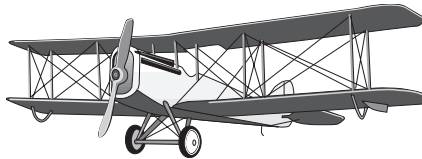


REPLICIA

MARCH
APRIL
2005

Newsletter of the National Association of Scale Aeromodelers (NASA)

PRESIDENT'S NOTES



AMA 2005 CONVENTION

We also reminded those who haven't paid that it's that time of year again to **RENEW YOUR MEMBERSHIP! Now! Look for the one sided membership renewal page in this issue!** NASA members from the past several years including this year's members will be receiving a letter from the NASA staff, just in case you haven't renewed your membership yet, also to tell you about some of the new ideas and upcoming events we have planned.

NATIONALS UPDATE

This year's Scale National Championships will be a special one, not that all aren't, but this will be a very special one indeed. There is a new static site at Ball State University with much more parking available and a straight shot into the arena for those large models too!

The Indoor Scale RC and Fun Fly- These events will happen on Thursday through Friday night at Ball State.

The FAI Scale Team Selection for those interested in going to Sweden in 2006 to represent the USA in World Championship Competition.

A new banquet-under the stars with flying too boot! On Saturday night starting about 5:30pm. The tickets will be \$10 each and children under 10 will be only \$5. This will take place at the flying site. The field will be open for fun-flying that evening also. Frequency pins will be available. The meal will include the NASA Burger, the good ole Hot dog, Brats, and the ladies are planning on bringing some great side dishes to go along with this too. Bring what you like for refreshments and we'll all be set!

We've tried to work with the caterers for the past several years at Muncie, but this year we've decided to go a different route. Hope you like it, from some of the responses we've received, many are already looking forward to it.

Also look for new hats, shirts and pins at this year's Nationals. We will have prices by the time you receive the next newsletter. Not planning to attend the Nationals and still want hats, shirts, and pins? We'll

have an order form in the next newsletter and they will soon be up on the website also, how's that?

TOLEDO

This year's Toledo was different for myself as we didn't get to go this time. Only the 2nd time I've missed since NASA started attending the show. What can I say, I still work for a living and had to be in the salt mines that weekend.

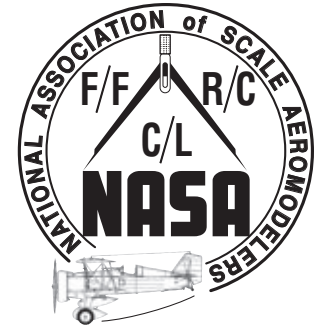


NASA was well represented this year by Jim & Bonnie Rediske, Mike & Elaine Welshans, Dolly Wischer, Mark Lanterman and a host of others. I'll let our Secretary Treasurer let you know all of the great details.

From Bonnie: We had 13 members join and have an additional 16 members renew their memberships at Toledo. Plans are being made for the "Picnic At The Field" for the Nationals. Cost will be \$10.00 per person, Children 10 and under the cost is \$5.00. Everyone is requested to bring their own beverage but NASA will provide the rest. Any questions can be directed to Bonnie Rediske. A committee is being set up for anyone wanting to help. Anyone wanting to bring something to share is welcome to do so.

Sky Shark provided a Japanese Val kit for the raffle for the first place prize won by NASA member Paul Jackson from Portage, Michigan. Our 2nd place prize, a KATANA DV was donated by the estate of Bill Logan a longtime NASA member from Canada and won by Scott Miller of Brockport, New York. Welcome aboard and thanks for joining!

Our third raffle prize was won by our very one lucky
continued on page 2.



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President's Notes - continued from page 2.

Sharon Benson from Mansfield, Ohio. Sharon is also a long time NASA supporter and known to most as one of the original LTD's. Hope to see you next year!

2005 NATIONAL CHAMPIONSHIPS SPONSORS

John Brodak Mfg., Skyshark RC, Glenn Torrance Models, and this is just for starters.

Also this year we are adding an additional set of awards for the National Championships. We want this to be known up front how they will be awarded. Best WWI Airplane, Best WWII Airplane, Best Golden Age Airplane, Best Jet. These cash awards will be decided on where the highest place airplane finishes in all sport scale classes. Classes in RC Scale that are available for these awards include Sportsman, Expert, Designer and Team Scale. All of the awards are sponsored by national companies who help us at the Nationals! We would love to see these also happen in CL scale but we'll have to keep working on that aspect too!

INDOOR SCALE AT THE NATIONALS

We are having the 2nd annual Scale RC Indoor Classic at the Ball State Basketball Arena this year starting on Thursday August 4th. This will also include a **Fun Fly** for not only Scale models but for anything RC indoor type that meets the weight, wing loading requirements of the scale events.

There will be not one or two but 4 scale classes this year including: Sport Scale, Fun Scale, Team Scale and Designer classes also. Presently we plan to fly 2 rounds in the morning and two in the afternoon, with the Fun Fly in the middle of the day as well as at the end of competition into the night. Trophies to 3rd place and prizes galore will be there for these events. For more information see the flyer in this newsletter.

FAI SCALE UPDATE 2005 TEAM SELECTION

FAI Scale Team Selection at the Nationals- Will be held concurrently with the rest of the Nationals this year. We have some very respected judges who will be attending this function including the FAI Scale Chairman Narve Jensen, FAI Scale Judge George Buso and others too. So if you haven't tried out for the team in the past, why not give it a try this year. For a schedule look at the website for AMA or NASA.

Lloyd Roberts and NASA are hosting FAI Scale Work sessions both on the west coast as well as on the east coast this spring to help modelers get ready for the upcoming events. Look for these announcements in the newsletter and on the website.

FAI SCALE COMPETITION WORKSHOP

East April 8th,9th,10th will be held at Metrolina Control Line Society field in Huntersville, NC (just north of Charlotte). The site has facilities for both RC and CL models. For more information please contact: Lloyd Roberts at: lroberts@midcost.com or at 207-596-2095

The score sheets and k factors have changed this year. New score sheets are being drafted with the current updates in place for competition this spring as well as the downloadable score sheets of the NASA website. At this date the new Sporting Code for F4 scale hasn't been published by the office in Lausanne. When you do download the Sporting Code, be ready with a fresh ink cartage and about 80 pages of fresh paper. This does include some beautiful diagrams for flight maneuvers for F4B and F4C.

2005 FAI SPORTING CODE SECTION F4 SCALE

We've talked to some people who have had trouble downloading the Sporting Code from the FAI site. I've had some problems in the past also. If you would like the 2005 FAI Sporting Code, I'll be happy to send it to you by e-mail. Be aware though, you will need at least 80 pages for the download. It takes a little time to send out but we can handle it.

Fair Skies & Tail Winds,
Stan Alexander

The Swedish Model Flying Federation hereby invites you to participate in the 19th bi-annual World Championships for Scale Models in Norrkoping Sweden in 2006.

Sweden has held the World Championships for Scale once before in 1976 in Borlange. The planned dates for the World Championships in 2006 are July 14th-23rd.

The field for the event is a former Swedish Air Force base called Bravalla, which is close to the town of Norrkoping. Norrkoping is located approximately 150km from Stockholm and approximately 450 km from Malmo along E4 Highway. "Norrkoping- the small city with the big heart."

For more information on Norrkoping, check out their website at: <http://www.destination.norrkoping.se>

Not far from Norrkoping is Linkoping where the Swedish Air Force Museum and the SAAB Group are located. Excellent sight seeing will be available as well.

The organizers are planning to have guided tours for family members, supporters as well as modelers during the week of the Championships.

We look forward to the competition at the USA Scale Team Selection next summer 2005. Static judging will be held on August 5th with flight judging on 6th and 7th.

Also, note that new rules take effect January 1st 2005 for F4B and F4C scale classes. For us here in the USA, the increase in the weight limit to 15kg or (33.03 lbs) will be a huge draw for modelers who have been wanting to try this type of competition.

Good luck to all who compete and especially to those who make the team.

NASA'S OFFICIAL MAGAZINE



PREPARATION FOR FAI SCALE TEAM SELECTION TRIALS

A "DO IT YOURSELF" GUIDE

It is very clear, from past World Scale Championships, that U. S. modelers are at a significant disadvantage if they compete by FAI rules with no prior experience in FAI. This is also true for the U. S. FAI F4B and F4C Scale Team Selection Trials held at the NATS this Summer, the year prior to the World event.

We have completed two NASA FAI International Competition Workshops this Spring (2005). The purpose of these workshops was to acquaint experienced scale modelers with the requirements of FAI International Competition and the preceding Team Trials. For those modelers who were unable to attend the workshops and intend to enter the Team Trials we have distilled what we learned at the Workshops.

THE RULES

You MUST have the latest, 2005, version of the FAI "Sporting Code". This should be available from Lisa Johnson at Competition, AMA. You also can download it from the NASA website. It is a pdf file of about 80 pages. Download it, then read it and only print out what you need, eg. CL (F4B) or RC (F4C).

The "Sporting Code" tells you what you must do but not how to do it. If you do not abide by the "code" you may get zeros in static and flight. FAI judges are picky and hard nosed.

STATIC DOCUMENTATION

The usual three hole binder 8 X 11 loose leaf form of documentation we are used to for AMA is cumbersome for FAI where all three static judges are looking at the same material at the same time (no separate outline, color/markings, and craftsmanship judges).

The preferred format is larger boards (17X24 in) with a central view from the three view surrounded by supporting photos with lines from places on the three view to relevant supporting or correcting photographs. Text will probably not be read by judges. Do not protect or cover the views or photos with plastic. Color chips should be detachable.

Obviously more than one board is required. One is used for each view of the three or four view, one for color and markings, and one for detail photos supporting elements of craftsmanship. There is no limit to the number of pages or boards you present. Be careful not to show anything not on the model. You MUST have three photographs of the COMPLETE full size aircraft, one of which MUST be the actual individual "prototype aircraft" you are modeling. If a wing tip is cut off at the edge the photograph does not count and you may zero your entire outline score. The stated requirement for 3 views in triplicate and the three complete photos in triplicate means you should have the extra copies in case they are asked for, they probably won't be.

FLIGHT ROUTINES

See the "Sporting Code". Maneuvers must be done in the order specified. "Option" maneuvers, four for CL (F4B) and five for RC (F4C), are diagrammed in the "Sporting Code". Do NOT make up your own maneuvers if you want a good score, use what is in the book. Note that there is a clear distinction between appropriate maneuvers for "Non Aerobatic" aircraft and "Aerobatic Aircraft". You will zero if you do a non aerobatic maneuver, such as a Chandelle, with an aerobatic model such as a military trainer let alone an Extra 300. You also get a high K factor score for "Choice of Options". Your inappropriate Chandelle will cost you there too. Your score will be higher if you choose more difficult options appropriate for the "Prototype Aircraft".

PLACEMENT OF MANEUVERS

See the "Sporting Code". You MUST start ("NOW") and complete ("FINISHED") you maneuvers as described, where described.

For RC this is generally at the ends of the runway and you will get higher scores if you precede and follow these calls with 2-3 seconds of straight level flight. Your first maneuver "Straight Flight" is NOT a low pass, it is at pattern altitude, over the far edge of the runway. It establishes the altitude for subsequent horizontal maneuvers such as the figure eight, beginning and ending of loops, rolls, etc. The same altitude should be used for the back side, usually down wind, of your circuits. These circuits should be rectangular patterns for all but very fast models, the judges appreciate your demonstration of control which is less apparent in a rounded end "Race Track" circuit. RC will be flown with other models in the air at the Team Trials so unnecessary procedure turns and down wind entries that create traffic problems are not a good idea. Keep everything symmetrical in front of the judges as much as possible. Take your time, do NOT rush through your sequence. FAI pilots do not talk to the judges while flying. Usually the caller actually does the calling, in a very loud voice.

CL pilots' biggest hurdle is "Normal Flight" above 6 meters height. The only way to get used to this is to put up a pole (see plan) and practice. The diagrams of maneuvers and options in the "Sporting Code" should be studied for the specific entry and exit altitudes and placement on the circle with relation to the judges. Have someone help you by observing "Normal Flight" and, with a template or gauge, make sure you are above 30 degrees for the "High Flight" option.

If you are going to the Team Trials and would like to have your documentation reviewed call George Buso at 845 229-2371, he is very happy to do it. For any other questions call me at 207 596-2095 or e mail lmrobert@midcoast.com.

Lloyd Roberts

U. S. Scale Team Manager

A FEW ADDITIONAL COMMENTS ON FAI...

If I may, please let me add a few comments to Lloyd's very good treatise on FAI competition.

In downloading the Sporting Code, go to the "documents" section on the web site (fai.org). The section you want is section 4, not the General code. That one encompasses all FAI activity, such as full scale. You will find that the sections are set up in volumes, each one identified by its "F" designation. You, of course, need F4. That volume is not broken down into a separate F4B and F4C.

I would also strongly suggest that you download Volume ABR. This is the first section containing the general rules for all model aircraft activity. While it does not provide specific information about scale, it does give a flavor for the international approach to competition. In addition, it indicates such things as protest procedures, contest organization guides, information about officials, model specifications etc. Granted, at this stage, while such information may be a moot point for most concerned, it still helps to develop an FAI mind set. As Lloyd has been attempting to state, it is a very different approach in many cases.

continued on page 4.

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A Few Additional Notes on FAI - continued from page 3.

I would like to reinforce Lloyd's statements relative to the static documentation. The first time I know of that judges saw a "non-book" layout was in 1984, the year I finished third with the Alcor C.6.1. That was also the first year they used the so-called "Sport Scale" type of judging. Up to that point, the models were judged with the judges standing right at the model and fingering everything, counting rivets and using scale rulers to measure everything. Interestingly, you could get away with much more when they stood right at the model than you can now when they view it from a distance. That is, everything BUT detail!

I reasoned, that with the judges standing further away from the model, there would be a better chance they would "see" overall variations in proportions of the model parts and that it would be more difficult for them to pass around a book. I therefore, set up the documentation in a tri-fold standing chart format. The three boards could be laid flat on the table or, because they were hinged, could be placed upright. In practice, they placed them upright and all stood behind the boards viewing the model over the top of the boards.

The color chips were placed in a small envelope in the color-finish-markings section. I also provided five mounted three-views (we had five judges then). Again, my reasoning in all this was that by everyone being able to view the model and documentation at the same time, the overall judging time would probably be shorter. Shorter time -- less time to mull things over. The judges really liked the idea and they did, in fact, accomplish the judging in less time than many of the other models. The next rule cycle brought the multiple view requirement and others began to use the "board" presentation.

As an aside, Dolly Wischer and I nearly had a stroke when, during the color judging, one judge took out the chips and walked up to the model and laid them on the respective colors. These were Munsell colors chips. The judges were supposed to stay a minimum of one meter away from the model while even judging the workmanship and detail portion. They

interpreted that as one meter from the center of the model. That put them INSIDE the wingspan on Skip Mast's C-130. Later, Dolly and I felt much better when we saw a perfect score for the color/markings/finish on the Alcor!

What Lloyd, George and Stan are trying to do with the workshops is very valuable. All of us have become accustomed to the subtle differences which exist regionally in this country while even using the same AMA rules. Top Gun and Scale Masters present some additional variations, as well. But in addition to the rule variations we've become accustomed to here, internationally, there is a somewhat different philosophical and psychological approach to scale. I am not necessarily suggesting that it is better, just different. They are, just as Lloyd has suggested, much more used to the "hard nosed" approach to judging.

The most noticeable place the United States suffers from the differences, is in the scoring! Our scores tend to be compressed in such a manner, that the range does not represent the actual differences which are revealed in the model, either static or flying. That does not happen at the international level. If you fly a 5, you get a 5 rather than an 8!

Is it great to try for a team and make it? You bet! I don't know many people (if any) who would say that their international experience wasn't worth the time, effort and expense. New friends, new experiences and new challenges are invigorating. I've been itching to get back into FAI competition since my last shot in 1984. I always felt a little reluctant to try for a team as an AMA employee and then as the FAI CIAM Technical Secretary! But now I am neither! I have two models framed up and although neither will be finished by August, I plan to be around in 2007! I'll see you at team selection this year, probably as a Jury member. That's not the plan next time around!

Just remember folks, we owe a great debt of thanks to Lloyd, George, Stan and NASA for educating us for participating in and promoting FAI scale competition! Cheers!

Bob Underwood



If you have internet access, you owe it to yourself to visit NASA's brand new web site - www.nasascale.org. Not only is this a new URL, but a complete re-thinking of how we present information.

This new NASA site was designed from the start to be the only place you need to go to find out everything that's happening in the world of scale aeromodelling - whether it's here on the National front, or on the International front - the domain of the FAI.

COMPETITION DOCS/FORMS

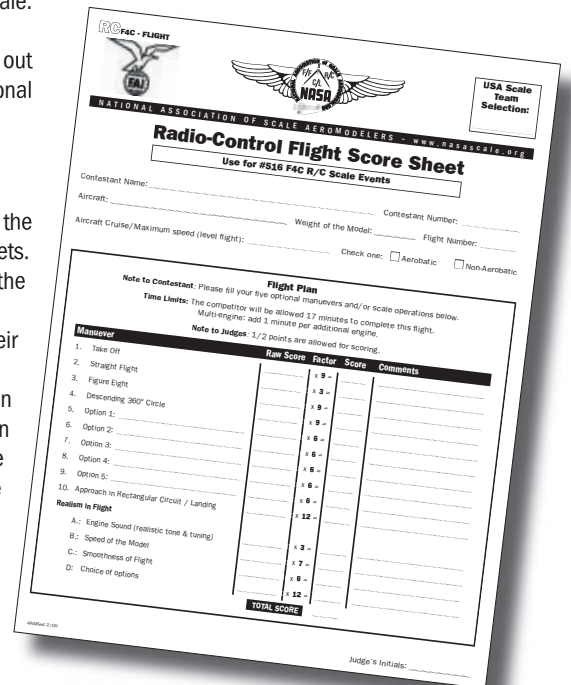
This is one of the more exciting new features of the web-site. We have just updated all the competition forms and documents for scale competition to bring them in-line with today's meets. Towards this end, we are posting the finished documents online in .pdf form. Not only are the documents posted, but we now have 2 versions of each.

One is the regular .pdf that we invite contest directors to download and printout for use in their contests.

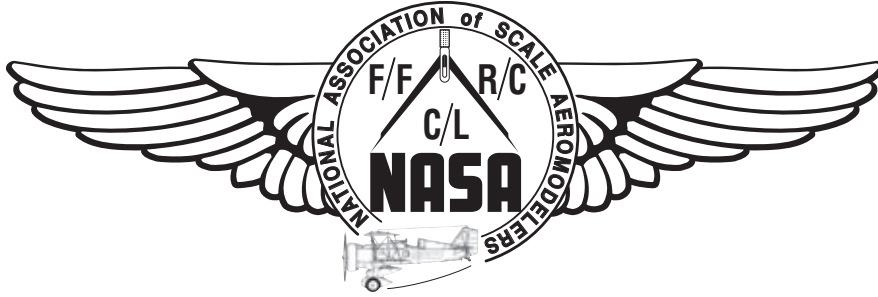
The second (and more exciting) version of the form is the "intelligent" form. Using this version and an up-to-date version of Adobe's Acrobat .pdf Reader, you can fill out all the information on your computer, then pre-print copies to take to your next scale event. Information that can be filled in is information about yourself, your plane and your maneuvers/options. These can be selected from pull-down menus which include all mandatory and optional maneuvers/options as spelled out in the current AMA rulebook. Imagine not having to spend time at the contest filling out forms!

Oh, one more thing - the forms do NOT allow you to fill in your own scores! Sorry - some things are best left up to the judges!

The forms are online now for all Control-Line and Radio-Control events - from Fun-Fly up to FAI! Download your forms today!



Maneuver	Raw Score	Factor	Score	Comments
1. Take Off				
2. Straight Flight		x 3		
3. Figure Eight		x 3		
4. Descending 360° Circle		x 3		
5. Option 1:		x 3		
6. Option 2:		x 3		
7. Option 3:		x 3		
8. Option 4:		x 3		
9. Option 5:		x 3		
10. Approach in Rectangular Circuit / Landing		x 3		
Realism in Flight				
A.: Engine Sound (realistic tone & timing)		x 3		
B.: Speed of the Model		x 3		
C.: Smoothness of Flight		x 3		
D.: Choice of options		x 3		
TOTAL SCORE				



NATIONAL ASSOCIATION OF SCALE AEROMODELERS - www.nasascale.org

NASA Membership Application

WHAT IS NASA?

NASA is the AMA Scale Special Interest Group or (SIG) for the USA. We encourage scale contestants, scale fly-ins and work to promote and advance all phases of scale aeromodeling. Whatever your interest is, FF, CL or RC scale, NASA has something for you!

THE AMA NATIONAL CHAMPIONSHIPS

NASA is the official host of the AMA Scale National Championships (NATS) held in Muncie, IN - at the AMA flying Site. We offer classes in both R/C and C/L scale. Our annual NASA business meeting is also held during the same week. Interested in competing or judging? Contact a NASA officer or the Event Directors. Hope to see you there!

REPLICA - NASA'S NEWSLETTER

Our newsletter, *The Replica*, is published 6 times per year. New sources of documentation, building tips, contest updates, Scale News, FAI information, 3-views are all available here for our membership.

NASA'S WEB SITE - www.nasascale.org

Our new NASA website is a new source of information about upcoming events, documentation, 3-views, photos, contest results as well as a help section for scale modelers. Our site is just beginning to grow!

FLIGHT ACHIEVEMENT AWARD

The *NASA Flight Achievement Award* is presented at NASA sponsored model contests. This award is decided upon by a vote of the contest flight judges, in which subject best duplicates prototypical flight, taking into consideration the uniqueness of the subject and flight characteristics. For more information contact a NASA officer.

Send to:

**NASA Secretary/Treasurer Bonnie Rediske
128 Darnley Dr., Moon Township, PA 15108**

Dues: USA \$15 • Canada \$17 • Foreign \$22

Name (Last): _____ (First): _____ (M.I.): _____

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Interested in: Free-Flight Control-Line R/C Scale Scale Fly-ins Competition

control line scale

I had the privilege and honor of representing the USA at the World Flying Scale Model Championships in Deblin, Poland during the summer of 2004. There was an extremely well done printed program available that described all the models, the competitors, and the rules. I used this information, and other documentation sources, to prepare the following table. It presents information about the size of the models. The models are presented in the order that they finished.

I did not include flight scores for models that had engine problems. Also I do not have data on the other two American entries; our information sheets did not arrive in Poland in time to be included in the program. Both were probably less than 30 oz/sq. in. I could not find wing area data on the Su-12, but by estimating the wing aspect ratio I suspect its wing loading was in the high 30's or low 40's. Piotr Zawada flew the second Miles Magister to second place, but it was not listed in the program.

None of the W/C models flew poorly, although reliability issues caused several poor scores. Many flew "competitively", i.e., a score in the 1300's. Four flew exceptionally well: Marion Kazirod's Fairey Battle, the Magisters by Piotr Zawada and Vladimir Kusy, and Alfred Funk's Me 109. Apparently the European "thing" is to do some showboating in the last round of flying. Kusy did multiple loops with his Magister and Funk did some fantastic low-level flying.

Marion Kazirod's Battle had a static score of 1779 (second only to the Yak 52 at 1790) and certainly earned the first place trophy.

Your comments and questions are welcome.

Chuck Snyder

10759 Moss Hill Lane, Cincinnati, Ohio 45249, (513) 489-8681
crsbjs@cinci.rr.com

Aircraft Name	Wingspan (inches)	Weight (Lbs)	Wing Area (Sq. Inches)	Wing Loading (oz/sq. ft.)	Flight Score
Fairey Battle	92.5	13.1	1239	24	1619
Miles Magister (2 models 2 & 5)	67 (Kusy)	7.5	690	25	1555 (Kusy) 1621 (Zawada)
Yak 52	72	13.1	898	33.6	1394
Me 109E	50	7.0	518	31	1567
AIR 1 (bipe)	69	12.5			1319
Su-12 (twin)	86.6	15			1325
Douglas Skyraider	75	12.7	900	32.5	1348
Henschel 129 (twin)	73	15	760	45	1312
AIR 1 (bipe)	69	12.3			
Fokker D VII (bipe)	66	12.1	1133	24.6	
Brovchek W-01	69	13			
L410 Turbolet (twin)	78.7	15	540	64	
Antonov 28 (twin)	78.7	12.8	506	58	
North Am. AT-6	66	8.8	620	32.7	



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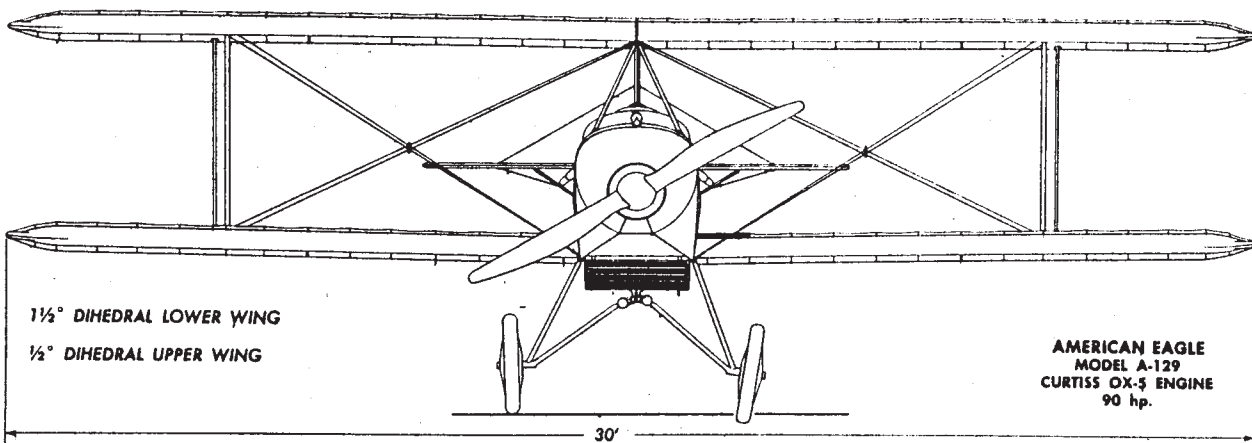
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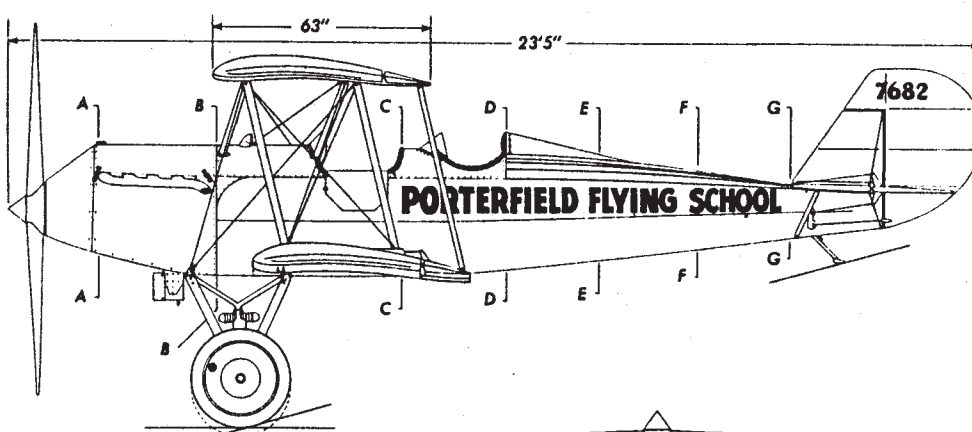
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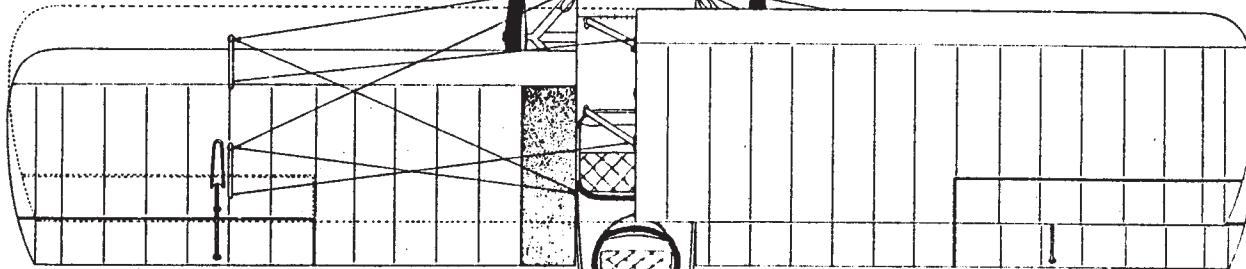
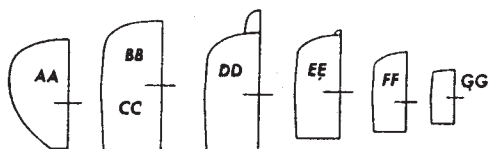
- Specifications:**
- SPAN 30 feet
 - LENGTH OVERALL 23'5"
 - EMPTY WEIGHT 1385 lbs.
 - GROSS WEIGHT 2242 lbs.
 - CREW ONE
 - PASSENGERS TWO
- Performance:**
- HIGH SPEED 102 mph
 - CRUISE 92 mph
 - STALL SPEED 38 mph
 - RATE OF CLIMB 480 fpm
 - SERVICE CEILING 10,200 feet
 - FUEL LOAD 35 gallons

Construction:

FUSELAGE, welded steel tube space frame, covered on the forward upper surfaces with sheet aluminum & with fabric on the rest. Open cockpits, pilot in the back seat, two passengers in the front seat.

TAIL GROUP, welded steel tube, wire braced, fabric covered.

WINGS, spruce beam spars, spruce truss ribs, steel tube compression members, wire braced internally & externally.



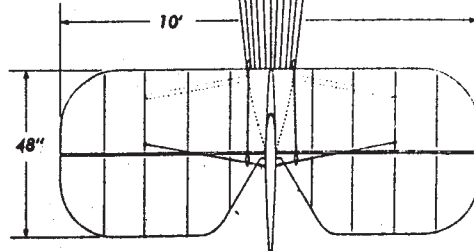
7682

UNDERSIDE OF LOWER LEFT WING

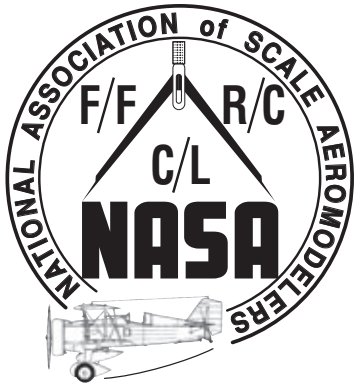
PORTERFIELD FLYING SCHOOL

UNDERSIDE OF LOWER RIGHT WING

COLOR SCHEME
of this particular A-129
Silver dope & natural aluminum
with black tires & lettering



AMERICAN EAGLE



In This Issue:

- **Preparation for FAI Scale Team Selection Trials**
- **New Scale Contest Forms on web-site www.nasascale.org**
- **American Eagle Model A-129 3-views.**
- **The Latest in Scale News.**

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Make checks or money orders payable to: **National Association of Scale Aeromodelers.**

Name: _____ New Renewal Address Change

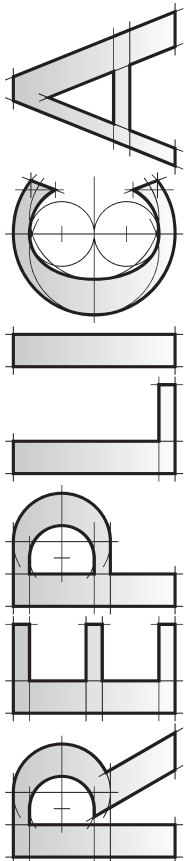
Address: _____ AMA # _____ NASA # _____

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Area of Interest: Free Flight Control Line Radio Control Giant Sailplane Electric

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