books had to complete launch training below the hill before they were permitted to fly from the top of Nuechatel Lake.



Nuechatel Lake

Statistics

* 19 flatland starts were completed during the training on Friday, followed by 24 successful launches from the hill on Saturday and Sunday.

* The longest duration went to Anamarie Lilly Grundbacher flying her Ka-8 that she restored herself, for a flight of 3 hours and 52 minutes.

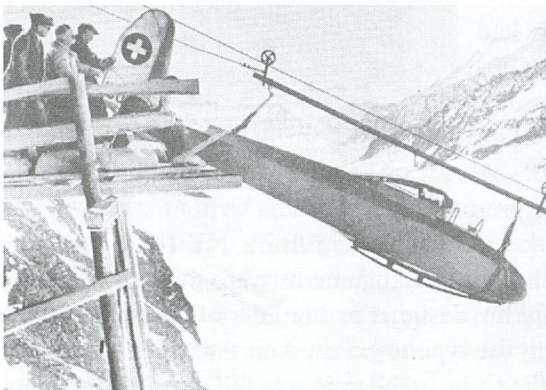
* There were 14 pilots participating in the three day event - three Frenchmen and 11 from Switzerland.

* A total of 35 hours was flown in ridge lift during the event.

* Organization -- Pierre-Alaine Ruffieux

* Launch hardware -- Willy Fahrni

* Photos -- Peter F. Selinger



*Notice the opening beneath the seat
where the pilot can put his legs out for
foot launching.*

The Lustig Sky Train: A 75th Anniversary Remembrance

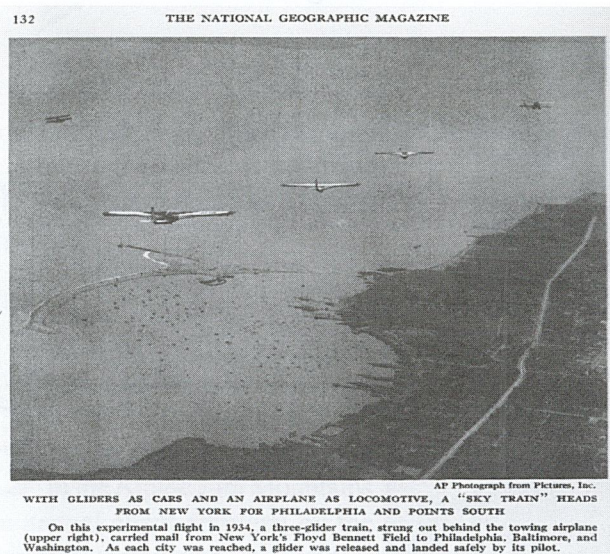
Peter W. Smith



Peter Smith

“Popular Science readers have long known that some great and some not-so-great ideas just won’t go away, or at least take a long time to do so,” recalled NSM Director Peter W. Smith. “The most notable and persistent would be the flying automobile, but another from the dawn of aviation, at least until large cargo jets, was the notion of sky-trains.”

Smith spoke with authority on the subject at the Soaring History Symposium, since his father Stanley W. Smith was the pilot of the second in line of the glider trio that comprised America's First Sky Train. The Lustig Sky Train was an early



attempt to demonstrate the efficacy of the sky train concept.

There have been articles about it, and Simine Short has documented it very well, especially from a philatelic viewpoint.(1) He said, “I thought you might enjoy a more personal remembrance on the occasion of its 75th anniversary. My father was one of the participants, and he wrote an article about the Lustig Sky Train that he hoped some magazine would publish. That didn’t happen, but it’s a pretty good read, so I’d like to share some of it with you, with occasional interjections.” Sections from Stan Smith’s 1934 log are in italics .

Smith said that the writing style is that of a 24-year-old adventurer, in 1934, not the mature engineer and father he knew.

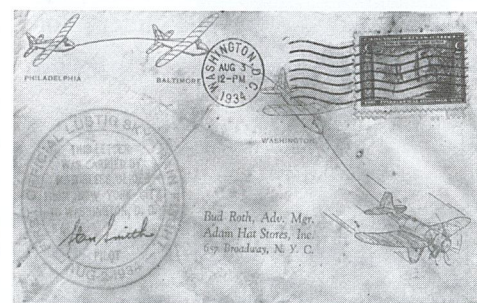


Jack O'Meara

HANGAR NO. 4
 FLOYD BENNETT FIELD, N. Y. C.
 NIGHTMARE 4-200
 LUSTIG BOY TRAIN, INC.
 AMERICA'S FIRST AERIAL TRAIN
 J. H. LUSTIG, OWNER
 Post Paid - See 1 Map
 525 PARK AVENUE
 NEW YORK 17, N.Y.

Jack O'Meara

Number four hangar at Floyd Bennett Field was the scene of feverish activity.. Mechanics hurried here and there attending to last minute preparations. Pilots conversed in lowered voices with numerous strange gestures. Cameramen for the newspapers and newsreels strolled about with their mysterious black boxes, asking too many questions. The place seemed to be filled with a charge of energy ready to be set off at some rapidly approaching moment. Within a few hours a strange new mail train would be en route between New York and Washington, flying at an altitude of about five thousand feet above sea level! The idea of such a venture had long been fostered somewhere in the head of Jack O'Meara, well known in America and abroad as a pilot of gliders and sailplanes. Jack with his contagious enthusiasm was able to persuade Mr. Elias Lustig, owner of the Adam Hat Company, that he had something valuable, and secured the backing necessary for the realization of his dream.



Lustig Sky Train cover flown New York to Washington, D.C., by Jack O'Meara.

Much thought had to be directed toward the manner of towing behind an airplane. A great deal of preliminary work was done at the Elmira, NY 1934 Nationals. It was here that final arrangements were made with Professor R. E. Franklin, designer and builder of the Franklin PS-2 Utility Glider, the type to be used on the flight. He was to pilot one of the ships in the train and O'Meara asked Peter's father Stan to participate in this novel experiment. Detailed

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preparations had been worked out by the end of July. Routes, landing and take-off airports, minor adjustments, decorations, and test flights had all been made.

Meanwhile, an altogether unforeseen difficulty had made itself painfully apparent. They were besieged by airmail cover collectors. Mr. Lustig, being a businessman, would not be satisfied by just putting on a sky-train flight. The train must carry cargo! Express packages? It had to be explained that the design payload of the PS-2 included the pilot and not freight. To exceed that total weight could result in undue stress. It was finally agreed that each glider would carry a small parcel of private mail to be delivered by the pilot to the post office in the city to which he was assigned. They accepted their full capacity loads then called a halt, much to the disappointment of a small army of the addicts of philately.

Early as we were on the morning of August 2, we were met at the hangar doors by a battery of cameramen that would have frightened the most experienced movie star! Nothing would do but to satisfy their demands before we did anything else. By ten o'clock our ships had been wheeled out on the runway in starting position, mail bags deposited in their respective



*Mayor LaGuardia on hand for official send off.
Standing next to him, Mrs. Floyd Bennett*

compartments and everything set in readiness for take-off. But our greatest enemy, the weather, had decided not to make it too easy for us. A light misty drizzle had set in and it began to look as if we would be grounded for the day. Weather forecasts, however, showed clearing conditions to the south, so we refused to give up. At about ten-thirty Mayor LaGuardia arrived to give us the official send off (the woman next to him is Mrs. Floyd Bennett.) It was with his words of encouragement ringing in our ears, we took off soon afterward, blazing the trail for future sky trains to follow.

Up at the front as ship No.1, "locomotive" of the train, flew an Eaglerock Biplane powered by a motor of the same



Sky train in flight

make and type which so faithfully took Charles Lindbergh across the Atlantic. The calm young man at its controls was Elwood Keim, whose many hours of towing advertising signs over New York City now stood him in good stead. And a difficult task he had too, flying his ship at such a slow speed that he was practically at the stalling point continually. This slow speed

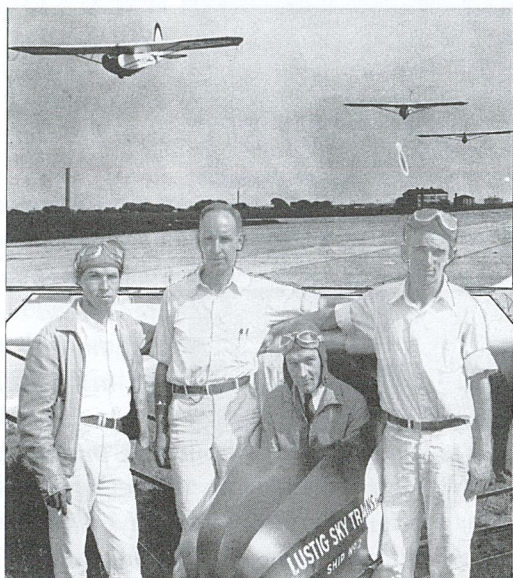
- only about 65 miles per hour - was necessitated by the fact that our gliders, which flew in a free glide at only about 20, were much more difficult to control at a comparatively high velocity. But Keim proved himself a complete master of his ship as he flew along hour after hour, with the airplane in such an extreme "noseup position" that it appeared to be right at the verge of a stall.

On the tail skid of the biplane could be seen a tiny mechanism of simple construction which was Keim's cable release. Attached to it was 450 feet of small but very strong stranded steel cable, which was the coupling between the "locomotive" and the first "car." And here, as the pilot of the first glider, rode Jack O'Meara; 200 feet behind him followed the second glider, with myself as pilot; and bringing up the rear was Professor Franklin at the end of 200 feet more of that tiny steel cable.

We had no sooner left the ground in New York than I realized there was to be trouble. The air was a veritable maelstrom of turbulence and confusion. But after about half an hour, we had reached an altitude of approximately 5,000 feet. Here the atmosphere was somewhat better behaved and we were able to relax slightly from the strenuous exertion of the first 30 minutes.

All this time we had been contending with the misty rain, but soon this cleared away and we could see miles of fairly clear sky ahead. Another period of difficulty was to be our lot, however. The air was laden with moisture and soon we began to see tiny wisps of clouds forming somewhat below us. This was new cause for alarm. My previous experience with soaring under cumulus clouds had taught me that they were not only a boon to the soaring pilot, but also a phenomenon to be evaded in airplane-towed flight. Our speed was too great

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Lustig Sky Train Pilots: from left, Stanley Smith, Roswell (R.E.) Franklin, Jack O'Meara and tow pilot Elwood Keim,

for us to try to combat the violent, turbulent air we would encounter should we approach too close to these innocent-looking puffs of mist. Jack, too, had foreseen our danger and soon I saw his arm protruding from the cockpit and motioning wildly upward. He was signaling Keim to climb once more.

There were several more encounters with that demon rain that seared four faces with a thousand needles before I realized, after a glance at my wrist watch, that we had been in the air for an hour and a half. "We should be nearing Philadelphia" I thought, forgetting for a moment that our ground speed might vary greatly from our airspeed. Not until an hour later did we realize that over the entire trip we had been bucking a headwind that averaged almost 30 miles an hour! At last my straining eyes were rewarded by the welcome sight, through the haze, of the tall structures and crowded buildings of Professor Franklin's destination.....

Here we ran into some of the toughest air it had ever been our misfortune to experience. But Lady Luck smiled on us and at last we were within gliding distance of the Philadelphia Airport. "Time for the Professor to cut loose," I said to myself, and tugged at the small metal reel on which I would wind in the cable that joined the two rear gliders together. I could not budge it. Franklin was still part of the Train. Suddenly I saw the cable joining my nose to Jack's tail sag loosely downward,

realizing at once that we had separated from the tow-plane. We would all have to land here.

Immediately after landing, I noticed our "locomotive" taxi up to the refueling pit, and then I knew why the entire train had been forced to land. The strong headwind that we had battled throughout the entire journey had delayed us to such an extent that we had nearly run out of gas!

With Franklin's glider #3 hangared for the night and a quick light lunch, O'Meara and Smith were off to Baltimore. More trouble. The sky became dark, threatening with flashing lightning. So with bitter disappointment they turned around. The ships were no sooner berthed than the field was lashed by a violent thunderstorm.

Bright and early the next day even with a brisk headwind, the train made Baltimore's Logan Field. Smith's mail pouch



One of the three gliders which made up the first air mail train descended in the Capital. Other gliders were dropped off in Philadelphia and Baltimore. The trip was started from New York the previous day.

was delivered, the Eaglerock refueled; and with O'Meara the combination was off to Washington. Smith was informed by wire that O'Meara landed with his cargo of mail on the Elipse almost within shouting distance of the

Nation's Capitol. Keim went on to Hoover Airport.

The number 1 glider was de-rigged by members of the Washington Glider Club, then trailered to the airport where it was reassembled and readied for the return. Meanwhile O'Meara explained to officials and reporters that the flight was an attempt to prove that gliders, if properly managed, opened a new field in commercial aviation. The hop from Washington to Logan with O'Meara in tow was a short one and Smith hooked up in glider 2, for the Philadelphia leg. Thermal activity bumped the trio up to 7,000 feet.

But we were due for an alarming experience. For some time we had been able to see off in the distance several cumulus clouds forming. They were fairly well scattered though and there appeared to be plenty of room between them. Shortly however, we were confronted by a billowing cloudbank that towered upward from 4,000 feet to probably 10,000 feet

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and extended far to either side of our path. Keim began to descend in a long glide trying to get down low enough to fly under the cloud before we reached it. We managed to lose several hundred feet this way without mishap, but soon we were almost to the edge of the clouds and its base was still far below. There was nothing to do but change course and try to fly around this huge bank of fog and turbulence. The air began to get violently rough. Jack, 200 feet ahead of me, was having his troubles.

What happened in the next few seconds takes more time to relate than elapsed before it was over. Suddenly I saw Jack encounter a terrific bump. His left wing went up, higher ... higher, why didn't he right himself? With a last lurch he was completely over on his back. Meanwhile I was having serious difficulty. My left wing was forced down, down, down. I pushed the stick to the right with all my strength. With a sickening jolt I, too, was thrown over onto my back! An instant later I found myself right side up again and looked about in the rapidly thickening mist for Jack. He had disappeared. No, there he was just disappearing a hundred feet below me and off on my right. I realized then that I must cut loose. Almost immediately I was enveloped in a swirling mass of gray. I could see neither ground nor sky, nor even my companions. My fear then was that I would collide with one of them, since no one of us could see the other two. Quickly I turned to my left and dove swiftly in order not to have to fly blind without the proper instruments any longer than necessary, and also to render as slight as possible the danger of collision.

Smith in glider two came out below cloud base at 4,000 feet, having lost 2,000 feet in the descent. Looking around he saw Jack a few hundred feet away at almost the same altitude. Smith followed him over marshes and swamps "locomotive-less" in a northerly direction holding altitude at between 3,000 and 4,000 feet, and soaring the last 20 miles to Philadelphia. They were much closer than they thought.

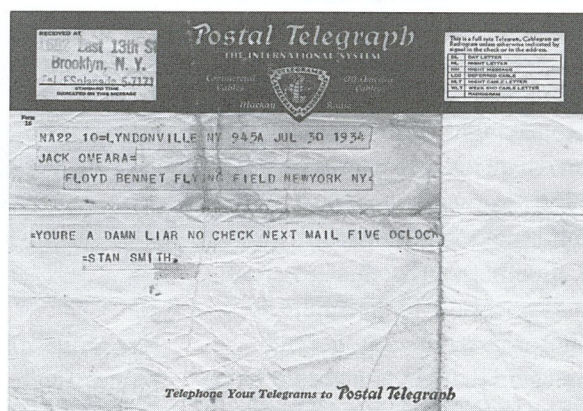
A fast cup of coffee, several sandwiches, a hook-up with Professor Franklin, and the Lustig Sky Train was off on its final leg to New York's Floyd Bennett Field. They encountered some difficulty getting out of a small field with the entire train.

Their last hard climb was through turbulence to 5,000 feet and to smooth air. They made good time and with their goal safely in view, cut loose for the last time over the bay. They descended in celebratory sweeping spirals to landings on the smooth concrete of New York's Floyd Bennett Airport.

It was our aim to prove that the sky train has a commercial value of sufficient importance that it should no longer be looked upon as a "stunt" but should be the object of scientific

research and development. Its use would be to carry passengers, express and mail over regular routes, dropping off gliders one by one as they reached their destinations. Its value lies in the fact that small communities that cannot afford the high cost of a large airport, could be served by gliders from the train, due to their ability to land in a very small space at a slow speed. We showed that it is possible to tow several gliders behind an airplane over a regular cross-country route. The next step is the design of special gliders for this purpose. Then, after more practice and experimentation, the sky train will, I believe, prove itself to be an efficient and worthwhile phase of commercial aeronautics.

The Lustig Sky Train took place just a few weeks before my mother and father were to be married. Dad was supposed to be paid \$500 in advance, and he was counting on that money to pay for their honeymoon. When the payment became overdue, he sent this telegram to Jack O'Meara.



Dad and Mom were married on August 24th with or without the "damn liar's" check.

(1) "Glider Mail -An Aerophilatelic Handbook," by Simine Short -Pg.203, First Official Lustig Sky Train Flight/ Aug 2, 1934.



Dick Johnson—American Soaring Icon

David Raspet

If you are looking for an objective discussion of Dick Johnson's life, you won't get it from me," said Dave Raspet, noting that Dick Johnson was the first person outside of his family to treat him as a person, and relate to him on a reasonable level. "He didn't come on wearing his status as an 11-time national soaring champion. He was just a glider pilot talking to newcomers. That humility lasted throughout his whole life."

Recalling Johnson's sense of humor, Raspet said that in 1956, he had to take a check ride before the Nationals. The instructor told Johnson to take Raspet up and show him how to do wingovers, which the instructor thought were sloppy. Johnson's quick retort was, "I've never known a wingover that could make a glider climb faster." In other words, this kid needs to know how to thermal, not to hot-dog with wingovers.

Raspet said that his talk would be basically about three aspects of Johnson's life that are important: his contributions as a competitor, his contributions as an aerodynamicist, and his contributions to soaring.

After graduation from high school Johnson instructed at 29 Palms. With the onset of WW II he stayed, training military glider pilots. His Baby Bowlus was confiscated for the war effort, so he bought another one. Raspet said, "In between instruction duties and with no oxygen equipment or venturi-actuated instruments, he decided to go out in the clouds for a national altitude record ... Well...pieces of the Bowlus came out of the bottom, and the only good decision he made that day was to wear a parachute; his first bailout." Later, Johnson

got a job with Pan Am co-piloting their huge flying boats over trans-Pacific routes. But Pan Am's seniority promotion system was glacially slow. It would be 10 years before he reached pilot status. Recognizing the need for further education, he went back to school at Mississippi State in 1949.

At the time he owned the Culver Tiny Mite but he knew that he wanted a more advanced sailplane. He contracted with Harland Ross for the RJ-5. Dr. August (Gus) Raspet (1913-1960) Dave's father, was the head of the MSU Flight



Dick Johnson's RJ-5

Research Institute. Dr. Raspet was a pioneering researcher in the aerodynamics of motorless flight. He said that his father's special genius was inspiring people to have confidence in their ideas and go out and try them. Dr. Raspet believed in the scientific method, "Collect the data. Get me good data, and I can make good decisions." They worked together in this collegial environment. It was a nice relationship, with lots of ideas going into the RJ-5 evolution, though not all were successful.

The RJ-5's laminar flow airfoil was suggested by Dick Lyons. It was a milestone in international design. This concept was used during WW II on the P-51 Mustang fighter plane, but was still classified in 1948.

The other contribution that was equally important was to determine what

kind of surface fidelity was needed to get the benefits

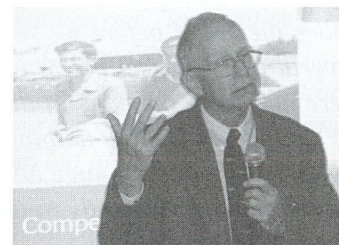
of laminar airflow. It all came together with the construction of the RJ-5, the world's first sailplane with an L/D (glide ratio) of 40 to 1. The best European competition sailplanes at that time had an L/D of 30. "I characterize the RJ-5 as the second most important contribution the US made in international sailplane design; the first being the Wright Brothers who taught us three-axis control," Raspet said. He added that Ross did the original design. Johnson did significant modifications. Ross did 2,200 hours on it, Johnson 1,900 more before the first flight. Then he did 2,000 more during the next two years to get it up to a 40:1 glide ratio. Work on the RJ-5 totaled almost 6,000 hours in two and one-half years.

Johnson did find time for other activities at Mississippi State. He met and married pretty Ms. Alice Gelling.



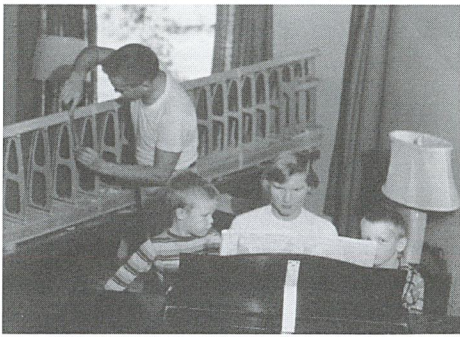
Dick and Alice

Raspet said that if Johnson is the iconic soaring competition pilot, and aerodynamicist, then Alice is the icon of soaring crews. "She once drove a car and trailer



David Raspet

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While Dick works on a wing, Alice entertains sons Ira and Mark at the piano

through New York City with two young boys in the car. And if that isn't dedication, I don't know what is."

In preparing the RJ-5's wing finish, the colors varied: bare aluminum, dark and light gray, and some zinc chromate green. The Germans on first seeing the RJ-5 out of the box, commented to Dr. Alexander Lippisch, the pioneering aerodynamicist and designer, that it was not a very pretty airplane, in fact it was ugly. The eminent theorist replied, "The air can't tell the difference." There followed a chain of soaring victories and records from Grand Prairie to Elmira.

In 1959 Johnson was working on the Adastra. In order to make the international team, he needed a mount and bought an older Weihe. Raspet said that it looked to him that Johnson's strategy was to stay close to the front runners like A.J. Smith and Dick Schreder until a bad day came along, then make his move. The first four days he was close. The next day five pilots came back for relights. Then Schreder got away followed by A.J. A contest day? Five guys had to fly 50 miles. A.J. checked in with 47 miles, Schreder with 71 miles. Johnson floated, drifted, and strategized, all the way to Vermont: 233 miles. He led by 500 points. His competition analysis seemed to be -- stay in the hunt until later in the contest. "You never want to lose early; wait for someone else to make a mistake."

Raspet said that you could talk to him for hours without having him tell you about the contests that he won, or records that he set. "It's a huge contrast in my mind to see that intense competitive spirit and not have to take the psychic feedback of people telling him how good, or important he was."

By the early 1970s Johnson figured that the American builders working with metal were never going to equal the Europeans crafting their sailplanes out of glass. To compete he bought an ASW-17, "and to my mind this leads to performance evaluations," Raspet said. "Dick even found where improvements could be made to those airplanes taken out of molds."

Johnson the aerodynamicist first



Dick and Dr. August Raspet

went to work for Tempco, then moved to Texas Instruments where he became associated with the Pathways Project. This was a laser system used in a sophisticated guided missile. Johnson had the idea of applying the same aerodynamics used in the missile to a "dumb bomb." Put wings and fins on it, drop it at a given GPS point from say 10,000 feet, and guide it aerodynamically to the target. Raspet said that he was so impressed with the consistency of Johnson's ingenuity.

Johnson became interested in the German computer designed airfoils. He applied one of these first-generation airfoils to his new Adastra, which unfortunately took a long time to build. There were problems with the new airfoil get-

ting pressure recovery separation too far back on the wing. Twice he tried to rebuild the wing with new airfoils, but neither was successful. "This was a case where the technical experiment was successful, but the application wasn't."

Johnson was the flight test guy. He did 76, and with his meticulous data gathering and evaluations set the national standard. While manufacturers did not always like his results, they respected them. Johnson once wrote an article about loss of various controls. "What happens when you lose aileron control? Elevator? Rudder? Not any of us ever expect to. But it forces us to think - what if?"

Raspet told of Johnson's great commitment to causative factors. In 1966, he had to jump out of a Standard Austria because he couldn't recover from a spin. In an article that he later wrote, "I looked at the tail as I went by to see if there was something wrong." Raspet said that it amazed him. Johnson swirling around, trying to collect data to later go analyze the problem. He later concluded that there was something wrong with the control linkage in this particular aircraft.

The speaker closed by saying that Johnson had these great analytical and decision-making capabilities. "At the same time he came to educate, to interact with, and pay attention to the broader community with his great humility and generosity. His aim was to bring them into the field to make them better glider pilots and better people."

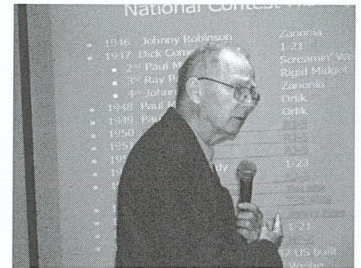


Dick, Alice and the duPont national championship trophy

Development of Sailplane Designs by the Multi-Faceted Designers/Builders/Pilots of the 1950s

Bruce Carmichael, David Raspet

Delivered by David Raspet in Carmichael's Absence



David Raspet

Dave Raspet opened his Symposium talk saying that he and Bruce Carmichael share the view that the era after World War II was unique in our sailplane history. It was the American "Golden Age," with American pilots dominating sailplane design internationally. "These people had to be builders, designers as well as pilots. It was a unique era," he said. The following is excerpted from some of Raspet's photo/lecture presentation.

Beginning in the 1950s, American designs set the standard for the world, with laminar airfoils, higher wing loadings, retractable gear and reclining pilots.

During the 50s and 60s, our national contests were dominated by the designers who built or modified their designs, then flew them to contest wins and records.

"While the designs and designer/builder/pilots that we'll discuss do not meet all the conditions I've outlined, I believe the ones discussed represent our 'Golden Age,'" Raspet said.

An overview would include: Ray Parker's Tiny Mite, Dick Johnson's RJ5, Kempes Trager's T-3 Alibi, Lyle

Maxey's Jenny Mae, Len Niemi's Sis, and Dick Schreder's HP series 7 through 19. Parker modified Irv Culver's Tiny Mite small sailplanes design philosophy by increasing the wing span and reducing the drag so that the refashioned Tiny Mite could circle more tightly in thermals and penetrate well.

The RJ-5 was designed by Harland Ross for Dick Johnson. In late 1949, Ross delivered a partially completed sailplane. Work continued at the Mississippi State University Flight Research Laboratory under the leadership of its director, Dr. August Raspet, the speaker's father. Immediately the wing position was raised

from mid-wing to high wing. Wing incidence was reduced for better high speed performance.

The horizontal tail span was shortened and the tail was thinned. As flown in 1950 the L/D (Lift over Drag or glide ratio - the number of feet a sailplane glides for every foot it drops) was 30-33 by the Nationals. Over the winter of 1950-51, the leading edge of the wing was smoothed and rebuilt from the D-tube aft to reduce rib spacing by a half inch,

and spoilers and flaps were removed. Then a "bunny-nose" canopy was substituted for the hemispherical one used in 1950. It had the first ever laminar airfoil (63 sub 615) that was suggested by Dick Lyons. As flown in 1951, the L/D was 36. Testing in 1952 showed the RJ-5 with an L/D of 40. It revolutionized sailplane design by demonstrating the benefits of laminar flow airfoils and the importance of the surface quality required to obtain those benefits. It was the first in the world.

Along with several national contest wins, Johnson set a world distance record of 535 statute miles with the RJ-5 in 1951.

Martin Simons in his book "Sailplanes 1945-1965" divides the history of sailplane design of that era into two periods, "Before the RJ-5" and "After the RJ-5."

Trager's T-3 Alibi wings contained the spar of a Laister-Kauffmann LK 10A with the twist nearly removed, an aspect ratio of 16:1, and a retractable gear. It was completed in 1955, and its best flight was 193 statute miles.

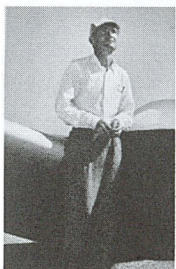
Carmichael published "What Price Performance" in the 1954 May-June issue of *Soaring*. In it he used evidence



Dick Johnson and The RJ-5



Dr. August Raspet



Ray Parker



Tiny Mite

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based on experiment and observation to relate sailplane empty weight to span and aspect ratios. He referred to Heikinen's Nomograph (the art of drawing up laws) to relate turning sinking speed in level flight and to Temmes's relationships for optimum cross country speed. In his article Carmichael advised using wingspan and aspect ratio as parameters to plot cross country speed in wide, weak and strong thermals. He indicated that a 50-foot wingspan was a desirable balance for cross country performance. Going to 70 feet doubled the empty weight, while providing only a 10 percent increase in cross-country speed. The eminent German aerodynamicist and designer Gerhard Waibel said that all he had to do was to design within the parameters that Carmichael recommended to assure a successful design.

The M-K-P Jenny Mae was based on the Prue 215. The V-tail Jenny Mae had a retractable gear, external flaps, and 17:4 aspect ratio, and a wing loading of 4.8



Lyle Maxey



The Jenny Mae

lbs. per sq./ft. Maxey, Prue, and Kerns designed the Jenny Mae beyond the parameters of "What Price Performance" to accommodate the stronger thermals

of the western US. It was completed in 1954. Maxey flew in the 1954 nationals after minimal testing, finishing third behind Johnson and Parker.

Len Niemi designed the Sisu in 1955, and its first flight was in 1956. With a 50 foot span, the 23:1 aspect ratio wing was slightly swept forward. It had slotted flaps and ailerons, a V-tail and retractable gear. The all-metal wing had few ribs, minimum

other structure and thick wing skins so they would not buckle. Four were produced by the Arlington Company, formed to produce Sisu; and the Astro Corporation built six more for a total of 11, including the prototype. Dick Johnson measured the performance at L/D 41/1.

Alvin Parker was the first to exceed 1,000 km with his Sisu flight from Odessa, TX to Kimball, NE July 31, 1964, 1,041 km.

Dick Schreder flew his new HP-7 to a 4th place finish at the 1957 Elmira

Nationals. He produced a series of sailplane designs from the HP-9, 10, 11, 12A, 13, 14T, 15, RS-15, HP-16, 18, and HP-19. The all-metal HP-8 with a retractable gear flew to national championships in 1958 and 1960. Schreder

The Evolution Of The American Sailplane

YEAR	1946	1975
Example	Zanonia	HP-18
Class	Open	Standard
Construction	Wood	Metal & Composition
Aspect Ratio	16.9	21.4
Wing Loading	4.9#/sq.ft.	8.6# sq.ft.
Airfoil	NACA 24.18 @ root	Wortmann FX67-150
Undercarriage	Skid	Retractable
Pilot Position	Up-Right	Reclining
Tail Design	Conventional	V-Tail
L/D	28	40

set world records in all three-speed categories in 1959. The HP-1 had interconnected flaps and ailerons, and typically a V-tail, but other tails were used. The forward fuselage of the 15 meter HP-18 was fiberglass with a metal rear section. The wing was built up from a metal spar with foam ribs to which the metal skin was bonded, and 90 degree deflecting flaps. The RS-15 had a pod and boom fuselage and was intended for numerous configurations, including two-place.

Dave Raspet closed by saying that a catalyst for change was his father, Dr. August Raspet (1913-1960). Dr. Raspet was the Director of the Mississippi State Flight Research Laboratory. He wrote important papers on: Sailplane As Research Tool, Sailplane Performance Improvement, Boundary Layer Control, Bird Flight, Flight Test Instrumentation, Separating Engine Drag From Airframe Drag, and Meteorology.



Schreder HP-18

Hanna Reitsch - A German Soaring Pilot And Her Era

Evelyn Zegenhagen

In the world of soaring, Hanna Reitsch was one of the most controversial and polarizing personalities of the 20th Century," Dr. Evelyn Zegenhagen said at the National Soaring Museum's Soaring History Symposium.

Reitsch, who garnered more than 40 aviation records and has been the subject of countless arguments through the years between her defenders and opponents, was appreciated for her unbelievable talent and courage, the speaker said.

"Yet particularly in Germany, she is considered a mediocre pilot ... She is despised as an ardent follower of the Nazis, who sold her soul to the Nazis and never admitted her horrendous involvement with Hitler and Company," Dr. Zegenhagen said.



Hanna Reitsch

Two sides of one person? A German case of Dr. Jekyll and Mr. Hyde? Are we now stuck with Hanna Reitsch as an unsolved case in history?"

The German historian became fascinated with the complexity of the Hanna Reitsch story as she was researching the history of German women pilots between the World Wars. (A chronological summary of Reitsch's career is at the end of this article.)

She summarized Hanna Reitsch's and other German women's soaring in the 1920s and 30s. After Germany lost World War I, the Treaty of Versailles put many restrictions on Germany including a severe limit on aviation. Their reaction: "If we can't fly with an engine, we will fly without one," became the standard slogan of the era. Soaring became a means for the Germans to prove their knowledge of aviation and reclaim the power and glory they once possessed.

It was also one way to express their patriotism. With their ascendance to power, the Nazis were aware of a strong women's soaring movement. Many women, like Reitsch, enjoyed "this sphere of individual independence to do what they wanted to do and did not care too much for the regime's new roles ascribed to them as wives, mothers, and comrades to their future husbands." This held true for Hanna Reitsch. As a young girl Hanna had made up her mind to become a "flying physician in the former German colonies."

A number of women including Reitsch worked at the German Research Institute For Soaring (DFS). Ursula Pielsticker, another outstanding woman soaring pilot, worked there as a meteorologist. Many of her flights were studies of Alpine thermal air currents. Dolly Schmidt who flew an impressive array of gliders, worked at the Institute's Soaring School. She arranged courses that were attended by many male and female pilots. Eva Schmid also attended classes at the Institute, and was the third woman in the world to attain the Performance Badge. She held a number of records, among them a long distance for women in 1937 (180 miles) and an endurance record of 14 hours.

Seeing herself as a patriot who wanted to contribute to reinstalling German prowess, especially in the former German African colonies, Hanna attended the Colonial Women's School



Evelyn Zegenhagen

in 1931-32. The training there was for young women to become settlers. They were to learn everything necessary for the life of an independent farmer, including local African and Asian languages, and self defense. She felt at home, not only at the school, but also in a sport soaring movement that was committed to strong patriotic ideals. Nazi leaders such as Minister of Aviation Herman Goering liked to see themselves pictured among attractive young women soaring pilots like Hanna Reitsch.

Although she was celebrated as a successful pilot, as a woman she was not allowed to become a full member of the German sport aviation organizations. It required special permission to allow her to participate at the annual soaring competitions at the Rhoeen. Women had been excluded from almost every event since the new regime took over. Besides the men who doubted her abilities and made fun of her intentions, there were also friends, mentors and sponsors. They included Wolf Hirth, an aviation enthusiast, designer and pilot of world reputation; and Robert Ritter von Greim, a World War I military pilot who in 1928 became head of an aerobatics school where he trained many pilots, among them Hanna Reitsch.

From the day she took her first flight at the Grunau school, she had been aware of the world that she had entered. She was "flying as an experimental test pilot, being recruited to fly planes at the Luft-



Melitta Schiller

waffe test site, and performing stunning flights that challenged traditional gender roles. She made sure that she was never seen in a female environment." She was very proud of her title of "Flight Captain," and insisted on it being used all the time. She was very well aware of how much titles and ranks meant in the male and military world. Reitsch was not the only woman in such an outstanding position in the Luftwaffe's military research programs. "Her more secretive competitor, Melitta Schiller, was the most versatile of all German women pilots, being a physicist and flight engineer," Zegenhagen said. Schiller's research focused on the improvement of German bombing methods. She performed more than 2,500 life threatening dives, sorties up to 15 a day. Like Reitsch she was awarded the prestigious title, "Flight Captain," and received most of



Hanna Reitsch, the only woman participating in the 1936 Wasserkuppe soaring competition is welcomed by German Air Sports leader Colonel Mahnke (right)

the honors that Reitsch received. Unlike Reitsch, Schiller, who by Nazi standards was considered a quarter Jew, in 1944 was given her own research institute to maximize her investigative efforts.

While most of Hanna's former colleagues began to serve in the newly founded post-war German Luftwaffe of 1956, Reitsch was exiled to Ghana and India. There, she eagerly worked for the creation of countrywide soaring movements, a first step toward national air forces.

On her return, she began competing in international meets. Abroad, especially

in the United States, she was celebrated as an outstanding pilot. She also focused on supporting the soaring movement in Germany, and in 1968 became president of the German Women Pilots. She unwaveringly claimed all the values for her life which had been abused by the Nazis' patriotism, nationalism, and loyalty to the Fatherland. The more pressure put on Hanna Reitsch to confess her involvement and guilt, the more she defended herself. In the end she became frustrated and disappointed. She felt pretty much isolated in German society outside the world of soaring.

Her steady commitment made it easy for critics to single her out for blame and forget she had never been truly a Nazi. She had never joined the party and had refused to accept an honorary membership in the League of German Girls (BDM). Hanna felt more and more disappointed with the way she was treated in Germany. "She gave up her citizenship in 1974 to become Austrian," the speaker said.

When she died in 1979, the writer of her obituary tried to explain why she challenged the public understanding so much. "Hanna Reitsch," the obituary stated "embodied as much technical modernity as intellectual inflexibility, as much professional intelligence as fanatical commitment, as much cosmopolitanism in aviation as political nationalism, as much personal courage as unconditional surrender to the Nazi regime." Her outstanding successes as a pilot were only mentioned in passing.

Dr. Zegenhagen said, "Until today the legacy of Hanna Reitsch is highly polarized. No serious attempt has been made to deal with her biography. In some way this also represents the difficulties of Germany dealing with its past. Hanna Reitsch can teach us as much about the complexities of aviation and history, as about the ambiguity and complexity of the biographies of the people who worked and lived in it. And there is still a lot of work to do."

Hanna Reitsch Chronology:

Born-1912 Hirschberg, Silesia

1932- Began to study medicine in Berlin. Obtained her "C" license, and her motor sport license.

1936 -Only female participant in the annual Rhoen competition. Set world women's long distance record.

1939- Tested the DFS combination meteorological research plane and cargo glider. Attended the prestigious German School for Commercial Pilots (DVS).

1942- Performed flights in the Me 163 Komet rocket plane. Severely injured in a manned version of the Fiesler V-1 rocket.

1943- Instrumental in developing the "Self-Sacrifice Pilots" project, a German version of the Japanese Kamikaze concept to Hitler.

For her accomplishments during the war she was awarded the Iron Cross Second and First Class and the Golden Military Flying Medal with Diamonds in a Special Setting.

1945- Flew into Berlin accompanying Luftwaffe General Ritter von Greim, paying a last visit to Hitler. She was arrested by American troops, interned and interrogated until Nov. 1946.

1951- Published the first version of her memoirs: "Fliegen-Mein Leben" (Flying-My Life).

1952 -Third place at the Internationals in Spain.

1954- Became an experimental test pilot at the German Institute for Aviation (DVL).

1955- Won the German championships as the best pilot, male and female.

1956- Set a German long distance record: 370 km (approx. 230 miles).

1957- Set a German altitude record for women-6,848 meters (approx 22,461 ft).

1959- Sent to India helping to build soaring infrastructure as part of the creation of the Indian Air Force.

1960- Earned second Diamond.

1961- Visited the US where she met

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JFK, and her old friend, Werner von Braun.

1962- Visited Ghana, training male recruits for the Ghanese Air Force.

1968- Published a book about these years, "I Flew for Kwame N'Krumah," and became one of the two presidents of the newly founded German Association of Women Pilots.

1970- Set another German record, with a 500 km. (approx 310 miles) flight that became her third diamond.

1971- Became the female world champion helicopter pilot.

1972- The Society of Experimental Test Pilots made her an honorary member.

1975- Awarded The International Chain of the Wind Rose and published her memoirs, "The Indestructible In My Life."

1977- Again a German record for women: out-and -return, 644 km. (approx 400 miles).

1978- A world record out-and-return, 714.7 km. (approx. 440 miles), also published the second part of her memoirs, "Highs and Lows-1945 to Present."

1979- During a visit to the US, she set a world record out-and -return, 714.7 km. (444 miles) in a Schleicher ASW 20, in the Appalachian Mountains.

1979- On August 24, she died in Munich of heart failure.

Evelyn Zegenhagen of Alexandria VA, has served as the Helen Bader Foundation Research Fellow at the Center for Holocaust Studies at the United States Holocaust Memorial Museum, where she contributed to a multi-volume encyclopedic history of detention, forced labor, and extermination sites run by Nazi Germany and its European allies and satellites. She received her MA in history from the University of Leipzig (Germany) in 1986, and is currently completing her doctoral dissertation at the University of the German Armed Forces in Munich. She served as Research Assistant to University of California Professor Gerald D. Feldman for his study of the Allianz Insurance Company of The Third Reich.

Think Wave! Reflections On A Soaring Saga

James Payne



Jim Payne

Sometime in the early 1960s, there was a glider club that flew out of an airport in Hastings, Michigan where Jim Payne grew up, and his father took him out to watch the glider operation. "Some day I want to do that," the youngster said. That was the kind of spark that ignited a career through the Air Force Academy, national soaring championships, lenticular wave explorations, and international soaring competitions.

The Air Force Academy had a three week summer glider program that "was absolutely fantastic," and in 1971 he took his first flight and soloed a few weeks later. He said his father, a professor at the Air Force Academy, had a deep influence on his soaring, along with his wife Jackie, who has been with him since he started soaring with the Caesar Creek Soaring Club after the Academy. After fighter pilot tours in Iceland and England and finally home in Rosamond, California, the 1-26 Association and the SSA Regional Soaring Council were motivators.

He said that in the past three or four years the on-line contests have energized his flying. Describing the Sierra Wave and the Owens Valley he said, "You have a nice strong wind out of the west and it comes over the mountains. Of course you need to find the Olympian zone which is up front of where the clouds

are." He showed a recent photo taken up towards Big Pine headed south. "It was one of those fantastic days. I was doing 105 knots indicated (approx 120 mph) and the variometer looks like it says down, but its gone 10 times up--- 17,461 feet!" He said that in the past three years he has probably spent 200 hours in the wave.

Payne's fascination with flying was bolstered by the exciting aviation stories told by his father who flew B-17s and B-24s during World War II. Then the 1960s National Geographic article about Karl Striedieck streaking along the Appalachian, really decided Payne, "I wanna try that." So off he went to the Air Force Academy right after high school. There in the glider program he worked his way up to a CFIG rating (Certified Flight Instructor Glider) and joined the SSA. He scored enough points to win a 1973 1-26 team contest, his first.

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After pilot training he was assigned to fly F-4s, then sent to Iceland. There he said he had his crew search success, Jackie, a tech school teacher. She received her private pilot training in Iceland through the aero club. Next he was sent to England, then Africa, returning for a Masters degree in aeronautical engineering and the Air Force's Test Pilot School.

In 1982 he ended up buying a 1-26. He and Jackie learned how to smoke barographs so he could fly championship meets and he became interested in breaking records.

At Test Pilot School Payne found time in the Spring of 1983 to experience the Sierra Wave. By the end of March in the 1-26 he got to 27,500 feet and had earned a lot of the SSA's jewelry - Silver, Gold, Diamond altitude, and a single "lennie" pin.

He purchased a Rolladen-Schneider LS4, then soared and raced for a whole string of records. His first was in the Spring of 1984, out and return from Inyokern to Jennies Ranch (CA) and return:500K at basically 75 MPH, a speed record for the standard class.

By October 1985 and a couple of years flying the F-16XL, Payne was back at test pilot school, this time as an instructor. The

school obtained a Grob 103 on contract, and his group set about modifying it for ultra-high flight. He took a picture of the people at the life support shop where he was outfitted with a high altitude pressure suit. Salvaging "must have" equipment and instruments from anything left unguarded, the Grob was ready. Payne said that the wind speed at the tropopause tended to die off. He spent 45 minutes up around 42,000 feet going north, south and downwind, trying to break through to 50,000 feet, but was disappointed that he was never able to.

from the ground rule. You could now go up to any altitude as long as when you finished you were within 1,000 meters of that altitude." That is exactly what I needed to get records with the wave," he said. He added that if you looked at any of the years 2002, 2003 and 2006 in the Guinness Book of Records, you saw that his 100km flight was listed as the world's fastest glider flight.

As a Region 12 SSA board member he suggested a Wright Brothers first flight 100th anniversary commemoration. Chairman Tim Welles appointed Payne and John Murray to structure what Murray named "The Return To Kitty Hawk Race." The goal was to do a cross country race like the Smirnoff, and land at Kitty Hawk on July 4, 2003. The race started at Crystal, went to Las Vegas then Cedar Creek and ended up across the country at Kitty Hawk. "The authorities hadn't let anyone land at Kitty Hawk since the 1930s. But they made an exception for us and let us land there in the grass. It was fantastic," Payne said.

He said in closing that soaring attracts fantastic people. "There is a whole room full of them right here." He advised attendees to look at the wave; "the energy in that wave is phenomenal." He advised taking some time to understand it and use it.

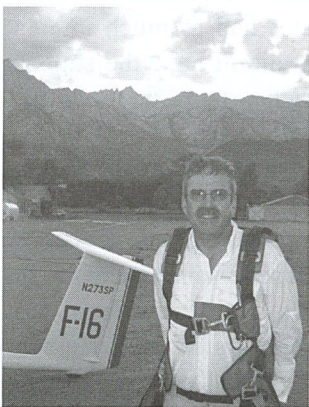
"Think wave. Have fun. Go fast and far. Thank you for being here and thank you for honoring me."



Lenticular Wave

In 1987 he was asked by the SSA to manage successive American teams at the Australian, Austrian, American, Swedish, and New Zealand International Championships. He retired from the Air Force in 1996. "Anyway, a great experience doing all five of those teams and then in 2001 I was fortunate to be the pilot in South Africa," he said.

He went back to test pilot school from 1992 to 1996, won the Hilton Cup in '96, and did some special research for NASA. He mentioned several rule changes of the 1990s, such as the use of GPS for start-finish documentation and the discontinuation of the start-finish



Jim Payne

Jim Payne Inducted Into The 2009 United States Soaring Hall Of Fame

Peter Smith said at the May 2, 2009 United States Soaring Hall of Fame banquet, "I doubt that anyone would deny the worthiness of Jim Payne's induction tonight into the United States Soaring Hall of Fame." Smith continued that one of his most important functions and favorite responsibilities was to host and administer the Hall of Fame on behalf of the Soaring Society of America. In recent years Bertha Ryan and Jack Wyman have guided the overhaul of the selection procedure. "It has made being selected to the Hall of Fame much harder, which is a good thing," he said.

Smith called on Dianne Black-Nixon, immediate past chair of the SSA, assisted by NSM president Moe Acee to introduce the 2009 inductee.

Ms. Black-Nixon said that she had known Jim Payne for a number of years. "I remember at one of my first board meetings how helpful and thoughtful he was in answering my questions regarding board issues, but that is just part of Jim." Payne graduated from the Air Force Academy as the outstanding cadet in soaring. Following graduation he raced Formula 4s, flew jets and traveled to other parts of the world, like Iceland, "which isn't particularly noted for gliding," she quipped. Jim and his wife Jackie returned to this country in 1980, to Caesar Creek where he flew 1-26s. Retiring from the Air Force, he consulted for a time, but with daughter Julie and son Jason a steadier income was called for. So he went with the Ryan Aeronautical Company to work on the Global Hawk Project as a flight test manager.

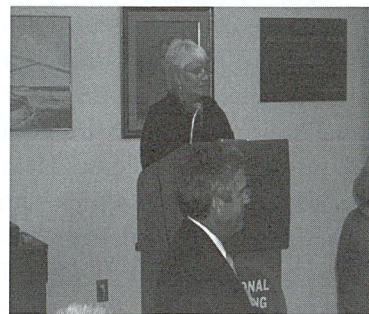
"Just a week ago he flew 1250km in a Sparrowhawk and had hopes of achieving another world record for that flight." Payne has six world records and 57 national soaring records, along with many state and local records. He has a world distance record, a triple lennie pin, a 1000 k. diplome, Silver, Gold, and Diamond Badges. He has won regionals and a national along with his brother Tom. He was the On Line Contest national champion in 2007, and the world champion the following year. He has written for *Soaring* magazine, competed in three international competitions, and managed several US Teams at world championships. He has served



The Payne Family

l-r. son Jason, Jim, wife Jackie, daughter Julie

in several capacities in the SSA. Among his honors are the FAI Lilienthal Medal in 2001 and the Eaton Trophy along with Jackie and John and Linda Murray for the Return to Kitty Hawk Race. The SSA has awarded him Exceptional Service Awards, Exceptional Achievement Awards, and in 1997 he won the Barron Hilton Cup. He and his brother were awarded the Hatcher and Stroukoff trophies. He is a four-time selectee of the National Aeronautical Association for top flights in all of aviation.



*Dianne Black-Nixon
and Jim Payne*

Black-Nixon said, "I cannot think of a more deserving candidate for induction into the United States Soaring Hall of Fame than James M. Payne."

"I cannot tell you how honored I am. I would like to thank all of those who have gone before us and created this fantastic sport," the new inductee said. He said that it's only been a little over a hundred years since the Wright brothers flew their first airplane. "I can't say enough about the Air Force Academy, their programs to introduce a lot of guys to soaring. It is used as an effective tool to teach leadership and air sense to other folks that went on to other parts of the Air Force." Looking at Jackie he said that he is fortunate enough to have the support to do cross country and other things. "I couldn't do what I've done without Jackie; she has been fabulous through the years." He added that some of his associates had as much interest in soaring, but didn't have the support that he had to go out and do the things that he did.

Payne said that it is really difficult to come up with programs whereby you have to make life and death decisions. "But when you send someone out to go solo, especially evaluating them, you can't lower your standards." He said that in our country today many aspects of these standards seem to have been

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lowered. "When we send people out to fly by themselves they must meet standards, or pay some kind of penalty. Our sport has those standards, and I think our sport will continue."

In closing he repeated what Hall of Famer Bernald Smith said, "I am really honored, but I'm not sure I've done everything I need to do to be so honored. So I'll just keep doing it."

The Global Hawk

Following his talk, Roy McMaster asked him to speak briefly about the Global Hawk. Payne said that the Defense Advanced Research Projects Agency basically wanted a high altitude, unmanned replacement for the U-2. The Global Hawk was designed and built by the Ryan Corporation. (1)

He said it is an unmanned airplane with synthetic specialized radar that can see through the clouds and an infra-red camera that sees at night, as well as an optical one for the day. It first flew in

February, 1998. 75 days after 9/11, a proto-type Global Hawk that wasn't completely tested was flown to the Middle East. It started flying reconnaissance missions over Afghanistan. Its performance was so productive that the Air Force ordered several more. It has a 116 ft. wingspan, "which means that it has an L/D of 27 or so, if the motor flames out anywhere on approach you can find a runway." The Global Hawk can go very high, 57,000 feet, "though the Air Force is using them at 55,000 feet. The high time on one now has 6,000 hours on it in a little over two and one-half years. There are four overseas, three Air Force and one Navy that are supporting operations in the Middle East. There are 140 to 160 flight hours a week, each flight averaging 22 hours. It's overseas, and the people that are actually flying 'up and away' are at Beale Air Force Base in Sacramento, California. The people that take the Global Hawk off and land it are in-theatre.

"The other day we had some furniture delivered and the delivery person saw

the Global Hawk model near a bookend on the shelf. He asked if we worked on the Global Hawk. One of my engineers said, 'Yes, I'm a flight test engineer.' The deliveryman reached over and gave him a mighty bear hug... The guy was a reservist serving overseas, and cited three examples where Global Hawk intelligence saved him and his buddies from an ambush."

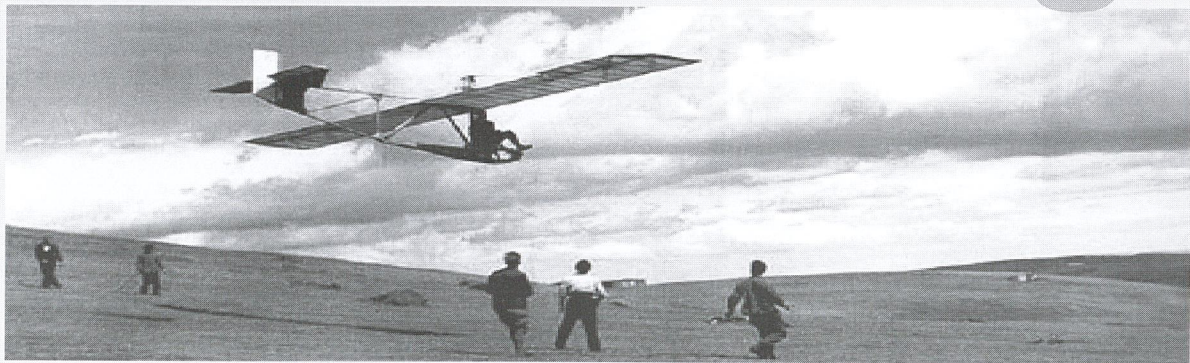
"It's an interesting program... Anyway it keeps me out of trouble," Payne said.

(1) The same company that built Lindbergh's Spirit of St. Louis.



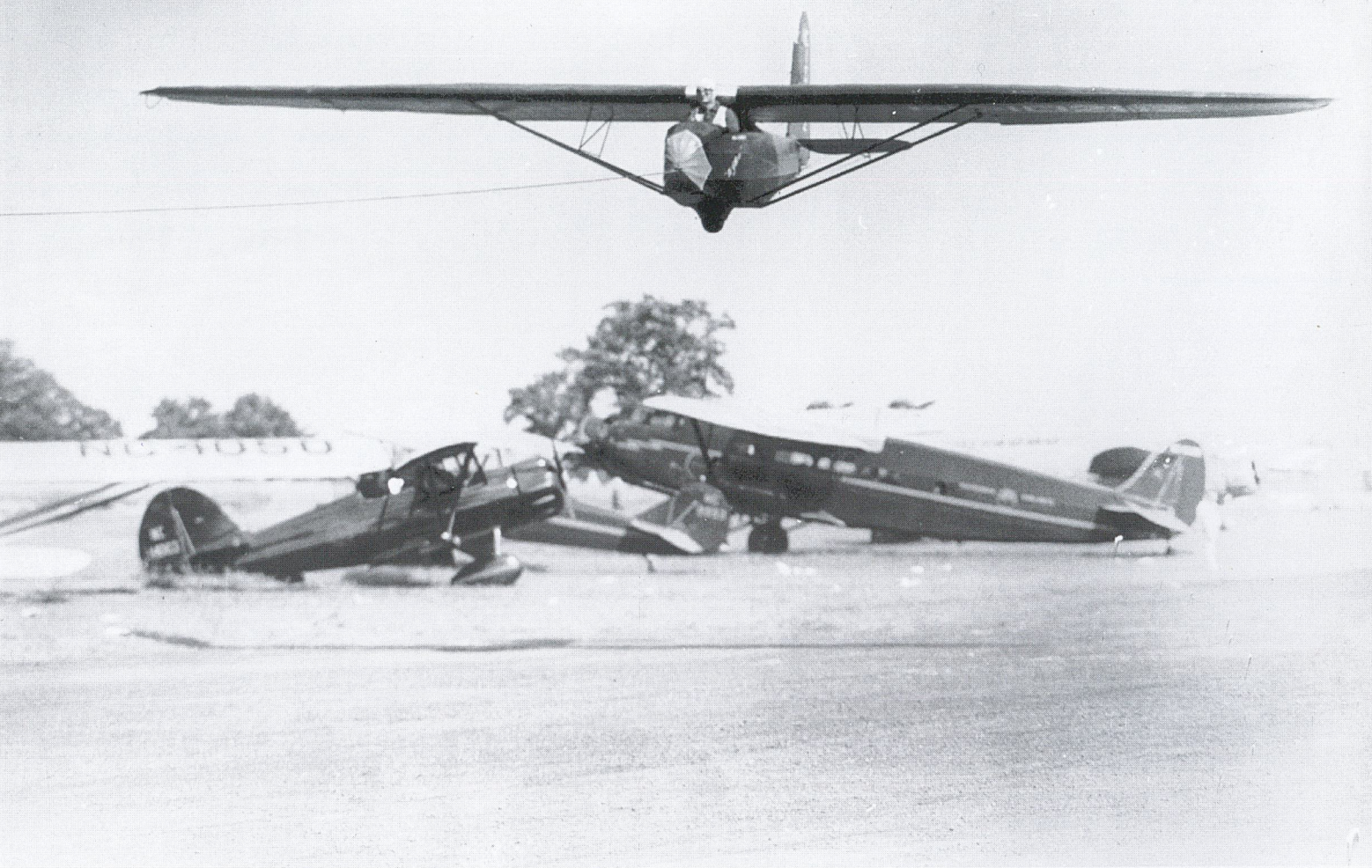
Hall of Fame Members Bertha Ryan on left (1972) and Bill Schweizer on right (1984) welcome Jim Payne (2009)

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