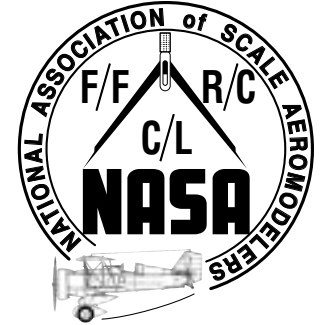
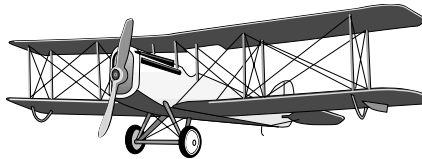


REPLICA

JANUARY
FEBRUARY
2005

Newsletter of the National Association of Scale Aeromodelers (NASA)

PRESIDENT'S NOTES



AMA 2005 CONVENTION

The AMA Convention at Ontario, California was a huge success for not only AMA but for NASA as well. NASA was represented at the convention this year by Sam Wright, members of the Scale Squadron of Southern California as well as Bob Underwood, Mark Lanterman, myself and most importantly my wife!



She kept me going the entire weekend. We also have to Thank very much the entire Scale Squadron of Southern California and beyond! For their help with the booths last weekend. They included Don Aitken, Rich Koehrer, Gordon Traux, Nick Rivaldo, Gary Holderness, Lawrence Klingberg, Randy Wilbur, Sam Wright and Jim Reed.



We held the NASA/Scale Squadron Scale Road Show that weekend and had a great time with modelers from

all over the southwestern United States. We saw some old friends and met many new ones. We signed up new members, passed out flyers for the 2005 Nationals, information on the Indoor event at Muncie as well as the new Scale Resource Guide. We also reminded those who haven't paid that it's that time of year again to **RENEW YOUR MEMBERSHIP! Now!**

New products were at the different booths for scale modelers and DuBro also had a new set of pre-production scale wheels and tires at a 7" size made for WWI models and the Balsa USA kit line. They plan to come out with 6", 5" sizes also, but not at the present time. Look for these on the market sometime after Toledo.

Dave Patrick Models was present with their full line of kits, parts and now Engines! There is now a new Dave Patrick Blue Head 1.35, 1.80, 2.10 2-stroke line of engines. The price range runs from \$249.99 to \$299.99 for the 2.10. The Brison custom muffler will run you from \$54.99 to \$64.99 and it's a Pitts style muffler.

Talk about beautiful scale ARFs, Dave has both full wing span and clipped wing Super Cubs available. The clipped wing Super Cub comes with several different color schemes and ready to cover also. This would be a great model for Fun Scale.

Anyway we all had a great time and hope that if you are in that area next January, please try to attend. The 2006 Scale Road Show is already in the planning stages and we hope to improve the schedule more also. For more photos at the AMA Convention check out our website at: <http://www.nasascale.org> or go to the Scale Squadron website at <http://www.scalesquadron.com>

INDOOR SCALE AT THE NATIONALS

We are having Indoor Scale 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 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

President's Notes - continued on page 2

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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 as well.

Indoor racing? What's next, who knows? But I bet that many of the other disciplines are coming indoor and electric also. Last year I took an all foam SIG Fokker D-VII to the event and if I'd had time to practice with it and get it trimmed properly I believe I could have shot down Greg Hahn's B-17 - **yeah, right!** For a Scale RC Indoor schedule look at the AMA or NASA website. Anyway all kidding aside come on out and have a great time at the Indoor event.

Speaking of electric scale racing- the Scale Squadron has a set of rules for both Stock and Unlimited T-6 races, using the House of Balsa kit. Check out the rules at their website at: www.scalesquadron.com

FAI SCALE UPDATE 2005 TEAM SELECTION

The 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 - West happens on March 11th, 12th, 13th at the Speed World R/C Flyers park in Wittman, AZ near Sun City. They have a 625x60ft runway as well as a circle for C/L models.

FAI Scale Competition Workshop - East is April 8th, 9th, 10th and will be held at Metrolina Control Line Society field in Huntersville, NC (just north of Charlotte). The site has facilities for both R/C and C/L 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 cartridge and about 80 pages of fresh paper. This does include some beautiful diagrams for flight maneuvers for F4B and F4C.

TOLEDO 2005

If you are interested in attending the Toledo Show and working in the NASA booth there please let us know ASAP! We will need volunteers on Friday, Saturday and Sunday. The first member who has offered to help is Dolly Wischer and once again she will be there with her Dolly Bears. For more information contact Stan Alexander at: onawing@mindspring.com or at 615-834-1879 evenings.

We will have a new version of the NASA Scale Road Show at Toledo this year. Look for a list of seminars later on in this issue of Replica. Hope to see you there.

Fair Skies & Tail Winds,
Stan Alexander



2005 SCALE NATS

The Nats planning meeting for 2005 was held on Oct 23rd at AMA headquarters in Muncie, Indiana. In attendance for NASA was: Dale Arvin (NASA Vice President), Jim Rediske (R/C Scale Event Director for 2005), Bonnie Rediske (NASA Treasurer), Mike Welshans (Control Line Event Director) and Elaine Welshans.

- **The R/C and Control line Scale Nats will be held on August 5-7, 2005.**
- **Static Judging will be on Aug. 5th with flying on the 6th and 7th** - but the location has not been determined yet.
- **The Free Flight Nats will be August 1-5.**
- **The Scale portion of Free Flight will be August 4-5.**
- **A banquet will be held on the 6th** - time and place to be announced later.
- **Entry fees will be the same as last year** - but late registration will be extended until July 25th.
- **New this year will be Control Line Fun Scale.**

Since R/C Scale is the only R/C event being held during this time we will have all frequencies available. This may not be true in future years.

In an effort to correct some problems with future frequency splits it was decided that R/C Scale will give up channels 18, 24 and 30 but will pick up channels 14, 17, 20, 23, 26, 29, 32, 38, 47, 53 and 58. This is a net gain of 9 channels.

If, in the future we go back to having to share channels, the above will be the Scale frequencies.

If you arrive early enough you should go to NATS Headquarters (farm house) to pick up your contestant packet. If you arrive on Friday morning you can pick up your contestant packet at the Static Judging Site. If you did not pre-register you will be able to register at the Static Judging Site this year.

Trophies this year will be a little different. The emblem in the center of the plaque will be in color.

This year will be a Scale Team selection year. The Scale Team will be selected from those entering F4C and F4B that have designated they want to try for the team. No extra fee will be charged for trying for the team. F4C will be flown from one of two lines and will all be judged by the same judges designated just for the team selection.

Dale Arvin

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**2005 NASA SCALE
ROAD SHOW
TOLEDO, OHIO
APRIL 1st & 2nd
2005**

FRIDAY APRIL 1ST

- 12:00pm SCALE FLIGHT ROUTINES
for a fun-fly or competition by Stan Alexander
- 12:30pm COLOR & MARKINGS
Do your colors match? by Jim Rediske
- 1:00pm COVERING WITH FABRIC
Stits Lite, quicker than you think by Chip Mull

SATURDAY APRIL 2ND

- 12:00pm BUILDING FROM KITS OR SCRATCH BUILDING
by Bob Underwood
- 12:30pm USING PAINT OR PLASTIC
by Jim Rediske
- 1:00pm GETTING STARTED IN SCALE
The younger, the better. by Mike Barbee
- 1:30pm TURBINES
Set Up and checklists. by Terry Nitsch

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2005

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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

control line scale

For starters I would like to thank the modelers who called to talk about this column. I appreciate your support. I'll need your suggestions and encouragement to keep it going. Unfortunately we published the wrong email address for me. The correct one is crsbjs@cinci.rr.com.

During the 2004 contest season I only made it to three contests: the NATS, the World Championships, and a local contest in St. Louis over Labor Day weekend. The St. Louis meet was well attended with perfect weather, novel hand-made trophies, and competent staff from the Lafayette Esquadrielle Club. A couple of photos are included. The best part was that I recruited a new competitor to control line scale.

I invited one of my R/C flying buddies to join me on the trip to St. Louis. Mike Slaughter is very interested in scale models, enjoys building, and flies R/C well. Modelers from the host club and the other competitors welcomed Mike and answered lots of questions. He even had the chance to look over the judges' shoulders during both static and flight scoring. Mike got very enthused about the control line models. He likes the fact that C/L models are smaller than the typical R/C scale model and he likes seeing the models up close while they are flying. I had never thought about the proximity factor before, probably because I've experienced it for so many years. But it sure makes sense when you squint to follow an R/C model through a figure eight! Mike decided to learn to fly control line and to build a competition model. I plan to share his experiences in this column.

The seven-hour ride home provided plenty of debriefing time. We discussed my contention that any model can be competitive if it matches its documentation, flies well, and is reliable. He's a believer based on what he saw that day. My club, Queen City U/C, has a regular Tuesday evening flying session. Two days after the contest we put Mike up on the club trainer. He was doing solo take-offs and landings that first evening. I think the R/C skills helped here because he instinctively knew not to over-control and did a good job of inputting control movements ahead of the airplane. By the following Tuesday he had an ARF FliteStreak ready and had done his first loop by the time winter weather got here. He brought several sets of plans to the field and got lots of advice on which one to build!

One piece of advice overrides all others. Build a model of an airplane for which you have a lot of enthusiasm. Build it because you like its looks, its historical significance, you got your first airplane ride in one, your Dad flew them in the Marine Corps, or whatever. There is no inherent reason it cannot be competitive. You will need that enthusiasm to carry you through the challenges that continually pop up when building a scale model. **(BEWARE: This can be counter-productive if you like too many different airplanes and you get excited about a new one before the first gets finished! Names withheld to protect the GUILTY!)**

Size matters and bigger really does fly better. I have all the weights and dimensions from the models at the 2004 World Championships to share in a future column. Suffice it to say that most were as big as possible given

the weight limits in FAI scale. My Typhoon and Henschel both weigh over 14 pounds. They can pull very hard and I have no intention of building a heavier model in the future, even though sport scale rules allow up to 20 pounds. I really can't recommend building something as heavy as mine. However, a model with 600 to 700 square inches of wing area, weight up to 10 pounds, and powered by a .60 or .75 would be a pretty good compromise of size, line tension, cost, and ease of detailing. Many SkyShark, TopFlight, and (no longer produced) Royal/Marutaka kits fall into this range. There have also been hundreds of plans in this size range published.



FW-190-D9 by Charlie Reeves
Berliner-Joyce biplane by Frank Beatty

Based on astute observations at the St. Louis contest, and personal preference, Mike was considering several models in this size range. At the top of his list was an FW-190-D9 with full electronic system operating throttle, flaps, and retracts. He had done this all before on R/C models but had not thought about the additional centrifugal load that inward folding gear have to handle on a C/L model. It amounts to an extra three G's at 50 mph. This is a significant challenge with the long struts on a Focke-Wulf. I learned this the hard way on an FW-190-A. The first time I flew my 190 I was excited about being the first guy in Cincinnati to retract the gear on a control line model. When I flipped the switch the inboard leg retracted, but the outboard one didn't! At that point all the high school and college physics that I ignored while building the model kicked in. Oh well I'll just extend the gear and land. WRONG! The inboard wheel wouldn't come down! The centrifugal load is forcing it to stay up! I did a one wheel landing in the grass, repaired the model, and committed to thinking in the



Mitchell & Marauder by Rich Raftery

future! These gear can be made to work but it took a lot of extra hardware on my 190. I now limit myself to prototypes that had gear that retracted straight back. After we pointed this out to Mike he decided the potential problems were not worth the risk. Remember too that in Sport Scale the only downgrade for not retracting the gear comes in your flight realism score. Usually this is a small penalty and ought to be balanced against the probability of getting a perfect score on the retract option (out of 20 points).

Next Mike unrolled the plans for a Curtiss O-38 Owl. This is a unique airplane with plenty of wing area that can be done in bright colors. The hardware ought to fit well. But the main landing gear is quite narrow and will work against you if you plan to do the taxi maneuver. Unless you can get the gear aligned so the plane tracks a perfect circle, tension in the control lines forces the model to track the circle. That same tension will try to tip the model onto its inboard wingtip, especially on the upwind side of the circle. Mike had seen evidence of this at the St. Louis contest so he rolled up the Owl plans. He had a couple other plans with narrow gear, so after all evaluations he opted to go with the 190 and fixed gear. I expect it to be a contender on the contest circuit next year.

Chuck Snyder

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crsbjs@cinci.rr.com

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.

Here's a quick rundown of what's available right now:

NASA NEWS

Here's where you can see up-to-the-date information regarding anything involving NASA - whether it's about the NATS, FAI or NASA related events/projects.

REPLICA

Download .pdf copies of past issues of the Replica. Normally there's 3-4 past issues online at any time.

SCALE EVENT CALENDAR

If there's an event/fly-in/contest/tradeshows/etc. that NASA is involved with, you'll find the when and where by clicking on this link.

ABOUT NASA

Here's where you can find links to all NASA officers as well as see what NASA is all about.

NASA ROAD SHOW

At several tradeshows and events throughout the year, NASA hosts forums where many of today's top scale competitors/judges speak on a variety of subjects.

COMPETITION DOCS/FORMS

This is one of the more exciting new features of the web-site. We are currently updating all the competition forms and documents for scale competition to bring them more 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!

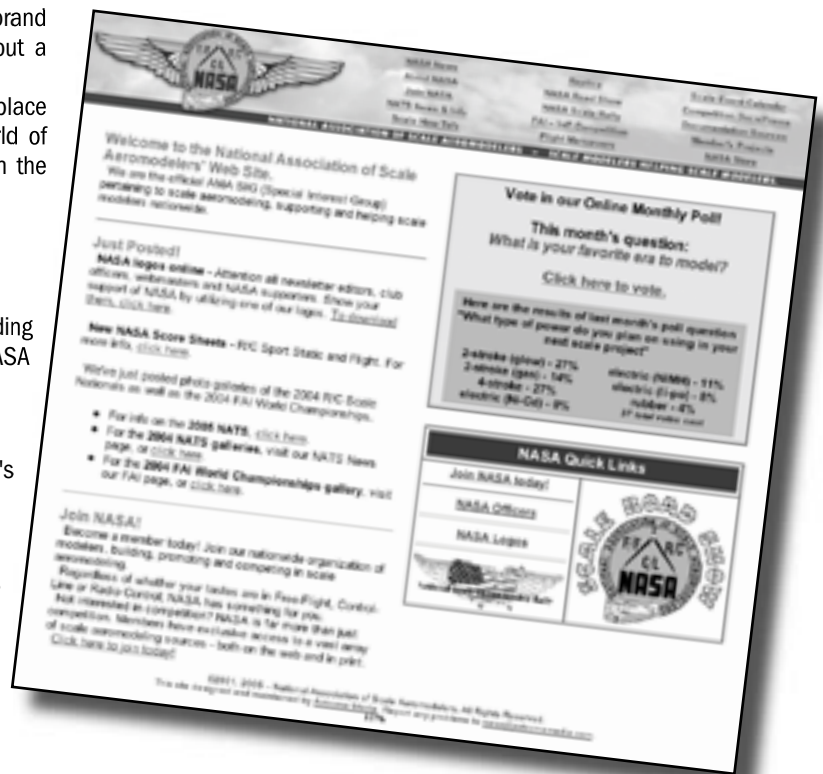
Oh, one more thing - the forms do NOT allow you to fill in your own scores! Sorry - some things are best left up to the judges!

NASA SCALE RALLY

As the name implies, this is a scale rally designed to get you out & about, meeting new competitors with The NASA Scale Road Show.

DOCUMENTATION SOURCES

This is a huge list of on-line sources of scale documentation - whether it's 3-views, color chips, photographs or more, you can probably find what you're looking for here.



JOIN NASA

Whether it's renewing your membership or signing up new members, this is a printable page which you can mail in with your dues.

NATS NEWS & INFO

As the name suggests, if its news about the NATS, you'll find it here.

FAI - INT'L COMPETITION

A big part of NASA's focus is international competition - specifically helping our members compete on the world stage. Read all about this exciting part of scale competition here.

MEMBER'S PROJECTS

Here's where our members share their latest scale projects with the rest of us. We invite you to join by sending photos and information on your latest creations - visit this part of the site for more info.

SCALE HOW TO'S

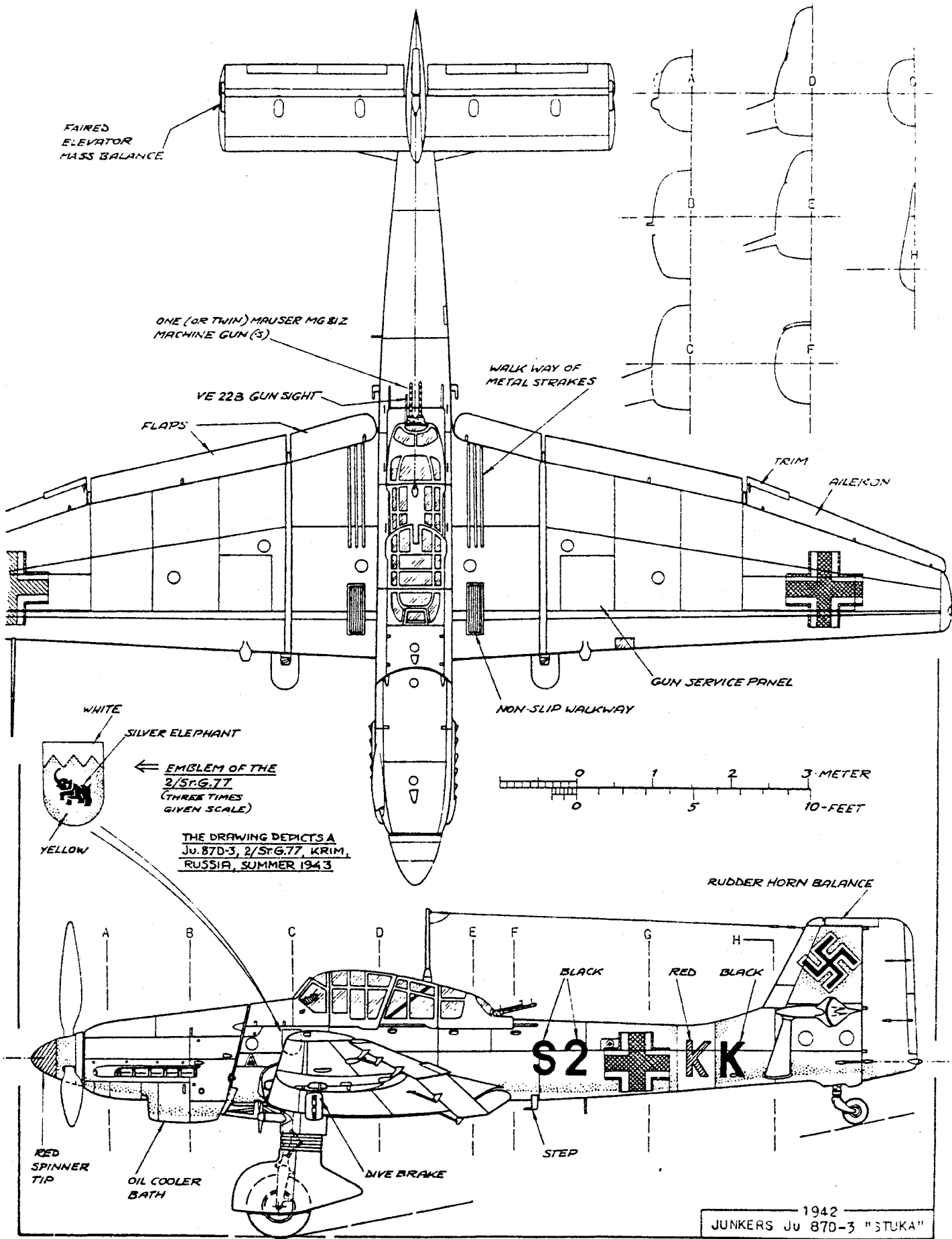
This is a rapidly growing part of the NASA site. While we have many how-to's we invite all NASA members to send in there tips and tricks to share with the entire NASA community.

FLIGHT MANUEVERS

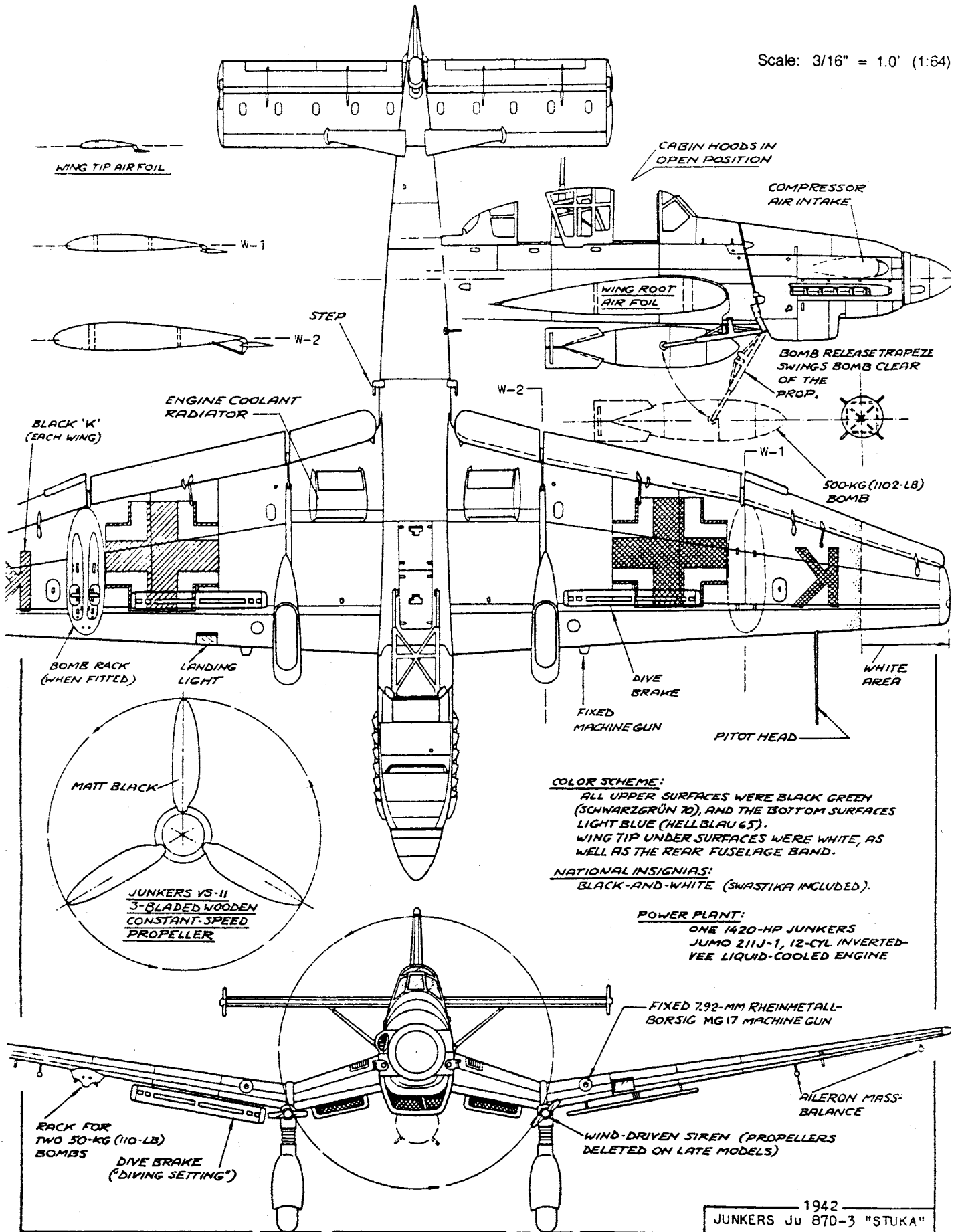
Not sure how a flight maneuver should be flown? Visit this part of the site. You'll not only see drawings about the maneuvers, but also tips on how to better your score.

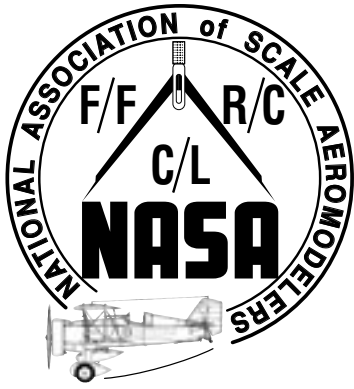
NASA STORE

Not online yet - but soon will be the spot for all kinds of NASA merchandise.



Scale: 3/16" = 1.0' (1:64)





In This Issue:

- 2005 Scale Nats & 2006 FAI Team Selection Info.
- Introducing our new web-site www.nasascale.org
- Junkers Ju 870-3 Stuka 3-views.
- The Latest in Scale News.

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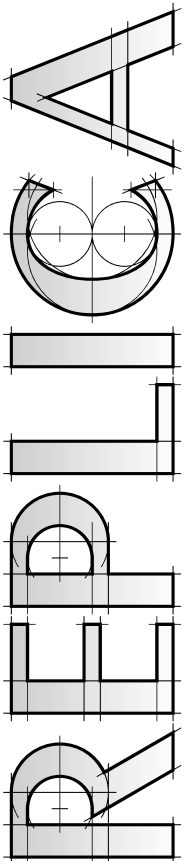
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Area of Interest: Free Flight Control Line Radio Control Giant Sailplane Electric

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