

NCLRA
National Control Line Racing Association
February 1995
Editors Lari Dziak Dave McDonald

What's in this Issue:

Hot Thumb

How to Setup Landing Gear

95 Nationals

Your Comments

Plus More

Correction:

In the last edition an error was made in the World Championships article. Borer of Switzerland was nicknamed the Crashmaster, and not Aaron Ascher. We apologize for the error.

Presidents Corner

We are pleased to announce the 1995 FAI team trials will be held in Muncie, Indiana. These trials will be different. Stunt will also be held at the AMA on the same dates. To our knowledge this is the first combined team trials. There is plenty of room for both events to be held concurrently without conflict. The dates for the trials is September the 2nd and 3rd, with the site being totally reserved for September the 1st thru 3rd. The AMA National Flying Site will be the location for the trials. The AMA is taking care of arrangements for accommodations. The hotel that has been designated by the AMA is the Hotel Roberts in downtown Muncie. This is approximately a 10 minute drive to the flying site, with equal time to almost any place in Muncie. To make reservations call the AMA Competitions Department, and talk with Steve or Teresa. A block of rooms are currently being held, but reservations must be made by August the 1st 1995. Dave is currently working on an information packet that should be done by the middle of the month. This should give you all the information you need to plan your trip to Muncie. We look forward to seeing you in Muncie, and hope that the members of the NCLRA who do not fly T/R will come to Muncie and give support by either watching or working a day as a volunteer, if you are interested contact Dave for details. Watch the newsletter for continued updates.

We have also included in this edition a list of Members who have renewed. Please check the list to make sure you are included. Those who have not renewed the February edition will be your last edition, so renew today and don't miss a single issue.

How to Setup Landing Gear

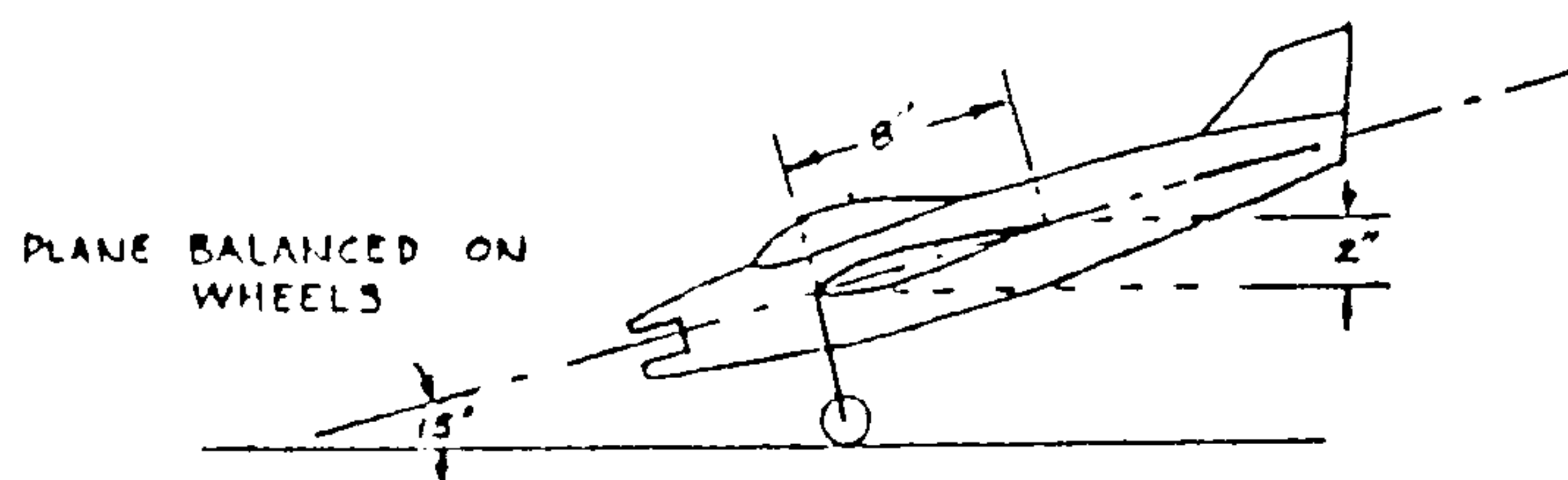
submitted by Bob Whitney

This article was first published in 1976 by the *Duke City Dope Sheet*, the publication of the Albuquerque, NM Thunderbirds, and was later in *Model Aviation*. This short article was originally authored by Phil Shew.

In order to get your plane to roll on the wheels during a hot landing, the wheel(s) should contact the ground 15° ahead of the CG... but how do you measure the 15 degrees? Set the plane on its wheels and lift the tail until the plane balances. The CG is now in a vertical line through the center of the wheel. At this point, the fuselage should be nose-down at a 15° angle. An easy way to measure it is to divide the wing chord by four-the trailing edge should be that much higher than the leading edge.

Example: Say that your wing chord is 8" $8 \div 4 = 2$. Using a ruler, measure the height of both the leading edge and the trailing edge. The difference should be 2 inches.

If the plane balances at much more than 15° count on lots of bouncing. If it's 15° or *slightly* less, you'll be able to grease in the plane at high speed just like the pros. This makes life a whole lot easier for both the pilot and pitman.



'95 Nationals

Dave McDonald

I had the pleasure in the month of December to be in the Richland Washington area. While I was there I contacted Paul Rice in hopes of meeting him, and touring the site that has been selected for the '95 Nationals. Paul was kind enough to provide transportation from my motel to the site, and for a very informative luncheon with some of the local model airplane enthusiast. Paul along with his wife Gail, daughter Julie, Curtiss and Todd Ryan, along with Charles and his son Euan Edmonds made my day very pleasant. I would also like to thank the Edmonds for providing me with return transportation. We met for lunch at the Shilo Inn, which has been designated as headquarters for the AMA. The food and atmosphere was very good, not to mention only about a one to two minute drive to the site.

The site selected for C/L racing will also host speed and carrier. I found the pavement to be smooth with no cracks or other problems at all (what a difference from Lubbock). The facility is located along the Columbia River and has an esthetic appeal to the location. There is nice restroom facilities on site, and I was told that food vendors will also be present. Overall I would say that the facility will lend itself to a good nationals location, I would hope that you all attend to make this a successful nationals. There should be several local entries to provide strong competition so lets make this a banner year for C/L racing. The schedule of events at this site is as follows:

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
<u>July 10</u>	<u>July 11</u>	<u>July 12</u>	<u>July 13</u>	<u>July 14</u>
1/2A Profile 1/2 A Speed Mouse I	A Speed F2A Speed Scale Race Mouse II ?	Sport 21 Slow Rat	B Speed F4d Speed F2C Race AM Rat Race PM Profile Carrier	D Speed Jet Speed Carrier I&II

*** Processing for Speed and Racing will be on site the morning of the event 7-9 A.M.

We are currently working on the possibility of Mouse Race II as an NCLRA hosted supplemental event to be run on July 11 so watch for more information.

Ask the Experts

Fred Quedenfeld has the honor of being the first person to write in for our "Ask the expert" column. If you have a question here is your chance to write in and we will attempt to provide some answers concerning your question.

How should a tank for Goodyear be set up? What size tubing should be used for the pressure line? Should this line have a restriction? Where should the pressure line be located in the tank? Why? Where should a racing plane balance? Will a plane that is nose heavy be slower? Should the engine have 2-3 degrees of in-thrust?

Our panel of experts on this issue are Dick Lambert, John Ballard, and Lari Dziak.

Dick Lambert (1) The center of the tank should be located as close as possible to the C/L of the engine. (2) I use 1/8th tubing for the pressure line (3) Yes, I do not run a check valve. I take and fill the end of the vent tube with solder and use a #53 drill bit, this will give you a .0595 hole, or you can

use a check valve and not mess with the solder and drill. (4) I like to have the pressure line located in the neck of the tank. This gives me a dry vent, which means no check valve is required. The vent should be on the needle line or inboard of that point. (5) Why I think this point has a more desired effect on the head pressure of the tank, they do not seem to go rich with the pressure line at this point. (6) Plot the leading edge out straight from the root, and balance the plane at a point approximately 3/8 inch back from the leading edge. (7) Yes, because you are flying with up elevator which means you have two forces working against each other. (8) No, this is just asking for trouble. Only a few people could get one off the ground with this much in-thrust, if any, no more than 1 degree max.

John Ballard (1) Center of the tank should be located as close as possible to the C/L of the aircraft. (2) 1/8th (3) if a check valve is used no restriction is necessary, but if not then a restriction is needed. I suggest a .060 hole in the soldered pressure line. (4) The pressure should be located as high as possible and on the needle line. (5) This is to keep the fuel from foaming. (6) They should balance on the leadouts. (7) No, not really, but if too nose heavy they become twitchy to fly. (8) No, never 2-3 degrees this makes them difficult to handle.

Lari Dziak (1) The center of the tank should be on the center of the needle line. (2) 1/8th (3) Some people do, and some do not. I think if a check valve is used then no, but if no valve is used then a small hole .060 should be used. (4) The pressure line should be located high. (5) To prevent any bubbling of the fuel, and to give a better head pressure. (6) They should balance about 3/8-1/2 inch back from the leading edge or on the leadouts. (7) In the air no, but a nose heavy airplane lands and takesoff slower. (8) No, I do not use any in-thrust in Goodyear.

Hot Thumb

by Stewart Willoughby

This device is designed for pitting side-mounted engines on profile models as used in Goodyear, Slo-Rat, etc. Both battery terminals are carried on the thumb rather than divided between the thumb and forefingers. Apart from avoiding the "welded digit /flat battery" syndrome which can afflict pitmen during tense moments, the hot thumb has several other good features. A firm and natural grip on the model is achieved-thumb wrapped around the engine head and all four fingers spread around the fuselage check cowl. Lifting the model is no problem with this grip, and by rocking the thumb back a little, head contact can be broken for priming etc.. while the plug post is still firmly held within post contact. There is no need to build special terminals into the model, the hot thumb touches the head and plug only. The drawing should be self explanatory, it may look a little complex and over built, but the design is very rugged and will survive being thrown against the concrete, etc. when the pitman gets upset after a bad stop! Note that there is 3-point contact for stability, a plug post contact and two head contacts. Bend the thumb strap so that the tip of the thumb protrudes a little, this allows adjustment of the needle valve without removing the device from the thumb. The dimensions are to fit the Gillott Rossi .15 with his head and plug. The position and depth of the plug post contact or the height of the head contact may have to be changed to fit different setups.

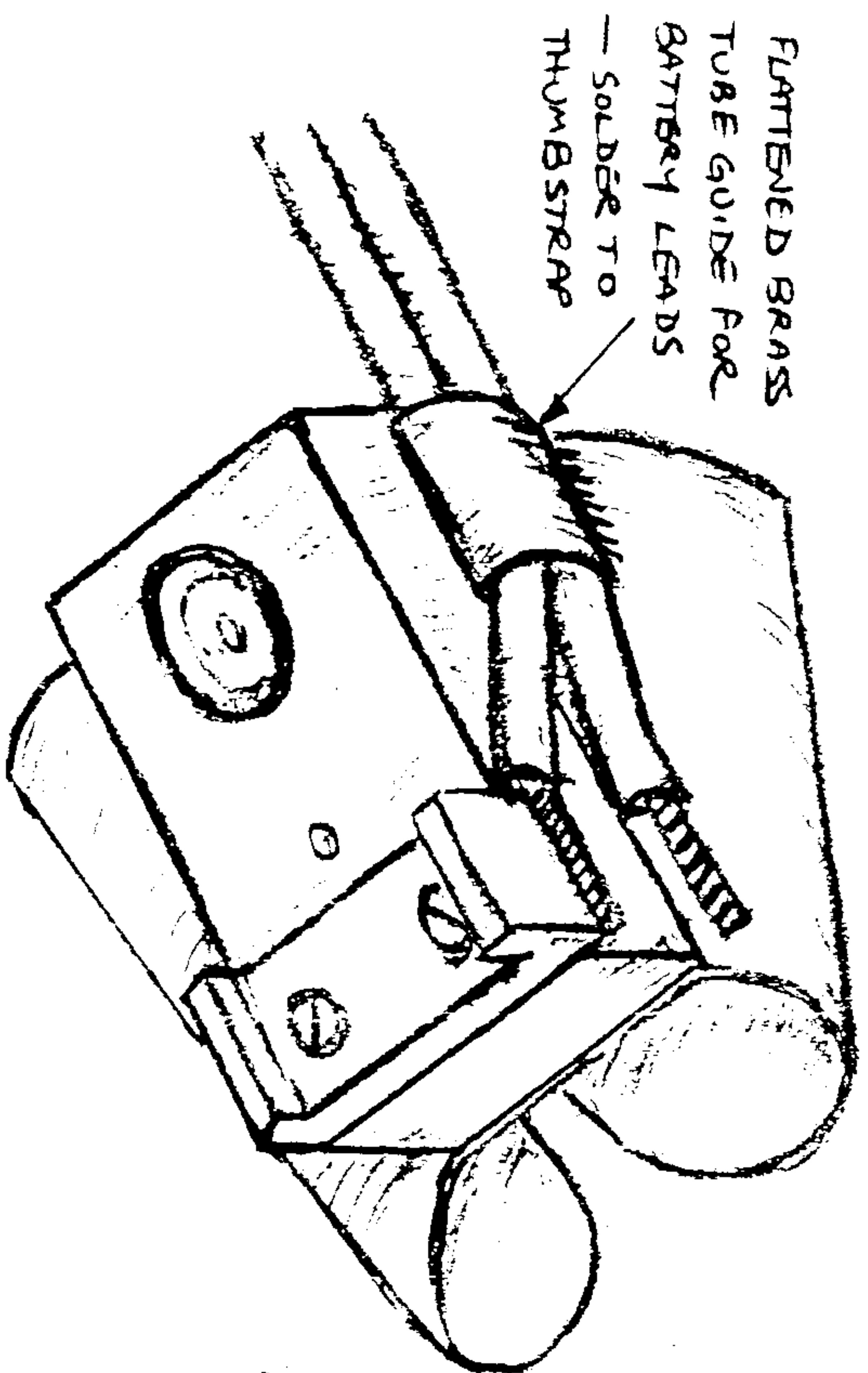
** Drawing included on following page.

For Sale Items

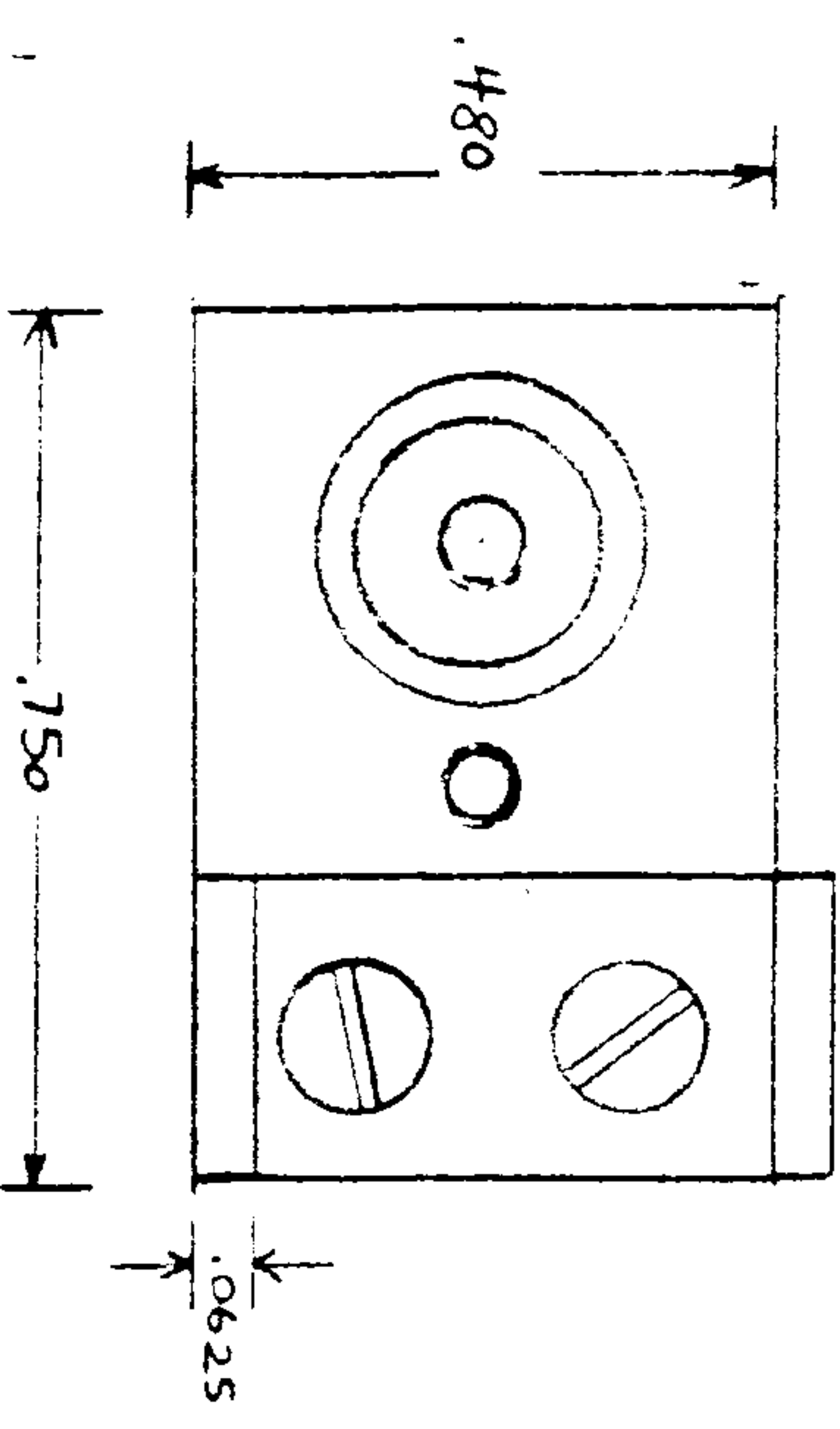
For Sale: Cyclone T/R stuff Run but never raced., 2 Cyclone T/R 15's, 1 plane complete, 1 carbon fuselage kit and metal tank with valve, 2 carbon props.

1 Nelson 15 diesel side exhaust 6 mounting holes AAC low timed, 1 Nelson 15 for Goodyear front intake side exhaust ABC, 1 Nelson 15 for Goodyear front intake rear exhaust ABC.

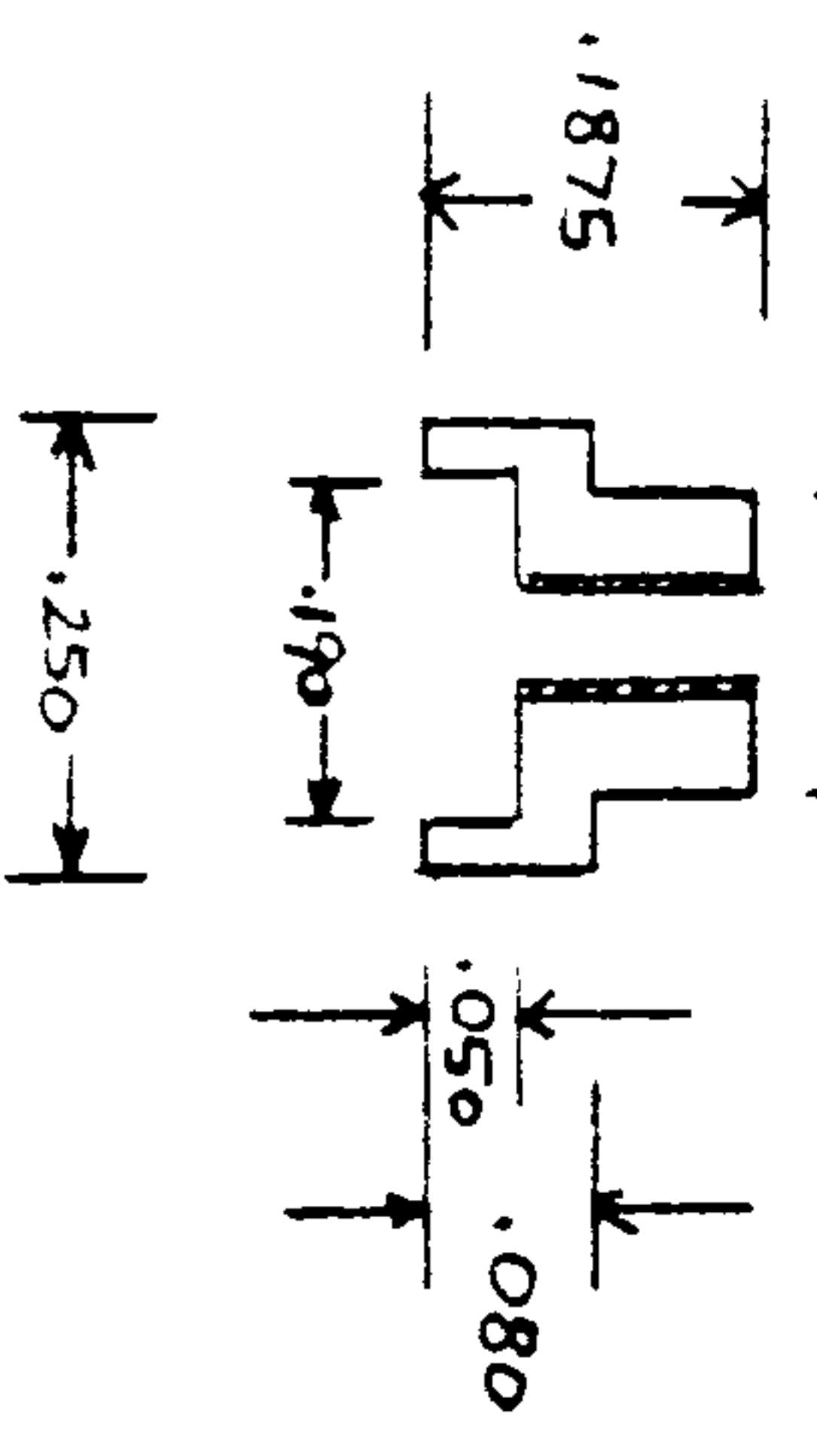
Fred Quendenfeld, 492 Powderhorn Road, King of Prussia, PA 19406.



BOTTOM VIEW:

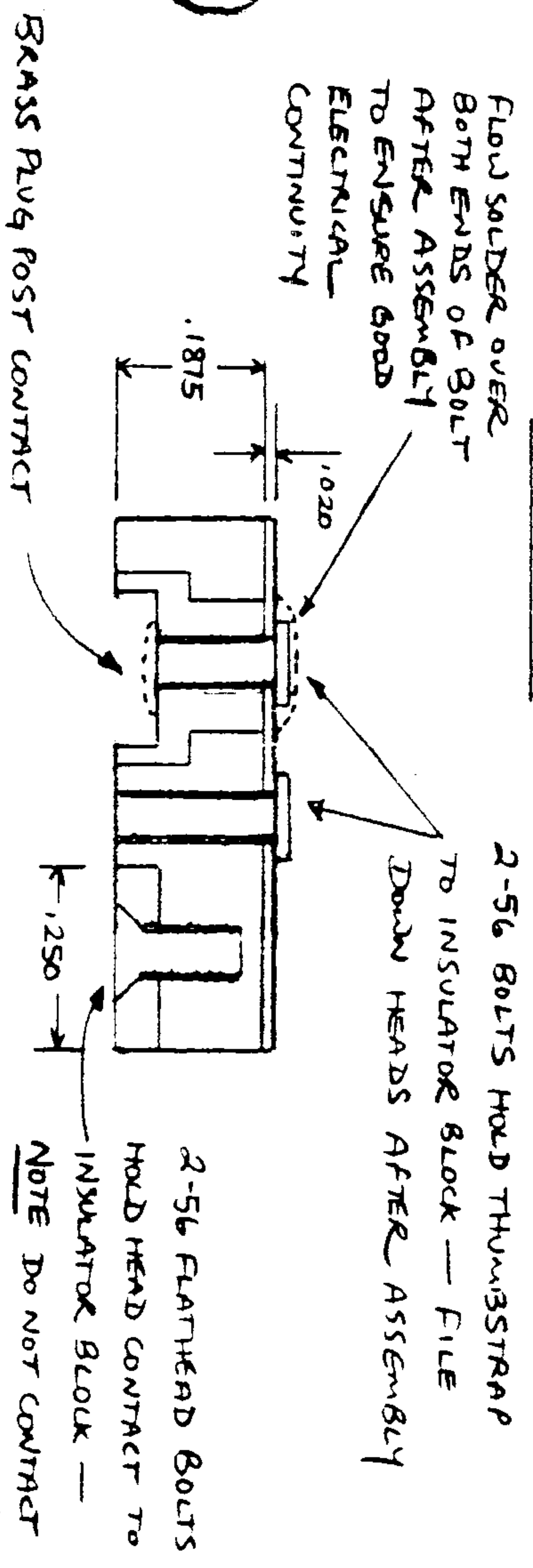


PLUG POST CONTACT:
(BRASS)

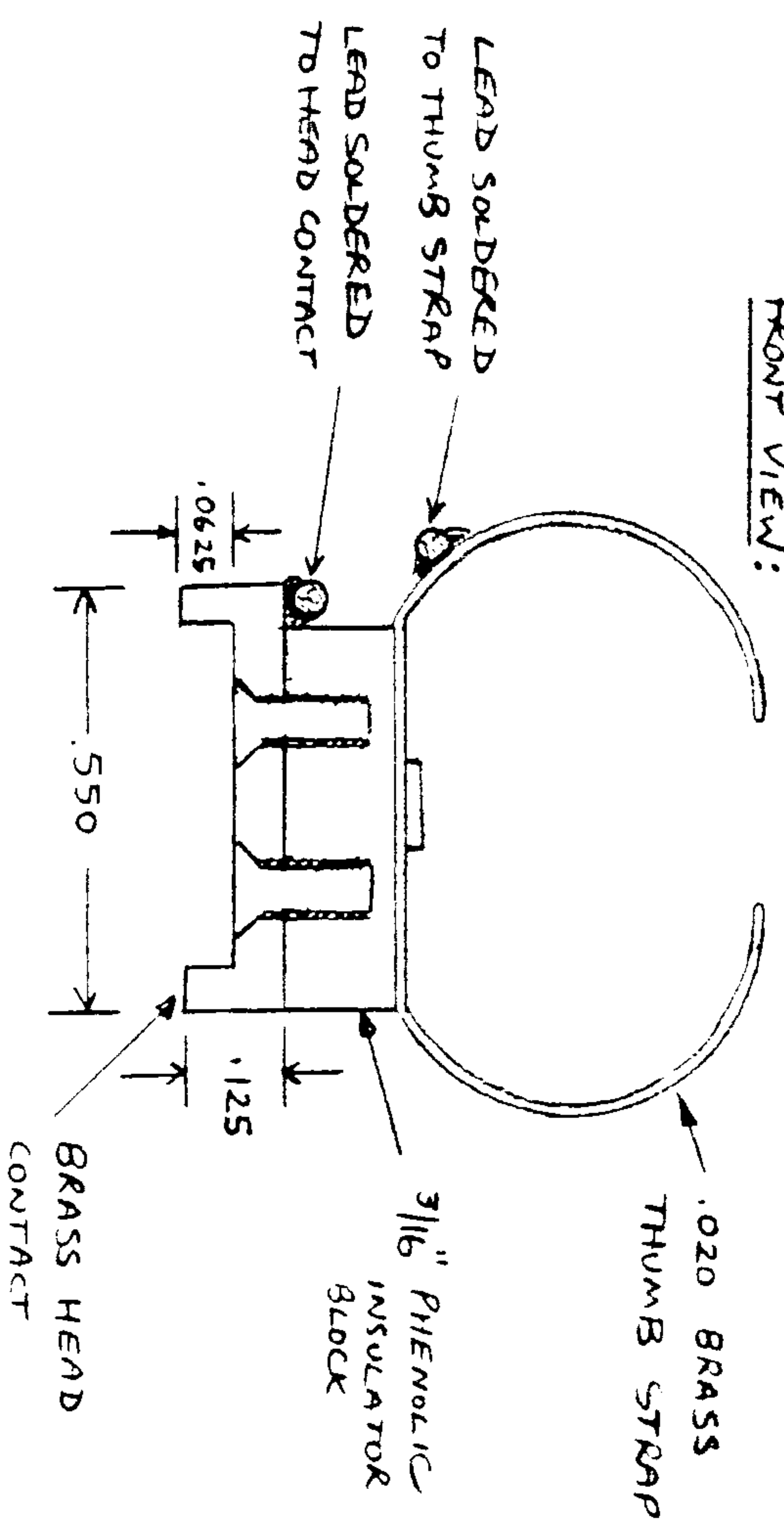


DRILL AND TAP 2-56

Cross Section:



FRONT VIEW:



HOT THUMBS MK. 2

SCALE: NOT TO SCALE

APPROVED BY:

Bob!

DRAWN BY: Stp

REVISID 1992

DATE: 11/94

DIMENSIONS ARE FOR G.P. ROSSI 15 WITH HEAD/PLUG AS SUPPLIED BY TIM.

DRAWING NUMBER

1 OF 1

Members Comments

Fred Quedenfeld writes: I think racing needs some type of classification like stunt. Maybe novice and expert class. I think that we need a novice class. Ken smith has a good idea with sportsman team race. I think that novice should compete with novice only. We should not have a special event with special rules. The novice should be performance based.
Novice Goodyear heat race time 3:30/ Novice Slow rat heat race time 3:15.

If a novice goes faster after 3 contests he should move up to the expert class. In a local contest when there are only a few entries the races should be set up so that the novice flies against the novice. At the end of the contest the best novice should also be recognized.

What do I think about 10 entries in an event at the NATS, I do not like it. I guess they want to eliminate racing and speed and also the juniors and seniors. If you look at past NATS I think at some time each event had a low turnout.

However, we should take action. If we want more people to race we have to do something about it. We should run the Control line racing events at the NATS including preplanning and site set-up and clean up.

Should an organization of 168,000 do something because 672 want to? or 6 want to?

Goodyear Class I rules, How many plain bearing control line 15's are readily available. How well do the restart. We are racing how can you have a speed limit on racing. What is wrong with using a shutoff?

In the East we run 1 ounce Goodyear the requirements are a 1 ounce fuel system and the races are 100 lap heat and 200 lap final. We also fly on 52 foot lines. Some people use glow engines some people use diesels no one really dominates. A few years ago we ran a two day contest with mostly AMA events. In Goodyear the diesels were 1st, 2nd, 3rd.

Fred Quedenfeld.

Lari and Dave,

Congratulations on a fine job your doing with the newsletter and the promotion of NCLRA.

I've got a suggestion to put forth to our readers on re-structuring the NATS Racing Schedule. My son (Aaron) and I have attended some contests outside of the US and rather like the schedule the English and Europeans use. It gives the competitors a chance to maximize each race. The down side is that you have to be ready to race the events you enter each day. The up side is that this schedule allows you much more time if you have problems in your first heat, to put a good race time in to make a final race.

Time allowed for each event each day can be determined on the number of entrants. We would need flying site for only 3 days.

Example:

	1st Day	2nd Day	3rd Day	4th Day
	Processing	Heat 1	Heat 2	Finals
Mouse I	9:00am	8:30am	11:30am	9:00am
Goodyear	10:30am	10:00am	1:30pm	10:00am
Slow Rat	12:30pm	11:30am	8:30am	11:00am
Rat	2:00pm	1:30pm	3:00pm	1:00pm
Team Race	3:30pm	3:00pm	10:00am	2:00pm Semi's 3:00pm Finals

Lenard Ascher.

Dave:

I have been around racing since the early 1950's. When I started racing Rat Race as a Junior. Here in Florida. It took all day to run Rat and Combat. The good ones got better and the one's who couldn't win found something else to do.

My first Nats, there was over 100 entries in B Proto, with 5 trophies up for grabs. A lot of people went home to find other things to do! To race, you have to like to build planes, work on engines, and fly. I like all three. Racing and speed is dying because people (other than the hard core group) do not want to spend the time it takes to be competitive. How many flyers do you know who show up contest after contest with a plane that is not competitive or the same engine that will not start! If they won't advance, how can they get better? They don't! Now we have a proposal for a new event! I now fly Mouse, Fl Slow Rat, AMA Slow Rat, Texas Quickie, Scale Racing, and FAI Team Race. I also fly most class's of speed and combat, plus a little stunt. Why do we need a new class? Who will fly it? Will there be enough beginners to keep it a beginners class? No. So what happens, either it dies or we all fly it and the same people will win.

Anyway here are my ideas, objections and such on the new supplemental Scale racing class.

2.4.1 Why do we need a class for a plain bearing engine? Who makes on besides OS? ASP makes an ABC/BB/RC engine which sells for \$69. and looks pretty good timing looks real low.

2.4.2 Sounds like a lazy mans airplane.

2.4.3 I don't care

2.4.4 Why are flyers against shutoffs? They are away of life and make flying and landing much easier! All racing events should have shutoffs including foxburg.

2.4.5 I can live with that

3.4 It doesn't matter what we do, the good flyers will find away to do it better! Why do we have to make up a new battery set up?

4.2 Disqualified for going too fast. All exposed controls-plane, stock engine, stock prop. Don't go too fast. I give up. Foxburg is bad enough!

I do like the Denver .21 Sport Race Rules. They would be a start for an all regions class.
Bob Whitney Pembroke Pines, FL

Contest Calendar

February 26 Valley Park, MO 1/2A Reed valve Sport Race (local rules) (JSO) and Midwest Sport Race (JSO) Site Buder Park, Robert Arata CD, 561 Goldwood Dr. Ballwin, MO 63021.

PH:314-391-0272

March

18- Richland WA, Flying Clown race, N.W. Sport race. Site Horn Rapids Athletic Complex. CD Paul

Rice (509) 627-3142.

April

8- Richland WA, Mouse I, N.W. Sport race, N.W. Super Sport race. Site Horn Rapids Athletic Complex. CD Paul Rice (509) 627-3142.

8-9 Whitter Narrows, CA, Fourth Annual U.S. T/R Championships. CD Kenn Smith (909)-592-2100

May

6-7 Richland WA, Mouse I, N.W. Goodyear, Flying Clown, N.W. Super Sport. Site Columbia Point Marina Park. CD Paul Rice (509) 627-3142.

28- Sugar Grove IL, AMA Slow Rat, AMA Goodyear, Mouse I (JS) Foxy Hazel Sport Race. Site Waubensee Community College. CD Bill Calkins (708) 466-1531

Membership List

Here is a list of paid members for 1995 please check to make sure your name is on the list. If you have paid and are not on the list please contact us to rectify the situation, and if you have not renewed do so today, as this will be your last newsletter.

Dave McDonald	Jerry Meyer	John Ballard	Dick Lambert
Jim Ricketts	Jim Ricketts Jr.	Fred Quedenfeld	Gabe Manfredi
Stewart Willoughby	Robert Oge	John Holliday	Bob Whitney
Charlie Melancon	Lenard Ascher	Gerald Deneau	Frank Puleo
Mike Urban	Kevin Seaton	George Lieb	Lawrence Bush
Tim Hodgkin	Paul Rice	James Allen	Phillip Valente
Priestly Johnson	Bill Lee	Dr. Adrian Land	Les Byrd
Edward O'Brien	Mike MacCarthy	Fred Reese	Robert Bearden
Eric Williams	George Caldwell	Ronald O'dell	Michael Hawk
Dr. Andrew Tomasch	Thomas Tabar	James Vansant	John McCollum
Jim Goss	Rodolfo Viñalet	Richard Palmer	Ron Hoogenkamp **
			** Australia**

This represents approx. a 58% renewal, so renew today.

NCLRA Membership Form

Name _____ AMA# _____

Address _____ Phone# _____

City _____ State _____ Zip _____

New _____ Renewal _____

Yearly Dues are \$10.00 Expiration date 1-1-96

Send to Jerry Meyer, 8 S. Grace St., N. Aurora, IL 60542

Comments: _____

As we receive rules from the various regions of the country, we will try and include them in various issues of the newsletter. This month we will include the rules for N.W. Super Sport Race. Also the last few pages of this issue list motels in the Richland area, along with a map of the area, and site. We are in need of articles, questions etc. for the newsletter. Guys do not be shy. Send those articles to Dave McDonald P.O. Bx 384 Daleville, IN 47334.

What's Coming Next.

- Presidents Corner
- More on FAI Team Trials
- Nationals Update
- Contest Calendar
- Your Comments
- Rotary Shutoff Design

RULES FOR NORTHWEST SUPER SPORT RACE

1. Purpose: It is the intent that this event will serve as an intermediate racing class between Northwest Sport Race and the AMA racing events.

2. All pertinent rules from the AMA control-line racing unified rules section shall apply in regard to safety and the conduct of races, except as follows.

3. Engine:

3.1 The "engine" is defined as the complete unit, ready to run, needing only prop, fuel and starting voltage, except that the glow plug, venturi and/or restrictor and spraybar and needle valve, gaskets, bolts, drive washer, front washer, prop nut, shims, piston ring(s) (if used), and ball bearings (if used) need not be considered part of the production unit. These parts are not subject to the rules regarding quantity or source.

3.2. No tuned pipes or exhaust extensions are allowed except bona fide mufflers which do not increase engine performance. Engines shall operate on suction feed. No variable or in-flight adjusting carburetors are allowed; however, any other modification of the intake is permissible except as noted below.

3.3. Two types of engines will be allowed:

3.3.1. Engines of .36 c.i.d. maximum with single bypass intake port. These engines shall not be restricted in regard to venturi dimension. There is also no restriction regarding engine rework, except that all major components shall be produced by the original manufacturer. No material or part may be added.

3.3.2 (a). Engines of maximum total nominal displacement of 0.4020 cubic inches (6.6 cc). Engines must be production units assembled from factory available production parts. Engines and parts, with the exception of the venturi-spraybar assembly, must have been produced in quantities greater than 500, and all must be available through normal retail outlets in the U.S.A. Parts substitution shall be limited to catalog listed parts produced in quantities greater than 500 units for the engine being altered and available commercially to anyone from the manufacturer of the engine. Engines may only be modified by removing parts or material from parts. No material or part may be added.

3.3.2 (b). The engine must be of the front-intake, single-bypass configuration. All air for the combustion process must come through the crankshaft. Altering nominal subport induction, timed holes in the case and the sleeve, or other techniques to circumvent the requirement that all air come through the specified venturi opening, are prohibited.

3.3.2 (c). No ABC or AAC piston/sleeve configurations are allowed.

3.3.2 (d). Each engine shall be equipped with a venturi and spraybar meeting the following restrictions: The venturi shall have an inside circular bore of not more than 0.315 inch. The venturi will maintain this diameter for at least 0.25 inch above and below the spraybar centerline. The spraybar assembly will be located precisely through the centerline of the venturi bore and shall have a circular cross section of diameter not less than 0.155 inch for the portion in the throat of the venturi. Exception: R/C carburetors may be used with the opening fixed in one position.

3.3.2 (e). The complete engine/venturi/spraybar system shall weigh less than 10.5 ounces (excluding muffler).

4. Aircraft: The model shall conform to the AMA slow rat specifications:

"Models must be of profile fuselage type, and must conform to the general profile definition. The model must have a minimum fuselage length of 24" when measured from the propeller thrust washer face to the leading edge of the movable elevator surface.

"The minimum wing area shall be 300 square inches. The wing must have a minimum thickness of one inch when measured at any point along the span, with the exception of the last two inches before each wing tip.

"All models must have a canopy, horizontal stabilizer, elevator and vertical fin ... Models must have a fixed landing gear with a minimum of one wheel."

5. Fuel tank: The fuel tank shall be fully external and forward of the wing leading edge, and located on the outboard side of the fuselage. The tank may not be designed so as to cowl the engine. The tank may not be pressurized, but the vents may be directed forward into the airstream.

6. Pull test: The plane and entire control system shall undergo pull test of 35 pounds.

7. Lines: The minimum diameter of lines shall be .018". Lines shall be of the stranded type, with a length of 60 feet measured from the handle grip to the fuselage, plus or minus 6" tolerance.

8. Races: Preliminary heats shall be of 70 laps duration, with one pit stop minimum required. The final or feature race(s) shall be of 140 laps duration, with three pit stops minimum required. All races shall be flown with at least two entrants, and not more than three entrants. At contests where entrants fly preliminary heats to determine finalists, at least three entries shall proceed to the final race(s). The decision on the number of finalist entrants shall be made by the event director and be made before the start of any preliminary heats.

TRI-CITY AREA HOTELS AND MOTELS

FULL SERVICE CONVENTION HOTELS

Best Western Tower Inn
1515 George Washington Way
Richland WA 99352
509-946-4121

Shilo Inn Rivershore
50 Comstock Road
Richland WA 99352
509-946-4661

Red Lion Hanford House
802 George Washington Way
Richland WA 99352
509-946-7611

Red Lion Pasco
2525 N 20th
Pasco WA 99301
509-547-0701

Cavanaugh's at Columbia Center
N 1101 Columbia Center Blvd
Kennewick WA 99336
1-800-843-4667

Quality Inn at Clover Island
435 Clover Island
Kennewick
509-586-0541

HOTELS

Silver Cloud Inn
7901 W Quinault
Kennewick
509-735-6100

Value Inn by Nendels
615 Jadwin Ave
Richland
509-943-4611

Super 8 Motel
626 N Columbia Center Blvd
Kennewick
1-800-800-8000

Valu-Inn Pasco
1800 W Lewis
Pasco
509-547-0791

MOTELS

Columbia Center Dunes
1751 Fowler
Richland
509-783-8181

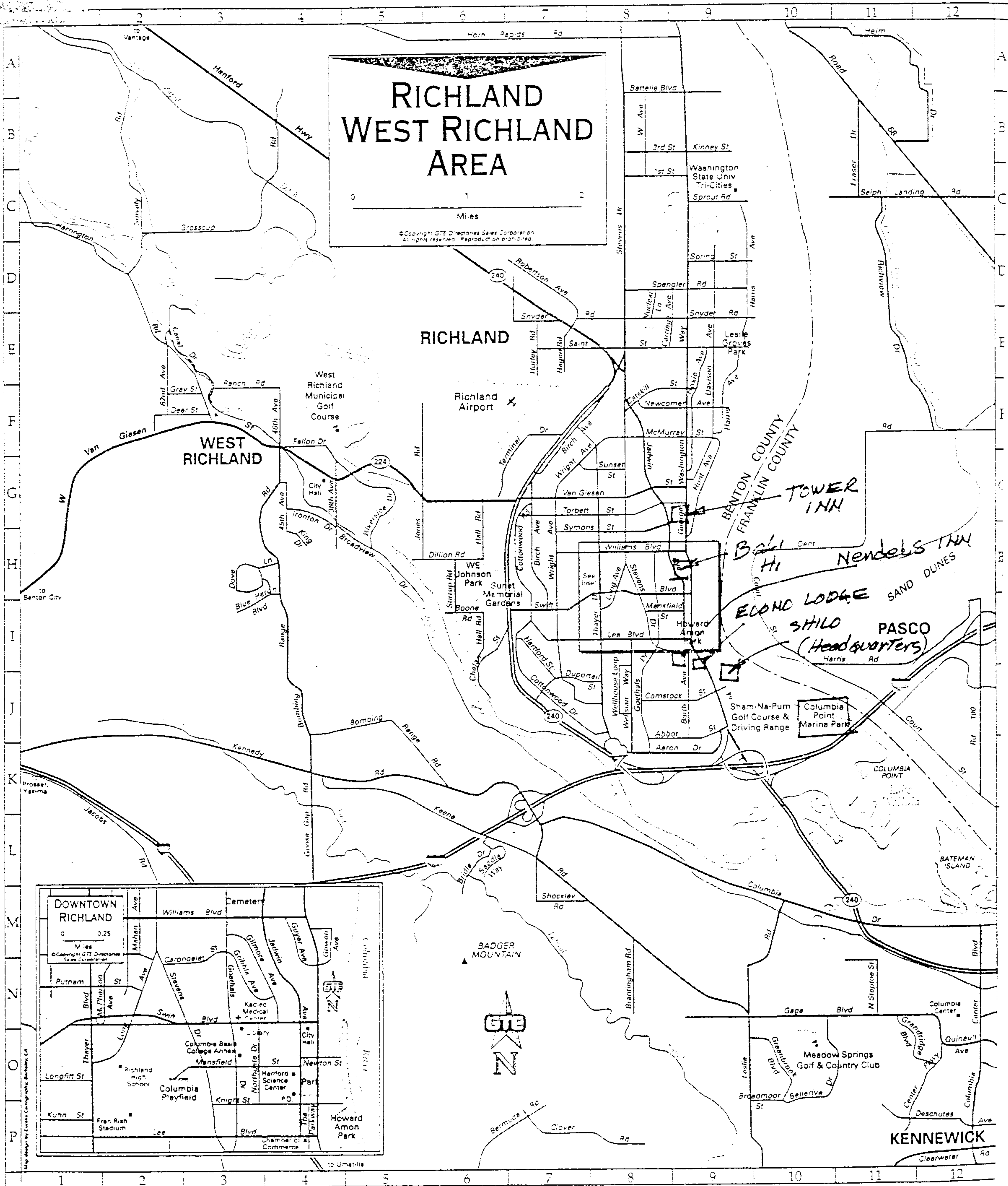
Econolodge
515 George Washington Way
Richland
509-946-6117

Shaniko Inn
321 N Johnson
Kennewick
509-735-6385

Motel 6
1520 N Oregon
Pasco
509-546-2010

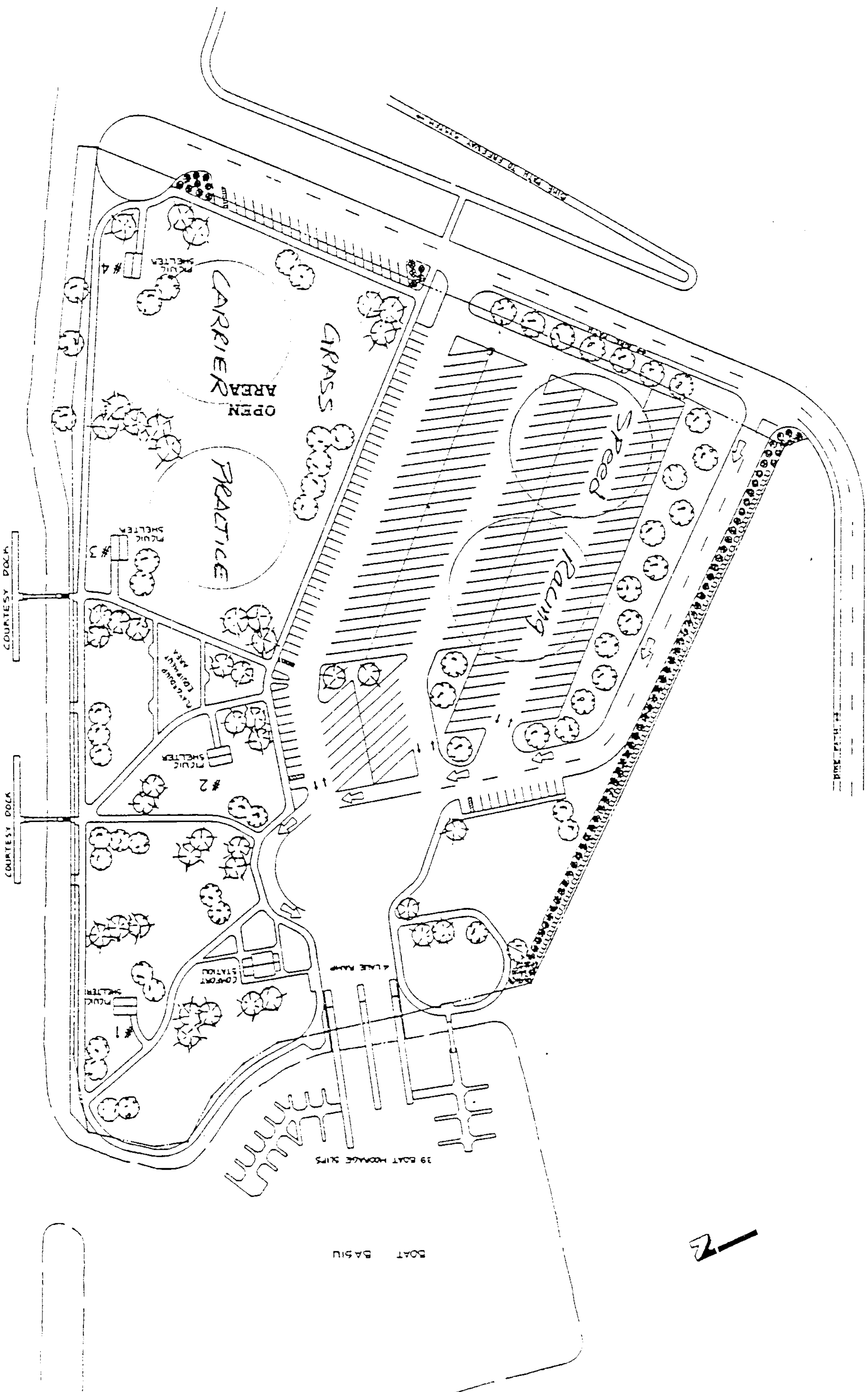
Bali Hi Motel
1201 George Washington Way
Richland
509-943-3101

Tapadera Inn
Hiway 395
Kennewick
509-783-6191



MARINA PARK

A Division of the City of Richland Parks System



1" = 160'

Columbia River

12