

# REPLICA

JANUARY  
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Newsletter of the National Association of Scale Aeromodelers (NASA)

## PRESIDENT'S NOTES

Happy New Year everyone! This is a time of reflection and a time of change for many of us across the nation and around the world. In 2002 we've seen lots of changes in the modeling community as well as in the economic stability of our nation. Some have been good, while others could have been better.

If you haven't received a Replica in almost a year and receive this one, *it's a freebie! Just for you.* We wanted to invite all those members who might want to re-up their membership back into NASA with this newsletter. Membership applications are enclosed on the outside of each newsletter. So come on and join us. We have a new newsletter editor, Mark Lanterman who is really great at putting out a fantastic newsletter and doing it on time also. We hope Mark's guiding hand will help to bring the newsletter back to it's focus on the members and scale aeromodeling here in the USA and around the rest of the world. If you have a new model or one you've been flying for awhile, why not send Mark a photo of it for the next issue. We know he would appreciate it as would everyone else.

I know that for those of us in NASA, we couldn't have done our job without the officers, volunteers and competitors for the NASA membership or the Nationals. 2003 looks to be a great year for NASA and our Nationals. We hope to see everyone at several events including Top Gun, Toledo, The Nationals as well as the Masters qualifiers around the country. You would be surprised to know how many NASA members serve as judges for the Masters. In fact NASA member Mike Barbee will be the Chairman of the 2003 Dayton Masters.

For all of those who haven't been receiving Replica I'm going to repeat the following two paragraphs about the Nationals.

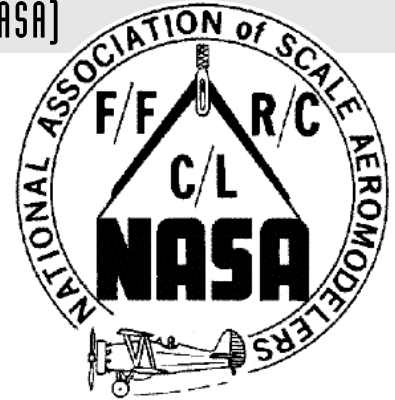
***The dates for the Scale National Championships will be June 27th,28th,29th 2003. This is a change!!!***

Dates are set for 2003 and 2004 with the last weekend in June again being utilized for both years. We hope we can keep these dates for good and not have to be bounced around July the 4th as we have in the past. This should help everyone who works, to plan their vacation and days off for the Nationals.

### ***NATS NOTICE for 2003!***

The Executive Council has approved the plan to construct a 200x400 paved area to the north of the L Pad where C/L Scale will be flown in 2003 and there after as long as everything works well. This is out close to the public two-lane road parallel with the main entrance of the National Flying Site. We will have a larger flying pattern to work with for the future Scale R/C Nationals.

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This should also please our Scale C/L modelers who won't have R/C models flying over-head while they are in competition. This takes care of the "over fly problem" we've seen in the last few years which has escalated with larger models both prop and jets.

There will be several additional events at the Nationals in 2003 they are as listed below:

FAI Scale Team Selection for the 2004 Scale Team going to Poland!

(Unofficial Team Scale for Scale C/L) same rules as R/C scale.

(Scale Free Flight events hosted by NASA and Dave Platt) It's open to everyone, so please try one. Trophies to 3rd place in each event. Rules are being sent out with the Nats packets and they are very simple, they should also be on the NASA website.

(Indoor electric on Friday night at the Horizon Center hosted by NASA and Mike Gretz)

More on this event later with Mike's comments.

**FAI Scale Team Selection** will be held as a class at the 2003 Nationals. It only makes sense with the low turnout of modelers who have been trying out for the team in the past several team selections. This also takes the financial burden off of the FAI Scale Team Selection Committee as they will not have any additional expenses for the team selection. Not having the extra expense of holding a separate event allows the committee to concentrate on building a "war chest" of money for the next team to represent the USA in the Olympics of Scale Competition.

Look for FAI Team members as well as the Team Selection Committee Chairman at the Toledo Show. Buy lots of raffle tickets too!

### **Speaking of the FAI**

The Scale World Championships will be held in Poland in 2004. The Poles are one of the best organized aeroclubs in Europe now and with the upgrades in infrastructure of their hotels and roads etc. many think there will be a great time by all who come to compete.

### **AMA Scale Score Sheets.com**

For some time now, we in the scale community have needed a central repository on the web for blank score sheets for AMA Scale F/F, C/L, and R/C events as well as F4B and F4C events. To my knowledge this doesn't exist and it's very much needed. We need this type of information for C.D.'s to be able to go to and get score

sheets for their upcoming events, they can put their own event logos on them or whatever, makes no difference as long as they are deemed "official" score sheets.

Also modelers, competitors need these blank score sheets as a practice tool to help them with upcoming competitions they plan to attend. Beginners need this type of information especially when they begin investing their time in competition, even for Fun Scale! I can't count the number of times that modelers have asked me if a certain part of a model is static judged or if so how it's static judged. Of course part of that would be to read the rules! But also if they had the ability to download the static or flight score sheets they would have another source of information too.

If you are interested in working as a committee on making this happen please contact Stan Alexander or Dale Arvin by the end of February. It's been a long time coming and we really should have done it sooner. I personally would love to see this on AMA's website or NASA's under the scale competition heading with the blessing of the Scale Contest Board.

Stan Alexander

## **NASA'S OFFICIAL MAGAZINE**



## Scale Scrapbook



*NASA member Manny Sosa's Ercoupe on takeoff at the Nationals.*



*Former NASA President, John Guenther, assisting Dave Platt with starting his Miles M-20 at the Nationals.*



*One of the many Fun Scale entries at the Mint Julep. These event are popular with scale modelers.*



*PT-19 in a late WW2 color scheme by Bill Brucken at the Mint Julep. Powered by an O.S. 1.08 2-stroke.*

## Team Selection Update (From the Sept. Oct. Newsletter)

As we know the 2003 Team Selection Program to send an F4B and an F4C team to Poland in 2004 will be run concurrently with the 2003 NATS. The NATS entry form will list FAI events #510 and #516 as in the past. Those wishing to enter the program may do so at registration, and deadline for entering the program is 10:00 A.M. that morning. You may enter your Designer or Expert class model in FAI for an additional \$25 or \$60 if it is your only event. The entry fee or fees will be the same as for the NATS events.

As in 2001, F4C will be allotted four rounds and the average of the best two will be added to the static. Both F4C and F4B will be judged by the same set of judges. We will try to have 2 judges for outline and 2 judges for color, markings, and craftsmanship as they did in Canada in July. The 12kg (26.4 lbs) rule for F4C and 6kg (13.2lbs) single and 7kg (15.4lbs) multi for F4B are still in effect for 2003.

Stephen Sauger



## New Scale Videos and 2003 Calendar.

Aces Video introducing two new video covering the 2002 World Scale Championship. The first is a full size air show performed by the Canadian Harvard Aircraft Association, Air Combat Canada and the Great War Flying Museum.

The second video is the competition from the opening ceremony, to the closing award banquet. Covering both C/L and R/C flying. You can get them on video tapes or DVD's \$25.00 each +\$4.50 S/H. You can purchase them on our new website at [www.acesvideo.net](http://www.acesvideo.net) or send check or money order to: Aces Video, 22 West "F" Ave., Kalamazoo, MI. 49009

The 2003 Calendar are out. Aces Video has two for this year. One is a R/C calendar with photos from model events from all over the country. The second calendar are of photos of full size airplanes, both Warbirds and Civilian included. Cost is \$10.00 each + \$3.00 S/H You can purchase on our new website at [www.acesvideo.net](http://www.acesvideo.net).

Or send a check or money order to Aces Video, 22 West "F" Ave., Kalamazoo, MI. 49009.

# US SCALEMASTERS CHAMPIONSHIPS 2002

October 10-13, 2002 - Mesa, Arizona

## ***The Site***

Mesa, a community of 400,000, is an eastern suburb of Phoenix. Greater Phoenix is now 4 million persons. An area this size is a fitting host because they have a large pool of local model aircraft manpower to draw upon to organize and run a championships. When 57 contestants of championship caliber show up, as they did for this one, an adequate volunteer count and good management are essential.

## ***The Local Club Volunteers***

The main sponsoring club was the Arizona Model Aviators. Their field with paved runway was used, and is located at the extreme northeast edge of Mesa. The field is within preserved open space at the base of one group of the low mountains that outline the greater Phoenix area. These sharply jagged land features provide a picturesque backdrop for the flying and photographing of model aircraft. Sun Valley Flyers, a local club serving northern Phoenix, also helped out. Bob Morris, chief flight judge, comes from that club. The 1/8th Air Force was another source of volunteers who provided some judges and manned the transmitter impound.

The large number of volunteers were led by Austin Goodwin, contest director, Jim Deming, the advance work vanguard leader, Vic Westlund, the field marshall, and Mike Peck, who also is the Scale Masters West Coast vice chairman.

Two features struck this author about the 2002 event sponsor clubs.

First, club membership has many retired persons with full-scale aviation experience, which is a characteristic of greater Phoenix. That means an enormous amount of first-hand full-scale aviation experience is brought to bear upon the event. When I and my co-flight judge, Roy Pratt, were watching the jet engine startup of Shailesh Patel's T-33A, Roy casually mentioned that the two seat version of the prototype was the first jet he flew during his period of military service. That was in the Korean Conflict era. Other off-hand comments made it evident the Phoenix clubs are loaded with such in-depth knowledge.

Second, management of this event took full advantage of computerization. A 1996 computer software program written by C. Jensen Designs, Inc., called "Contest Director Software V4.2," is updated by the US Scale Masters Association and made available to the sponsoring club to help it manage the event to Association expectations. The software appears ultra-complete, covering everything from aspects of pre-contest matters

including manpower and registration, through scoring and tabulation.

## ***Unique Static Judging Site***

Another aspect of the Mesa event was its extraordinary aviation museum setting for the static judging. In northern Mesa is a larger than average sized general aviation airport, called Falcon Field Municipal Airport. Within the complex of buildings that make up the "aviation business park" portion of this spacious airport, is the Champlin Fighter Aircraft Museum.

At first look, the museum seems unimposing. But the museum stretches out via a long chain of connected narrow structures, and once you are inside you realize what a great collection it has. Static judging was done in the main aisle of the WW-I collection building, with the museum aircraft pushed back to give static judging and spectators adequate room to function.

There must be at least a few wealthy pilots based at Falcon field. One flew his restored P-51 Mustang during static judging, buzzing the runway right outside the hangar, and then parking afterward within a few car lengths of the model aviation activity.

This author has been able to make visits every few years to the National Air & Space Museum on the Mall in Washington, D.C. Presumably it is the greatest in the world. But the Champlin stacks-up very well in what it chooses to display, further claiming that each of its aircraft are restored to flyable condition. The Champlin boasts it was the first museum away from the facilities of the National Air & Space Museum chosen to restore an aircraft for the National Museum. As a modeler, I thought the collection of miniature versions of aircraft engines at the Champlin was nearly as good, and in a few respects better, than what the Academy of Model Aeronautics has on display at Muncie, Indiana.

## ***Museum Setting Planned for 2003***

The 2003 Scale Masters championships will repeat 2002 in having scale static judging in a museum atmosphere. It will be at the Air Force Museum in Dayton, Ohio, September 24-28, 2003 at the Wright-Patterson Air Force Base. Ohio is throwing a year-long party to celebrate 100 years of powered flight, and the US Scale Masters will be one of the many high points of the year. Well known AMA modeler, competitor and new Scale Masters East Coast Vice Chairman Mike Barbee will be contest director for the Ohio 2003 Scale Masters.

## ***Spectator Freedom***

A refreshing feature of the Mesa, Arizona 2002 Scale Masters Championships was the unusual amount of freedom granted to public spectators. At the Champlin Museum, spectators could simultaneously walk the center aisle to view full-scale aircraft, while pausing to observe

static judging taking place in the aisle. As long as they did not block the view between judge and model, or lean over the shoulders of the judges, spectators were given free movement.

At the flying field, spectators were offered three accessibility options. On either side of the roofed pits, free bleacher seating is maintained by the Arizona Model Aviators. Behind the fenced-in pits, but looking right down into them, a paved walkway gives spectators another free look at aircraft and the pilots. Then, copying the system used each year at the EAA Fly-In at Oshkosh, Wisconsin, the Arizona Aviators sold a \$5.00 "Flight Line Pass" which allowed spectators the option of coming through the fence into the pit area. All pilots and mechanics were issued flight line passes as part of their registrations.

### The Noon-Time Photo Shoot Line

Most spectacular of all is the noon-time photo shoot opened up to all interested spectators. All competing aircraft are lined up on the centerline of the runway, facing the pits. The public is then allowed-in through a gate and given 1/4 to 1/2 hour of free access to the runway, where they can take pictures of the planes and talk to pilots. Virtually all the spectators took advantage of this opportunity. Any local contest could encourage better public relations by advertising and offering this photo-shoot, pilot interview lineup.

Another noon-time feature, which few other local clubs could match, was the full-scale fly-overs. Actually, some were rescheduled to the opening of the contest at 8AM, and that gave the day a good start. One day it was Nanching CH-6's in formation, and another it was 5/6ths WW-I replicas, again in formation, with many passes at low altitude for good viewing.

### Origin of Contestants

The 2001 Scale Masters Championship was held in Oregon, and the 2002 was scheduled for the eastern United States. But neither Eastern nor Midwestern clubs were able to submit a host-proposal, so an Arizona proposal was accepted. But the Scale Masters system of regional qualifiers still produces national and international dispersion of contestants, as shown by this tabulation.

#### Geographic Origin of 2002 ScaleMasters Contestants

6	Southwest (Arizona)
30	California & Northwest
11	Midwest or Northeast
7	South or Southeast
3	Foreign (Argentina, Brazil, Canada)
57	(45 Expert Class, 12 Team Scale)

### Weather, Flying and Results

Arizona in September, the usual Scale Masters month, can be a tad warm. In October, when the 2002 event took

place, morning temperatures were ideal, in the 70's. The first two flying days, Friday and Saturday, also offered low winds, giving pilots perfect conditions to score well, which they did. By mid-afternoon the temperature read 95 degrees, but that famous desert low humidity made the 95 degrees quite tolerable in the shade.

Sunday morning saw higher winds, perhaps up to 20 mph slightly quartering, which caused many pilots to pass up the 5th and final round. Many pilots had achieved their three mandatory flights in the first four rounds (two each on Friday and Saturday), that they regarded the 5th round as unnecessary.

Everything about a US Scale Masters Championships, from obtaining good sponsors, to emphasis on good organization and advance work, and heavy use of computerization of every aspect, leads to each event being as successful as the last.

Editor's Note: For results, see the Nov./Dec. 2002 Replica. Top Static Scorers shown on page 6.

**Russell Knetzger,**

*Milwaukee, Wisconsin (static and flight judge)*



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**2002 Scalemasters Top Static Scorers, 90 or above (25)**

98.00	Kent Walters, Scottsdale Arizona, SBD Douglas Dauntless
98.00	Ramon Torres, Sr. & Jr., Miramar FL, Beechcraft Baron (Team Scale)
97.00	Ramon Torres, Miramar, FL, Beechcraft T34C-1
96.00	Eugene Job, Santa Rosa CA, Hawker Sea Fury MKII
96.00	Kenneth Kear, Mesa AZ Lloyd Liberty Sport A
95.00	Gus Stutsman, Cloverdale, CA Eindecker E111
95.00	Joe Topper, Sandy Orgeon, Junkers JU52
95.00	John Cole, Peoria, Arizona, Hansa Brandenburg C-1
94.50	Eduardo Esteves/Ronaldo Salles, Belo Horizonte, Spacewalker
94.00	Gustavo Campana, Buenos Aires, Argentina, ALCA L-159 (jet)
94.00	Mel Santmyers, Beaumont, Calif., Stinson SR9
93.50	Ernest Harwood, Arlington, Texas, Aviatik C-193.00
93.00	Jay Steward/Jack Steward, Phoenix, Arizona, Nieuport 28C-1 (Team)
93.00	Shailesh Patel, Eureka, Calif., JMP T-33A (jet)
93.00	Gary Parker/Len Ledson, Wilsonville, Oregon, Nieuport 17 (Team)
93.00	Gary Parker, Wilsonville, Calif., Fokker, DVII
93.00	Al Kretz, Woodville, Alabama, Dornier Do23G
92.00	Jeremy Fursman, Snoqualmie, Wash., DeHavilland Tiger Moth
91.50	Martin Hendricksen, Champaign, IL, Beechcraft T-34A Mentor
91.50	Bob Patton, St. Josph, Illinois, Piper Tomahawk
91.50	Bill Brucken, Bellbrook, Ohio, Fokker DR-1
91.00	Bob Frey, Phoenix, Arizona, Curtiss P-40
90.50	Daryl Rolla, RWC, Calif., Hawker Sea Fury FB11
90.00	Brian O'Meara/James Hammond, Jr., Denver, CO Kawasaki KI61 (Team)



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# Painting Fiberglass Fuselages

I have read many construction articles in the last two years in which the builder states, "The fuselage was left unpainted to keep the plane as light as possible". While it is true that not using paint causes some planes to weigh less than others, not all paints weigh the same. I have painted two planes with fiberglass fuselages and have added only .75 oz to each of them! On one of them this translates to a .11 oz/sq foot increase in wing loading.

Prior to my return to model airplanes, I was designing, building and painting custom bicycle frames. I use exclusively the PPG base coat/clear-coat system sprayed over an epoxy primer. The base coat is thinned with a reactive reducer and does not have a gloss by itself. It is very thin and dries to a semi-flat finish. The shine is provided by an acrylic urethane clear coat.

The advantages of this system on a bicycle frame are that the finished coat is very thin, and, therefore more resistant to chipping from rocks and does not cover intricate details, etc.. Since the shine is not in the paint, you do not have to put on heavy, wet coats and make it flow to have a clean finish. When building the first plane, I had the necessary ingredients laying around, so it seemed natural to give it a try. The steps I used are as follows:

1. Thoroughly clean the fuse using a wax and grease remover (or acetone) and wash with hot, soapy water to remove any mold release. If the fuse is not cleaned you will have problems with fish-eyes later.

2. Wet sand with 220 grit paper to get rid of the gloss.

3. Spray on a heavy coat of lacquer primer. I use a cheap spray can primer, such as Krylon for this. Fill any pin holes with a lacquer base automotive glazing compound. Put it on and use a scraper to force it into the holes. Light weight spackling and other pin hole fillers can be pulled off with masking tape, ruining your nice finish. Solvents can dissolve spackling compound causing pin holes to appear in your color coats that did not show when primed. Also, do not use cheap masking tape. Some adhesives are very aggressive and the tapes dry out, causing them to tear on removal. I use 3M Brand Painters Masking Tape, exclusively.

4. After the glazing compound dries (you can tell if it's dry by dragging your fingernail across it; if it leaves a white mark, it's dry), sand all the primer and glazing compound off and do it again! Repeat until the fuse is free of pin holes and other voids. Take your time here and do it right. Due to the thinness of the base coat/clear coat system, it will not hide flaws.

5. When satisfied with how the fuse looks in primer, wet sand it with 360 grit removing as much primer as possible.

Take care not to remove too much material in areas where "body work" was required. Just clean off the primer (weight) where you can.

6. Spray the fuse with an acrylic primer sealer. Using just enough to hide the glass and touch up spots completely. Note that acrylic sealer can be bought in both red and gray colors. Pick the color that will be most easily covered by your base coat color, so less base coat will be used. Certain colors do not cover as well as others. White, especially should be used over a gray primer.

7. Apply the base coat after the sealer dries for one hour. Do not try to make the base coat shine. Only apply enough to hide the sealer. If other colors are used with a masked line separating the two, wait at least one hour before applying masking tape. Again, do not use cheap masking tape. Different colors that are faded together can be applied without waiting.

8. Inspect your color coats before applying the clear coat. Small imperfections can be easily fixed by wet sanding with 600 grit and touching up the affected areas. Let the base coat dry at least 20 minutes before sanding or applying the clear coat.

9. The acrylic urethane clear coat is catalyst hardened and tough as nails. Apply two wet coats about 10 minutes apart. Go easy towards the tail of the fuse, but get good coverage. The clear will kick off and be dust-free in ten to fifteen minutes.

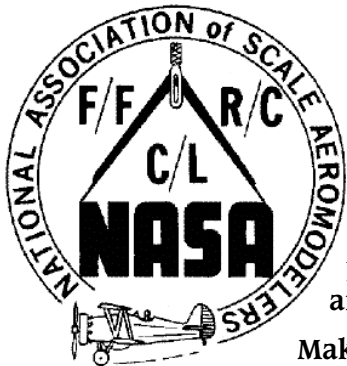
10. Allow to dry for at least 24 hours and wet sand with 600. Masked lines can be sanded smooth so they cannot be felt. If you accidentally sand through to the primer, you can touch up that area with base coat. Shoot another (last) coat of clear. Allow to dry for 12 hours before handling and you are done.

The base coat/clear coat system is easy to use and provides an excellent finish.

Repairs can easily be made by wet sanding the area down to the glass. Wet sand the entire fuse with 600 grit. Touch up the trouble spots with sealer and base coat, then re-clear the entire fuselage. I have used the base coat/clear-coat system on wood fuselages covered with .75 oz cloth with the same excellent results. I have also applied the urethane clear coat as a final coat on sheeted foam core wings covered with .5 oz cloth and EZlam epoxy. The results of this are both outstanding and light-weight. A friend summed it up best saying, "It looks like a freshly polished bowling alley!"

PLEASE: Note that certain safety precautions must be taken. Use of a good quality charcoal respirator and a well ventilated room are mandatory. Have Fun!

David Godfrey



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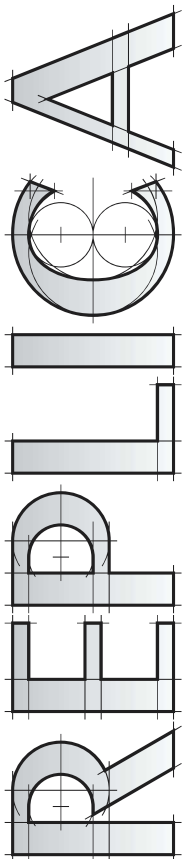
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