

My Love of Helicopters Part IV

by Walt Schoonard

One of the most enjoyable aspects of radio-controlled helicopters is sharing them with others. I have always enjoyed helping others ever since I got started flying R/C back in 1950. That is why I became a Contest Director, to conduct and to hold contests to promote the sport and to help others enjoy it, too. When I became involved with R/C helicopters, it presented a whole new challenge because at the time at least, there were no tried and true methods of setting up an R/C helicopter model – and certainly no practical means to teach someone to fly one.

When I went into the model helicopter business, this began to occupy my mind constantly. I knew how to build and set up my helicopter, and I had taught myself how to fly, but this had taken a very long time, and I was sure that many people might get started in this sport, become discouraged, and then quit. They, in turn, would discourage others – so instead of the R/C helicopter sport growing, it would die.

At about this same time, many manufacturers were advertising that their machines were great trainers, easy-to-fly, and that anyone could do it. People were buying them and then finding that this was not true, and they were getting out of model helicopter flying. Rumours were running rampant that flying radio controlled helicopters was impossible! Thus, as you can see, I had ample reason to be concerned, if I was to be successful in the model helicopter business.

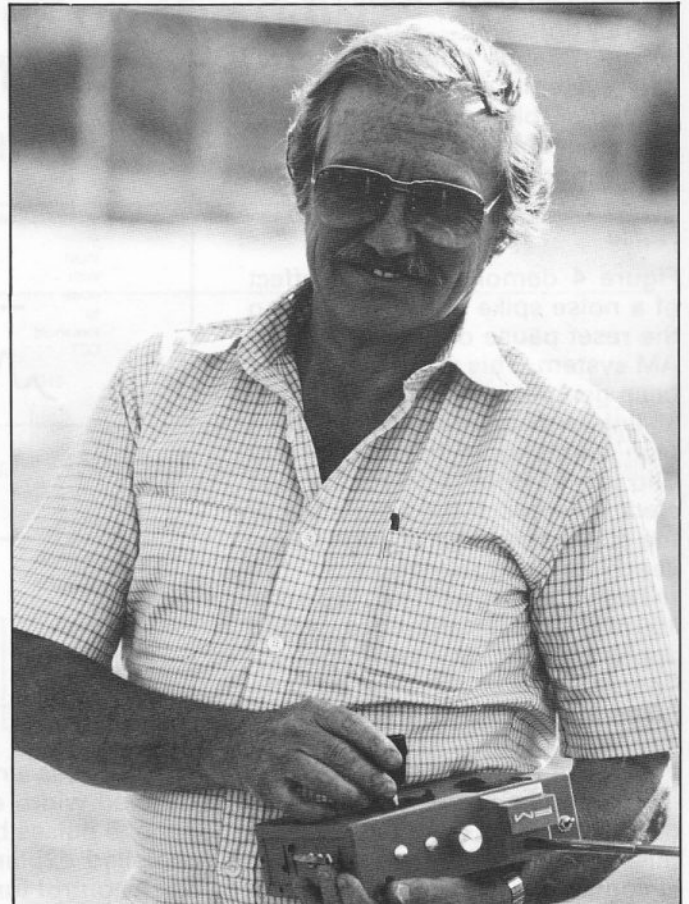
The first thing that I had to do was to get the setup procedure duplicatable and simple enough so that anyone could do it – no matter where he or she lived. The development of this procedure was started, using a Schlüter Heli-Boy with collective. The Heli-Boy was what I sold, and I was convinced after the first time that I flew a collective pitch model that this was the only way to go.

It is quite obvious that a helicopter can be set up in many ways, and it will fly; however, it may not fly well for everyone. With this in mind, I developed a setup procedure that was simple and practical to do, and if followed, gave an identical set of results. Along with the setup, it became apparent that it would be easier if I had certain tools. These tools came from necessity and from the fact that I am inherently lazy and so I want to do no more than is absolutely necessary! I developed a tool called a coning-angle tool to set the dihedral of the blades. There was a couple of pitch gauges on the market, but to my thinking they were crude, and no two of them gave the same readings. So if I was to give a set of pitch settings, in order for them to work, a pitch gauge had to be developed that would read the same for everyone. The pitch gauge could not work, if each time that you touched it as you adjusted the blade pitch, the reference (which is in the flybar) moved too – and you had to start all over again. From these needs, I developed a pitch gauge and a tool called a flybar lock. With these handmade tools, I was soon able to set a Heli-Boy up with recordable perimeters and go out and fly it to note its response. Through this trial and error method, I perfected a setup procedure that was duplicatable – and best of all, got the best possible performance out of the engine and the helicopters.

Dozens of Heli-Boys were set up this way – some that were used and others that were set up as they were built. The procedure was perfected so well that I could set up a new model and take it out and fly it right off the bench most times with no further adjustments other than a tweak of the needle valve.

I began to tell others how to do it, and they reported the same results. It was not long before people were calling me, asking about the setup and saying that they were willing to pay for it.

I first had the flybar locks produced by the hundreds and then by the thousands. Then I had the tooling made to produce the Schoonard pitch gauge. When all of the needed parts were



located and purchased, the tooling was done, the plastic parts were made, the packaging was worked out (including decals, plastic sleeves and boxes) and one Schoonard pitch gauge was ready to ship, I counted up all of my costs and then nearly had a heart attack! Not including the advertising, I had over seven thousand dollars in the first pitch gauge! I figured out the retail price, including dealer mark-up, and how many I had to sell in order to amortize my costs. I had several on-going magazine advertisements, which by now had produced a large back order – so all that I had to do was get them assembled with instructions and start shipping. In two weeks we shipped out six hundred pitch gauges, selling at \$19.95, and you don't have to be a genius to figure out that it brought a return far beyond my investment. From then on, I was home free. I sold several thousands of them until Dieter Schlüter came out with a much better pitch gauge, and I then stopped producing mine.

Each pitch gauge had its own instructions, and these instructions recommended the flybar lock and the coning angle tool so orders began to pour in for these items. I still had to get my setup procedure available to anyone who wanted it, but in written form, it was just too long for anyone to read. A friend of mine suggested that I put it on a cassette tape and sell it that way. Well, I had never done anything like this so I had some reservations about it at first. However, after trying a sample tape, I decided to 'go for it', and this opened up some brand new opportunities. Where did I find the time for all of this? The answer is simple – "I love helicopters."