
Autobiography of BILL EVANS

Modeler since 1936

Birth Date: September 29, 1931 AMA Number: Simitar

Written and Submitted by BE (8/97)

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Career:

- Joined the Northern Indiana Gas Model Association
 - Worked for a hobby shop owned by Bob Roberts, manufacturer of the line of Rite-Pitch propellers
 - Joined the Air Force in 1952 and worked as control tower operator
 - Designed and built the first Lil Esquire for Midwest Products in 1955
 - Designed 75 model airplanes in the Simitar series; 30 were published as construction articles
 - Designed his first sailplane, the Silent Squire, in 1975
 - Published articles in Model Aviation, Model Airplane News, Radio Control Modeler, Flying Models, Model Builder and Radio Control Sportsman magazines
 - Started a foam cutting and kit business in 1975 called Soaring Research; the name later changed to Bill Evans Aircraft
 - Designed, built and flew the Saracen, his first flying wing, in 1975
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Aircraft and flying have been a key issue with Bill since a very early age. It began with watching aircraft at the local airport in Gary, Indiana. His first flying effort was folding and tossing paper gliders into the air.

Bill's first building project was a 10-cent Comet kit in 1937. This was followed by many more of the same. In 1943 Bill built his first powered Free Flight model, a Sal Taibi Brooklyn Dodger with a Brown, Jr. engine up front. Next were many more Free Flights.

His first Control Line was a Stanzel Shark G-Line powered by a Rocket 46. Then came a Walker Fireball with a Forster 29. Bill joined the Northern Indiana Gas Model Association and the AMA. He worked in a hobby shop owned by Bob Roberts who manufactured the line of the Rite-Pitch propellers.

Many more U-Controls followed – stunt ships like the Demeco Bipe and Speed Wagons with McCoy 29, 49 and 60s. Bill's dad owned the Evans and Son Moving and Storage Company in Gary, Indiana, and soon the warehouse was filled with model aircraft.

Radio Controlled (RC) flying for Bill began in 1949 with Vern McNab's Citizen Ship escapement radios. The ships were Free Flight with rudder control and flying was done at Tony Grish's farm in Saint John, Indiana where the Tornado propellers were manufactured.

Bill received much help and encouragement from Bill Braatz, a great modeler who flew P-38s in the Pacific during World War II. In 1952 Bill joined the Air Force and served as a control tower operator in several Air Force towers including Hickman Air Force Base (AFB) and Johnston AFB. While in the Air Force, Bill continued his modeling efforts, mostly U-Control.

Upon his return to Indiana from the Air Force in 1955 he moved deeper into RC and designed and built the first Lil Esquire for Midwest Products.

In 1959, Bill, his wife Joan and sons Keith and Billy moved to North Hollywood, California.

His RC flying went into full swing at the Sepulveda Basin flying field in Van Nuys. It was still a rudder-only time; his first design in California was the Hightailer using a McNab radio with a Babcock escapement. Next came possibly the first low wing RC, the Marker. Then Bill designed, built and flew the first RC P-51 Mustang. It was a great thrill to see it lift the tail, go up of the runway, clear the cornfield and rip through the air with the Torpedo Green Head .09 roaring. Next came the first ME 109 to fly RC.

With the advent of simultaneous, proportional, trimable control came the break that was needed. Bill's first new era radio was a Kraft.

Bill tuned to slope soaring and his first sailplane design was the Silent Squire published in Radio Control Modeler magazine in February 1975 and soon after kitted by Midwest.

Next came the Slope Squire followed by more than 20 original designs of which more than 10 were published construction articles in Model Aviation, Model Airplane News, Radio Control Modeler, Flying Models, Model Builder and RC Sportsman magazines.

With the advent of the Silent Squire construction article in Radio Control Modeler in 1975, Bill began a foam cutting and kit business, Soaring Research, which has become Bill Evans Aircraft and still endures today. Late in 1975 comments by old time modeler friend Bill Braatz of Indiana about tailless aircraft gave rise to start Bill thinking about developing such aircraft.

He did research about the Northrop ships and others. Bill decided that, number one, the airfoil would be semi-symmetrical with some reflex. Number two, the C.G. needed to be well forward of the normal 25 to 25% as on conventional planes. Number three, the most efficient and easy to install control system would be elevons. Finally, number four, vertical stability would best be affected by using a fix vertical fin.

Next Bill worked on and developed the Evans' Simitar Airfoil (ESA). The foam wings were hand-cut and quickly Bill's first flying wing, the Saracen, took to the sky off Snake Hill in Malibu Canyon close to the Pacific Ocean. The slope soaring ability of the Saracen was greater than Bill had imagined. Glide aspect of Saracen was superior to all conventional gliders he had flown. It flew in lighter wings, thermalled, flew fast and slower, was aerobatic and turned tighter than anything conventional. To launch at 9 a.m. and land at noon was new to all in 1975.

Several Saracens were soon built ranging in span from 49 to 100 inches. The Saracen construction article was published in the April 1976 issue of Radio Control Modeler magazine.

The Saracen was the first in the Simitar line of more than 75 designed in the series; more than 30 have been published construction articles.

Early in 1976 Bill concluded that since the Saracen flew so well as an un-powered glider, then it would be really great with an engine. So a 48-inch Saracen glider was modified to fly with a Cox 049 engine. It was all that was hoped for; performance was outstanding. Named the Simitar it was published in the December 1976 issue of Radio Control Modeler magazine. The name Simitar, which has been applied to all of Bill's flying wing designs as series, came as follows.

Bill reasoned that since the Saracens were the infidels that fought the crusaders in the Holy Wars and the power of the Saracen was his sword, called a Simitar, it would be natural that a powered Saracen be called a Simitar. Therefore all that followed would be of the Simitar Series.

The Simitar (049) was immediately followed by a larger version using a .15 and named the Simitar 15. It was published in the December 1976 issue of Model Aviation magazine.

In 1977 there was a Simitar .35 followed by the Simitar 540 (500 square inched powered by a .40). The 540 was published in the October 1978 issue of Radio Control Modeler.

The success of these first four Simitars and the acceptance and positive reaction from RC pilots throughout the world lead to the no-holds-barred development of more than 75 designs. From the 24-inch span, a .020-powered Bugs Ear, to the awesome Pole Star Twin with a span of 100 inches and powered by two Super Tiger 3000s, they have all enjoyed the Simitar advantage. More than 30 have been published as construction articles.

*(signed) Bill Evans
August 1997*

The following is a list of publications and designs by Bill Evans.

Non-Construction articles

RCM = Radio Control Modeler

MA = Model Aviation

Article Name	Magazine	Date Published	Description
Easy Packer	RCM	April 1979	Plug in wing variation on the Saracen glider
Mystique of the Flying Wing	MA	March 1985	An article that explains the conception of the Simitar, its development and its attraction to modelers; photos included
It Really Works	MA	October 1987	A reflection of Bill's 15 years of dedication to the tailless design and an explanation of those who ridicule experimenters.

A Step into Aviation History	RCM	January 1988	A commentary on experimentation in modeling featuring a tailless Simitar CAP-21
Elevons Another Way	RCM	August 1975	His super-simple effective sliding servo tray for mixing elevator and aileron functions
Practical Slope Flying	RCM	August 1976	A guide for beginner slope pilots
The First 12,000 Foot	RCM	June 1977	Slope flying in the Sierras with his friends
Sierra Slope Flight			
Flight Assurance	RCM	August 1978	Pre-flight check plans
Techniques			
Properties of Foam	MA	January, February and March 1978	A definitive article on foam – its uses, characteristics and cutting
Man Alone Cutter	MA	January 1979	Incredibly simple, inexpensive and precise one-man foam cutting machine
Firewall Finesse	MA	June 1981	Aligning and installing firewalls into fiberglass fuses the easy way
Light Weight Foam Wings	MA	December 1984	The myth of foam wing weight is tested
The Wing Connection	RCM	April 1985	Wing mounting technique
Joining Foam Wings	RCM	November 1985	Fiberglassing wing centers
Workshop Organizer	RCM	September 1986	A simple hold-everything rack on wheels that allows the builder to save steps and find his tools and supplies while building
Night Flying	MA	April 1981	Flying and pylon racing at night

Conventional Aircraft Designs as of 1996

Plane	Span	Power	Date Published	Magazine/Manufacturer
Crosswind	72 in.	15	August 1981	Model Aviation magazine
Dasher	50 in.	40	October 1978	Model Aviation magazine
Dirtstripper	50 in.	40	November 1980	Model Aviation magazine
Lil Esquire	48 in.	049		Midwest Kit
Hightailer	50 in.	09 (rudder only single channel – ROSC)		
Hotrock	50 in.	40	November 1977	Model Aviation magazine
Hole Card	45 in.	15	September 1976	RC Sportsman magazine
Marker	50 in.	09 (ROSC)		
Maximum	72 in.	Low wing glider, rudder and elevator	March 1983	Radio Control Modeler magazine
ME-109	50 in.	First RC ME-109; rudder only		

Model T	60 in.	40 (high wing, tail dragger)		
P-51	50 in.	09 (first RC Mustang; rudder only)		
Seville	72 in.	Low wing glider	May 1977	Model Aviation magazine
Silent Squire	72 in.	High wing glider	February 1975	Radio Control Modeler magazine and Midwest kit
Slope Squire	50 in.	Low wing glider	January 1979	RC Sportsman magazine
Windduster	60 in.	High wing glider	February 1984	Flying Models magazine
Winterhawk	100 in.	Thermal glider	May 1978	Model Aviation magazine
Airfoil Test #1	50 in.	Flat bottom mod. airfoil test		
Airfoil Test #2	50 in.	Semi-sem. airfoil test		
Elevator Roll test	50 in.	Test to roll with aileron type elevator		

The Simitar Advantage

The following is a list of advantages inherent to all Simitars:

There are several flight characteristics in the Simitar series that make it much more superior in flight performance to a conventional aircraft with the aft mounted horizontal stab!

First a Simitar will not stall! As you reduce power and pull back on the elevator, when it reaches the point where a stab ship would stall, the Simitar will merely drop its nose and continue to fly straight ahead with the nose down a bit. So, with the Simitar, the tail will never drop, tip, stall and crash. How many times have we all either tried to force a stab ship into the air or stretch the glide and have it tip, stall and crash! Never will it happen with a Simitar.

Second a Simitar has a wider speed range. It will fly slower and faster than a conventional ship. Given the same weight, same power, same wing area; the Simitar, since it will not stall, will fly slower and since it has less drag, will fly faster!

Next a Simitar is aerodynamically stable! Hands off at quarter throttle, tap a bit of left aileron gets the right wing tip up a bit; let go and a Simitar will do left 360s until you say quit! Anyone of any age who cap tap left stick and right stick can fly down on the stick since it will not stall pitch control, it is not required for slow flying. Take-off and landing for first time flyers are no problem!

Aerobatics? A Simitar will do all maneuvers a conventional pattern ship will do, except better and more easily. Plus, it will tumble for and aft as well as tip to tip. And it makes tight turns!

Just think about it – the fastest ship in the world, the SR-71, is a flying wing! The fastest passenger ship in the world, the Concorde, is a flying wing! The space shuttle, which has the world's distance record, goes into space and re-enters at 18,000 mph over the Indian Ocean to land at Edwards, is a flying wing. None of these ships have aft mounted horizontal stabs. Ever wonder why? Performance!

Paul Harvey recently made the statement: "Before too much longer, no aircraft will be built with horizontal tails."

Simitar Designs as of 1996

Advantage #1 – 64 in. span, 40 power, round cowl, tri gear; to be published in 1998

Advantage #2 – 64 in. span, 40 glow or 15 geared elect, tail dragger, cowl cheeks; to be published in 1998

Alien #1 – 50 in. wing, 40 engine, space ship with single wing

Alien #2 – 50 in., 40 engine, bi-plane space ship

Alien #3 – 50 in., 40, anhedral, space ship

Alien #4 – 50 in., .40, swept forward wing, space ship

Astron – 40 in., 15 engine, X-Wing star fighter; published April 1979 in Model Aviation magazine

Astron 40 – 50 in. span, 40 engine, X-Wing start fighter; published November 1979 in Radio Control Modeler magazine

Astron 3000 – 85 in. span wing 16 square feet, Super Tiger 300, X-Wing star fighter

Bugs Ear – 24 in. span, 020 power; published March 1982 in Modal Airplane News magazine

Bottom Line – 64 in. span, 60 engine, non-functioning canard

Bullet – 40 in. span, 40 engine, racing version of the Slow Motion

Boogie Board – 20 in. span, 40 engine, swept forward wing

Charger – 64 in. span, 05 and 15 electric version of the Slow Motion; published August 1990 in Model Aviation magazine

Classic – 64 in. span. 40-60 power, mixture of early racers and fighters; to be published in 1998

Centron – 60 in. glider, futuristic, space looking; published in June 1979 in RC Sportsman magazine

Desperado 40 – 50 in. span, 40 engine, space looks, anhedral wing; published in April 1984 in Model Aviation magazine

Desperado 60 – 60 in. span, 60 engine, space looking, anhedral wing; published March 1988 in Radio Control Modeler magazine

Desperado 3000 – 85 in. span, Super Tiger 3000, space looking, anhedral wing; published in March 1988 in Radio Control Modeler magazine

First-in-Line – 40 in. span, 40 engine, two wings in line one behind the other in line, the first in line either full-size of model ever flown; to be published in 1998

Folker T-D-7 – 45 in. span, 40 engine, scale Folker D-7 with Simitar airfoil, no horizontal aft mount stab

Future Shock – 60 in. span, 40 flow or 25 elect, twin fins; published October 1994 in Model Airplane News magazine

Future Sixty – 64 in. span, 60 engine, long, slim vertical fin, anhedral wing; to be published in 1998 by Flying Models magazine

Hotshot – 48 in. span, 15 engine, styled as Slow Motion

Leading Edge – 60 in. span, 40 power, twin fins mounted on wing, jet look; published in January 1990 in Radio Control Modeler magazine

NT-2T – 64 in. span, 40 power, Do Dah-like fuse, this one has no tail to tell, neither horizontal nor vertical

Pole Star – 60 in. span, 40-60 power, jet looking; published in March 1991 in Radio Control Modeler magazine

Polestar FBI – 70, 80 and 96 in. span versions of the Pole Star called by many the FBI (flies by itself)

Polestar Twin 45 – 64 in. span, two 45 K&B Sportsters, twin fuse ala F-82

Polestar Twin 6000 – 100 in. span, two Super Tiger 3000s, twin fuse

Polestar X EPO – 50 in. span, 60 power, severe wing taper, expert pilots only

Saracen-Libra – 72 in. span glider, first of all the Simitar Series

Saracen – 72 in. span glider, updated airfoil from the Libra; published in April 1976 in Radio Control Modeler magazine

Lil Saracen – 48 in. span, glider, small version for hot slope flying

Saracen 120 – 120 in. span, glider, largest Saracen

Shooter 40 – 50 in. span, 40 power, sleek jet look; published in July 1991 in Model Airplane News

Shooter 60 – 60 in. span, 60 power, larger version of the Shooter

Skywalker A/2 – 45 in. span, 049 power, jet looking

Skywalker 40 – 50 in. span, 40 power

Skywalker 60 – 60 in. span, 60 power, all Skywalkers were published in a triple construction article in the March 1985 issue of Radio Control Modeler magazine

Sierra Trainer – 60 in. span, 40 engine, highwing, tail dragger; published in the December 1986 issue of Model Builder magazine

Starshot – 60 in. span, 40 engine, severe forward sweep wing

Stroker – 60 in. span, 40 four-stroke engine, sport looking, low wing

Simitar – 48 in. span, 049 power, the first Simitar; published in the December 1976 issue of Radio Control Modeler magazine

Simitar 15 – 60 in. span, 15 engine; published in December 1976 in Model Aviation magazine

Simitar 35 – 50 in. span, 35 engine, jet looking, tri gear

Simitar 540 – 50 in. span, 40 engine, jet looking, very popular; published in October 1978 in Radio Control Modeler magazine

Simitar Deuce – 60 in. span, 15-25 power, hand-launch; published in August 1981 in Model Airplane News magazine

Slow Motion – 60 in. span, 15-40 power, sporty low wing tail dragger; published in January 1987 in Model Aviation magazine

Senior Slow Motion – 64 in. span, 40-60 engine; published in October 1993 issue of Model Aviation magazine

Slow Motion 09 – 48 in. span, 09-15 engine; published August 1997 in Model Aviation magazine

Simitar Trainer – 60 in. span, 25 engine, pitch control on wing and yaw control on rudder

Simitar Q – 50 in. span, 40 engine, Simitar for quickie racing

Seamitar – 60 in. span, 7.5 ducted fan, twin fins, possibly the first ducted fan to fly off water

Simitar 61-P – 60 in. span, 60 power version of the Simitar 540, first Simitar with retracts; published in Model Aviation magazine in October 1982

Simitar Sport – 60 in. span, 40 power

Simitar 21000 – 100 in. span, quarter scale Simitar with lines of the Simitar 540; published in 1982 in Model Airplane News magazine's giant steps

T-CAP-21 – 72 in. span, 60 power, scale CAP-21 with Simitar airfoil with no horizontal stab

Texas Time – 50 in. span, 40 power, jet like and fast

Top Gun 40 – 45 in. span, 40 power, futuristic look, anhedral wing

Top Gun 60 – 40 in. span, 60 power, futuristic look, anhedral wing

Tracer 40 – 50 in. pattern ship; published August 1986 in Radio Control Modeler magazine

Tracer 60 – 60 in. span, 60 power pattern ship; published in August 1986 in Radio Control Modeler magazine

Tracer ¼ scale – 85 in. span, S.T. 3000 power, pattern ship

Tradition – 64 in. span, 40 power, stretched fuse, version of the slow motion

Twin 09 – 60 in. span, twin engine 09

Twin 049 – 48 in. span, twin 049 engines

Twin XIX – 62 in. span, twin 19 engines; published February 1982 in Model Aviation magazine

Twiceguy – 60 in. span, 40-60 power, biplane version of Wiseguy

Upchuck – 50 in. span, 40 power, combat ship

Vader Down Under – 60 in. span, 40 power, vertical fins mounted on aft bottom of fuselage; to be published in 1998

Wiseguy – 60 in. span, 40 engine, jet looking low wing; published in March 1996 in Radio Control Modeler magazine

Wiseguy 3000 – 85 in. span, $\frac{1}{4}$ scale version of the Wiseguy

Zipity Do Dah – 64 in. span, 40 engine, all out fun ship; published in February 1995 in Radio Control Modeler magazine

Zipity Do Dah 3000 – 85 in. span, $\frac{1}{4}$ scale version of the Do Dah

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