

PILOT PROFILE: MARK KINER

Model Helicopter Technique Magazine

For months folks have been telling us, “Hey, you ought to do a profile on Mark Kiner.” After we decided to feature him in this issue, we were surprised and delighted to learn he lived in Oklahoma, less than an hour from our new home! It was a treat for us to do a Pilot Profile interview in person. Over a steak dinner at the Cattle Baron restaurant in Perry, Mark and his wife Wanda shared favorite stories from Mark’s years in the hobby. Later at the Kiners’ home, we got a close look at the Millennium.

Fellow Oklahoman Kent Officer once called Mark “the Obi-Wan Kenobi of model helicopters.” The nickname has stuck, and watching him fly, we understand why! We learned a lot from the interview with Mark, and we hope you will, too.

Mark, how old are you, and where do you live?

Well, let’s just say I’m older than Curtis and younger than Gordy Mead or Ron Lund! I live in Perry, Oklahoma, which is about 45 minutes north of Oklahoma City.

Are you originally from Oklahoma?

Yes, I grew up 90 miles west of Perry. My wife Wanda is from a little town called Cleo Springs and I’m from a town called Aline. I had seen Wanda, but I didn’t get to know her until our senior year of high school. Our schools consolidated and there were twelve people in our graduating class.

Was that before or after consolidation?

After! When I got out of school, I left Oklahoma for a while and worked for a couple of agricultural equipment manufacturers in Kansas, doing engineering and design work. About 22 years ago I took a job with Ditch Witch and moved to Perry. I started out in design, then went over to manufacturing for eight or nine years, and I'm currently R&D manager.

How did you get involved with R/C? We assume you started with airplanes?

Yes, my first experience was an uncle's escapement rig way back when I was about nine. Then the first guy I worked for in Kansas built an airplane, but he never did fly it. I started playing around with it, and he finally ended up giving me the plane and the Heathkit radio to play with during the time I worked for him. So I flew that for a while.

The first helicopter I was ever around was back in the late 1970s. My cousin Mike had bought an American R/C Mantis, and that thing just drove him nuts! We had an old K&B 40 and we were running 5% nitro. It would sometimes actually clear the ground, but never for long enough to work at getting a hover. Then something would come apart. The tail rotor would slip and it would swing around and bang something.

That experience was bad enough that I didn't buy a helicopter for years.

What made you decide to give it another try?

In 1984 I saw a GMP Competitor in a catalog and thought, "That's what a helicopter should look like." So that's when I got my first ship.

My friend Robin bought a Baron 30 around the same time, and we went out to learn how to fly. Neither one of us knew how to adjust the engine on a helicopter. We'd been warned, "Helicopters heat up the engine and burn the motors up." All the airplane guys were giving us a hard time. We were running about 800rpm head speeds, and I could barely lift off the ground.

Finally I get to where I think I'm ready to fly around, and I went up to Ponca City to see Beefy—Bob Braden. He was “the” helicopter guy in Oklahoma, just about the only one who was successful from clear back in the no-gyro American R/C days. He said, “Let’s run the head speed up a little more.” But Beefy was kind of an old school, just-fly-around guy. He probably brought it up to 100 rpm’s! Then he says, “Well, why don’t you fly it around?” He just kind of talked to me, no trainer cord stuff, and in almost no time I could go out and do a circle, come in and land it.

When did you start flying competitively?

I went to the Nats for the first time in 1986. They convinced me to fly FAI, and I really shouldn’t have. I probably should have been in Class I. I had a worn-out motor and didn’t even know it until I got down there. With the high temperature and humidity at Lake Charles, my ship wouldn’t even do a loop. I wasn’t last though. I was second to last.

The 1987 Nats were a letdown for me. My number one machine crashed due to radio lockout during the practice session, so I was left with an old stock Competitor. I ended up placing eighth. I felt like I was probably capable of finishing in the top five, but not much better. I was tired of practicing FAI. When I listened to Curtis and his father talk, I realized I’d have to fly more than 50 gallons of fuel a year in order to finish much better than I had. I didn’t think I could afford that, and I wasn’t sure I wanted to go back and get eighth every year!

The other thing was, I had just taken a manufacturing job that used up a lot of my spare time. Plus my kids were involved in a lot of activities. I felt like this would be a good time to lay out for a while. I kept my Shuttle, and I intended to continually play with it. Then it seemed like one month ran into the next, and one year ran into the next, and it just didn’t happen. It ended up being nine years before I got back into it seriously.

Wow, that's a long time to be out.

There were definitely some changes in the helicopters during that time! I had bought a Schluter Scout right before I got out, and it stayed mostly in the box the whole time. I finished building that in 1995 and brought it to the Mount Pleasant fun fly. It had all bushings, semi-symmetrical plastic blades. I had a U-pipe on it, which was also ancient technology. The engine was a vintage 1982 OS FSR 61 with a Super Tiger carb. I got a lot of questions about this antique helicopter!

Two weeks before Mount Pleasant Sandy Abernathy and I hooked up the glow plug, hooked up the starter, and it just fired off instantly. I lifted off into a hover and it was right at 1730 rpm. That thing was flying great. A guy came up to me and said, "Man, you must know a lot about setting up motors, because we've been watching your head speed and it doesn't change." But the U-pipe (or any tuned pipe) does that. You don't have to know anything! If you get a halfway close throttle curve, the pipe acts like a governor. I haven't been able to get a motor to run like that since.

You ought to put a U-pipe back on it.

I've been thinking about it! But anyway, it was a lot of fun watching people's reactions to that Scout.

So it sounds like you got back into helicopters in 1995?

Not for long. Around that time we had a fire and were out of our house for fourteen months, and I didn't do anything again until February of 1997. So when someone says, "How long have you been back in it?" the answer is, "I've really been back in two years, but I had a month or two back in '95."

When '97 rolled around, I told Wanda, "Find someone to mow the grass, I'm flying all summer." I burned what I thought was a lot of fuel until I got to talking to Todd Bennett and found out what a lot of fuel was! I burned about 60 gallons in '97 and almost as much in '98.

We generally ask about quantum leaps, but from what you said it sounds like your quantum leap was laying out for nine years and just letting the technology leap ahead without you.

I wanted to wait for them to figure out how to get radios to work! That was so frustrating in the earlier days. I bought one of the first pre-ABC&W PCM 9s, and they would just lock out. I was doing hover practice in the backyard, getting ready for the '86 Nats. The helicopter was trimmed out really good, and it just sat there and hovered and hovered and hovered—it was locked out, and stayed that way until it finally ate a chain link fence. And I'm going, "This is a stupid hobby!"

Now there's a great quote for the interview!

Of course I've had some radio lockout trouble this year, but it's only been recently. Until now I was beginning to think our radios were bullet-proof. Something's happened in the past year or so.

It's only been in the past couple of years that the FCC has started auctioning all the available frequencies. There are so many more pagers and cell phones, now, and the RF has to go someplace.

When they were splitting up the frequencies in the '80s, that was a terrible time for helicopters. A plane is at a higher altitude and you're flying faster, so you just pass through glitches. A helicopter moves slower, and it's probably not going to get out of that glitch zone

before something happens. Now that we've got all this RF interference, I'm afraid it's going to start happening again. It's going to be ugly. I lived through it once!

These days you're a Robbe rep flying the Futura SE and the new Millennium, correct?

Yes, I bought a Robbe Futura Sport just before Christmas of '97. I was curious how the Futura Sport compared to the Ergo Sport. I think the Ergo's fine as far as a low-cost machine that's quick to repair, but I wasn't that impressed with it overall. And the Futura Sport has a driven tail; I just have to have a driven tail. Unfortunately, I crashed that ship a couple of times in a row, not long after I bought it. The second time I called up Ron Lund and he said, "How many more times are you gonna crash this thing?" No sympathy whatsoever!

How does the Millennium compare with the Futura? Can you run through some of the differences and similarities for us?

The Millennium is a stacked frame design, where the Futura is what Schluter is famous for—the narrow, flat frame they've been using since the Champion. The Millennium has a bunch of very rigid spacers everywhere. So you've got lightweight, relatively thin stacked frames, but the spacers make a very rigid radio compartment. You can twist it back and forth and there's almost no deflection. Although the Futura is pretty rigid, you can do a little bit of cranking around and get some deflection. Realistically, does that show up in flying? I don't know, but everybody seems to like rigid, and the Millennium is rigid!

The tank mounting is in the rear on the Millennium where it's in front on the Futura. The Futura does have a "contest mechanic" that has the tank in the rear, so you've got that option. But for FAI the rear mount is a good thing. I don't know how it is now, but in the old days, hovering FAI maneuvers were always first and aerobatics were last. A forward CG was nicer for

aerobatics, so as you burned the fuel off the CG moved up. But with the Millennium it's so close to being under the mainshaft that there's not much change. The tank location is a little closer to the CG and in the rear.

The Millennium also has a forward-facing engine versus a rear-facing engine on the Futura, and it has a one-step gear reduction. The Futura is a two-stage reduction where the primary reduction is a belt. They're both approximately the same overall ratio.

[Some text from the original article has been omitted]

How does the Millennium perform in flight? Are you as pleased with it as you have been with the Futaba?

So far, yes, although I've only got about 40 flights on it at this point. It's very smooth, and it's really a nice-autoing machine. In fact, I got so mesmerized by the autoing capacity that I crashed the thing, and now it's waiting to get rebuilt! I was trying to do a rolling circle auto. I got three-fourths of the way around, it was nice and slow, and I was thinking, "A monkey could do this!" Then all of a sudden the blades got real slow. Evidently when I went to roll to the right side up from inverted, I must have missed the collective a little, because I started to roll over and the blades just stopped. I flipped the hold switch off, and that was mistake number two, because the engine coughed and I was waiting for it to grab instead of flying. I found out the Millennium will not take out a barbed wire fence!

The fence won?

The fence won. I've broken the Millennium twice now. The first time the crystal fell out of my receiver when I was flying over a ball park. When it went down the rotor blades clipped the top of the home-run fence. It hit pretty soft for a "self-auto"! I wrote that story for my web page. It's called "The Millennium Is a Home Run!"

What's the address for your website?

It's rcplanet.com/rotorhead. I've got pictures of the Millennium on there, and quite a bit of other information. I stay pretty active online.

What advice do you give to pilots who are either just getting back into the hobby or starting for the first time?

The simulator is definitely a must, even though everybody says that. Another thing is, don't think you've got to have the best of everything. You should probably get the best machine you can afford, and you need something you can get parts for. But you really don't need all the most expensive equipment when you're learning. I also tell people that John Wayne himself, if he came back from the dead, couldn't fly one of these things without help. And I tell them everybody crashes. There are only two kinds of pilots, those who have crashed and those who will. So don't let being afraid of crashing stop you.

Also, every beginner always wants the best pilot to trim out their helicopter. Sometimes the guy who's been flying with you every day, who's just barely into forward flight, might be better at trimming out the helicopter for what a beginner's going to be doing. There isn't one perfect adjustment for a pilot as he progresses. The adjustment that I give a guy when he's going to learn to hover isn't the same as what I'll give a more advanced flyer.

That's a good point. Any other words of wisdom?

Probably the best advice is, if you really want to, anybody can fly a model helicopter. Being good isn't a matter of who gets there first. Some pilots pick things up really quick, and others pick things up really well. Craig Mallory was one of those guys who had the stick-to-it-iveness. We were both going up to see Beefy in Ponca City at the same time, and he had a heck of a time learning. But he was having fun, and he can do anything he wants to do right now. He

seems to win at the top class at Mount Pleasant every year. I think the important thing is to go at your own pace and do what's fun for you.

I remember I was practicing FAI one day out in the backyard. These guys I work with were coming back from the golf course, and they're standing out in the street hollering at me while I'm trying to fly. It's the same old question: "How come you're not flying high?" I said I was practicing the FAI pattern, and that was mostly hovering at eye level. One guy said, "Well, is something wrong with the motor? Make that thing go up there high!" I was thinking, "Is he deaf? I just explained what I was doing!" I told him, "You've just been playing golf, let me talk to you in golf terms. Here I am setting up for a tough three-foot putt, and you're coming up to me saying, 'How hard can you hit the ball?'" Well, the guy drove off, insulted!

So my advice is to do what you want and don't worry about what other people are telling you. I've seen more helicopters broken because someone gets goaded into something. Most crashes occur right after the words, "Watch this!" There used to be so much pressure to get into forward flight or to do your first auto. Now there's pressure to do flips or 3D. Everybody wants to say they're a 3D pilot. I don't even like that word, we need a better one.

How would you define 3D style flying?

It's complete three-dimensional orientation. It's not about being fast, it's not about being low, and it's not about doing blinding pirouettes or flips. To me, 3D is being able to precisely and smoothly control the helicopter in any attitude with complete confidence and to know you can tell what it's doing.

You've hit on the key. It's pilot orientation, not necessarily what the helicopter's doing.

When I got back into the hobby, I hated 3D. The whole idea just bugged me. I watched what they were doing, and to me it looked like mass confusion. Then at the '97 IRCHA Jamboree, I saw Curtis fly for the first time in ten years. And I thought, "OK, now I see what 3D is all about!" You know how they do the "stump Curtis" thing?

That's where people like Gary Wright stand there and call out the craziest combinations of maneuvers they can think of, and Curtis has to fly them?

Right. At IRCHA '97, they asked him to do a figure 8 in a vertical plane. It was like what a Cuban 8 would be, except he was supposed to do it backwards and rolling. He'd never actually done one, and I believe he got a little disoriented at one point. But he made it through the whole maneuver the first time. If you get to where you're completely three-dimensionally oriented with the helicopter, which obviously Curtis is, you can probably do almost any maneuver that the machine is capable of with just a little bit of practice.

I think IRCHA's new Pilot Proficiency Program is going to help people get the orientations down. At this point there are seven levels of proficiency, and you have to know all the maneuvers in each lower level before you can try for the next one. The PPP shows you where the holes are in your flying. For example, for hovering rolls, the PPP requires you to do them rolling left, and rolling right, left and right looking at the left side of the helicopter, left and right looking at the right side of the helicopter, looking at the tail left and right, looking at the nose left and right—all those combinations. You go out and try it, and you find out, "You know, I never do a hovering roll to the left!" Once you get dialed into one direction, you don't do it the other way. You get used to doing things by muscle memory.

AT IRCHA last year Curtis and some of the others were talking about whether they do rolling circles clockwise or counterclockwise, so they decided to switch and go the opposite way.

Curtis tried it and said, “This is hard!” I think he finally did make it around that day, but he had to make several attempts. At the time I didn’t know what they were up to, but now I realize they’d been discussing the PPP. They were finding out where the holes were in their flying.

Of course you don’t have to do the maneuvers perfectly, you just have to physically get through it. Mark Johnson told me, “I’m just going to fly in a circle and throw in a roll every now and then!” Level 5 looks like the hard one to me—rolling circles left, rolling circles right, and it’s got all those hovering roll combinations. It’s totally nuts. But that program is going to do a lot for orientation, I think.

Who would you say is the mastermind behind the PPP?

I’m not sure. I know Gary Wright is almost fanatical about doing things in order—left and right, backward and forward—so I’m sure he was involved. I got the impression David Harkey and Bill Schatz were heavily involved. As I understand it the whole group at last year’s Jamboree got to kicking it around, and they had a really good discussion during the IRCHA meeting. I didn’t go because I wasn’t an IRCHA member at the time, so I don’t know who actually introduced the program. Bill Schatz is keeping the IRCHA website updated. He’d be a good person to talk to.

Contests in the U.S.A. are so poorly attended these days. Do you think that maybe we should just blow away Class I, II, and III and replace them with the PPP levels? Could you see that becoming the new contest platform?

I suppose it’s possible. There’s a lot of similarity between the first few PPP levels and the AMA classes. It seems like level 1 is almost identical. But some of the upper level PPP maneuvers are so hard, that might be a problem.

On the other hand, it might make people want to strive to reach the highest level they could.

Yes, it could. When I first heard about the PPP, I wasn't very gung ho about it. I thought, "Oh, yeah, everybody's going to be claiming to be level 7 now." Then I got to talking to a couple of guys, and I read through the lower levels and saw how detailed the requirements were. I realized the program was going to encourage people to try the different levels, and it was going to make better pilots out of everyone.

So what's next for Mark Kiner?

I plan on burning even more fuel this year, and I feel like I'm still making good progress. When I stumble across something that's hard for me, I deliberately fly in that spot and work with that because I don't like to have a spot that feels rough. I essentially thought I had all the orientations down. There's right side up, forward and backward, nose in and nose out, and there's upside down nose in and nose out, and once you can fly in all the basic positions you've got it, right? I thought that all I needed to do now was to think up neat new maneuvers, or watch what Curtis or Gary did and copy that. Then the PPP made me discover all the holes I still have in my flying, so now I'm going to fill the holes. That's what I've got planned.

Mark, we appreciate your time and openness in answering these questions and sharing your accumulated knowledge and experience with us!