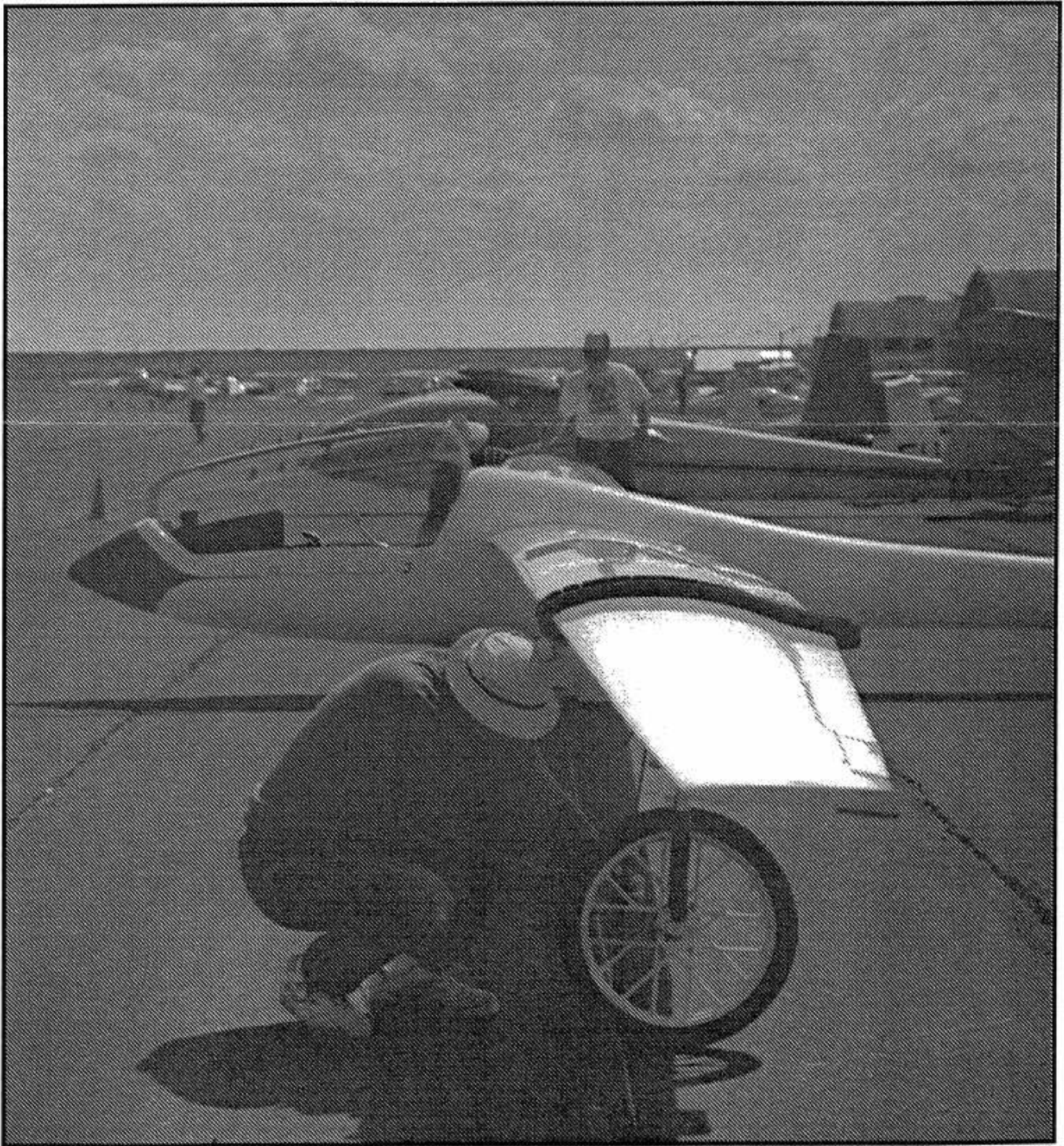


# Towline

Vol. XXXIV

Newsletter of the Seattle Glider Council

July 1994



# Towline

Newsletter of the Seattle Glider Council

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## Board of Directors

### Chairman

Ragnar Smith 283-5024

### Vice-Chairman

Nelson Funston 232-9416

### Directors

Harold Broomell 772-2112

Bob Chase 823-6500

Norm Ellison 747-7879

Vince Miller 863-6960

K.A. Parks 453-8030

## SGC Mailing Address

Seattle Glider Council  
P.O. Box 7184  
Bellevue, WA 98008-1184

General membership meetings are held the first non-holiday Monday of each month except for June, July, August and November at the Seattle Museum of Flight, 9404 E. Marginal Way S., Seattle.

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## Out on Task

### *What! Another increase in costs?*

Yes folks, another dose of reality has landed on the northwest soaring community. Tow rates have just increased for Boeing towplanes effective June 1 with the SGC increasing on June 14. The fees are similar with cost of \$10 for the first 1000 ft, and \$5 per thousand after. The SGC rates are different that an additional \$1 will be charged per 1000 ft past 3000 feet. Confused yet? Well, lets add a charge of \$2 per tow for non-Boeing Club members when towing behind their Super Cubs. The last part is what has caught some people off guard. More on that later...

Lets all understand the math now, so we can be ready when the bill comes.

Joe pilot wants a tow. A yellow plane is hooked up to Joes' glider. That plane is owned by the SGC. Joe takes a 2000 ft tow.  $\$10 + \$5 = \$15$ . Very good. Next situation.

Jane pilot wants a tow. A red plane is hooked up to Janes' glider. That plane is owned by the Boeing Club. Jane takes a 2000 ft tow.  $\$10 + \$5 = \$15$ . Close Jane, but you don't belong to the Boeing Club so we would like you to help support their towplanes with a \$2 contribution. The correct answer is \$17. (Please keep in mind that 1500 ft tows will continue to be a minimum at Ephrata for safety and towplane cooling reasons.)

The Boeing Club has decided that those that are not members should help defray the costs of operating the equipment that they are using. This has sent a few pilots into orbit. Let's take a look at things. The Boeing members have paid the same tow rates as the non-members, but they also have to pay dues to belong to the club. Insurance and maintenance rates have gone through the roof; with the towplanes at the expensive end of their club's budget. To top things off, the BESC has to pay an additional fee for insurance to enable them to pull non-members. So who better to get additional funds from, but those that use the towplane services.

As a member of the Seattle Glider Council who is not a member of BESC, I agree that there needs to be some sort of additional fee. I just hope that people can swallow it and get on with life. My hope is that non-BESC members will acknowledge that the Boeing Club is offering their equipment for our use at a very reasonable fee. Let's not screw up the takeoff grid to save \$2. If you really need the two bucks that bad you probably can't afford the rest of the tow anyway.

We also need to remember that no matter what club we do or don't belong to, we are all in the Seattle Glider Council, so we should support what is best for the Ephrata operation.

See ya,  
Vince

Cover: Nelson and Jan Funston tie down the big bird for the night  
Art Credit: Thanks to Jack Olson for providing us with more of his wonderful artwork.

# SGC Board Meeting Minutes

## Seattle Glider Council Board of Directors Meeting Minutes for June 14, 1994

### Attendees:

Ragnar Smith  
Bob Chase  
K. A. Parks  
Nelson Funston  
Norm Ellison

### Committee Reports:

#### Contest:

Norm Ellison reporting. Thirteen entrants have signed up at this point. More are expected. Max Karst will sell T-shirts. Don Daniels will be the weather man, using information supplied by Tom Dixon's computer system. Mike Delany will process film (late note: Mike cannot be there the first weekend). Jan Funston will run the start gate.

#### Ephrata:

(1) The clubhouse insurance is in full force following completion of the exposure reduction improvements demanded by the insurance company.  
(2) A painting detail needs to be organized for painting the outside of the outbuildings and the clubhouse. Ragnar will check with the Port about what paint they are using for their structures.  
(3) There was considerable discussion of the Port's continued changing of their conditions on RV. use and camping use of the additional land we leased from the Port for that specific purpose. Ragnar receives repeated "hell delivering" telephone calls from Mel Woods on one subject or another.  
(4) Ramp paving will be mid August and September now that congressional funds have been released. We

will probably be able to use runway 11-29 during the paving activity.

(5) The airport sport aviation study is not funded yet but is not dead yet either.

(6) A radio control model airplane event will be at the airport July 30 and 31. The activity will center at the intersection of runway 11-29 and the unused diagonal runway. Access to this area is via the new road from the Moses Lake road to the end of runway 29.

(7) The Civil Air Patrol auto-launching glider encampment is planned for mid August. Hopefully there will be no conflict with the repaving.

(8) Dennis Eckart is still licensing the clubhouse ground station radio.

#### Towline:

(1) Printing of the July issue will be June 22 at Ragnar's office.

(2) Steve Northcraft has obtained mailing labels of new SSA members in Region 8 from the Soaring Society, which we will use to send complementary Towlines, a few each month.

#### Towplane:

(1) Repair for the towplane after the recent ground loop accident has been completed. The insurance will cover all expenses after we pay the \$450 deductible, except for lost revenue.

(2) The board concurred to change tow rates to match the Boeing Club's rate structure for tows up to 3000 ft. The new rates will be:

\$10.00 for first 1000 ft

\$5.00 per 1000 ft for the next 2000 ft

\$6.00 per 1000 ft above 3000 ft

Minimum billing for 1500 ft (\$12.50)

Retrieve and private flying at \$60.00/hr

(3) Long discussion on ferry charges

and/or surcharges on expeditions, with the subject being tabled to a later date for resolution.

#### Alternate Flying Site:

(1) Mr. Sam Israel recently died, which may or may not change the status of leasing or buying the site at High Hill. Ragnar is still trying to complete the lease with option to buy.

(2) Ranger Creek is expected to open to aviation at least on a trial basis this summer. The Seattle Glider Council is reserved for the weekends of:

July 30/31

October 8/9

October 15/16

The Puget Sound Soaring Club is scheduled for:

August 20/21

August 27/28

#### Other:

We are still looking for display gliders for the Paine Field Airshow August 20/21.

Also for Port Townsend Airshow July 23/24.

#### Meetings:

(1) The Seattle Glider Council want to thank **Doreen** and **Bob Chase** for hosting the June social and non meeting potluck supper at their house this year, you're **Good Guys**.

(2) The next general meeting **Monday September 5, 1994**, Museum of Flight, Show and Tell

(3) Next board meeting **Wednesday July 6, 1994**, 7:00 PM at Ragnar Smith's office.

Respectfully submitted,  
Nelson Funston, Vice-Chairman

# USING THE "GREAT CIRCLE" TO VERIFY YOUR TASK DISTANCE

By Lynn Wyman

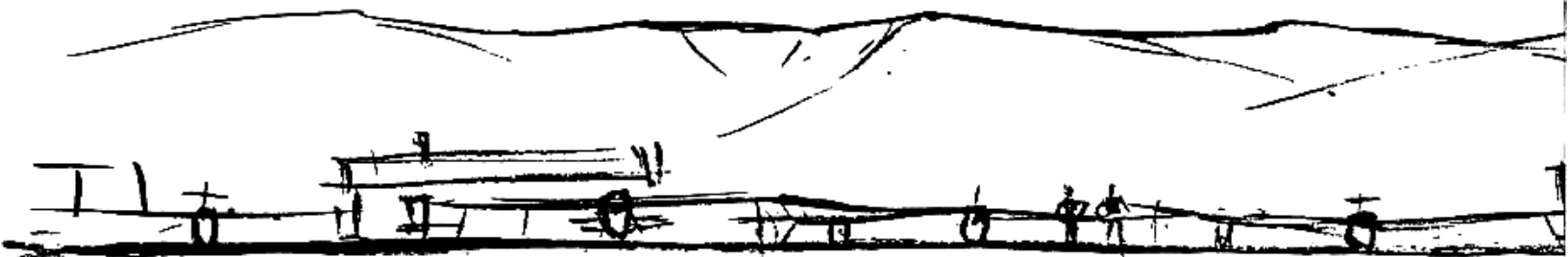
Recently, I was asked to observe for a 500 km attempt at Ephrata. The course was to be Ephrata-Davenport-Lookout-Lamona-Ephrata. Being your basic "Doubting-Thomas" I got the old calculator out and checked the distance by the SSA's Great Circle formula. To everyone's surprise, the course was too short -- 476 instead of 500 km. A recheck of map coordinates and calculation verified the course lacked 24.7 km. "How could this happen?" the pilot-to-be asked. "Just last weekend two pilots did this course for badges."

Unfortunately, these claims will be denied by the SSA if they are submitted. The reason this can happen is two-fold:

(1) The sectional charts do not account for the Earth's curvature. Measuring on the clubhouse wall map with the string will usually give you an overly optimistic distance by 1% to 2%.

(2) Because we are human, errors in measurements are inevitable. In this case it appears the error is mostly due to measuring the chart incorrectly.

I decided to bite the bullet a few years ago and learned how to calculate great circle distances. The human error can still occur by not reading the latitude and longitude correctly but otherwise it is a sure thing. With practice one can calculate a leg distance in about the time it takes to scale the map -- about 45 seconds to one minute.



The purpose of this article is to encourage the pilot to take time to learn the formula. For those who are hesitant to wade into the math, I will try to make it simpler. You must have a "scientific" type calculator which has trig. functions, i.e., "sin" and "cos" buttons. For math geniuses, the formula is:

$$\text{DIST.} = K \cos^{-1} [\sin(\text{lat. "A"})\sin(\text{lat. "B"}) + \cos(\text{lat. "A"})\cos(\text{lat. "B"}) \cos(\text{long. "A"} - \text{"B"})]$$

For kilometers, K = 111.19493

Let's calculate Ephrata A/P to Davenport A/P by great circle:

	<u>Turnpoint</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Distance</u>
A.	Ephrata A/P	47.308°	119.525°	
				[ANSWER]
B.	Davenport A/P	47.658°	118.175°	

NOTE: all coordinates must be converted to decimal first.

Push the calculator buttons as follows (starting from the right end of the formula and working left):

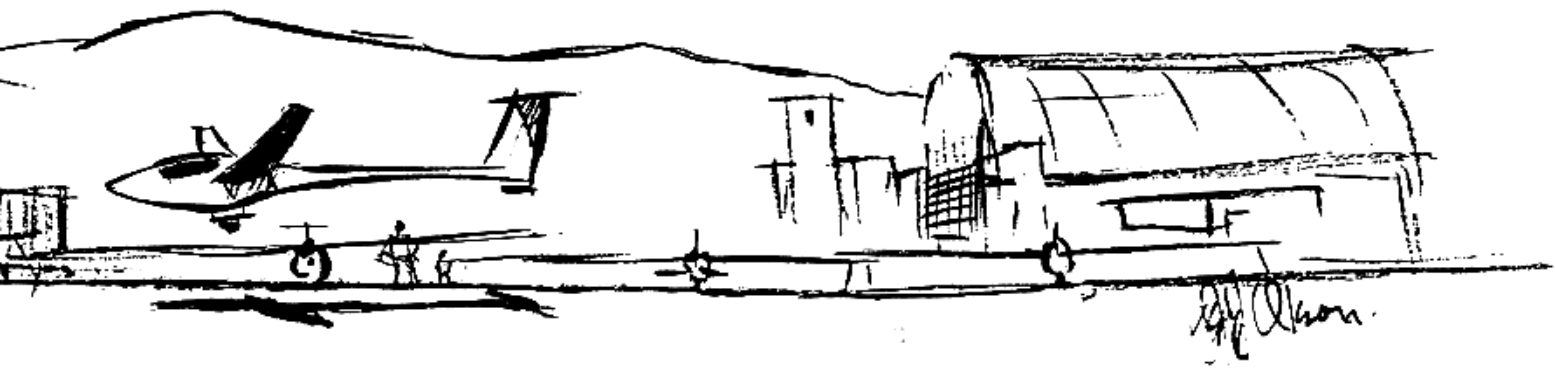
NOTE: calculator operations are in parenthesis -- TRUST ME! Just push the buttons in the order shown.

(119.525) (-) (118.175) (=) (cos) (x) (47.308) (cos) (x) (47.658) (cos) (+) (47.308) (sin) (x) (47.658) (sin) (=) (INV) (cos) (x) (111.19493) (=)

The answer is: 108.65 km.

For those of you having the "HP" type calculator, you will need to figure it out by the formula as I don't use one.

If this doesn't make sense to you, don't despair -- ask me to show you in person at Ephrata.





# Want Ads

**FOR SALE: ASW-19 ONE HALF INTEREST IN PARTNERSHIP-** 1978 N78CM - "GT", 611 total hours, excellent condition, based in Ephrata, new ox system, new Replogle barograph, new Delcom Air 960 radio, Security 150 chute, enclosed trailer, \$12,500 FIRM. Contact Jerry Davidson (206) 783-9510 home, or 345-2915 work.

**FOR SALE: ASW-15** Dez Kelemen's legendary ship, 1972 model with trailer, oxygen, electric vario; AD's complied with; asking \$15,000 or best offer; trailer parked in Enumclaw. Inspection can be arranged with Don Crawford. For more info call Don at (206) 825-1483 or Dez George Falvy at (206) 232-8473.

**FOR SALE: STD CIRRUS** 1971 S/N 119 615 hrs TT. Never bent. Good gel coat, 2 audio varios, O2, tip wheels, small tail wheel, Bayside, EZ lift Eberlee Trailer (208) 888-2947 Meridian, Idaho \$16,000 obo.

**Sailplane & Gliding Magazines**, 1974 to present, few missing, Harry (509) 925-6214 after 8 PM.

**BLANIK AMERICA INC.** L23 Super Blaniks, Solo and L13 Spare parts. Contact Vitek Siroky, PO Box 33554, Seattle, WA 98133-0554. (206) 368-0766

**FOR SALE: ASW-20C** Excellent condition, radio, oxygen, instruments, trailer. See at contest. Eric Greenwell (509) 943-9065.

**FOR SALE: Glasflugel Mosquito 15M,** Self launch with PIK-20E retract mechanism, Rotax 501 engine, 883 TT, 93 engine, Cambridge, Winter, Terra, Self Rig, Pfeiffer trailer, all in new condition. Harry, (509) 925-6214 after 8 PM.

**FOR SALE: Schweizer SGU 2-22EK** Serial #179 N27232 Completely restored with new wing skin, New fabric and paint. Has CG tow hook and older open trailer. \$6900 (509) 928-0495 Dean Forney, E. 14715 20th, Veradale, Wa. 99037

**FOR SALE: ASW-19** Good condition, Smiley bags, Sage, Rico, Radio and standard instruments. \$22,500 Tom Johnson (503) 638-0384.

# Calendar

*July 6 - 7pm SGC Board Meeting at Ragnar Smith's office*

*June 25,26 July 2-4 1994 Region 8 Competition - Ephrata, Wa. Contact Competition Manager Norm Ellison P.O. Box 5503, Bellevue, WA. 98006 (206) 747-7879*

*July 12-21 Sports Class Nationals - Siskiyou, CA. Contact Gary Kemp, (916) 934-2482*

*July 23-24 Port Townsend Airshow*

*July 27-August 6 15-Meter Nationals - Livingston, MT. Contact Debbie Alke, Aeronautics Division, MDT, P.O. Box 5178, Helena, MT. 59604 (406)444-2506. Limited to 48 contestants. Deadline for preferential entry is May 26,1994.*

*August 20-21 Paine Field Air Show*

*September 1-5 Region 11 North Contest, Siskiyou County Airport, Montague, CA (Aug 31- practice day, Sept. 6-rain day) Contact: Jan Driessen P.O. Box 9, Yreka, CA 96097 (916) 938-2323*

*September 5 - 7pm SGC General Membership Meeting at Museum of Flight Show and Tell Night or What did you do this summer?*

## Seattle Glider Council Membership Renewal Form

### 1994 SGC Fee Schedule

Membership	\$13.00	
Canadian postage	5.00	Additional
Trailer fees per year	70.00	
Trailer fees per week	7.00	
Pilot fees per year	45.00	
Pilot fees per day	4.50	
Ephrata tows	10.00	first 1000 ft
(Minimum billing	5.00	per 1000 ft to 3000
1500 ft tow (\$12.50)	6.00	per 1000 ft above 3000
		plus 7.5% sales tax
In state retrieve/tach hr	60.00	plus 7.5% sales tax
Out of state retrieve/tach hr	60.00	tax exempt
Glider ferry per tach hr	60.00	taxable if WA origin
Towplane ferry/tach hr	60.00	taxable if WA origin
Private flight/tach hr	60.00	
Overdue accts per month	5.00	after 90 days

Annual Membership \$13.00 \_\_\_\_\_  
 Additional Family Members 14 and over 5.00 ea \_\_\_\_\_

Name(s) \_\_\_\_\_  
 Towline only 8.00 \_\_\_\_\_  
 Canadian postage (add) 5.00 \_\_\_\_\_  
 US First Class postage (add) 4.00 \_\_\_\_\_

TOTAL (US funds only) \_\_\_\_\_

Phone number for SGC roster \_\_\_\_\_  
 Send check payable to Seattle Glider Council with this form to:  
 SGC Membership - PO Box 7184 - Bellevue, WA 98008-1184

# July Clubhouse Duty

2/3  
Boeing Club  
Fleshman

16/17  
Hacker  
Evergreen Club

9/10  
Niedermeyer  
Wright

23/24  
Boeing Club  
Medlock

30/31  
Nichols

**Towline**

P.O. Box 7184  
Bellevue, WA 98008-1184

\*DCR 6\* SEATTLE, WA 06 27 94 09:10

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