



The AMA History Project Presents: Biography of ROBERT P. (BOB) JOHANNES

March 12, 1934 – June 30, 2004



Written by JB (11/1983); Submitted by JB (2004); Transcribed by JS (07/2009)

The following was written by Jim H. Bennett in November of 1983 and submitted to the AMA History Project (at the time called the AMA History Program) in 2004.

Robert Johannes

Davenport, Iowa, March 12, 1934

to

St. Charles, Missouri, June 30, 2004

At age six, Bob Johannes was building model airplanes from kits purchased at the local five and dime. His dad provided some assistance in helping read instructions. Bob continued building and flying into his teen years. In 1953, he met Marilyn Ganschow, another student at the University of Illinois. He was in the engineering school and the Air Force ROTC, and she was in the education department. After graduating in Electronic Engineering with a commission of Second Lieutenant in the Air Force, Bob and Marilyn were married on June 9, 1956. A few weeks later, Bob began building models again on a card table in their apartment. Marilyn said, "I never heard the words 'model airplane' before this."

Bob became a member of the Air Training Command Team at the 1959 Air Force Championships at Chanute Air Force Base in Rantoul, Illinois. He set two AMA gas records. Marilyn and Bob's two children were born, David in 1959 and Lorraine in 1960. Bob flew Radio Control in the Air Force when Free Flight sites were not available. In his aeromodeling career, he flew Microfilm Indoor Stick, AMA Gas, FAI Power, Radio Control Pattern, and Radio Control Soaring. He later concentrated on Free Flight Power.

In 1982, Bob and Marilyn moved to St. Louis. By then, their kids were out of college. Bob joined the Thermaleers, an AMA chartered club. Bob later became club president and a contest director. He was a proponent of "Bunt" VIT for Category III Power. Three of his designs were selected NFFS Models of the Year. In 1997, he won AMA Large Gas, in 1999 FIC, and in 2000 FIJ. Bob was the AMA Gas Champion at the 1998 National Meet. He holds three of the five National Records for Category II Power Free Flight. He made five instructional video tapes, starting in 1992, two on hand launch and catapult gliders and three on construction of Free Flight Power. Bob's paper on "Bunt" appeared in the March 1994 issue of *Free Flight Digest*. He wrote a two-part article for *Model Aviation* on trimming and adjusting Free Flight Power models, printed in March and May of 1997. Bob was chair of an ad hoc group within NFFS to assist youth and other new builders in FAI designing, building, and flying multi-function VIT.

Bob was a member of the Soaring Society of America. He was a glider instructor pilot and had over 600 hours flying gliders in the 1970s. He earned the Gold Soaring Badge with one

Diamond, earned for the goal task of a 200 mile out and return flight.

Bob's professional career was in aerospace engineering. In addition to the Bachelor of Science in Electrical Engineering from University of Illinois, he received a Master of Science in Electrical Engineering with a concentration on Guidance and Control of Aerospace Vehicles from the Air Force Institute of Technology. Programs that Bob worked on and led as project director were:

1. Self Adaptive Control Systems for Fighter Aircraft, Wright Patterson Air Force Base, Armstrong.
2. *X-15* Control System, jointly with NASA working with another builder, Neil Armstrong. The design change enabled the *X-15* to reenter the atmosphere at a much higher altitude. An international altitude record for winged aircraft was set.
3. Load Alleviation and Mode Stabilization (LAMS) Program. Using a B-52, the program demonstrated that proper use of automatic control system could reduce the effect of gusts and increase the fatigue life of large flexible aircraft. An earlier accident where the vertical fin of a B-52 was torn off by a gust while flying at low altitude led to the need for this program. The technology was applied to the C-5 transport aircraft during the early development.
4. Pioneered the concept of Control Configured Vehicles (CCV), where traditional structural and aerodynamic design constraints for aircraft could be relaxed allowing weight savings and better performance. Test programs with an *F-16* and a B-52 were conducted to prove the feasibility.

Bob received the Wright Brothers Medal in 1972 for "meritorious contribution in aeronautic engineering" because of his work on CCV. The technology has been used in many military and civilian aircraft. He was Deputy Director of Dryden Flight Research Center at Edwards Air Force Base from 1979 until 1981.

At McDonnell Douglas, he managed the Highly Integrated Digital Control (HIDEC) program where the electronic flight control system was integrated with the engine control system improving fuel economy and performance. He developed the NASA *F-18* High Angle of Attack Research Vehicle (HARV) giving capability for an eighty-degree angle of attack.

Bob authored and co-authored twenty-six papers on flight control systems.

Marilyn and Bob are the grandparents of Brendon, 15, Emilee, 13, and Padraic, 8.

Bob Johannes' Aeromodeling Highlights

- 1940: At age six, begins building dime model kits with help from dad.
- 1959: Sets two AMA Gas records at the Air Force Championships at Chanute Air Force Base in Rantoul, Illinois.
- 1960: Builds Radio Control airplanes at Wright Patterson Air Force Base. Flys Radio

Control Pattern and Sailplanes

- 1982: Joins Thermaleers, an AMA club, and concentrates on Free Flight Power
- 1990: Serves as club president and contest director
- 1992: Prepares five instructional video tapes from hand launch and catapult glider to construction of Power Free Flight
- 1994: Writes article for Free Flight Digest on Bunt design
- 1997: Writes articles on Free Flight trim and adjusting for Model Aviation in the March and May issues
- 1996: Sets National Record in Class B, Category III Power
- 1998: Set National Records in Class 1/2A and Class D, Category III Power. Also, wins National Free Flight Power championship in Muncie, Indiana.
- 1997, 1998, and 2000: Three designs win Model of the Year, AM Power, F1C, and F1J
- Introduces son Dave to F1C and he becomes a successful competitor

Major Contest Firsts

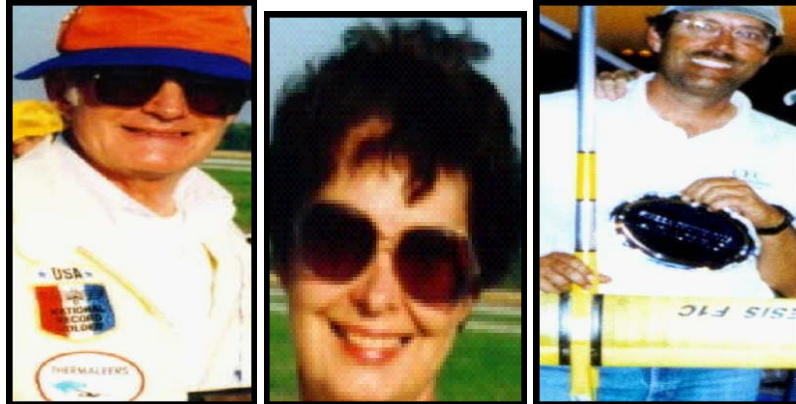
Date	Place	Location	Contest Type
1992	1st	Lawrenceville	Old Timer Combined
1992	1st	AMA USOC/Nats, Muncie	D Gas
1992	1st	SAM Champs	Class C Pylon
1992	1st	Lawrenceville	A Nostalgia Gas
1994	1st	Lawrenceville	A Gas
October 7, 1995	1st	Mid-America Free Flight Champs	B Gas
October 6, 1996	1st	Mid-America Free Flight Champs	1/2 A Gas
October 6, 1996	High Point	Mid-America Free Flight Champs	Power
October 4, 1997	1st	Mid-America Free Flight Champs	A Gas
October 4, 1998	1st	Mid-America Free Flight Champs	A Gas
October 4, 1998	1st	Mid-America Free Flight Champs	B Gas
October 5, 1998	1st	Mid-America Free Flight Champs	C/D Gas
1998	1st	38th Invitational FAI Meet	F1J
1999	1st	25th Annual CA FAI Invitational	F1J
1999	1st	50th Inter-Cities FAI Meet	F1C
2000	1st	51st inter-Cities FAI Meet	F1J
2001	1st	52nd Inter-Cities FAI Meet	F1C Team
2003	1st	54th Inter-Cities FAI Contest	F1C
1998	2nd	55th Midwestern States Champs	Catapult Glider

National Records

Date	Record Type	Flight Time
July 22, 1996	Free Flight B Gas	90 minutes
August 30, 1998	Free Flight D Gas	60 minutes
September 19, 1998	Free Flight 1/2A Gas	29 minutes

National Free Flight Society Awards

Date	Award	Model Name	Model Type
1997	Model of the Year Award	Rotator 620	Large Power
1999	Model of the Year Award	Warrior 820	Power
2000	Model of the Year Award (Joint Award)	Odyssey	F1J



(Left to right: Bob, Marilyn, and Dave Johannes)

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