

1968_MSOD_NL

March 1968 - My thanks to Chuck O'Donnell for passing these along.



AERONAUT'S

MARCH 1, 1968

CHATTER

NEXT MEETING

How about that for an optimistic start?????? Note that the meeting this Wednesday will be in a new location, the Washington Park building, located at Washington Street and 20th approx..... just yell and we will find you.

Free movies and slides (no, we are not using Mike's projector) and guests are welcome. We would like to invite the following people to visit or revisit us: Byron and Howard Smith, Frank Roberson, Jack Kennedy, and Bob Baker. All guests are most welcome.... bring your current project.

See you at 7:00 P.M. on the 6th..

STAR TREK

For those of you wondering why Mike B. always wins at darts.... its his board, his darts, and his distance. Yeh, its the same guy that has the projector.....

Lets either impound all trannys or leave them alone.... two weeks ago some trannys were impounded while some weren't. Last Sunday this keen eye was unable to detect any impounding. This same keen eye was also unable to detect the frequency pins, board, or whatever. You can't get membership cooperation with this kind of leadership. Shape up or shut up.

Have you noticed that model plans in Model Airplane News are now .75¢..... what was the best bargain available is still a good buy compared to some other suppliers. Some of us that actually make airplanes from the plans don't care if the lines are blue or black or if the sheets are rolled or folded.... we do care about accuracy and MAN was and is accurate.

CONTEST REPORT

The contest committee has completed the initial work on events and rules for the WW 1 contest scheduled the 11th of July. Full details will be published in the next newsletter (optimistic, again).

Suffice it to say that you should begin to think about construction of your entry. If it is a two winger (bi-plane) you should have one hand on the glue and the other hand on a chunk of balsa wood, maybe two chunks.

There will be three categories: WW 1 scale (pre 1919), WW 1 fun events, and open fun events. Obviously a WW 1 scale can enter all three, but a Pursuit with swastikas can't..... Get the picture????

FOR SALE

Digimite 8 with five servos and two power packs, will throw in a Lanier Saber or a built De bolt Cub (your choice) for \$275.00. Contact Steve Martin, Box 897, Baker, Oregon.

100 lbs. of balsa wood---- see Paul Agerter. Boys, we gotta move this stuff.... he won't order anymore of anything till its gone.

For those of you that are wondering, these for sale adds are for real and for free.... publication is discretionary and at the whim of the editor. Space fillers is the technical jargon.....

The Natives Are Restless



Managed to snap a pic or two of the crowd at Autzen Stadium last weekend. The Jay Gees are thinking of reactivating the gate 4 parking lot to handle the cars.

overheard.....

"that sure is a swell airplane, Johnny, get off the wing."

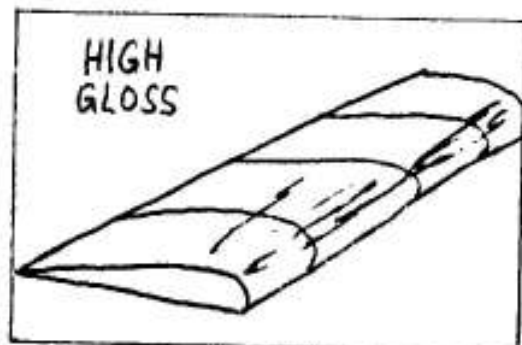
"can you fly through the trees?"

"say, what does it cost to buy one of those toys? Oh, bet you sure hated to smash that one up over against the wall there....."

"say, how do you work that thing without any wires or anything to control it? R/C -- whazzit you say???"

Just remember to smile, be polite, and answer the question. Every modeler was a spectator once.

LO PASS... INTRODUCES "SKRUFFY COVER" (SUPER)



TWO BRILLIANT COLORS
SLAG BLACK
RUNNY WHITE

T. KRUPPA HARMER

"I have built 942 pylon racers with Skruffy..... it really goes man."
Highly Advised

New adhesive... sticks to fingers, work benches, irons, other modelers. For adhering to balsa wood, try glue with a liberal application.

New Price... you bet, by the running foot. Just try to compare it with the old price. Better yet, just try to cover a two running feet tail section... that is a fast cover job.

FLYING NUN KAREN

"I covered a hole in Sam's shirt..." Good Stuff.

SWEETIE BARCKLEY

"I have covered a 1956 ford, a Lanier P'r suit, and a hole in my work bench."

YEH BABY

All this talk in RCM about advertising excited ye ol editor into giving a free advertisement for Top Flite.... notice that they have testimonials from all the prominent model mag writers or editors. Not a word from the flyers, just the writers..... we are all hanging on the edge of the seat just waiting for some modeler to try the stuff.

P.S. Just try to buy some of this stuff at your local hobby dealer. Maybe the Northwest is just too far away from the world or something....

September 1968



AERONAUT'S

SEPTEMBER 1, 1968

CHATTER

NEXT MEETING

September 4th is the night, 8:30 the time, and Washington Park Building is the place (Washington street and 20th or so). Guests and prospective members most welcome as always. We have been featuring 16mm color movies sound and the works at the last two meetings. One film showing some spectacular landings and takeoffs of STOL aircraft was extra good..... Those of you that liked these films, tell Mike B, and let him know you want to see more.... Those of you that missed the films can cry a lot.

We have 27 paid up memberships as of September 1 with two applications in process at this time. Our paid up membership as of December 1, 1967 was the sum of 18 so we have expanded some in size. Many thanks to Terry Harmer, Chuck O'Donnell, and Don Bowey as three who have worked hard on membership at various times ---- at least they take time out to answer questions.....

NEW OFFICERS

As of September 1 your new elected officers are as follows:

President	Mike Bailor
Vice President	Don Kalen
Treasurer	Ellen Harmer
Secretary	Karen Olsen

Give these people your support... just remember last month they all were modelers and now they are stuck. We might mention that it has always seemed very important in a small organization for every member to be an effective member... the slackers are very noticeable at any rate.

Overall the club has just completed a very good year (obviously biased) with good growth in membership and a very successful contest at least from comparison with previous efforts which means we are learning and improving. We are still weak on activities within the club (those slackers mentioned above) due mostly to a shortage of manpower or women power if you please. Everyone has good ideas but few have the time or initiative to successfully complete even seemingly simple projects. The club officers cannot and do not have the time to do all the work, nor should they attempt to make each project go.... running the club is a full time job. Nor is it possible for the Contest Director to do all the work on contests. The CD should be the co-ordinator and sympathetic listener. So you have paid your dues, you do have the privilege of complaint and the obligation to WORK.

CHUCK O'DONNELL

It was with considerable regret that ye ol editor and many others of the club wished Chuck "good luck" in New Jersey and many long flights.

Chuck generated a great deal of enthusiasm within the club and sparked considerable interest in scale modeling with his fantastic detailed knowledge of scale aircraft.

We hope that Chuck will carry some good word of west coast R/Cing back to the east coast (we are not always good, but we are active).



ROSEBURG ACTIVITY

Ed Thomas was up testing our gravel at Autzen Stadium and reported on some up coming club activity in Roseburg (that is Oregon). He indicated they are forming a club of about 30 members and will expect to hold a contest next summer. Now is the time to start planning that is for sure. We wish you success in your club --- don't give up.

Ed also commented on the Denver FAI meet June 29-30 as one of the best and most completely organized meets he has flown in. They had three flight lines with flying starting at 7:30 AM (that's in the morning). Every contestant flew five full patterns each day and they finished by 3 PM each day. Hard to beat that kind of a record.....

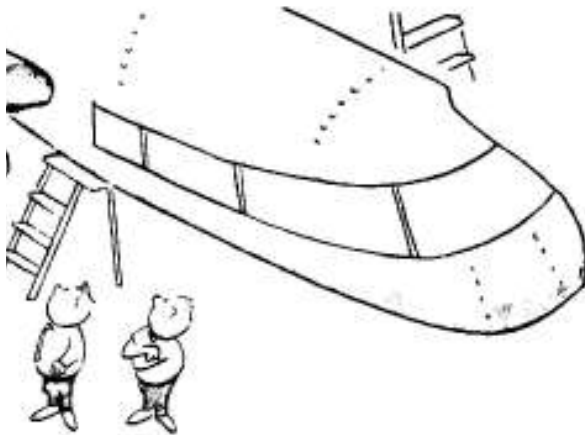
CLUB PICNIC

By the time you read this it will be too late.... sure sorry about that. Once again it is the rest of the club against Mel Knoyle who has graciously consented to stand us in a game of FUNNY BALL.... it's funny the way we play it.

Ray has promised to bring buns and meat so if you don't receive another newsletter, you will know Ray flubbed again and I starved to death. Sure sorry about that too.

Preliminary reports indicate a turnout of at least 40 counting the wing smashers. That's the way to support a club function.....

Hope you have enjoyed the little men on the left.... They have completed their task or at least I don't have any puzzle parts left. Add your own captions --- just so they don't build with plastic.....

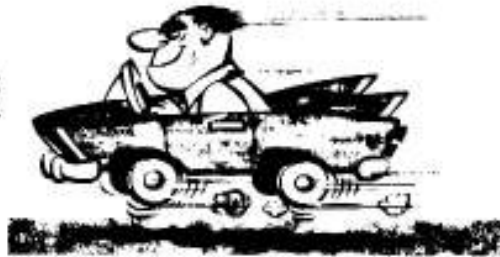


BALSA WOOD BUILDERS RISE AND BE ACTIVE --- MAKE A REAL AIRPLANE.

PREZ'S NEW CAR

That blue streak you may have noticed smoking to and from Autzen belongs to none other than our suave young PREZ..... at least it isn't made out of plastic.

His airplane is and he is now switching to foam at last report -- watch this guy....



CON EST CALENDAR

Albany still has tentative plans for a fun fly and pylon and a separate RC glider meet. Neither have a definite date at this time.... Just let us know and we will try.....

The RAMS have a two day bash the 11th and 15th at Puyallup. Class A,B, C, and Goodyear Pylon. They also will have a no host banquet at the Sherwood Inn Saturday nite -- great idea.

Portland is still go on the air races the 22nd of September --- save your last plastic one for this weekend.

BROKEN PROPS

A couple of new flyers have had some bad luck -- Brick McKelvey used to have a Skysquire and Pete Lafferty used to have an Ugly Stick. We don't have their membership applications completely processed yet..... Men, don't give up..... that second one lasts a great deal longer. All you gotta do is get the test pilots broken in first.

The oiled rock at Autzen is not the softest stuff --- in Oregon you have two choices, mud or rock. Anyone with a good permanent grass field on hand let us know..... us and about 9 million other clubs in the USA.



MR. AVERAGE MODELER as seen by the local hobby dealer

The controline version of the guy that switched.

The professional modeler as seen by the rudder only advocates.

You as seen by your neighbor who thinks you are crazy anyway for playing with toys that cost \$500 bucks.

Local hobby dealer as seen by the average modeler.

You can fit your own caption to ol MANY BUCKS here but it really isn't that bad. We describe our hobby as expensive. How much did that last boat, motor, and trailer setup cost you? or your neighbor? And how many hours have you actually spent using that little three thousand dollar investment? RC is a cheap hobby if you are going to have a hobby --- it's the toy image that makes it expensive... think about it.

SEE YOU AT THE FIELD

October 1968



AERONAUT'S

OCTOBER 1, 1968

CHATTER

NEXT MEETING

Wednesday the 2nd is the day and 8:00 P.M. is the time. Washington Park building is the place, assuming Prez remembers to get the key back.

More slides and movies this time so bring a prospective member and get them started right ---- by watching our mistakes on film.

We want to be sure and welcome Bill Patterson and Allen Stutheit back for the second reading on their membership applications. Two new members every month would soon make us one of the largest clubs around keep them coming in. We also should mention the loss of Don and Bill Bovey... sure hate to lose two more good modelers (L.A. isn't that good either).

RC CUE

Hooray for Newsletter Editors.... the second edition of RC CUE is out and off to an excellent start thanks to Phil Heller. The second edition was very timely with the Nats results and proposed rule changes -- one of the real advantages to us as the lead time is not as great as for model mags.

Things to come from RC CUE: A survey of RC equipment with the emphasis on field reliability.

Memo to Al Signorino: Why not submit some ground rules to Phil H. on how to conduct an honest survey on equipment reliability? I am sure the equipment manufacturers will be equally interested in the techniques and methods used for this survey.

STAR TREK

Happy to report that Mike Bailor placed third in the RAMS contest in Sept.. He also totalled his aircraft along with several other contestants who had trouble of some sort. Some fields appear prone to higher levels of interference.

SCALE CHUCK writes that he is alive and doing as well as anyone can be expected who pronounces THROTTLE as THROT-UL..... we just expected more from a school teacher, that's all. Chuck is already working on an RC scale for the 69 Nats..... will be looking for your name in the winners circle.

Be sure to vote for your choice in the AMA elections.... the ballots are supposed to be mailed out to all members with your membership renewal notice.

Excerpt from AMA general mailing #20, Sept. 1968:

Experience and knowledge concerning organization procedures were the chief qualities stressed by the AMA nominating committee in choosing candidates for the 1968 election ballot. Following long established precedent the committee acted to reduce the number of choices so that three presidential candidates' names would appear and no more than two for the vice-president positions. This was also done to minimize the probability of voting splits which could result in the election of a candidate without a majority support. With five nominations submitted for President, for example, election could be gained with only 25% of the vote. Write-in votes, however, will be provided for, so that the ballot is not limited to only those names listed.

Those who will appear on the ballot are:

President	District VI
John Clemens	Carl Fries
John Patton	Gusta Johnson
John Pond	
District II	District VIII
William L. Boss	Bill Lank
Art Schroeder	Ralph Tenny
District IV	District X
Cliff Yelford	Vic Gunningham
	Ed Shipe

Those whose names were submitted for nomination but will not appear on the ballot:

President	District VIII
Don Dewey	Jerry Kleinburg
Jerry Nelson	
Maurice Woods	

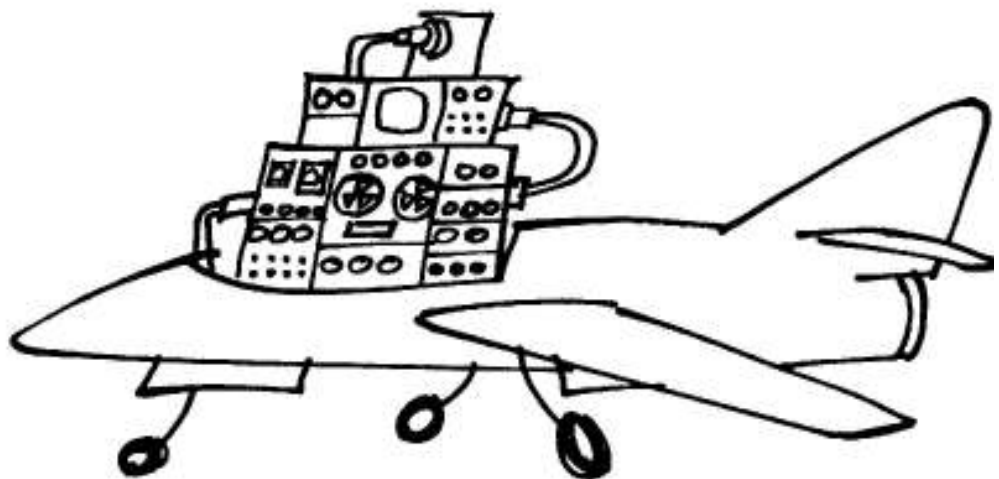
It is common sense to expect that a lot of uproar will be heard about the selection of names for the AMA ballot. Save your uproar and write in the candidate of your choice The sad truth in the past has been that 15% or 20% of the membership voted. AMA will be what ever type of organization we vote and support it to be... complaining isn't enough and doesn't do any good without some effort on your part to help correct the problem. You open members will be paying \$10.00 for your membership in 1969 and that will probably be the best thing that has ever happened to AMA. The best way to overcome a lethargic membership is to dip into their collective pocket-book and make them care about what is happening.... care enough to do something besides complain between flights at the local field.

This editor was most pleased to see the decrease in dues for Junior and Senior membership in AMA to \$2.00 with the magazine subscription available at an optional low rate. Our club is a Charter club as most other RC clubs and it has been expensive for juniors to get started the right way, with AMA, club, and FCC payments all required with the application blank.

Also club insurance protection for charter clubs and individual AMA member insurance protection will be increased to \$300,000 each which should help in obtaining and keeping flying sites.

We might also mention that AMA is seeking additional funds to continue to retain legal counsel working with the FCC on the frequency problem. Send in your contribution now....

Most anyone can
 pilot the
 Condustron system



INTRODUCING the first truly new digital system for 1969. Available at your dealers very soon. Pictures and brochures that is.... the heavier pieces come later. We are proud to present an analysis of this outstanding entry into the fly later field. Henry Knowtall will handle the basic engineering and layout critique while Sam Flyalot will provide a test flight report.

Henry Knowtall: This is the greatest stuff I have ever seen. Refer to aircraft installation showing compact receiver and other junk that couldn't be hidden in the fuselage, note new space age connectors featuring the latest minaturisation techniques used throughout the space industry. You receive three extra connectors just because they are so good. The total weight of the airborne (lot of optimism) is 4 or 5 pounds depending on whether or not you leave in those extra connectors. Next refer to the actual size diagram #19 shown to the right depicting the gear train from the servo mechanism. This entire gear train is made from noise free wooden parts that will never require lubrication. Servo thrust hasn't been measured yet but make no mistake about the power of this little beauty. I highly recommend this unit and will fly nothing else in my ghastly plasty.

Sam Flyalot: Sheer pleasure best describes test flying this great new unit. The 24 lb. transmitter comes complete with a neck and waist strap for greater freedom while working the steering wheel. The thoughtful manufacturer has also provided two wooden sticks for propping up the pilot once this mess is strapped on. This system features instant servo response to every movement of the control wheel with perfect servo resolution. We certainly like the wheel approach in contrast to most competing brands that are stuck on the two stick configuration. The ease of installation of the airborne package can readily be seen from the top picture showing the neat well designed installation. We are really impressed..... I wouldn't hesitate to recommend this system for anyone who flies as much as I do.

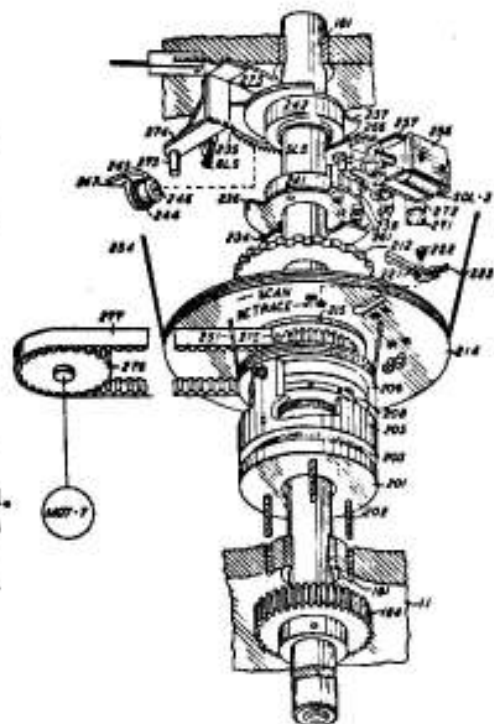


FIG. 19
 SERVO GEAR TRAIN * ACTUAL SIZE

ROSES TO RCM

The old editor must say the recent change to more color in Radio Control Modeler looks great. A color shot of the finished model in a construction article adds greatly to the overall impression.... and why not???? Every modeler spends a great deal of time thinking and designing a color scheme for a proto-type and he used to end up with a black and white 2 by 4 picture.

We also like the colored advertisements too. The two color layouts and screens throughout the magazine add to the overall presentation and makes that 75¢ seem more reasonable.



"Whadda ya mean it's failsafe?"

NEW FLYING FIELD

The club is in the process of planting a new grass flying strip. That giant piece of sandpaper known as Autzen Stadium may be relegated to winter monsoon flying only as soon as the grass comes up.

The grass field is located behind Eugene Freezing and Storage Co. on Seneca St. and you can get there by going west on 11th St. and turning right on Seneca.

We are fortunate to have two fields. There are no flying restrictions on the grass field. There are definite flying times posted at Autzen and you are reminded to observe these restrictions at all times.

Those of you that haven't been on a work party at the new field have really missed an experience. Our glorious Leader immediately divided us into two groups; one to work on the rock party and the other to fight off the giant misquitos. G.L. says he will give club points to anyone who throws a rock in such a manner that it will kill a misquito and land off the flying surface.

King Fumble Thumb award goes to Ron Fetsch for his skillful takeoff into a certain green Plymouth that belongs to a certain newsletter editor. Yes Ron,

that's one way to get featured in the Newsletter.....

Those of you working with Super Monocote be sure to use the wet sponge right after the hot iron for assistance on getting rid of air bubbles. We have used this technique for any place that requires good adhesion and it works. Those of you with a question about the appearance of a S. Monocoted plane, check Chuck P.'s Kwik Fly III. Looks good.

Wanted to be sure and include in this issue the photo at right of Henry Knowtall and Sam Flyalot doing the testing of that new super digital.....

BALSA WOOD BUILDERS RISE UP AND BUILD AN AIRPLANE OUT OF Balsa IN SPITE OF THE COST. BETTER YET USE SPRUCE AND PLYWOOD, IT'S STRONGER AND LIGHTER.



December_1968



AERONAUT'S

DECEMBER 1, 1968

CHATTER

NEXT MEETING

Dec. 10th is the date and 7:30 P.M. is the time. See you at the Washington Park Building - Washington Street and 22nd. The program may include some slides from the RCM Winter Nationals and movies too if Crash McClellan sends in the film.

Bring a prospective member as the meeting is a good way for him to get acquainted with the various club members and he will be more at ease in asking questions at the field.

We might mention that there is usually a second meeting each night after the regular business meeting about 9:00 P.M. at Sambo's ---- if you want to really get the lowdown, here is the place. Talk about flying ??????????

RCM WINTER NATIONALS

Many thanks to the TROC (Tucson Radio Control Club) for organizing and running a top flight meet. Four flight lines gave all pattern flyers six rounds of flying and the pylon boys received equal attention.

With about 73 contestants many entering both in pattern and pylon you are talking about several hundred flights during the course of the three days. Most of the bad luck (crashes) was confined to the first day --- one or two mid-air with a spectacular one between a delta and a conventional type craft. The delta was relatively unhurt and did a flat spin to the ground with very little damage but you couldn't find all the pieces of the other one.

Bill Patterson, Ray McClellan, and Roger Breedlove represented ERCA, Inc. and we seemed to have mileage on everyone else --- not bragging, but we have the gas bill to prove it.

Ye ol editor was pleased to visit at length with Jerry Kleinburg cussing and discussing this great hobby-sport of ours. Jerry's sincerity, enthusiasm, and dedication to the betterment of our hobby is obvious. There is one draw back to being a writer-reporter for a model magazine though ---- Jerry had to work while the rest of us played..... sure sorry about that Jere.....

Those of you that heard rumors about a swimming pool, hot sunny days, and fun in the Arizona SUN can relax. They did have a heated pool -- it has to be heated or ice will form on it every night. By some great stroke of luck we all took heavy coats and used them every day. If you think all the modelers appear to have a blue cast in the pictures when published, its the cold and not film problems..... HAD FUN ANYWAY.....



JERRY KLEINBURG

WHERE WAS TOP OUT IN THE
DECEMBER RCM ?????????

To continue with a few more comments on the ice
follies of Arizona..... Ray's pickup has what
is known as natural forced air conditioning in
camper section. Required considerable antifreeze
to enjoy your turn at sleep.

We had a good visit with Phil Phillips and Gary
Acord of Phillips Custom Models. You can look
for some new developments including a rather
radical class three balsa model called the RAM.
They have had two very successful gliders and
Phil said he has a 14 footer ready to go.....
I know that one ain't gonna fit in the trunk....

Must comment on Phil Kraft's new plane, called
the Slick Fli. very aptly named as it was well
built and very well finished. The plane featured
a mid wing and flaps with a fuselage similar to
his Bar Fli. Looks like there may be a trend to
more midwing designs ala Herman and Capehart.
Phil Kraft, Tony Bonetti, Ted white, and Joe
Bridi all flying in one contest makes you want to

turn in your swizzle sticks and go to boats or something.....

HATS OFF TO AL SIGNORINO

We can't add anything to the publicity Al has received but his persistence and
ability in creating a flying Doghouse confirms that it usually can be done if
you really want to achieve some goal. Al received about an 8 page spread in-
cluding the cover in the Sunday Magazine of the Globe-Democrat Newspaper spreading
the good word of RC to many people.

GET YOUR HELMET NOW

We are presenting a real live advertisement without
pay just for your benefit.... don't be caught flying
your WW I without your very own leather helmet and
goggles.

Speaking of WW I contests --- The club in Tacoma has
indicated that they are going to have one this
coming July so start your project now. I expect a
firm date and more details on this contest will be
available at the February Symposium at Olympia, wa..
Anyone desiring immediate information can contact
Howard Wassman., 7812 west 33, Tacoma, wa.

Page three of the newsletter will consist of the
new maneuvers for all three classes per the
November AMA mailing. The new AMA rule books
are scheduled for shipping after the first of the
year to avoid the mail problem - sounds like a
good idea.

Be sure you have your reservation in at the Tye
Motor Inn, 500 Tye Drive, Olympia, Washington for
the RAMS Symposium. Don't miss this great winter
event.... this heated pool is also covered....

GENUINE MILITARY SURPLUS
"RED BARON"
FLYING HELMETS
Only \$3.95 up



About The Red Baron model (1917) - top WW I era, Vestral
and Hahtholic - meeting in the trenches, the Red Baron.

Now we can offer you government surplus, raw and
brushed Red Baron style flying helmets in Small, Large
and other high flyers. A limited supply of this famous
old helmet style, born in WW I and retired during WW II,
is now available in 2 models (all sizes) in expensive
manufacture U.S.A. surplus MODEL A, Red Baron
Black Leather, \$4.95. MODEL B, Red Baron Khaki Top
Flight Canvas, \$3.95. Sizes: Small, Medium, Large, Extra
Large (all have adjustable straps).

RED BARON GOGGLES: Complete with
compact carrying case, these fine military
surplus goggles come with redaction
green lenses of optical glass, leather-
like headbands, including excess of lenses. Only \$3.95.
10% discount if ordering 2 or more items.
Add 45c per item shipping cost. (All charging
give Am. Exp. Acct. No.) Red Baron Helmets,
Dept. NO-21, 435 Hamerslock Ave., Hamers-
lock, N.Y. 10343.

Pattern Events

AMA's RC Contest Board revised the Class A and B maneuver patterns to put a more clearly defined difficulty gap between the three classes. And the take-off maneuver will be exactly the same in all pattern classes: the FAI type, without Proto Taxi. However, the contestant must demonstrate that he has some control of this model on the ground. After starting his engine, and before take-off, the pilot must taxi the plane a distance of approximately 10 feet, including a controlled turn of at least 90 degrees, followed by a complete stop. To not perform this maneuver will automatically lose 5 take-off points. In strong winds, the CD may waive the 90 degree turn in favor of S-Turns, to demonstrate ground control without the risk of nosing over. Requiring this capability is expected to encourage contestants to taxi off the runway at the end of his flight. This saves time, and eliminates the danger of having a helper run out to pick up the plane.

Landing Perfection for 1969 requires pilots in all three classes to bring their planes to a complete stop at the end of the landing run--the flight is over at that point when the pilot announces "Flight Complete". He then is expected to immediately taxi off to the side of the runway or, if permitted, taxi back to the starting box. Since taxiing is not required after the stop it is possible to make a scoreable dead-stick landing, but the pilot is to be downgraded slightly.

New Class A maneuver schedule:

- | | |
|----------------------------------|------------------------------|
| 1. Takeoff | 7. Immelman |
| 2. Straight Flight Out | 8. Three Inside Loops |
| 3. Procedure Turn | 9. Stall Turn |
| 4. Straight Flight Back | 10. Traffic Pattern Approach |
| 5. Figure 8 | 11. Landing Perfection |
| 6. Three Rolls (Barrel or Axial) | 12. Spot Landing. |

New Class B maneuver schedule:

- | | |
|-------------------------|------------------------------|
| 1. Takeoff | 9. FAI Rolling Circle |
| 2. Straight Flight Out | 10. FAI Horizontal Eight |
| 3. Procedure Turn | 11. Three Outside Loops |
| 4. Straight Flight Back | 12. Slow Roll |
| 5. Touch and Go | 13. Reverse Cuban 8 |
| 6. Three Rolls | 14. Traffic Pattern Approach |
| 7. Three Inside Loops | 15. Landing Perfection |
| 8. Three Turn Spin | 16. Spot Landing |

Class C Novice and Expert

Basically, Class C has not changed from the 1968 rules, with the exception of the take-off and landing requirements previously described. But the "Grab Bag" maneuvers have undergone considerable change, with a total of 20 to choose from. It is now possible to do ten of the first round and then the remaining ten on the second (Contest Director's option). A total of 11 minutes is allotted, including 2 for engine starting.

New Class C maneuver schedule (1 through 7 same as Class B, followed by ten maneuvers selected from the following list of 20):

- | | |
|-----------------------|-------------------------------|
| *Four Point Roll | Inverted Spin |
| Knife Edge Flight | Slow Roll |
| Reverse Spin | Tail Slide |
| FAI Top Hat | Reverse Cuban Eight |
| FAI Rolling Circle | *Cobra Roll |
| FAI Double Stall Turn | *Four Leaf Clover |
| FAI Horizontal Eight | Loop with 1/2 Snap |
| *FAI Vertical Eight | *Inverted Reverse Cuban Eight |
| *FAI Double Immelman | *180 Degree Turn |
| Three Outside Loops | *Loop with Rolls |