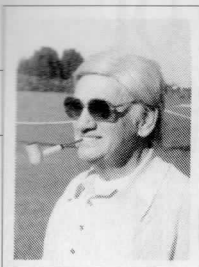


GOLDEN AGE OF R/C



H A L D e B O L T

GALLOPING GHOSTS AND LARK

WE HAVE NOTED coincidences before and here's another. Would you believe that a few days' mail brought letters from both Bill Broadley and Nate Rambo, who were R/C buddies in the Pennsylvania/New Jersey area in the early '50s? Bill is still in West Chester, PA, but long ago, Nate migrated to Camarillo, CA. For those who are wondering, Nate has gone into the Experimental Aircraft Association movement.

"GALLOPING GHOST" STORIES

In the June '92 issue, using what information I had on hand, I discussed "Galloping Ghost" (GG), a method of obtaining two controls with a single-channel radio. In the early days, only single-channel radios were available and there was a great desire to have more controls and proportional action. GG was initially a mechanical method that attempted to satisfy these desires and, for some, it proved superior to just ("bang-bang") rudder only.

In that issue, we couldn't tell you who invented the GG concept, but now we know. Bill tells us that *he* contrived the birdcage-like contraption that integrated rudder and elevator using a pulsing motor actuator that also provided a form of propo action.

To understand what Bill tells us, you must realize that the receivers of that time were especially susceptible to any noise generated by the model. Metal-to-metal connections, such as pushrods to control horns, were positively a no-no. Anything



A photo from the first Tournament of Champions shows three of the LARKs who were responsible for inventing early digital radios. (They were also members of the Valley Flyers.) Left to right: Cliff Wierick, Maurice Woods, Phil Kraft and Doug Spreng.

that rattled could cause a disaster. Later, a "noise-trap" circuitry, which modern radios still have, eliminated the problem, but that improvement took time!

Bill says that he and Nate developed the wire linkages that were attached to the rudder and elevator that provided control as the actuator pulsed.

Nate described the system in the English *Aeromodeler* magazine. It was later widely publicized in our American magazines.

Bill says that the noise of the linkages rubbing together plagued

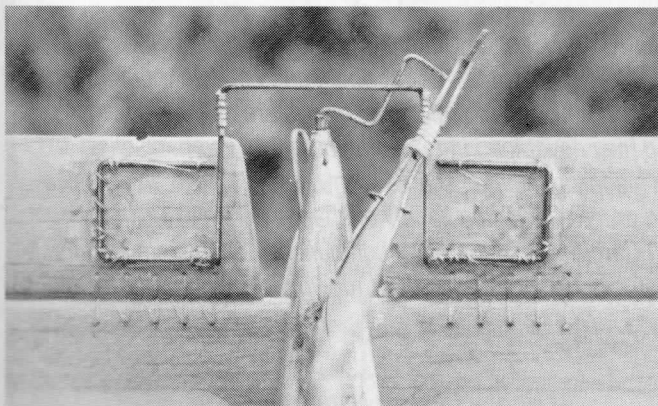
his invention. If only he had the plastic tubing that's available today! Too often, we take the little niceties we have now for granted!

Bill's invention was soon outdated by Don Brown's transmitter, which effectively mixed the signal and created similar results without the birdcage linkages. How he did this with only single-channel equipment is beyond my comprehension. Perhaps someone can enlighten me? We do know that Don had pulsed, proportional multi-systems that used more than one channel.

Bill intends to donate his original GG system to the AMA museum—a most worthy effort!

LARKS SONG OF SUCCESS

In the '50s, Nate became deeply involved with the Los Angeles area R/C movement and its prestigious clubs. As an active



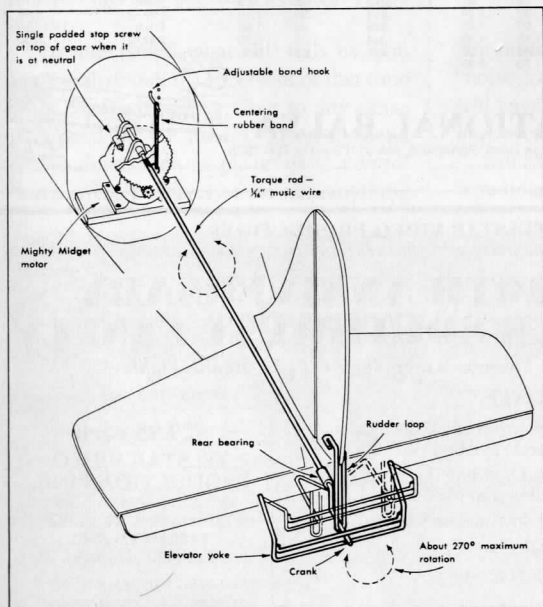
Many people tried the Galloping Ghost. This is one man's version.

GOLDEN AGE OF R/C

R/Cer, he observed the early propo systems' developments, which pointed the way to today's equipment. Nate says: "While the Japanese produce most of today's R/C systems, it was just a few Los Angeles area modelers who pioneered the idea." I should add that American manufacturers first offered propo systems, but down the road, they allowed the Japanese to take the market.

The LARKs (Los Angeles Radio Kontrollers) was one of the nation's top R/C organizations at that time. Nate tells us that avid R/Cers thought nothing of driving 50 to 100 miles to attend club meetings. The reason? That was where the much-needed knowledge of electronics and model design could be found! Famous modelers like Dunham, Bonner, Pullen, Mathis and Spreng, who were on the leading edge of propo at the time, were at each meeting.

In his letter, Nate simply bypasses the reed era and goes into what was the beginning of our modern systems. He recalls that Pullen and Spreng were TM technicians at the renowned Pasadena Jet Propulsion Labs, and they applied their work-oriented knowledge to the needs of R/C.



This is Bill Bradley's Galloping Ghost invention, which provided two proportional controls with only one channel.



Dean Kenny was an active LARK member. The transmitter looks like early F&M reeds. Note the LARK decal on the stabilizer.

With such a large and prestigious membership, an average R/Cer could easily be lost in the LARK's shuffle. Also, the LARKs dominated the flying at both of L.A.'s major fields. This congestion led the members to split and form other clubs. As propo systems became commercially available, the attraction to the LARKs dwindled, and so did their membership. In the mid-'60s, the Valley Flyers (VF) emerged as the elite club it is today, with a mixture of novice and advanced R/Cers.

VALLEY FLYERS TAKE OFF

Nate adds to our knowledge of early propo endeavors with the following: from '61 to '63, Jerry Pullen designed and built the first successful system. The reliability of this system was contest-proven by experts like Spreng, Wierick, Smith and Rambo.

Following that invention, Pullen teamed with Spreng to develop a digital system.

Spreng's advanced servo amplifier design is unsurpassed. Later, Pullen became Kraft's electronic specialist; the "P" in the Kraft KP Series honors his efforts.

Other Valley Flyers also got into the act. Howard Bonner's great effort is well-known and so are Orbit's and Kraft's. Dunham notes that propo was the death blow to reeds. Many ranking pattern fliers favored VF members Bill Salkowski and Jim Odino's custom-built "S&O" systems.

Another notable VF was, and still is, engine-genius Clarence Lee. In the early days, Clarence developed some of the finest R/C engines ever produced. His Lee .45 was a perfect jewel! Clarence went on to develop engines for the Veco Corp.

The VF pattern people were piling up considerable air time, so they were qualified to test Clarence's prototype engines. When some VF members got into pylon racing, it was Clarence's attention to their engines that led them to world records. Clarence became a K&B expert and continues a variety of engine work. He was a great help to me during my racing days—an especially wonderful guy!

I hope you enjoyed Bill and Nate's input to your OT R/C place! ■