

OTTO HISTORY

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Ken de Russey Collection

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● In Germany in the late 19th Century, Otto built his own hill, his own wings, and flew without secrecy a series of true hangliders. His pioneering efforts and idea sharing sparked the world into realizing that self-soaring was possible, practical, and most enjoyable.

Definition: 'Otto Meet' An Otto Meet is a near spontaneous picnic-style non-competitive meet involving pilot-carriable wings that are designed, built, and launched into flight by the pilot or pilot team (small clubs); an Otto Meet takes place at a site where no admission charges are made; the meet does not have policing controls beyond the courtesy and responsibility of the participants; the meet keeps the site ecologically sound and in good order; the motive of the meet is companionship, communication, and quest for advanced human self-soar fuel-less wearable wing flight systems.

● 1883: Mr. John J. Montgomery perhaps flew the first controlled flight in a glider. But the craft was designed to be an assisted take-off glider as well as one that used an elevator for pitch controlled flight, and further the glider was designed to have the pilot sit upon part of a rigid held part of the frame. This was a great affair, if it took place (he was very secretive). But in any case, John J. Montgomery did not bring forth the 'hanglider'.

● 1904: In France from the Aero Club came three designs of rigid boomed flexible sailed hang gliders that were self-launched. They would today be called 'rogallo's'. Why? Because Francis Rogallo's hobby and his work popularized such kinds of craft. Mr. Rogallo invented a fully flexible kite that when stiffened to a great extent by rigid booms, became a craft that fell in line with developments that happened before 1948's fully flexible kite (that also was noted for being a fair fully flexible glider). We all thank Mr. Rogallo for helping bring forth a modern renaissance of interest in light framed aircraft. Yet he cannot validly be held as the inventor of what we see today as the delta wing or flexible sailed 'rogallo' hanglider. Invention is important, but giving 'life' is more important; and Mr. Rogallo gave lively enthusiasm to the ideas of light-framed and even all-flexible wing aircraft.

● 1948: Francis Rogallo, a kite hobbyist, invented an all-flexible kite that also was able to be used as an all-flexible gliding parachute and all-flexible wing attachable to powered thrust units. His patents reached for inventiveness even for such devices as sufficed. Yet, stiffening to a certain degree brought the crafts in line with prior art; where the line is that bounds Mr. Rogallo's valid claim is not debated nor does such matter. See the above 1904 note of wings that came 44 years before Rogallo's first toy all-flexible kite.

Yes, the enthusiasm radiated from Francis Rogallo's 'all-flexible' lifting canopies persuaded the NACA and then the NASA to develop the all-flexible and light-framed gliders that gave birth to designs called the paraglider, a delta-shaped boomed or unboomed canopy. The skeletonized forms certainly appeared before Rogallo's development of the all-flexible lifting canopies. The NASA's space use of the paraglider gave such exposure to these paragliders that several lines of follow-on sport and amateur interest spawned; entrepreneurs put on their thinking caps during the 50's and 60's. Late in the 60's Australia also saw first 'toy kites' after the format Dickenson developed from the NASA paragliders. In the USA, some five key strands of public paraglider usages are identified, from the bamboo amateur wings to professional power towed devices.

Since these major projects do not overtly credit early art found in France, the triangle wing, although not invented by Rogallo, has been named 'the rogallo hang glider or toy kite'. Even hybridizations foretold by the many NASA experiments -with changing keel lengths, nose angles, and leading edge shapes, are called 'rogallo hybrids'.

● 1963: The Kite Information & Technology Exchange Society (Box 627, Venice, CA) in 1963 was declared as the new form for an organization that started in 1953, then called the American Ideal High Jump Society. The AIHJS was dedicated to the discovery of all factors of the art of defying gravity through man-powered physical efforts, a kind of self-soaring effort. The evolution of such science and development led to the discovery of the importance of 'tension'. Not only could a person jump up, but he could also pull at sky and wind and things above...via 'tension' ways...and thereby obtain lift and flight. Therefore, as a kite -with its tension line or bridge to the lifting body above...the AIHJS changed its name to the Kite Information & Technology Exchange Society (KITES). KITES gave birth to an organization that combines all the various self-right interests, the Universal Self-Soar Association. This all-world's USSA sistered the United States Self-Soar Assn., the Brazilian Self-Soar Assn., the Australian Self-Soar Association. The service arms of communication in the USA are HANG GLIDER WEEKLY and a service called the United States Hang Gliding Activity & Information Center, operating with HGV to provide a complete information system to aid in the world-around development of self-launched pilot-carriable fuel-less aircraft systems.

● 1969: The Self-Soar Association held a first modern hang glider and kite meet on the campus of UCLA. The primary demonstration was with a Chanute-style biplane kite that doubled as a hanglider. It was made with tuffon from Barton Books of Westwood, CA. The wing was covered with acetate cloth. All joints were wrapped with string and glue. The pilot-leaps were small, but effective. Interest grew. Parallel with this effort by Self-Soar Association was a brotherhood effort by Richard Miller and Jack Lambie. Miller who lived in Santa Monica, CA, invited George Uvexes to Playa del Rey to fly the Bamboo Butterfly hang glider that later gave birth to Batso and Bat Glider plans.

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The president of Self-Soar Association confronted the sailplane world with a written proposal for the sailplane world to investigate the world of pilot-carriable and truly self-soarable fuel-less flight systems. That confrontation was published by Doug Lamont, Richard Miller then wrote a letter to Self-Soar Association inviting Self-Soar Association to be editor of a dead newsletter that was once called Low, Slow, and Out of Control that served 17 people once in 6 short newsletters. Self-Soar Association did not accept, for the KITES and S-S-A knew that hang gliding and related arts...were in control...and thus struck up a friendship, but started a unique enterprising booklet series called LOW & SLOW. L&S pressed 36 booklets that literally initiated all modern hangliding literature throughout the world, and then L&S merged to HANG GLIDER WEEKLY. Most of the back numbered booklets of Low & Slow are still available, fast becoming a movement treasure series. The booklets announced all the first true modern hangliding meets sponsored by Self-Soar Association in 1971 and 1972, the greatest being the one called and arranged in Newport Beach, CA, that was featured in the National Geographic. This first true OTTO meet started an annual affair found now in each city. The purpose of the meet was not to over-organize it; some leaders did this in the following years, but now the local groups are recognizing the need for an Otto meet.

Low & Slow booklet series took the 6 issues of Low, Slow, Out of Control and re-published them all in one single issue of Low & Slow, so that all members of the future might have record of the early activity that paralleled the activities of the Kite Information & Technology Exchange Society. Both developments were important to modern hang gliding. Indeed, a third development was important as here described: Parallel with KITES and Miller was the Australian use of the delta wing boat-tow kite. John Dickenson, Bill Moyes, and Bill Bennett fathered delta kiting in Australia at the same time in the late 60's; Bill Bennett, a keen entrepreneur, founded his Delta Wing Kite company in the USA and popularized boat towing of the 1904 type wing now called the paraglider or rogallo kite. The Self-Soar Association 1971 meet so popularized launching of hangliders that Bill Bennett and his student Dave Kilbourne started developing markets and hardware to serve the resurgence of hangliding in modern America. The merging of these three lines of interest caused the sailplane society to worry about their own position in modern gliding. At first the sailplane society feared that the hangliding would give them a bad name like happened in the 1920's; but they wanted to play the modern politics just right so that if hangliding turned the public sour, then they did not want sailplanes to be brothers to such reputation; but if hangliding obtained good reputation, then the sailplane wanted to take all credits possible. Well, the KITES and the Bennett movements were not mothered by sailplanes; the Miller movement was. The Self-Soar Association's invitation to Mr. Licher of the sailplane world was in cooperation and respect to the 1/3 of political movement stemming from Richard Miller. Today, the sailplane society still is waiting for world-wide organization of hangliding within the sailplane tradition, yet the self-soar movement remains unique and in no need of incorporating with non-pilot-carriable sailplanes. The vast and exciting universe of interest in the development of 'wearable personal wings' finds it sufficient in service to enthusiasts to get everyone's ideas and news shared in the current HANG GLIDER WEEKLY, now the heartbeat of hang gliding. HGV promotes the Miller, the Licher, the Bennett, the Rogallo, and the entire universe of leader and member hang gliding movements via open news and idea sharing. Some people want and need highly organized and controlled development of commercially and competitively oriented sports; some people want to develop the arts of contemplative recreational self-soaring; some want to design ultimate wearable wing systems ---well, all this and more is shared regularly in HANG GLIDER WEEKLY.

THE FUTURE: HGV and Otto members will observe several lines of general participation. Some individuals will participate in all special forms of participation, but distinct interest groups will form and complement one another, forming finally, a great body of reserved capability that will finally produce super wearable personal wings (the goal of Self-Soar Association). There will be world meets; an Olympic hang gliding event will become established as a great commerce will surround competitive hangliding. Yet the fantastic and the recreative arts and crafts will develop, albeit with less ostentatious celebration. Both these two trends will add key technology to the wearable wing movement. All flyers will be a part of the greatest chapter of human aviation...and you are invited to add your uniqueness and share it through HGV to all the world of hangliding. Your ideas in HGV will be picked up by all authors everywhere quickly so that maximum exposure of your contributions will be effected. This is a goal of Self-Soar Association. (Note that Otto Lilienthal membership is one that carries on the pioneering spirit and communications habit that Otto lived in example for us while we search the ultimates of self-soar flying, be one more interested in the commercial, competitive, craft, or contemplative aspects of this. While one forms clubs of special interest, one still lies in with the universal aspects of the Otto membership; the brief membership duties include exclamations that keep the entire movement safe, healthy, and ever joyous; it is the work of local clubs to adopt this pattern, add their special interests, and participate upwards and outwards to all others in the broad wearable wing movement through HANG GLIDER WEEKLY. You are the future of hangliding; obtain your OTTO number, participate in HGV, and group as your interests take you; be sure the fruits of your special interests are shared universally.

Some Otto day in mild breezes you will walk and soar wearing wings unnoticed. Before that day your heavy winged efforts will cause concern, awe, and new ordinance. To really fly free we must unite to discover the ultimates of simple personal wings; ...search, invent, share,.....aim toward the unknown...the wing beyond...My wings are growing. See. May I touch yours?

One day...some Otto day

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Basically, in the above extract, Faust is saying:

- That, in 1904, Lavezzari invented and flew the membrane delta wing.
- That Rogallo's Flexible Kite patents have no engineering or aerodynamic connection to the modern hang glider.
- That nevertheless it is justified to call Lavezzari's and Dickenson's gliders "Rogallos"

This is one of the foundations of the great deception about the modern hang gliders, initiated by Rogallo, promoted by Faust and perpetuated by every author and producer ever since.