

# The Comets' Tale

*The Official  
Newsletter of the*



**April 2009**

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### Board of Directors

Mike Ambarian, Dale Nash, Sandy Brown, Emery Balasa and Steve Billings

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*George Lanquist TJ Moran Steve Steinmetz Alastair Brennan*

The Comets' Tale is the official newsletter and record of the Ventura County Comets, AMA Chartered Club #173 and is published monthly at the Comets' Tale Plaza, somewhere in Ventura.

*Editorial contributions are welcome.*

## April Foole! First Ever late issue of the Comets' Tale! See note on Page 5

### Root's Rambling

Spring is here and the weather has been great. Come out and fly. The club Float Fly will be held April 18 and 19 so come out and fly and/or help.

I thought I would discuss various models (the flying type) this month. Bill and Don Sorensen brought out their large Howard DGA model for some nice flights

(shown in picture 1). I think the model had one flight previously, but these were the first flights since the scale details had been added. It really looks nice. They are getting ready for flight in picture 2. The model has a wing span of 95 inches and



**Coming Up!**



**2 & 3 May**  
Red Bull Air Races in  
San Diego

**9 May**  
Comets Balloon Drop,  
Lake Casitas

**1st Sunday of Each  
Month**  
Open House at Santa  
Paula Airport

is powered by a Fuji 41 gas engine. Don built this from plans and parts from one of the kit cutters. He added a lot of detail including home made vacuum formed gear and strut fairings, etc.



On the same day Bing Fabian flew his new piper J-3 Cub as shown in picture 3. He likes the J-3 and has replaced his old one with this new more scale ARF from Great Planes. It is powered by an OS .70 4-stroke.

Dan Elsasser finally got all the bugs worked out on his Piper twin model. George Lanquist made the first flight (picture 4). This model was built from an old Jack Stafford kit. It is electric powered, has working flaps and retracts, and weighs about 16 pounds depending on what batteries are in it. With a wing area of only about 800 sq. in. we all worried a little bit about flying qualities, but it flies beautifully. The ground steering was a little sensitive so Dan will change that before the next flight. This is a great looking model.





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It is sometimes hard to figure out what to write about so this month I've decided to discuss a few favorite models which I have built. The following includes thoughts, both good and bad, about some of the models I have built since moving to Ventura in 1995. The model in picture 5 is a biplane called Beautiful Bess which was originally designed as a rubber powered model. I saw the plans and construction article in a model magazine in 1952. With its two rounded tapered wings and many stringers I thought it was the most beautiful model I had ever seen. At the time I

was flying a lot of competitive free flight. Since Beautiful Bess wasn't a competitive rubber model I never built it, but I always remembered it. In 1998 I was spending 10 days a month in Washington D.C. as a consultant with nothing to do in the evenings. I decided to build a modified electric powered Beautiful Bess in my hotel room. I designed the wings, tail, and fuselage to come apart so that it would all fit in a carry on box sized



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to satisfy the airlines. I carried the box back and forth to D.C. until I had an airplane. It flies okay but must be flown out of turns. When I modified the rubber powered design I shortened the long fuselage and increased the tail size to compensate and I think I overdid it. I think the vertical tail is too big. Originally a brushed motor and NiCad's were used then a Cobalt motor. It now has a brushless outrunner motor and LiPo cells. It flies better with the lighter set up but it's certainly isn't aerobatic.

Picture 6 shows a semi-scale Great Lakes Trainer I built by kit bashing a Great Planes sport bi-plane kit. I changed the landing gear to get a scale look which completely destroyed the ground handling qualities. The fuselage was shortened and made

deeper which added lots of weight. I covered everything with Century 21 fabric which is heavy adding more weight. I used an early Magnum .40 cu. in. engine with no power and to make sure I had a dog I added a scale exhaust which killed any power the engine may have had. The model looked great but weighed about 8

pounds and was impossible to take off. I changed to a Magnum .46 with no scale exhaust and then I could get it in the air. I flew it quite awhile but it was really a dog. It finally crashed when a servo failed. I probably could have rebuilt it but I trashed it as soon as I got home. It was a good looking model which wasn't worth the effort.

The original design scale Jungmeister shown in picture 7 is powered by a .060 cu. in. engine and has a wing span of 27 in. It has all the controls and flies surprisingly well for such a small model. It is a little nose heavy even with 1 oz. of weight added to the tail. Total weight is 19 oz. I built all of the parts in my D.C. hotel room but had to do the final assembly and wing covering at home. At 27 in. the wings



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wouldn't fit in the carry on box. The model flies quite fast but doesn't have much vertical capability. Being nose heavy and with flat bottom airfoils (probably a mistake) it won't fly inverted. Take-off can be squirrely if the engine isn't running at max power (at least 17,000 RPM). These small engines need a lot of Nitro (30%)

and throw out a lot of oil so the light weight covering on the model is starting to look pretty worn. My feeling is that it was a successful model but with the technology available today it would now make a lot more sense to utilize clean electric power for a small model like this.

One of the best flying scale models I have is the Skybolt shown in picture 8. This model was built from



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Great Planes kit. I have crashed it several times, but because it flies so nicely I have rebuilt it each time. The last time I crashed I flew it through the reeds by the lake and demolished the bottom wing. The wing was beyond repair, but Don Ashworth had a broken but repairable bottom wing from one of his Skybolt crashes so he donated it to me. I just had to add a bunch of wood and change the color from orange to red white and blue. The Skybolt now weighs about 9 pounds and is powered by an OS .91 4-stroke engine. An ARF version of this model is now available from Great Planes and it weighs about a pound

less than the old kit version.

The most successful radio controlled model I ever had was the modified Tiger 60 shown in picture 9 on floats. I called this my trash can special because I rescued it from the trash barrel after Murray Cooper deposited it there. He built it from a Great Planes kit and on about the forth flight he put it in the lake and from there the trash can. After I rebuilt it my grandson Ben and I flew it more than 300 flights on both wheels and floats. It was powered by an OS .91 4-stroke. It had great flying qualities and was very easy to take off and land. I finally flew it into the lake at our last float fly. The wing is completely destroyed and the fuselage is oil soaked and cracked at the firewall joint. A rebuild would require a new wing. My style is to put the fuselage away and look at it in a year or so. I can decide then if I want to go to the effort to rebuild it. Most any airplane model can be rebuilt but many times it would be



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easier to start from scratch and build a new one.

For my current project I am building a 1/4 scale model of the Curtiss R3C-1. Army Capt. Cy Bettis won the Pulitzer land speed race in 1925 flying this airplane (shown in picture 10). This airplane was powered by a Curtiss designed V-12 liquid cooled engine which produced a little over 600 hp. For



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cooling Curtiss utilized surface radiators on both wings. Picture 11 shows my effort to simulate these radiators on my model. The model is currently at the primer stage. If the model works well then I will build floats for it to model the R3C-2 which is hanging in the Smithsonian Museum. Army Lt. James H. Doolittle won the Schneider seaplane race in 1925 with this airplane. It was actually the same airplane with floats added.



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*Bob Root*

**Editor's note:** Sorry this issue of the 'Tale is late. My computer went down at exactly the wrong moment. Thanks for your patience and may you never see the dreaded Blue Screen of Death!

jerry

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### March 2009 Minutes

The Comet meeting was called to order by Mike Ambarian on March 20, at 7:30 pm, at the Oak View Community Center.

The February minutes were approved. We had no guests and no new members.

**Treasurer's Report:** We have 70 members and finances are in good shape. The report was approved.

**Field Marshal/Safety Officer:** Steve Billings had nothing to report.

**Park Liaison:** No report from Marsh is recovering from eye sur-

**Old Business:** The funds for the have been returned due to illness to perform the job.

The Park is to vote to resurface the marina. Once they have awarded be checking into redoing the road

**New Business:** It has been discovered that the locks on the locks, be sure to turn the numbers locked.



Park Liaison, Kenny gery.

resurfacing of the runway of the man who was going

large parking area by the the contract, the Club will to the field.

ered that the locks on the locked. After locking the and verify the lock is

The Comets Float Fly, open to the public, will be held on April 18 and 19. Jim Harvey volunteered for the float check. Marilyn Nash and Sandy Brown will be selling raffle tickets. Dale Nash has obtained carpet pieces for the flight line. Bob Root will be running the impound with Dan Elsasser and Cody. Emery Balasa will be signing people in and taking fees. Firewood will be provided for the food. Ron Scott is Contest Director (CD) with John Dugan as stand-in.

There will be no raffle at the next monthly meeting, as the money will go for more prizes at the Float Fly raffle.

Dale Nash is still selling tickets for an engine, donated by Emery Balasa, and a Yak plane. There are only 45 tickets being sold for \$10 each. Not sure how many are left.

The Santa Barbara Float Fly will no longer be serving food or have a raffle, but still plenty of flying.

**Model of the Month:** No models this month.

The raffle was held and the meeting was adjourned at 8:00.

Respectfully Submitted,  
*Sandy Brown*

**RENEWAL NOTICE 2009**  
**Ventura County Comets**  
**Dues Payable on or before January 1, 2008**

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

AMA Number \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email address \_\_\_\_\_

R/C Frequency Channel \_\_\_\_\_

Type of Membership: Senior \_\_\_\_\_ Spouse \_\_\_\_\_ Junior \_\_\_\_\_ Lifetime \_\_\_\_\_

**Membership Renewal Fee: Senior \$50, Spouse \$25, Junior 17 yrs. and younger \$10**  
**Please include a copy of your 2009 AMA membership card**

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From O.S. Engines

## **Choosing the Right Glow Plug**

Several factors influence the use of the correct glow plug for your engine. Here are some guidelines:

### **Engine Type**

Standard engines (engines with a 1-piece head) are most common. Standard plugs are easily available, inexpensive, and fit almost all standard engines. Standard plugs are installed with a washer, which creates a compression seal with the head.

**Turbo.** Many new O.S. engines, which feature a special 2-piece turbo head. The biggest benefit of turbo plugs is superior performance. Unlike standard plugs, turbo plugs (identified by a "P" in the description) feature a tapered "seat" that matches perfectly with the head. That creates a superior compression seal and with it, maximum efficiency and power. Turbo plugs are the choice for racers, who want, and need, top performance. A word of caution: you should never install a turbo plug in a standard engine or vice versa. Doing so risks doing serious (and expensive) damage.

### **Displacement**

Small displacement engines need a hotter plug than larger displacement because larger **engines have more** mass and retain heat better.

### **Nitro Content**

Use of higher nitro fuels will require a colder plug than lower nitro fuels.

### **Temperature**

The hotter the day, the colder the plugs need to be.

### **Additional Things to Know:**

Hot plugs promote better idling and acceleration. If your engine runs rough or accelerates sluggishly, a hotter plug will

help. Cold plugs produce more power and may improve performance if your engine runs hot. The downside is rougher idling and more difficulty in tuning.

Fuel-air mix not only affects how your engine performs; it can also have an impact on how long your plug lasts. If you run rich, it means that you're using more fuel than necessary for top performance. Modelers are often advised to run rich during engine break-in, because it helps cool the engine. However, running too rich can also cause an engine to bog down or quit entirely. In addition, it also means that the glow element is being exposed to more contaminants than necessary, which shortens plug life. Running lean means that you're using less fuel. "Leaning in" an engine has a positive effect on performance. However, care is needed here, because over-leaning an engine can harm it, by raising operating temperatures, and burn up a plug [Tech Editor's Note: More than the plug might be lost, excessive leaning can ruin an engine!] before it's time. Do not over lean!

### **Final Thoughts**

Choosing the right glow plug not only improves performance, but can also extend the life of your engine and the glow plug itself. With the guidelines above and the tips below, you're well on your way to achieving both.

Buy quality plugs. You're protecting your investment.

Store plugs where it's dry. Moisture can ruin them.

Use the right glow plug. Follow the guidelines above.

Follow the proper break-in procedures.

Tune your engine carefully. Running too lean will make your engine "blow" plugs more often. Proper tuning helps extend plug life.

Never touch the filament of a glow plug. Doing so can break the filament and ruin a plug.

Don't over tighten your plug. Tighten it until it's just snug.

Be sure to shim your engine correctly. A plug that's too close to the piston can cause pre-detonation, which will quickly damage a glow plug.

Use only a glow starter or 1.5V battery to heat your plug. Otherwise, your plug may burn out ahead of it's time. Don't be afraid to ask for help. Experienced modelers have already "been there, done that." Their experience can save you time and money; and most are glad to help.

Glow plugs get very hot, enough to glow the filament red or white hot, and removing a glow plug while power is applied can cause burning if appropriate care is not taken. [Tech Editor's Note: Removing the plug while it's still being "heated" strikes me as nearly impossible, since any attachment to the plug, that would be doing the heating, must be removed so that you can have access to remove the plug. The only other way to heat the plug is from the combustion in the engine, so if you are handling the engine, it's generally a good thing to have stopped it running while you "fool" with it.] Special caution must be **taken while near fuel sources**.

Some connectors for glow plugs can short circuit and damage batteries, or cause them to explode. Batteries may get hot during the use of a glow plug. This especially applies to homemade or nonstandard connectors.

[Tech Editor's Note: One source of material that can ruin glow plugs is detritus left in the engine during/after manufacture. Before you run any new engine, it's a good idea to flush, at least the combustion volume, to eliminate as much "stuff" as you can. Flush it with fuel or methyl alcohol, never water. The best way to flush is to remove the head and the back plate and flood the engine with the flushing fluid. If you are uncomfortable removing the engine parts, then take the glow plug out, move the piston down so that the top of the piston is below the exhaust port and run the flushing liquid down the plug hole and out the exhaust. If you catch the flushing fluid on a white paper towel, you should be able to see anything that the flush eliminated.] →

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Ron Golding has a Quaker that is surplus to requirements, built by the late Comet Dick Gage.  
If you're interested, you can contact him at [ronfromojai@sbcglobal.net](mailto:ronfromojai@sbcglobal.net) or 805-646-4896.