



OF THE INTERNATIONAL AEROBATIC CLUB

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HAPPY NEW YEAR

1994 is off to a good start for the One Design project, many of the events planned for the project are now starting to come together.

PLANS

Builder's license agreements and construction drawings will be on sale from Aircraft Spruce and Specialty starting February 1. The plans will actually be referred to as "Package 1". This package will include basic structure and control surfaces, and will consist of 19 full-size sheets of drawings. At this time we are planning on 47 sheets, but we feel that most people would prefer to get started on the structure right away. The balance of the drawings will be sent to the builders in packages as they are completed. Cost of the drawings will be \$330. **Contact Aircraft Spruce and Specialty, 225 Airport Cir. Corona, CA 92880-2527 1-877-4-SPRUCE.**

KITS

Aircraft Spruce will also be taking orders for various pre-fabricated components. They will be offering cowls, canopies, engine mount, fuselage truss, tail surfaces, landing gear, wing tips and control systems. Complete material kits will also be available. Call for prices and more information.

THE SPRUCE FLYER

Aircraft Spruce recently started their own Newsletter. If you didn't get one, call to be put on their mailing list. One of their recent feature articles was on the One Design and Aircraft Spruce's involvement on the project.

MORE PRESS

By the time you read this there will be two pilot reports; January SPORT AEROBATICS and February SPORT AVIATION. If you are not an EAA or IAC member you can order these magazines from the EAA at 1-888-322-4636. The May issue of KITPLANES will feature a pilot report and several interviews from competition aerobatic pilots. This will be out in early April. R/C MODELER will soon feature the One Design and two scale models on the cover. They will also have an article about the One Design and about the International Miniature Aerobatic Club (IMAC) One Design. Pierre Hollander from Sweden recently flew the One Design and wrote me saying that he has written a pilot report that will be featured in three different magazines in Sweden.

Plans are underway for Peter Lert from AIR PROGRESS to fly and write a pilot report in the near future.

Mike Anderson also wrote a follow-up article after flying the prototype with several small changes and improvements. This addendum should appear in a future SPORT AEROBATICS.

BUILDER FORUM

On May 7 AIRCRAFT SPRUCE in conjunction with KITPLANES will be sponsoring a builder's forum at Fullerton Airport, Fullerton, CA. For more information and reservations call Aircraft Spruce at 1-877-4-SPRUCE extension 322 and ask for Dennis or Jerry Aguilar. This should be a lot of fun as well as educational.

SUN 'N FUN

We are planning on displaying the prototype at the Sun 'n Fun Fly-In in Lakeland, FL April 10-16. We are also hoping to fly in the Airshow. This would be an excellent chance for those of you on the East coast to see the One Design up close and in action.

MORE TEST FLIGHTS

As of this writing we now have flown 200 hours on the prototype by over 125 different pilots. It has been thoroughly tested and evaluated. It has been loaded up to +10g and -6g, all possible forms of spins and gyroscopic maneuvers have been performed by several pilots.

Recently several small changes were made to improve the handling and control harmony. Pilots who flew before and after the changes remarked that these changes were very significant. One pilot remarked that he felt that the airplane was 95% there before the changes but that the changes made it 100% better. I feel that these "tweaks" have now put the airplane into the class of a true pilot's airplane. It has the feel of a good Pitts S1S, very balanced in all axes. It is very docile yet very responsive.

We were also able to test a few different pitch propellers. Sensenich was kind enough to send us a 62 and 64 inch prop to try out and compare to the 60 inch prop we were currently using. All props are 74 inches in diameter. Major performance comparisons for the 60/62/64 inch pitch props were; Climb rate at 90 knots 2,000/1,800/1,600 feet per minute, acceleration from 80 knots to 150 knots 72/48/46 seconds, top indicated airspeed at 4,500 feet msl 152/155/158 knots, RPM at top speed 3,100+/2,950/2,900. Vertical penetration seemed to be the same for all props from a 145 knot, 6g pull to vertical and Hammerhead, about 1,200 to 1,400 feet. We have decided to use the 62 inch pitch prop for now.

DESIGN FREEZE

Several people have asked if we have frozen the design and what changes if any are we planning. The main landing gear mount on the fuselage has been modified and beefed up. A larger bubble canopy for taller pilots is in the works. A mold for this is being made and larger canopies will be available from Aircraft Spruce. A cowl mold is also being built so that the cowl can be duplicated and sold through Aircraft Spruce. Several pilots have commented that they would like a bigger rudder, we will be increasing the rudder area 13%. After 200 hours of hard aerobatics that is all the major changes we would want to incorporate.

RULES

The IAC recently met to establish the One Design class rules and aircraft specifications. These will be published soon and your comments should be directed to the IAC if you feel that any additions or changes should be made.

ENGINE SIZE

This will probably be one of the most controversial topics for a while. My personal thoughts are that I wanted to keep this aircraft more affordable, therefore I have always wanted to keep the engine as small as possible. We have proven the performance with the 320 cu inch displacement Lycoming. However people will always want more power. There is little weight difference between the IO-320 and the IO-360 (180 HP) so this would be the most logical choice for the people who want more power. Allowing all 4 cylinder, parallel valve Lycoming engines would certainly ease any tech inspection problems when it comes to evaluating whether or not the airplane is a "legal" One Design. Several people have written or asked me what the rules will spell out, my suggestion is to wait a while for these issues to be more fully discussed. If you have any thoughts on this subject please write to the IAC.

DESIGNERS PLEA

Lately I have been receiving several phone calls each night. I know many of you want to keep up on what is happening but please respect my personal time at home with my family. Doug Dodge is considering setting up a builders Hot Line for homebuilders. Until then, please write, FAX or call the IAC. Thank you.

Dan Rihn
Long Beach, CA