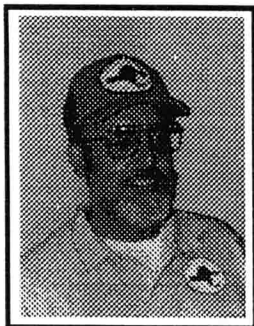


CONNECTOR

A Publication of The AeroGuidance Society

August, 1994



Prez Sez...

TONY
CAMMARATA

Greetings and salutations from your harried Prez. These next few weeks promise to be exciting for Ellie and me as the time for departure to Alaska is rapidly nearing. Just a little reminder, the upcoming August meeting will be the last Regular Meeting at the field. I will see you all at the September meeting. Now for a few announcements and other potpourri.

Nominations for 1994-95 A.G.S. Board of Directors:

As President it is my responsibility to appoint the chairman of the Nominating Committee for the selection and subsequent election, by the Membership, to the Board of Directors. I have asked Wynn Aker to chair the Nominating Committee and he has graciously accepted the job. If you are interested in serving as a member of the Nominating Committee, contact Wynn at his home phone (785-6627). A slate of nominees must be presented to the membership at the September Regular Meeting. At the September meeting, nominations from the floor will be accepted. At the conclusion of the September meeting, nominations will be closed. The slate of nominees will be published in the October issue of The Connector for subsequent voting and election to office, at the Regular October meeting.

Retrieval Equipment:

Many of us have experienced the frustration of flying a plane into the trees. We are then confronted with two dilemmas. One to find the plane and once found to retrieve the plane. Hopefully, the plane is not too high in the tree and the tree not too tall. One is not always that lucky. I have seen planes (and have had) planes land 40' up a tree. The trick is to retrieve the plane in "one piece" if it is nicely cradled. In the absence of a "lucky soft landing" in a tree, at a minimum, one wants his stuff back. How do you handle the tough situation, what equipment is on hand for retrieval? The Board

discussed this subject at the August Board Meeting and decided we would like to have a committee formed to research and recommend to the Board what kind of equipment would be practical for retrieval and its cost. The idea being that we (the members) would purchase this "equipment" be it reasonable in cost, and store it at the field for opportune use.

Zenoah G-38 Muffler for 1/4 Scale J-3 Cub (Sig):

I had this Z hanging around, you know hanging around just doin nuttin... AND I have but one Giant Scale airplane. Being pragmatic I needed to be assured of a giant scale back-up in the event of an unplanned disaster (ugh..wash out your mouth with soap, Tony!). Along came this opportunity to short-cut the process...and I jumped at it. I bought a 1/4 Scale J-3 Cub that was well along in the building process. The craftsmanship was excellent, so I acquiesced to a purchase. Mind you there was still quite a bit of work to be done, but I need not start from scratch (as I did with the PT-19) to have a second plane (back-up) giant scale. I have fabricated the landing gear (wire, balsa filler and fiber glass), mounted the wings (level), fabricated the functional wing struts (all fittings are made of steel). Wing braces are tubular brass mounted on steel fittings made for ease of assembly and removal (strong like bull). Since I insist on using the G-38, I had to design and fabricate a suitable muffler for the Fibermaster cowl. This muffler is of aluminum and TIG welded by a future relative (nice huh?). Sound (noise) readings taken on 7/31/94 on Ralph Jackson all-purpose engine tester (on grass) with a 20-6-10 Zinger were 92db at nine(9) feet. This is promising

as their are a great deal of structures in the setting which may be contributing to the dbs. We shall know better when we measure the dbs while the engine is mounted in a plane, cowed in. RPM measured was 5900 (a bit low), but this was the first time the engine was run and when broken-in, I expect the revs to go up 2 to 300. Anyway, I am delighted with the results. The only glitch was that I had to extend the cowl a bit so the engine would fit. It makes an excellent installation because the Z is mounted inverted and with the muffler behind the engine the exhaust is directed down and away from the plane. I plan to replace the tail feathers of the J-3 which are solid balsa (ugh) with built-up structure. After the wind shield is made and fitted all I need to do is the usual (install the radio, cover it, paint it, detail it etc. Etc. al.) Anyhow, I hope to show it off next spring. Who knows, maybe I'll have the PT-19 done by then

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published monthly by:

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From The Editor ...



This has been a great month! The flying season was in full swing, and everyone has been pretty busy, including yours truly. I attended the Valley R/C Fun Fly in Sayre, PA. and as usual it was great. Dan Luchaco always runs a fantastic contest, and the competitors love the format, the food and the fun. For those who couldn't make it this year, you missed a good one. For those who haven't been to it yet, I certainly haven't figured out why you don't go, because the levels of skill go from the bottom to the top and everything in between. You really ought to try to make it if you haven't.

The AGS Summer Picnic was held this past Sunday, and a record 70+ people attended! The "Midairs" team completely demolished team "Terror" and team "Geriatrics" in all three events run by Bob Noll. The kids had a load of fun with the great games invented by Steven Bard, and the food was very good, though late, having been catered by "The Chuckwagon." My personal thanks, as an attendee, to Tony, Steven, Bob and all others who helped for a great picnic. My family really enjoyed it.

The next major event of the year for the AGS is the Annual Greenwood Float Fly in September. Yes, the summer is in full swing, but it's just next month that we're going to be seeing cooler temperatures and flying from the water. It's not too soon to start thinking about getting the floats out and getting ready for Greenwood.

This month will be the last month of summer meetings at the field, and regular meetings at the Vestal American Legion will resume in September. My personal feeling is that we could dispense entirely with summer meetings, as they have run very short with little or no real business to consider. How do you feel about that? I suggest some discussion and thought, and will propose a vote at the September meeting to skip summer meetings altogether.

As some of you may know, the Union-Endicott school district recently had a vote concerning additional funding to support things like lunches, buses, athletics and band. The first go-around resulted in a defeat for these activities, which prompted several propositions being presented in a special election strictly for their consideration. The result is that they ultimately passed, due to the issue affecting so many people that finally came out and registered and voted. What in the heck does this have to do with the AGS? Only that most of us sit around and watch our decisions being made for us by those who are interested enough to do something about it. If you care about something, go out and help. If you don't care enough to get involved in the work and the process, then bite your tongue when you start to complain about it. This club enjoys an outstanding place to fly and has had a reasonably capable administration for many years and a budget structure

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The next Connector publishing deadline is Sep. 6, 1994. Articles submitted for interest, advertisement or announcement should be addressed to the Editor, and will be considered on a space-available basis

RACING SEASON UPDATE!

by Bob Noll (08/04)

It's halftime of the 1994 racing season with four races completed and four to go. Still only seven racers have taken to the race course so far this year out of the eleven that have signed up. We're still waiting to see Jim Pecha, Chris Engler, George Kelsey and Joe Felice take to the race course. Maybe they're waiting for the second half of the season since our rules consider only the best four races for the season championship points. Well, it's here and by the time you read this we will probably have completed the fifth race which is scheduled for Tuesday August 9. This is the last Tuesday race scheduled and all remaining races will be held on Sunday's at 2 PM.

Five racers showed up for the July 26 races and we ran all three plane heats which made for some very exciting races. Heat 1 saw Underkofler, Allen and Luchaco battle it out with Danny Luchaco showing off his newfound speed due to some engine adjustments and a change of glow plugs. He was in contention for every race but gave way to the old timers of Bill and Dick and had to settle for a 3rd. Bill took 1st in that heat and Dick collected the 2nd place.

Heat 2 pitted Underkofler and Allen against Noll with Bob moving from the 3rd takeoff position to overtake the

speedy field for the win. Bill took 2nd and Dick collected one point for a 3rd.

Heat 3 had Terry Terrenoire lined up against Noll and Allen and when the smoke cleared it was Bob again for 1st, Dick 2nd and Terry 3rd.

Heat 4 was made up of Terrenoire, Noll and Luchaco and Bob had another 1st with Danny right on his tail for 2nd and Terry came in another 3rd.

Heat 5 consisted of Terrenoire, Luchaco and Underkofler with Bill collecting the win and again Danny was in it to the end. Terry got another 3rd and someone heard him exclaim that he's ready to do something drastic to get the rpm's up.

So, thru four races the points stand as follows;

SEASON

Bob Noll	8 9 9 9	35
Dick Allen	7 8 6 5	26
Dan Luchaco	7 6 - 5	18
Bill Underkofler	- 8 - 8	16
Todd Kopl	8 - - -	8
Tim Rogers	- 7 - -	7
Terry Terrenoire	- - 3 3	6

Again thanks to our hard working race crew we had great coverage for all jobs. As promised I have posted all race dates on our bulletin boards at GJ's and at the field. Come and get involved in the excitement of club pylon racing.

More A.G.S. Starters:

by Steven Bard

Did you ever stop to think, millions of people never saw a model airplane? And have your thought, most of these people, when they do see one, want to see more? Well, my experience tells me this is true.

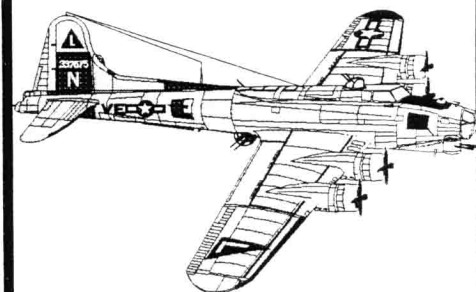
Just last July 19 four of us from the A.G.S. were invited to present our airplanes at the Johnson City Y.M.C.A. No one there, including the staff and the young people seemed to have ever seen models and they sure seemed interested.

Dick Allen showed off his Stunt Master although he was not able to fly it. They were very interested in how the controls moved. And when he showed off his WW I airplane it seemed to capture some imaginations. (Maybe the open cockpits do that.) He showed his Thunderbird U-Control, they had never seen such a thing.

Len Wiczorek brought his Embryo rubber powered airplane. For those not familiar, Embryo planes are for less experienced builders.

Don Leaf brought one of his superb gliders. And I did my usual Bostonian demo.

The event was a smashing success. (Bad choice of words.....a big success.) I understand we will get an invitation this fall to show airplanes to an after school group. I know I look forward introducing new people to model airplanes. This is one of those win-win situations, because people seem so happy to have model airplanes introduced to them.



(Continued from page 1)
too?

Remember, the quality of mercy is not strained when it falls from the heavens like gentle rain.... Hope you are all having a great summer! See you in church and watch out for that wind shear.

AGS Annual Picnic and Intra-Club Contest.

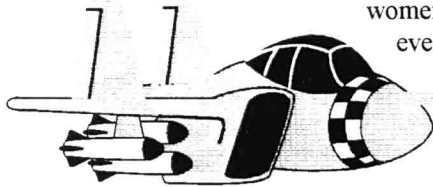
August 7th was our annual picnic and contest, at the AGS Field. I must say that it started out slowly and finished with a bang. I personally have never been to an AGS event with so many people in attendance. My best count was 72 men, women and children. Dave Pender catered the barbecue; Dave has a CHUCKWAGON and a smoker he trails behind his wagon. He SOLD OUT of all his food. Because of the number of people in attendance and some logistical problems, dinner was not served until 2:00pm; by then people were really hungry (ravenous?). When dinner was finally served up folks commenced to devour all food in sight! I apologize to those parents that had to "entertain" overly hungry children, and to those folks that felt they were misled. You have a right to be fed in a timely manner. Thank you for your indulgence. Dave received many compliments on his chicken (the dinner) and was pleased to hear so. Later that evening Dave called me to elicit some feedback; which I gave him...the pluses and minuses.

Games:

The children seemed to have a great time negotiating the maze crafted single-handed by Steve Bard, and several folks enjoyed an informal game of volley ball. (Thanks again Steve.) I didn't see anyone pitching Horse Shoes but they were there for our use (Steve again). *(The most creative was Steve's layout of a simple garden hose doubled up to create a groove laying down, in which a marble was raced down the hill. Neat. - Ed.)*

Intra-club Contest:

Bob Noll CDed the "contest" (with Lanny's help and several other helpers.) Four teams which included women, competed in three events. "Prizes" which were flowers (carnations) were awarded to the women that participated. I personally believe this to be an excellent way to spend "prize" monies.



The weather was perfect, the company enjoyable and the games fun. All in all a beautiful summer picnic.... remember, those of you that attended; you actually took the time to "smell the roses". I hope you all enjoyed the day.

Tony

Calendar Of Events

August 16

AGS Regular Meeting at Club Field, 7:30p.m.

September 18

AGS Pylon Racing, 1:00p.m.

September 20

AGS Regular Meeting at Vestal American Legion (we hope!) 7:30p.m.

September 24,25

AGS Annual Greenwood Park Float Fly

October 9

AGS Pylon Racing, 1:00p.m.

October 30

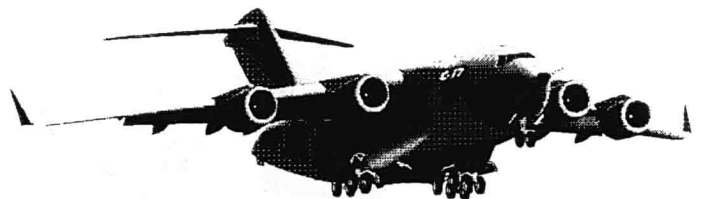
AGS Pylon Racing, 1:00p.m.

All Monthly Regular Meetings Are Held On The Third Tuesday Of The Month At The Vestal American Legion.

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that supports our activities. The majority, however, avoid jumping in and helping out except maybe once or twice a year. Get involved. Do something. Get on a committee. Be a voice heard by not only the Board, but also by your peers. Come to a Board meeting and learn what's going on. Above all, be a part of what you enjoy doing, and give back some of what has been given to you. You don't just "buy" flying time with your membership, you become a part of an exciting and challenging hobby that you can share with a broad cross-section of people and skills that have a common interest. It's all for fun, right?

Belly Aker



THINKING IT THROUGH

David Tumey banks the flight simulator left, then right, on command. The task may be routine, but his method of performing it is decidedly not. He has no rudder pedals to press, no stick to control, no knobs to twist or switches to toggle. The simulator's instruments are nothing but an attitude indicator and two small, pulsing white lamps. Tumey is controlling the simulator with his mind.

At Wright Patterson Air Force Base near Dayton, Ohio, Tumey and a group of researchers are creating the first generation of "brain-activated" cockpit controls - technology that converts thoughts into actions without the usual intermediaries of arms, legs, voices or hands. Eventually, the device will enable pilots to check information readouts, adjust systems' performances, and perhaps even steer an aircraft just, in effect, by thinking about it.

The simulator is the first step. At random, either tip of its indicator bar will light up to tell Tumey in which direction he's to bank. On either side of the display a soft white light pulses in a steady rhythm and activates the pilot's mental "foot" on the rudder. The light pulses at 13.25 cycles per second, which calls forth a corresponding rhythm in the visual cortex at the rear of Tumey's brain. Two simple electrodes on his scalp measure the strength of his brain rhythm in response to the pulse, and the computer translates the responses into instructions to the simulator's automated controls.

By suppressing his brain's response to the pulse's rhythm, Tumey banks the simulator to the right; by enhancing the response, he banks it left.

But how does one "suppress" or "enhance" a response? "No one really knows," says project physicist and molecular biochemist John Schnurer. "We've asked subjects to fill out questionnaires, and their response makes it clear that the more successfully they can control the simulator, the less able they are to explain how they do it." Tumey, who's logged more time in the simulator than anyone else, agrees: "At first you think of physical images, like pushing and pulling or opening and closing. That didn't work very well for me, and one day I just said the heck with it. Once I just let go and started to let it happen instead of trying to make it happen, I got better control. It was a very Zen experience."

Fortunately, it's far more reliable. Engineer David Ingle says that Tumey's skill in the simulator "is such that he'd have no problem handling the control stick of a Piper Cub." Neither,

apparently, would most pilots. "This isn't psychokinetic," says Schnurer. "This is a learned thing. There's no reason why 95 percent or more of the population couldn't do just as well."

The research team expects the technique to be used initially only for secondary controls. "Computerized information displays are becoming increasingly sophisticated, with so many things to be monitored that no single computer screen can display everything at once," say Victoria Nasman, the group's neurophysiologist. "If your hands are busy with other tasks, it would be nice to be able to thing I'd like to see that other screen now or choose items from an on-screen menu."

That's only a beginning. The team is planning a variety of wide-ranging studies and also monitors similar projects in medical research, including one that has developed equipment to enable the physically disabled to control lamps, TV sets, and thermostats by glancing at icons on a computer screen. "We'll start slowly with easy tasks and optional controls, things a pilot can do if he wants but not

crash and burn if he fails," says Grant McMillan, director of Wright Patterson's new biocybernetics lab. "But who knows? Twenty years from now, we might be saying, 'Gee, I'd never want a pilot to control that stick manually when he can do it so much better with his mind.'" From *Air and Space* August/September 1994

