



The AMA History Project Presents: Biography of HORACE G. HAGEN

Modeler, Radio Control Helicopter Advocate
Modeler since 1948 AMA #231



Written & Submitted by HGH (6/1996, Updated 8/2015), Written by AMA staff (01/2011, transcribed by NR (9/1996), edited by SS (2002), reformatted by JS (08/2009), updated by JS (05/2011, 8/2015)

Career:

- 1974-1977: Member, AMA Radio Control Helicopter Advisory Committee
- 1977-1982: Chairman AMA Radio Control Helicopter Advisory Committee
- 1979-1990: Member of FAI/CIAM F3C Radio Control Helicopter Subcommittee
- 1982-2002: Chairman of AMA Radio Control Helicopter Contest Board
- 1985-2004: Chairman of F3C Team Selection Committee
- 1985 to present [2015]: Member of F3C Team Selection Committee
- 1990-2011: Chairman of FAI/CIAM F3C Radio Control Helicopter Subcommittee
- 2011-2015: Member Emeritus FAI/CIAM F3CN Radio Control Helicopter Subcommittee

Honors:

- 1989: AMA Superstars of Radio Control Award
- 1996: AMA/IRCHA Walt Schoonard Memorial Award (IRCHA 37)
- 2002: AMA Fellow Award
- 2010: AMA Model Aviation Hall of Fame

Horace Hagen wrote the following autobiography 1996, and updated the text in August 2015.

If I had to point to the one event that sparked my interest in aviation, it would have to be the crash landing of a B-17 bomber on March 11, 1944 in rural northern Germany. The plane crashed only a few kilometers from our small village and we all went to look at the severely damaged shiny aluminum airplane. For a five-year-old country boy, that was an awesome sight. At war's end, the country was in ruin and basic materials like silk span, balsa wood, and rubber were unavailable. I therefore started building small hand-launch gliders out of pinewood and silk paper in 1948. Model airplane engines were banned in Germany after the war because of events associated with the Hitler Youth, and even if they had been available my family would not have been in a position to afford one.

My most memorable model was a small solid rocket-powered semi-scale replica of the Heinkel *HE-162 Salamander* jet, constructed of overlapping (armadillo fashion) cardboard. After one semi-successful flight, I was hooked on flying models. The older brother of a childhood friend built a large (4 feet in diameter) Free Flight glider in 1951 that looked like a flying saucer. After I saw that model fly, I became even more interested in model airplanes.

My father decided to emigrate from Germany to the USA in 1952. A year later, my mother, my two sisters, and I followed him to the States. During my high school years (Evander Childs High School, 1953-1957) in New York City, I went on a model building rampage. My room looked

and smelled like a model airplane factory. One reason for the hyper activity was my small town shyness and limited command of the English language. On many occasions my father would threaten to throw the models out of the house when I continued to build models into the early morning hours to get a plane ready for the weekend flying sessions.

I initially built many rubber-powered stick models and hand-launched gliders because I did not have the money for an engine. After I saved up enough money to buy a Cox Space Hopper ½A engine, I started building a number of Control Line models from kits. Initially, I built several Scientific Models solid balsa wood models. They were heavy and did not fly well on Dacron lines, so I decided to scratch-build open frame models covered with silk span. After some limited success with 25-foot Dacron lines, I decided to switch to Free Flight models. One of the first Free Flight models was a contest type, and the other was a semi-scale model of the *Cessna 182*. The quality of the wood and the die crushing of the parts discouraged me from building any more kits.

I decided to scratch-build two semi-scale Free Flight models. The first was a model of the Fokker *DVII* World War I biplane, and the second was a ducted-fan model of the Grumman *F6F Panther* jet. I then built several commercially-produced competitive ½A Free Flight models. After losing one of the latter due to a fly-away, I switched back to Control Line and was later convinced by an expert modeler that ½A-powered Control Line models on 25-foot Dacron lines do not fly well and tended to make me very dizzy. I received a much larger trainer airplane equipped with an old (sand cast) Fox 35 engine from this friend and saved my weekly allowance until I could afford a Jim Walker U-Reely Control Line handle. My new friend was right because I was soon able to fly aerobatics with the larger airplane on 70-foot steel lines.

As a junior in high school, I became fascinated with Radio Control flight and worked a whole summer in the Zephyr Model Craft hobby shop in Mt. Vernon, New York to earn enough money to buy my first Radio Control system (Berkeley – Aerotrol one-tube super-regenerative receiver plus self-neutralizing escapement). I decided to build the semi-scale Berkeley De Havilland *Beaver* for this system, but had very little success with this combination. After crashing that airplane a number of times, I decided to scratch-build a high-wing airplane for the system and named it *Shnookywukms*, after a Walt Disney Daffy Duck cartoon character. The Radio Control equipment proved unsatisfactory, as I was seldom able to complete a flight before depleting the dry batteries or experiencing an equipment failure.

This period was known as the “escapement” era, when we were really flying Free Flight models that were “disturbed” by radio control. I did manage to get a few successful flights with that model. After becoming frustrated with that first Radio Control system, I constructed my own single-channel pulse proportional Radio Control system. The system consisted of a MAC-II 5-watt transmitter, mechanical pulsar, 2-tube Lorenz receiver, and Mighty Midget motor acting as a servo. The system was built mainly from war surplus equipment purchased on Canal Street in Manhattan. I built a Sterling *Mambo* kit airplane for this system and finally achieved some very successful flights. A major achievement at the time was an unassisted takeoff and a landing near the takeoff point. If I achieved one or both of these on any given day I would pack up my equipment and go home because I did not want to tempt fate.

In 1957, I joined the Academy of Model Aeronautics (AMA #5904), and after entering college,

my modeling activities slowed considerably. I initially studied aircraft structural design, but later switched to aircraft electrical system design. It was during the aircraft design courses that my fascination with helicopters was triggered.

After graduating from college, I joined AT&T Bell Laboratories in 1960 to work on the *Nike Zeus* anti-ballistic missile system. Instead of building more single-channel models, I spent all of 1961 scratch building a multi-channel Radio Control system including the printed circuit boards. The system was modeled after the Orbit 8-channel reed equipment and was installed in Ed Kazmirski's *Orion* competition aerobatic airplane.

I built my own transistor amplifiers to drive the Bonner Dura-Mite servos. This combination provided the first fully controlled aerobatic flights. I joined the RC Multi-Bees club in Yonkers, New York. The club had a restricted membership (limited to 12 people) and you had to own at least an 8-channel reed Radio Control system. We had permission to fly our models in the parking lot of Freedomland on Baychester Avenue in the Bronx. I bought my first analog proportional (Citizenship) three-channel equipment in 1964, and this was used successfully in a Midwest *Hustler* delta wing design after some modifications were made to speed up the servo response time.

I flew these airplanes until I got married in 1966. I did not build or fly any models again until late in 1969, when my wife made the mistake of threatening to throw the models out of the house. She claimed that I was "not using them anymore" and they were just collecting dust. By this time we had two daughters, and of course I spent most of my spare time with them.

In 1969, my wife and I attended the Radio Control symposium sponsored by the Washington, DC-based District of Columbia Radio Control Club (DCRC). At this symposium Ray Jaworsky, Gene Rock, and John Burkam attempted to set the first Radio Control helicopter world record for duration. I recorded the 5.6-second record set by John Burkam on 8mm film. It was not a controlled flight, but it was a start and caught my interest. Later that year, I joined the Monmouth Model Airplane Club (MMAC, AMA charter #424) and started flying in club-sponsored and open AMA-sanctioned Radio Control aerobatic competitions, winning a few trophies and prizes.

In 1970, my wife and I traveled to Europe for an extended vacation. During this trip, I had the pleasure of meeting Dieter Schlüter right after he set the first meaningful world record for Radio Control helicopters with his semi-scale Bell *AH1-G Cobra*. The record flight was for the FAI closed-course distance and duration categories, and covered 11.5 km in 27 minutes and 51 seconds. One evening, Dieter showed me 8mm movies of twelve earlier experimental Radio Control helicopters. These films were fascinating and showed that he could have claimed a world record in 1968 of 10-second duration with his semi-scale Sikorski *S58* helicopter. However, he felt that such a short time could not demonstrate controlled flight.

Before we said goodbye, I requested that he add my name to a waiting list for one of the first 50 hand-made *Cobra* kits that he was planning to produce in his basement. At the beginning of February 1971, I received the first semi-kit in the USA, and in April was the first to hover a shaft-driven Radio Control helicopter in the USA. I held the *Cobra* in a hover while tethered to three bricks until June, and in July flew the machine in free flight at our Bell Laboratories

Holmdel flying field. Later that month, I flew the *Cobra* at the 1971 USA AMA Nats at the Glenview Naval Air Station in Illinois. In September, I flew the helicopter for Dieter Schlüter at the F3A World Championship in Doylestown, Pennsylvania. I built a second Schuco-Hegi *Cobra* at the end of 1971.

During this time, I was flying in club- and AMA-sanctioned Radio Control aerobatic airplane (pattern) competitions and single-design (Top-Flite *Top Dawg*) airplane club pylon racing competitions. However, the *Cobra* was my first interest. At the end of 1971, I realized that this diversification was overwhelming and I decided to concentrate on Radio Control helicopters. I demonstrated the flying characteristics of the *Cobra* at many nearby clubs, and several other modelers were able to construct machines by duplicating the main rotor system.

In February 1972, Dieter Schlüter and I flew our *Cobras* at the Toledo show in front of an estimated 5,000 spectators. I also flew my *Cobra* at the Westchester Radio Aero Modelers (WRAM) show in White Plains in April 1972. I wrote an article describing the process of learning to fly a remote controlled helicopter, and the article "Straight Up" was published in the July 1972 issue of *Model Airplane News* magazine. The article generated great national and even some international interest in this new Radio Control category.

One of the first official AMA-sanctioned competitions for Radio Control helicopters was organized by the Long Island Drone Society (LIDS) in August 1972. I was fortunate enough to win that contest. Although there were only three contestants, it was the beginning of Radio Control helicopter competition in the USA. In the spring of 1972, I was invited by AMA Executive Director John Worth to fly my *Cobra* in a large air show (Transpo 1972) for the opening of Dulles International Airport in Washington, DC. The week-long show drew 250,000 spectators.

I built two Kavan Bell *Jet Rangers* in 1973 and 1974, and a Graupner Bell 212 in 1974. In 1974, the AMA requested the formation of a Radio Control Helicopter Advisory Committee, and I was asked to join that group. Our group of six Radio Control helicopter enthusiasts (3 fixed-pitch and 3 collective-pitch supporters) put together the first set of Radio Control helicopter competition rules. Since I was flying a Kavan Bell *Jet Ranger*, I was one of the proponents of collective pitch machines. These rules were used at the 1974 and 1975 AMA Nationals on a provisional basis.

I flew the *Jet Ranger* at the 1974 AMA Nats in Lake Charles, Louisiana and placed first in the Novice class and third in the Scale class. In 1975, I flew at the AMA Nats again and placed second in the Intermediate class. I participated in the first Model Aviation Day (MAD) organized with the support of AMA District II Vice President John Byrne by flying my helicopters in the Rockefeller Center ice-skating rink in New York City.

In the summer of 1976, I flew my *Jet Ranger* at Bill Curtis' contest in Pennsylvania and placed fifth in the expert class. I stopped flying in formal competition at the end of the year when I realized that my hobby was turning into a second job, and I spent every weekend practicing or away from home. Instead, I decided to spend more time with the family and contribute to the sport by helping newcomers. I also decided that the time had come for MMAC to sponsor a helicopter contest.

I became an AMA Contest Director and this qualified me to obtain a three-digit AMA number (AMA #231). I organized the first East Coast Radio Control Helicopter Championship (ECRCHC) in Thompson Park, Lincroft, New Jersey. The contest was sponsored by MMAC and attracted 17 contestants from several neighboring states. I built two low-cost 40 size (fixed pitch) Kavan *Alouette II* helicopters. I participated in the second MAD in New York City.

In 1977, I participated in an air show presented during intermission of a double-header major league baseball game in Shea Stadium. In 1977, Dieter Schlüter came over for a visit and demonstrated his revolutionary aerobatic *Heliboy* helicopter. Dieter presented me with two kits and I flew my first loops and rolls with them. I organized and directed the second and third ECRCHC, and participated in the third and fourth MAD in 1977 and 1978. In 1978, I built a Kavan *Ranger* all-metal trainer helicopter.

In 1979, I was asked by AMA president Earl Witt to become a member of the newly formed FAI/CIAM F3C Radio Control Helicopter Subcommittee that met during the CIAM Plenary meetings in Paris, France each year. I founded the New Jersey RC Helicopter Society (AMA charter #1309) and participated in the fifth MAD at Rockefeller Center. During 1979, I became a member of the Electronic Eagles Air Show Team organized by Dick Brooks of Howard Beach, New York. While on that team, I flew my *Jet Ranger* helicopter during half-time air shows at four major league football games.

At the end of 1981, I dropped out of the Electronic Eagles Air Show Team because we were asked to fly under marginal/unsafe flight conditions. I organized and directed the fourth, fifth and sixth ECRCHC in 1979, 1980 and 1981, respectively. In 1982, I was appointed Chairman of the newly formed AMA Radio Control Helicopter Contest Board. I was invited by the Finnish Aeronautic Association for 10 days to fly at their National competition in Nummela to demonstrate my Kavan *Jet Ranger* and to teach their modelers how to set it up. I flew in the Schlüter Cup contest sponsored by the Washington, DC based NCRCHA helicopter club and won first place in Scale. I also organized and directed the seventh ECRCHC.

In 1983, I directed the Radio Control helicopter event at the AMA Nationals held at Westover Air Force Base in Springfield, Massachusetts. That event had a record attendance with 86 entries in five categories. I also organized and directed the eighth ECRCHC in Lincroft, New Jersey. At the 1983 FAI/CIAM meeting I helped create the first set of F3C competition rules for Radio Control helicopters which were approved for World Championship status.

In 1984, I built my first 30-size helicopter, a Kalt *Baron 28*. I was a member of the FAI Jury at the first F3C European Championship held in Eibergen, Netherlands. I organized and directed the first USA F3C Team Selection contest and the ninth ECRCHC in Lincroft, New Jersey.

In 1985, I was appointed to serve as a member of the FAI Jury at the first F3C World Championship held in London, Ontario, Canada. I was also appointed Chairman of the newly formed AMA F3C Team Selection Committee. I again directed the Radio Control helicopter event at the AMA Nationals held at Westover Air Force Base in Springfield, Massachusetts. I also organized and directed the tenth and last ECRCHC in Lincroft, New Jersey.

In 1986, I served as a member of the FAI Jury at the second F3C European Championship held in Toulouse, France. In 1987, I served as a member of the FAI Jury at the second F3C World Championship held in Bern, Switzerland. I taught a FAI F3C judges course before that championship. During that year I built a Kalt *Cyclone* low-cost 60 size Radio Control helicopter. I was also asked to serve as a member of the FAI Jury at an open international F3C contest in Levens, France, organized by the Heli Cote D'Azur model club.

In 1988, I served as president of the FAI Jury at the third F3C European Championship, held in Eibergen, Netherlands. I attended the joint AMA Executive Council/Contest Board Chairmen meeting at AMA Headquarters in Reston, Virginia. I also attended the AMA Nats in Virginia to assure that the flying site was adequate for the planned 1989 F3C World Championship.

In 1989, I built a Miniature Aircraft *X-cell 60* Radio Control helicopter. I was appointed event director at the third F3C World Championship, held at Fentress Naval Air Station in Virginia. I was asked to serve again as a member of the FAI Jury at the third Euro-Cup open international contest held by the Heli Cote D'Azur club in Levens, France. In June 1989, I was invited to attend the AMA-sponsored Atlanta Trade show and was presented with an AMA Superstars of Radio Control Award.

In 1990, I built a Kalt *Whisper* electric helicopter. In 1990, I also became Chairman of the FAI/CIAM F3C Subcommittee. I attended the AMA Nationals in Illinois, the Bear Mountain contest in New York State, the Coppa de Bresso in Milano Italy, the Schlüter Cup in New Jersey, and the Coppa Ticino in Locarno, Switzerland, where I served as a scale judge. In 1991, I was the Contest Director at the USA F3C Team Selection contest in Germantown, Maryland. I attended the Hudson Valley Airscrews and the Schlüter Cup contests. I served on the FAI Jury at the fourth F3C World Championship in Wangaratta, Australia.

In 1992, I was a judge at the Lehigh Valley, Pennsylvania F3C competition and the Kyosho Challenge in Champaign, Illinois. I was also one of five judges at the Gauntlet organized by the Hudson Valley Airscrews. This was a new type of multi-event helicopter competition where the FAI F3C Class, 10 out of 20 randomly selected Compulsory grab bag event, and 3D Freestyle event were flown.

I served as president of the FAI Jury at the fourth European Championship, held in Kraiwiesen, Austria, and attended the traditional Schlüter Cup in Grebenhain, Germany. I directed the first Hirobo Cup contest held in Colts Neck, New Jersey. I served as Chief F3C judge at the International Air Meet in Ohta, Japan by invitation of the Japanese Aeronautic Association.

In 1993, I was a judge at the Lehigh Valley, Pennsylvania and the Michigan Whirlybirds contests. I served as a member of the FAI Jury at the USA F3C Team Selection Finals held in Pensacola, Florida. I directed the second Hirobo Cup in Colts Neck, New Jersey. I was appointed president of the FAI Jury at the fifth F3C World Championship held in Velden, Austria.

In 1994, I attended a contest in Filskov, Denmark, and served as one of the five F3C judges. I was a judge at the second Gauntlet competition held in Allentown, Pennsylvania. I was appointed president of the FAI F3C Jury at the 1994 International Air Meet in Kasaoka City,

Japan. I served as president of the FAI Jury at the fifth F3C European Championship held in Leszno, Poland. In August 1995, I served as president of the FAI Jury at the sixth F3C World Championship in Kasaoka, Japan.

At the 1996 FAI/CIAM plenary meeting, I was appointed to serve as the president of the FAI Jury at the sixth F3C European Championship to be held in Nurmes, Finland. I received the Walt Schoonard Memorial award from one of the AMA's special interest group, International Radio Control Helicopter Association (IRCHA), for my pioneering contributions to the sport of Radio Control helicopters.

In 1997, I was invited to serve as president of the FAI Jury at the seventh F3C World Championship held during the first FAI World Air Games in Golbasi, Turkey. I was invited again to serve as president of the FAI Jury at the 1997 International Air Meet in Ohta, Japan.

In 1998, I was invited to serve as president of the FAI Jury at the seventh European Championship held in Vienna, Austria. At the 1999 FAI/CIAM plenary meeting, I was requested to serve as the president of the FAI Jury at the eighth F3C World Championship held in Dęblin, Poland. I was invited again to serve as president of the FAI Jury at the 1999 International Air Meet in Ohta, Japan. In 2000, I was the president of the FAI Jury at the eighth F3C European Championship in Assen, Netherlands. In 2001, I served as president of the FAI Jury at the ninth F3C World Championship in Muncie, Indiana.

In October 2001, I retired from the Bell Laboratories after 41 years of service. I had not done much building or flying during the latter part of my career due to the pressures of work. A long-time helicopter flying buddy introduced me to the world of electric flight. I started out with a park flyer (*Soar Star*) and was immediately hooked. My next plane was a 1.8 meter *Omega* high performance electric sailplane, which turned out to be quite a handful. The plane was very difficult to land because it had no flaps to slow it down.

In 2002, I started to fly indoor electric models in Hangar #1 at Lakehurst Naval Air Station. My first model was a *Pico Stick*, which flew reasonably well even with Nickel Metal Hydride batteries. I joined the resident East Coast Indoor Modelers (ECIM) club (AMA charter #414) that same year. After enjoying that model for several months, another indoor model came along which weighed only 3.5 ounces complete. This model introduced me to the magical world of Lithium Polymer (LiPo) batteries. With a 250mAh battery, this model could be flown for over twenty minutes on a single charge. I enjoyed flying that model (*Butterfly*) more than many previous models. Although the model could not perform aerobatics, it could land very slowly and could be flown in very small areas.

I have maintained my interest in international Radio Control helicopter competitions as an official representing the AMA and FAI/CIAM. In August of 2002, I served as president of the ninth F3C European Championship in Pitesti, Romania. In 2003, I served as president of the FAI Jury at the tenth F3C World Championship in Noto, Japan. I joined the Round Valley Radio Control Club (RVRCC, AMA charter #1502) so I could fly on their beautiful flying field, a large sod farm. At the end of May 2004, I served as president of the FAI Jury at the international F3C competition Trophée de France in Lille, France. In August 2004, I served as president of the FAI Jury at the F3C European Championship in Bitburg, Germany.

In August of 2005, I served as president of the FAI Jury at the eleventh F3C World Championship in Zamora, Spain. Later that year I joined the Metropolitan Sport Squadron (MSS) indoor club (AMA charter #262). At the beginning of April 2006, I served as president of the FAI Jury for the first Radio Control Helicopter 3D Taiwan Cup in Chinese Taipei (Taiwan). In August, I served as the president of the FAI Jury at the eleventh European F3C Championship in Blandford Forum, Great Britain. In September, I served as president of the FAI Jury at the first Asian/Oceanic F3C Continental Championship (AOCC) in Ohta, Japan. I taught an F3C judges' course prior to that championship.

In 2007, I served again as president of the FAI Jury for the Trophée de France in Beugin in May. I also served as president of the FAI Jury at the twelfth F3C World Championship in Wloclawek, Poland in July. In May 2008, I served as president of the FAI Jury at the second F3C Asian/Oceanic Continental Championship (AOCC) in Cebu City, The Philippines and taught an F3C judges' course during that championship. In July, I served as president of the FAI Jury at the F3C European Championship in Maubeuge, France.

In 2009, I served as president of the FAI Jury at the thirteenth F3C World Championship in Muncie, Indiana. In 2010, I served as president of the FAI Jury at the twelfth European F3C Continental Championship in Sibiu, Romania in July. In September, I was inducted into the AMA Model Aviation Hall Of Fame. I served as president of the FAI Jury at the third Asia/Oceania F3C Continental Championship (AOCC) in Taichung City, Chinese Taipei (Taiwan) in October, and taught an F3C judges' course there.

At the FAI/CIAM Plenary meeting in March of 2011, I decided to step down as F3C Subcommittee Chairman. In August, I served as president of the FAI Jury for the last time at the fourteenth F3C World Championship in Calcinato, Italy. In 2012, Dag Eckhoff of Norway was elected to serve as F3CN Subcommittee Chairman. I continued as USA Subcommittee member for a few years. In 2014, Cliff Hiatt took over the role of USA member of the FAI/CIAM F3CN Subcommittee.

At the present time I am flying several very light (6 – 9 ounce) aerobatic (FAI F3P) indoor airplanes and small indoor electric helicopters. Outdoors I am flying two semi-scale *FW-190* park flyers, four high performance sailplanes, two ducted-fan jet models, and an aerobatic airplane. All of these models are powered by LiPo batteries and brushless motors.

Aeromodeling Achievements

1948-1953: Flew hand launch gliders in post-World War II Germany.

1953-1954: Constructed and flew ½A Free Flight and Control Line models.

1955-1960: Constructed own single-channel Radio Control system with escapements and pulse proportional.

1961-1964: Constructed a scratch built 8-channel reed Radio Control system and flew it in *Orion* acrobatic model.

1965-1968: Flew with analog proportional Radio Control system in a Midwest *Hustler* delta wing.

1969-1973: Joined MMAC (AMA charter #424) in 1969. Built two 5-channel Heathkit *GD 19* digital proportional Radio Control systems. Flew in fixed wing acrobatic competitions and won first through fifth places in AMA Novice class. Competed in single-design club pylon racing and won first and third place.

1971: First US modeler to fly a Radio Control helicopter (Schlüter Huey *Cobra*) in April. Demonstrated controlled flight at AMA Nationals in Glenview, IL in July.

1972: Demonstrated the *Cobra* along with Dieter Schlüter during the Toledo, Ohio Weak Signals club trade show in February. Flew the *Cobra* at the WRAM trade show in White Plains, New York in April. Won the first U.S. Radio Control helicopter contest (LIDS, New York). Wrote "Straight Up" magazine article on learning to fly a Radio Control helicopter for July issue of *Model Airplane News*. Also flew Radio Control helicopter as part of an AMA show team in largest (250,000 spectators) full size U.S. Air Show at opening ceremony for Washington's Dulles International Airport (Transpo '72).

1973: Again demonstrated the *Cobra* along with Dieter Schlüter during the Toledo, Ohio Weak Signals club trade show in February.

1974: Constructed two Kavan *Jet Rangers* and one Graupner Bell 212 twin jet collective pitch helicopters. Won first place and third place trophies in provisional helicopter classes at AMA Nats in Lake Charles, Louisiana. Appointed to AMA Radio Control Helicopter Advisory Committee.

1975: Won second place trophy in provisional helicopter class at AMA Nats in Lake Charles, Louisiana.

1976: Became AMA Contest Director, organized and directed the first ECRCHC. Constructed two Kavan *Alouette II* fixed pitch, low-cost helicopters.

1977: Appointed Chairman of the AMA Radio Control Helicopter Advisory Committee. Contest Director of second ECRCHC. Constructed Schlüter Heliboy aerobatic Radio Control helicopter.

1978: Contest Director of third ECRCHC. Constructed second *Heliboy* helicopter.

1979: Appointed USA representative on FAI/CIAM F3C Radio Control Helicopter Subcommittee and attended my first meeting in Paris, France. Founded AMA chartered club New Jersey RC Helicopter Society (AMA charter #1309). Contest Director of fourth ECRCHC.

1980: Contest Director of the fifth ECRCHC in Lincroft, New Jersey. Attended FAI/CIAM Plenary meeting in Paris, France. Attended F3C Technical meeting at FAI/CIAM Plenary in Paris, France.

1981: Contest Director of sixth ECRCHC in Lincroft, New Jersey. Attended FAI/CIAM Plenary meeting in Paris, France.

1982: Appointed as Chairman of newly formed AMA Radio Control Helicopter Contest Board. Won first place in Radio Control Heli Scale at NCRCHA contest at Goddard Space Flight Center, Maryland. Contest Director of seventh ECRCHC. Attended F3C Technical meeting at FAI/CIAM Plenary in Paris, France.

1983: Event director for Radio Control helicopters at AMA Nats at Westover Air Force Base in Pittsfield, Massachusetts with 86 entries. Contest Director of eighth ECRCHC. Attended F3C Technical meeting at FAI/CIAM Plenary in Paris, France. At that meeting, I was instrumental in getting Radio Control helicopters approved for World Championship status.

1984: Built 30-size Kalt *Baron 28* Radio Control helicopter. Appointed president of FAI Jury at first F3C European Championship in Eibergen, Netherlands. Organized and directed first USA FAI/F3C Team Selection Contest. Contest Director of ninth ECRCHC. Attended F3C Technical meeting at FAI/CIAM Plenary in Paris, France.

1985: Elected to serve on FAI Jury at first F3C World Championship held in London, Ontario, Canada. Radio Control Helicopter Event Director at AMA Nats in Pittsfield, Massachusetts. Contest Director of tenth Annual East Coast Championship. Attended FAI/CIAM F3C Technical meeting in Paris, France.

1986: Served as member of the FAI Jury at second European F3C Championship in Toulouse, France. Appointed Chairman of newly formed USA FAI/F3C Team Selection Committee. Attended FAI/CIAM F3C Technical meeting at FAI/CIAM Plenary in Paris, France.

1987: President of the FAI Jury for 1987 USA Team Selection contest. Member of FAI Jury, second World Championship in Bern, Switzerland, and conducted F3C judging course. Member of the FAI Jury at the second F3C Eurocup in Levens, France. Constructed a Kalt *Cyclone* low-cost 60 size Radio Control helicopter. Attended FAI/CIAM F3C Technical meeting at FAI/CIAM Plenary in Paris, France.

1988: President of the FAI Jury at the third F3C European Championship in Eibergen, Netherlands. Attended AMA Nats in Fentress, Virginia in anticipation of upcoming F3C World Championship. Attended FAI/CIAM F3C Technical meeting at FAI/CIAM Plenary in Paris, France.

1989: President of the FAI Jury for the 1989 USA Team Selection in Dayton, Ohio. Member of the FAI Jury at the third F3C Eurocup in Levens, France. Event director for F3C World Championship in Fentress, Virginia. Constructed Miniature Aircraft *X-cell 60* Radio Control helicopter. Attended FAI/CIAM F3C Technical meeting at FAI/CIAM Plenary in Paris, France. Received Superstars of Radio Control Award at Atlanta model trade show.

1990: Scale judge at the Coppa Ticino competition held in Locarno, Switzerland. Appointed Chairman of FAI/CIAM F3C Subcommittee. Constructed a Kalt *Whisper* electric Radio Control

helicopter. Attended AMA Nats in Lawrenceville, Illinois and Hudson Valley Airscrews contest in New York. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1991: Contest Director of USA F3C Team Selection Contest held in Germantown, Maryland. Served as president of the FAI Jury at the fourth F3C World Championship held in Wangaratta, Australia. Attended the Hudson Valley Airscrews contest in New York and the Schlüter Cup in New Jersey. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1992: Appointed president of the FAI Jury at the fourth F3C European Championship held in Kraiwiesen, Austria. Attended the annual Schlüter Cup in Grebenhain, Germany. Invited by the Japan Aeronautic Association to serve as an FAI F3C judge at the International Air Meet held in Ohta. Also served as FAI F3C judge at the Lehigh Valley contest in Nazareth, Pennsylvania and Kyosho Challenge Cup in Champaign, Illinois. Served as a judge at the 1992 Gauntlet, a new type of multi task competition where the FAI F3C, unknown compulsory, and 3D Freestyle classes were flown. Directed first USA Hirobo Cup in Colts Neck, New Jersey. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1993: Served as a member of the FAI Jury at the USA Team Selection contest held in Pensacola, Florida. Appointed president of the FAI Jury at the F3C World Championship held in Velden, Austria. Served as F3C judge at the Lehigh Valley, Pennsylvania and Michigan Whirlybirds contests. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1994: Served as FAI F3C judge at international competition in Filskov, Denmark in May. Invited to serve as president of the FAI Jury at International Air Meet in Kasaoka, Japan in August. This event was intended to be a trial run for the 1995 F3C World Championship to be held on the same site. Served as president of the FAI Jury at the fifth F3C European Championship in Leszno, Poland. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1995: Appointed president of the FAI Jury at F3C World Championship in Japan and chaired F3C Subcommittee meeting in Kasaoka City, Japan. As Chairman of FAI/CIAM F3C Subcommittee generated and submitted new F3C competition rules for 1997 FAI Sporting Code. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

1996: President of the F3C Jury at the sixth F3C European Championship in Nurmes, Finland. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1997: President, FAI Jury at F3C World Championship in Golbasi, Turkey. Chaired March FAI/CIAM F3C Technical meeting in Paris, France. Attended December FAI/CIAM Bureau meeting in Paris, France.

1998: President, FAI Jury at seventh F3C European Championship in Vienna, Austria. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

1999: President, FAI Jury, F3C World Championship in Dęblin, Poland. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2000: President, FAI Jury, eighth F3C European Championship in Assen, Netherlands. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2001: President, FAI Jury, F3C World Championship in Muncie, Indiana. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2002: President, FAI Jury, ninth F3C European Championship in Pitesti, Romania. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland. Joined East Coast Indoor Modelers club in Lakehurst, New Jersey (AMA charter #414).

2003: President, FAI Jury, F3C World Championship in Noto, Japan. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland. Joined Round Valley Radio Control Club in Pittstown, New Jersey (AMA charter #1502).

2004: President, FAI Jury, tenth F3C European Championship in Bitburg, Germany. Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. President, FAI Jury, Trophée de France in Wambrechies in May. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2005: Chaired March FAI/CIAM F3C Technical meeting in Lausanne, Switzerland. President, FAI Jury, F3C World Championship in Zamora, Spain. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland. Joined the MSS club (AMA charter #262). Elected Vice President of the East Coast Indoor Modelers club.

2006: Attended March FAI/CIAM Bureau and Plenary meeting in Lausanne, Switzerland. President, FAI Jury, first Radio Control Helicopter 3D Taiwan Cup in April. President, FAI Jury, Trophée de France in Wambrechies in May. President, FAI Jury, eleventh F3C European Championship in Blandford Forum, Great Britain in August. President, FAI Jury, first F3C Asian/Oceanic Continental Championship (AOCC) in Ohta, Japan. I taught an F3C judges' course at that event. Attended FAI/CIAM Bureau meeting in Muncie, Indiana.

2007: Attended March FAI/CIAM Bureau and Plenary meeting in Lausanne, Switzerland. President, FAI Jury, Trophée de France in Beugin in May. President, FAI Jury, twelfth F3C World Championship in Wloclawek, Poland in July. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2008: Attended March FAI/CIAM Bureau and Plenary meetings in Lausanne, Switzerland. President, FAI Jury, second F3C AOCC in Cebu City, Philippines in May. I taught an F3C judges' course with 21 Asian candidate judges present. President, FAI Jury, eleventh F3C European Championship in Maubeuge, France in July. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2009: Attended March FAI/CIAM Bureau and Plenary meeting in Lausanne, Switzerland. President, FAI Jury, thirteenth F3C World Championship in Muncie, Indiana. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2010: Attended April FAI/CIAM Bureau and Plenary meeting in Lausanne, Switzerland. President, FAI Jury, twelfth F3C European Championship in Sibiu, Romania in July. President, FAI Jury, third AOCC in Taichung City, Chinese Taipei (Taiwan) in October. I taught an F3C judges' course at that event. Inducted into the AMA Model Aviation Hall Of Fame in September. Attended December FAI/CIAM Bureau meeting in Lausanne, Switzerland.

2011: Donated my original 1971 Schlüter *Cobra* helicopter to the National Model Aviation Museum in Muncie, Indiana in March. Attended April FAI/CIAM Bureau and Plenary meeting in Lausanne, Switzerland. I stepped down as Chairman of the FAI/CIAM F3 Radio Control Helicopter Subcommittee but maintained my membership as USA representative. I served as president of the FAI Jury for the last time at the fourteenth F3C World Championship in Calcinato, Italy in August.

2012: Served as USA representative on the FAI/CIAM F3CN Radio Control Helicopter Subcommittee.

2013: Invited to serve as member of the FAI Jury at the fifteenth F3CN World Championships in Wozclawek, Poland. Served as USA representative on the FAI/CIAM F3CN Radio Control Helicopter Subcommittee.

2014: Relinquished my position as USA representative on the FAI/CIAM F3CN Radio Control Helicopter Subcommittee, but was asked to remain as honorary member of the Subcommittee.

2015: Invited to serve as member of the FAI Jury at the sixteenth F3CN World Championships in St. Anzian/Klopeinersee in Austria.





Scratch-built Fokker D.VII semi-scale 1/2A FF - 1955



Berkeley Casina 182 semi-scale 1/2A FF
Cox Thruster Drone .049 engine - 1955



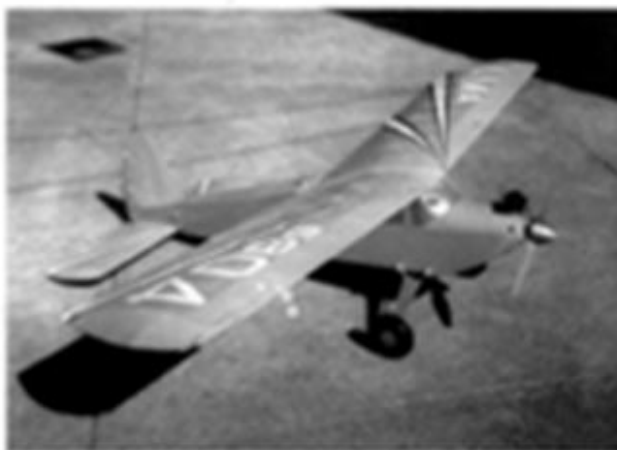
Top-Flite Jetex 50 powered F-85A FF model - 1956



Building a Berkeley DeHaviland Beaver with
Berkeley Aerobal R/C & S/N escapement - 1956



Original "Shockywakins" rudder-only S/N escapement
R/C model with Weibra .09 C/O Diesel engine - 1956



DeVall Patel single channel compound escapement
with Bartram .10 C/O engine - 1956



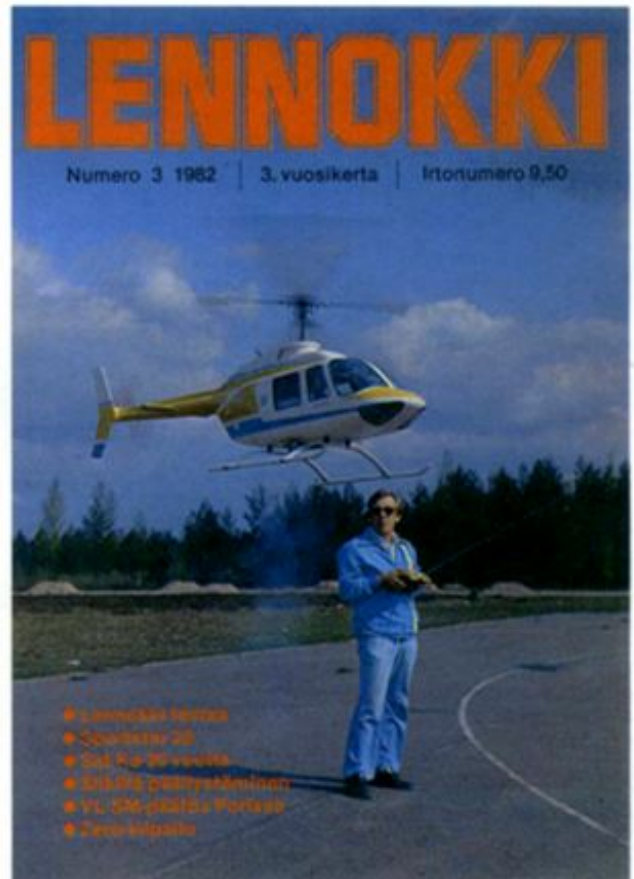
My Jet Ranger hovering over Prometheus at Rockefeller Center ice skating rink - Model Aviation Day 5 - 1980



AMA chartered Club #1309 | founded in 1979



Cobra and Kwik-Fli pattern ship - 1st in Helis, Eveready Grand Champion & 5th place pattern trophies - 1972 LIDS meet



My 15 seconds of fame making the front cover of Finnish model magazine's Fall 1982 issue



1/2A scratch-built CL stunt plane with Ailyn
Sky Fury .049 engine - 1954



Scratch-built Fokker D.VII semi-scale 1/2A FF - 1955



Scratch-built ducted fan semi-scale Grumman F6F
Panther FF with TD .049 engine - 1956



Original "Shookywukms" rudder only S/N escapement
R/C model with Webra .09 diesel engine - 1956



DeBolt Rebel single channel compound escapement
with Bantam .19 engine - 1956



Top Flite Orion with K&B .45 engine and home built
8-channel reed R/C system • Bonner servos - 1960

The following was published in the January 2011 issue of Model Aviation magazine after Horace was inducted into the 2010 AMA Hall of Fame.

Horace Hagen

Horace Hagen has been involved in aeromodeling since 1948 when he built and flew hand-launched and rocket-powered gliders in post-World War II Germany.

“Model airplane engines were banned in Germany after the war, so my first model was a rocket-powered semi-scale replica of the Heinkel *HE 162 Volksjager (Salamander)* constructed of overlapping cardboard (Armadillo fashion),” Horace wrote. “After the first semi-successful flight, I was captivated by flying models.”

Horace moved with his family to the United States in 1953. As a high school senior, he became fascinated with radio control. He felt that the equipment was unsatisfactory.

“This era was known as the ‘escapement’ era, when we were really flying Free Flight models that were disturbed by Radio Control,” he wrote.

Constructing his own single-channel proportional Radio Control system (MAC-II) transmitter, mechanical pulser, 2-tube Lorenz receiver, and Mighty Midget motor actuator, he finally achieved controlled flights.

Modeling activities ceased in 1957 as Horace went to college. In 1961, he graduated with a degree in electrical engineering and went to work for AT&T Bell Laboratories.

That same year, Horace scratch-built a multichannel Radio Control system modeled after the Orbit eight-channel reed equipment. This got him hooked on Radio Control and he purchased his first multichannel equipment in 1964.

The next modeling hiatus came with marriage and children and airplanes went into storage until 1969. That year Horace attended the Radio Control symposium sponsored by the Washington, D.C.-based DCRC club. At the symposium, three attempts were made to set the first Radio Control helicopter world record for duration.

“I recorded the 5.6-second record set by John Burkam on 8 mm film,” Horace wrote. “It was not a controlled flight but it was a start.”

The following year he met Dieter Schluter while on vacation in Europe. Dieter had just set the helicopter world record in distance and duration categories with a 27-minute and 51-second flight. Horace added his name to a waiting list for one of the first 50 handmade Bell Huey *Cobra* kits that Dieter was planning to produce in his basement.

“At the beginning of February 1971, I received the first semi-kit in the USA and in April I was the first to hover a shaft-driven Radio Control helicopter in the USA,” wrote Horace. “In September, I flew the helicopter alongside Dieter Schluter at the Doylestown, Penn. F3A World

Championships.”

Horace was still flying Radio Control aerobatics and pylon at his club's events (Monmouth Model Airplane Club), but helicopters were rapidly becoming his chief interest. *Model Airplane News* published his article about learning to fly model helicopters in July 1972.

Two years later, AMA formed a Radio Control Helicopter Advisory Committee and Horace was asked to be a member. The committee of six devised the first set of helicopter competition rules that were used in the 1974 and 1975 Nats on a provisional basis.

Horace flew in a large number of helicopter events during this time, but in 1976 he realized that traveling to compete so much was keeping him away from his family, so he turned his attention to organizing an annual event for his club: The East Coast Radio Control Helicopter Championships. He eventually directed several of the annual events, including the tenth and final one in 1986.

In 1979, AMA asked Horace to be its representative to the FAI/CIAM F3C Radio Control Helicopter Subcommittee, a position he still holds. In 1982, he was appointed chair of the newly formed AMA Radio Control Helicopter Contest Board, also a position he still holds.

Horace was the director of the first Radio Control helicopter competition held at the Nats in 1983. He was appointed Chairman of the newly formed USA FAI/F3C Team Selection Committee two years later.

He was appointed to serve as a member of the FAI Jury at the first F3C World Championships held in London, Ontario, in 1985. This was the first of many international and world championship events in which he served as a jurist or judge, most recently as president of the jury in the thirteenth F3C World Championship in Muncie, Indiana.

In 1997, Horace began flying electric-powered helicopters and airplanes exclusively and first tried his hand at indoor electric-powered aircraft in 2002 in Lakehurst Hangar 1.

Horace received the AMA Fellow award in 2002 at an FAI/CIAM bureau meeting in Lausanne, Switzerland.

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