



The AMA History Project Presents: Biography of COL. FRANK BORMAN

March 14, 1928 - November 7, 2023 Started modeling in 1938



Written by JK/FB (1966), NASA (1993), & BA (2003); Transcribed & Edited by SS (07/2003); Updated by JS (03/2020, 11/2023)

Career:

- 1970-1986: Was CEO and chairman of Eastern Airlines
- Retired from the United States Air Force, served as a NASA astronaut and a professor at West Point
- Received the Congressional Space Medal of Honor
- Graduate of West Point
- Builds and flies mostly Society of Antique Modelers (SAM) Free Flight models
- Has been restoring old airplanes for the past 13 years [as of 2003]; has completed over 17 restorations in that time
- Currently [2003] is CEO of a corporation involved in laser technology
- Served as commander for both the Gemini 7 and Apollo 8 missions, was an Apollo program resident manager and was field director of NASA's Space Station Task Force
- Appointed special presidential ambassador on trips to Europe and the Orient

Honors:

- 1968: AMA Distinguished Service Award
- Member of the United States Astronaut Hall of Fame and the International Aerospace Hall of Fame
- Was awarded the Harmon International Aviation Trophy, the Robert J. Collier Trophy, the Tony Jannus Award and the National Geographic Society's Hubbard Medal

John Kiker interviewed Col. Frank Borman for the July/August 1966 issue of American Modeler, in the "AMA News" section.

An Interview: What AMA and Modeling Mean to an Astronaut

[By John Kiker]

Command pilot of NASA's longest space flight credits model aviation as career stimulus in this exclusive interview with AMA reporter.

Air Force Col. Frank Borman, who with Navy Capt. Jim Lovell made up Gemini 7's space team during its two-week stay in space, left behind an unfinished rubber-powered free flight model when he blasted off the pad at Cape Kennedy. He's been too busy ever since that famous flight last December to get back to completing that bit of unfinished business. But he did take time out last April to talk, during an interview arranged by the Academy of Model Aeronautics, about his days as an active modeler and his views on what model aviation has meant to his family.

AMA Leader John Kiker, himself an active model flier and also a key member of NASA's staff at Houston's Manned Spacecraft Center, acted as reporter for AMA HQ during the interview. Here are the significant questions and answers between John and Col. Borman which were recorded on tape.

Question: News stories during your record-breaking Gemini flight indicated that you have been an active model aircraft builder and flier. Is this correct?

Answer: The answer is yes. It is correct - I have been in the past a very active and avid model airplane builder and flier.

Question: When and where did you start building models?

Answer: ...It was in Tucson, Arizona, back in the thirties, when I was starting in sixth and seventh grades.

Question: What type of models did you build and fly?

Answer: The type of models I built and flew were all gas (engine) propelled free flight models. I remember the first engine I had was an old 'Hi-Speed' engine .29. I did not have enough money for an Ohlsson .23 - I had to settle for a Hi-Speed.

Question: What was the extent of your activity - fly-for-fun or contests?

Answer: It was both - my father and I were sort of a team. We entered contests, won in a couple... We went to the state contest... flew every Sunday morning - it was quite a family activity.

Question: Did you ever enter the Nationals?

Answer: I never entered the Nationals. I did not have airplanes that were good enough...

Question: Did you build any particularly memorable models?

Answer: I think the most memorable model - or perhaps there were two of them - one was a Zipper with a Bunch Guinn Aero... it caught a thermal and we chased it for three hours in Tucson. It was an unusual model... this was during the war and dope was hard to get... a couple of coats of dope and then it was covered with the regular household enamel. I also had a very impressive Playboy with an Ohlsson .60 in it that was the best flying model I have ever had. But, unfortunately, on one of the test flights right before a contest... the old rubber we were getting wasn't too good and the wings came off... and that was the end of that one. I rebuilt it but I never got the fuselage back again and... it never was completely in line.

Question: A former AMA President heard you at a luncheon about four years ago credit model aviation as a stimulant to your career in the Air Force as an astronaut. Did modeling stimulate your career?

Answer: I'd say yes. It did and, as a matter of fact, even after I got in the Air Force we built - my wife and I - built and flew model airplanes. And while we were at Phoenix, I lost a Brooklyn Dodger... It got caught in a thermal and I lost it... My boys build models now. And I - down at the Cape preparing for (Gemini) - bought a rubber model that I am putting together at home now.

Question: Were you a member of AMA?

Answer: Yes, I was a member of the AMA. When I was a boy were members for several years... Let's see - this would be when I was in the seventh or eighth grade so that would put me about 14 years old... so that would be around '42...

O.K. now we are down to: did modeling stimulate my career? I think modeling is a definite stimulus to anyone that is interested in aviation. You gain, of course, one great thing... patience. I can remember many times sitting out there cranking those old ignition engines, trying to get them to start and run and you know how temperamental they were... the coil would be out or the condenser would be shot, or the spark plug gap would be closed... all of this sort of thing and then of course you always had the familiar spiral dive and you start over again. I think it is a wonderful thing - I can't think of a better hobby or better interest for a boy. I must confess that I am prejudiced because I think free flight is of far more value than the U-control. I think it takes a lot more skill and you get a lot more knowledge of aerodynamics than you do from U-control... but for a youngster growing up the investment in this radio control is too much... Of course, the thing to do would be start out in free flight and then...

Question: What advantage do you think modeling provides to the youth of our nation, particularly as this may relate to juvenile delinquency?

Answer: Well, again, I think that I may sound overzealous, but I don't know of any modeler - when I grew up - that was ever in trouble. A person who is really an avid modeler spends too much of his time working to get the money to build the models and the rest of the time is spent building the models and I can't think of a more wholesome hobby or sideline for boys.

Question: We have heard that most of the astronauts at one time built and flew model aircraft. Do you agree with this assumption?

Answer: I have not discussed it with many of them - I would presume that a great deal of them did because anyone that is interested in aviation usually has had a modeling background. I don't know of any other astronauts other than Neil Armstrong... I didn't know he was a former national contestant... but I am not familiar with any others who have been really active in modeling.

Question: Do any astronauts now participate in modeling activities either directly or as spectators?

Answer: Well, as I mentioned, I am building right now a rubber-powered model that I purchased while I was down at the Cape training for Gemini 7. But I find... the time and the pressures of this job just about negate any serious attempts at modeling. This one was started when I came back from the flight and right now it is up in the closet... I have got the fuselage partially finished on it and I wonder if I will ever finish it because we took off on a 26-day tour of Japan and now I am starting to work on the Apollo... you just can't break away so it is very difficult to remain active as a modeler now.

Question: We would like to get you out as a spectator anyway.

Answer: Well, I will be - I have two boys and I am very glad for this interview to find out that you all are flying over here (Houston) because we will be over now. I'm anxious - I've still got quite a few models. My pride and joy was a Dooling 29 that I bought a long time ago... I had

saved and saved and finally I gave - it was just rusting away on a shelf there and my boys were not using model engines that large - it away... when I was in the Philippines in '52 I bought an engine that I have never seen before over here - I gave it away, too - but I built a model for it - it was an Enya 53...

It was a fantastically powerful engine. I put it in a great big U-control model and it went so fast... the hinge forces were so great on the elevator that I couldn't get any control on it... and it went around and around and around. That was the end of it. As a matter of fact, my wife is an expert U-control flier. I got her interested in it and she is better than I am on it.

Question: Do you have anything to add which might be of interest to AMA members and others who may read this interview?

Answer: ...the only thing that I have to add is that I wish that everybody could have gotten as much out of model aviation and had as much enjoyment from it as I have. Not only do I think that it helped to further my career and stimulate an interest in aviation, but in my case it provided many long hours of very fine companionship with my father... he helped me build and we worked together as a team and it was really a fine activity. In fact, I probably got to know my father better building model airplanes than any other thing we did.

Aside, re Wright field: I built a Cleveland Condor. Do you remember that the 7-foot model? I got one good flight out of it but it never flew again. As a matter of fact, while I was teaching - I taught fluid mechanics and aerodynamics at West Point and we had a visiting lecturer there, Dr. Raspet who was a boundary-layer-control man and quite interested in soaring... He gave me the profiles for several high performance (designs) that were developed over in Germany. I still have them at home and if I ever get the time again I am going to build... a nice floater. Do they still publish MODEL AIRPLANE NEWS?

Questioner: Yes - they do, sure do, and AMERICAN MODELER and RC MODELER.

Borman: Those weren't around when I grew up... It was MODEL AIRPLANE NEWS and AIR TRAILS.

Questioner: AIR TRAILS is now AMERICAN MODELER.

The following article on Col. Frank Borman ran in the July/August 2003 issue of SAM Speaks, the publication of the Society of Antique Modelers. It was written by Bruce Augustus, SAM Speaks editor and publisher.

Col. Frank Borman – Astronaut, Aeromodeler

By Bruce Augustus

It was a few days before Christmas 1968. They were coming around to the dark side of the moon, the first humans ever to see it. "It looked like the burned-out gray ashes of a barbeque...but it didn't have the impact on me as the view of the Earth." Those were the words of 41-year-old commander of Apollo 8, at the pinnacle of a career no one had ever dreamed of when he graduated from West Point and began training as a fighter pilot. The man is Frank Borman, Colonel, United States Air Force, retired, NASA astronaut, Air Force fighter pilot, engineering test pilot, corporate CEO, West Point professor, recipient of the Congressional

Space Medal of Honor, member of the United States Astronaut Hall of Fame, International Aerospace Hall of Fame, vintage aeromodeler and member of the Society of Antique Modelers (SAM).

It all began at age 10 in 1938 with a Cleveland Cloudster and a Hi-Speed 29. He would have preferred an Ohlsson 23, but they cost \$16.50, and he could afford the \$12.75 Hi-Speed. He never got the Cloudster to fly, but the next project, a Comet Mercury, did fly, and he was on his way. Frank had to quit aeromodeling at West Point but began building again at the Air Force Flying School. He built a Dakota and then, at Williams Air Force Base in Phoenix, a Brooklyn Dodger.

One day while out flying with his wife, Susan, the Dodger flew away. For the next few weeks, seven-month-pregnant Susan went out unbeknownst to Frank and searched for the airplane. Susan and Frank have been married for 53 years, have two sons and three grandsons.

While serving as a fighter pilot in the 44th Fighter Bomber Squadron in the Philippines during the early 1950s, Frank built Control Line models, and, like many of us, Frank phased out of aeromodeling for over 20 years. He picked it up again in the late 1970s, building the models he remembered from his youth. Frank builds only SAM models, mostly Free Flight, but is converting some to Radio Control (RC) and is attracted to the small backyard flyers, which can be flown close to home. He finds building models to be relaxing and spends far more time building than flying. There is little aeromodeling activity nearby in southern New Mexico, and most of his time is spent restoring and flying full scale.

Frank has been restoring old airplanes for the past 13 years [as of 2003], having completed over 17 restorations, including several P-51 Mustangs, a Bell P-63 Kingcobra, and a Waco SRE, many of which have won air show prizes. Most were sold, but he has kept his rare magnificent two-seater P-51 which, at 75 [as of 2003], he still flies in air shows. It was a first prize winner at Oshkosh and Sun 'n Fun EAA Fly-In. He also participates in the Air Force Heritage Flight, in which old and new airplanes are demonstrated at air shows. Frank flies a twin jet Cessna Citation for business and traveling to his ranch in Montana. He still has an active business life as CEO of a corporation involved in laser technology.

Frank attributes much of his success in life to his early experiences with aeromodeling. The patience, persistence, and skill with tools he learned then have served him well. Once as a boy, he saved enough money to buy a Brown E motor and cranked it for the whole summer without ever getting it to start. We seldom see that quality in today's culture of instant gratification. He says model airplanes are in his blood. Kind of looks like anything that flies is in his blood.

Frank's strong leadership qualities have been demonstrated over and over, as commander of both the Gemini 7 and Apollo 8 missions, Apollo program resident manager and field director of NASA's Space Station Task Force. In Gemini 7, he participated in the first-ever space rendezvous – with Gemini 6. Frank retired from the Air Force in 1970 and became CEO and chair of Eastern Airlines, a post he held until retirement in 1986.

He was appointed special presidential ambassador on trips to Europe and the Orient and participated in a worldwide tour to seek release of POW's in Vietnam. In addition to the Congressional Space Medal of Honor, Frank was awarded the Harmon International Aviation

Trophy, the Robert J. Collier Trophy, the Tony Jannus Award, and the National Geographic Society's Hubbard Medal. He also has many honorary degrees and service decorations.

Frank has disclosed some of the qualities he thinks are important for the development of a good leader, namely, integrity, intelligence, and knowledge of the industry. Other important qualities are caring for people, being committed to the mission, clarity about goals, ability to find and identify trustworthy people and then give them freedom to work and, finally, the ability to subordinate personal desires for the good of the program.

We asked the colonel about the UFO's, which magazines reported him and Jim Lovell saw during the Gemini 7 and Apollo 8 missions. Frank said the stories were nonsense; they never saw anything. Nor does he believe they exist.

The following biography on Col. Frank Borman was released by NASA in December 1993 and can be found at <http://www.jsc.nasa.gov/bios/htmlbios/borman-f.html>.

A hero of the American space odyssey, Frank Borman led the first team of American astronauts to circle the moon, extending man's horizons into space. He is internationally known as commander of the 1968 Apollo 8 mission. A romance with airplanes that began when he was 15 years old took Frank Borman to the Air Force and then to NASA.

A career Air Force officer from 1950, his assignments included service as a fighter pilot, an operational pilot and instructor, an experimental test pilot and an assistant professor of thermodynamic and fluid mechanics at West Point. When selected by NASA, Frank Borman was instructor at the Aerospace Research Pilot School at Edwards Air Force Base in California.

In 1967, he served as a member of the Apollo 204 fire investigation board, investigating the causes of the fire that killed three astronauts aboard an Apollo spacecraft, reminiscent of the Challenger tragedy. Later he became the Apollo Program resident manager, heading the team that re-engineered the Apollo spacecraft. He also served as field director of NASA's Space Station Task Force.

Borman retired from the Air Force in 1970, but is well remembered as a part of this nation's history as a pioneer in the exploration of space and a veteran of both the Gemini 7, 1965 Space Orbital Rendezvous with Gemini 6 and the first manned lunar orbital mission, Apollo 8, in 1968.

Borman's retirement from the Air Force in 1970 did not end his aviation career. He became a special adviser to Eastern Airlines in early 1969 and in December 1970 was named senior vice president-operations group.

He was promoted to executive vice president-general operations manager and was elected to Eastern's board of directors in July 1974. In May 1975, he was elected president and chief operating officer. He was named chief executive officer (CEO) in December 1975 and became chair of the board in December 1976.

During his tenure as chief executive officer of Eastern, the airline industry went through an enormous change caused by deregulation. During this period Eastern originated several unique programs including profit sharing and wages tied to company profitability. These programs produced the four most profitable years in the company's history. A recalcitrant union forced

their abandonment in 1983 and the resulting losses led to the sale of the airline to Texas Air Corporation. Colonel Borman retired from Eastern Airlines in June of 1986.

Colonel Borman was privileged to serve as special presidential ambassador on trips throughout the Far East and Europe, including a worldwide tour to seek support for the release of American prisoners of war held by North Vietnam.

He received the Congressional Space Medal of Honor from the President of the United States. Colonel Borman also was awarded the Harmon International Aviation Trophy, the Robert J. Collier Trophy, the Tony Jannus Award, and National Geographic Society's Hubbard Medal – in addition to many honorary degrees, special honors, and service decorations. More recently, in September of 1990, Colonel Borman, along with fellow Apollo 8 astronauts Lovell and Anders, was inducted into the International Aerospace Hall of Fame. And in October of 1990, he received the Airport Operators Council International Downes Award. In March 1993, he was inducted into the U.S. Astronaut Hall of Fame.

Frank Borman was born in Gary, Indiana, and was raised in Tucson, Arizona. He earned a Bachelor of Science degree from the U.S. Military Academy, West Point, in 1950 and a Master of Science degree in aeronautical engineering from the California Institute of Technology in 1957. He completed the Harvard Business School's Advanced Management Program in 1970.

Frank Borman is currently [1993] a member of the board of directors of the Home Depot, National Geographic, Outboard Marine Corporation, Auto Finance Group, Thermo Instrument Systems and American Superconductor. He was named chief executive officer of Patlex Corporation in the spring of 1988 and presently holds the titles of chair, CEO, and president of that corporation. He has written an autobiography entitled Countdown: An Autobiography of Frank Borman with Robert J. Serling, released October of 1988 and published by Silver Arrow Books, William Morrow and Company, Inc.

He is married to the former Susan Bugbee of Tucson, Arizona. They have two sons, Frederick and Edwin, and four grandchildren. Frank and Susan presently reside in Las Cruces, New Mexico.

More information about Col. Borman can be found in the book From the Captain to the Colonel by Robert J. Serling. A copy of this book is in the Lee Renaud Memorial Library at the National Model Aviation Museum.

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