



Left to right: Bob Dodgson, Dave Johnson and Carl Blake with Maestro IIIs and Tom Neilson with a Maestro Megan. This picture was taken at the famed 60 Acres Park location in Redmond, Washington prior to the site's development into athletic fields and flying there came to an end. (image: Bob Dodgson)

Implementation of a Dream

Part one of a three part series.



Bob Dodgson [Follow](#)
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As part of making arrangements to publish Bob Dodgson's autobiography, we put out a call to readers for pictures of any of Bob Dodgson's designs. Candidly, we were overwhelmed, so we're selecting some of our favourites to include with each of the three articles in the series.
— Ed.

As a youth, I was enamored with model airplanes. Many 50 cents were spent on stick and tissue kits that were laboriously assembled with varying degrees of success. The bulkheads were not die cut and had millions of stringer notches that had to be meticulously hand cut. Growing up in the country caused its share of hardships to the eager hobbyist, namely that when I ran out of glue or some essential building item, the operation was out of business until the next weekly trip to town (16 miles away). Naturally, this difficult situation had one good thing about it. It definitely promoted innovation and unconventional attempts to circumvent the need for the 'out of stock items.' On one occasion, I was so desperate to finish my latest plane that I glued the tissue covering on with paste, since I had no glue. The model was a bit on the heavy side. Even with the rubber motor fully wound, the plane had a glide ratio of about three to one (I never said that all of my innovations worked)."



"I was always in the winner's circle with this Windsong. This was back in the late 80s or early 90s. It was my favorite thermal ship. Two guys from Tullahoma got tired of getting beat by it and made me an offer I couldn't refuse. At the next contest, I showed up with a borrowed Windsong that a friend just couldn't seem to get a handle on and after a few tuning flights, took 1st in unlimited again. I would love to have one again." (image: Randy White)

I could never determine why my models never would climb under rubber power and why they never really flew — until I was about 15-years-old. I didn't have much spending money and I didn't put fancy color schemes on my planes. In fact, I did not even spend money on dope for the tissue. Finally, I discovered that when the tissue was sealed with dope, things worked a lot better. My next rubber-powered plane flew great!

As most of you know, I have a stuttering problem. My dad noticed that when I worked on model airplanes, my stuttering appeared to get worse. So he, at various times, forbade me to build model airplanes. Naturally, my being perverse by nature, this putting model airplanes in the “forbidden fruit” category only heightened my enthusiasm for the hobby that otherwise may have simply died a slow, natural death.



“Who doesn’t love a Lovesong” (image: Kurt Zimmerman)

I started college in 1960 and had to start thinking about what I wanted to do when I grew up (I still haven’t figured that one out). I went the gamut from psychology to engineering and finally to architecture as a last resort. I felt architecture offered a unique blend of art and technology. I was about to become the Renaissance man of the 20th century.

After working my buns off getting through the School of Architecture at the University of Washington, I learned that my romanticized picture of the cavalier architect was not the same picture that awaited me as I stepped into the cruel world. I discovered that I was

working as a draftsman eight hours a day and for not much more than a minimum wage. Where did I go wrong?



“Mike Dooley & his Dodgson Camano consulting with Doug Kylo. Pivot in foreground. At Ebey’s Landing in the mid-1990s” (image: Waid Reynolds)

During my college days, I had developed a great interest in full-scale soaring. I joined the Soaring Society of America and the Seattle Area Soaring Society and I joined the Experimental Aircraft Association. I yearned to soar with the Joe Lincolns and the Moffets, but alas, I was being put through college in part by my part-time working and mostly by my young wife Sandy’s full-time job, so my limited funds left me with limited options. (Sandy was under the impression that I was going to grow up to be an architect.) Because there were no ultra-lights and no hang gliders at the time, my cheapest option was to construct a kit like the wood BG12, which cost about \$2,500 or to purchase an old 1–26 or something. At that time, I could not join the Boeing gliding club to get my soaring license as I was not a Boeing employee and there was no other such club in western Washington. This meant that just to get a soaring license would cost me a couple thousand dollars in instruction and rental time. In the middle of my

frustration over the high cost of getting into soaring, I read an article by Dale Willoughby in the Soaring Society of America magazine entitled *Soaring With Both Feet on the Ground*, which was about the new burgeoning hobby of radio control (RC) soaring. This idea so excited me that I bought a single-channel rubber band escapement system by World Engines (I couldn't afford the \$300 to \$600 that the new digital systems cost) and a \$16 Graupner Weihe 50 kit with about a 72-inch wingspan. I all but forgot full-size soaring.





“Heather (we called her Todi when she was little) holding the Todi glider in 2019 (our first kit) that came out in 1972 Heather was two at the time. The Todi had a fiberglass forward fuselage and a 3/32” thick rolled basa tail boom.” (image: Bob Dodgson)

Most of my flights were disasters because in order to save weight, I had ignored the recommended CG position. After all, how can making a glider heavier make it fly better? My flights off a slope were a terminal series of ever-expanding oscillations that ended only when the glider’s nose was laid to rest six inches into the hillside. After all, I was a loner and knew no one to turn to for help. Finally, in desperation I decided to put a handful of rocks in the nose to move the c.g. closer to the point shown on the plans. Once again, I fearfully heaved the battered little plane off the slope, and to my total amazement, it flew straight out over the Issaquah Valley as if it were on rails. Not long after my initial amazement began to subside, it was renewed when I discovered that the radio link between the glider and me was missing. While I was standing there helplessly watching my dreams and aspirations quietly glide off into the sunset, the little plane slowly turned in a giant arc, came back, and landed on the slope.





“Hijacker II which Bob kitted for a time.” (image: Craig Christensen)

Needless to say, soon I became frustrated with the rubber band escapement system and after much work, I convinced Sandy that I needed (and it wouldn't cost much) a pulser conversion on my transmitter and a galloping ghost rudder/elevator servo for the plane. With this system, the rudder is always flopping back and forth and the elevator is always flopping up and down. For up elevator effect, the pulse is speeded up and the elevator spends more time up than down. For down elevator, the reverse is true. Rudder control is achieved by the 'on' pulse being either longer or shorter than the 'off' pulse. If it is longer, the rudder spends more time on one side than on the other. If it is shorter, the rudder spends more time on the other side. This galloping ghost system allowed me to achieve my first sustained controlled slope flights. The year was about 1968.





"Mid-1980s." (image: Mike Hansow)

It wasn't long before I wanted a new glider and so I designed and scratch built a ship of about the two-meter size with standard box fuselage and constant cord wings with dihedral, utilizing the same wing construction that the Weihe 50 had used. The plane flew great. I had heard about a group of Seattle flyers who flew gliders off Badger Mountain by Wenatchee, Washington one weekend a year, and I went over to showcase my newfound skills. It was no fair. These people all had digital radios, and the speed capabilities of some of the planes took my breath away. The well-publicized designer Harley Michaelis was there with his Tri-belle and breathtaking Misqueet. Ralph Brooks was there with his huge, gorgeous scale-like Nelson KA6. Ralph White, who later bought the Flight Glass Company, was flying his Phoebus. The Graupner Fokas, Claus, and other imported ships and many original designs were flown.

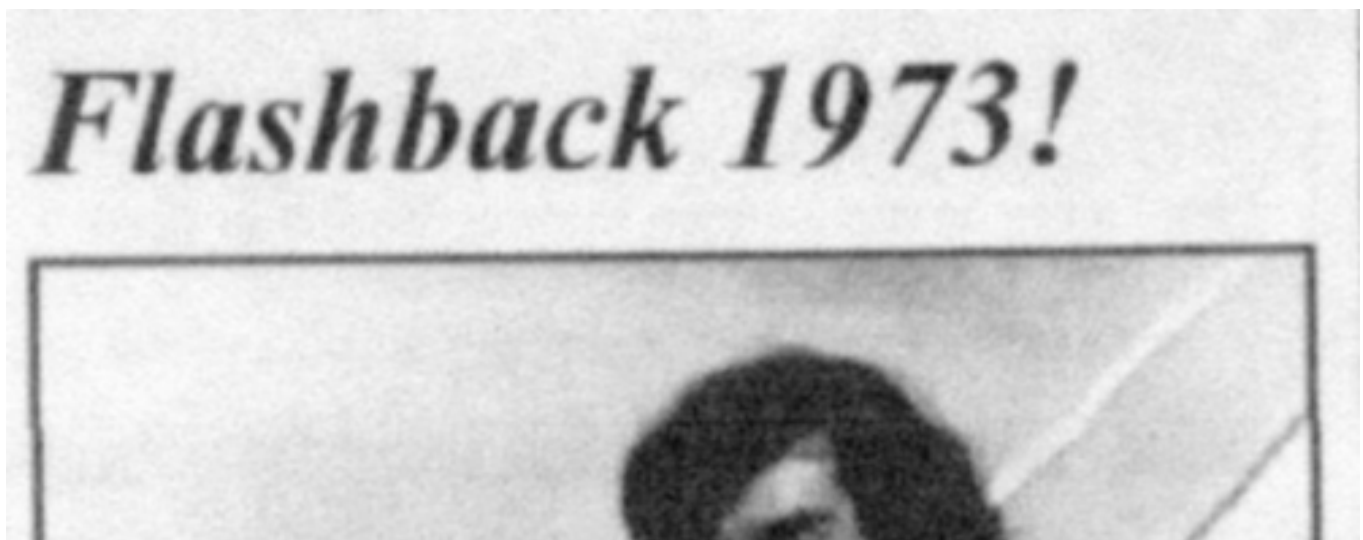




“Me and my Maestro III in my parents backyard in Vancouver, BC in 1975. Sadly I rekitted that magnificent aircraft just days later.” (image: Terence C. Gannon)

This was heaven to me, but I had never before flown off such a colossal slope into such winds. It was all that my little, quivering, slow glider could do to stand still into the wind. The amount of down elevator available was very small. Finally, I made it out away from the cliff and into a giant thermal. Wow! I was right up there with the big digital birds. Everyone was amazed at seeing this pulsating aberration doing so well. More than one person remarked as they watched the tail surfaces vigorously flapping: “Look, even his glider stutters.”

My enthusiasm was enormous in this moment of triumph, but so was my fear. How was I going to get the ship down? I was holding full down elevator just to get it to move forward. Finally, I put full down and full turn into the plane and it started a spiral descent, slowly at first and then gradually steepening. As the speed increased, the pulsing tail surfaces began to make the entire fuselage oscillate like the body of a powerful fish running at full speed. Then came the ego-shattering snap as the combined effort of all the forces caused a wing panel to give way and brought an abrupt and untimely end to my brief moment of glory.





"Russ Young was the first flyer to place nationally with a Dodgson Designs kit. It was the TODI in 1973." (image: Bob Dodgson)

It wasn't long until I ordered a digital Control-Air four-channel radio kit from World Engines with a single stick transmitter configuration. To complement the new radio, I needed the greatest glider in the world, and I couldn't afford the \$35 for a Phoebus or Foka kit. Besides, I wanted more scale-like controls in the model than the simple rudder-elevator controls offered in stock kits. I designed a four-channel glider with a rounded and shaped balsa fuselage covered by fiberglass. It had a high-aspect ratio, 100-inch wing with the Eppler 387 airfoil. The plane had flapperons, coupled rudder and ailerons and elevator. My first flights were very short, ending in an underground probing mission. The difference in control between the slow, gentle galloping ghost system and

the quick, precise response of the digital system was more than I could handle. I was too proud to let any of the more experienced Seattle flyers help me. I didn't even know what the problem was. I thought the plane was just uncontrollable. After many crashes and after moving the c.g. very far forward, I finally got a handle on the plane. It flew just great and I was king of the slope. I never did experiment with moving the c.g. back where it belonged, after I learned to fly the plane. Flaperons were achieved in this plane with a sliding servo.

The next year when I went to Wenatchee, I had a plane to be proud of. By this time, I was growing restless as an architectural draftsman and I had lost my zeal for taking the state boards to obtain my own architect's license. I found I was spending every spare moment on the job designing a new glider or working out some new control linkage, etc. My heart was with my hobby.

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"Apparently I had a phase of church window sailplanes. I lost the Megan at one hour and fifty minutes into my two-hour thermal for Level 5 of LSF. It was about 800 ft up and a cloud rolled in underneath it and I never saw it again." (image: Randy White)

This article was originally published in the April 1983 Northwest Soaring Society Newsletter edited by Dean Rea. Bob updated and submitted it to the AMA History Project in 2002. RCSD would like to thank both Bob and the AMA History Project for permitting the use of the AMAHP document as a source for this series of articles in RCSD. In particular, we would like to thank Jackie Shalberg, Archivist and Historian for the National Model Aviation Museum, for the assistance in making these arrangements. — Ed.

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