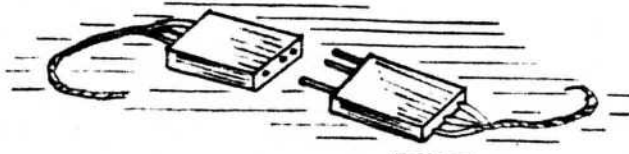




## THE CONNECTOR



### THE NEWS LETTER OF THE AEROGUIDANCE SOCIETY

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#### PREZ SEZ:

One unpublicized aspect of AGS activities is the unofficial meeting which usually occurs after each regular meeting. The unofficial meeting is strictly social and is held at the Villa near Sugarman's. The pizza, beer and conversation around a large table make a pleasant way to end the evening. All members and friends are welcome and encouraged to share this part of our club activities.

Ralph Jackson

VOLUNTEERS NEEDED: Two important jobs are still open for the AGS annual ANA contest, July 11 and 12. We need a person to take charge of parking cars during the contest and a person to handle publicity before the contest. If you are willing to take on one of these important tasks, please contact Ralph Jackson 748 - 1707.

NEXT MEETING: May 12, 7:30 p.m. at NYSE&G; Don Godfrey was sick last meeting and could not make it with his giant 12 foot B-25. Don says he will have it at this meeting and will present a program on its construction. It was a big hit at the Toledo Show, so be sure and show up to see it at the meeting!

BOARD MEETING: There was no board meeting in April. The May meeting will be May 19, 7:00 p.m. at Dick Allen's house.

DUES: for second half of the club year are due! If you haven't paid, think of the poor Treasurer's feelings; he is very sensitive and easily hurt when folks don't pay their dues! I saw him crying at the flying field Sunday, when he thought no one was looking (after he told me to put this reminder in the "Connector") -- poor guy!

GOINGS-ON: A lot of Bat-wings have been flying around lately, both at Owego and our field. Sunday, Dick Allen and Jim McKeown (Sidney) were flying combat with their bats! Speaking of Owego, R/C boaters are on the increase, so keep tabs on their frequencies if you fly there. They are not supposed to use 72.08 (brown/white), 72.24 (red/white) or

75.64 (green/white) but that doesn't mean anything! I know of 2 on 27 MHz, one on yellow/white and 1 on 6 meters.

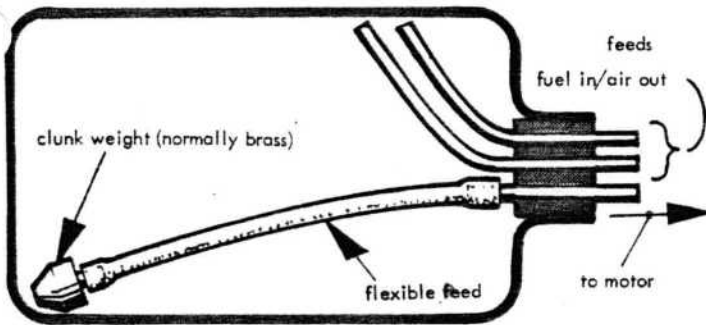
Ace Silver Seven Transmitters are becoming popular; I saw 2 more at the glider meet in Owego Sunday. The 2-axis plastic open-gimbal sticks are nice and have no play. However, they do need stiffer springs which can be ordered from Ace.

Bill Underkofler flew his original twin-engine plane Sunday -- flew beautifully with the 2 HB.25's! Even Edie Allen, typist extraordinary, was there to watch. Bring the plane to the meeting, Bill, so everyone can see it "after" -- twin engines sure have a sound that's great to hear!

Mike Gazy flew his huge "Big Stick" at the field Sunday evening. It really hauls on the big Kioritz, yet lands like a pussy cat. Looks like a fun airplane, Mike!

GLIDER MEET: June 6 and 7 at Greene Airport; contact me for details if you want to fly or go watch.

STOLEN: from other newsletters; the following articles. From "Plane Prop Wash" of the STARS club (Syracuse), Editor, Marge Sauter; an interesting look at what's new in radio's by Lon Sauter of Lon's R/C Service, 2062 Rabbit Lane, Phoenix, N.Y. 13135, (315) 695 - 2448. Also from the "LVRCS NEWS" of the Lehigh Valley Radio Control Society, Inc. (Bethlehem, PA.), T.W. Bilheimer, Editor, is a good article on fuel tanks.



The real advantage of working with a two-tube system is when you are pressurising the tank, from the nipple (normally fitted on the silencer. Clearly, if you tried to fill through this feed, as soon as fuel reached the end of the clunk inside

the bottom of the tank, when the feed-pipes are held upper-most? If it does (even by a smidgeon) this will cause problems in inverted flight; the whole point of a clunk is that it must be free to fall to the bottom of the fuel, wherever that



## TANKED UP?

### Trouble with your clunk?

It surprises me to see fuel-problems on the flying field that so often finish up inside the tank itself, with the clunk not clunking! Firstly, when you assemble the tank 'kit' you should decide whether or not you need all three feeds. (The purpose of there being three is to allow re-filling of the tank, without removing the feed at the engine-end, and filling through this, which is what you must do, if you only use two feeds, or inlets, to the tank.) This option (2 or 3) seems to come with those tanks that provide a rubber end 'bung' that carry the brass feeds. If you need all three, you will have to push the brass tube through the last 2mm of rubber; on the other hand, if two is what you need, then don't! (and, you get to keep the spare bit of brass tubing!)

the tank, it would start pumping into the motor carburettor! As a result, you must either fill the tank by removal of the feed at the carb. end, or use a Crescent 'Refuelling Point'. This allows you to re-fuel without pulling the feed off the carb, and looks much neater! Of course, it is possible to operate a pressurised system, using three feeds; in this case, however, one must seal (make airtight) the third feed, prior to starting the motor.

Returning to the assembly of your tank, (and now having decided the two or three-feed argument), examine the length of flexible feed that is supplied. Is it clear or opaque? Is it rubber or silicon-plastic? Does it fit tightly onto both the clunk, and the brass feed-pipe? Personally, I prefer the silicon-plastic (i.e. normal fuel-tubing) as it's much less susceptible to rotting; its major disadvantage is that it's quite fragile, and care must be taken not to damage it when pushing it onto the clunk, or brass feed-pipe. (On at least two occasions, I've seen pin-holes at the feed-end causing severe tanking problems; the trouble is that these are almost impossible to spot visually!)

Next, consider the length of this flexible feed; does the clunk touch

happens to be at the time! Assuming that the tank is now assembled, you must check it carefully for leaks, before mounting in the aircraft. My method is to join two of the feeds together with an external, small length of fuel-tubing; on the third feed I connect another length of tubing to my mouth!

Immersion of the whole assembly into water, and blowing down the feed will quickly reveal any leaks. Incidentally, if your tank relies on a centre screw being tightened (and thus causing the rubber-bung to swell, and 'jam' into the mouth of the tank)—beware of overtightening. I've noticed that certain makers of tank-kits are now fitting around the outside mouth of the polythene container, a metal ring, so as to stop the potential danger in this situation. However, if the tank does not have this, the polythene container may easily split, and a feature of this that has occurred in my case, is that the split can happen several weeks after the assembly!

THE 27TH TOLEDO EXPOSITION HAD 185 MODEL MANUFACTURERS OCCUPYING 292 BOOTH SPACES, & WALL TO WALL PEOPLE FOR 3 DAYS. THERE WERE 6 ENORMOUS ISLANDS OF MODEL DISPLAYS & A HUGE SWAP (JUNK) SHOP. THEY EVEN HAD A BAR SERVING COCKTAILS, IN ADDITION TO THEIR USUAL BEER & REFRESHMENT STANDS. ON ARRIVING AT THE SHOW, ABOUT 3PM FRIDAY, WE MADE A BEE-LINE FOR ALL THE RADIO MANUFACTURERS BOOTHS TO GET THE INSIDE SCOOP ON WHAT'S COMING IN THE NEAR FUTURE. KRAFT SYSTEMS WAS SHOWING A NEW K SERIES, OF JAPANESE MANUFACTURE, WHICH THEY WILL BE MARKETING TO COMPETE WITH THE OTHER INEXPENSIVE JAPANESE RADIOS. THIS NEW KRAFT SYSTEM IS TOTALLY JAPANESE, & IS NOT COMPATABLE WITH ANY OF THE OTHER KRAFT SYSTEMS. IT WILL RETAIL FOR APPROXIMATELY \$219. MRC SHOWED SOME NEW 2 CHANNEL SYSTEMS, AS DID KRAFT, WHICH USES A REMOTE CONTROL MODULE & BELT HELD TRANSMITTING UNIT. IT SORT OF REMINDED ME OF THE OLD GROUND BASED TRANSMITTER DAYS. THESE RADIOS COME IN BOTH STICK & WHEEL CONFIGURATION, & HAVE DUAL RATE & PROGRAMMING SWITCHES. ACE R/C'S TENTATIVE PLANS TO MANUFACTURE PRO LINE ELECTRONIC RADIOS SEEMS TO BE MORE POSITIVE NOW (NO PUN INTENDED). THEY SHOWED A PRO TYPE PRO LINE TRANSMITTER, WHICH INCORPORATED THE SILVER 7 ENCODER BOARD & PRO LINE CUSTOM COMPETITION STICK ASSEMBLIES. THEY INTEND TO STAY WITH THE PRO LINE METAL BOX RECEIVER; HOWEVER, THE DECODER WILL BE POSITIVE PULSE, & THE SERVO'S WILL PROBABLY USE THE ATLAS AMPLIFIER DESIGN. ACE PLANS TO CONTINUE MANUFACTURING REPLACEMENT COMPONENTS FOR EXISTING PRO LINE EQUIPMENT INDEFINITELY. FUTABA WAS SHOWING A NEW SYSTEM, OR SHOULD I SAY EMPTY TRANSMITTER CASE. THEY SAID IT WAS SO NEW THEY DIDN'T HAVE PARTS FOR INSIDE THE TRANSMITTER YET. FROM THE CIRCUIT DESCRIPTIONS & OTHER INFORMATION I WAS ABLE TO GET, THE RADIO APPEARS TO BE A COST REDUCED J SERIES. CIRCUS HOBBIES IS OBVIOUSLY THE BEST FINANCED OPERATION IN THE INDUSTRY. THE PERSONALITIES BEHIND THEIR BOOTH WERE LIKE A WHO'S WHO IN RC PATTERN FLYING. THEIR RADIO SYSTEMS ARE VERY IMPRESSIVE LOOK AT, BUT REALLY AREN'T ANY MORE IN OPERATION THAN FUTABA J SERIES OR KRAFT C SERIES. THEY DO BOAST THE TIGHTEST SERVO DEADBAND IN THE INDUSTRY, WHICH WAS PROMPTLY REPLIED TO BY AN RC NOTABLE WITH THE WORDS, "THAT'S WHY MY SERVO'S BUZZ AFTER 20 FLIGHTS." EMS IS MANUFACTURING WHAT IS PROBABLE THE BEST SERVO ON THE MARKET. THEY USE A 6 DRIVER TRANSISTOR AMPLIFIER BASED ON THE SIGNETICS 544 IC. THEY PUT THIS AMP IN THE KRAFT KPS 20H, KPS 15 II & WORLD ENGINES S16  $\frac{1}{4}$  SCALE SERVO. THESE SERVO'S RANGE FROM \$37.95 TO \$44.95 IN PRICE, AND HAVE PERFORMANCE UNEQUALED BY ANY OTHER PRODUCTION UNIT. I HAD A NICE CHAT WITH NOVAK ELECTRONICS ABOUT HIS IC RECEIVER DESIGN & I'M VERY IMPRESSED WITH ITS PERFORMANCE. HIS SERVO'S APPEAR TO BE THE ONLY WAY TO GO FOR THE SERIOUS RC CAR ENTHUSIAST. ALL HIS EQUIPMENT IS BUILT TO SURVIVE SEVERE SHOCK & VIBRATION ENVIRONMENTS. WORLD ENGINES HAD A VERY NICE LOOKING BOOTH, BUT EVERYTHING WAS GLUED TO THE WALL, SO YOU COULDN'T EXAMINE IT. ROYAL ELECTRONICS IS MARKETING A NEW PNEUMATIC RETRACT SYSTEM, WHICH IN MY OPINION WILL REVOLUTIONIZE THE RETRACT INDUSTRY. IT IS A 1 LINE SYSTEM WHICH LOCKS UP, AS WELL AS DOWN, & WILL AUTOMATICALLY EXTEND & LOCK IF AIR PRESSURE IS LOST. IT IS INTERCHANGEABLE WITH THE OTHER POPULAR PNEUMATIC SYSTEMS & WILL RETAIL AT ABOUT \$120. SID GATES AT ROYAL ALSO TOLD ME THEY ARE STARTING WORK ON A NEW RADIO SYSTEM DESIGNED BY JIM ODINO, OF RC MODELER FAME, WHICH WILL FULLY INCORPORATE ALL OF THE NEWEST FCC REGULATION PROPOSALS & INTEGRATED CIRCUIT TECHNOLOGY. HE SHOWED ME A PRO TYPE TRANSMITTER WHICH WAS VERY IMPRESSIVE. ASTRO FLIGHT HAD A SOLAR PANEL CAPABLE OF PRODUCING 300 MIL AMP AT 5 VOLTS. THIS SHOULD BE A REAL NEAT ITEM FOR SAILPLANE GUYS, AS IT GIVES ENOUGH POWER TO OPERATE YOUR AIRBORNE PACK. MARTIN ENTERPRISES WAS SHOWING A NEW VARIABLE VENTURI CARBURETOR WHICH WAS SO NOVEL, I JUST HAD TO HAVE 1. IT'S IMPOSSIBLE TO DESCRIBE HOW IT WORKS, SO IF YOU'RE IN THE SHOP, MAKE SURE YOU TAKE A LOOK AT IT. THE REST OF THE BOOTHS AT THE TOLEDO SHOW WERE VERY INTERESTING, BUT NOTHING WAS REALLY NEW THAT CAUGHT MY EYE.  $\frac{1}{4}$  SCALE IS OBVIOUSLY GROWING IN LEAPS & BOUNDS. THE IMAA HAD A NICE BOOTH WITH A KNOWLEDGEABLE PERSON COMPARING THE POWER, WEIGHT & PERFORMANCE ASPECTS OF THE MANY  $\frac{1}{4}$  SCALE GASOLINE ENGINES. ABOVE HIS HEAD WAS A HUGE B25 BOMBER BUILT BY DON GODFREY, OF BINGHAMTON, POWERED BY 2 QUADRAS. IN CONCLUSION, I'D LIKE TO SAY, IF YOU'RE AN RC MODELER & YOU WOULD REALLY LIKE TO SEE WHAT'S AVAILABLE TO YOU & YOUR HOBBY, DON'T MISS TOLEDO 82.