



# ANTIQUE FLYER

*"Dedicated to Old-Time Aeromodeling"*

June 1987





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# Andy's Corner



Sparks & Arcs  
by "Andy" Andrews

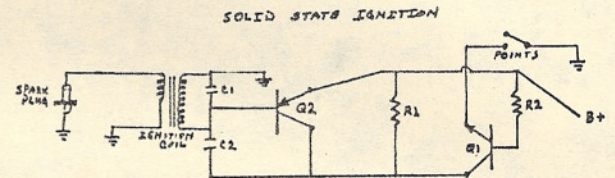
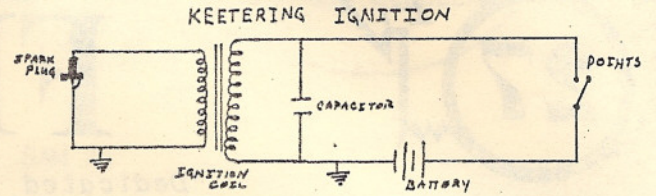
Let's talk about ignition systems and how they work and are constructed. First the "old" ignition system. I Believe that the name of this old system is the "Keetering" ignition system. The components of this type of ignition system are: Ignition coil, capacitor/condensor, source battery pack, points and spark plug.

So....Howitwork? The battery pack supplies source voltage for the entire system. The points open and close causing current flow through the coil. When the points close, current passes through the coil, building a large magnetic field around the coil core. The primary side of the coil has a low-high current potential. When the points open, the magnetic field collapses rapidly, causing a high voltage, low current on the secondary of the coil to the spark plug (across the gap to ground). The capacitor is used to make the the coil appear as a resistive load to the points, reducing point arcing and prolonging the life of the points.

Now, let's talk about the newer solid state electronic ignition system. This system employs a few more components such as resistors, capacitors and transistors and is a little more difficult to understand.

Again, the battery pack supplies source voltage to the entire system. The points are used to supply a ground path to the emitter of the driver transistor, (Q1) With the points closed, current flows through the driver transistor, keeping the power transistor (Q2) from passing current, emitter to collector, so the current must pass from emitter to base, through the coil to ground. This builds a strong magnetic field around the coil core. When the points open, the driver transistor cuts off, allowing the power transistor to conduct, emitter to collector bypassing the ignition coil, causing the magnetic field to collapse.

The capacitors, (C1) and (C2) are used to suppress spikes of high voltage on the primary side of the coil to protect the transistors. The resistors are used to provide proper biasing to the transistors for their proper operation.



I would like to give a few hints on soldering just in case you decide to build one of these systems or just for your own information when you do some soldering.

- 1) When soldering, make sure that the areas/leads/wires to be soldered are clean and free of oil and dirt. Remember that our hands have natural oil on them so try and keep from handling the components after cleaning. Cleaning can be done with acetone.
- 2) I strongly recommend the use of soldering flux. You can use the old paste like I do or the newer liquid or spray types, just use it. Flux helps clean the surfaces and provides an even heat transfer from the solder iron.
- 3) Remember that solder is not an adhesive. Solder is not a glue, epoxy, filler, welding process, fiberglass or any of a number of other adhesives you have on your building tables. It is used to bond electrical components and electrical circuitry. Use solder sparingly! You only need enough to bond the components. More solder does not mean that the bond is better, it only means that you give yourself more of a chance for a cold solder joint and adds weight to your model.
- 4) Only use the minimum watt soldering iron that you can. For work on circuit boards and components, I use 15-25 watt iron. This is plenty of heat for this type of use.
- 5) Be sure that the surfaces to be bonded are evenly heated. If this is not done, the result could be a cold solder joint, and this is one of the hardest problems to find in electricity/electronics. You really don't need to provide yourself with a built-in electronics troubleshooting course.



This is the latest updated schedule of contests as per our Official Contest Coordinator, Jack Albrecht and additional listings from the Northern California Free Flight Council. If anyone has news of a contest not on this schedule, please advise the editor immediately with particulars so that it may be added to our schedule.

Surprise of surprises! President Andy Andrews reports that a mysterious visitor from the east landed at his door recently courtesy of SAM 30. It seems that we have the highest scores for the 1/2A Texaco Postal Meet turned in so Nick Nicholau packed off the trophy to Andy.

Winning the meet came as a surprise to everyone. We all felt that our scores couldn't be high enough as we had several non-maxes. Evidently, everyone else had troubles maxing as well and the scores turned SAM 27's way.

It was yet to be decided when the next postal meet would be held but a decision could be made at the next SAM 27 meeting in July. Only SAM 27, SAM 56, SAM 41, SAM 51 and SAM 30 submitted results by mid-June. Those results are:

**SAM 27 Novato**

Don Bekins	Lanzo Bomber	290 Sq In	1800
Karl Righetti	Lanzo Bomber	290 Sq In	1800
Ed Solenberger	Anderson Pylon	310 Sq In	1800
Andy Andrews	Playboy Jr.	245 Sq In	1793
Ron Keil	Wasp	235 Sq In	1520
		Total	8713

**SAM 51 Sacramento**

Ken Kullman	Strato Streak	315 Sq In	1800
Eut Tileston	Rickard Wing	229 Sq In	1800
Tony Palethorp	Lanzo Bomber	290 Sq In	1760
John Eaton	Commando	360 Sq In	1583
Bob Grice	Brigadier	297 Sq In	1547
		Total	8490

**SAM 56 Wichita, Kansas**

Lemaine Schrock	Strato Streak	307 Sq In	1704
Jack Phelps	Cleveland Playboy	288 Sq In	1571
Dean Zangker	Goldberg Sailplane	277 Sq In	1276
Bill Schmidt	Alert	277 Sq In	1186
Larry Bishop	Schmidt/Klaus Playboy	288 Sq In	936
		Total	6673

**SAM 30 Marysville**

Loren Schmidt	(unknown aircraft-obviously not an Anderson Pylon)		1330
Jim Kincy	Anderson Pylon		1800
Nick Nicholau	Anderson Pylon		1440
Bill Burleson	Anderson Pylon		1680
Stan Lane	Anderson Pylon		DNE75
		Total	6325

**SAM 41 San Diego**

Russ Schuppner	Strato Streak		1742
Dick Munz	Buzzard Bombshell		1444
George Wagner	Sr.Vk Challenger		833
Jim Baron	Tluth Mite		656
		Total	4675

**3,4,5 & 6 July-21st SAM Champs** at Seguin, Texas, 18 FF, 11 R/C Assist Old Timer & Antique Events. Contest Manager Bruce Norman, 3417 Creston Ave. Fort Worth, Tx 76133 phone (817) 923-2020.

**12 July- Stockton Summer Bash.** NCFEC Waegell Field, Sacramento. (1/4 mile north of Jackson Road on Sunrise Blvd. Take Sunrise Blvd exit of HWY 50. 1/2A Texaco, Texaco, Antique, Class A/B/C LER, 05 electric.

**25-26 July- West Coast SAM Champs-** SAM 21 at Woodland/Davis Aeroneers field. 1/2A Texaco, Texaco, Ohlsson Event, Ohlsson 23 Event, Miss World's Fair Rubber, Class A LER, Class B/C LER, Special Sideport Event, Pure Antique and 05 Electric Texaco and 05 Electric LER events. Ted Kafer CD.

**12-13 September-SAM 27 Annual Crash & Bash** at Novato, Ca. Includes world class barbeque at Atherton Raquet Club and all Usual R/C Assist events plus Ohlsson 23 event and FF Rubber.

**13 September- NCFEC # 4** at Waegell Field. See 12 July listing for details.

**26-27 September-SAM 26 John Pond Commemorative** at Lompoc, Ca. Contact Bob Angel.

**10-11 October- SAM 30 Fall Annual R/C Assist** at Hale Road Flying Site. Contact Nick Nicholau, 2329 Hall Street, Marysville, Ca. 95901.

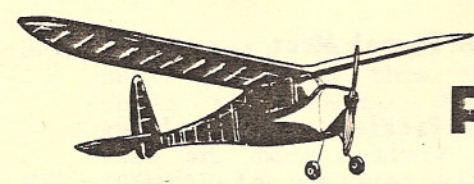
**17-18 October- Sierra Cup** At Waegell Field. See 12 July listing for NCFEC details.

**25 October- NCFEC #5** at Waegell Field. See 12 July listing for details.

**8 November- NCFEC #6** at Waegell Field. See 12 July listing for details.

**14-15 November-SAM 49 Fall Annual** for R/C Assist at Condor Field, Taft, Ca.





# Propwash

By Ned Nevels

I really enjoy the contests I attend because I enjoy the company of modeling friends from all over the country. The flying is great but the friendships are even better.

Sam 27 President Andy Andrews and I went down to Taft for the SAM 26 Spring Annual in March and, despite wind and rain on Saturday that threatened for all the world to wash out the contest, we had a great time. We watched Saturday morning as the grey skies that occasionally leaked on us turned to continual showers.

There were several hardy souls who launched flights in spite of the weather. I timed **Don Bishop** of SAM 26 who is always first up anywhere, on a flight with his Bomber (Orwick 65 repro) where it went in and out of clouds. It finally disappeared into a big cloud and Don cried "I can't see it!" I told him to leave things where they were and put in a little down trim and we and several others scanned the skies.

Finally, someone said they saw it and I picked it up almost 80 degrees to the West of where we lost it. Don actually **maxed** that flight!! He was shaken but never lost that infectious enthusiasm he has for flying. Saturday finally was called on account of rain, wind and general Yuckiness but not before Don tried to put up another flight. Unfortunately, his Orwick snapped a crankshaft and put him out of business.

Don is truly an amazing fellow. I imagine him starting his day when his eyes spring open about 5 a.m. and his mouth breaks into that big grin of his. He is enthusiastic and flies every chance he gets. (he is notorious to your editor because he always arrives early at the field and cranks the loudest engine he has to put in some practice. He did that at the Fall Crash & Bash right outside our trailer where we were still trying to catch some z's after Saturday's barbeque at 6:30 a.m.) Don just loves our hobby/sport and his kind of fun is contagious and makes your day a little brighter. He's truly an ambassador of goodwill for SAM 26.

Andy put in three maxes on Sunday in Class B with his McCoy 29 ignition-powered Playboy to win the event. When that McCoy fired off, people turned to look and when his Playboy took off straight up and just about OOS in 45 seconds, more than a few wanted to know what missile base Andy was from. Actually, it took a bit of flying as the lift was spotty and the down was everywhere. The win was justly deserved.

Ken Meyers and Dale Black were there from SAM 49, a couple of guys that Andy and I enjoy whenever we get together. I don't know exactly how people got the idea that Dale Black was Ken Meyers father, but Fred Lehmborg asked Kenny how "his dad was doing" and it went from there. (Dale is a resident designer for Roland Boucher, having designed the wildly popular "Amptique" electric trainer for Leisure. They've sold over 700 of those cute little buggers since releasing it last fall. Dale also built the prototype Leisure Bomber and is working right now on a scale design (an Eaglet) that may become Leisure's first scale electric kit) Dale is a Texas A & M graduate in aeronautical engineering and goes back a long ways in that field. (showed me wallet photo of his old Travelair biplane he used to own...I tried to drool inconspicuously into my sneakers)

Kenny Meyers is the former newsletter editor for SAM 49 and current President of that group known for his Trenton Terror and Powerhouse, (and, forevermore, his "unusual" take-off technique demonstrated last fall in Marysville at SAM 30's Fall Bash during the fly-offs.

In a hurry to get the flight off before the clock expired, Kenny forgot to reset his rudder and pitch trims from the flight before and as the "Terror" got airborne it was "Katy-bar-the-door" as Ken invented some new and hitherto unknown maneuvers to recover from the "unusual attitude" he found himself in shortly after lift-off with full power on. Everyone ducked and miraculously Kenny got her righted and put in the flight)

Ken had his 1/2A Texaco Playboy there from the Kustom Kraftsmanship kit. Pretty little thing. 288 square inches and at 16 ozs just about right. Ken had nice things to say about the kit and the wood included with it. At \$29.95 it's a good deal and lord knows those Playboys fly well. (see Kenney's review in the current issue of "SAM SPEAKS")

Saturday night ended up with an all-night UNO game in the motel room where Ken and Dale proceeded to clean my clock. I don't know what our neighbors thought about the screams and yells emanating from our room. Must have thought we were skinning animals alive in there at some point. Had great fun though. Stayed next to Larry Jenno and his wife and ate almost all our meals at Hahn's Diner where everyone else seemed to gravitate. (good food and they don't complain about rowdy modelers)

Bob Boies was there from San Bernadino with his wife. He has a gorgeous Lanzo RC-1 with a Saito 65 four-knocker. Met him at SAM 49's Fall bash at Taft last November. It was good to see him again.



I went down to Taft April 25,26 for SAM 49's Spring Annual. Steve Roselle, immediate past president of SAM 21 went down with me and shared my parent's travel trailer. I hadn't thought I'd be able to go because, originally, I had a wedding scheduled for the 25th. (that's what I'm supposed to do for a long)

The bride called and said that she was postponing her wedding until September 19 because her mom had three kids getting married this year and with her date that was three in eight weeks time! She didn't understand why I was so happy to reschedule her event for September. I explained that she had picked the one weekend without a SAM contest! Anyway, she still didn't quite understand the joy in my voice but she was happy I was happy...or something like that!

This contest was a bunch of fun! The AMA Free-Flighters were sharing the field (it was the San Valleers' Spring Annual...a tune-up for the US Free Flight Champs held there over Memorial Day) and all day there were models in the air from 6 a.m. to 10 p.m. (that's right folks, they were night flying with Cyalume sticks and various other lights for retrieval)

Roland Boucher (of Leisure Electric fame) and Phil Bernhart were CD's for this contest which went off smoothly and featured free lunches at the field for everyone as well as some nifty plastic pouches with foam inserts brought by SAM 49er Ed Houston and given out to all the contestants.

SAM 27 was ably represented by Contest Director Don Bekins, President Andy Andrews and his own personal Chairman of the Board, wife Robin Andrews and myself. Everyone from SAM 27 brought home hardware so I guess we "did good".(for my part, I took 2nd place in Class A glow. I don't want to hear any grief about the fact that only two people were entered in Class A Glow. I worked hard for that Second Place!!)

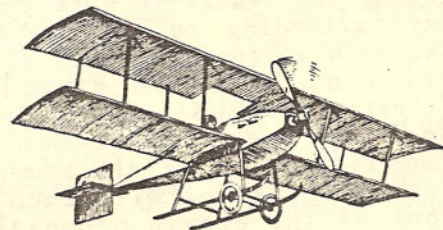
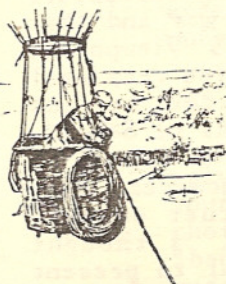
Don went down early on Friday the 24th to practice with his glow powered Playboy in preparation for the SAM Champs in Seguin, Texas. He had to leave early on Saturday because of an earlier commitment but managed to put in three maxes in the Ohlsson Special Event, one Max in Texaco and one Max in 1/2A Texaco before departing at 12:30. That was good enough to win The Ohlsson event outright and place second in Texaco despite not being there to fly-off. 1/2A had a five-way fly-off.

Andy won Class C with the Atwood-powered Playboy (what else?) with three maxes, the last coming with but minutes left before the contest's end at 3 p.m. on Sunday. He won a "tom Coss" with Al Ward of SAM 21 who had posted three maxes earlier in the day with his Buzzard Bombshell. Andy took second in Class B and should have had a special award for pilot skill in the face of severely

adverse conditions. He had 25 minutes left to get in his last flight and as I released the Playboy a sharp gust of warm wind (actually a turbulent whirlwind) slapped us in the face and the Playboy's took a sharp upward break. Andy didn't flinch and pushed it over only to face several more hard breaks from extremely turbulent air. He lost at least 15 seconds of his engine run recovering from these "unusual attitudes" and could not recover enough up air to max.

As he was flying his last two Class B flights, Andy kept remarking that his bird was doing things he didn't command. It would turn sharply without control input at altitude. This usually coincided with encountering lift so we put it down to turbulent air aloft although radio interference had occurred to us.

After he got home, Andy inspected the ship more closely and noticed that the tail seemed "loose". When he inspected the fuse more closely he found that three of the four longerons were cracked!! It became clear then, what was going on. The thermal would lift the tail and cause it to twist about the good longeron and that would change the control forces, giving the weird turns. What a tribute to Monokote and a little luck!



Steve Roselle did well this trip as well, getting a second in the five-way fly-off in Electric Texaco that was won by former SEAM prexy Frank Heacox. (Leisure stock off-road motor available everywhere for \$15 list and usually discounted as low as \$9.95) Frank used a 3.8:1 gear drive and 11x7 Rev-up prop. Steve flew his well-campaigned Brigadier with a Kyosho Gold 480S motor with 3.8 Leisure gear box and 11 1/2 X 7 1/2 rev-up prop. Electric Texaco is a fun event and one I hope will catch on. So far only SAM 49 offers it but I think SAM 21 may start.(see the West Coast SAM Champs Announcement elsewhere in this issue. Seems they're giving it a go!)

Steve won the Electric LER event on Sunday flying the same plane and the Kyosho 240SB motor and 3:1 Leisure gear box.

Steve brought his old Peerless Panther that he originally built for electric only he had converted it to Class B Ignition by adding a Forster .29. He spent a lot of time working on that motor and discovered that the timing had been moved. He has gotten it running later and I heard that he may have it running well enough to compete in a couple of weeks. Gorgeous looking model complete with a nearly scale Garfield the Cat pilot figure with goggles!



## About The Pending Rules ...An Editor's Note:

The article presented here is reprinted from the SAM 49 Newsletter, ably edited by Phil Bernhardt. Phil took the editorials written by SAM 27's own Don Bekins and a contrasting one from SAM 51's newsletter editor, adding his own well thought out opinions. I was so impressed by this organization of the arguments pro and con that I felt I should present it to you as well, adding my own thoughts where I felt they might help.

No one really wants to tell you how you should vote on the R/C rules proposals. What we do want is to get you thinking about them so that you can have an informed opinion about these proposals. What we all truly hope, is that you will take the time and Cast your vote. Your vote could make a difference. If you fail to vote, we will all suffer because your opinion hasn't been registered.

### The Rules Proposals

In a couple of months we will be voting on what has to be the most controversial set of R/C rules proposals in SAM's history. Not since the "Schnuerle Wars" of five or six years ago has there been so much hue and cry over the rules we use in competition.

Many of the newsletters sent to SAM 49 from other clubs have contained editorials urging the reader to vote this way and that way, according to the writer's viewpoint. Two such editorials, both of them very well written, have been distributed by Eut Tileston of SAM 51 and Don Bekins of SAM 27. Both of these gentlemen are topnotch competitors, as we all know; however, they are in agreement with each other on only four of the eleven proposals. I thought would be interesting and helpful to present both Don's and Eut's arguments for each of the proposals that they are in disagreement on, followed by an editorial observation, so that you, the reader, can get an overall view of each of these controversial issues and make up your own mind as to how to vote. Thus I have titled this piece

#### The Thinking Man's Guide to the SAM R/C Rules Proposals

##### Proposal R/C 1: Definition of Pure Antique.

**Eut:** NO- Scaling took place in the antique era, too (I did it then) so why prohibit it now? Impact: Passage would reduce an already limited number of antique models.

**Don:** YES-This should be added to our rules as a clarification of the Pure Antique Event. However, it should be pointed out that this is a change, in that scaling will no longer be permitted in Pure Antique. Many are flying this event now with scaled models and if this passes, will only be able to fly those scaled models in the Antique Event.

**SAM 49 Editor:** Right now, the only thing "pure" about Pure Antique is the requirement for original ignition engines, and that in itself does not make an event "pure." To my mind, for an R/C event to be called "pure" it should meet O.T. F/F specs, i.e. original engines and no scaling. SAM 49 has always run its Pure Antique events this way and the number of entries has always been high.

The argument that "scaling took place then, so why ban it now?" doesn't hold water. If we adopt this line of reasoning, shouldn't we also be free to design our own Old Timers, since original Design took place in the antique era too?

**SAM 27 Editor:** The fact that modelers built scaled replicas of other antique designs in the pre-1940 era doesn't justify allowing scaling in an event called "Pure Antique" today. If the original designer published or flew a design in another size, that size would be legal under this proposal. We already have an "Antique" category that allows scaling, non antique engines, etc. Shouldn't the definition of "pure Antique" be for original designs, as they were flown in that era with only the addition of controls for retrieval? I think reasonably minded individuals will agree, Vote YES on R/C 1.

##### Proposal R/C 2: Four-Stroke Engines.

**Eut:** No- No four-cycle engine ever won an antique event at any SAM Champs and only once in an L.E.R. event. True, power has almost doubled since 1977, but it still is only about half that of the modern two-stroke. The O.S. 6 Surpass (not yet available) should produce about 1.1 horsepower. In contrast, the Rossi .40 two-stroke



produces over 2 horsepower and there are several .21 two-stroke engines that produce over 1 horsepower. Technology moves on with both two-stroke and four-stroke engines. Impact: passage would effectively ban all four-stroke engines from all SAM competition except Texaco.

**Don:** Yes.-In 1977, the first four-cycles were coming into use in Old Timers. The A.M.A. already had a ruling that said these engines were the equivalent of 60% of their two-cycle counterparts. When the 1979 rules were voted in, no one considered that the 1977 O.S. .60 four-cycle with an advertised horsepower of .62 bhp would become the O.S. .61 four-cycle in 1985 of .89 bhp ( a 43% increase). Though an O.S. 61 Surpass four-cycle has not yet hit the market, a 1986 Saito .65 four-cycle is available. Its displacement is only 4 hundredths of a cubic inch larger, but puts out 1.08 bhp--a 74% increase in power, yet, under our current rules, it still falls under the 60% rule!

Technology has outstripped our blanket 60% rule. For that matter, Schneurle 2-cycles have outstripped their cross-scavenged counterparts in power as well. A story in SAM SPEAKS suggested a Schneurle rating of 125% of cross-scavenged 2-cycles, which I agree with. SAM's choice is to either restrict the 60 % rule to those original four-cycles it applies to, change the percentage to adapt to the increased bhp of the new engines--both four-cycles and Schneurles-(a SAM Engine Committee nightmare) or throw out the percentage rule all together. The only proposal we have before us now is this one, and I recommend a YES vote. The next rules cycle can change that democratically if a qualified proposal is made and the membership votes to do so.

**SAM 49 Editor:** Back in the early part of this decade there was a great debate over the use of Schneurle engines in R/C Old Timers. Some flyers liked them, others felt they had no place in Old Timer flying, what with their rocket climbs. At any given contest it wasn't unusual to see at least one Schneurle-powered model end its career with a spectacular mid-climb explosion. And so the debate went on.

SAM 49, in a move similar to its present stand on the modern four-strokes, banned the Schneurle engines altogether, a decision that earned the club much criticism. It wasn't until the engine run rule was formally amended to include a separate motor run for the Schneurles that they were accepted at our contests.

A separate motor run was the answer to the problem then, and I just wonder if the same solution wouldn't solve the problem we have now. If the vote passes and the modern four-stroke engines are classed as 100% of their displacement, then give them a longer motor run. If the proposal is defeated and the four-strokes keep their 60A% rating, cut the motor runs down. Regardless of the way the vote goes, the performance of the four-stroke powered models can and should be kept in line with the other engine types, simply by varying the motor run as necessary. Doing this now would not be a violation of SAM rules, either, since no engine runs have been established by SAM for four-strokes. It would also not outlaw any equipment. Think about it.

**SAM 27 Editor:** Once again, we have only the proposal before us to vote on. Shoulda beens and Wish it was' just don't make it. I don't know where Eut gets his information, but a perusal of the Buckeye Regionals results in this issue would show four-cycles running First through Five in most glow categories. (like the SAM Champs, Glow and Ignition are separated, so those results reflect only Glow engines. In most local and regional contests, glow and ignition are combined)

A careful reading of those contest results would also show that the .61 four-banger seems to be the engine of choice. The rules proposal wouldn't "ban all four stroke engines" since it merely says that they are to be counted as any other glow engine, at 100% of their displacement. Those 4-strokes

Into the Blue

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with a displacement over .61 would not be allowed just as 2-cycle engines over .61 are not allowed.

To say that some 2-cycle Schneurles have grown exponentially in power and that justifies retaining the 60% rule for modern four-strokers as Eut implies is misleading at best. Horsepower is but one measurement of power. These engines cited in Eut's statement are hot-house breeds that are designed to run at 20,000 + RPM and in fact, develop that power only above 19,000 RPM. If you could harness one of those beasts to an Old Timer design that wouldn't disintegrate, it still wouldn't work as well because these airplanes are not designed for Mach Two flying.

Our planes fly best at lower speeds so that engines that develop their peak power at lower RPMs, and swing larger props, are the most effective. Does that sound like a four-stroke engine to you? It makes no sense to relate the current crop of four-stroke engines to modern Schneurle-powered bombs when the rules from 1979 were relating 1977 O.S. engines to 1977 Cross-Scavenged two strokers. Even AMA no longer uses that analogy.

The true test would be could four-strokes still be competitive under 100% of their displacement? The Answer is a not-so-surprising YES! An O.S. 61 Surpass mated to the right design would make an extremely competitive Class C glow ship. An RC-1 with such an engine would climb nearly straight up and would be perfectly legal under this proposal. A YES vote merely recognizes that 60% no longer applies.

#### Proposal R/C 4:Folding and One-bladed Props.

**Eut:** NO-Folding and one bladed props were more common in the old time era than now. Their safety is proven and they are being used in speed events and F.A.I. Free Flight at RPMs and stresses that far exceed those that occur on our Old Time Models. Impact: passage prohibits use of equipment that was used in the old time era.

**Don:** YES- The safety aspect is important. And, because the O.T. models glide so slowly, the advantage of a folding prop is minimal, at best. However, if this proposal does not pass, and the future top competitors all use folders, it becomes a "necessity" to remain competitive. Why "force" everyone into a new and expensive technology just to stay even with the competition?

**SAM 49 Editor:** Next to the four-strokes, this proposal has raised the biggest stink. One side feels they're unsafe, the other side wants to keep them legal because they were used in the old days.

Let's examine the safety aspect first. We've all read that folding props are "proven" and that the FAI guys use them all the time. An FAI prop is a little seven-inch thing with blades that weigh but a few grams. What about a ten or twelve inch folder, which is more like what we would be using? If a guy wanted to put a ten-inch folding prop on a K&B 6.5, which will turn close to 20,000 rpm on the ground, would it be any more dangerous than if he used a solid wood or fiberglass prop?

Opponents of this proposal would say no, but I found out otherwise, from a couple of fellows who are around this sort of thing all the time. I called two prominent California contemporary free-flighters, Jim Scarborough and Ralph Prey, and asked them about the use of folding props in AMA free flight. Both men told me that as far as they know NOBODY is using folding props in the larger classes of AMA free-flight. The general consensus throughout the F/F ranks, I was told, is that folding props in those sizes and at those RPMs are not considered safe enough to justify their use.

So much for the fallacy that folding props are "proven"; They aren't, at least not in the sizes we'd be likely to be using. Let's not bury our heads in the sand and pretend that the potential for disaster doesn't exist, simply because no one has been hurt by one (yet). An excellent example of that sort of attitude appears on page 10 of the Jan-Feb '87 issue of "SAM SPEAKS"

As for the nostalgic aspect of folding props, it's of course true that they existed back in the old days. But, safety aside, I wonder if that in itself is grounds enough to use them today? During my conversation with Ralph Prey, he brought up the subject of the Nostalgia F/F event, which his club, the San Valeers, started and which is now being flown enthusiastically by clubs all over the U.S. The event is for 1950's era free-flights and has restrictions as to what kind of engines and equipment they can use. Ralph told me that they do not allow folding props even though the original model may have used them.

What it boils down to is that the San



Valeers Club has recognized the need to ban certain original equipment to keep the event in perspective. We who fly R/C Old Timers should be smart enough and concerned enough to do the same.

**R 6: 10 ounce wing loading.**

**SAM 49 Editor:** Eut and Don are in agreement on this one (NO), but I'd like to add one more comment. The problem is not that there are too many maxes being posted, but rather that there are too many perfect scores being registered. So, instead of increasing the max time or reducing the motor run time to reduce the number of participants in fly-offs, why not bring back the awarding of bonus points for landing in a 100-foot circle? The contest thus becomes one of flying skill and of maneuvering skill, something that is sorely lacking in O.T. R/C events. To incorporate this feature into our contests now, even though the rulebook no longer provides for it, would not be a violation of existing SAM rules. It's something to think about anyway.

**Proposal R/C 7: 8-inch limit for 1/2A Texaco Props.**

**Eut:** NO- A larger prop in 1/2A Texaco is not a loophole. If a problem exists, a better solution is a 20-minute max or 4cc of fuel. Should we also place a limit on the size of prop used for Big Texaco? Impact: Small props produce higher climbs and 1/2A Texaco becomes a test of eyesight rather than selection/building/flying skills.

**Don:** YES- The loophole discovered by some in our 1/2A Texaco rule to use ever larger diameter propellers and obtain long engine run times up to and more than 15 minutes on 8cc of fuel. With a

15 minute max in the event, it is easy to see that the pilot merely has to get his model in the air and fly it around until the max is reached...no thermals, no pilot skill. An 8-inch prop is a good compromise as the engine will run about 6 minutes. Then the pilot must find some air in order to max. I feel the intent of the duration event is to test pilot skill and find thermals.

**SAM 49 Editor:** The author of this one, Jack Alten, says it best in his comments section published with his proposal. Following SAM 21's lead, SAM 49 specified 8-inch props at its Fall Annual last year; it worked well. The 8-inch prop limit makes the event less specialized (i.e. more fun) and thus more attractive to newcomers.

**SAM 27 Editor:** Extending an already too-long 15 minute max certainly isn't a viable answer for the simple reason that 1/2A Texaco is often the event with the most entries and frequency crowding already exists. Measuring 4cc's of fuel also places a needless impediment to a fun event. The whole idea is simplicity and an even-handed approach that makes entry in this event easy and fun. Vote YES and keep the fun in this great event!

**Proposal R/C 8: Only Gas Model Replicas allowed in 1/2A Texaco.**

**Eut:** No- Why single out 1/2A Texaco to prohibit rubber designs in gas events? No such prohibition exists for other events although it is generally assumed. Impact: Negligible.

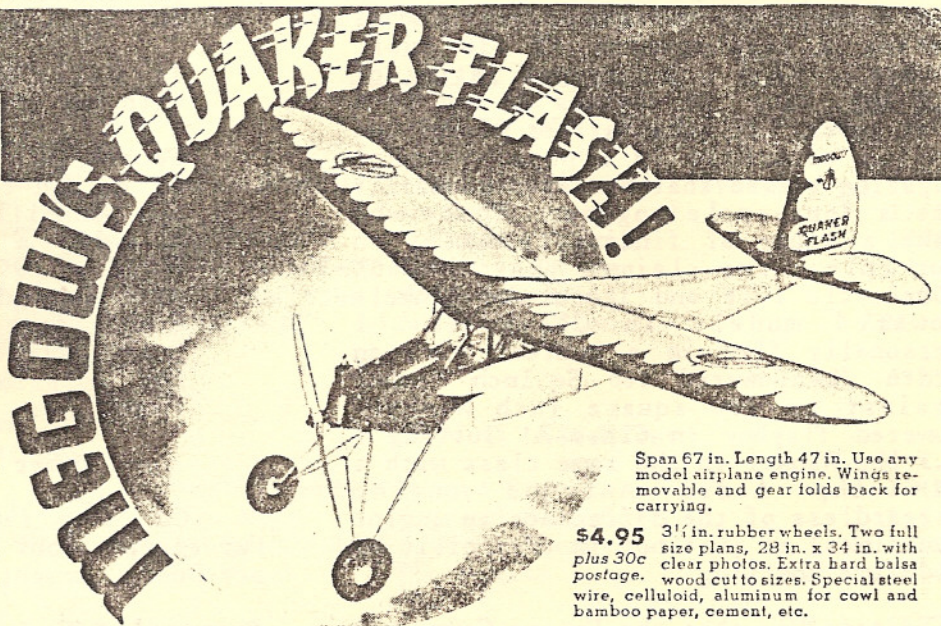
**Don:** YES- This standardization should help keep the controversy out of the very popular 1/2A duration event.

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**SAM 49 Editor:** Eut has a good point questioning why this rule would only apply to 1/2A's. Such a proposal should apply to all events or none.

**SAM 27 Editor:** Again, though, the only proposal we can refer to is the one before us. It is generally accepted that only gas designs can be used in our other events (even Eut concedes that). Why should we not specify the same for 1/2A?

This proposal deserves your YES vote because 1/2A is a GAS engine event. If we need a formal proposal to codify the same prohibition for our other events...let's do that. Until we can, this proposal should pass and will prevent problems from arising in the meantime.

#### **Proposal R/C 10: Clarification of Allowable Engines in O.T. R/C.**

**Eut:** No-Unnecessary. An Elfin-powered Baby Corsair easily beat (and won the event) the Wankel in the contest mentioned by Don Bekins. The Wankel is a four-stroke cycle piston engine of a very different type. The rest of the world classifies it as a 4 cycle of twice its actual displacement, and SAM should also. Thus it would run as a .60 four-cycle or equal to a .36 two-stroke, (well below the power of a Rossi .40) Impact: passage would eliminate an interesting engine from SAM competition.

**Don:** YES- Another controversial loophole must be closed to keep old time modeling in the spirit of the Preamble. New technology, in the form of the Wankel, a rotary internal combustion engine with no piston or cylinder, has shown up in competition.

The manufacturer advertises it as having a displacement of .30 cubic inches, and a horsepower rating of 1.3 bhp. Many .60 engines do not have that power. To make matters worse, one engine columnist in a popular model magazine stated that he felt the Wankel was a four-cycle engine. Those who make a study of finding loopholes in our rules have claimed that the 60% four-cycle rule and flout the Wankel-powered models in Class A. I personally flew in a contest with an Arden .19 powered 480 Sq.Inch Bomber against an 800 square inch Wankel-powered Playboy in Class A! Putting a 1.3 bhp Wankel in the same class with a .14 bhp Arden Antique engine (regardless of the difference in engine run times) is just not in the spirit of Old Time Modeling.

**SAM 49 Editor:** Now that the Engine Committee has made a ruling concerning the

Wankels, at least they won't be showing up in Class A under the thin disguise of a four-stroke. Even if the proposal to eliminate the Wankel is defeated, I doubt that anyone will feel intimidated or outclassed by a Wankel in Class B. Actually at 4.97cc(.303 Cu. Inch) it should technically be in Class C, but let's let it go for now.

**SAM 27 Editor:** Wait a minute! Let's compare apples and apples...OK? Forget Eut's tangled and deliberately misleading analogy (he's referring to Wankel automobile engines in sanctioned racing events where they have always rated them as having twice their nominal displacement. Not model Wankel engines!)

It defies logic to say on the one hand that you should rate it as twice its nominal displacement and then on the other hand, apply a 60% rule to that resulting displacement, "because it's a four-stroke cycle piston engine..." Only one that's right folks, ONE columnist ever said that a Wankel was a four-cycle. Read Clarence Lee's respected engine column in the Feb issue of RCM for the definitive work on Wankels. (incidentally, the Wankel has NO PISTONS, it is a rotary engine with a rotating cylinder!)

Now for the Apples and Apples part. Every engine we use today in R/C O.T. has an antecedent from the Golden Age of Aeromodeling. The first four-stroke engine was built in 1905 for gosh sakes! Even though comparing a Brown Junior to a screaming Rossi .40 is stretching things a bit, they do share the same basic technology.

The Wankel is a completely new technology that has existed only since the postwar era.(1955 for the first paper outlining the concept, 1957 for the first operating model)

It shares NO principles or operations with any engine of the Golden Age.

We wouldn't dream of putting a Dynajet in an old-timer,(although it pre-dates the Wankel!) So why are we considering allowing a one-of-a-kind glow engine based on 1955-57 technology in our pre-1942 model designs?

(let's forget for a minute that this beast develops more bhp than most of the .60's in use today) Please VOTE YES to R/C 10.

#### **Other Rules Proposals**

On these remaining proposals, Don and Eut agreed about the recommended vote. Here are Don's comments on these Proposals:

**Proposal R/C 3--Use of Wood Only On R/C Models-No Foam.**



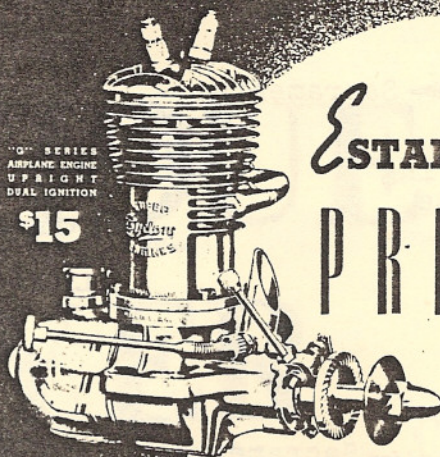
Don: NO. This proposal is entirely too restrictive. We are now using cyanocrylate glues, Monokote, and other modern materials on our models. "Beef up the buildups" is a part of our current rules. I feel builders should be encouraged to, at the same time, lighten and strengthen their models. They utilized the best materials available in the Golden Age of Modeling, and we still should. Section I, Article 7 of our current bylaws adequately covers the building rules.

**Proposal R/C 5-- Planform Area Used As Wing Area Determinant**

Don: YES. This was one of the oversights in publishing the 84-85 rules and should be corrected. Additionally, it is easier to calculate planform area than projected area. The slight difference in wing loading is minimal and most models that have been scaled today have been done on planform area.

**Proposal R/C 9-- Clarification of definition for "Character of the Original Model" to Include Wheel Size and Dihedral**

Don: YES. Smooth fields and R/C Assist have made it easy to change wheel sizes and wing dihedral. Let's keep the preamble in mind and build our models as they were in the Golden Age of Modeling.



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"... and if your kleptomania gets worse, try to pick me up a 5-channel, 2-stick rig, will you?"

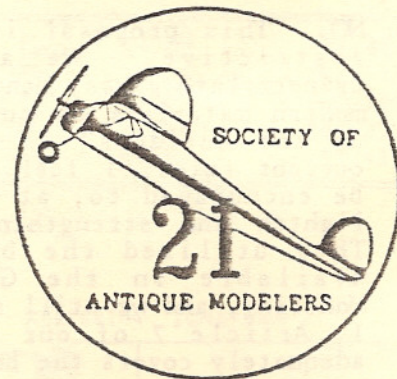
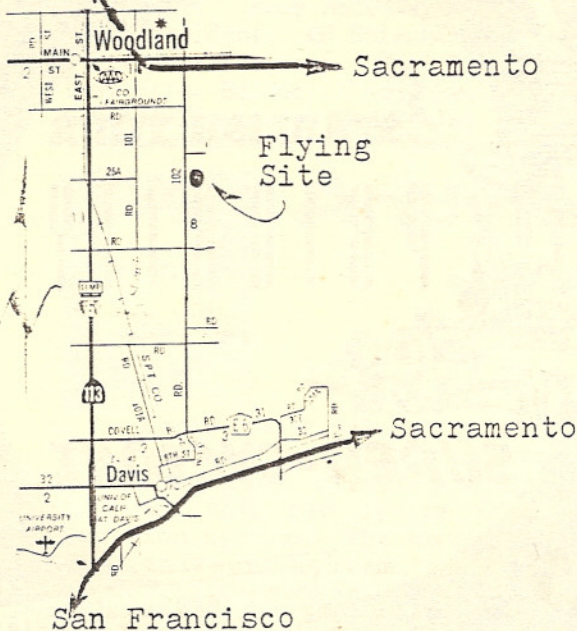


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**Safety Tip--**Did you know that 30ma can kill? That's right folks. Your onboard ignition system has quite a bit more current running through it than 30ma. Now I understand that checking to see if you have good spark is most easily done by placing your hand across the spark plug to ground, but that is just that, **Easy--Not SAFE**. Use those meters that you went to Radio Shack and spent good money for. We really don't need dead modelers cluttering up our flying sites.



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EVENTS

Saturday, July 25, 1987

- 1/2A Texaco
- Texaco
- Ohlsson Event
- Ohlsson .23 Event\*
- Electric Texaco 05
- Miss World's Fair Rubber Event

Sunday, July 26, 1987

- LER Class "A"
- LER Class "B/C"
- Pure Antique
- Sideport Event
- 05 Electric LER

- Pilot's meeting 8:30 each day.
- Flying starts immediately after pilot's meeting.
- Last Flight off by 4:00 p.m. Saturday and 3:00 p.m. Sunday.

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