EAA THE SPIRIT OF AVIATION

The Intrepid Airmen

EAA CHAPTER 62 SAN JOSE ~ CALIFORNIA

December 2012 | Volume 48, Number 12 | San Jose, CA

In this Issue

UPCOMING EVENTS

November Chapter Meeting

Thursday, December 6. Three Flames Restaurant, 1547 Meridian Avenue, San Jose 95125

Chapter 62 Board Meeting

No Board Meeting Scheduled for December.

December 6 Holiday Party celebrating Young Eagles and Russ Todd, Young Eagle Coordinator of the Year. 6:30 for 7:30 dinner.

January 3, 2013. Russ Todd will be demonstrating a simulated IFR flight using the WIndows Flight simulator, his flying hardware, and his big screen TV. Please note that the meeting will be held at Russ's house, 10484 Dempster Ave. Cupertino, 95014

February 7, Don Campbell of Samson Motorworks speaking on the *Switchblade.*

December Event:

Christmas Party

Our Annual Christmas dinner was held Thursday evening, December 6. We honored Russ Todd, who won the EAA (National) Young Eagle Coordinator award. Congratulations, Russ.

EAA Chapter 62's December meeting will be held at Three Flames Restaurant on Meridian Ave., San Jose

Please R.S.V.P.

6:30 PM Arrival
7:30 PM Dinner

Editor's Notes, by Mark Wainwright

An earlier draft of this Newsletter said that our December event "will be held…". I wrote that with the expectation that this would be published before the Christmas party, but, alas, events conspired to prevent me from finishing it on time. The principal event was the acquisition and (non) installation of a new dishwasher, but that's a story in itself.

Adelaide Wainwright, Colin McEnearney and other Wainwrights at their wedding in October

For those who were unable to attend the party, the summary is that it was an excellent event during which we celebrated Russ Todd's receipt of the EAA Young Eagle Award. Russ was unable to go to Airventure to pick up his award in person, so it was especially nice that the Chapter was able to put together an event in Russ's honor. The Chapter invited all the non-member Young Eagle Volunteers to come to the dinner as the Chapter's guests, and all totaled we had 34 volunteer guests in addition to 29 members and spouses.

A special thanks goes to Andy Werback for organizing the event, and also to Sam Werback and Gudren Polak for making an excellent and varied choice of desserts.

I am a little sketchy on the details, but the Chapter and/or Russ received a commendation from Santa Clara County for its/ Russ's work, which was presented to us by Mike Donohoe, who represented Supervisor Dave Cortese.

In January, Russ will be demonstrating an IFR flight on his computer simulator and displaying it on his big-screen television. The meeting will be held at his house, so please check the Chapter website and the first page of the Newsletter for details. In February we'll return to the Reid Hillview Terminal Building for a presentation from Samson Motorworks on the Swichblade, their roadable airplane.

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Interesting Airplane that Never Passed the Prototype Stage

Editor's note: *Every once in a while there appears an inspired design that doesn't come from Burt Rutan's drawing board. The Bellanca Skyrocket II (and III) is one of those designs. There was only one copy ever made, but it set five FAI world airspeed records for an aircraft in its class, all of which were still standing in 2007. NASA conducted further aerodynamic tests to investigate the design's natural laminar flow.*

When you first catch sight of the sensuous lines of the Bellanca Skyrocket II, it leaves little doubt that here is the true shape of flight. But there is a nagging feeling that something isn't right with the airplane. As I inspected it, I became more convinced that no matter how beautiful this airplane looked, something was definitely wrong. Then it hit me. The airplane looks like a mockup, one of those plaster-and-paint creations that give basic form but eliminate all the nasty little details that plague real-life airplanes, things like skin joints and rivets and inspection panels. The Skyrocket will haunt all who see it simply because it's just a bit too perfect to be a machine of bolts and nuts that actually flies. But, it does fly. Boy, does it ever fly!

One thing had better be straightened out right up front: the Bellanca Skyrocket has absolutely nothing to do with the Bellanca Viking or the company that builds the Viking in Minnesota. This Bellanca is a southern boy, from down West Virginny way, a product of Bellanca Aircraft Engineering, Inc.

Bellanca Skyrocket II

Giuseppe Bellanca is a name we should all remember better than we do, because he was an airplane designer for whom going out on the proverbial limb was a habit. Looking back at Bellanca designs, it would be easy to lump them all together as interesting antiques. But in their day, each of them broke in some way with established design practice. His first design, in 1912, resembled an arthritic bedframe, but it flew, and that was all that could be asked of an airplane in 1912. Then in rapid succession he leapfrogged through aerial ideas until he was suddenly known as the man who designed and built some of the best single-engine airplanes in existence. The original Skyrocket was one of these. The earmark of his designs in those years was the shape of the struts, axle fairings, and anything else that stuck out in the breeze. Everything but the wheels was sculptured into an airfoil shape to contribute lift. Another Bellanca trademark was the thick airfoil, which

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Letter from Bob Meuse

Editor's Note: *longtime member Bob Meuse reutrned to Massachusetts after having been with us in California for many years. Randy Wilde shared his letter with us.*

Howdee Randy and Rusty,

As you now know, I've left Kalifornia and moved into a huge apartment complex for "seasoned citizens" near Boston. It's called Brooksby Village and you can find out all about it on the internet by googling "Brooksby Village".

I realize now at age 88 (32 Celsius) that I'm in the right place. I only wish that I had done it 10 years ago.

It's been quiet so I went to the web to find out if there was an EAA chapter in this area (Boston). I came up with Chapter 106. With about 200 members it's the largest chapter in the East. I found that there was a meeting that morning at the Lawrence Municipal Airport about 30 minutes away. They even have their own little hanger. They were very cordial; welcomed me; and pushed a wonderful hamburger down my neck, so I joined. They are very active and the President Penelope (Penny) Bowman is very businesslike and in charge.

One of the visitors who spoke was connected with the Terrafugia airplane/car that flew at Oshkosh for the first time last year. It has flown for 40 hours so far and they presented it for PUBLIC DISPLAY for the first time at the Lawrence Municipal Airport. It will be driven and flown from many locations and the first PUBLIC viewing and flight was on October 27th.(I

(cont' on page 4)

Bellanca, cont'

contributed strength, lightness and good lowspeed handling

In 1937, when high performance seemed to require a 3,OOO-pound airframe, big wings and 450 horsepower, he brought out the fabulous Bellanca Junior. With a popping little 90-hp LeBlond radial up front, this nimble low-wing, retractable-gear rapier was good for 120 mph and eventually metamorphosed, with very few design changes, into the 180-mph Cruisemaster. (Even the 300-hp Viking can trace its lineage back to the Junior.)

In 1953 Giuseppe Bellanca divested himself of all interests in the Cruise-master and began work on an airplane that was as far ahead of its time as an Apollo capsule would have been at the '39 World's Fair. With his son August, G.M., as he is usually referred to by Bellanca buffs, began laying out the lines and parameters for an airplane that could be called nothing else but Skyrocket II.

Apparently two things bothered G.M. and August more than anything else. The first was drag, and the second was the high labor cost of nearly all conventional airframe construction. G.M. and August weren't thinking merely in terms of super-slick airframes, they simply wanted to build the lowest-drag airframe that has ever been produced, at the same time making it one of the simplest and strongest. Typically, they didn't even give sheet metal a thought. They wanted to try something that at that time, 1956, was almost unheard of outside the abstract conceptualizing of a few aerospace think tanks across the country. They wanted to use a composite material, part metallic, part non-metallic, to exploit the research into honeycomb panels and combine the strength and lightness of honeycomb with the quick assembly offered by epoxy/ glass laminates. It must be remembered that all this was taking place at a time when the Cessna 140 had yet to be reintroduced as the 150 and Piper's hot seller was the Tri-pacer. Fiberglass and epoxy hadn't even made a major dent in the boat industry yet. The Bellancas, father and son, were once again out on their familiar limb, sticking their inquisitive noses into unknown territory.

Then, in 1960, with the project ready to move off paper and into the workshops, G.M. died of leukemia. August, feeling the loss of both a father and working partner, initially slackened his pace on the Skyrocket. Then, deciding the best memorial to his father would be the production of his last design, August plunged back in with every bit of energy and money he could muster. But the scope of such a gigantic project was staggering. The years dragged on and the money poured out. Further complicating things was an unusual decision by August. He decided that there was no use in producing the prototype airplane

(cont' on page 5)

Meuse, cont'

missed it). I never REALLY thought that this thing was viable but apparently it is.

The Collings B-24, B-17 and P51 were at Worcester Mass just a month ago. We drove over to see them but the weather was bad and they took off the day before. My brother-in-law's name and my name have been on the B-24 since day one and for 20 years I've been a volunteer docent when the Collings planes come into Moffett Field every May.

A week ago yesterday I met Bob Collings of the Collings Foundation in Stow, Massachusetts. Every year at his own airport in Stow he has a re-enactment of a WW2 battle called "The Battle For The Airfield". It depicts as realistically as possible the taking of a German airfield by the Americans in WW2. They had a Fieseler Storch observation plane in the air constantly and there were four real beautifully restored American tanks, a perfectly restored Panzer tank, two actual German 88-mm anti-aircraft guns, (HUGE) about 100 men dressed up in real German uniforms, a realistic German hospital, barracks, big and real explosives, blank cartridges even for the 88 mm guns and the big rifles on the tanks; about 200 "soldiers" total and everyone had weapons with blank ammunition. There were about 1,000 spectators ($20 each). I'd like to have just the money spent on blank cartridges that day. The reenactment takes place twice a day every year and it lasts about 1 1/2 hours with constant gunfire and action; even "German officers" on horseback. They also had a perfectly restored 6 wheel 3 axle Mercedes Benz car like the one

B-24 Liberator

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Bellanca, cont'

with temporary tooling, so every time he made a part, he made up "hard" tooling which could also be used in a production line to crank out factory-made airplanes. The outcome of this approach was that August spent $2 million of the family fortune to get the prototype to the stage where it barely resembled an airplane. Everything had been done absolutely correctly, with no cost-cutting or shortcuts, but there simply was no more family money. Enter Henry Payne, Payne Engineering and some West Virginia coal money.

Henry Payne is an aeronautical engineer who, judging from his test labs, neat office building, a race track that circles through the office complex and the Porsche he keeps parked just off the lobby, must do very well at whatever it is that he does. (Snatches of conversations refer to him as a "prop man", meaning he's one of the. country's experts on small propellers.) When it looked like the Skyrocket was about to go under, he was the one August Bellanca approached to help make his dream a reality.

To make a fantastically long story moderately short, Payne and Bellanca joined forces, moved the project from Long Island to Charleston, West Virginia, and in March of this year, the Skyrocket roared down the runway and the Bellanca dream, after 19 years, was airborne. A sprightly 78-year old lady standing by the runway must have had tears in her eyes to see the legacy her husband, G.M. Bellanca, had left.

So now it has flown; as of this writing, it has made nine test flights So far, the test results are proving what G.M. and August Bellanca have known all along: with composite materials they can produce an airframe with an incredibly low drag coefficient, which translates into equally incredible speed.

Most airplanes, no matter what the horsepower, suffer from a severe case of the dirties. Every single rivet head, skin discontinuity, window edge and scuff mark costs dearly in drag. Drag increases as the square of the speed, so a little increase in speed means a big increase in drag, and that in turn means an equally huge increase in required horsepower. A striking case in point is the 400-hp Comanche. Going from 180 hp to 400 hp netted an increase from 160 to 210 mph (if you can believe 400 Comanche owners).

The Skyrocket on her maiden flights indicated 185 mph (as clocked by a chase plane with a calibrated airspeed indicator) while pulling less than 40 percent power. The 185-mph indicated figure is a self-imposed speed limit until flutter testing is completed.

When I arrived at Huntington County Airport in West Virginia, I half expected to find the entire Bellanca/Payne Skyrocket crew only then

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Meuse, cont'

Hitler used to ride in the passengers side standing up. It was absolutely GORGEOUS!

Collings has a beautiful car museum, a beautiful plane museum, a number of AT6s that he flies from his little field. Just think, he also owns the B-24, B-17, B-25, P-51, Messerschmitt ME-262 German jet with GE J85 engines, an F-4 Phantom (flying), a SAAB Viggen (not flying) and probably 50 more WW2 planes.

Well mates, it looks like I won't be attending any more EAA Thursday meetings with Don Wiggin, but I hope to be involved here with my new EAA Chapter 106 in the Boston area.

Please say hello to everyone for me, John Garliepp, Wolfgang, John Gould, et al.

I'll keep in touch with Chapter 62 and let you know of any things of interest in Chapter 106.

Cheerio y'all,

Fondly,

Bob

We miss you, Bob!

Bellanca, cont'

sobering up from the euphoric aftershock of test-flight excitement. After all, the sight of the gear leaving the ground had been a long time coming. What I found, however, was a congenial bunch of professional airplane builders, who, while properly excited about finally getting their albino baby into the air, realized they still had a long, rocky row to hoe. They weren't about to make any exaggerated claims and didn't even want to quote the best numbers their computers were giving them. Henry Payne, when asked about speeds, would smile a sly little grin and say things like "...cruise at least 260 mph…" or "...top out over 300 mph…" But you couldn't nail him to any maximum figure, only minimums, and I got the feeling that when the final accounting is in, the real-world performance is going to be 10-20 percent above what they are quoting.

Payne, in a moment of weakness, did say, "We've already flown faster than any single-engine lightplane ever has. I think it'll blow the doors off an Aerostar." He refuses to reveal the highest altitude at which the Skyrocket has indicated 185 mph, but admits that test pilot John Harris needed oxygen. At 15,000 feet on an Eastern winter day, 185 indicated is about 225 true; at 20,000 it's better than 240. If the Skyrocket is trueing 240 mph on 40 percent power, August Bellanca just may have something.

Beside Payne and August Bellanca, one of the real spark plugs and hustlers on the project is Harris, test pilot, vice president and all around Skyrocket representative. As a longtime Air Force blowtorch jockey (F-80s to F-104s) and EAA type (Miniplane and PJ-260), he knows how to fly them and what makes them tick. When asked what the test flights had told him about the Skyrocket, he said, "It's slippery, for one thing, I'd turn my head for a second and have 10-15 knots more when I came back to the airspeed. Otherwise, I could find nothing about it that was unconventional. It flies like any other airplane."

August Bellanca

It may fly like any other airplane, but even the most casual inspection of the airframe shows that it is a long way from being "...just another airplane…" It's also a· hell of a lot more than just another pretty face. There is the very real possibility that 50 years from now, when we look back at an aircraft industry that is hopefully taking careful note of the Skyrocket, we'll realize that this is one of those pioneering efforts that truly changed the course of general aviation. God knows we're due for a course change.

What the Skyrocket is bringing to the industry is far more than just the promise of a fast airplane. It's bringing the promise of a whole new method of building airframes, and that may be what saves general aviation from being priced out of business-as well as giving us far safer airplanes. There is a tendency to call the Skyrocket a "fiberglass" airplane, which isn't totally correct. There have been fiberglass airplanes in the past, such as the see-through Piper Papoose and the Windecker Eagle, but, for the most part, these early attempts to capitalize on the paintbrush building technique of fiberglass were really nothing more than conventional structures in which glass was substituted for aluminum. The number of parts was almost identical, and the construction methods were the time-consuming hand lay-up technology used by the boating industry. In the end there were no savings. Even the aerodynamics didn't take complete advantage of the ease of compound curves offered by 'glass. (The highly touted Windecker Eagle, for example, ended up about 2 mph faster than the Bonanza with the same engine.)

The correct terminology for the materials used in the Skyrocket II is "composite". In the Bellanca, the composite materials are epoxy-impregnated fiberglass cloth and aluminum honeycomb bonded together to form composite

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Bellanca, cont'

honeycomb panels with aluminum cores and 'glass surfaces.

The best way to describe how the Skyrocket is built is to call it a high-quality plastic model airplane kit. It's that simple. The fuselage is built in two halves and fitted together over the bulkheads. The wings work the same way, with the spar caps molded into the pre-formed skins. The skins are then joined together over the honeycomb panel spar webs and ribs.

The construction sequence for a fuselage half is more a matter of working textiles than it is assembling airplane parts. The outside skin is a fiberglass cloth-called "prepreg"—that comes from the glass manufacturer already impregnated with the proper combination of epoxy and catalyst. It's shipped frozen and will keep for more than a year in that state before it begins to harden. The person on the production line (Bellanca envisions hiring mostly women experienced in textile work) takes the prepreg cloth out of the freezer and lets it thaw. Then she cuts around a template and crops the piece of trimmed cloth into the female mold that is bagged in place and cured. Then an aluminum honeycomb with no skins, ⅜- to ½-inch thick, is forced down into the mold on top of the cured prepreg cloth, which has been brushed with a coat of fresh epoxy. It doesn't take much epoxy because the aluminum in the honeycomb structure is so thin that any glue tends to creep up onto the honeycomb webs, effectively filleting the thousands of tiny joints. Then, the inner skin of prepreg is laid in. All curing is done in an autoclave and when it pops out, you have a completed fuselage half.

The three or four fuselage bulkheads are then glued into one half and the other fuselage half bonded onto that. The fuselage halves join in an overlapping; joggle-type joint, top and bottom.

Lancair Evolution - spiritual successor to the Skyrocket

Nowhere in the production process does the worker have to mix up resins, try to evenly impregnate a cloth or do anything else that even vaguely requires skill or attention. If somebody screws up and causes a ding or cuts a bit too much off, it's no big deal. They just lather on some more epoxy and bond in a repair patch.

The Bellanca method uses no gel coat. That means there is no outer coating of pure epoxy that gives that super surface finish on most fiberglass products. Why no gel coat? Any boat that's been in service for a few years will show you; a gel coat quickly develops spider-web cracks .. Besides that, it's pure dead weight, because any epoxy past that needed to impregnate the cloth contributes no strength. The Skyrocket gets its surface finish from an additional layer of extremely fine-weave glass cloth that's filled with a couple of heavy primer coats. The prototype had just a thin layer of paint over this cloth and the weave pattern was clearly visible, although it's equally evident that it won't take much filling to give the prototype a surface like a ceramic casting.

A prototype is a prototype, period. It's not made to do anything but prove that an idea works, so its goal is function, not aesthetics. It's axiomatic that prototypes are jury-rigged, cobbled-up "almost" machines. But the Skyrocket II prototype is like no prototype anybody's seen recently. As I walked around it, John Harris and

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Bellanca, cont'

August Bellanca followed me making comments like "...in production this'll be done differently, and it'll be better because…" All of which was unnecessary. August quietly explained how they would mount the windows differently on the production ships, which would eliminate the outside mounting ring on the prototype. I squinted and I peered, but it was some minutes before I could see what he was talking about. Then, if I really studied, I could see very slight waves around a window or two. The windows and windshield already fit a thousand times better than any other airplane.

Crash survivability and fatigue are other areas where the Skyrocket is far up on the competition. You couldn't ask for a better structure for crash survivability than honeycomb. It crushes slowly, like a styrofoam cup, and dissipates huge amounts of energy before the occupants catch any of the crash impact. Also, it's a self-damping structure. Walking around inside it, I noticed how "dead" it feels because there are no vibrations. Thump a wing and it just goes thud. The vibration and flutter tests going on right now should provide some extremely interesting data. I'll bet the entire airframe industry is looking over their shoulder on this one.

Cruisemaster

A term they use a lot around the Bellanca/Payne group is "air passage." What they are referring to is the surface over which relative wind is passing, the wetted area. They treat the external surface with near fanatical reverence. August Bellanca in particular will allow nothing—absolutely nothing—to violate the air passage. It's something of a miracle he even allowed them to put the propeller up front. "We simply won't compromise on anything as silly as a scuff pad or a step," says Payne. August constantly apologized for the vent that Continental advised them to mount on top of the cowling, and at least three times explained how they had found it unnecessary and would eliminate it. All this attention to detail may sound extreme, but the current flight test data showed the airplane to have a coefficient of drag even better than they had predicted. For you coefficient freaks out there, early data shows the Skyrocket's C_D to be .016. A P-51, for comparison, is .0175, a Mooney .0238. That single number shows the Skyrocket may be the lowest-drag airframe ever designed for full production.

When you get an airframe that clean, it behooves you to stuff in all the power you can get. And they have. That long snoot covers a turbocharged Continental GTSI0-520-F of 435 horsepower. The Skyrocket was originally designed around the 400-hp Lycoming 10-720, but the Continental is lighter and turbocharged besides. But more importantly, according to Payne, the GTS10-520 is a geared engine; the prop turns only about 1900 rpm at cruise. "We think it's entirely possible that the cabin of the Skyrocket will be not much louder than an automobile. With the slow-turning prop, quiet boundary layer flow and the sound-deadening composite material, we're hoping for cabin sound levels of 75 to 80 db. And we're considering adding lead sound-deadening material around the cabin."

Lead in an airplane? Low cabin noise at the expense of payload? Such is the heresy of the Bellanca airplane-building philosophy.

Useful load is projected at 1625 pounds (the prototype is a bit overweight, as prototypes always are), which means there will be plenty of juggling among the fuel tanks and the six seats. With 150 gallons of fuel on board they figure a range of 1400 miles at 65 percent power (250 mph, 'at least').

The Skyrocket project is proceeding along a very precisely defined test schedule which the Bellanca/Payne

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group refers to as Phase I. They are presently intent on doing nothing but testing and proving their ideas. FAA certification may or may not prove to be a major obstacle. The Feds have been an integral part of airframe development from the very first design discussions, so they know and appreciate what the airplane can do. Now it's just a matter of performing all the static and flight tests, a task they expect to take slightly better than a year. Unfortunately, airframe certification traditionally takes longer than anybody, including the Feds, estimates.

The boys from West Virginia are hardly even talking about what comes after Phase I. They've taken production into account in everything they've designed, so almost complete tooling exists for the airplane already. But they haven't made any hard decisions on production. Currently they are financed only for testing, although production money seems to be readily available. The alternative to Bellanca doing its own production would be to sell the design rights to a larger airframe manufacturer, apparently a real possibility. Payne won't say who, but at least one of the big boys has been talking to them. If this airplane gets into production at anything close to the estimated $80-100,000 asking price, it's going to eat the competition alive. So, if the competition is smart, they'll buy it.

The Bellanca Skyrocket II is right now very, very far from a production airplane. It is still a research vehicle that yearns to be factory-made, and maybe we're jumping the gun by working up such a fever about it. But we doubt it. The Skyrocket represents the most successful attempt at truly innovative airframe structural design since World War II. It's a flying container for a raft of new ideas that could spread throughout the industry and revolutionize and energize general aviation.

We're not about to see a new system of propulsion for light aircraft during our lifetime, so airframe design is the only key to a new generation of aircraft to keep up with the rest of our technological development. August and Giuseppe Bellanca's Skyrocket is the first step in that direction. Let's hope the obvious worth of the design and the idea is enough to steam roller over the obstacles of regulations and finances.

From Martin Hollmann's Memorial

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BELLANCA SKYROCKET II

ENGINE:

Continental GTSIO-520-F, 435 hp Hartzell three-blade constant-speed propeller

DIMENSIONS, WEIGHTS AND LOADINGS

Length ..... 27 ft 6 in
Wing Span ..... 35 ft
Height... ..... 9 ft 11 in
Wing Area .....182.6 sq ft
Wing Loading ..... 20.6 Ib/sq ft
Empty Weight.. ..... 2150 Ib *
Gross Weight. ..... 3775 Ib""
Useful Load ..... 1625 Ib*
Fuel Capacity .....150 gal

"Target figures for production version. Prototype is heavier, with less useful load.

*"Maximum takeoff weight in early tests has been 3400 lb.

MINIMUM PROJECTED PERFORMANCE

(Calculations based on drag coefficient of 0.0175. Early flight test data indicates it may be as low as 0.016, according to Bellanca).

Maximum speed
at 19,000 ft... ..... 300 mph
Cruise speed
(75% at 15,000 ft) ..... 262 mph
Cruise Speed
(65% at 15,000 ft) ..... 250 mph
Rate of Climb
at Sea Level. ..... 1900 fpm
Range (75%, 15,000 ft) ....1215 mi
Range (65%, 15,00Q ft) ....1465 mi
Stall speed (dirty) ..... 65 mph
Takeoff Roll ..... 900 ft
Obstacle Takeoff ..... 1790 ft
Landing Roll. ..... 790 ft
Obstacle landing ..... 1665 ft
JULY 1975

Editor's note: some photos courtesy of Airliners.net. Also, my thanks to John Castner for saving copies of these old articles.

From Martin's Memorial

Membership Notes

by Donald Von Raesfeld, Jr.

Membership Chairman
408-507-0951

December 2012

MEMBERSHIP NOTES

Our last meeting was held on November 1 in the Reid Hillview terminal building. Before the meeting began, a Spaghetti Dinner was served instead of our regular Hot Dog Dinner. A big "thank you" to Rusty Wells for providing the dinner and also to Randy Wilde for serving the dinner.

The meeting was called to order about 7:33 PM by President Konstantin Blank. The turnout was small, only about 15 people attended. This was probably due in part to the fact that our November meeting always includes the election of Officers and Directors. Paul Marshall volunteered to be a Young Eagle Co-Coordinator with Russ Todd. This should be a great help to Russ who has put a lot of effort and time into the six or seven Young Eagle event's we hold each year.

We had one visitor to this meeting who decided to join the chapter and also volunteered to run for Secretary after being asked by President Konstantin Blank. New member and now EAA 62 Secretary Mike Navarre is working with BAE systems here in the Santa Clara Valley. He is a Mechanical Engineer/ Aero Engineer from Rochester, New York, and is willing to help anyone on their project to gain some experience. Welcome to the chapter, Mike.

Another new member to the chapter is my oldest son Mark. Mark was also our guest speaker for the evening and also decided to run for a Director's seat. Mark is married to Kathleen and they have two children: Allison, eight years old, and Sean, three years old. Mark works for Adept Technology in Pleasanton and is Supervisor of Manufacturing. His hobbies include spending time with his family and photography, especially aircraft and airshows. Welcome to the chapter Mark Von Raesfeld.

As mentioned earlier November is the month in which we elect Officers and Directors for the chapter. Thanks to our two new members Mike Navarre and Mark Von Raesfeld we finally had a full slate. Since there were so few members in attendance at this meeting and all positions were unopposed we decided to vote by a show of hands rather than printing up ballots. The nominating committee presented the slate and received a unanimous show of hands for the following:

For Director - Louise Lane, Mark Von Raesfeld, Rusty Wells

For Secretary - Mike Navarre

For Treasurer - Randy Wilde

For Vice President - Mark Wainwright

For President - Konstantin Blank

Thank you all for taking a leadership role in the chapter. Your help is greatly appreciated.

With the elections over, Vice President Mark Wainwright introduced my son Mark for the evening's presentation. Mark and I go to several airshows each year, usually seven or nine a year. Sometimes more. Mark takes great photos while I concentrate more on videos. Mark put together a slide show with a sampling of photos he has taken at air shows this year and in past years. He presented pictures

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from Beale AFB, NAS Lemoore, California Capital Airshow, California International Airshow, Planes of Fame Airshow in Chino, and San Francisco Fleet Week, to name a few. If you have seen his photos, I think you will agree with me that he does excellent work.

The meeting adjourned at 8:57 PM.

Wishing you all MERRY CHRISTMAS and a HAPPY NEW YEAR. Take care and stay safe.

Flight Dog Niner has been equipped, with the rest of the Von Raesfelds, for motorcycle riding.

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Switchblade offer

Editors note: *Don Cambell of Samson Motors will be speaking to us at our General Meeting in February. The company asked me to inform our members that Samson Motors is making an excellent offer on Switchblade kits, including participation in their builder assist program.*

Thomas Arbuckle, VP of Business Development writes, "As you may know, we are only inches away from funding the Switchblade business, putting the delivery of our first Switchblades just 18 months out. Our CEO and Founder Sam Bousfield has just announced a special pre-flight offer to create the last of the funds needed by giving a few of our followers a chance at a tremendous deal on a Switchblade.

We are releasing a very limited number of three Switchblade models at a tremendous one-time only discount.

1.) A Switchblade kit with standard avionics and drive train.
Retail: $88,000 - Special Price: $22,000

2.) A Switchblade kit with our Builder Assist Program. This allows you the ability to build your kit with the assistance of our professionally trained staff. Kit completion in as little as 3 weeks. In addition you will receive an upgraded avionics package.
Retail: $110,000 - Special Price: $35,000

3.) 1 Fully Built Special Edition Display Model Switchblade. Created by world renowned designer Bunker Bradley, past Chief Designer for Shelby Corporation in Las Vegas, this vehicle will be displayed at select upscale venues worldwide. This high-end vehicle will have designer leather interiors, high-horsepower engine, racing suspension, cutting edge audio system and much more.
Special Price: $100,000

If you have been thinking about buying a Switchblade, this is your opportunity to make that a reality. We have already sold several models at the above special prices and we only have a handful more that we are making available. Once Samson's financial goal is met, we will close this offer.

Please contact me at your earliest convenience to get an in-depth personal briefing on this special pre-flight offer.
We are looking forward to speaking with you soon.

Best Regards,

Thomas

Thomas Arbuckle
VP of Business Development
Samson Motors Inc.
***530.878.4808** Office*
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Package A includes:

Switchblade kit

Engine & engine mount

Transmission (Sadev SLR 82-14)

Standard Panel Option

Total retail value = $102,200

Package B includes:

Switchblade kit

Engine & engine mount

Transmission (Sadev SLR 82-14)

Upgraded Panel Option

Builder Assist Program

Total retail value = $121,000

Switchblade Features

Driver adjustable seat, 5-speed transmission with reverse, leather interior, power doors, windshield wiper, hard-coated lexan windows, heating & air conditioning, seat belts, front and rear disc brakes, extendable wings and tail, dual ground/air LED lighting system, redundant ignition and fuel systems, front and rear crumple zones, side impact beams in the doors, and ballistic parachute recovery system for the whole vehicle.

Kit retail value $70,000

Switchblade Engines

Motus V-4 engine, 160 hp to the wheels, 275 ft-lb torque to prop. American muscle car sound, and high-performance parts commonly available from many locations. This is a very rugged engine, with fuel injection via plenum manifold, dry sump oil system, and coil-over-spark ignition.

Retail value $15,000

Coates 1.4L inline-4 engine turbocharged, producing 200 hp to wheels, 340 ft-lb torque to prop. It has a unique rotary valve system which is designed to be extremely long-lived with minimal maintenance. Turbo will maintain power at higher altitudes, and the combination of turbo and rotary valves have been shown to produce high fuel efficiency and low emissions.

Retail value $16,000

Switchblade Standard Panel Option

7" Dynon Skyview flat panel Electronic Flight Instrument System (EFIS) with engine monitoring, GPS, synthetic vision, VP-X interface, single ADAHRS, and cables.

Garmin GTX 330 transponder, SL40 radios, GMA 240 audio panel

Emergency Location Transmitter, video rear view monitor and cameras, mp3 player

Dashboard, center console, and trims

Retail value over $15,000

Switchblade Upgraded Panel Option

7" Dynon Skyview flat panel Electronic Flight Instrument System (EFIS) with engine monitoring, GPS, synthetic vision, VP-X interface, dual ADAHRS and cables, ADS-B for weather and traffic, backup battery, and Dynon 2-axis autopilot and servos.

Garmin GTX 330 transponder, SL30 radios, GMA 340 audio panel

Emergency Location Transmitter, video rear view monitor and cameras, mp3 player

Dashboard, center console, and trims

Retail value over $19,000

Factory Builder Assist Option

One or more factory technicians assisting in the building of your Switchblade kit, with dedicated shop space, use of jigs, tool use, equipment use, quality checks, assistance in completing required FAA forms, and training in assembly and maintenance during a three week full-time program. Lower the stress, increase the fun, finish the project!

Retail value $17,000

Don Von Raesfeld
Membership Chairman
930 Monroe Street
Santa Clara, CA 95050

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EAA CHAPTER 62
SAN JOSE ~ CALIFORNIA

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