



# The AMA History Project Presents: Autobiography of JOE KOVEL



**Modeler, Designer, Competitor,  
Builder of the Famous *KG-1***

September 14, 1914-March 4, 2009

Modeler starting in 1927

AMA Number: 2556

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Written & Submitted by JK (9/1996); Transcribed by NR (1/1997); Edited by SS (2002), Updated by JS (10/2008), Reformatted by JS (10/2009)

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## **Career:**

- May 25, 1935: entered the Eastern States Meet; the *KG-2* made a record flight of 64 minutes 40 seconds, out-of-sight overhead at an elevation of about 4,000 feet
- National Championships Competitor
- Developed the *KG-1* named after Joe Kovel and Charles Hampton Grant
- Wrote many articles for Model Airplane News
- Built a number of “Wind Tunnel Patent Model” for Charlie Grant's Multi segment Flaps
- Volunteer at the “Cradle of Aviation Museum” at Mitchell Field in Long Island

## **Honors:**

- 1990: Society of Antique Modelers Hall of Fame
  - Society of Ancient Eagles (SAE) Charter Member
  - 1998: Model Aviation Hall of Fame
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## **The Beginning**

I started to build model airplanes right after Lindbergh's flight to Paris in 1927. First model was a “stand-off” scale model of Lindberg's Spirit of St. Louis. The framework was split pieces of wood from egg crates delivered to our grocers in those days, LePages glue, curtain material for covering, no prop, and no rubber motor. I fastened a long string to the model and ran with the model until it took off.

The second model was built from plans in the American Boy magazine. It was a stick model with a wingspan of about 18 inches. When hand launched at about shoulder height, it flew about “one sewer” – the distance between two manhole covers on our street.

The third model was built from plans in Popular Science magazine (circa 1928). This model proved to be a success. It was a pusher model with a cigar-shaped fuselage and had a landing gear. It actually took off under its own power and climbed to height of about 25 feet.

After that, I began to design my own models and had a fair measure of success in our local contests in New York City. We had frequent contests (sponsored by the many newspapers that were published in those days) in several local armories for our indoor events and in Van Cortland and Central Park for our outdoors events.

In 1932, at the Nats in Atlantic City, New Jersey, held in the ballroom of one of the hotels there, my model took first place in the Stout Indoor Event with a flight of 13 minutes, 3 seconds. I think it was the last time that a paper-covered model won that event at a Nats. It was at this Atlantic City Nats that I heard that a fellow named Maxwell Bassett had successfully flown a gasoline powered model airplane.

## **The *KG-1* Story**

The *KG-1* story began in 1933 when I received a post card from Model Airplane News notifying me that a medal I had won at a recent contest was available for me to pick up. When I arrived at the office, the secretary told me that Mr. Grant had a visitor, but that I could go right in. The visitor I found out was Lieutenant H.W. Alden of the N.A.A. I knew about him from the many contests I had attended where he officiated in one capacity or another.



As I walked into Mr. Grant's "inner sanctum," the first thing I heard was Lieut. Alden asking Charlie (Grant), "How about Joe, Charlie, have you asked him?" I had no idea what that was all about, but then Charlie asked me, "If I were to furnish you with a gasoline engine, would you be willing to guild a model airplane for it?" I hesitated for an instant while the impact of Charlie's question hit me: "Would I be willing to build a model airplane to be powered with a real gasoline engine?" How could I say no?!

Though I had been graduated from high school a couple of years before, with a commercial course diploma and was going to night school to gain credits needed to go to college some day to study engineering, the thought of building a gas powered model promptly took priority.

### **Phase 1**

The Nats were to be held in a few weeks at Roosevelt Field on Long Island. While Charlie was drawing up the rough plans on heavy brown wrapping paper of the model I was to build, I cleared decks for action by completing the rubber-powered models I intended to fly at the Nats.

I still find it difficult to believe that I completed building what was later to be called the *KG-1* in just about three weeks after I began receiving Charlie's rough drawings. The model was finished on the morning of the Nats. It was a large model with a wingspan of eight feet and a fuselage a little over six feet long. I had no way of getting the model to Roosevelt Field since I did not have a car. I made my way to Roosevelt Field with my rubber-powered models by public transportation (about a two and a half hour trip).

While I was making official flights with my models, Charlie had contacted a friend who had a

station wagon and who volunteered to drive me back to Brooklyn, N.Y., to pick up the gas model. By the time we drove back to Roosevelt Field and assembled the model, it was almost quitting time and Bassett had already made a clean sweep of the three events that he had entered. Now came the crucial moment, starting the engine! I never had the time to get familiar with the "Gill" engine that Charlie had provided, so the job of starting the engine fell to others. No luck! We could not get it to run. That ended phase one of the story.

## Phase 2

This began when the gas model and I were shipped to "West Wind Lodge," Mr. Grant's home of Peru Vermont, and the engine Charlie had ordered from Bill Brown had arrived. Charlie designed the engine mount so that it accommodated all of the power plane components (engine, fuel tank, condenser, coil, batteries, and ignition switch). It could be quickly installed into or removed from the fuselage. After building the engine mount, I modified the forward bulkheads of the fuselage so as to nest the power module in place.

Bill Brown arrived in "West Wind Lodge" on the Labor Day weekend of 1933 to help with the first flights of the model. We took it to a large field in nearby Landsgrove, assembled it and Bill Brown started the engine. Charlie Grant picked up the model, ran with it and hand launched it into the air. He had to hand-launch it because the grass (fortunately) was about three feet high. The model went up to the height of perhaps 50 feet, made a shallow bank to the left and slowly spiraled to the ground, breaking the prop. Prop number two was installed; Charlie made a couple of adjustments, launched the model again, and repeated its previous performance. Prop number three was installed; Charlie made a few more adjustments; the model was launched again and repeated its slow spiral dive to the ground, breaking prop number three. At least its performance was consistent. With no more props at hand, it was back to the shop and the drawing board.

While Bill Brown and I were each carving another prop, Charlie did some heavy thinking and decided that the wing should be raised three inches above the fuselage, so as to raise both the center of gravity and the center of lateral area of the model. I built the wing mount as per Charlie's specs, and then it was back to Landgrove for further tests. As previously, Charlie ran with the model, launched it and away it went in a beautiful climbing turn. On its first successful flight, the model was timed for 14 minutes. Charlie had been chasing the model on foot, while I followed some distance behind. After what seemed like an eternity, I heard Charlie yell, "Joe, I found it!" When I finally reached Charlie, he was standing besides the model, which was on the ground, undamaged, in the middle of the forest, with a twig of a tree caught in its landing gear. We had lots to talk about at dinner that night. And that is when the model was named the *KG-1*. As Charlie commented, a model that could land undamaged in the middle of a forest, must be pretty "Cagey!"

A number of flights were made during the balance of 1933, and there was a memorable flight at Roosevelt Field in February of 1934 with Professor Alexander Klemin as an observer. A few weeks later, I had occasion to visit Charlie in Peru, Vermont. Naturally, we spoke about the *KG-1*, and he suggested a few modifications to enhance its glide. These suggestions - to increase the

wingspan to 10 feet; to increase the stabilizer span to 45 inches; and to add 8% to the fin area - were incorporated into what became the *KG-2*. I completed the model in mid-1934, made several flights with it, and on May 25, 1935, entered it in the Eastern States Meet held at Hadley Field, New Jersey. The meet was sponsored by Bamberger Aero Club of Newark, New Jersey with Nat Polk as contest director. The *KG-2* made a record flight of 64 minutes 40 seconds, out-of-sight overhead at an elevation of about 4,000 feet. Yes! The modifications to the original *KG-1* did enhance its glide!

### **Model Airplane News Articles by Joe Kovel**

- March 1934, "How you can build the Waco Cabin plane"
- October 1934, "Build this prize winning Stinson"
- April 1935, "How to build a reliable gas engine model" (part 1)
- May 1935, "How to build a reliable gas engine model" (part 2)
- July 1935, "How to make a Clark Y wing sections"
- June 1936, "Props for your gas jobs"
- July 1937, "A flying Bellanca Aircruiser"
- September 1937, "Grant wing sections for every purpose"

### **Models built for Charlie Hampson Grant (Multi Segment Flaps)**

- 1939: First Patent Model (Wing segment with three flap components and activation mechanism)
- 1939: Second Patent Model (Improved version of above)
- 1960 – 1965: Wind tunnel Model (Tested at Rensselaer Poly Institute)
- 1988: Second Patent Model (Refurbished)

### **Jobs in Aviation**

- 1935-1936: Sikorsky Aircraft, Stratford, Connecticut, Tank Department, S-42 & S-43 Flying Boats
- 1937-1938: Serversky Aircraft, Farmingdale, New York, Wing Center Sections P-35 Fighter
- 1939-1944: Brewster Aero Corp. Long Island City, New York, Sheet Metal Dept. Section Foreman, Buffalos, Buccaneers, Vought F4-U's
- 1946: B&H Aircraft, Long Island City, New York, Prototype Items
- 1947: Edo Aircraft, College PT, New York, Fuselage assembly department; Scout Observe, Float Plane

### **U.S. Navy**

- 1944-1945: Squantum Naval Air Station, Quincy, Massachusetts, AM/IC Aircraft Maintenance & Repairs
- 1945-1946: Weymouth (L.T.A.) Naval Air Station, South Weymouth, Massachusetts, mothballed Grumman "DUCKS" while awaiting discharge

- 1946-1947: Floyd Bennett Naval Air Station, Brooklyn, New York, maintenance work on Aircraft for "Weekend Warriors"

## **Schooling**

Graduated from high school in 1931. Soon after, while working at various jobs during the day, decided to continue in a night high school to obtain General Course credits just in case I'd be able to raise money some day with which to attend an Engineering College.

After World War II, I took advantage of the G.I. Bill and started to take a few courses to help me with the job of draftsman that I had at that time, and also so that I could understand some of the technical stuff that Charlie Grant would throw at me from time to time. These few Courses during evenings went on for 11 years at Brooklyn Polytech Institute until I was awarded a Bachelors Degree in Mechanical Engineering in 1960 (Magna Cum Laude).

## **Non-Aero Jobs**

In 1947, when the aircraft industry went on hold after World War II, I got a job as an Intermediate Piping Draftsman with the Lummus Co. When things slowed there, I took a job with Forster Wheeler as a Senior Draftsman. After about a year, I had a letter of recall to the Lummus Co. where I was eventually promoted to Designer status. Twelve years later – another lay-off. Started with Cemplant Designs – where we did work strictly for Du Pont. After five years, went to work for Stone & Webster – where my status was changed to Piping Engineer. I was there for just a few years when Nuclear Power became a “dirty word” and the project I was assigned to was canceled. The lay-off quickly followed, and I entered into an unanticipated retirement status.

## **Retirement**

Retirement has not been boring. In fact, I am much busier now than when I was on payroll. While working, my free time was limited. Upon retirement, I became involved in perhaps too many activities.

I am a member of several social clubs and attend polka dances and square dances as time permits.

## **Full Scale Aviation Activities**

- I am a member of the Antique Airplane Club of Greater New York
- Also a member of The Long Island Early Fliers Club
- I am a volunteer at the Cradle of Aviation Museum at Mitchell Field in Long Island every Wednesday, where we restore old Historic Aircraft and Build replicas of airplanes that no longer exist.

## Model Aviation Memberships

- The Academy of Model Aeronautics (AMA)
- The Pennsylvania Ave Radio Control Club (PARCS)
- Vintage Radio Control Society (VR/CS)
- Society of Antique Modelers (SAM) [Hall of Fame]
- Society of Ancient Eagles (SAE) [Charter Member]

Then, too, there is the matter of maintaining the old homestead, the garden, the car and recharging the batteries of so many of our modern gadgets. All of the above besides the usual shopping, cooking, cleaning, laundry, vacuuming, etc., I often think of going back to work again so that I can rest up a bit!

*(signed) Joseph Kovel - 1996*

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*The following photographs are from the Joe Kovel collection at the National Model Aviation Museum.*

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**1934: Charles Grant watches as Joe completes the assembly of the original KG-1 prototype in preparation for a flight during the summer at a contest held at the LTA Station in Lakehurst, New Jersey.**



**September 1933: The full KG team after the first test flight of the KG-1. Joe (left) built the model, Bill Brown (middle) designed and built the Brown Junior engine used in the model, and Charles Hampson Grant (right) designed the model. Otto Conderman took this photograph in Landgrove, Vermont, close to where Charles lived in Peru, Vermont.**



**May 1943: Joe with a 1938 gas model at a Brewster Aero Corporation Model Aero Meet at Creedmoor in Long Island, New York. At the time, Joe was section foreman for Brewster.**



*1983: Joe and Charlie Grant at the Nats held at Westover Air Force Base in Chicopee, Massachusetts.*



*Kovel with a KG model in-the-bones. Photograph not dated.*



*September 12, 1998: Joe receiving his Model Aviation Hall of Fame award.*



*The KG-1 model hanging in the National Model Aviation Museum.*



*January 12, 2000: Joe with the ready-to-be-covered replica KG-1 he was building for the Cradle of Aviation Museum at Mitchell Field in Long Island, New York. This photograph was taken at the museum's visitor center.*

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**AMA History Project**

National Model Aviation Museum

5151 E. Memorial Dr.

Muncie IN 47302

(765) 287-1256, ext. 511

[historyproject@modelaircraft.org](mailto:historyproject@modelaircraft.org)

