

# TOWLINE



Inside: DG-1000 arrives, Caproni Flies, Exciting SGC Minutes and more  
**Fall/Winter 2003**

### Soaring Society of America

P.O. Box E  
Hobbs, New Mexico 88241  
505-392-1177  
www.ssa.org

**SSA Region 8 Director**  
Steve Northcraft 425-235-0231

**Idaho SSA Governor**  
Tom Dixon 208-376-6718

**Montana SSA Governor**  
Steve Ard 406-388-6887

**Oregon SSA Governor**  
Stew Tittle 503-746-7032

**Washington SSA Governor**  
Bob Wallach 206-723-2460

**State Record Keeper**  
Bob Wallach 206-723-2460

#### **Cover Photo:**

*BESC L-23 takes off into the Wenatchee sunset.*

### Seattle Glider Council

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

#### **Officers and Board of Directors**

##### **Chairman:**

John Daly 206-780-3432

##### **Vice-Chairman**

Linda Chasm 206-937-7177

##### **Treasurer**

Jim Simmons 425-742-4722

##### **Directors**

Mike Newgard 425-313-9754

Steve Northcraft 425-235-0231

Tom Kreyche (206) 726-9838

Mike Moore (206) 790-7949

#### **SGC/Ephrata Homepage**

[www.seattleglidercouncil.org](http://www.seattleglidercouncil.org)

Webmaster: Tom Kreyche

(206) 726-9838

[tkreyche@well.com](mailto:tkreyche@well.com)

#### **SGC Clubhouse**

Ephrata Municipal Airport  
30 Airport St NE, Building 625  
Ephrata WA 98823  
509-754-3852

*See the Calendar of Events in this issue for information, times and locations for SGC meetings.*

### **Weather Information**

NWS Spokane 509-353-2367

NWS Seattle 206-526-6087

FAA Weather 800-992-7433

Hotline (9900) 206-464-2000

Highway Report 206-368-4499

Region 8 Clubs/Associations:

#### **-Boeing Employees Soaring Club**

<http://www.boeingsoaring.com>

Jay Todd(253) 847-0377

#### **-Cascade Soaring**

Arnie Clarke 509-884-2494  
[www.nwinternet.com/~blanikam/css](http://www.nwinternet.com/~blanikam/css)

#### **-Columbia Basin Soaring Assoc.**

Tom Seim 509-627-5532

[www.tcfm.org/cbsa](http://www.tcfm.org/cbsa)

#### **-Evergreen Soaring**

Hotline 425-238-6617

Harold Broomell 206-772-2112

[www.evergreensoaring.org](http://www.evergreensoaring.org)

#### **-High Desert Soaring - Bend, OR**

John Bentley 541-330-3905

#### **-Puget Sound Soaring Assoc.**

Operations 206-660-0019

Stefan Perrin 253-927-9183

[www.pugetsoundsoaring.org](http://www.pugetsoundsoaring.org)

#### **-Silverstar Soaring Association**

Hans Kruiswyk 250-763-1788

<http://www.members.home.net/soar>

#### **-Spokane Soaring Society**

Dale Walker 509-466-0206

<http://www.spokanesoaring.org>

#### **-Vancouver Soaring Association**

James Swank 604-590-6954

Clubhouse/Voicemail:604-869-7211

[www.vsa.ca](http://www.vsa.ca)

#### **Willamette Valley Soaring Club**

Information 503-241-9237

[www.wvsc.org](http://www.wvsc.org)

#### **Commercial Operations**

##### **Blanik America, Inc.**

Vitek Siroky 509-884-8305

##### **Skysigns**

Glider Rides Arlington

John Carson 425-868-1282

##### **Cascade Soaring**

McMinnville, OR 97128

Joe Deem 503-472-8805

##### **Lewiston, ID (Towplane)**

Dave Dorion 509-243-9919

SGC one-year membership renewal (January-December) US\$25

(SGC Membership is required for all tows behind an SGC towplane.)

SGC Family Membership (for 14 and older) US\$10 each

Towline-only Subscription US\$15

Canadian Postage (add)

US\$ 5

Tows (at Ephrata):

\$20.00 for first 1500' (minimum fee)

\$.70 per 100 feet above 1500'

Tows (any airport other than Ephrata): Aero retrieve or

\$22.00 for first 1500' glider ferry:

\$.80 per 100 feet above 1500' \$70/ tach hour

Ephrata Pilot Use Fee: \$60 for the season, or \$10 per week (Sat-Fri)

(Notes: maximum limit if pilot fee paid by the week is \$90; )

Trailer parking: \$120 for the season, or \$15 per week (Sat-Fri)

RV parking: \$225/season (+ \$17.55 tax), or \$35 per week (+ \$2.73 tax) (Sat-Fri)

# Towline

Newsletter of the  
Seattle Glider Council

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*Contribution of articles, photos, artwork and letters to the editor are encouraged. The editor prefers to receive text contributions via e-mail in common formats. Mailed PC or Mac format disks are also acceptable. Other contributions should be typed or legibly written.*



## Out on Task by Dave Reusch

Apologies once again for the sporadic publication of Towline. Soccer season is at long last over and life can return to normal. Now I really hate that game.

During my two year tenure as editor I've seen the amount of written data dwindle to virtually nothing while the photographic material has sky rocketed. Even ten years ago the sole graphic was one of Jerry Pomeroy's beautiful pen and ink sketches gracing the cover. Everything else was type written, cut and pasted. The editor really had to struggle to add a graphic.

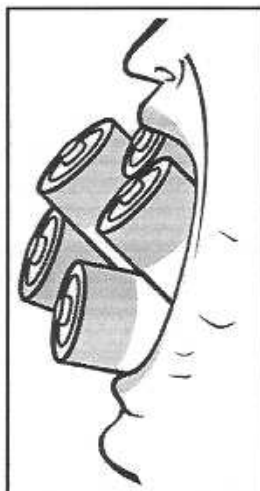


"Eating One Battery"

Some how we've swung too far to the side of graphics and it's hard to find appropriate stories. People just don't seem to write any more. Many pilots are retired...and as a result have absolutely no spare time. Others probably feel the photographs do the talking.

We really don't want to relegate Towline to be on par with Strongbad's "C minus Englilishsh Paper" ..what with random battery eating graphics inserted here and there having nothing to do with the text.

But that's exactly what will happen unless you make a point of contributing an article or note. Look upon it as your chance to get published.



"Eating Five Batteries"

For entirely other reasons this will be my last issue of Towline. Right now its all a blur to Marilyn and me. While we were wondering when young Wingstand was gonna be potty trained he grew right past us. Now that he can lift a wing we're wondering when he'll actually have time to. Ditto for Steffi.

I would like to thank all those who've contributed this month, especially Stan Kaspryzk, Wayne Woodmansee and Linda Nobel Towpilot. And last but not least, Mike Newgard who, truth be told, is actually doing all the hard work.

Volunteer editor wanted.

Best of Thermals in the New Year,

OLD DOG



"OLD DOG...How dare you show up without beer"

# CALENDAR & ANNOUNCEMENTS

**January 5th, Monday General Membership Meeting- Museum of Flight**

Change of address:

Tony Burton/Ursula Wiese from Alberta Soaring Council ([www.soaring.ab.ca](http://www.soaring.ab.ca))  
editor, Free Flight magazine has changed to: [t-burton@telus.net](mailto:t-burton@telus.net)

## **Minutes of the Seattle Glider Council Board of Directors November 2003**

Present were: John Daly (Chairman), Mike Newgard, Steve Northcraft, Michael Moore, Mike Delaney, Jim Simmons/Treasurer, and Linda Chism/Secretary (Directors); and Tom Kreyche (Members).

**Financial Report:** Simmons presented the balance sheet. SGC is down to appx \$500 in accounts receivable for the flight fees of soaring season 2003. In anticipation of the 2003 year-end financial activities, there was discussion of the keeping the values of SGC's assets up to date. Mike Delaney will research an appx market value for 78P and 75B and report back.

**Towplanes:** 78P and 75B have their annual inspections completed. Some included maintenance items accomplished on 78P were a rebuilt tailwheel, new brakes, ELT replacement, and miscellaneous other repairs.

**Elections:** Nomination ballots have been counted, and Simmons will contact the potential candidates by phone in the coming week. Ballots will be mailed out shortly, with the goal to have them counted by Dec. 12, 2003.

**SGC Appointments:** Several key appointments will be vacant soon. Dave Reusch will be stepping down as the Tow Line editor, and Jim Simmons will be seeking a new Treasurer. Interested persons will be sought.

### **SGCSF Update:**

-A fund drive letter has been sent out and year-end donations are appearing.

-Simmons has purchased furniture for the front room of the new clubhouse with the generous targeted donation given for furniture.

-The Mobile Home is now gone from the property, and the pad underneath it was cleaned up by the purchaser. Before next spring, the water line to the taps and to the bath house will need to be hooked back up. A decision will also need to be made concerning the future of the remaining portion of the old deck.

-An SGCSF Board meeting is planned, but not yet scheduled.

**Banquet:** Kreyche reported that plans are on track for the Nov. 15, 2003 banquet at Ivar's. There will be appx 45 in attendance. Kreyche is arranging a power point random slide show to project during the happy hour. John Daly will be the "master of ceremonies" for the evening.

**SGC Web Site:** Per Kreyche, the SGC web site has been "piggybacking" for some years on the SSA's server. In the near future, this will be cut off, and Kreyche is looking for options for a web site host.

**Sale of Mobile Home:** The front and back decks and all utilities have been disconnected from the mobile home, and the buyer has been doing further prep prior to his moving it before November 1.

**SGC Records:** Bob Chase has a filing cabinet of historical SGC records at his house; and due to his retirement from the sport, will remand the files back to the custody of the SGC. Newgard will pick up the cabinet and contents and relocate them to the new clubhouse. Simmons moved that Northcraft replace Chase as the registered agent of the Corporation for the SGC. Delaney seconded. The motion passed unanimously. (Note: Newgard remains the registered agent of the SGCSF.)

Submitted By: Linda Chism, Secretary

## Minutes of the Seattle Glider Council Board of Directors OCTOBER-2003

Starting 6:45 PM at the Factoria Meeting Room

Present were: John Daly (Chairman), Mike Newgard, Steve Northcraft, Mike Delaney, Jim Simmons/Treasurer, and Linda Chism/Secretary (Directors); and Len Trautman and Tom Kreyche (Members).

Region 8 Contest: The 2004 Contest date is now set for July 5 thru July 10, with July 4 as the practice day. These dates will not conflict with the Region 9 contest in Parowan, UT, and/or the Standard Class and 15M Nationals. The motion for this schedule was made by Daly, seconded by Simmons, and approved unanimously.

LCD Projector: In general discussion, it was decided that SGC board would recommend to the SGCSF board to purchase an LCD Projector for use at General Meetings, Contests, Seminars, and Flight Instructor Clinics. Northcraft will shop around for serviceable used units and report price and availability back to the Board in a future meeting.

Port of Ephrata Master Plan: The Port and their contractor are still in the process of plan submission to the FAA Airports Office. The Board will continue to monitor this activity.

Financial Report: Simmons presented the balance sheet. So far, flight fees are down approximately \$1,000 compared to 2002. Pilot fees are slightly increased from 2003. Simmons reminded the Board that we will need to address the following prior to Jan, 2004:

- Examine and adjust, if required, of the value of SGC's assets.
- Perform the transfer of certain assets, as planned, from the SGC to the SGCSF.

Banquet: Kreyche reported that plans are on track for the Nov. 15, 2003 banquet at Ivar's. Due to the amount of paid reservations received to date, a phone call campaign is planned to remind members. Simmons will divide the membership list among the board members in the coming week.

Elections: Ballots are in the mail to members.

Sale of Mobile Home: The front and back decks and all utilities have been disconnected from the mobile home, and the buyer has been doing further prep prior to his moving it before November 1.

Towplanes: 78P and 75B have been scheduled for their annuals and open maintenance items this winter with Ron Piercy, in preparation for 2004 season.

SGCSF Update:

-A fund drive letter is in the mail with the Election Ballots, to raise funds to meet the Matching Funds which expire in Feb 2004. Approximately \$5000 remains to be matched. A generous donation of \$2500 was received in early October, with the donor requested to be towards new clubhouse furniture.

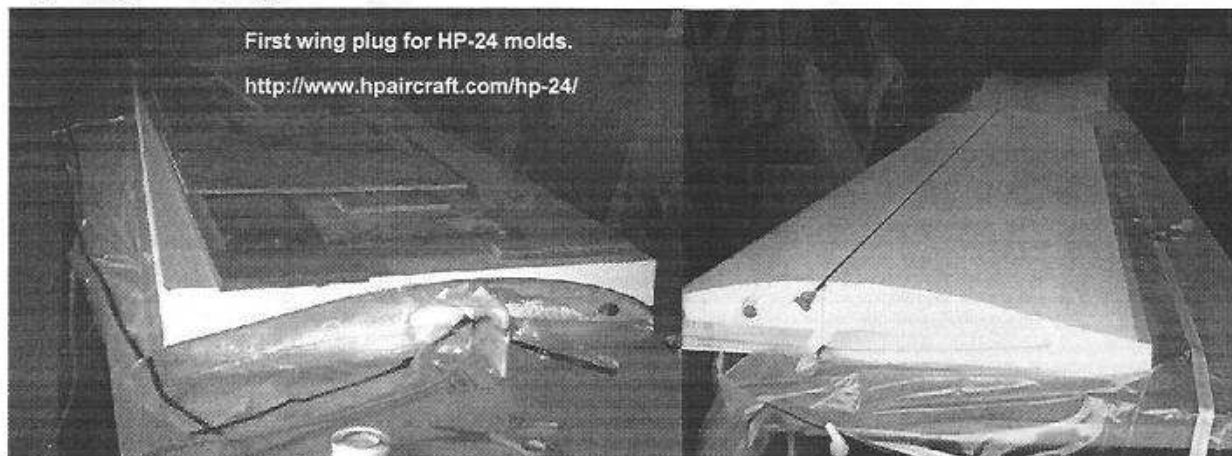
- Simmons has done preliminary furniture shopping and has identified some candidates.
- The Site Plan will be discussed at the next SGCSF Board Meeting.

Next SGC General Meeting: December 1, 2003, 7 pm at the Museum Red Barn.

Submitted By: Linda Chism, Secretary

### HEARD AT THE GLIDER FIELD:

Rumor is that the Gunther's are expecting a new LAK-17 this spring. Retiring at the end of December, Chris is expecting delivery in late spring.



## Minutes of the Seattle Glider Council Board of Directors Monday, 9-16-03

Present were: John Daly (Chairman), Mike Newgard, Steve Northcraft, Mike Delaney, Jim Simmons/Treasurer, Michael Moore, and Linda Chism/Secretary (Directors) and Len Trautman (Member).

**Financial Report:** Simmons presented the balance sheet. The summer's income from flight fees is now being reflected on the books but it is unclear how the season will end financially, regarding the money spent on the bath-house and Pawnee work done early in the year.

**Elections:** Simmons will have the 2004 Nomination ballot ready for distribution at the end of the week. In addition, three key positions will need to be named in 2004: Treasurer, Chief Towpilot, and Tow Line Editor.

**Sale of Mobile Home:** Three inquiries have been made after the mobile home was advertised. One offer was made, for \$600, in as-is condition, with the new owner to relocate it and recertify it with the State for habitation at his own expense. He also will clean up the area under the mobile home at his expense. After discussion, Northcraft moved that we accept L.C.Price's offer with above conditions, and Mike Delaney seconded it, adding that there are still some details hanging regarding the contents. The motion passed unanimously.

**Towplanes:** Both are serviceable and towing with the Pawnee starter repaired by Ron Piercy the prior week.

**Towpilots:** Len Edvinson has been re-checked out to tow in the Super Cub and Pawnee.

**EPH Master Plan Update:** Discussions are still underway between the FAA Airports Division, and Port of Ephrata as to the proposed runway improvements and potential changes to the glider operation. Northcraft and Simmons attended the Port's final meeting the week of Sept 10, prior to the airport plan draft being submitted to the FAA. The SGC's comments have been made. When the final draft is published, the SGC Board will publicize any changes to the glider operations that may result.

**Region 8 Contest:** The 2004 Contest date is tentatively set for June 27 thru July 3. It may be revised depending on conflicts with other National contests or Western regionals. It will be re-discussed at the next Board meeting.

**2005 Nationals Bid:** Northcraft is still working the application process for Ephrata's 2005 bid for a National contest; but the SSA Contest Site Selection Committee will not meet to discuss till Feb 2004.

**SGCSF Update:** 1. A fund drive letter will be coming out shortly for donations, stressing the Matching Funds expiring in Feb 2004. Approximately \$7300 remains to be matched by the generous benefactors.

2. The Site Plan will be discussed at the next SGCSF Board Meeting.

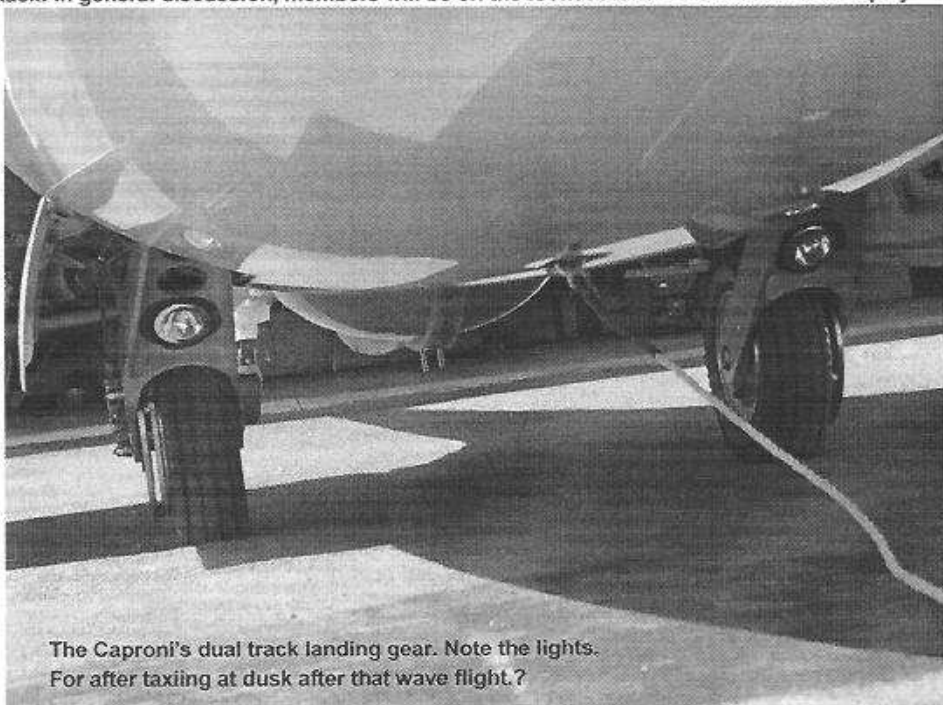
**Glider parking:** In general discussion, we will continue to develop ways to increase our glider parking capacity and efficiency. One new idea is setting up a Club Ship parking area in the north zone, as the ships frequently do not fly on a weekly basis. A layout has been made to help guide in planning an efficient use of the space with variously sized ships.

**SGC Brochure Rack:** In general discussion, members will be on the lookout for a brochure rack to display club and SGC information. This winter, Chism will revive the old Glider Operations handout and develop drafts of Club-house use and camper area guidelines. These items can also be placed on the SGC web site.

**Next SGC General Meeting:** October 6, 2003, 7 pm at the Museum Red Barn

**Next SGC Board Meeting:** October 13, 2003; 6:45; location TBD.

**Submitted By:**  
Linda Chism, Secretary

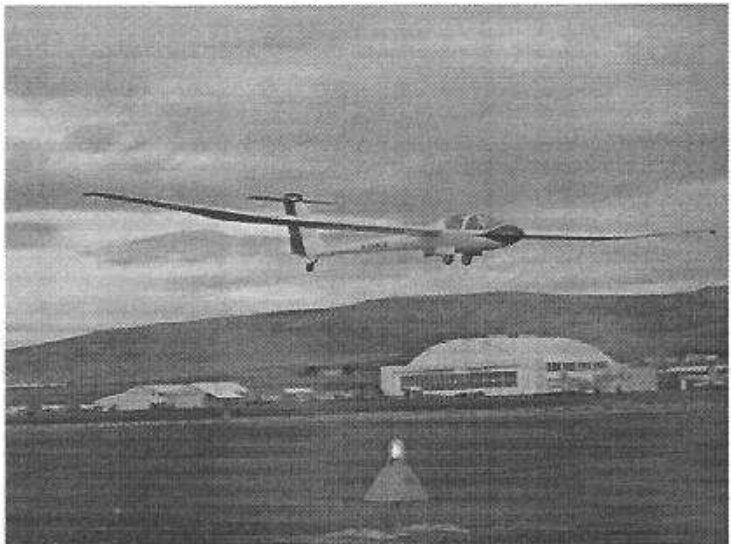


The Caproni's dual track landing gear. Note the lights.  
For after taxiing at dusk after that wave flight.?

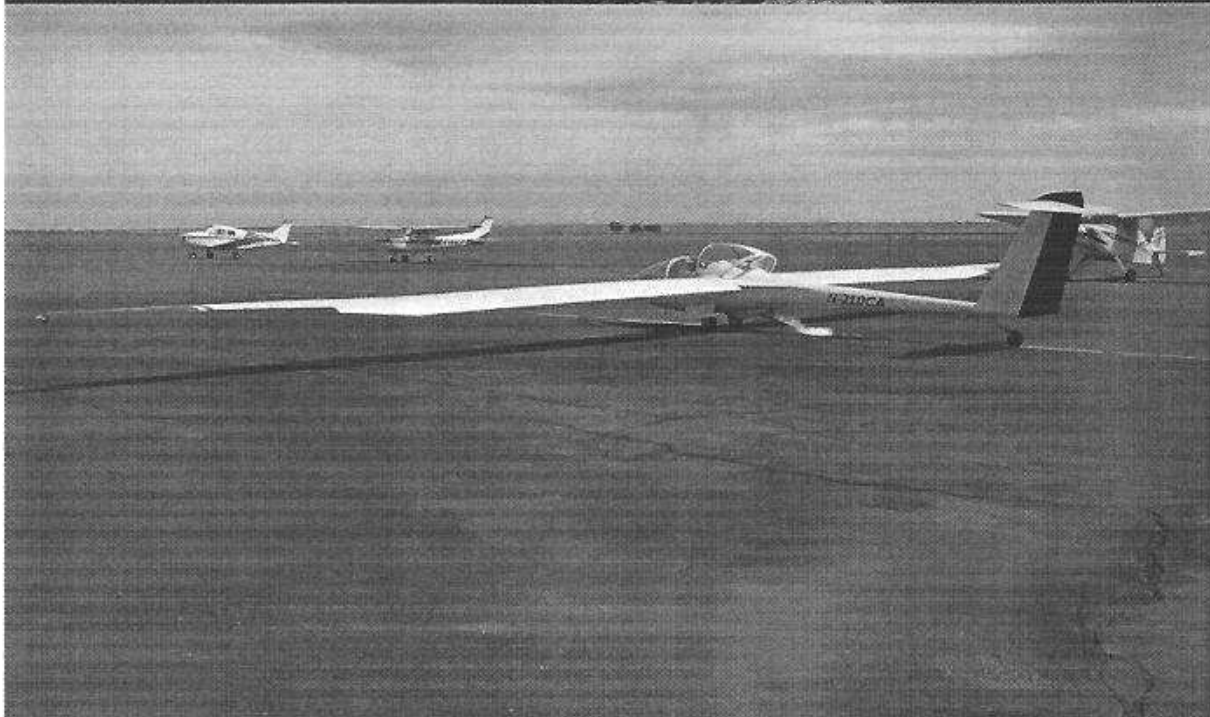
Dave Harris made two brief flights today on the 02-20 runway. He took off after about 1,200ft and climbed to ~ 20-25 ft before landing on the runway. These pictures are of the second flight. I towed him out to the runway for the first flight and he said, "No way, I'm not going to takeoff!" Well, he did takeoff so I drove back to retrieve my camera which he said I wouldn't need. Hence, the pictures of the second flight. My principal duty during the first flight was to put out the fire on the tail wheel. Dave thought the jet wake might overheat the tire so I was equipped with a fire extinguisher and urged to follow closely to put out the blaze. I felt the tire as soon as I could after his first landing, and it was barely warm. Not a problem.

Following the second flight (to the north) he turned around at the north end of the runway and taxied back to the ramp via the south exit from 02-20 and then back to the tie down area. No fires were detected.

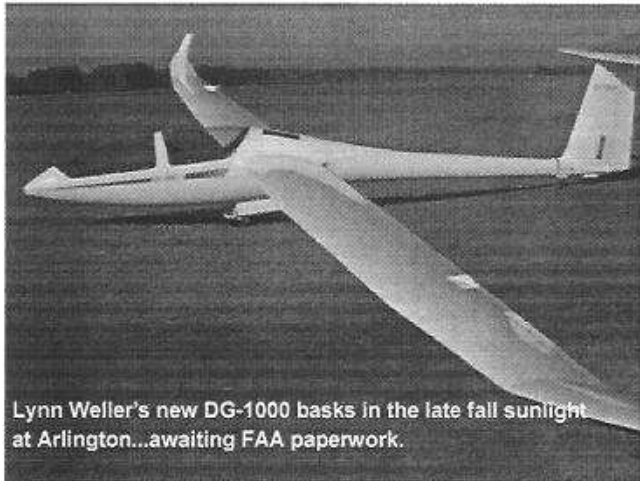
Wayne Woodmansee



Dave used to fly this BD-5 Jet on the airshow circuit.



## STAN AND LYNN'S EXCELLENT ADVENTURE



Lynn Weller's new DG-1000 basks in the late fall sunlight at Arlington...awaiting FAA paperwork.

Lynn Weller had the good fortune to become the proud owner of a brand new DG-1000. To accomplish his transition he enlisted the aid of instructor par excellence Stan Kasprzyk. Stan "just happened" to be heading out on a business trip to California and diverted to Lake Tahoe. Stan's words follow:

As the time for arrival in the Northwest of Lynn Weller's brand new DG-1000 came closer, I tried to look for an opportunity to fly a DG-1000 to help get myself acquainted. I wanted to get a good understanding of the DG-1000 and its flight characteristics, in order to provide a good transition plan and orientation for Lynn as he checked out in his beautiful new sailplane. Since the DG-1000 is so new, there are only a few of them in the states. I found out that Charlie Hayes owned one, and he offered flights out of Lake Tahoe airport, at the south end of Lake Tahoe. Since I was heading to California on business, I arranged for a detour to Reno, and drove out to South Lake Tahoe for an orientation flight in this impressive sailplane.

Charlie Hayes was quite proud of his DG-1000, and rightfully so - it's a beautifully built machine. Charlie and I walked through a detailed pre-flight, and I got familiarized with the exterior of the sailplane and then the cockpit setup. One unique feature on the DG-1000 is the solid ballast system, which consists of brass weights, totaling up to 26.5 lb, that are placed in a compartment in the vertical fin that is covered with a piece of clear plastic for viewing. In addition, a cockpit indicator light flashes after weights have been added, indicating the amount of ballast loaded. A good pre-flight will need to understand the intended pilot's weights, and the necessary ballast required.

The DG-1000 cockpit is laid out conventionally, with good shoulder and sitting height room in the front cockpit, and even more in back! The rear cockpit height adjustment is provided by an adjustable seat pan. Latching of the individual canopies is conventional, but some care must be taken in the front cockpit as the canopy frame often touched the spoiler handle as the canopy was being lowered. Rudder pedals are adjustable in front, but not in the rear cockpit.

The DG-1000 can be flown in an 18-meter configuration,

but today Charlie had the ship outfitted with the upturned 20-meter tips, which still allowed for basic aerobatics and spins. The aerotow hook is fitted at the very front of the nose. We setup on the taxiway next to Lake Tahoe's runway 36, field elevation of 6264', and began a wing-low takeoff behind Lee Edling in the Cessna 182 towplane.

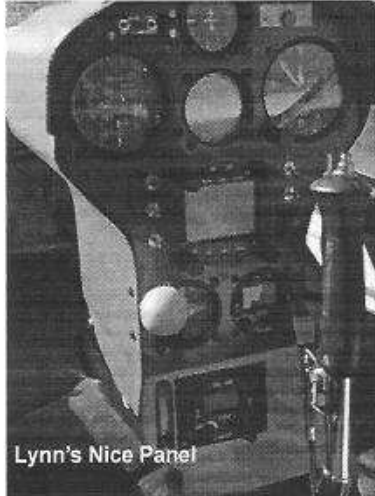


The small wingtip wheels, just before the wingtip joint, were only needed for a short time as we turned onto the runway and quickly gained aileron control authority. We were careful to avoid the taxi lights with our 20-meter wingspan as we turned onto the main runway, and were soon airborne behind the tow. Pitch authority and control were quite normal, and Charlie's suggestion to use a takeoff trim position just slightly aft of the takeoff trim line proved effective. From recent descriptions in Soaring magazine and discussion of the new JAR rules for roll feel, I expected the aileron forces to be heavier than they actually were. Instead, the DG had a feeling of stability on tow, seemed to take bumps and upset attempts in stride, while still having enough authority to handle requested inputs. Visibility was outstanding! We climbed over the south end of Lake Tahoe, then towed up into the Sierras to the southeast, hoping to find some thermal activity. Raising the gear on tow felt slightly heavy, but the leverage on the gear handle was quite good. A nice feature was an eyeball vent louver on the right side of the cockpit that provided nice ventilation.



Stan eager for a checkout at South Lake Tahoe

Although Charlie said the previous week's soaring conditions were poor, I was able to connect with a nice thermal shortly after release from tow, and was able to crank the DG-1000 around very nicely and quite quickly climb to 14,300' in the local Sierras. I initially tended to thermal a bit too fast, then settled into a decent groove after resetting the trim to help out. The DG-1000 was very stable in 45 degree thermaling turns, and even seemed to thermal a bit better after using Charlie's suggestion of a bit of top rudder in the turn.



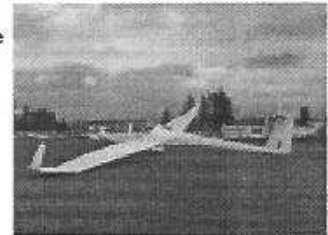
Lynn's Nice Panel

With decent altitude under our belt, it was time to check out the cross-country capabilities of this 47:1 glide ratio bird. We headed nearly due east from the Sierras across the Carson Valley south of Minden, Nevada to the Pine Nut Mountains. Using the indicated MacCready speeds, we smoothly dolphined across the valley, and I felt like I was back in a jet again. This bird can cruise! Hoping to find some thermals similar to the ones in the Sierras, we headed in nearly a straight line to Mt. Siegel, then headed north along the Pine Nut ridgeline to Mt. Como without finding much lift. We cruised back south to Mt. Siegel, then finally caught another decent thermal around 10,000', climbing back to 13,600'. It felt great to point west and smoothly cruise back at 45+ to 1 across the Carson Valley to the Sierras, hardly losing any altitude in the smooth glide back.



Cruising back across the Carson Valley, we headed back over the Sierras into the South Lake Tahoe area. I flew a number of straight ahead and turning stalls, which were quite gentle, with little tendency to drop a wing. Top rudder was quite useful in recovering from turning stalls. Charlie then flew one spin, and I flew a second, using the flight manual technique of full opposite rudder against direction of spin, pausing, then easing stick forward until rotation ceases,

and then carefully pulling out of dive. For inexperienced pilots, the only concern might be the DG's tendency to pick up speed quickly when nose low, so recovery from spins should stress good pitch control in the recovery. We were able to recover with speed increasing only to 79 knots



As we descended into the Lake Tahoe pattern, I tested out the double-segmented top-surface airbrakes, which are very effective. A nice standard feature is the Piggot hook, which helps avoid inadvertent release of the airbrakes on takeoff. By rotating the handle slightly inboard, the Piggot hook is bypassed for normal airbrake operation. I used 60 knots for a slightly fast approach to Lake Tahoe's runway 36,



Thermals????

and was pleasantly surprised by how easy it was to maintain my chosen pattern speed. Touch-down and rollout were quite pleasant, and we rolled to an accurate stop using the very effective brake, operated using the airbrake lever. Charlie's DG-1000 has an added small nose wheel, but Lynn's configuration only has the large main, so care will be needed to avoid pitching over when using too much braking.

In all, the DG-1000 is a fantastic two-place ship with great cross-country and aerobatic training capability, and I can't wait to fly one again here in the great Northwest!

Thanks, Charlie!



Stan & Lynn on short final at AWO



Stan & Lynn prepare for 1st Flight



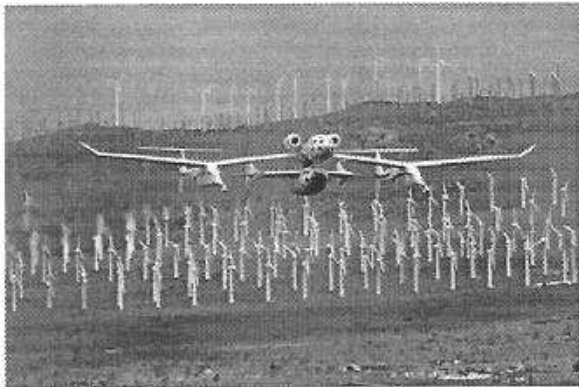
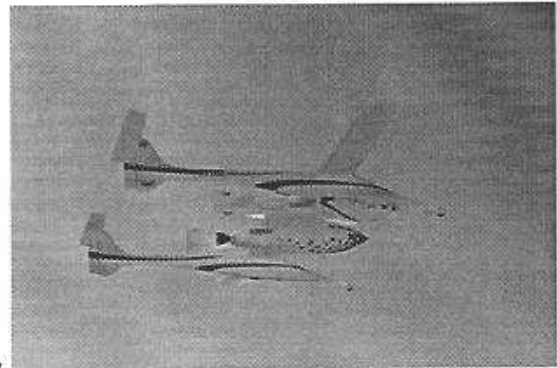
## ANNOUNCEMENT FROM SCALED COMPOSITES NEWSLETTER

Flight research has always been Scaled Composites' forte. For the 21 years since Scaled's founding, we have designed, built and flight tested 23 unique manned research aircraft types and developed over 40 unmanned products. Counting the homebuilt and milestone aircraft developed earlier by Rutan Aircraft Factory, 38 different types of Rutan-designed manned aircraft have flown research test programs. None have had a significant accident or pilot injury during flight test activity. Our flight safety approach of "question, never defend" has allowed us to take courageous steps by safely flying new ideas and new performance envelopes. We are now focusing on the big step of developing a high-altitude supersonic light aircraft. This program, if successful, will result in the first non-government manned space flight (above 100 km altitude).

Sub-orbital manned space flights have been done before by Redstone - Mercury in 1961 and by the B-52 - X-15 in 1963. Even though the experience, as described by Alan Shepard, Gus Grissom and Joe Walker was awe-inspiring, sub-orbital space flights were ignored for the next 40 years. The view from the apex of a sub-orbital flight is similar to being in orbit, but the cost and risk is far less.

Our goal is to demonstrate that non-government manned space flight operations are not only feasible, but can be done at very low costs. Safety, of course is paramount, but minimum cost is critical. We look to the future, hopefully within ten years, when ordinary people, for the cost of a luxury cruise, can experience a rocket flight into the black sky above the earth's atmosphere, enjoy a few minutes of weightless excitement, then feel the thunderous deceleration of the aerodynamic drag on entry.

Our plan involves flight in a 3-place spaceship, initially attached to a turbojet launch aircraft while climbing for an hour to 50,000 feet, above 85% of the atmosphere. The spaceship then drops into gliding flight and fires its rocket motor while climbing steeply for more than a minute, reaching a speed of 2,500 mph. The ship coasts up to 100 km (62 miles) altitude, then falls back into the atmosphere. The coast and fall are under weightless conditions for more than three minutes. During weightless flight, the spaceship converts to a high-drag configuration to allow a safe, stable atmospheric entry. After the entry deceleration which takes more than a minute, the ship converts back to a conventional glider, allowing a leisurely 17 minute glide from 80,000 feet altitude down to a runway where a landing is made at lightplane speeds.



Our concept design work began in 1996 and some preliminary development began in 1999. Our full development program began in secrecy in April 2001. This extensive experimental research effort is a complete manned space program. It consists of all new hardware including a launch aircraft (the White Knight), a three-place spaceship (the SpaceShipOne), a hybrid rocket propulsion system, a mobile propulsion test facility, a flight simulator, an inertial-nav flight director, a mobile mission control center, all spacecraft systems, a pilot training program and a complete flight test program. All our hardware components are full-scale, full space-capable performance, not mock-ups or interim vehicles.

The hardware, technical descriptions and a flight demonstration of the White Knight were revealed to the press on April 18th. We are now back into hiding, to complete the rocket development and flight tests. We will provide progress reports monthly via test reports posted in the "test updates" section of this site. We will again invite the press when we fly the first flight above 100-km altitude. This milestone will be significant in that it will represent the making of the first non-government Astronaut, and it will be flown on a system that shows the level of affordability needed for future space tourism.

I strongly feel that, if we are successful, our program will mark the beginning of a renaissance for manned space flight. This might even be similar to that wonderful time period between 1908 and 1912 when the world went from a total of ten airplane pilots to hundreds of airplane types and thousands of pilots in 39 countries. We need affordable space travel to inspire our youth, to let them know that they can experience their dreams, can set significant goals and be in a position to lead all of us to future progress in exploration, discovery and fun.

Burt Rutan



## WINCH LAUNCHING IN CLE ELUM



From Sterke

Michael Henderson-plans to stop operations at the end of this month.

The picture is me taking off for a short flight. At that altitude, 1000 Ft agl you have to fly right into a thermal, or try again. But I am very pleased that I found someone who is willing and able to operate a winch. So I lent him my Blanik and thus we all gained experience

## WINCH -IN HOLLAND

byPhilippe R Claringbould

Imagine sitting in total silence in your glider-Take-off Checklist completed you signal the wingman "Ready" The wingman signals an intermittent light signal to the winch, which is about 1400 yards away, to take up slack. When you signal "Ready for take off" a continuous light signal tells the Winch operator to apply take-off power.

A strong force silently and quickly accelerates you to flying speed and after take-off you settle in a steep climb ! The winch is under you and you maintain your course by looking at the horizon and by "feel".

During the climb, the winch gradually slows down and at about 1300 feet for a heavy two-seater, or about 1700 feet for an ASK 23 or Ka 6 , the winch is almost under you. -Altitude gained varies with the wind- Elevator feel becomes a little "mushy"-time to release and head for the spot where you hoped to find a thermal.

In a summer evening, when the sun throws long shadows over the land, and with no wind or thermals, you still have ample altitude to get to your Entry Point at 900 feet AGL at 45 degrees from downwind.

If you are flying over Holland, which is quite flat, at 3000 or 4000 feet altitude you SHOULD have a great view. Alas the atmosphere is often hazy which limits the view to 10 to 20 Miles or so.

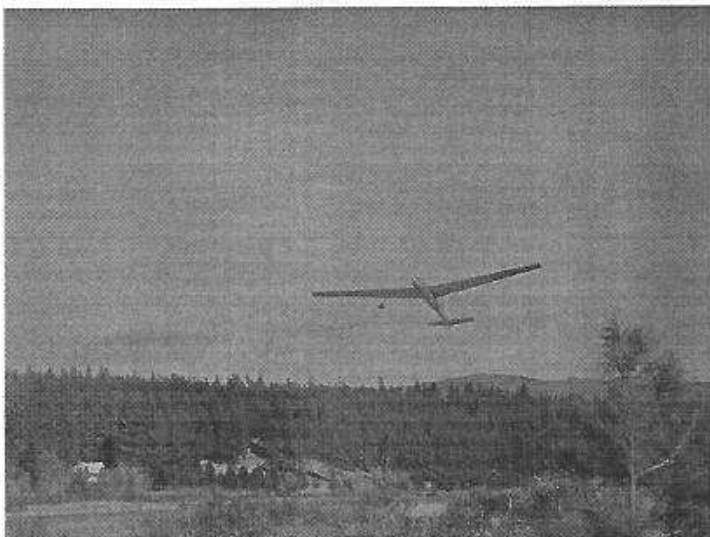
The winch has proven to be a safe, noiseless and very efficient means to launch a glider. There are about thirty gliderclubs in The Netherlands, and while some aero towing is done, the vast majority uses modern winches.

The one used at the National Soaring Center in Terlet, near Arnhem, uses six drums, and is able to launch six gliders in 12 minutes-great when a thermal is spotted nearby! After six launches a pickup truck pulls the six cables simultaneously back out to the starting place.

Of course a CG hook is a must. With a nose hook, the nose down moment during climbout would require an extra tail down load to the glider. A "weak link" appropriate for the glider being launched is always attached to the cable.

The winch operator must be a glider pilot, trained and qualified to operate a winch, similar to the tow pilot.

Other reasons that favor winch towing, are: Much greater fuel efficiency, which at a gas price of about five dollars per gallon becomes quite important. Also the absence of aircraft noise makes winch towing much more acceptable in densely populated areas. It is a beautiful sight to watch a high-performance glider silently rise off the ground and steeply soar into the sky ! Here in Washington , Northwest Soaring Inc. operates a winch in Cle Elum on weekdays.



FLYING OFF THE

# Towline

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The sailplane is in good condition and does not need any work that I am aware of. I will have the annual inspection done and any work needed to accomplish that would be done at my expense. Chet Prior

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**Libelle 201B, with Electric Ball Vario, parachute and enclosed trailer.** It is a very clean ship with new retractable landing gear, wheel brake and tire. The fuselage was refinished forward of the vertical fin. This is a great ship for a first time owner. The Libelle is a very light easy to rig ship and with an L/D of 38:1 at 46 kts, it has good cross county capability and is well known for their great handling. Don't miss this opportunity for a great deal!! Price reduced from \$15,500 to \$13,500 OBO. 360 474-9394 or Chris@PacificAeroSport.com.

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**For Sale: American Spirit Kit:** 50% complete with enclosed trailer. See photos. Kit includes altimeter, vario, and airspeed indicator. Owner died from illness. Contact anyone of the following: for technical inquiries either: Tony Puglisi, 206-367-6980 or Jim Cooper, 253-853-6815. To arrange to see the airplane or discuss terms call Wendy Pinto at 253-851-6136. Gig Harbor, WA \$17000 OBO.

**Janus C, 1983 20-meter carbon wing two-place, 1400 T.T. Cobra trailer. Dittel radio; full instruments including Cambridge SNAV with repeater; Sage, Winter varios; oxygen; Strong parachutes; Jaxida covers. \$62,500. Marion Barritt 775 782 7353 <mbarritt@powernet.net>. NV**