



## 6 September 1970: Maynard Hill, the Lindbergh of Model Planes, Boosts his "Catbird" to 8'205m

Lausanne, Switzerland, 3 September 2015 - Let us look back 45 years on the 6 September 1970 and recall an FAI World Record in Gain in Altitude for Aeromodelling and Spacemodelling (Class F) that has not been broken since. On 6 September 1970, the American Maynard Luther Hill set the record in Gain in Altitude for Radio Control Flight Aeroplane, with a record altitude of 8.205m (26.920 feet). Hill's "Catbird" launched at 5:24pm, when the sun was low in the sky and a remarkable improvement in visibility, from the former Naval Weapons Laboratory Airfield, Dahlgren, Virginia in the United States.

## The flight – almost perfect

The model rose on its own power from hand launch. Approximately 43 minutes were spent climbing and 20 minutes in diving back to the ground. According to Hill's gripping documentary of the flight and behind the scenes tensions involved in the Flying Models Magazine which has been published in the January issue of 1971, no complications in maintaining a stable flight showed up. In previous record flights control problems were encountered due to weak radio signals at the long range or else too cold temperatures. This time, a special optical tracking unit has been used by the pilot to view his aircraft at altitude and electrically controlled by the observer for one hour. Evaluations of the range radar and elevations were taken every 30 seconds throughout the flight to make sure to track the exact position of the model.

According to Hill's report, if the model would have been lost a rather complex process would have implied. "The big trouble with this procedure is that 99 times out of 100, the airplane has moved to a new point in the sky that's outside the field of view of the optics. So no airplane is found. (...) It is literally like looking for a needle in the haystack." Hill described. If the model is upwind there were only five to six minutes to reposition it, otherwise the radar would have reported that it has reached the boundaries. Safety rules demand to imply full down elevator, putting it into a vertical dive and locking it to track it down to the ground. According to his report, he "dumped" already several model aircrafts on previous attempts and collected their pieces.

On this attempt the model aircraft landed at a distance of ten meters from the take off point. "I can honestly say that when my airplane was 27.000 feet (ca 8.230m) high (...), I didn't feel very good. I had a cramp in my rib cage muscles, I needed to go to the bathroom, my heart was pumping heavily, my nose itched, my eyes hurt, my adrenaline was overflowing, (..)", Hill wrote about his thoughts during the flight in the report when he pushed "Catbird" in the minus 35 degree sky. In order to claim the record the model aircraft had to be landed 500 meters of where it had been launched. The total flight was approximately 63 minutes.

It was not perfectly perfect though. The model landed with no fuel remaining as the tank had only been filled to the \(^3\)4 mark for the flight. In the "Description of the Flight" in the 45 year old Record Claim it was mentioned that the fuel air mixture setting at take-off was not optimum, so a slow climb rate resulted. Additionally, Hill screwed the needle valve too lean. It was estimated that a flight up to 30.000 feet (ca. 9.150m) would have been possible if it were not for these errors in judgement by the pilot. "I think I've had a million pleasures and excitements from my hobby, but somehow, none is greater than a successful flight up through those long tubes to a place where nobody else has ever put an R/C

*model.*" On the following day, September 7, two other attempts to reach 30.000 feet were made but poor visibility forced abortion of these attempts about 21.000 feet (ca. 6.400m) and 23.000 feet (ca. 7.010m), respectively.

## A model-airplane history maker

Hill was born into the Golden Age of Aviation on February 21 1926, in the coal mining town of Lehighton, Pennsylvania. Reading through his <u>autobiography</u>, he numbered Charles Lindbergh and Amelia Earhart among his childhood idols but was always more fascinated by miniature aircrafts than their full-sized equivalents. "By age 9," he mentioned in his biography, "I had acquired a fairly serious addiction to balsa wood and glue." In 1943, he joined the US Navy and during the Second World War served in Panama. After the war ended Hill took two degrees in Metallurgy at Pennsylvania State University and served as a program manager for remotely piloted vehicle remaining in this field for most of his career. He became a pioneer in developing unmanned aerial vehicles – drones – for the US military.

"Maynard's achievements in aeromodelling are unique: He set an incredible number of Model Aircraft World records, topped by the unbelievable Atlantic crossing of his TAM model, a feat that created worldwide notice and admiration", Sandy Pimenoff, President of Honour and Alternate Delegate for Finland of the FAI Aeromodelling Commission, stated. In fact, beginning in the 1960s, he set 25 world records for speed, duration and altitude, additionally he invented a method of stabilizing aircraft through the use of the electrostatic field that exists in the atmosphere.

Hill served for years in the FAI International Aeromodelling Commission (CIAM): as Chairman of the RC Subcommittee, as organiser of Courses for International Judges, and as a never-failing source of information and technical expertise, always prepared to help and assist. Additionally, he was included into the Model Aviation Hall of Fame in 1977. Several of his planes, including the Spirit of Butts Farm, are on display at the National Model Aviation Museum in Indiana. Another plane is in the National Air and Space Museum's collection.

Maynard Hill, died on June 7 2011 of cancer at the age of 85 years. He is survived by his wife Gay and their three children. As Pimenoff continued: "We have lost a legend, but Maynard will always live in our memories."

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## **About the FAI**

The <u>Fédération Aéronautique Internationale (FAI)</u>, the World Air <u>Sports Federation</u>, is the world governing body for air sports and for certifying world aviation and space records. The FAI was founded in 1905 and is a non-governmental and non-profit-making organisation recognised by the International Olympic Committee (IOC).

FAI activities include Balloons and Airships, Power Flying, Gliding, Helicopter flight, Parachuting, Aeromodelling, Aerobatics, Hang Gliding, Microlight and Paramotor flying, Amateur-Built and Experimental Aircraft, Manpowered flying, Paragliding and all other Aeronautic and Astronautic sporting activities.

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