

\* NOSTALGIA \*

Back in 1984.....

FEB 84

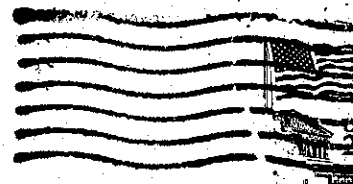


EAA  
ULTRALIGHT  
CHAPTER  
44

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NEWSLETTER

EAA UL CHAPTER #44  
BOB CHAPMAN, EDITOR  
4013 NOVAR DRIVE  
CHANTILLY, VA. 22021



Northern Virginia Experimental Aircraft Association Ultralight Chapter 44 is a non-profit, educational club dedicated to the sport of recreational ultralight flying.

1984 OFFICERS:

PRES.....JIM KELLY, (301) 249-1750  
V.P. ....BOB PENDLETON, 978-3951  
SEC.....STEVE REYNOLDS, 569-5915  
TRES.....GORDON BREDVIK, 569-6694  
NEWSLETTER...BOB CHAPMAN, 631-1537  
DESIGNEES     DAVE MAITLAND, (703) 752-2924 and BOB  
CHAPMAN, 631-1537

Ultralight pilot examiners

Ed Boynton: 652-3128  
Bob Chapman: 631-1537  
Robert Combs: (703) 663-2155  
Jim Kelly: 249-1036  
David Maitland: (703) 752-2924

Monthly meetings are currently held the first Thursday of the month at 7:30 PM at the Washington Gas Light Company's Springfield Operations Center--6801 Industrial Road, Edsall Industrial Park, Springfield, Virginia.

Chapter 44 yearly dues are \$5.00 plus an initiation fee of \$2.50.

Maryland Ultralight Chapter 20 has extended an invitation to use their flying field which is located southeast of Poolesville, Maryland. In order to use the field you must have paid the field fee, acquired insurance and have had an operations briefing and a safety inspection. Call Kent Fixman (301) 530-5291.

Please note that all Virginia public use, uncontrolled airports( controlled fields if you have the necessary aircraft band radio) are open to ultralights registered with the state. Use of these airports is not recommended for beginners and those without some former pilot training. Contact the airport management .

Glascok Field at Arcola may be open to UL's for a monthly tie down fee.

EAA UL Chapter 44 is a fully chartered club of the Experimental Aircraft Association, which has almost 700 chapters world wide. Membership in the national EAA UL Association is available (and recommended) for \$25.00 year, which includes the "Ultralight" publication.

Members are encouraged to submit short items for inclusion in the newsletter. Responsibility for accuracy (and credits) rests entirely with the contributor. Deadline for all material including items for sale, trade or barter is the 15th of the month.

## EAA UL CHAPTER #44, FEBRUARY 1984

The February meeting will be held at our usual meeting place (Wash. Gas - see page 1 for details). JOHN BALLANTYNE from AOPA's Air Safety Foundation will be our guest speaker.

1984 DUES are due. Please fill out the renewal form (in last month's newsletter) and mail it with \$5.00 NOW to Bob Chapman. We will be printing a new membership list soon. If your dues are not paid you will not be included, and the newsletter will stop. WHY NOT DO IT NOW!

### OUR LAST MEETING:

We viewed the 20/20 video (Titled "ULTRALIGHTS: FLYING OR DYING") a couple times and discussed it in agonizing detail. It was worthwhile in that those that attended the meeting will now be better able to defend UL safety.

### CALENDAR: FEBRUARY

Wed. 1st EAA UL#20 meeting 8pm Brookville, Md.

Thu. 2nd EAA UL #44 meeting 7:30pm WGL, Springfield.

Sat. 18th All day seminar, 10am-5pm, Space Science and Exploration, American History Building, 357-3030.

Thu 23 EAA 186 meeting, 8pm WGL, Springfield.

### MARCH

Thu 1 EAA UL#44 Meeting 7:30pm, WGL, Springfield.

Sat 10 Annual Wash. Area EAA Chapters Banquet, Wash. Navy Yard Officers Club, Lou Janezic 703-590-4560.

11-17 10th Annual Sun and Fun Fly-In, Lakeland, Fla.

### ULTRALIGHT STUFF:

AOPA estimates (based on 1982 figures) that 99.9972 % of all UL flights ended safely! Since a greater percentage of new owners are now getting better training and the average UL is a more sophisticated & better tested aircraft, don't you think that that figure is even better now?

The EAA Chapters Banquet ( see calendar) application will be in next months newsletter, but plan to go now if you can. Cost should be no more than \$15 each. A nationally known guest speaker is planned.

EAA's UL Insurance policy is now available to EAA members(national) policy is for \$1/2 million (\$250 deductible) and costs \$189/year.

AOPA is now trying to get the UL Restrictions lifted at Frederick, Md. Airport ( where AOPA is headquartered) now that the glider operations there have moved out.

What effect will the resignation of the FAA Administrator J. Lynn Helms have on the future of UL's? Only time will tell, but considering the pressure on the FAA to require some form of UL Pilots License( and UL Registration) look for the FAA to declare AOPA's self-regulation program a success or failure this fall.

A class action suit has been filed on the West coast against the major UL manufacturers and the FAA ( don't know about EAA or AOPA) for big damages.

Kirt Farley is planning a mall show at Tysons in April. Dealers are invited to participate ( for a fee). Our chapter has also been invited to attend. Call 759-3713 for details.

Some notes from the NAR Task force on UL operations Jan. 9-11, 1984.

- 1) The task force recommended that the FAA require UL pilots to demonstrate adequate aeronauticle knowledge to protect other users of the airspace (in otherwords an UL pilots license). This is the second task force that I know of to make this recommendation.
- 2) Recommended a mandatory UL vehicle registration system be instituted (similar to normal FAA AC registration but not requiring UL's to have airworthiness certificates).
- 3) Recommended the FAA update the AIM to include UL info (already in the works).
- 4) According to the FAA, there have been very few problems with UL's at controlled airports ( contrary to what the ALPA and ATA think).
- 5) UL's do not usually show up on the FAA's Radar because they fly below the blanking speed of about 50mph used to keep the radar from showing ground clutter.

Dulles Airport has been officially chosen to house the NASM's expansion (Hagerstown, Md. A.P. has been ruled out).

Bob Aymar of Glenwood, Md., 21738 (301-854-6304), besides being the best place I know of to get economical propellers (UL and AC) is trying to build a Database for his TRS-80 computer. He would appreciate anyone who owns an UL or AC to send him a note including the following information: Name, phone, address, EAA chapter, make and model of UI or AC, Flying weight, engine, HP, Prop-Dia. and Pitch, cruise speed, and comments on the props general performance.

Dave Maitland's VECTOR 610 is for sale. 1982 model, 3 axis controls w/ steerable nosewheel, transport covers, ex. cond. \$3600, 703/752 2924.



# Craftsmans Corner

Compiled by Chuck Larsen  
Chapter/Designee Director

*This material is reprinted from THE HOMEBUILDER, the Jayhawk Chapter 88 Newsletter of Wichita, Kansas. This superlative publication was edited and written for several years by Larry Schubert who authored the following.*

*— Chuck Larsen, Chapter/Designee Director*

## A "Gripping" Story About Control Cables

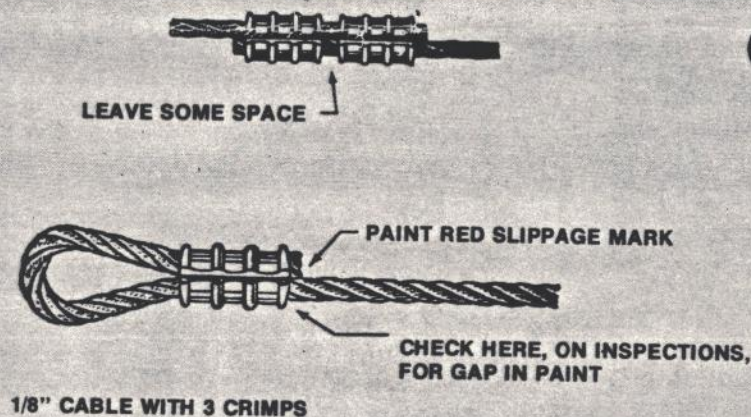
Pardon the pun — I couldn't resist it! If you take a tour through CAM 18 (FAR Part 43), you will find there are three methods approved for splicing or securing control cables. They are: 1) 5-tuck woven splice, 2) wrap solder method and 3) use of swaged terminals.

The first two methods have limitations as to minimum and maximum cable size, result in a connection with only 75 percent or 90 percent of the strength of the original cable, are a real joy to accomplish if you are the type who likes to bash his head against a brick wall and, if you find Frankenstein beautiful, you might find some esthetic value in these methods. I have tried

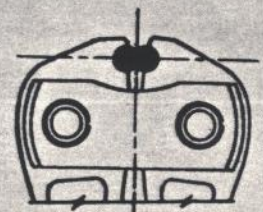
both methods — but only once. Now, let's get to method three, the only realistic way to do the job. Swaged terminals (AN-666 through AN-669), commonly referred to as Nicopress sleeves, can be done "on the airplane", require little time, are asthetically pleasing and retain nearly 100 percent of the original cable strength IF DONE PROPERLY.

When using a Nicopress tool for the first time, talk to somebody who is familiar with the correct usage of the tool. It does a great job when properly used; but will allow cable slippage at low cable tension values if improperly used.

Generally, homebuilders will be using 1/16" cable (for trim systems) and 1/8" cable (for primary controls). When using the standard single groove Nicopress tool, 1 crimp is required for 1/16" cable, 2 crimps for 3/32" cable and 3 crimps for 1/8" cable; see Figure 1. When swaging 1/8" cable, complete the center crimp first. This will allow the terminal to "flow" inboard and outboard to tighten the thimble in position and to provide enough material to get 3 crimps on the terminal. With 3/32" cable, complete the crimp farthest from the thimble first. The holding power of the swaged terminal is a function



1/16" CABLE WITH SINGLE CRIMP



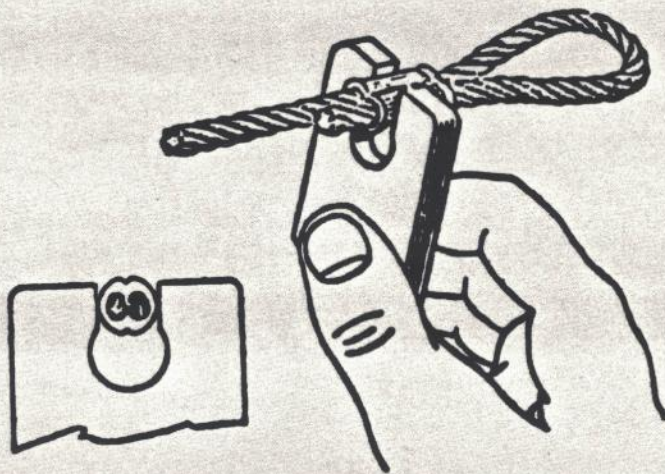
**MAKING EYE SPLICES WITH NICOPRESS OVAL SLEEVES**  
To make EYE SPLICES pull enough cable through the sleeve so that the end will still protrude after crimping. Line up the sleeve between the tool jaws as shown with the long axis crosswise to the jaws.



of the amount the terminal was crimped. A "go, no-go" gage should be used to check each crimp. Additionally, always proof test the completed cable if the holding strength is critical.

Two types of Nicopress tools are available on the market today. The "high dollar" model looks similar to a heavy duty bolt cutter, only it has swaging dies in its jaws rather than cutting edges. This unit is fast, accurate, can be taken to the job, is equipped with a "go, no-go" gage and requires little maintenance; it also costs about \$90. That is quite a bit of money for a tool which is used so infrequently. (This would be a good choice of a tool for a Chapter tool lending library.)

An alternate choice is the "cheapie" model which performs the same function for about \$35. What is the difference? Well, the \$35 model doesn't have a "go, no-go" gage, no directions and it isn't nearly as portable. The unit is small, so if you aren't Superman, the unit should be clamped in a vise. Additionally, after a relatively few uses, the 3/8" bolts used to clamp the dies, break from fatigue. The bolts will break where the drive pins were installed. When this happens, throw away the broken bolts and the drive pins. Install new 3/8" coarse bolts and set in the vise with the bolt heads down. The vise grips the bolt heads only, which holds the tool and prevents the bolts from turning.



**GO, NO-GO GAGE  
ON OVAL SLEEVE**

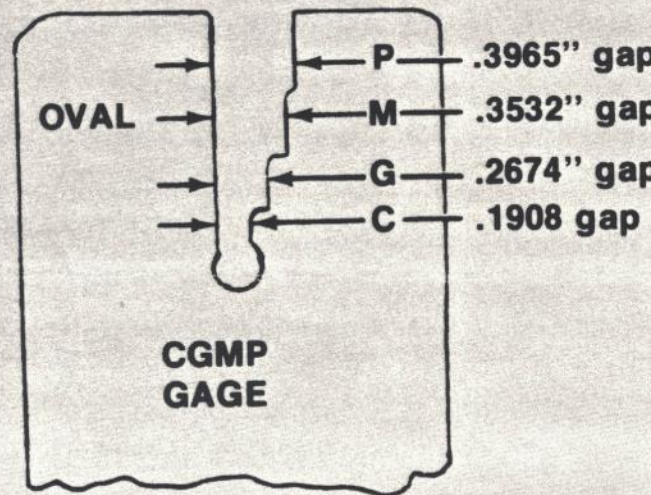
In summary, here are a few thoughts to remember when swaging cables:

- 1) Use parts and components which have equivalent strength, size and quality to the original installation.
- 2) Cables may be spliced, but only if absolutely necessary.
- 3) Swaged terminals shall never be installed closer than 2 inches to fairleads, pulleys, etc. The purpose is to prevent jamming in the control system as the controls are moved through their full travel.

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4) Always use a mechanical means to cut cables. Never use heat, such as a cutting torch, as this will reduce the strength of the cable and destroy the anti-rust plating on the cable. A sharp chisel, hit with a large hammer, with the cable laying on a vise or anvil will cut a 1/8" cable with one blow.

5) Always use a "go, no-go" gage to insure the terminal is properly installed.



**NOTE**

Dimensions are taken from National Telephone Supply Company's gage for use with their oval sleeves and tool grooves as specified in their Instruction No. 32.

6) Using red paint, paint a slippage mark on the cable and swaged terminal. On subsequent inspections check that no gap exists in the paint between the terminal and the cable.

7) Proof test the final cable if the holding strength is critical.

8) If the cables are not of corrosion resistant steel they should be coated with rust preventive oil before final installation in the airplane.

**DESIGNEE NEWSLETTER SUBSCRIPTIONS**

In addition to the monthly columns, **The Sport Plane Builder** and **CRAFTSMAN CORNER**, EAA Headquarters publishes a monthly Designee Newsletter containing even more "How To" material, a compendium of the previous month's Designee inspections and a summary of aircraft maintenance information.

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