THE

SCATER

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Semi Finals - Taft, Calif.

On Sept. 2,3 & 4 the West Coast team selection semi-finals were held at Taft, Calif. This field is probably the best active free flight site in the U.S.A..Gardner field is an ex WWII primary training base with five paved runways (asphalt) set down in the middle of the desert about 5 miles east of Taft, Calif. and 90 miles NW of Los Angeles. No buildings remain on the site, only a few foundations. Land around the field is mainly desert with one cotton field about 2 miles to the SE. Hondas can be ridden in any direction about as far as you have gas. Weather is exceptional with little wind but plenty hot in the summer. (no humidity) In the Fall temperatures are down in the 70's and nights cool. Wind is never a problem except a short time in the spring. Thermal activity follows a regular pattern. In the morning up to about 7:00 Nordics float nicely and can be trimmed for good dead air time. From 7:00 to about 11:30 thermals build frequently without too much sag in dead air time. However after 11:30 the air goes lifeless and thermals are scarce. Besides that the stuff between the scarce thermals is all down, and you just can't repeat your earlier dead air time. You must thermal in this period or die. Without thermals, typical times are 90 to 120 secs. Later on, a little breeze comes up and thermals become easier to find. From about 3:00PM the thermals get weaker and harder to find. Non thermal time however, goes back up to about 90% of the morning "dead-air" time.

We don't know where people got the idea that California thermals are a lot stronger than those found elsewhere. It just isn't so.

Besides that, thermal strength is not as important as thermal frequency. Also, air conditions between thermals can vary a lot.

Flying at a place like Taft is quite pleasant from the standpoint of convenience and comfort. That is, the wind is never strong and it is never cold and there are no obstructions. Otherwise it may well be that actual thermal predictability and general air suitability may be much better in other parts of the country. To those of you buried to your pylons in snow I am sure you will never go along with this postulation but that's the way it goes. Anyway, back to the semi-finals.

FAI Power was flown the first day. Starting at 6:30 AM, 8 rounds, 1½ hours each were flown. The results, we think were quite impressive. Of the 20 entered, 10 had all maxes after 5 rounds. Two, Cusick & Van Nest, made it through the 8 rounds with all maxes. Eight more had 7 maxes. Sixteenth place was only down 113 secs. from the winner. See Figure 1 for the distribution of time versus place. The unfilled symbols on the plots indicate those who "won" and have qualified to go on to the final team selection contest to be held at a central location next year. The tailed symbols denote those that dropped out. More on the significance of these plots later on.

The S.C.A.T. club took on the Herculean task of organizing and conducting the meet mainly induced by the old saw - "if you want something done right do it yourself." Frank Zaic headed up the star cast as C.D.. Dick Gildersleeve, Bill Bogart & Ken Sykora were event field directors, Bill Hartill was chief processor, Craig Cusick got the fuel, Ray Hansen made flags, Bob Wiehle handled trash disposal. Floyd Miller dropped in from Ohio to see how we do things out here. His presence was as added bonus for we all got a first hand report on what happened in Sazena.

Processing was done 100% by voucher. Vouchers and airplanes were checked and stamped the night before each event. Only a few airplanes had to be quickly modified to the correct min. area. Processing is always an interesting affair, providing an opportunity to see all the airplanes in the "before" condition. Also gives an opportunity to talk to the competitors in their "before" condition. Only drawback is the weariness that comes with the inevitable late hours. Even with vouchers it is too much work for the time available.

The level of competition in power was such that most were fearful of dropping a few seconds and thus falling out of what looked like a big fly-off. Van Nest, Cusick & Trego were flying Saturns. Van Nest was in good shape with well trimmed ships and the best engines on the field. Craig had a new ship, a so-so engine, and lots of cool. He decided not to blow

it this year. Trego was functioning well but waited till the end of a string of maxes to glide into an inverted thermal for 86 seconds. This moved him from 1st place to 14th place.

Al Vela put on a very good careful performance, but he also stumbled into a downer on round 7 for 118 sec., making the rest maxes and clinching 11th place. Mike Achterberg, a young flier from Fresno,did a great job flying a Cherny type airplane to 3rd place missing a perfect score by 2 seconds.

Your editor was flying a new Roadrunner. Same setup as before, with auto stab and rudder, Dall Oglio wing section,¢ minimum wt.. Engine had been best of the litter by about 1000 RPM. Erratic running however did not respond to the usual fixes, plug, fuel lines, needle valve etc. Suspect now that sand from previous meet at Lake Elsinore had re-bored it a little oversize. Anyway along with 6 maxes, an over-run turned up in round 6. It happened near the end of the round soooo-! off on the Honda after the ship. Timing the speed of the DTing ship and the Honda, jumped off the bike, caught the ship, ran after the wiped-out bike, kicked it to life and back to the field. A quick check of Tatones little Marvel revealed some loose screws. Fixed that, checked the run under power and then made the flight again. This time cut a little short for safety and since there was no time to pick the air, you guessed it sonny, badsville and down she came for 174 secs. The other non max was due to the unfortunate decision to fly in the large downdraft of Jim Trego's in the last round. It stayed up for 140 secs. which was remarkable considering the strength and violence of the downdraft.

In a report like this I suppose you are supposed to say "everybody used Super Tigres" "The top six did not use auto surfaces", "Models do not climb in tight spirals anymore on FAI fuel" and so on. These generalizations are not always indicative of anything so we try to resist them here. Rather we try to impress you with the magnitude and overall excellence of our boo-boos.

Wakefield was flown the second day, getting all the noisy events over with first. Temperature was pretty high, to about 102 degrees. A big disappointment was the fact that there were very few new Wakefields or new ideas. The winners all seemed to be flying stuff that had been just dragged out of dead storage. Picking the air made the difference and it didn't seem to matter that the airplanes were old, tired, and out of adjustment.

It was good to see father and son Ed, and Dick Dolby flying together and both qualifying. The Dolby's are doing a lot for

POWER

USA 1967 SEMI-FINALS

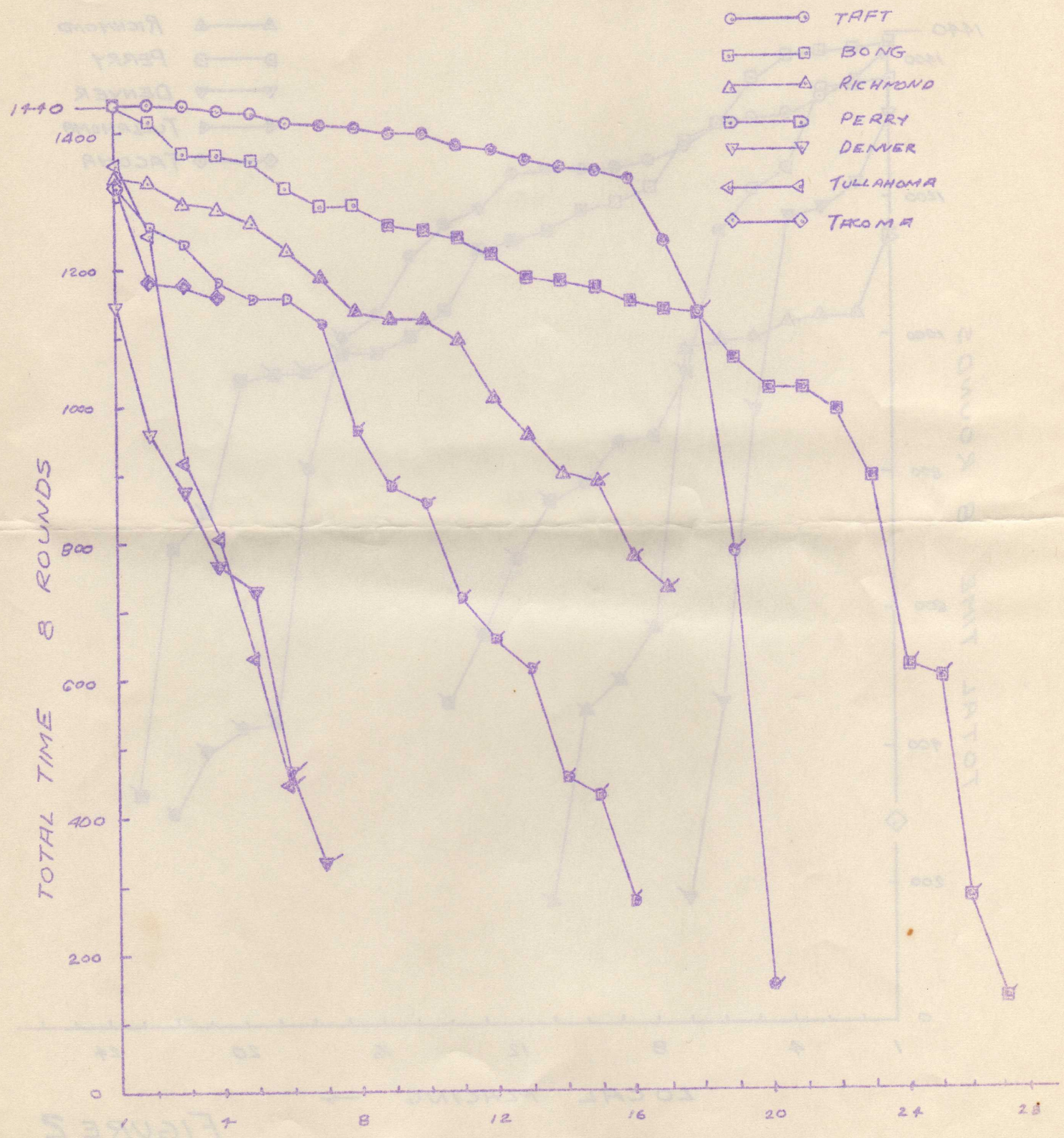


FIGURE 1

WAKE FIELD

U.S.A. 1967 SEMI-FINALS

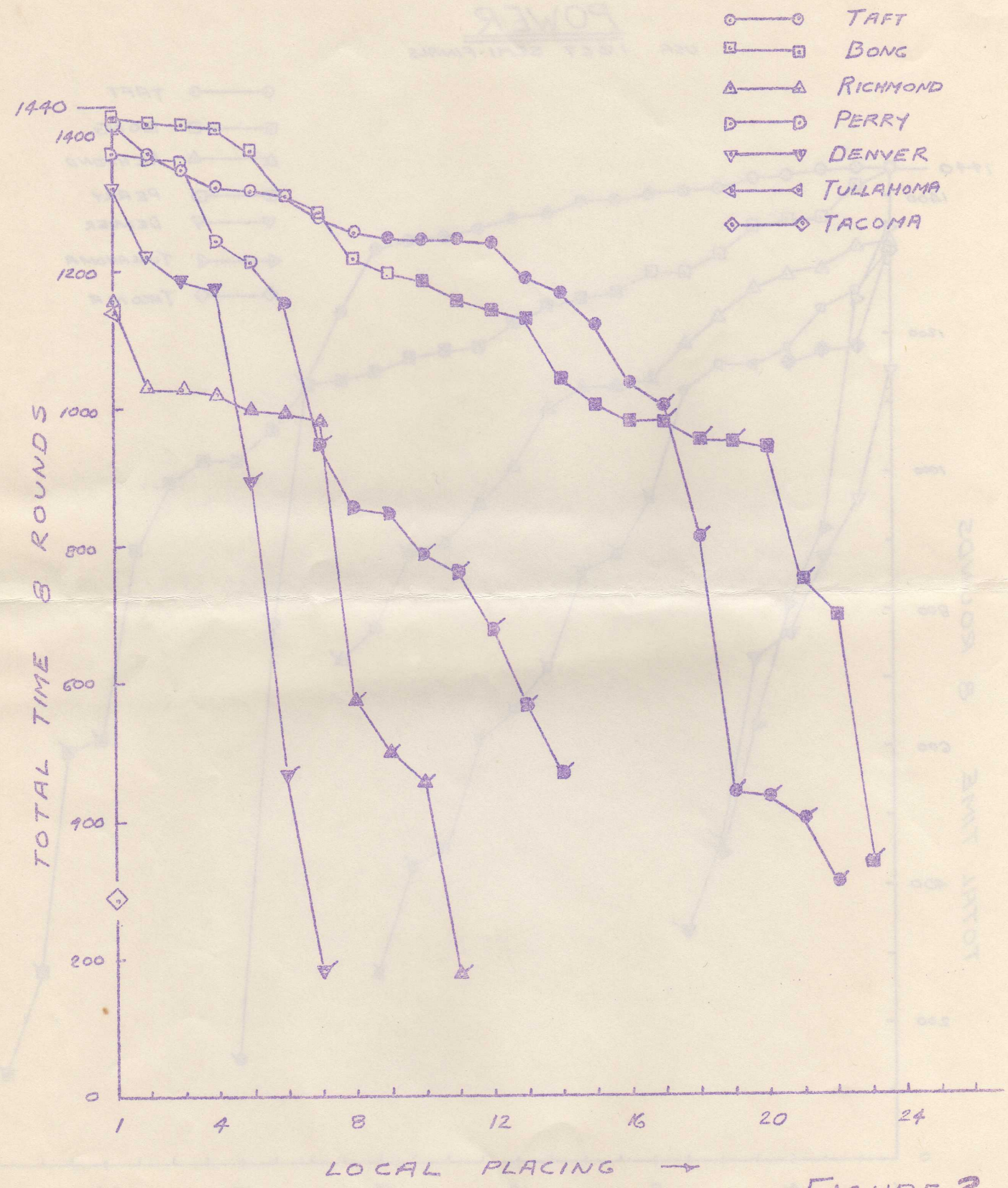


FIGURE 2

NORDIC

U.S.A. 1967 SEMI-FINALS

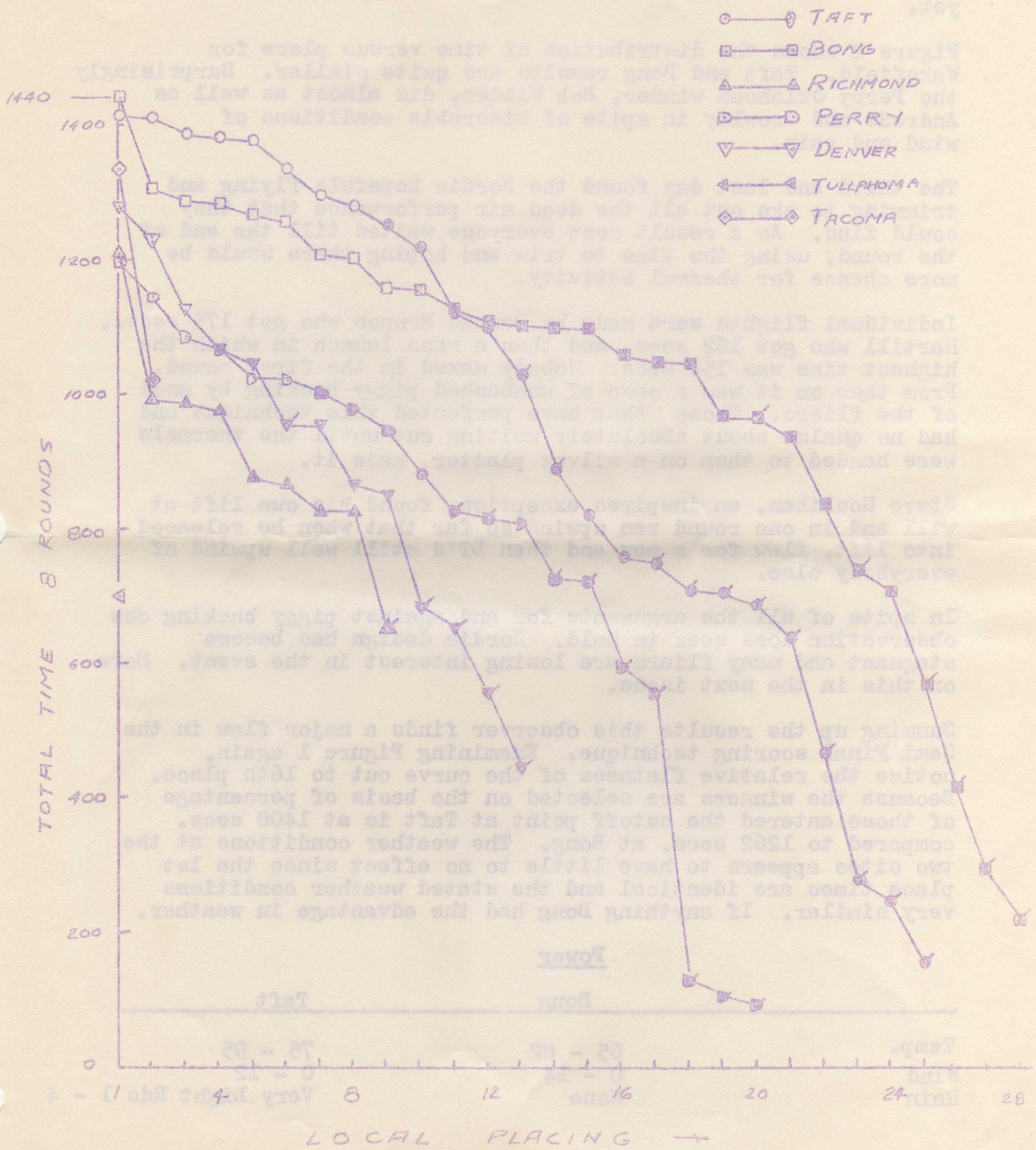


FIGURE 3

the resurgence of interest in rubber events here in the west, which reminds me, I haven't stuck my unlimited back together yet.

Figure 2 shows the distribution of time versus place for Wakefield. Taft and Bong results are quite similar. Surprisingly the Perry Oklahoma winner, Bob Wilder, did almost as well as Andrade and Crowley in spite of miserable conditions of wind and rain.

The third and last day found the Nordic hopefuls flying and trimming to eke out all the dead air performance that they could find. As a result most everyone waited till the end of the round, using the time to trim and hoping there would be more chance for thermal activity.

Individual flights were made by Dennis Bronco who got 175 secs., Hartill who got 162 secs. and then a mass launch in which the highest time was 154 secs. Nobody maxed in the first round. From then on it was a case of unabashed piggy backing by most of the fliers. Those that have perfected this technique and had no qualms about absolutely waiting out until the thermals were handed to them on a silver platter, made it.

Steve Houlihan, an inspired exception, found his own lift at will and in one round ran upwind so far that when he released into lift, flew for a max and then DT'd still well upwind of everybody else.

In spite of all the arguments for and against piggy backing one observation does seem to hold. Nordic design has become stagnant and many fliers are losing interest in the event. More on this in the next issue.

Summing up the results this observer finds a major flaw in the Semi Final scoring technique. Examining Figure 1 again, notice the relative flatness of the curve out to 16th place. Because the winners are selected on the basis of percentage of those entered the cutoff point at Taft is at 1408 secs. compared to 1262 secs. at Bong. The weather conditions at the two sites appears to have little to no effect since the 1st place times are identical and the stated weather conditions very similar. If anything Bong had the advantage in weather.

Power

	Bong	Taft
Temp.	65 - 82	75 - 95
Wind	0 - 14	0 - 12
Rain	None	Very Light Rds 1 - 4

Ruling out differences in weather how can one justify qualifying someone at Bong who has 1289 secs. but not someone at Taft who has 1408 secs? This is a difference of 2 minutes! Other such inequities can easily be pointed out by examining the data.

What this system fails to recognize is that certain areas (like California) have considerable strength in depth in FAI power. Why shouldn't the team selection system recognize this fact by appropriate scaling factors. We suggest a point system in which scores would be weighted with refernce to the local winners time.

Many fliers have become concerned about this situation and have gone to the trouble to communicate their feelings. One such example is Sandy Norton of Pomona, Calif. who has asked us to print the following open letter to Floyd Miller the Program Administrator.

4 October, 1967

Dear Floyd,

Having just received the semi-final results, I felt very strongly compelled to write this letter on behalf of my fellow FAI flyers. The results suggest very vividly to me that the semi-final segment of the team selection program is in drastic need of revision.

To begin with, why so many semi-final sites? Sure, this is a big country, and you're trying to satisfy the little guy; but in my mind, any individual who feels strongly enough to even participate in a U.S.A. team selection program should also have pride in the selection of the best possible team, not finding an easy way to gain a trip to the final flyoff. In his own nonchalent ways, such a person may very well edge out a competitor in another portion of the country who has more desire and a much better potential to qualify and do honor to his country in Europe, which is what I feel this whole program is all about to begin with. If I am wrong, I think that someone had better say so now, and take a good hard look at our team performance of the past.

Why a person at a "local" semi-finals, with half the total score of a man at a larger semi-finals, should rank higher

in the eyes of the program is beyond me. In many cases, a competitor at a larger semi-finals achieving tenth to fifteenth place could have placed in the top three at another site. Does this seem right? Of course there is always the argument that the weather is "so much different in our area". But from my observations, and all of the information which I have been able to collect, it would seem that the conditions were actually very similar at the majority of the sites. It appears that some areas just do not possess the potential flyers that another given area does. And yet the superior flyer suffers from a "quota" system and not a "performance" system. Yes, the best man will probably win at the final flyoff, but how are you going to explain the very adept flyer who put in a good score at his semi-finals and was eliminated by someone in another part of the country with an inferior time?

What is wrong with only three or four semi-finals sites? The serious flyers will be there whether they drive twenty or two thousand miles; and more important, the quality will be there. The man who flys just to see how he will do, and not for the sake of achieving a quality team for the United States is a poor patriot, sadly lacking in both personal and national pride.

Let's quit babying this program. Sure, the squeaky wheel gets the grease. There is always the guy who yells,"You don't have a semi-finals in my hometown." And then there is the Great White Father who says, "Patience, my son. Get one or two of your friends and you shall have the sanction. I can readily see by all of those ten minute qualifers in your area that you show great promise. Who knows, when the big guys goof at the flyoff, you'll be all ready to step into that team position. I hear that Europe is beautiful in July. It will be a great opportunity to try that new camera....."

Yes, this is where it all leads; the U.S.A. team members were nice guys, they tried hard, BUT..... Let's swell with pride and say we got first, or second - not twenty-eighth or forty-third. And in my mind, all the revision to make this possible must begin back at the "grassroots" level. Bring quality and prestige to the semi-finals, and you shall field a better team in the flyoff and ultimately in Europe.

And please do not feel that I am trying to feather my own nest; for, having already qualified, what I suggest will merely bring more competition and make it that more difficult to make the team. But any serious flyer thrives

on good competition, and winning in this atmosphere can only make one proud that we are sending the best flyers which this country has to offer to the World Championships.

I can only hope that this letter may in some small way be a stepping stone toward the alleviation of the gaping wounds in our FAI program.

A rather disillusioned and disappointed qualifier,

Sandy Norton

We would be interested in hearing from other people on this subject. Comments anyone?

Pettigrew A/2 Glider Release System

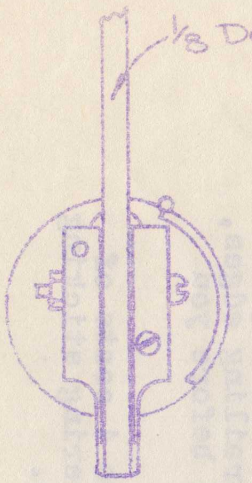
This gadget, also seen with modifications on a Russian Nordic, is designed to give some rudder offset at the critical point of line release so as to set the ship into its turn better without a stall. Many people have been cogitating on this problem and have considered two position rudder worked by a timer etc. Pettigrew's scheme shows the principle. Does anyone have any results to report on the practicality of this kind of device.

Odds and Ends - From the Scat Club

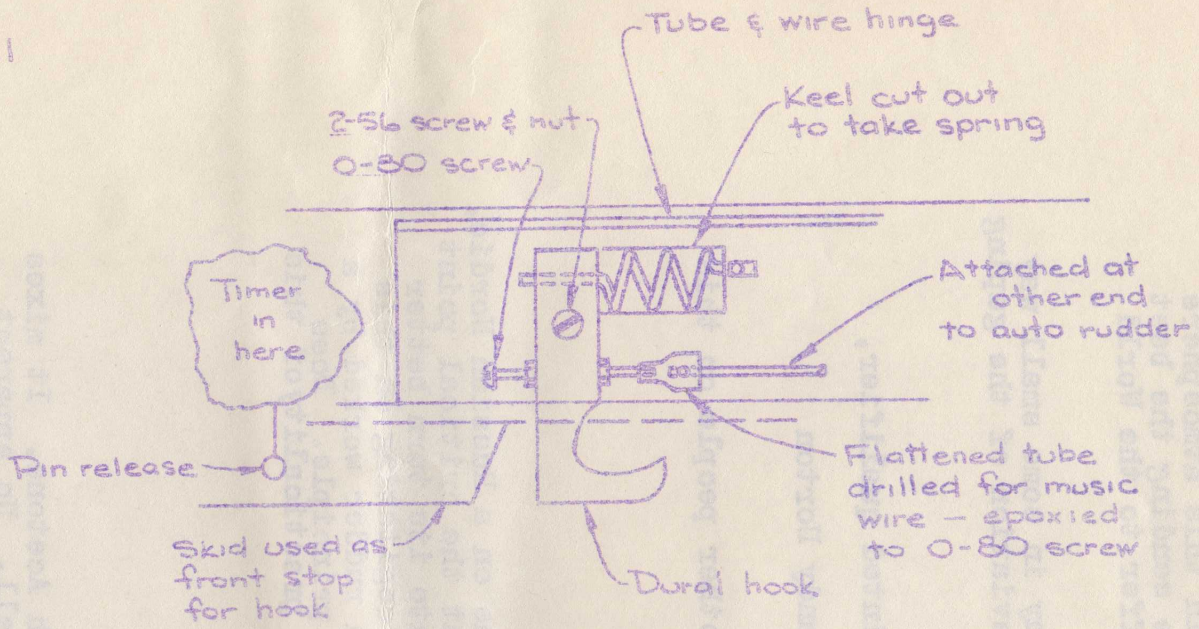
1. Butyrate Dope can be thinned with Acetone. It mixes well and will clean brushes as well. No apparent change in the gloss of the finish. Acetone is cheaper too.

2. If you miss a little on overlapping the covering material on wing and stab leading and trailing edges, use a felt tip marker to color the wood before you apply more clear dope.

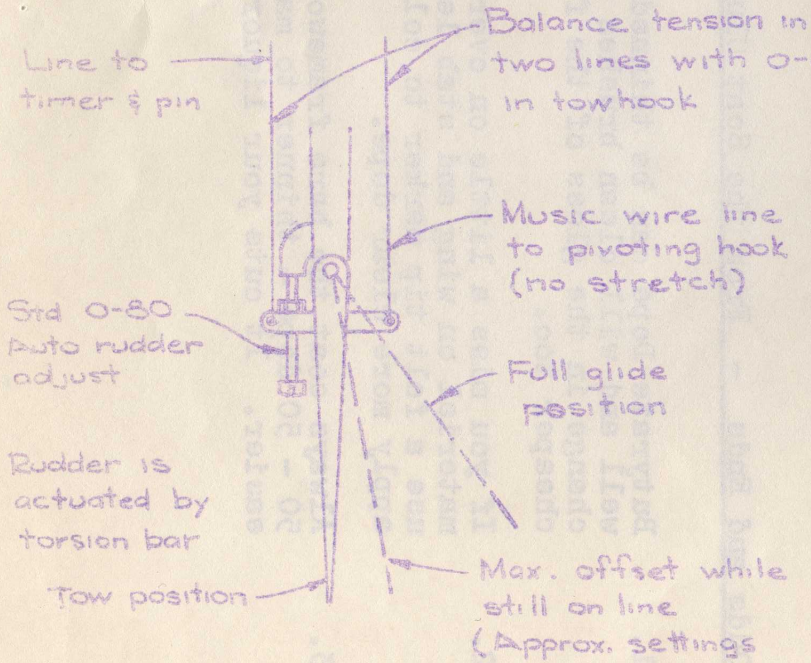
3. Always coat the bare framework with 3 to 4 coats of 50 - 50 dope - thinner to make your covering sticking easier. It cuts your liquor bills also.



FRONT VIEW



SIDE VIEW



TOP VIEW AT REAR

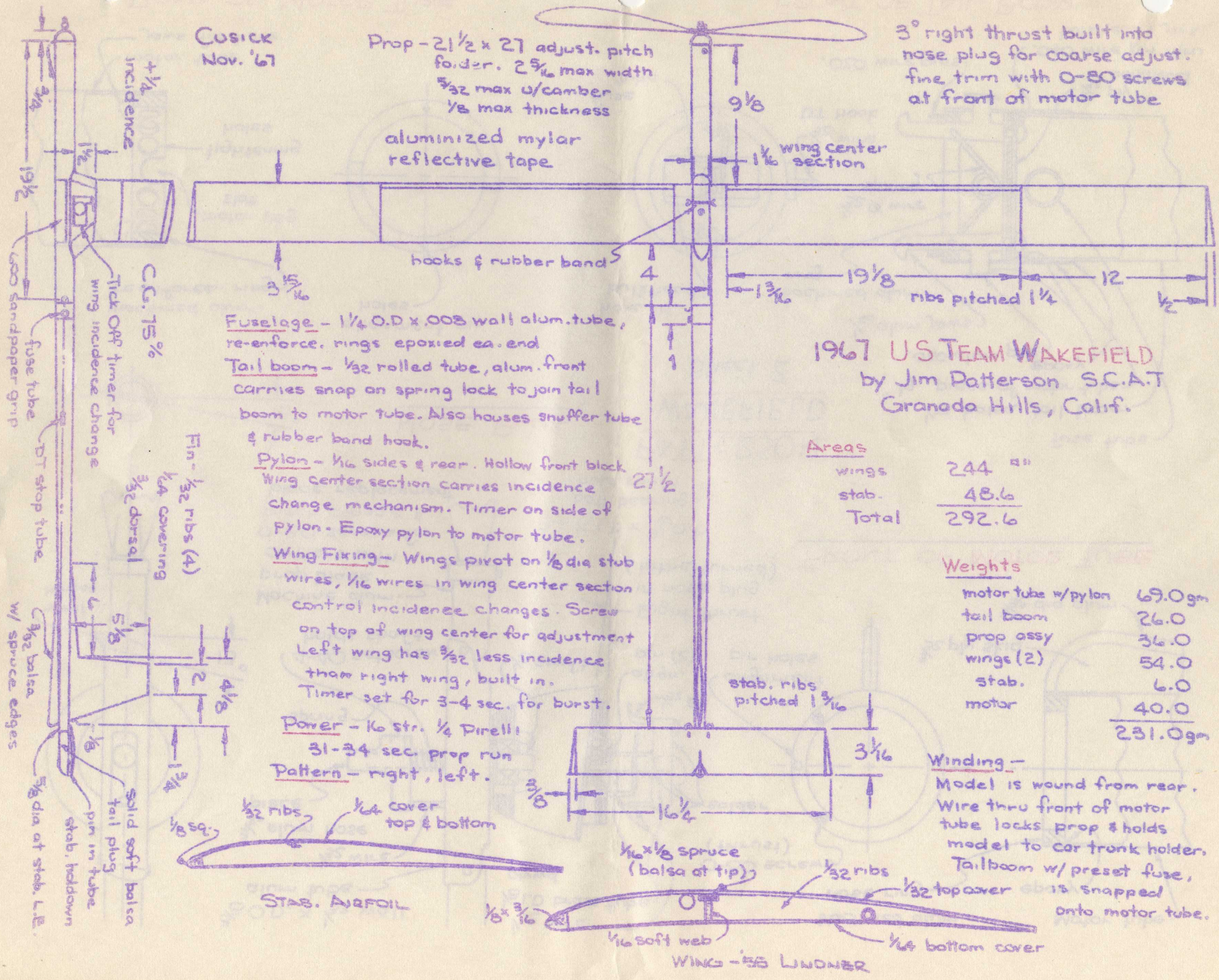
This system is designed to help the flier put the model into a tight first turn while model is still at top of line. When extra load is applied to line (thermal or deliberate pull) hook eases forward to pull auto rudder from tow position to approx. ¼ glide position. This allows the model to be bombed off the line without producing a massive stall. The spring tension should be suited to the tower's style plus maximum expected pull from thermals. (Designer's set for 5 pounds for max. compression). System can be inactivated by tightening 2-56 screw in pivoting hook.

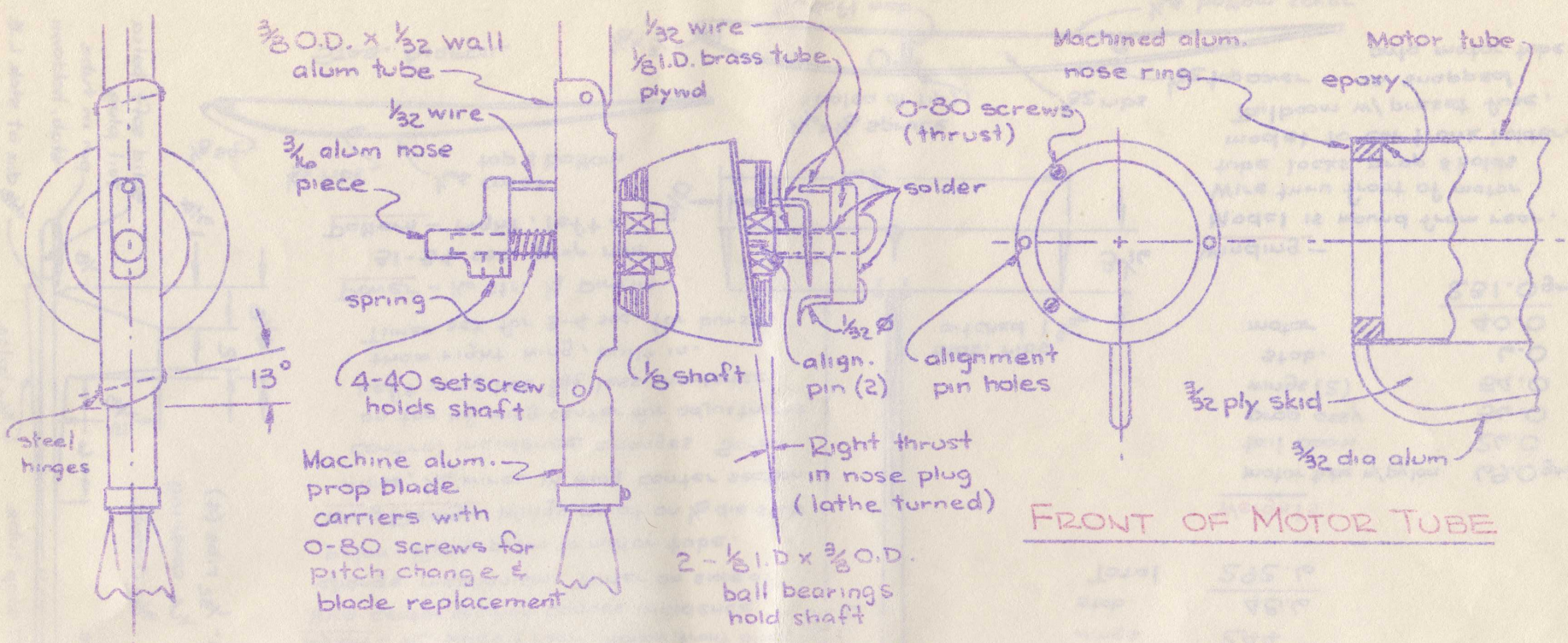
A/2 GLIDER RELEASE SYSTEM

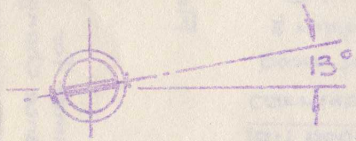
USED ON '66 A-2 DESIGN M.M.A.C.

by Bill Pettigrew '65 Canadian Team

Thanks to MINNEAPOLIS MODELER, Nov. '66

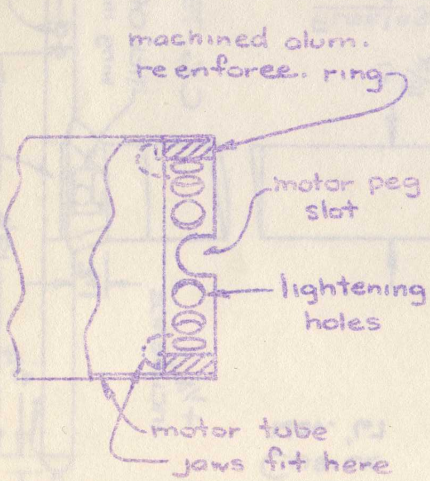

Cusick
Nov. '67
Prop - 21½ x 27 adjust. pitch folder. 2 5/16 max width
5/32 max u/camber
⅛ max thickness
aluminized mylar reflective tape
3° right thrust built into nose plug for coarse adjust. fine trim with 0-80 screws at front of motor tube
9⅛
1⅛ wing center section
+¼ incidence
hooks & rubber band
3 15/16
4
19⅛
12
1¾
ribs pitched 1¼
½
1
27½
C.G. 75%
Fuselage - 1¼ O.D x .008 wall alum. tube, re-enforce. rings epoxied ea. end
Tail boom - ⅛2 rolled tube, alum. front carries snap on spring lock to join tail boom to motor tube. Also houses snuffer tube & rubber band hook.
Pylon - ⅛16 sides & rear. Hollow front block. Wing center section carries incidence change mechanism. Timer on side of pylon. Epoxy pylon to motor tube.
Wing Fixing - Wings pivot on ⅛ dia stub wires, ⅛16 wires in wing center section control incidence changes. Screw on top of wing center for adjustment. Left wing has 3/32 less incidence than right wing, built in. Timer set for 3-4 sec. for burst.
Power - K6 str. ¼ Pirelli 31-34 sec. prop run
Pattern - right, left.
1967 US TEAM WAKEFIELD
by Jim Patterson S.C.A.T
Granada Hills, Calif.
Areas
wings 244 sq in
stab. 48.6
Total 292.6
Weights
motor tube w/pylon 69.0 gm
tail boom 26.0
prop assy 36.0
wings (2) 54.0
stab. 6.0
motor 40.0
231.0 gm
Winding -
Model is wound from rear. Wire thru front of motor tube locks prop & holds model to car trunk holder. Tailboom w/ preset fuse, is snapped onto motor tube.
Tick Off timer for wing incidence change
Cox propeller grip
fuse tube
DT stop tube
Fin - ⅛2 ribs (4) ¼4 covering
3/32 dorsal
5 1/8
2
4⅛
1⅛
3/32 balsa
⅛ dia
⅛ dia at stab. L.E.
Solid soft balsa tail plug
pin in tube
stab. holddown
w/ spruce edges
stab. ribs pitched 1 3/16
3 1/16
⅜
16¼
⅛ sq.
⅛2 ribs
¼4 cover top & bottom
STAB. AIRFOIL
1/16 x ⅛ spruce (balsa at tip)
⅛2 ribs
⅛2 top cover
⅛ x 3/16
1/16 soft web
¼4 bottom cover
WING - 555 LINDNER



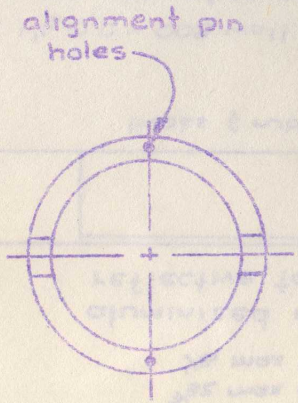


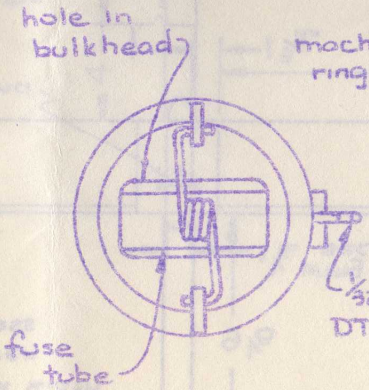
NOSE PLUG

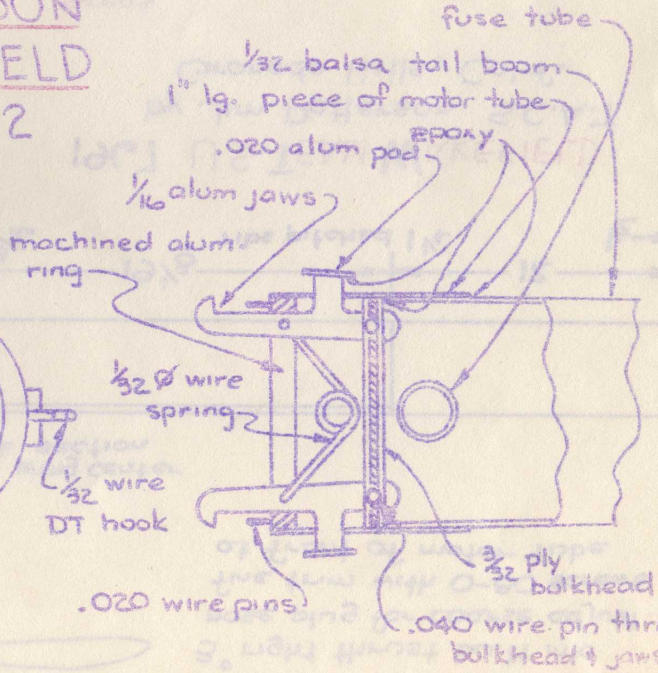
PATTERSON
WAKEFIELD
Sheet 2



REAR OF MOTOR TUBE





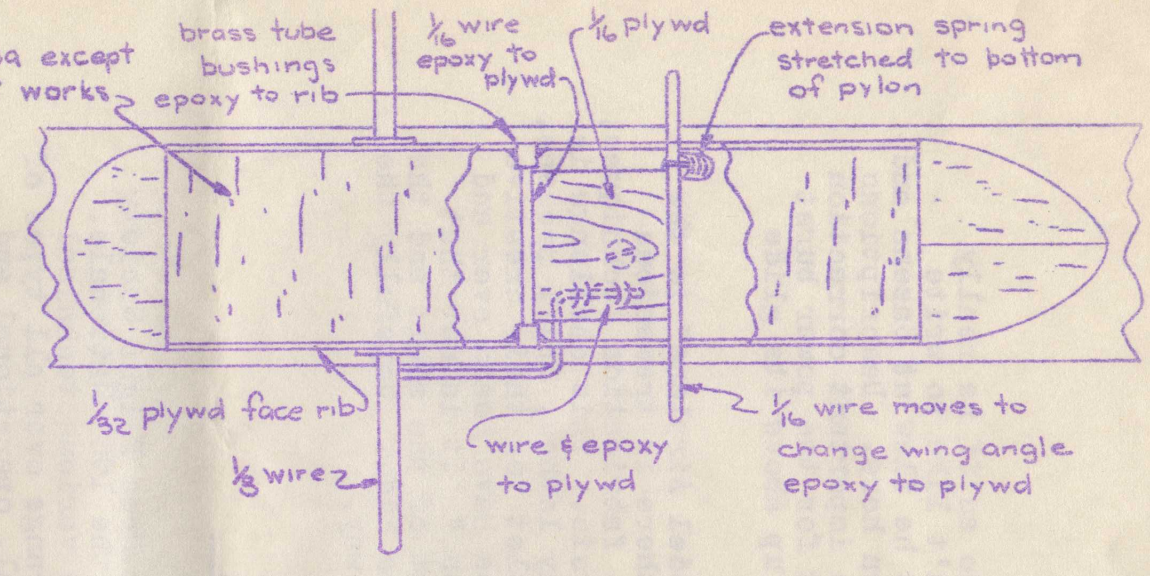


FRONT OF TAIL BOOM

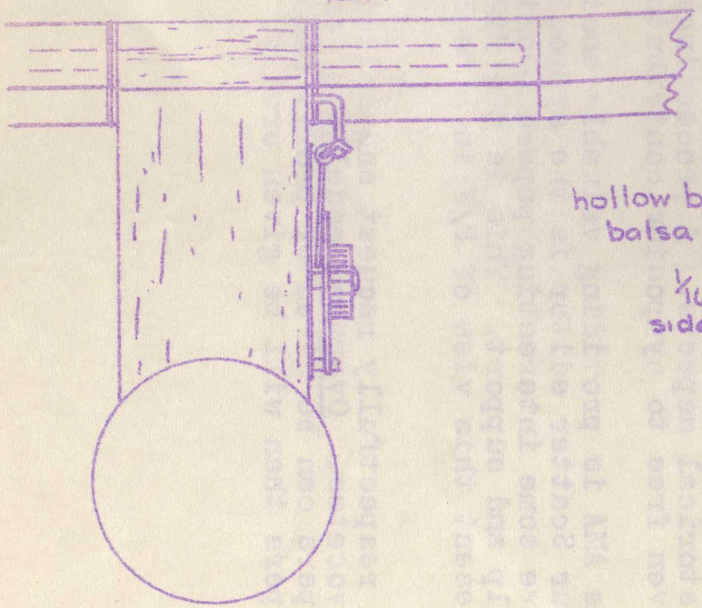
PATTERSON

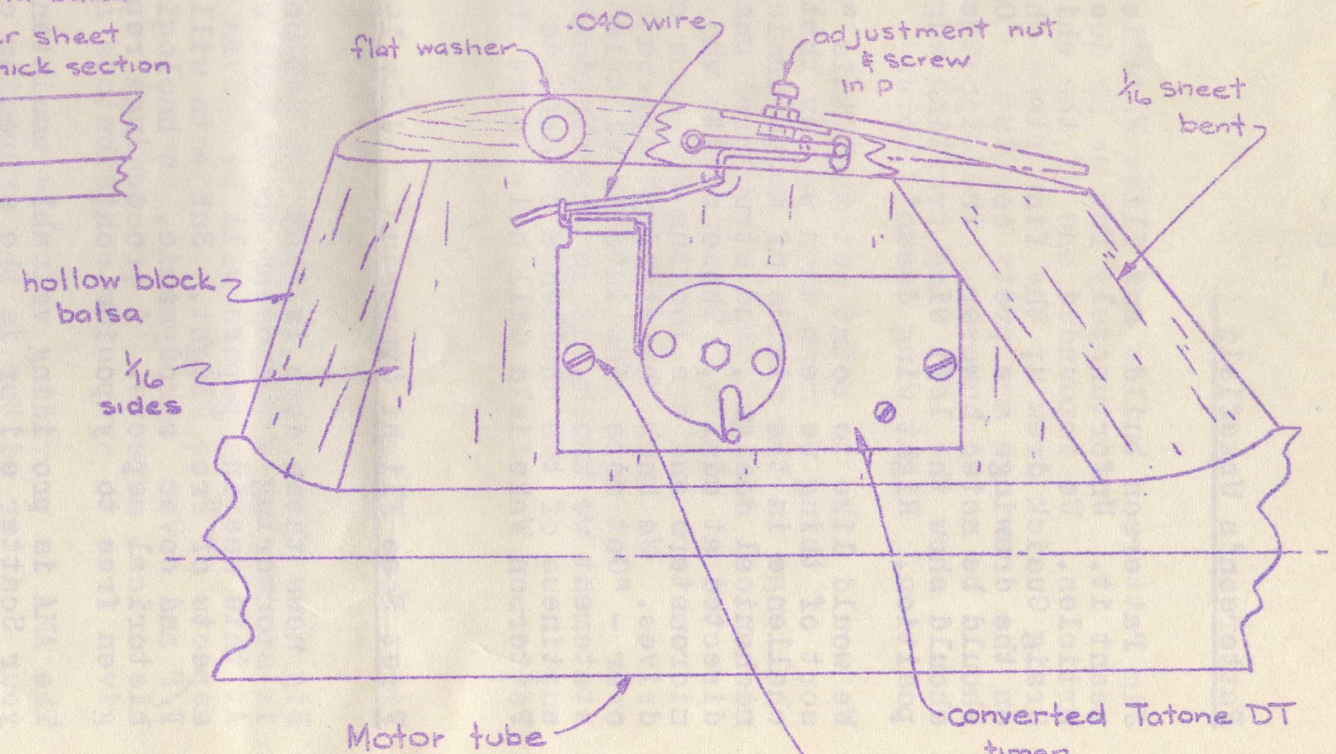
WAKEFIELD

SHEET 3



First 1 3/16 of each wing is built flat to receive wing wires, solid balsa fill under cover sheet Root rib has thick section





WING ANGLE CHANGER

SHOWN RIGGED FOR POWER BURST

Patterson's Wakefield

Jim Patterson builds and flies Wakefields as if he really meant it. Unfortunately for us he doesn't like to write articles. We impounded one of the ships he flew at Sazena and Craig Cusick drew up the fine plans shown here. Descriptions on the drawings are prety complete. One important correction should be noted however. The adjustment for the power burst should show the left wing trailing edge up above its glide position. Right wing doesn't move.

We would like to point out that this "Model Airplane" is the sort of thing we mean when we say that there is tremendous challenge in the fields of aerodynamics, fabrication techniques, mechanical design , and structural analysis. This challenge is directed at adults. Those adults who buy lathes, drill presses, micrometers and are looking for some outlet for their creative drives. We know the standard approach we have heard over and over - "Get more kids into Model Aviation." It is not that statement we knock, it is the abandonment of the adult and the emptiness of the challenge offered to the kids. Hopefully the Patterson Wakefield will help point the way.

First Free Flight Symposium July 1968

Big news these days is that the National Free Flight Society is sponsoring a Symposium to be held at the 1968 Nationals. At this meeting papers will be given on various technical aspects of Free Flight. Subjects will range over all types of F/F and cover aerodynamic, technological, operational and historical aspects. A proceedings report will be published and given free to symposium contributors and sold to others.

The AMA is providing valuable assistance in this project and your Scatter editor is the symposium chairman. We already have some interesting papers promised but we need much more help and support. This is the first chance we have had to present this view of F/F in a technical semi-professional manner.

We respectfully request and solicit papers fri you the F/F advocates. Overseas modellers are included in this request. Papers can be given by proxy, and we expect to publish more papers than will be given orally. Write to:

Bill Hartill
7513 Sausalito Ave.
Canoga Park, California 91304

Please let me know if you are interested and what subject your paper will be on.

TO ALL THE SCATTER FANS:
MERRY CHRISTMAS & A HAPPY NEW YEAR
FROM THE SCAT CREW

NEXT MONTH

Nordic Development by Bob Norton

Piggy Backing Re - Visited

Overseas Report

SPECIAL NOTICE

All modelers in the Los Angeles area. The Army Corps of Engineers has expressed a desire to "phase out" Free Flight activity at the Sepulveda Basin Los Angeles County Model Airport. What does this mean? When will it happen? How can it happen? We don't know either but if we don't do something about it, it will happen. There will be a meeting with the Los Angeles Parks & Recreation Dept.:

WEDNESDAY JANUARY 10, 8:00 PM
SHATTO RECREATION CENTER
3191 W. 4TH. ST., LOS ANGELES
(JUST EAST OF VERMONT AVE.)

We urge all F/F modelers to attend. Bring friends, families, neighbors. This may be our last chance to be heard. You must come!