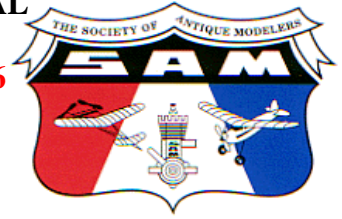




**THE NEWSLETTER OF SAM 26, THE CENTRAL
COAST CHAPTER OF THE SOCIETY OF
ANTIQUÉ MODELERS. SEPTEMBER 2022 #376**



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THE NEXT BUSINESS MEETING will probably be a virtual one via telephone. This should work out fine, since there's no upcoming business that our highly trained staff can't routinely handle, unless something really unexpected comes raining down on us.

NO FALL CONTEST is planned by SAM 26, as the local docket is fairly filled with the upcoming SAM 27 Contest, plus the SAM Champs, both within the commuting area in October. And November gets chilly, and has been known to rain, even in California. Not only that, I have two library books to return somewhere during that time.

POLLY IS IDENTIFIED: An odd looking ship appeared in the last issue, with a challenge to a "no prize" contest for anyone who could I.D. it. We have two winners! Steve Rosella and Brian Sargent correctly identified the ship being held as a "Polly", built by Gary Leopold. After just having had some kind of odd accident, it was being held with the gull wing on upside down to confuse us all. We couldn't decide whether to split the prize, but decided to give each no prize.



So my next question is can a gull wing correctly be called a "polyhedral" wing, and therefore be the basis for the name Polly? Normally we call a wing with three upswept dihedral joints a polyhedral wing. A gull wing has three joints, one upswept and two down-swept. By looking at some hard to grasp dictionary definitions, I'd say that yes a gull wing would also be considered a polyhedral wing. Any differing opinions?

SILK SALES of our cache of lightweight, mostly genuine Esaki brand silk are, as we expected, not going fast. (As in one single sale of four square yards). Fewer of us are using silk and dope, and fewer yet are building rubber powered models, for which this lightweight silk is best suited. So we have plenty for supplying SAM 26 needs, and are considering expanding sales to national SAM, and beyond that to the Flying Aces club, who specialize in nicely built rubber powered ships.

THE HANDSOME OPHTHAMOLOGIST looked into the eyes of the attractive lady. She fluttered her long eyelashes, smiled and said: "You remind me of my third husband". He said "How many husbands have you had?" She said: "Two".



SAM 27

INVITES YOU TO OUR
47TH Annual



CRASH & BASH OLD TIMER CONTEST

Schmidt Ranch, 11948 Franklin Blvd., Elk Grove, CA

AMA Sanctioned—Mike Clancy, Contest Director

DATE: **October 7, 8, 9 2022**

LOCATION: Schmidt Ranch,
Elk Grove, CA

TIME: Breakfast 7:30,
Registration, 8:30-9.00,

PILOTS MEETING: 9:00 a.m.
followed by first flights

CLASSES/RULES: 2020 SAM
Rule Book. **See attached for
exceptions**

AWARDS: Cash and certificates.

ENTRY FEES: \$5.00 per event, no
limit. Fun fly anytime, for free.

Current AMA membership and
proper FCC license for 50 & 53

We will use the 2020 Rule Book For RC events with Glow and Spark Ignition engine events combined.
There are certain rule modifications which will be used in the 2022 SAM Champs and at Crash and Bash.

EVENTS

FRIDAY: 2-6 p.m. and **SATURDAY:** 9 a.m. – 6 p.m.

A, B, C, LER COMBINED. — Antique.— Ohlsson Sideport.— Electric Texaco.— Electric Replica

SUNDAY: 9 a.m.-3 p.m.—Speed-400.— Electric LMR.— 1/2 A Texaco.— Texaco.
Ohlsson .23.—Foxacoy—Old Time Glider

*Awards Ceremony begins at 3 p.m. Sunday followed by a
RAFFLE of SAM airplane kits, engines, and assorted prizes.*

Gourmet Dining

Friday Evening Buffet featuring MIRIAM's LASAGNA.

Pancake breakfasts and lunches.
Served Saturday and Sunday as usual.

Saturday Night Banquet 6:30 p.m. at the Ranch.

Please telephone (415) 897-2917 or email
mikelsfv@comcast.net for banquet reservations

Best Western John Jay Inn
15 Massie Court, Sacramento
(916) 689-4425

Hampton Inn & Suites
Longport Court, Elk Grove
(916) 683-9545

Holiday Inn Express
9170 W. Stockton Blvd, Elk Grove
(916) 478-9000

Holiday Inn Express
2460 Maritime Drive, Elk Grove
(916) 478-4000

Best Western
620 Lincoln Way, Galt
(209) 745-9500

Motel 6
7407 Elsie Ave., Sacramento
(916) 689-6555

Directions to Schmidt Ranch

Traveling south on I-5, exit Hood Franklin Road, turn left (east) over overpass, turn right (south) on Franklin Blvd. (J8).

Traveling north on I-5, exit Twin Cities Road, turn right (east), turn left (north) on Franklin Blvd., (J8).

Camping OK, NO hookups.

GPS Coordinates: N 38° 19' 48" — W 121° 26' 51"



An earlier SAM 21 newsletter cover pictured this interesting shot taken from another model. It's a Benny Boxcar, built by Jeff Davies flying over that great RC field at Livermore CA.



I saw this tank for sale on the internet and wonder if any reader is familiar with it. I've seen one before and may even have one somewhere in my stuff.

It's supposed to be a control line tank, but the fuel pickup tube goes straight down to the bottom of the tank and is centered there.

I wonder if that fuel feed tube sticking straight out to the left, were clamped in the middle, if the bottom of the tank could swivel outward as a control line ship circulated, with centrifugal force allowing all the fuel to be picked up from the bottom?

Is anyone familiar, and can describe how it works? Was Perrycraft the forerunner of Perry Pumps?

THE FOLLOWING ARTICLE plus several other items was borrowed from older SCAMPS (Southern California Antique Model Plane Society) newsletters, who had first borrowed it from somewhere in England. The SCAMPS are SAM Chapter 13 and their newsletter is called Gas Lines as was edited by Kevin Sherman, who passed editorial duties to Clint Brooks starting with their 7- 2011 issue.

Radio Control in the early days.

By Allan Arnold

In the beginning, before Futaba or Airtronics, even before transistors or microchips there was Radio Control aircraft. This is an account of my early efforts to fly RC – I had recently finished my service with the Royal Air Force where I had learned how radio signals were sent and received, not only that, but I also found out the inner secrets of radio circuitry in the days when valves (tubes) capacitors, resistors, tuned circuits were king. Since I could send Morse-code and also knew radio theory and I obtained my Ham license. Now I could transmit radio signals legally on all the Ham frequencies.

I built a diesel powered pylon model and after a few flights I lost it in a thermal. How could I avoid this? The light bulb went off! AHA!!! bring it back with radio control (D/T`s had not been invented at that time). I began a search through the modeling literature, for any information I could find. There was really nobody to ask so a lot of the information came from articles in Model Airplane News. I read all the information I could get from the Good Brothers etc. and came to the conclusion that I had to make my own radio system. There was nothing available in England and anyway I was now an impecunious student on a government stipend so I couldn't afford to buy one from the U.S.

The available systems at that time were very basic and expensive so with youthful enthusiasm and using surplus wartime electronic equipment I designed a two tube transmitter. It used a 2 volt lead acid battery for the tube heaters and 120volt dry battery for the high voltage supply. The aluminum box sat on the ground with a 20ft tall (antenna). A long wire connected to the transmitter with a push button at the end which was used to pulse it on and off. There was great excitement when we turned my friends Ham receiver on and could hear the click - click as I pulsed the transmitter eureka!! It works.

The next task was to make a receiver this was not so easy it had to be light enough to fit in a plane. From an American magazine I obtained the design of a simple one tube RX using a small gas triode which had the unique ability to pass a current large enough to actuate a relay when a small signal was applied to its grid. The tube was made by RCA and was not available locally, so I wrote to RCA and told them what I was doing. They sent me a couple of tubes for free (you have to remember in the late 1940`s this was far out stuff and they were also interested in promoting something new).

The gas triode required 1.5 volts for the tube heaters and 64volts for the high voltage, fortunately there were small portable radios (remember transistors had not been invented) that used these batteries. Even so the total battery weight was about 12 ounces. The next step was the actuator, which I made to my own design, knowing the current change in the gas triode I could design the coil for the actuator that would trip the pawl that allowed a three star wheel to rotate, the wheel was connected to the rudder, the three legs stopped in three positions which gave left right and neutral to the rudder, the wheel was driven by a rubber band inside the fuselage.

The plane could only have rudder control. The next step was picking a plane and I decided to build a Rudder Bug designed by Walter Good. It was powered by a Forster 29 ignition loaned to me by Colonel Bowden. Having fiddled with the system endlessly, I finally got the system to operate with moderate reliability. The time had come to fly the plane and I took it out to Holmsley airfield an ex-

wartime bomber base operating Mitchells'. At first I let the plane fly as a free flight model with limited engine run. The model flew fine and was very stable. Ready for a controlled flight, with the engine running. I turned on the radio which promptly went berserk. The actuator chattered aimlessly and nothing worked. So, I packed up and went home highly disappointed to figure out what was wrong. Turning on my deductive thinking cap, I deduced that the radio works without the engine running must be something to do with engine. After some serious thinking I put a resistor in the spark plug lead and everything worked.

I went back to Holmsley for another try. The model took off and climbed to a decent height and I pushed the button! "Is it turning?" YES!! Then the engine quit and the model landed what euphoria success at last. This time I filled the tank for another flight, after clearing a way through the crowd off the plane went again this time I tried turning left then right then straight and then I tried guiding the plane back to the take off with the plane coming towards me. "Think!!" "Do I need left or right; is it one or two on the button?" Now it was radio uncontrolled. The plane landed on the other side of the airfield none the worse for my attempt at radio control.

I eventually became proficient and could keep the plane flying around me and landing within a reasonable distance of the takeoff point. Like all good planes it ended its days due to a mishap. Because of the low frequency of the system the radio required a long trailing antenna, one day someone stood on the trailing antenna as it was taking off which disconnected it. No antenna meant no signal to the receiver, and thus no radio control. The model flew off into the forest surrounding the airfield and crashed. I never rebuilt it. Studying for an engineering degree took all my spare time and I also became interested in girls.

This biplane isn't an RC ship, but a nice example of a flying scale rubber powered model.



FOUR STROKES THROW PROPS as many of us who have run them very much have learned. Australian Ian Avery sent his simple solution to the problem some time ago, but I think I'm sharing it here for the first time. Thanks Ian.

A different solution to the problem is to install a second nut (locknut). But short crank threads can prevent this, and getting the right thread size isn't always easy.

Hi Bob,

I forgot to mention in my last email what I do with my OS four stroke engines to combat the back-fire and throwing of props and more importantly the loss of the prop nut and washer (which is most annoying in Australia as they are not easy to replace and props are not cheap either).

Once the prop is installed on the engine I wind some thread (binding twine used in building fishing rods) in the first three threads on the prop shaft and then add a little bit of thin super glue to keep it in place. This has the effect of stopping the prop nut from un-winding off the prop shaft and thus saving the nut, washer and prop from coming off.

It is easy to remove the thread as I leave a short tail off the end of the shaft which you are able to hold with a pair of pliers and just unwind the thread. It comes off easily. Then the prop nut can be unscrewed and the nut clears the prop shaft thread of any glue remnants that remain.

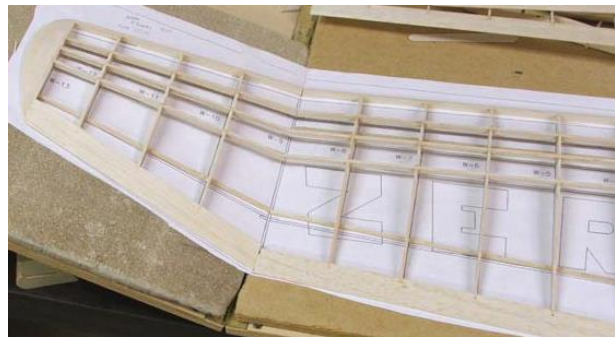
From what I can remember (and that's not much these days) I have had three instances of back-fires which have proved this works, two on the ground and one in the air when climbing out in an LER Duration event.

Thanks for all your hard work with your newsletter and club work I know it is much appreciated by the guys.

Cheers,
Ian Avery.
SAM 17

BUILDING TIP OF THE MONTH

Getting a good fit at the dihedral and polyhedral joints can be tough. We have found that a good way to do it is using a vertical belt sander. Calculate the angle you want and then cut it in half, to put half the angle on each side of the joint. In the pictures shown here, we are joining a polyhedral joint on the Nostalgia model Zero scaled up to A size. The polyhedral joint on this one shows an angle of 22 degrees, so we sanded an 11 degree angle on the wingtip and outward tip of the inboard panel. To do this, I put masking tape on the sanders' bed, and draw the angles onto the tape. I then glue a balsa fence to the tape at the 11 degree angle and use it for a guide. I mark the leading and trailing edge off the plan to see where to sand it to for length. When I sand to my lines, I have a straight and perfect angle. When both parts have been sanded, we set the plan and the wing on a wing jig, set to the 22 degree angle. If it all fits well (which it should), then it is ready to be joined. This has proven to be a very neat and quick way to assemble wings.



Ed note: I have a similar sander (Harbor Freight) which has an adjustable angle fence which you can just set to the 11° and tighten. I suspect many or most newer sanders have this. It saves the steps of marking the angles, plus lets you concentrate better on holding the flimsy assembly in alignment when you need a gentle touch while sanding. RLA

What's a Moffett? A Moffett is an AMA class rubber-powered FF event that is an absolute blast to fly. The event is named after Admiral William Moffett who died in the crash of the Akron dirigible off the coast of California in 1933. The trophy offered in his name is beautiful, and was the subject of fierce competition for many pre-War years. The Moffett Trophy now resides in the Smithsonian in Washington, but the Moffett event was resurrected in 1992, and is now one of the highlights of the AMA Nats each year.

SPARK COILS:

With so many flying electrics, it may seem a little late to be adding to information about spark ignition. However, it all needs to be recorded for antiquity, as well as for those still enjoying the hobby as it was in the beginning. After all we still keep records on twin pushers.

We begin with an extract from an older SCAMPS newsletter, when coils were getting harder to find, and Larry Davidson had commissioned some new ones to be manufactured. Around the time of that writing, the Modelectric coils had ceased production, leaving no well-known and current manufacturer of new coils. RLA

Our friend and fellow SCAMPS' member Larry Davidson is selling a coil. In an email from Floyd Carter he told me that it was similar to the Gettig. It is only 20 dollars (*\$42 today*) from Larry. You can also order Polyspan, spark plugs and other neat stuff from him. Let's cut to the chase. The coil does work. I tried it today on an Otto Bernhardt converted OS 25, 9-4 prop, FAI fuel (3 to 1 alcohol/castor). I was using an electric starter. Battery was a 4-volt Sealed Lead Acid with dropping resistors to reduce the voltage to the coil. I measured the voltage at the coil and the static current draw. The condenser was .1 MFD rated at 50 volts. To simulate actual running conditions in an airplane I added extra dropping resistors to reduce the voltage. The coil worked down to 1.6 volts. I would think that two AA cells would work for this coil. I would NOT use 3 cells unless they were NiCad's feeding the coil through a transistor, such as the TIM-4/5 units I use on my planes. 3 volts is the maximum at the terminals, in my opinion. **It gets hot** at anything over 3 volts, **and may burn out** if left connected with the points closed for any period of time. Here are some specifications: weight 32.1 grams, 1.10 ounces. Diameter 3/4 inch. Length 1 1/4 inch with 1/4-inch diameter extensions 1/4 inch from each end. The corresponding dimensions for the Modelectric are: 41.1 grams, 1.45 ounces; 15/16-inch diameter, 1 1/4 inch long with 3/8 diameter extensions projecting 7/16 inch from each end. The resistance is about .8 ohms. Measured current draw was 1.94 amps at 1.55 volts and 3.13 amps at 2.82 volts. Voltages measured at the coil. The Modelectric coils are not quite as current hungry at about 1 ohm resistance. Interestingly enough, the Davidson coil has only 1.66K ohms secondary resistance compared to 4.6k for the Modelectric. This indicates either less turns or thicker wire. It's possible that the Davidson coil has fewer turns of wire on the primary so the turn ratio may be the same. Since this is really the only affordable and practical coil available it's nice to know that it does work. I wasn't able to get a very big spark on my test bench but it did work with an engine. How well it would work in a plane on a hand started original ignition engine I have no information.

SAM 26 ed. note: A coil can burn out if overheated, but it's more likely to first be degraded and still function, but with a weaker spark. I suspect that might be what happened here. Larry's coil is a light-weight coil and therefore more susceptible to damage if too much current is applied for even a short time. I strongly recommend using Larry's SSIGNCO unit with the coil to protect it from such damage.



Here are some of the coils you're most likely to find for sale over the internet, in either new old stock (NOS) or used condition. And here's your editor's opinion based on experience with each, presented in the usual order from left to right.

THE WILCO coil is a nice looking one for display. They were and are still around in fair numbers, often NOS, considering how long ago they were last being made. I found they ran OK initially, but a couple of NOS examples quickly burned out for me under the vibration of a running engine. At 62g or 2.1 Oz they were also the heaviest of the group.

THAT SMITH coil is quite solid, very durable and has one of the strongest sparks. They were often used in race cars. But you couldn't simply bolt both ends directly to a metal chassis, or you'd be shorting out the two primary connections under the bolt heads. I use one in my clip-on spark box for reliable bench running and field troubleshooting. They feel so solid; I'd always thought they were the heaviest, but they are a tad lighter than the Wilco at 56 g or 2.0 Oz.

THE SMITH COMPETITOR is probably the least commonly found, but is solidly made with a strong spark and weighs 52 g or 1.8 Oz.

THE MODELECTRIC was one of the last to disappear from manufacture, so are still fairly available and produce a solid reliable spark at fairly light weight of 38 g or 1.3 Oz. There is also a slightly larger and heavier version. These are probably the most used in SAM today.



I commented on Larry's coil on the previous page. I couldn't locate and grab one of his coils for a picture, so here it is from his web page. Its best quality is that its super light-weight at just 30 grams, or 1.1 Oz.

You can find Larry's internet site with lots of parts and building supplies at modelflight.com

FULLERPLAST: I'd heard of this finishing product, but never paid much attention to it until recently reading a short description of it and its use. It's a two part catalyzed material, sort of a good substitute for clear epoxy sealant and used over other finishes. It was (is?) being used for finishing high quality Fender guitars, among other things. Among those other things was as a final coat for wooden bows (as in Indians, bows and arrows, etc.). This tells me it's more flexible than Klass Kote or other epoxies. It supposedly has excellent shelf life. Could we have some audience participation here? Can someone enlighten us a little more with a short article? It would be particularly helpful to know where and how can we obtain reasonable size quantities in states like California who worry about us running with scissors, breathing bad fumes, etc.

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