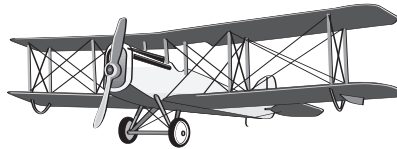


REPLICA

JULY
AUGUST
2004

Newsletter of the National Association of Scale Aeromodelers [NASA]

PRESIDENT'S NOTES



INDOOR SCALE RC AT THE NATS!

If you haven't tried Scale RC indoor your missing a treat and also a challenge! For the first time I really flew indoor RC and thank goodness that SIG Fokker DVII is a tough airplane to bust up!



Everyone really had a great time with some lighthearted competition at the Indoor event on Friday night at the Horizon Center during the Scale Nationals. The rules (which are available on the NASA website) state that the model has to fly at 12 oz. or less. My ARF Fokker DVII came out to about 10.5 ounces using a new Li-poly battery pack.

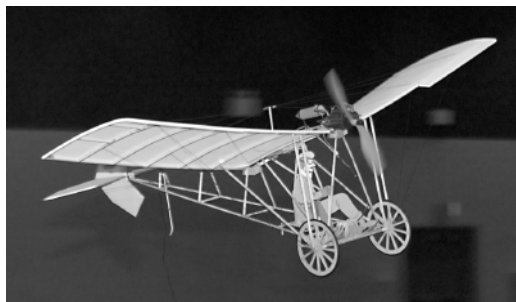
There were two classes flown including Fun Scale and Sport Scale. Long time scale competitor Greg Hahn flew a Road Kill series B-17 bomber that also dropped two sticks of bombs. The profile aircraft was well detailed by Greg and won in Fun Scale class. All of the models including the Fun Scale entries had to fly 9 maneuvers, plus realism. For many the flight routine went like this: Take-off, Fly-By, figure 8, Touch-&-Go (2), low slow fly-by, stall turn, overshoot and landing. Add the realism score by the judges and you have the flight.

Fun Scale

1. Greg Hahn	B-17	182.25
2. Mike Gretz	Curtis Jenny	170.75
3. Tom Poole	Cessna 180	81.25
4. Stan Alexander	Fokker DVII	60.75

Sport Scale

1. Jim Rediske	Demoiselle	259.5
2. Skip Mast	Demoiselle	255.5
3. Mike Gretz	Demoiselle	249.75
4. Tom Poole	Bellanca	175.5
5. Steve Sauger	Ryan PT 21	-0-

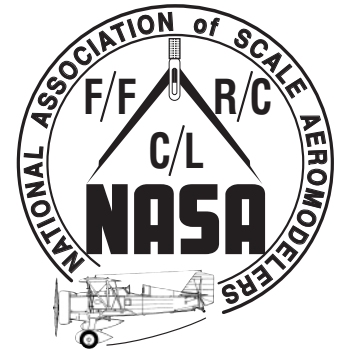


Everyone had a good time and we all worked together to try and fly in the Horizon Center this year. I hope to have a new model next year as well as my now tested Fokker. As I flew it in the Horizon Center for the first time that Friday after everyone finished static judging. As with most scale models it was tail heavy. Some lead from Jim Rediske solved that and the Fokker sort of flew from that point. Everyone there probably thought, oh no the red scourge of the Horizon Center is flying again. Oh well, it was fun and I think everyone is looking forward to it again next year maybe with a larger venue in Muncie.

Our thanks to **SIG Mfg., Inc.** for their help and prizes. Also thanks to NASA for providing everyone who attended, pilots, judges and spectators with a light supper (well, Subway party subs and drinks). What time did we quit? 10:00pm or 11:00pm - I can't remember but a good time was had by all.

What did I learn with this Fokker DVII? Well several things. SIG CA hinges, work in foam if you use the foam friendly Zap to put them in. Tape on the model looks like, well tape! The struts don't fit the DVII exactly right and the upper wing is slightly raised in the center section, although this doesn't affect the flight characteristics.

Changing any of the radio gear from what is recommended in the instructions can adversely affect the flight performance. Adding scale details to these models is easy and fun, with a WalMart paint set for about \$2.50 (water based paints) found in the hobby



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section. Markers also work well on the foam. What modelers would like to see with the SIG Fokker would be to have their models available in all white so the modeler could paint the models themselves instead of everyone looking similar. There's an idea SIG!

Also you don't have to use the rubber bands to hold the wing to the inter-plane struts, you can epoxy these in place and eliminate the hassle of putting the wing on each time you want to fly, provided you don't demolish the plane. Also one click of throttle will either send you to the ceiling or the ground in quick order.

The contest was dominated by the SIG Demoiselle and there were 3 there. After the scale contest was over it was time to race the 3 Demoiselle's, I jokingly ran with them on one lap and I think I won too. Anyway great fun all around. So next year bring a Indoor model to the Nationals.

Next year we look forward to having a site for at least a whole day and maybe more!

NASA'S SCALE RESOURCE GUIDE 2004-05

If you've been a NASA member for more than a few years you remember the Scale Resource Guide, right? Well we've had a heck of a time getting a new one out over the past 4 years or so. We had one member Gerald Deneau who was working on this for us and had all of the files. He passed away and we weren't notified of this for several months. Another member was working on the Guide the next year after that and due to family health problems this was a on again and off again thing too. We have had several suggestions, most of which wouldn't work. In talking to some of our membership about the problem after awhile **Gary Parenti** volunteered to edit and update the guide for the NASA membership and he's been working on it for the past year.

Soon the new guide will be published and we will be either sending it to you by mail or delivering it to you at a NASA function like the Nationals or a trade show. Gary has had his hands full with the new guide and his wife has been a great help tracking all of the companies that have went out of business or moved and the forwarding address has expired. The new one is all computerized and will be printed on 8.5 by 11" format with a spiral binder. It will not be available on the net or NASA's website. But for those of you who have been looking for it, after all this time it's sort of in the mail, if not it's definitely getting there!

NASA SHIRTS AT THE NATIONALS THIS YEAR!

NASA has it's own shirts for the Nationals this year which are being sponsored by **Pacer Technology**, **Airborne Media** and **Flite Metal**. These companies went the extra mile and have seen to it that everyone who is a competitor or judge receives a shirt this year at the Nationals. **THANKS EVERYONE!**

RULE PROPOSALS 2005-2006

AMA is going to a two-year cycle now instead of the three-year cycle and have new policies which should speed up needed changes in the Competition Regulations which will be effective for 2005-2006. So if you want to make a change for the 2007-2008 rules cycle NOW!!! Is the time to start working on those changes for the rules cycle. If you would like to work on this within a committee, contact NASA, Free Flight Scale needs this very badly. Let's use the NASA website and the newsletter and get the word out. If you are interesting in chairing a committee to work on rules or want to hold a contest contact the NASA officers, newsletter editor, webmaster etc. and crank it up! The worst thing we could do is to just sit there with another cup of coffee and do nothing. If there isn't a CL or FF contest in your area why not hold one? NASA will help you promote it through the website, newsletter as well as we can offer mailing costs at a lesser rate than you can get at the post office, through bulk mailing, but you need at least 200 pieces which with the current NASA membership

and a mailing list should be no problem.

It takes time and a great deal of planning to make this come off. I like to say plan your work and work the plan. More often than not this does work.

FAI UPDATES!

72 volts for F4C scale models PASSED! Beginning January 2005.

33.033 lbs. PASSED for F4C Models Beginning January 2005 * here in the USA we can currently run all FAI class events up to 33.033 lbs. or 15kg.

As soon as we have all of the changes finalized from the Chairman we will post them to the website so anyone can download these. As soon as we are able to find out when the new sporting code will be ready we'll let you know.


FAI SCALE WORLD CHAMPIONSHIPS POLAND 2004

For results of the Championships for both Team and Individual go to the NASA website and click under FAI Scale, then go to the 2004 WC results.

Report next month and a great time was had by all. The Polish Aeroclub really know how to do it! Hats off to the Polish Aeroclub!

Fair Skies & Tail Winds,

Stan Alexander



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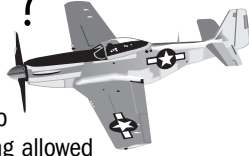
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FUN-SCALE “RINGERS”?

In Baseball, they're called “ringers”. If you're into NASCAR racing, you may have heard them referred to as “Busch-Wackers”. I'm referring to competitors who win at higher levels, then being allowed to compete in lower levels and who are normally seen as having an unfair advantage.



Well, we have a similar situation in R/C scale modeling - Fun-Scale-Open. The spirit of the Fun-Scale Open class is to let the “average Joe” compete with an inexpensive model. All they need is a color photo to prove that the real aircraft existed and you're set to go.

In practice, anyone and everyone can compete with an ARF - including past NATS, Scale Masters and Top Gun winners. There's no limit to participation in this category as there is in the Sportsman class. Being around the r/c scale competition scene for the better part of decade, I've often heard comments like:

“Why do they let folks like Terry Nitsch, Jeff Foley, Bob Violett, and the like compete in Fun-Scale?”

“By letting Expert, Designer and Top Gun winners compete in Fun-Scale, you're ruining the event.”

“Why would any new-comer decide to compete in Fun-Scale when they have no chance of winning?”

To be honest, before this year's NATS, I had bought in to this argument. This year was my second year at the NATS and my first in Fun-Scale Open. After seeing the lineup, I was convinced I had very little chance of placing towards the top. I was especially concerned that Jeff Foley and Dave Pinegar were both in this class.

Well, off we go and after round one, somehow I was in third. Round two and three went past and I was holding my own. Still third, just a couple of points out of first. After the fourth round, I dropped to fourth, but only 1.625 points out first! I managed to finish between the “ringers” - Jeff Foley (2nd) was only 1.375 points ahead. Dave Pinegar (6th) I edged by .3 of a point.

I'm not bringing this up to pat myself on the back, but to hopefully show you the same thing I realized after the NATS. I'm a fairly competent pilot and have been flying r/c for 30+ years. I can definitely fly better than I can build a scale plane, (although I'm working on that). What I took away from this is that if you compare my experience with either Jeff or Dave, I pale by comparison. They are two EXTREMELY good pilots and have a wealth of trophies and magazine articles to prove it. But, with a whole lot of practice on my part, I was competing with them on an even playing field and somewhat holding my own.

Some may argue that previous winners have the “halo-factor” going for them. I doubt that myself, but I guess it's possible. We (contestants and judges) are human and try as we might, things do sway our opinion - whether that's personalities, certain types of models, etc. Rather than worrying about things like this that you have no control over, why not figure out what's best for you?

I'm a quite competitive person. I play to win and if I don't win, I analyze what went wrong and figure out how to win the next time. (If you don't believe me, just ask my oh-so-loving wife, Lisa.) Applying this to Fun-Scale, I have found a number of things that I'd like to share which may help you get started in competition:

1. **Find a model that suits your flying style.** Not everyone is cut-out to fly a Cub, P-51, Extra, etc. There are lots of ARFs out there. For me, it was the Great Planes Shoestring ARF. I'd had one for a while and decided to give it a try. It suited my flying abilities well and I believe it was unique enough so it would stick out in the judge's mind.
2. **Try to find that model in a color scheme that is unique, but also shows up well in the air.** A sky-blue or grey model might look good on the ground, but can easily get lost in the air.

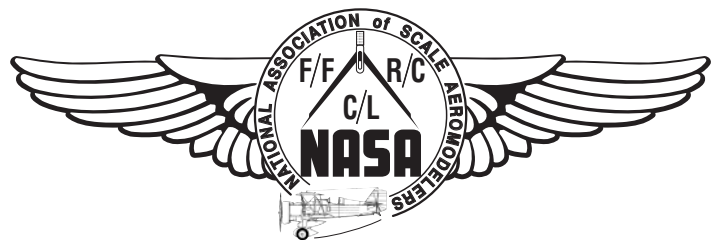
Choosing a model with a brighter color scheme can show up better in a mix of skies for not only the judges, but for you as well. Also, if the color scheme is a bit unique, it can help you stand out against the competition.

3. **Choose a set of optional maneuvers that you're comfortable with (AND THAT MATCH WHAT THE FULL SIZE PLANE WOULD DO).** For me, I choose relatively low risk options - Straight Flight Out, Procedure Turn, Straight Flight Back, and Descending 360° Turn. However, after scouring through the AMA rule book, I also found the One Lap Pylon - perfect for a pylon racer! Now at the same time, be sure stay away from maneuvers that you can't score well at. For instance, if you're flying a Cub, a inverted fly past will probably not get the score you're after. Also, a touch-n-go sounds simple enough, but I took the time to talk to several of the judges and get their impressions. They were all over the map, but most agreed that the model should not only touch down, but should slow down to a taxi speed before speeding up for takeoff. That's very hard to do, and depending on the runway length, it could be down-right impossible.
4. **Practice.** Get to know your airplane and become comfortable with it. Fly the living *#(&@#! out of it and know just what it's capable of. Fly it in any condition you can - calm, windy, cross-wind, early morning, late afternoon. Practice and Practice. Not that I'm the perfect example, but I have well over 150 flights on my Shoestring and also use it as an everyday sport airplane - snaps, spins, low inverted passes, etc - but that's just me.
5. **When at the contest, keep the judges in mind.** This involves several things:
 - A: **Be sure to answer all their questions about your model and/or the flight plan BEFORE takeoff.** It's hard to judge a maneuver if you're not sure why the pilot is doing what he's doing.
 - B: **When starting your engine, keep the judges safely out of the arch of the propeller.** Obviously, the last thing that anybody wants is to put people in danger. This problem has a simple solution and puts everyone's mind at ease.
 - C: **Stand so you're not blocking the judges view of your flight.** It's hard to properly judge a maneuver when you're having to move around to see everything.
 - D: **Be courteous.** Speak clearly and remember your “thank you's”. Remember that most judges are volunteering their time and doing the best job they can. I'm not saying you'll pick up points with a simple “thank you”, but don't you feel better when someone's nice to you?

Anyway, I've rambled on long enough, but in closing you can see I've changed my mind on the subject of “ringers”. I found them to be useful as a guide to shoot for. Remember, you're only as good as the people you surround yourself with.

If you've been hesitant about competing in Fun-Scale, go out and get a good flying, scale ARF - practice as much as possible with it and go out there and beat those guys!

Mark Lanterman
mark@airbornemedia.com



2004 AMA NATS STANDINGS

Listed here are the final results for this year's Nationals. Many thanks to all the sponsors, volunteers, judges and contestants that were involved.

Although a bit windy, the weather was great. Let's see... great weather, great good, great company and the best in scale modeling. What do you say we get together and do this again next year!

511 RC SPORTSMAN SPORT SCALE

1	0	ARTHUR J SHELTON	SHELBYVILLE, IN	181.875
2	0	VINCENT F VELTRI	SARASOTA, FL	175.875
??	0	MARK A LANTERMAN	FAIRFIELD, OH	DNF

512 RC EXPERT SPORT SCALE

1	0	TERRY J NITSCH	GROVE CITY, OH	194.250
2	0	GREGORY G HAHN	NEW CASTLE, IN	192.375
3	0	KIM A FOSTER	MANSFIELD, OH	189.750
4	0	LEO T SPYCHALLA	WATERTOWN, WI	187.125
5	0	DAVID PINEGAR	WARREN, MI	186.750
6	0	ZACH D SPYCHALLA	WATERTOWN, WI	185.625
7	0	JONATHAN HAY	SARASOTA, FL	185.375
8	0	DAVID V VOGLUND	RADCLIFF, KY	181.375
9	0	CLAYTON S MAST	ROYAL OAK, MI	180.125
10	0	DAVID J HAYES	ROANOKE RAPIDS, NC	179.875
11	0	MICHAEL R SMITH	TREMONT, IL	177.500
12	0	ROBERT C BENSON	MANSFIELD, OH	176.000
13	0	DAVID T BARRY	SARASOTA, FL	175.250
14	0	MICHAEL WINTER	SARASOTA, FL	174.625
15	0	JEFFREY K PIKE	BATON ROUGE, LA	154.000
16	0	ALBERT KRETZ	WOODVILLE, AL	139.125
17	0	TOM E SMITH	SARASOTA, FL	95.500
18	0	CHARLES H BAKER	UNION, MO	95.500
??	0	LARRY FOLK	PICKERINGTON, OH	DNF

515 RC DESIGNER SCALE

1	0	J FOLEY	ROANOKE RAPIDS, NC	194.875
2	0	DAVID J HAYES	ROANOKE RAPIDS, NC	191.500
3	0	DAVID D JOHNSON	VERNON, CT	189.000
4	0	GLENN A DUNLAP	WEST CHESTER, OH	86.000
??	0	ROBERT J PATTON	SAINT JOSEPH, IL	DNF

516 F4C RC SCALE

1	0	HAROLD PARENTI	WESTCHESTER, IL	
2	0	STEPHEN J SAUGER	TROY, MI	
3	0	GARY H PARENTI	WESTCHESTER, IL	

520 RC FUN SCALE/DIVISION 2 OPEN

1	0	ROBERT J ARVIN	PALMYRA, IN	99.250
2	0	J FOLEY	ROANOKE RAPIDS, NC	99.000
3	0	LARRY FOLK	PICKERINGTON, OH	98.125
4	0	MARK A LANTERMAN	FAIRFIELD, OH	97.625
5	0	DALE ARVIN	JEFFERSONVILLE, IN	97.375
6	0	DAVID PINEGAR	WARREN, MI	97.375
7	0	RICHARD G CRUPI	CROFTON, KY	96.750
8	S	BRAD FOLEY	ROANOKE RAPIDS, NC	95.125
9	0	DAVID J HAYES	ROANOKE RAPIDS, NC	93.250
10	0	ARTHUR D SIZEMORE	ROANOKE RAPIDS, NC	91.750
11	0	VINCENT F VELTRI	SARASOTA, FL	90.875
12	0	MICHAEL A BARBEE	DELAWARE, OH	90.375
13	0	STEVEN T ORT	SEYMOUR, IN	89.375
??	0	EARL E DEVER	NEW ALBANY, IN	dnf
??	0	JOSEPH DENICOLA	NEW PORT RICHEY, FL	dnf
??	0	BEN LANTERMAN	ST CHARLES, MO	dnf

520N RC FUN SCALE/DIVISION 1 NOVICE

1	S	HUNTER L SIZEMORE	ROANOKE RAPIDS, NC	94.625
2	0	STEVEN R aEAGLE	WABASH, IN	90.875
3	0	PIERRE DESCHENES	MUSKEGO, WI	85.500
4	J	JONATHAN S HAYES	ROANOKE RAPIDS, NC	63.750
??	0	THOMAS E FLEMING	ROANOKE RAPIDS, NC	dnf

522 RC TEAM SCALE

1	0	DAVID PINEGAR	WARREN, MI	192.625
1	0	GEORGE P MAIORANA	STERLING HTS, MI	192.625
2	0	DALE ARVIN	JEFFERSONVILLE, IN	188.875
2	0	ROBERT J ARVIN	PALMYRA, IN	188.875
3	0	MIKE GREIZ	MONTEZUMA, IA	182.625
3	0	CLAUDE MCCULLOUGH	MONTEZUMA, IA	182.625



509 CL SPORT SCALE

1	0	ALLEN L GOFF	MUNCIE, IN	151.12
2	0	FRANK W BEATTY	GRANITE CITY, IL	148.75
3	0	LEROY K HEIKES	PLAINVILLE, MI	133.63
4	0	GEORGE H MCGINNIS	HANSON, MA	132.75
5	0	CHARLES BAUER	NORRIDGE, IL	126.25
??	0	MATTHEW BAUER	CHICAGO, IL	dnf
??	0	JOHN G BRODAK	CARMICHAELS, PA	dnf
??	0	JACK R SHEEKS	INDIANAPOLIS, IN	dnf

510 F4B CL SCALE

1	0	NEIL COPEMAN	WESTON, CANADA	2007.00
2	0	DONALD L PRENDERGAST	PENSACOLA, FL	885.75
3	0	CHARLES BAUER	NORRIDGE, IL	413.88
??	FO	JAN STASTNY	THUNDER BAY, CANADA	dnf

521 CL PROFILE SCALE

1	FO	CHRIS BROWNHILL	TORONTO, CANADA	166.13
2	0	NEIL COPEMAN	WESTON, CANADA	164.25
3	0	DONALD L PRENDERGAST	PENSACOLA, FL	154.00
4	0	CHARLES BAUER	NORRIDGE, IL	130.50
5	0	JEFFREY J HITCHCOCK	KALAMAZOO, MI	127.25
6	0	GEORGE H MCGINNIS	HANSON, MA	111.75
7	0	PETER BAUER	CHICAGO, IL	92.75
??	0	LYN GREEN	CELINA, OH	dnf

521J CL PROFILE SCALE JUNIOR

1	J	AARON J BAUER	CHICAGO, IL	158.50
2	J	DEWAYNE B MARCHANT	GULF BREZE, FL	148.00
3	J	MELINDA R ALBERTY	PORAGE, MI	133.5
4	J	JASON C BAUER	CHICAGO, IL	110.75
??	J	CHARLES L PRENDERGAST	GULF BREEZE, FL	dnf
??	J	NICHOLAS HITCHCOCK	KALAMAZOO, MI	dnf

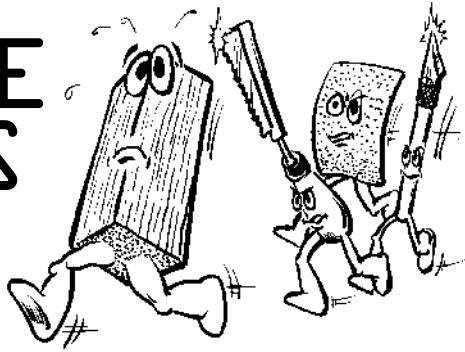
524 CL DESIGNER SCALE

1	0	FRANK W BEATTY	GRANITE CITY, IL	133.50
??	0	JACK R SHEEKS	INDIANAPOLIS, IN	dnf
??	0	CHARLES BAUER	NORRIDGE, IL	dnf

We've had a great turnout in sponsors this year for the Nationals and we should all thank these companies very much and let them know how much we appreciate them.

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SCALE TIPS



HOW TOE-IN HELPS MODEL AIRCRAFT

In airplanes, toe-in aids in keeping an airplane going straight during takeoff roll and landing roll-out, particularly with tail-draggers.

Airplanes with tricycle gear have the center of gravity (CG) forward of the main gear. This helps straighten out an airplane that has developed a yaw angle between where it is pointed and where it is actually going. A taildragger has the CG behind the main gear and a slight yaw angle is not automatically corrected but is made worse and can result in ground loop.

Here is where toe-in of the wheels helps both types. An airplane rolling straight ahead has equal drag from each of the wheels. When it takes an unwanted turn to the left, the drag from the left wheel goes to zero while the drag at the right wheel increases.

The net effect is the unbalanced drag exerts a retarding force and turns the airplane back to the desired direction. This wouldn't happen without toe-in.

Russ O'Brien
Three Rivers MI

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If you're workshop is anything like ours, it probably is a bit bare on decoration. Although a lot of space may be taken up with shelves, wing racks, etc., those bare spots could use some sprucing up.

Well, if you're a scale enthusiast, Airborne Media has just introduced 10 different sets of some of history's greatest aircraft. Each set contains five prints of some of the most well known aircraft of all time.

One of the most interesting things about these sets are the wide diversity of aircraft to choose from. The sets start with the Early Years (volumes 1 & 2) which highlight the first steps in aviation - the 1903 Wright Flyer, Bleriot XI, Santos Dumont 14.bis, etc.

Additional sets include World War One, World War Two (volumes 1 & 2), Pioneers (volumes 1 & 2), Jets & Transportation (volumes 1 & 2). Literally, the entire history of flight is covered featuring aircraft as diverse as the Curtiss Model D, the Fokker DR-1, the Douglas World Cruiser, the Spirit of St. Louis, the Gee Bee R-1, the Bell X-1, the Rutan Voyager, the Ford Trimotor, the Lockheed Constellation, the P-51D Mustang, the ME-262, and the F/A-18 Hornet.

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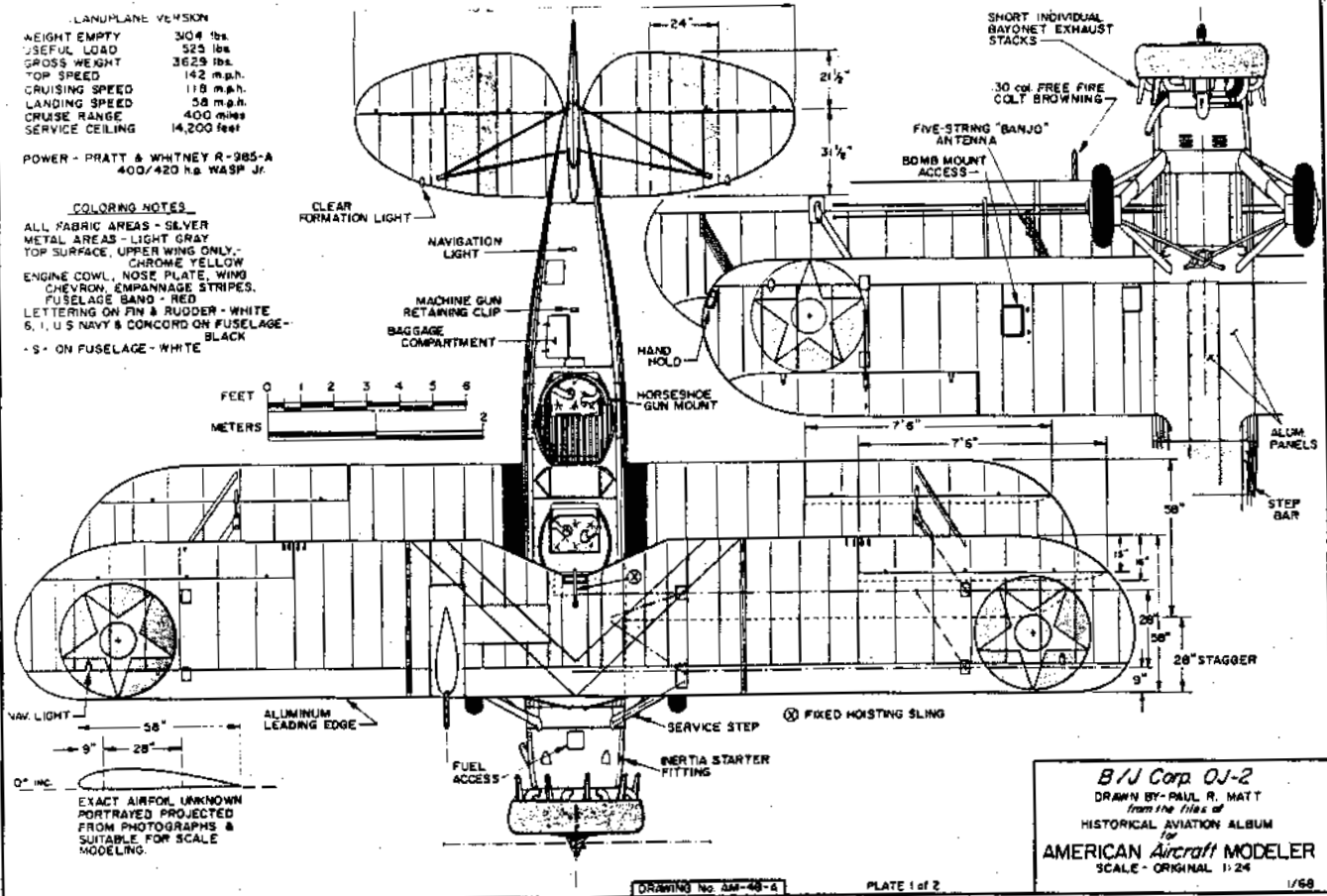
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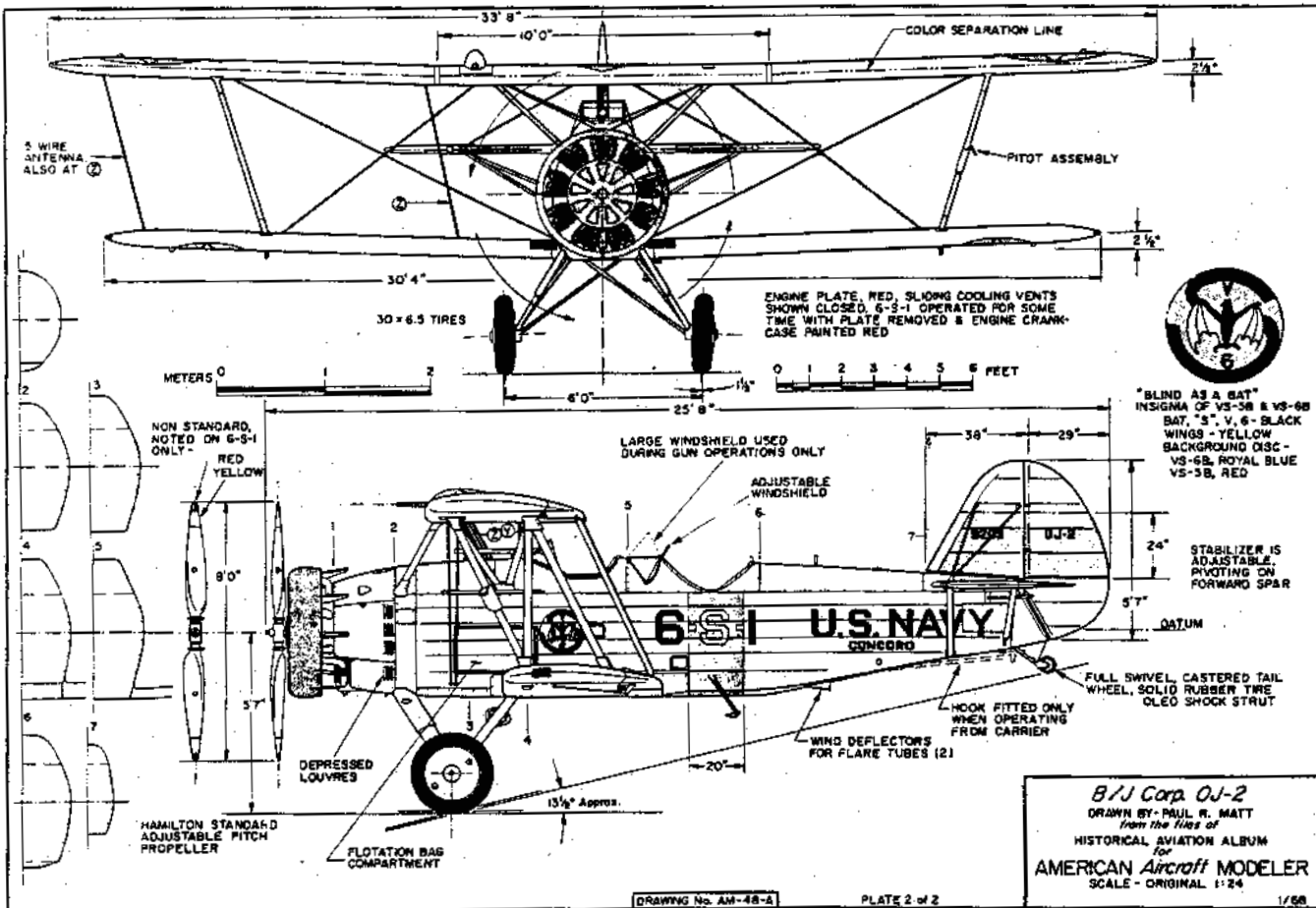


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 TOP SPEED 142 m.p.h.
 CRUISING SPEED 118 m.p.h.
 LANDING SPEED 58 m.p.h.
 CRUISE RANGE 400 miles
 SERVICE CEILING 14,200 feet
 POWER - PRATT & WHITNEY R-985-A
 400/420 h.p. WASP Jr.

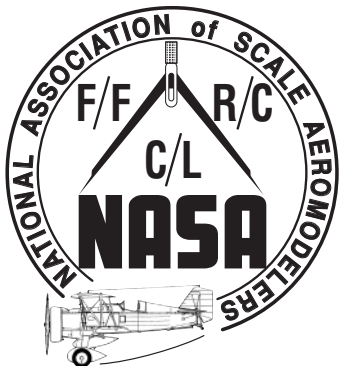
COLORING NOTES
 ALL FABRIC AREAS - SILVER
 METAL AREAS - LIGHT GRAY
 TOP SURFACE, UPPER WING ONLY -
 CHROME YELLOW
 ENGINE COWL, NOSE PLATE, WING
 CHEVRON, EMPENNAGE STRIPES,
 FUSELAGE BAND - RED
 LETTERING ON FIN & RUDDER - WHITE
 S. U. S. NAVY & CONCORD ON FUSELAGE -
 BLACK
 - S - ON FUSELAGE - WHITE



B/J Corp. OJ-2
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 from the files of
 HISTORICAL AVIATION ALBUM
 for
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 SCALE - ORIGINAL 1:24
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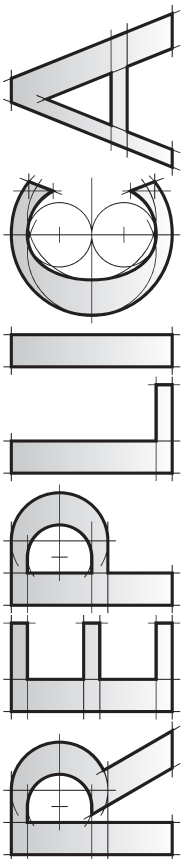
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Area of Interest: Free Flight Control Line Radio Control Giant Sailplane Electric

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