



# ***RC Scale Competition***

***“The next level of fun”***



# The Goal

*It's really pretty simple.*

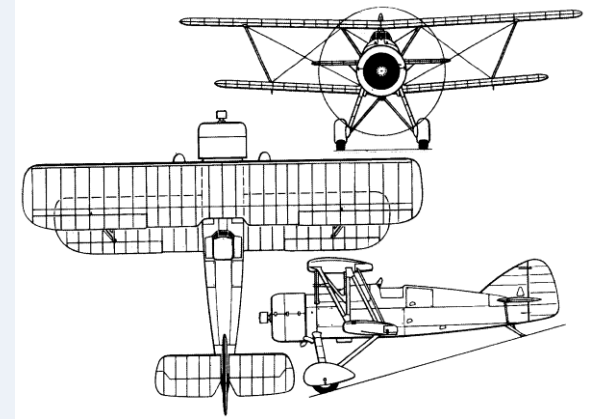
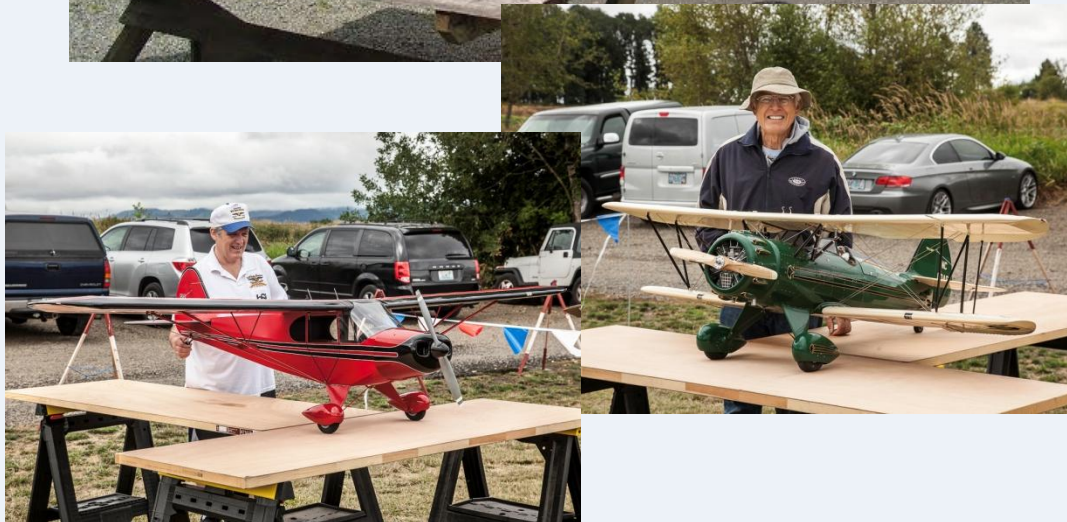
*The goal of RC scale competition is to create a miniature replica of a full scale aircraft and fly it in a realistic fashion to create the illusion you are viewing a real aircraft both on the ground and in the air.....*



*.....sounds like fun!*

# The (very basic) Details.....

*There are a number of organizations around the US and Canada that promote and establish rules & guidelines for RC scale competition. All of them follow these (very basic) details:*



- 1. The contestant creates a documentation packet that includes specific details about the full scale aircraft being replicated.**
- 2. The model is judged for how well it matches the documentation.....the outline, colors, and markings of the real aircraft, and the craftsmanship of the finished model. This is called "Static Judging".**

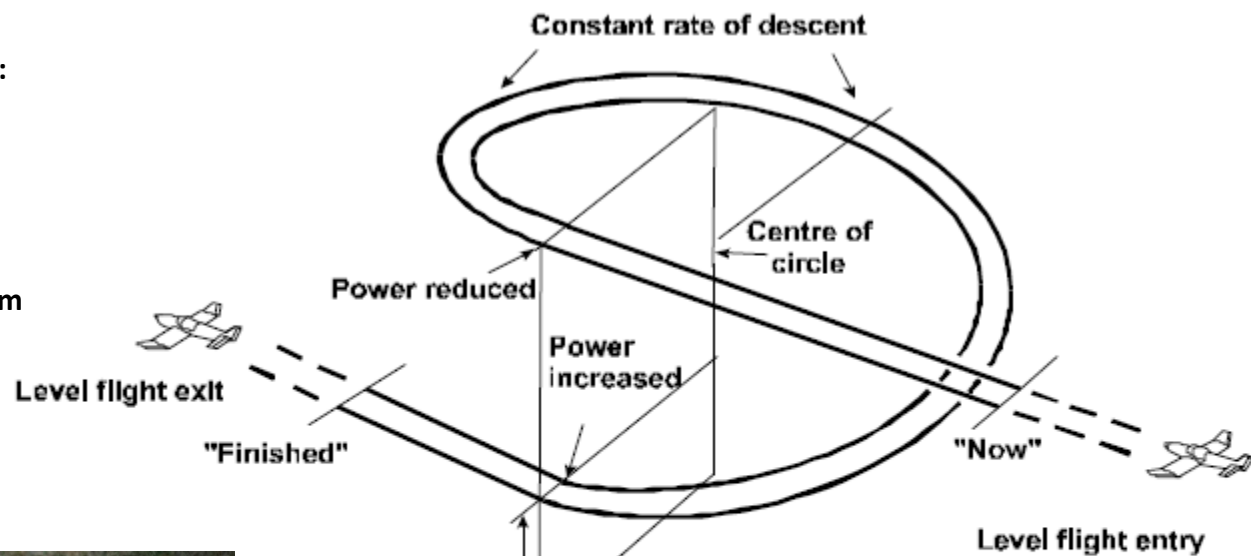
# .....Details.....



3. *The model is then flown and judged through a sequence of 10 scale maneuvers (5 mandatory maneuvers and 5 optional) that constitute a flight. Most contests have 3 to 5 flight rounds. This is “Flight Judging”.*

## Mandatory Maneuvers:

- a) Take Off
- b) Fly Past
- c) Figure 8
- d) Landing
- e) Overall Scale Realism



## Optional Maneuvers:

- a) Loops
- b) Rolls
- c) Chandelle
- d) Descending 360
- e) Lazy 8
- f) Cuban 8
- g) Touch & Go
- h) Procedure Turn
- i) Wingover
- j) Stall Turn
- k) Stall
- l) Traffic Pattern
- m) Missed Approach
- n) And more.....



# .....And More Details

4. *A contestant's score is the total of their "static" score plus the average of their "flight" scores.*



# Scale Organizations

*These organizations promote and establish rules & guidelines for RC scale competition. AMA is the baseline. Most of the other organizations add levels of difficulty and their competition rules are more demanding than AMA. Details for all organizations and their competition guidelines can be found online.*

1. **AMA** <http://www.modelaircraft.org/>



a) *Sponsors the annual AMA "Nats"...includes RC Scale. Anyone can attend.*

2. **MAAC** [www.maac.ca](http://www.maac.ca)



a) *The Canadian AMA*

3. **National Association of Scale Aero Modelers (NASA)**  
<http://www.nasascale.org/>



a) *This is the RC Scale special interest group (SIG) of the AMA.*

b) *2014 is the first year for the NASA National Scale Championships. An invitational event.*

4. **Top Gun** <http://www.franktiano.com/TopGunFrameset.htm>

a) *Many consider this to be THE ELITE scale competition.*

b) *An invitational event.*



# More Scale Organizations



4. ***US Scale Masters Association (USSMA)*** <http://www.uscalemasters.org/>
- a) ***Developed the RC Scale “Masters” program (similar to the professional golf “Masters” program) where competitors must “qualify” to attend a national championship event by participating in regional contests (“Scale Masters Qualifiers”) and earning a minimum proficiency score.***
- b) ***This is the only RC Scale program to offer participation in a national championship by “qualification” rather than by “invitation”.***



# And....Your NW Regional Scale Organization



## 5. **North West Scale Aero Modelers (NWSAM)**

**<http://www.nwsam.org/index.html>**

- a) *Founded in 2011....still a young and developing organization.***
- b) *The NWSAM mission is to provide support, resources, and information for RC scale aero modelers, judges, and event organizers for their success at any local, national, or world scale aero modeling event.***
- c) *The NWSAM Region is.....Oregon, Washington, Idaho, Montana, Alaska, British Columbia, and Alberta.***
- d) *NWSAM is aligned with AMA, MAAC, NASA, Top Gun, and USSMA.***
- e) *NWSAM promotes and provides support for USSMA Qualifier Events throughout the NW.***
- f) *NWSAM sponsors an annual NW Scale Championships.....a regional RC Scale championship open to all modelers from anywhere in the US and Canada.***
- g) *Top finishers in the NW Scale Championships also earn an invitation to the NASA and Top Gun invitational events!!!!!!***

# Myth Busters

*There are those among us that believe.....*

**1. You must be a master builder and spend thousands of \$\$\$\$ on a model to enter a scale competition.....*FALSE*.....**



**a) Today's competitions have multiple levels or classes of competition. The entry level classes and even some higher level classes allow pilots to fly ARF's and other models that someone else built.**



Great Planes P-6E Hawk ARF in competition!



A kit build sport scale Sopwith Pup is just fine.

# .....More Myth Busters.....

2. ***You must have a model that's an EXACT replica of a full scale aircraft, right down to the rivets, panel lines, colors, and markings .....FALSE.....***
- a) ***Documentation requirements and Static Judging for entry level classes is quite simple. The contestant only has to prove that the aircraft "TYPE" exists or existed. For example.....you have an AM6 Zero ARF in white.....the only requirement is that you have a picture of any AM6 with any marking and paint scheme to prove that the AM6 existed as a full scale aircraft. That's it. Done. Nothing more required. No judging of aircraft outline, colors & markings, or craftsmanship.***

Pro-Am competition classes only require a picture of the aircraft TYPE



Show this picture of  
a real AM6



Fly this model of  
an AM6

# .....And More Myth Busters



3. *You don't stand a chance of doing well or "qualifying" to participate in a major regional or national scale event .....FALSE.....*
- a) *As stated earlier, there are multiple competition classes. You are competing against others with your general skill level.*
  - b) *In the past, you were required to finish in the top 1/3 of your competition class to "qualify" for the Scale Masters National Championships. That has changed. Today you qualify by earning a minimum score that demonstrates basic proficiency in RC scale modeling & flight.*
  - c) *NWSAM sponsors an annual NW Scale Championships open to anyone in the US or Canada. You do not need to "qualify" for this event. If you have participated in any scale competition during the year you bring that score with you and it serves as an "eligibility" score that is added to your results at the NW Championships.....giving you a better chance of winning than if you had not participated in another event.....the purpose is to get more modelers involved in more events.*
  - d) *Scale events promote fun and good sportsmanship. Just come out and have a good time.*
  - e) *Compete against yourself. Attend a couple of events and try to beat your last score.*

# What Can I Fly at a Scale Competition?

*Any RC scale model of a powered, fixed wing, human piloted full scale aircraft is eligible. Glo, gas, electric, and turbine powered models are normally ok. There are some practical constraints and limitations:*

- 1. The model must meet AMA/MAAC safety standards, and any special conditions imposed by the contest site or the host club. For instance, some club sites cannot accommodate turbines. Check with the event CD.*
- 2. The model should have a fuel or battery capacity of 8 to 10 minutes minimum in order to be able to safely fly a 10 maneuver flight sequence.*
- 3. The model should be large enough (perhaps 40 size glo minimum) to be visible to the judges during flight and capable of flying the mandatory maneuvers as described in the competition guide(s).*
- 4. "Profile" models are not appropriate since they are not realistic and don't give an illusion that you are viewing a real aircraft.*



# **Basic Event Logistics**



***What's needed for an RC scale competition event?***

- 1. *A host club willing to have their field dedicated to the event.***
  - a) Depending on the goals for the event and number of participants, an event can be as little as one day or as many as 4 days for a major event. The typical scale event is 2 to 3 days. A scale fly-in (fun fly) can be scheduled concurrently with a scale competition with the right logistics in place.***
- 2. *Contest director***
  - a) Preferably an AMA/MAAC certified CD***
- 3. *Judges***
  - a) Judges need to be certified (proof of training) through NWSAM/USSMA.***
  - b) 3 static judges are required and at least 6 flight judges are recommended (the static judges can also be flight judges).***
  - c) Judges can also participate in the competition so long as they do not judge anyone in their entry class.***
- 4. *Scorekeeper***
  - a) NWSAM can provide an Excel based scoring program.***



# Basic Event Logistics (continued)



## 5. *Support staff*

a) *Folks to help with registration, preparation of event forms, etc.*

## 6. *Food service*

## 7. *Awards and pilot prizes*

a) *These can be minimal, but it's nice to recognize everyone's efforts.*

## 8. *Participants.....it's difficult to have an event without 'em* 😊



# How can I get started?



1. Consider having a **“Scale Starter”** to generate local interest
  - a) Ask NWSAM to help set one up.
  - b) The Scale Starter introduces prospective host club members and event participants to the basics of RC scale competition. Documentation requirements, static judging, and flight judging essentials are covered, as well as instruction in the “10 maneuver” flight sequence. Pilots can fly maneuvers and get instruction, feedback, and advice from judges.
  - c) This is a one day event and can be combined with a scale fun fly to help get possible scale contestants on site.
  
2. Go for the Gold.....plan for a **“Qualifier”**
  - a) New scale competition events take effort and support from the local modeling community to get up and running.
  - b) The most difficult logistical item to put in place is having an adequate number of certified judges. Judges from other areas are often willing to travel to an event, but it’s best if the majority of the judges are local modelers. Prospective judges need to study the competition guide and pass a test to become “certified”. NWSAM can help put training materials together and administer the certification test.
  - c) It does take time. Be realistic and plan as far ahead as possible. 6 months to a year of advanced planning and training is realistic if contest infrastructure is starting from scratch.

***It must be fun. Look at the evidence !***

