

My Love of Helicopters Part II

by Walt Schoonard

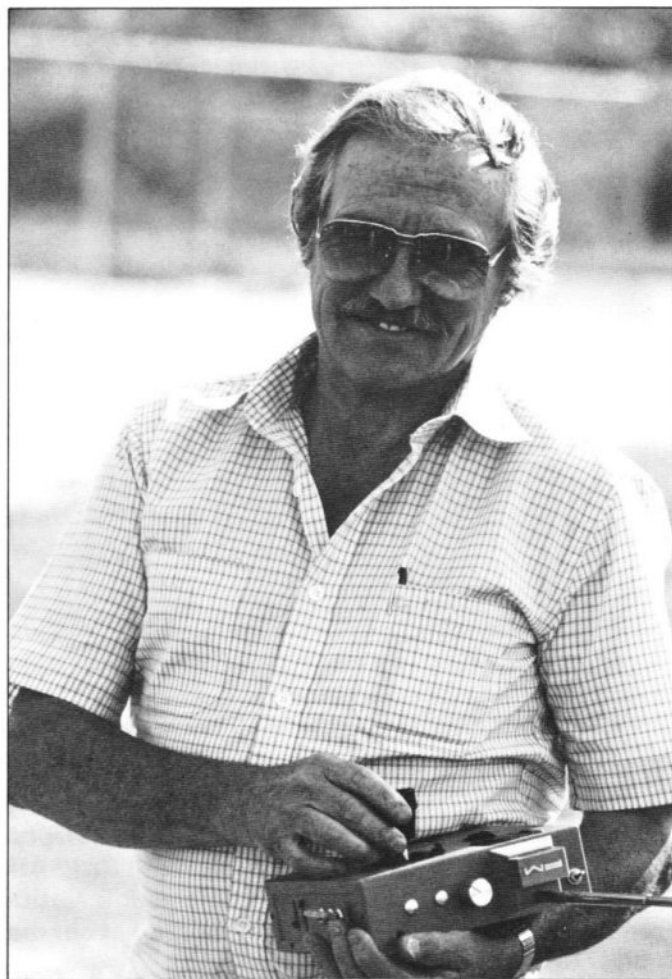
My over confidence was soon to be shattered, and I do mean all to pieces! Up to now, I had never seen a flying machine of any kind that I would not or could not fly. I would like to tell you that the great day on which we were to make our first flights dawned bright and clear; but, in fact, the day was rainy and dark, and maybe this was a blessing in disguise. One part of the blessing was that the invited spectators did not show up at all. Disappointing as this was at the moment, it sure was a blessing when we began to have problems.

Those early Cobras had a U-belt to start them with, and I had made a pulley to go onto my starter to accept this belt. Now all that I had to do was start the Veco-Lee engine, set the idle and lift this beautiful machine up into the air and experience the ultimate thrill of helicopter R/C flight.

By now the rain was falling pretty hard and showed no signs of stopping. Not to be out done by the weather, I moved all of the cars out of my auto-body shop so that I could fly inside the building. As you can see, I had nothing but indomitable confidence. I soon had the machine fueled up, the glow plug hooked up, and the starter turning the Veco over. It fired up – but backwards; and when it did, the fan kicked loose, and now the engine would not turn over. The way that the Cobra was constructed, in order to get to the fan, you had to remove the landing gear, all of the pushrods, the head, and the entire drive-train to the head and tail. When faced with this rather large job, I remembered the reference in the instructions many times to a material called 'lop'. Whoever heard of 'lop'; and, even if they had – who cared? Well, 'lop' in German means Loctite, and I was now going to become acquainted with its fantastic holding powers. I was also going to get acquainted with temporary and permanent Loctite. Permanent Loctite is great when you plan to put something together forever, but not on these model helicopters!! This only meant a little delay to get the fan and secure it with Loctite and a lock washer.

While I was doing this, my friend tried to start his identical Cobra. Yes, you guessed it, his kicked the fan loose, too. So now we both went to work to correct this problem. With some very deserved self-criticism and about an hour's hard work, we soon had both Cobras ready to try again. The next try at starting the Veco was successful, and I soon had it idling and purring like a kitten. The radio even worked with the engine running.

With the total absence of wind and rain in the shop, this was going to be a breeze; however, I was in for some new surprises, to say the least! All of this time, while checking to see that everything worked and that all of the controls were going in the right direction, the engine had been emitting a cloud of blue smoke, and soon the shop was so full of smoke that I could hardly see – let alone breath! It was still raining outside, but not hard enough to stop me now. I tied four knots in a shop towel and put it on for a hat and carried my beautiful helicopter out into the rain. I carried it to a safe distance from the cars and the



building, stepped back a few paces and confidently applied a little power. Two things happened at once. The Cobra started to turn left and tip over to the left also. I gave it right rudder and right roll and expected it to respond immediately. The response was very slow, to say the least, and almost not apparent at all. I trimmed some right into the rudder and swashplate and tried again. The left turn was now gone, but it still tried to tip over. It soon became abundantly clear to me why Dieter Schlüter had provided the wide-training gear in the kit. It was home in the box so I had to improvise something on the spot. Not to be discouraged, I took a couple of push-broom handles and some small lengths of rope and tied them to the struts cross-ways to the fuselage. Now, with the tipping-over problem solved, I went back to flying the Cobra.

It wasn't long before I had it a couple of inches off the ground, but it seemed to have a mind of its own! I had been used to Formula I and fast pattern ships that had instant responses. I soon noticed, while trying to hover the 'Hiller-only Cobra', that when a command was given and a motion started, bringing the sticks back to neutral did not stop the movement of the helicopter – I had to remove the previously induced command. This was very disconcerting. The Cobra would lift its nose and then its tail and be going

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sideways all at the same time. It would also try to spin to the left and then to the right and then back up towards me, and it seemed as if I had no control at all.

Try to picture the scene. A dark and rainy day, a whirling, smoking giant of a helicopter chasing this guy with a shop towel knotted in all corners and draped over his head, soaked to the bone and holding a Kraft two-stick Mode-one transmitter in his hands as if trying to defend himself from this smoking uncontrollable contraption!! I found out later on just how silly I looked, for my friend's wife had recorded it on Super 8 movie film. It did provide a lot of laughs, but no discouragement as I was determined to learn to fly this machine no matter how silly I looked or how long it took!

On the second tank of fuel, I began to have serious pain in my forearms, and the transmitter felt like it weighed a ton or more. Other problems began to show up. Nuts, bolts, set screws and what-have-you began to come loose. The longer I ran it, the more things rattled or fell off. It was so bad that I could not keep up with it so I decided to take it all apart and use Loctite wherever prescribed. This took a few evenings, but when it was reassembled, I had a well-deserved new confidence in my beautiful Cobra.

As you can imagine, my friend had practically the same results and the same problems, except for one factor – the fact that he seemed to be learning faster than I was. The only real difference in the two of us was that he had less radio-control experience than I, and he was flying a Kraft single-stick transmitter. At our next 'flying or trying' session, we made some comparisons as to which transmitter was the easiest to learn to fly with.

In order to shorten the learning time, I decided to try to find a place where we could fly at night. Each place that we found was rejected because we could not get permission to fly our contraptions on their property. They all gave some silly excuse that they did not want to be responsible for any possible property damage or injury on their property. After an exhausting effort, I finally found a shopping center with arc lights not more than a mile from my home. With the aid of AMA insurance, I acquired permission to use their parking lot to fly our beautiful helicopters whenever we wished. Indeed, this proved to be a great help in my learning period.

Each night (if our machines were in flying condition) we would converge on this parking lot and proceed to beat the air and the asphalt into submission! At first we would show up almost every night, sometimes for only a few minutes because something would always go wrong or get broken, and we would have to run home to repair it and try to get back to the lot before 10pm because that was when the lights would go out for the night. As I have said before, my friend was learning faster than I – and this was very disturbing to me. One night I asked him to let me fly his Cobra with his single-stick transmitter. He wasn't too keen about this as he had seen me thrashing my machine about doing considerable damage to it while his helicopter was still like new. I finally convinced him that I would be responsible for any damages should they occur. We were both in for some real surprises. After he showed me how to hold

his transmitter and what switch did what, he said "goodbye" to his helicopter, absolutely convinced that I was going to smash it all to pieces. I gingerly felt the controls, while he nervously screamed, "No, no that's too much – or too little – or don't do that!" His fears were totally unfounded for I immediately lifted the Cobra off the ground without skidding about and brought it into a perfect hover. In fact, I hovered a complete tank full without landing; and when I did land it was soft and very controlled. Wow, you talk about being excited – I was excited beyond belief! We were congratulating each other all over the parking lot, and I'm sure that the ever-present spectators thought that we had gone 'bonkers'.

We had formed a habit of going to a local restaurant after each 'flying or trying session' to debrief each other and to try to learn more by talking it over through and through. As far as we knew, we were the only two people in the USA who had radio-controlled helicopters so we had no one else to talk to and compare notes with. Many times we felt just like the 'blind leading the blind'; and, of course, our fellow R/C club members were sure that we were crazy. But this night when we showed up at the restaurant, many people joined us in our celebration.

At this time, I was driving a white Corvette with a trunk luggage rack, and this is where I carried the big Cobra to and from the parking lot. I would fasten it down with bungy cords cross-ways to the body and carefully drive out to the lot. The Cobra stuck out about a foot on either side so that I had to be very careful while driving. One day someone asked my oldest son, Ted, if he knew who this rich guy was who drove around the neighborhood in a white Corvette with a huge helicopter tied onto the trunk rack. My son proudly told the inquirer, "That's my Dad!"

I am sure that by now you are all wondering about this single-stick transmitter success. Needless to say, the next day I ordered a new radio with a single-stick transmitter. My learning curve had an immediate upward climb. I do not wish to leave an impression that *you* should run out and get a single-stick transmitter and start learning to fly with it. However, this made a dramatic change in my attitude toward what is good for one person and what is bad for another. I am able to do anything with my helicopters that anyone else can do with Mode One or Mode Two or with 'Commode' as my friend Mike Mas flies. He has the swashplate on the left stick, and no one is going to say that he hasn't been successful! I have come to the conclusion that some, if not all, of us 'fly the transmitter.'

Night flying has been very helpful to a lot of people, but it does have some problems too – such as not being able to see the fuel level or the arc lights bouncing off the rotor system, which causes a serious illusion that is mesmerizing and can cause disorientation. All of these things were overcome one by one. We developed blinking-light fuel sensors and dulled the finish on the rotor blades., and then we learned to fly further away from the arc lights and most definitely not below them. We also learned to stop flying at 9.45pm and to pack up our gear while the lights were still on. At one night session, I had a real scare when I was flying around about 20 feet high, and the lights suddenly went out! Had it not been for the blinking light on the fuel sensor, I would not have gotten the helicopter down to earth in one piece.

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