



The AMA History Project Presents: Biography of SKIP MILLER



Written by LE (09/2009) and SM (12/1977), Reformatted by JS (2019)

The following was published in Lee Estingoy's Radio Control Soaring column in the September 2009 issue of Model Aviation magazine.

Note: Skip Miller was inducted into the AMA Model Aviation Hall of Fame in 2016.

Interview with the first Soaring World Champion

RC Soaring as an art, science, and sport has come a long way in the last 30 years, and Skip has been there for most of it. He was the first World Champion of our sport, winning Gold at Pretoria, South Africa, in 1977.

He has been on six U.S. teams, including the first U.S. Gold Medal team in F3B (FAI Multi Task Thermal Soaring) and the first U.S. Gold Medal team in F3J (FAI RC Thermal Duration). He was the first pilot to complete the Great Race Course, approximately 76 kilometers, in one launch - something that had eluded the country's best for more than seven years.

Skip has won numerous national championship titles in many of Soaring's independent venues and the overall AMA National Championships. He was also the prestigious LSF (League of Silent Flight) Grand Champion and overall winner. His World Championships-winning Airtronics Aquila was on display for years at the Smithsonian National Air and Space Museum in Washington D.C.

Perhaps an even better measure of Skip's skills is his ability to teach and coach. He is now mentoring Cody Remington, who was crowned FAI F3J Junior World Champion two-and-a-half years ago in Martin, Slovakia. Cody is one of the top Senior pilots in the U.S.

Skip was kind to sit still long enough to answer a few questions for me.

LE: How have you maintained your intensity for RC Soaring over three decades?

SM: I have always been very fascinated by flight. I share in the magic and amazement of it all and think that is what has held my interest keen for such a long a time.

Back in 1977 [in the December issue], I wrote an article for *MA* titled "The Long, Long Trail," which documented my rise to World Champion status. Little did I know that my trail had just begun.

Now as I look back 32 years, immersing myself in the high-level competition environment, I am amazed that I still have held my "competitive edge" for such a period. I have always approached RC Soaring as a sport, and this approach has kept me excited.

LE: I've spent enough time with you fliers to know that you fly at a level that we duffers can only

dream of attaining. What does it take to get to your level? How much is equipment and how much is simply skill?

SM: That is a pretty deep question that has a somewhat complex answer. And there are no duffers in our sport; we all enjoy the same thing!

In the simplest form, those that prepare most always seem to get “luckier” than those that don’t. Certainly, training is a big factor, and when I head out to practice, I have a fairly specific agenda. I try to stick to a regimen.

I’ll set out to shoot five landings from my short hi-start in a 45-second drill. If I don’t hit within a second or two of the time and within a foot of the spot, I reset until I hit five in a row. Sometimes I can go out and nail it, and other times I have to reset and shoot a lot of landings.

Then I switch and force myself to thermal out from the 75-foot launch and get five minutes. I also know when I am wasting time; some days the “putts” just don’t drop. Pick it up another day.

LE: How did you learn the art of RC Soaring? Did you have a mentor?

SM: I never really had a mentor, but my dad certainly encouraged me in the aviation/engineering direction.

I was being groomed to be an aeronautical engineer, and he and his close friend from American Airlines were building scratch-built radios and trying to get models to successfully fly. You know, escapement Live Wire trainers, etc. I was the official “chaser” of the models. They were kind of Free Flight with intermittent success of Radio Control.

I was building simple balsa-and-tissue models with limited success. I started very young, four years old, but by seven I was flying my U-Control Firecat at the school yard by myself. That really got my dad’s attention.

After I graduated high school, I attended Northrop Institute of Technology in Los Angeles. I had so many models that I had built, I couldn’t move in our basement. Yet I still never had a successful radio-controlled model. I think I had a Goldberg Falcon that I still couldn’t get the radio to work right.

Then fast-forward and I saw a Hobbie Hawk in the local hobby shop. All that pent-up, no-success RC stuff surfaced and I bought it, taught myself how to fly it, and at the same time hooked up with a club being formed in Denver, the Rocky Mountain Soaring Association.

I then came across an Aquila kit and the rest was history. I never looked back! I was very fortunate to make the USA team then and have the success I’ve had. [An article has been published about the Miller Mod on the Aquila.]

I was quite fortunate to become close personal friends with the genius designer, Lee Renaud, founder of Airtronics, and his very good friend, Dan Pruss. We were quite a trio. Those two

really were the closest I came to true mentors.

It was more like Lee picking my brain for info then saying, “Skip, here is the model I designed for you, the Sagitta, it will fit your style. Go fly it.” And boy did I! What a breakthrough model and what an honor for me.

And Dan was the most excited person ever on any new model technology. We were right in the middle of a huge amount of technology growth then. It was so fitting that I won the Worlds with Lee’s Aquila and the Sanwa/Airtronics radio, and that Dan was the U.S. team manager that brought home the Gold for the USA. What a proud moment in Soaring history, both personally and for the USA Soaring fraternity!

LE: You are an excellent coach. What are your top three suggestions for being a competitive Soaring pilot?

SM: Find a good competitive model: something that does everything well, that suits your style. Don’t worry about what’s hip or latest and greatest. If your style is to poke and float, race around, launch the highest, move on until you find it.

In golf, there are thousands of 9 irons to choose from. They all do exactly the same thing at exactly the same club head angle, yet each one is subtly different. Find the one you like (not what your buddy likes) and stick with it.

Develop a relationship with a friend/caller, and develop communication that lets you fly your style in the air. Talk through what you want, and after the flight talk about what you didn’t like. This part takes work but is extremely rewarding.

Do other cross-training activities; fly hand launch, Aerobatics, indoor, Cross Country, Aerotow, etc. Try to do other physical sports to keep your mind and body in shape. It really helps in the competition environment!

LE: What are the three biggest traps for pilots caught at Thermal Duration/F3J contests?

SM: Always have a plan before you step up to the launch line. Observe what’s going on in the air all around. The plan may change while on tow. That’s okay, but have it before you hook up and your scores will improve.

Field distractions for you or your caller are always a big trap lurking. Something may happen on the field; a pop off, line break, someone having some form of disturbance, even a conversation with a competitor in the launch line, but stay centered and try to stick to your predetermined plan.

Check out Paul Naton’s Soaring Master Class 2 video. Cody [Remington] and I go through this exact situation at the Southwest Classic-live!

It is very important to remember you are competing against yourself - a very cunning adversary,

I might add. That's something many competition pilots lose track of. Don't worry about who is in your flight group; instead, focus on a visual of reading the air, getting your time, and hitting your landing.

LE: You are an ardent competitor in FAI F3J events. Could you briefly explain F3J and why you love it?

SM: F3J is basically high-performance thermal flying - something most competition Soaring pilots have the skill for. I personally like the broad base of pilots you can draw from, because everyone is a potential team player. Also, the pilots are responsible for their launch equipment and the handtow is the essence of simplicity - 150 meters of monofilament line and off you go!

F3B is more refined, so you must have the right models, equipment, team, etc. Don't get me wrong; I love F3B, but the complexity makes it more difficult for the average competitor to gain success. F3J is an easy transition to make; show up with your thermal airplane and have fun.

It has also become very precise with the fast tow times and pushing the clock at the end of working time. I don't like this as much, because it's kinda like a downhill ski racer that's a half second off and not even in the hunt. I must be getting too old. Ha! Ha!

LE: What airplane do you take out when you just want to have fun? What are you flying in contests these days? Do you fly anything besides sailplanes?

SM: If I had to pick one sailplane to do it all, it would be the Espada R by Jaro Muller. You can fly thermal, slope, light DS [Dynamic Soaring], sport F3B, ballast it, etc. Jaro is the master of technology, and it shows. Its flying weight is 61 ounces and it's super strong.

As far as just a true Soaring experience, I like my 6.3-meter Nimbus 4. It feels like flying a full-size glider. I also like to amuse myself flying aerobatics with fuel and electric models up to my 35% Yak. I also enjoy flying state-of-the-art indoor foamies. They are impressive in the perfect, windless environment of a gym!

In competition, I align with the rest of the world and fly the Samba Perfect - arguably the most popular model currently produced, and for good reason. It does everything well, has been proven over and over, and is designed by a good friend of mine, Philip Kolb, another of the "Masters" I have come to know.

LE: What, in your mind, was the biggest leap in the evolution of RC sailplanes over the past 40 years?

SM: Are your questions getting tougher or is it just me? I have seen the transition from Ambroid, balsa, and dope to MonoKote, then to forms of bagged, to molded bagged, to molded, to CNC molded technology.

Ralf Decker and Dieter Pfefferkorn played the largest part, having molded models at the World Championships in 1977. The Sitar brothers stood the world on end in 1979 with the Dassel and

Phile, with a 229 mph world record that was never recognized as official.

Pagliano of Italy was also pushing the envelope with his noseless, fully molded Allure. Then there was Airtronics, who introduced us all to a radio line with computer technology that could actually control all these high-zoot models.

LE: You've also started a sailplane boutique, so to speak. What made you cross that line and how are things going?

SM: I started Skip Miller Models when I realized I had strong relationships, worldwide, with Soaring friends who were developing, engineering, and selling competition sailplanes. I had a major change in career path when my company, Wood Logic, was forced out of business by overseas knockoffs after 20 years of success.

Skip Miller Models was born, and I focus on state-of-the-art sailplanes, equipment, tow planes, Scale sailplanes, and foamie indoor models. I do this for the love of the sport. You can actually call us and get a model shipped that same day; that tried from a European distributor would often take a year, and it would be more expensive.

There are a number of good retailers out there, but we stock only the best products available. This is proven time and again in competition.

LE: Do you have any suggestions on how we can attract new and younger participants to the sport?

SM: It's our responsibility to keep an eye out for any youth who has even the slightest interest in model aircraft.

Encourage them to come out and visit your club and go flying with you. I met Cody on the slope, flying Combat. He was 12 and had to deal with all the jeering from his slope peers to go and see what the thermal pilots were doing.

Joseph Newcomb, another shining star, learned to fly on a Boomerang wing on a short hi-start in the park. He made the USA Junior team with Cody from our area.

Grab those young ones, be creative, and fan the flame! My oldest, Dusty, is 26, and became quite a formidable competition pilot. I also have three children under 9.

I visit their school annually for a flying demonstration that really gets them excited and anxious to begin. Nothing quite like an electric foamie hovering in the parking lot in front of 60 screaming 5- to 8-year-olds, and then to have it "Blast off!" They go crazy; they, too, love flight.

LE: What is your favorite sailplane of all time - your Rosebud?

SM: I guess it would have to be the Aquila with the "Miller Mod." I won everything with it - even did my Level V goal and return in 1977 with my little 100-inch model, and no sniffer - we

were hooked up, kinda like Cody and his Espada RL.

Thanks so much for asking me to do this - I love this sport! See you at a competition somewhere!

Sources:

League of Silent Flight
www.silentflight.org

Skip Miller Models
(303) 442-6454
www.skipmillermodeleds.com

The following article, The Long, Long Trail, was published in the December 1977 issue of Model Aviation magazine.

The Long, Long Trail

World Soaring Champion and winner of the AMA Nationals, the author provides a rare insight into the mental, physical, and technical aspects involved in becoming a winner.

■ Skip Miller



(Above) Clipping from the cover of the December 1977 issue of Model Aviation magazine.

TWO YEARS have passed since I was initiated into radio control soaring by the purchase of a Hobie Hawk. Now I am the current world champion of RC Soaring! What transpired over that two-year period was a truly incredible journey. Dreams, defeats, luck, skill and, most of all, total commitment to a direct personal challenge were the criteria I would be trying to contend with.

When *Model Aviation* asked if I would be interested in writing an article on what it takes to become world champion, I was thrilled, as this gives me the opportunity to share with the soaring fraternity my exact attitudes and thoughts toward competition on a world championship level.

Dedication is the key to any victory. With my making the U.S. team, I decided that no effort would be worthy of my competing at the World Championships unless it was a total effort. This meant for the next six months sailplanes became my number one concern. It started with beginning construction of two new models. I was satisfied with my prototype modified Aquila

that had given me a berth on the team, and now I had to try and duplicate this model, straining to get an identical model built before anything happened to my existing prototype. Let me clarify at this point that my Aquilas have a slightly modified airfoil, which was given birth to two days before the FAI finals in Denver. I was gambling that my modification would, in fact, allow my Aquila to move a bit faster than a stock Aquila, and also give it the strength necessary to hold up in a rigorous speed run. I achieved this by sheeting the bottom of the wing back to the main spar and carving some Phillips Entry into the leading edge. I did this to one wing panel and flew it with the stock panel on the other side. I was fortunate because no trim changes were necessary. I knew the airfoil had to be faster (it was no longer a flat bottom.)



“We”- that is, Skip and his Aquila - with the world championship trophy after his return to Colorado. At the time of the Denver Team Finals Skip had been flying soarers for only 1 ½ years.

As time went on I was corresponding with Lemon Payne and Dale Nutter by telephone fairly frequently. As I had little more than one and a half years’ total soaring experience, I would constantly pick their brains on this and that pertaining to FAI competition, model design, and construction. Sometime in October, Dale called and started the ball rolling toward what led to be three structured practice sessions. The idea of a team effort was starting to emerge. The first practice session was slated for November in Tulsa, Oklahoma; Dale’s home. I was flying down from Colorado and Lemon was driving in from Texas.

One more step was necessary for the preparation for the World Championships. This was a model box that would hold three complete ready-to-fly Aquilas and be reasonably portable so that I could transport it to and from the field; and also be able to safely undergo the air travel without risking the models. The main advantage, as I see it, is you don’t have to worry about any damage to the models with a correctly built box. Although I had not finished my first new model, I proceeded to stash my old Aquila and my original Hobie Hawk into the new box, and Meesh and I flew to Tulsa for the team’s first practice session.

I had not been flying much at the time as I was building in all my spare time. The first practice session went very well. Members of the Tulsoar club bent over backwards to aid our practice session. Contrary to popular belief, FAI is probably one of the most difficult programs to run. Courses must be laid, timing must be clarified, and, of course, the wind is always shifting. At any

rate, in the cold, gusty 15-20 mph Tulsa weekend that followed the U.S. team was getting its feet off the ground.

Both Lemon and I had broken ships, while Dale flew his normal, consistent, steady self. At the end of two days, all flights being flown and scored as in competition, Lemon was first, I was second, and Dale third. Interesting to note, this was the exact placing of our finish in the Finals. We also could derive our strong and weak points from our concentrated efforts. After numerous rap and repair sessions (Lemon and I had determined we were good at breaking airplanes), we had determined that Lemon was very strong in all three events (Distance, Duration, and Speed). I was strong in Duration and Distance, and Dale was strong in Duration and Speed.



Nosing into its pilot's waiting hand, the Aquila flown by Miller had a wing modification, made two days before the Team Finals. The last-minute change was a daring gamble to make his ship move a bit faster than a stock Aquila and to beef up the structure for the rigorous speed runs

We said our farewells and back I went to Boulder to practice and build, and practice and build. I should note that I am president of a small land surveying company in Colorado, and up through December we are incredibly busy, so it wasn't all model airplanes yet!

Finally my work slowed down and I began to concentrate solely on the team effort for South Africa. I also was playing a fair amount of racquetball at this time. It helps to develop quick reflexes and keep the competitive spirit razor sharp. I recommend any competitive sport as very good training for glider competition, as you develop the concentration necessary to change bad luck to good luck. I believe this is the "inner game" of competition. The major obstacle to success is usually yourself. I found myself constantly trying to sharpen my concentration, making up imaginary situations and trying to work through them to the last detail. In the words of Dan Pruss, "The team that makes the fewest mistakes wins." I feel there was nothing more important to our success than the elimination of potential mistakes by thinking all situations through.

Finally, I had my first new Aquila finished, just in time for a January practice session in Dallas, Texas. Dan Pruss, the soon to be affirmed team manager, was to attend, along with Jim Simpson, who had been handling most of the domestic FAI problems. Dave Thornberg was also flying in, as we had selected Dave to be our field helper and handtow expert, and he had agreed. Everything up to this point had been covered at our personal expense. The three of us unanimously desired Dan to be our team manager and Dave to be our field team helper. This decision was based upon each of their personal qualifications to perform very demanding and specific jobs.

Unfortunately, this practice session was plagued with rain, and some bad luck for myself. On my first flight of the new Aquila, I was slowly checking its turning characteristics, when at about 200 feet I was shot down by stray radio interference. It landed hard upside-down, but only the fuselage was destroyed. All the flying surfaces were intact. Undaunted, I put my new ship back in the box, grabbed my old Aquila, and away I went. I had flown one duration flight when it began to rain, a good excuse to head back to Lemon's to dry out and begin talk about team business. Dan began with the idea of team uniforms, and then started playing tailor with all of our dimensions. Frequency problems, designation of responsibility for equipment, and various other problems were solved. Questions were answered and our team unity was really starting to show.

The second day of practice was in thick Dallas fog. I can remember Thornberg towing me up with only 100 meters of line, and my Aquila disappearing on top of the launch. Honest! And what was more amazing to me, the four and a half minute dead-air flights that could be achieved. With the thinner air in Colorado, you could probably count on one and a half to two minutes from that height. As you can see this practice session was not as successful as our first in terms of flying, but we did get to talk a lot about FAI which, in the end, made all of us that much more prepared. Our third practice session to be held in Colorado was scratched, as Lemon and I were way behind on building, and the time element was creeping up on us. All of February and part of March was devoted to repair of my new model, finishing construction of my next model, practicing one to two hours every day, testing hi-starts, polishing handtow techniques (Meesh was handtowing me), and final preparation. My newest model was flown until we reached South Africa. Three Aquilas in a box, radios, hi-starts, hand-tows, spare parts, clothes for three weeks, and off we went from Colorado, meeting the team in New York. Half way around the world, we arrived in South Africa, prepared and unified to fly in the First World Championships of Radio Control Soaring.

A day of rest and then it was practice every day under the watchful eye of Dan and Dave. These two cannot be commended highly enough for their efforts toward the team. Dan was always on the run getting the chutes, and Dave easily pulled 50 handtows per day. Unbelievable support, which helped Lemon, Dale, and me develop the confidence for every launch situation. Dan also took care of hundreds of small problems that kept our soaring machine running smooth and true. Finally, the World Championships were to begin with an official practice day. This was designed to make sure all timers, judges, and field help knew the dos and don'ts of FAI, so that the World Championships could be performed without a hitch.

I was amazed to see how many competitors elected not to fly on the practice day. Here a flier could dry run everything from start to finish, make his last-minute adjustments on his sailplane, and become centered on exactly how he was going to approach each situation. It was finally real, all the hard work, the long nights, the anticipation were about to unfold. The World Championships were about to begin!

I will refrain from detail on the World Championships. Stories and photographs were published in magazines both here and abroad (*MA*, July 1977). I will say that I was extremely fortunate to win the World Championships. I had both good and bad luck, with decisions, judgment, and

exhaustion all key factors in my victory. But I did not stand alone. Shawn Bannister pushed me all the way. He pushed so hard he fell to third position. And Frikke Roos, a newcomer like myself, showed the determination and concentration necessary to stay on top and did.

In the final analysis, I became the World Champion of RC Soaring, and the U.S. was the number one team. But it was not me alone that won the title and honor. I could not have done it without Lemon Payne, Dale Nutter, Dan Pruss, Dave Thornberg, and Meesh Rheault, who were patient enough to lend me support and teach me the knowledge that was necessary to capture the title.

I am proud to have been a member of the first U.S. effort in international RC Soaring. Through our total team effort, we have established the U.S. as the country to keep pace with in the next World Championships. I feel we all left South Africa fulfilled. We had responded to direct personal challenge and had succeeded as a team.

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