

THE CONNECTOR

The Official Newsletter of the Aeroguidance Society, Inc.

Endicott, New York



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VOLUME 20

ISSUE I

January 8, 1986

AGS CALENDAR OF EVENTS

DATE	TIME	PLACE	EVENT
01/11/87	12:00 PM	IBM OWEGO	GLIDER FLY
01/13/87	7:00 PM	NYSEG BUILDING	NOLL'S GROUND SCHOOL
01/13/87	7:30 PM	NYSEG BUILDING	AGS REGULAR MEETING
01/13/87	9:30 PM	PIZZA HUT	SOCIAL HOUR
01/17/87	7:00 AM	OAKDALE MALL	AGS MALL SHOW-ALL DAY
01/18/87	10:00 AM	OAKDALE MALL	AGS MALL SHOW-ALL DAY
01/19/87	7:30 PM	McTAGUE RESIDENCE	AGS BOARD MEETING
01/20/87	7:30 PM	NOLL'S RESIDENCE	HANGER SESSION (RSVP)
02/01/87	12:00 PM	IBM OWEGO	GLIDER FLYING
02/08/87	12:00 PM	MOORE PARK	SNOW FLY
02/10/87	7:00 PM	NYSEG BUILDING	NOLL'S GROUND SCHOOL
02/10/87	7:30 PM	NYSEG BUILDING	AGS REGULAR MEETING
02/10/87	9:30 PM	PIZZA HUT	SOCIAL HOUR
02/16/87	7:30 PM	PUNKARS RESIDENCE	AGS BOARD MEETING
02/17/87	7:00 PM	TO BE ANNOUNCE	HANGER SESSION (RSVP)
02/21/87	10:00 AM	YONKERS RACEWAY	WARM'S SHOW

January Trivia

There were five (5) correct entries for the December Trivia questions. The final drawn winner is Jerry Skreckowski and he wins a roll of Monokote.

For January's Trivia game, the prize is 8 ounces of Hobby-Poxy 2. Just answer the following questions.

1. What is our AMA Club Number?
2. How many projects were shown at the December meeting?

STATUS OF BOND PLEGES

Final calculations have been made for Bond needs. We will borrow \$6,000 from eighteen (18) club members. We have requested less than pledged from several people as we had \$7,700 pledged. Please bring your pledged amount to the February meeting.

Prez Sez
by
Jim McKeown

Christmas has come and gone and a Great New Year has already started. The December meeting in which we voted to buy the 24 acre tract of land north of our existing field went off extremely well thanks to the support of the committee members working on and negotiating this transaction.

Our annual Christmas dinner at the Treadway was excellent with the attendance of many members and friends. At this dinner, several of the newer club members received their wings for having soloed during the summer of 1986. Our congratulations to these well deserving Pilots and a vote of thanks to Dick Fish who has been so dilligent in training each of them.

Now is a season which is generally thought of as the time for building and completing those things around the house which have been neglected during the summer however, this year we are planning an array club activities in addition to these usual items. In the months ahead there will be a whole new set of challenges not met in recent years. The Purchase of the new land will, during an interim period, place some stress on the club finances. The budget will be presented at the January meeting and at that time, we will be able to more fully understand the potential problems attendant to this budget.

On the brighter side, there are several activities to look forward to for the winter. Reference to the schedule appearing on the front page lists some of the more important up-coming events, the next being the Mall Show. All members who can are urged to participate in this activity by supplying models and tending to the display during the weekend.

I would like to take this opportunity to wish each and every member a Happy New Year filled with many flying successes during the coming year.

DON LOWE WINS AMA PRESIDENCY

It was a very tight race indeed, with Don Lowe edging out incumbent AMA President John Grigg with just 64 votes, 5499 for Lowe and 5435 for Grigg. Write-in candidate John Worth was not far behind, with 4934 or just 501 votes less than Grigg.

NATIONAL GEOGRAPHIC TV SHOW ON 1986 NATS

The filming done by National Geographic crews at the 1986 Lake Charles AMA Nationals apparently has been assembled into a TV show for viewing in just a few weeks by local PBS stations. Watch for it on WSKG.

R/C PTERODACTYL

WSKG will be featuring Paul MacCready's battery powered model of an 18 ft. Pterodactyl on Sunday Jan. 18 at 10:30 AM on the program "Newton's Apple".

Safety Corner

By Tony Cammarata.....Editor

Happy New Year and a prosperous and healthful one too, to you all! I know we are all settling in to our jobs for 1987 again. I urge you to think safety and work safely.

THE NEED FOR SAFETY

Having just received my membership from the AMA, I studiously read the literature enclosed with my "ticket". In the literature, the AMA calls for a heightening of awareness for model operations (flying) so as to ELIMINATE any dangerous situations between models and full-scale aircraft. They further cite that any such "incidents" can be expected to result in Federal Aviation Administration regulation of model flying. THE FUTURE WELL-BEING OF MODEL FLYING ACTIVITIES IS AT STAKE. To date, AMA efforts have helped avoid such regulation, in favor of FAA "advice," but the matter now depends upon what the current and future record will show. The message of all this is: TO AVOID REGULATION, AVOID FULL-SCALE AIRCRAFT. (Note that the above is the essence of the AMA message.)

On occasion, when at the field, I have observed full-scale aircraft flying close to the field perimeter. This is another very good reason not to fly alone. (The other is safety.) The AMA Safety Code is published in the rule bookif you fly you are obligated to read it, and observe it. It is not necessary to distinguish the difference between competition and fun flying when it comes to safety. It is not what is flown, BUT WHERE AND HOW THAT COUNTS.

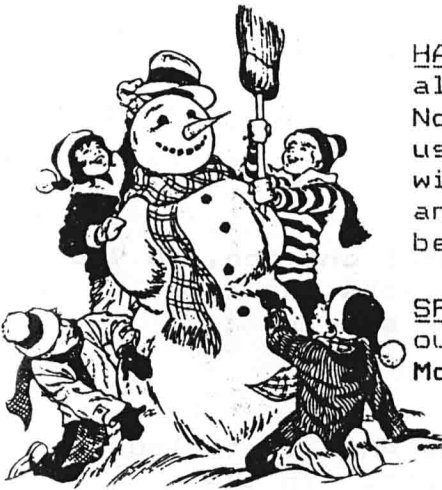
Quarter Scale Motor Safety

Santa delivered! Wow! I'm told he (or is it she?) doesn't deliver Ferrari's (too large to fit down chimney...I'm told...), but there, under the tree.. behold the Zenoah... Quartz that is..what a beautiful hunk of parts. I just love engines. Thank you Ellie (Santa).

Now to the point. In the carton is a safety message (gotcha). No less than nine safety precautions regarding the care and use of the engine. The most startling is the WARNING, and I quote. "When engine is not in use, take great care in casually flipping the prop as you might do in checking compression or for adequate lubrication in engine. These ignition engines will fire and start with just one weak flip. Broken arms have already resulted from just such an unexpected experience." Broken arms! OUCH!!

Safety is NO ACCIDENT; make it not happen.

THE ACTION AREA - by BOB NOLL



HAPPY NEW YEAR - We'll it's 1987 already and I hope all of you had an enjoyable holiday season. The Noll's had a great time what with some vacation to use up and Crystal home from college. Our New Year's wishes came true on Jan. 2 when the white stuff came and we did several days of cross country skiing before having to return to work on Jan. 5.

SPEAKING OF SNOW - It's time to start preparing for our annual SKI FLY! As usual it will be held at Moore Park in Vestal and this year's date will be

SUNDAY FEB. 8
12 NOON

Moore Park is located between Old Vestal Road and the river about 100 yards East of Take-A-Break Resteraunt. We'll have a pot of something to warm the cockle's of your heart. Just bring your trusty plane equipped with skies. I guarantee excellent snow conditions with a mild wind, but just in case you are wondering, no snow, no SKI FLY.

SPEAKING OF SKIES - Just in case you haven't joined us before and need a set of skies, here is some useful information. It isn't very hard to build you own skies from plywood but the most difficult part is getting the proper curve at the front. The best way I know of doing this is to laminate 3 pieces of 1/32" plywood using slow drying epoxy and clamping the laminate between two pieces of wood that have been cut with the proper radius. A simple way to make this mold is to take a 2x4 and put it through a band saw the hard way (making the cut the long way). Of course making the skies from aluminum sheet is also a nifty way since the leading edge radius can be formed by bending.

I have been using a set of skies that I built back in the 60's. They are made of fiberglass with plywood for the mounting system. I developed a slightly different technique for providing the flexible action that is desirable when using skies on a tail drager as I do. What is needed is a method for allowing the plane to rotate on takeoff and yet have a zero degree angle of attack of the skies while flying.

Terry Terroniere has the latest in high tech skies. They are called Torq'Ski and kited by Daca Model Products. They are aluminum and have a neat way of providing the necessary flexible action.

I stopped at GJ's today to check out the ski kits available at our local hobby emporium and guess what, NO SKIES at GJ's. George said that he has not stocked any ski kits due to what he considers too high a price. He mentioned a \$25 figure.

So I guess you will have to plan on building your own, so here are some dimensions that might help you. My skies are 3" x 15" with the main gear mount about 6" behind the leading edge of the ski. The Torq'Ski comes in two sizes. The smaller set is designed for a .19 to .40 size plane with a maximum weight of 6 lb. The larger size is made for .40 to .60 sized planes with a maximum weight of 10 lb. The

dimensions of the smaller set are 2 1/4" x 13" for the main skies and 2 1/4" x 8" for the nose ski. The larger set has 3" x 16" mains and 3" x 8" for the nose. Terry bought his Torq'Skies at the Syracuse Symposium last year and there is a chance that you could pick up a set there this year from Lon's R/C or Walt's Hobby Shop.

SPEAKING OF SYRACUSE - This years' midwinter gathering hosted by the CNYMAA, better known as the Central New York Model Airplane Association, will be held on **Saturday January 31** at the **State Fair Grounds**. The place is the same as previous years but the group has gone from their two day format to one day this year. This is a good time to crawl out of the workshop and talk to modelers from other clubs about their latest and greatest projects. There is a static competition for several different categories so you may want to take your finest masterpiece and try for one of the trophies.

DIHEDRAL MAKES A DIFFERENCE - Here's a little technical information on the effect of wing dihedral on the performance of a low wing plane, in this case the plane is an XLT built by Terry Terroniere. Terry did his usual beautiful job on this one and asked me to perform the test hop because his nerves wouldn't take it. So one cold and windy day in October (typical test flying weather!!) we took to the air and put it through some basic maneuvers.

The first stall turn went well but I was unable to do any more without a reverse roll occurring when full rudder was given at the top of the vertical climb. I suspected that there was something wrong with the dihedral since rudder deflection should give only a yaw without any tendency to roll in either direction. In this case the plane started to yaw at the top of the stall turn and then began to roll in the direction opposite to the rudder deflection. At this point I told Terry that there must be a problem with the amount of dihedral in the wing. To confirm my suspicion, I attempted several 4 point rolls and sure enough the plane started to reverse roll when the top rudder was put in to hold the first point. After considerable contemplation and agonizing by Terry, we concluded that the plane was built with too little dihedral. But how this happened and just how much more dihedral would be needed to cure the problem were the big questions.

After Terry got home and was able to double check the plans and the instruction sheet, he called me with the cause of the problem. Seems like the XLT plans and instruction sheet don't agree. The instruction sheet, which Terry used for dihedral information, said that the wings should be joined inverted on a flat surface. Seems logical for a Joe Bridi design since his famous KOAS design is assembled this way. However, upon checking the plans it was noted that the wings should have been joined with a total of 3/4" dihedral. So, after a few more nights of agonizing over cutting into that pretty wing, Terry got up the courage and made the necessary incision and performed the surgery.

Several weeks ago I made the second test flight of the XLT and the results were gratifying. No more roll tendency at the top of a stall turn, and I must have done ten or more in both directions and at various throttle settings and airspeeds. Four point rolls were fine also although there was still some reverse roll during the first and third points when excessive rudder was given. However, when the proper amount of rudder was given there was no roll at the points. Terry is

planning to put another 1/8" of dihedral into his next XLT which I am sure will cure even this minor problem.

So, you can see that the amount of dihedral in a wing is critical if you expect to obtain the maximum performance from your bird, especially for those of you who are working to achieve a high performance aerobatic plane.

HINT OF THE MONTH - Did you ever build a plane where there was some gap between the wing and the fuselage? Of course, we all have. So what to do? Fill the gap with **silicone RTV rubber** better known as bathtub seal. I just did this on my new AeroMaster biplane by stretching some plastic wrap from "Lanny's Kitchen Supply" over the wing. Then apply the RTV from the tube to the wing saddle and put the wing in place. Be sure to squeeze out as much of the rubber as possible by attaching the wing with rubber bands or the nylon mounting bolts. If you leave too much rubber between the wing and fuselage you may effect the wing incidence which is a no-no.

NEXT HANGER SESSION

The first 1987 session will be held in my hanger. There is plenty of hanger space so bring along your planes, especially if you have a neat trick that solved a problem for you. Seeing is worth a thousand words. Here are details of meeting:

Tuesday, January 20th
7:00 to 10:00pm
2317 Acorn Drive, Vestal
Phone 754-5279

If you plan to attend, please give me a call so I can have enough "fuel" on hand.

Worthy of note was the surprise attendance of Dr. Ron Gauthier (former club president) at the last hanger session. Ron travelled all the way from Cortland to attend, it was really nice to see him, and we wish him and his family health, happiness, and prosperity in the new year.

SCALE NOTES

RALPH JACKSON

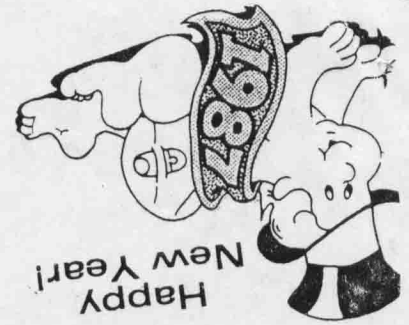
My preferred covering materials are: Dacron fabric for covering open framework wings and fuselages, and medium weight Silkspan paper for covering balsa-sheeted wings. Both materials are applied using clear dope as an adhesive. The Dacron is shrunk using a heat gun. Both of these materials perform well in the hot station wagon test. I prefer covering materials that do not develop wrinkles after storage in a hot station wagon or a damp cellar. The Silkspan is available at G J's. The Dacron is 1.8 ounce material available from Aircraft Spruce and Specialty Co., P.O. Box 424, Fullerton, California 92632.

Other materials I have used recently include Super Coverite which is Dacron with a thermoplastic adhesive on one side and Micafilm, a plastic film. Both of those materials are applied with a Monokote iron. My experience with the Super Coverite was good. The Micafilm was difficult to apply and developed more and more wrinkles and blisters as time went by. I do not plan to use it again.

Program for January Meeting

Bob Noll will discuss techniques for reducing engine noise for pattern ships without sacrificing performance. Bob's talk is based on his experimentation with his pattern ship this past summer. His experiences should be useful and profitable for fun fliers as well.

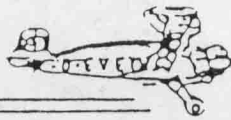
Count on us
For Performance



1987

JANUARY

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Happy New
Year!