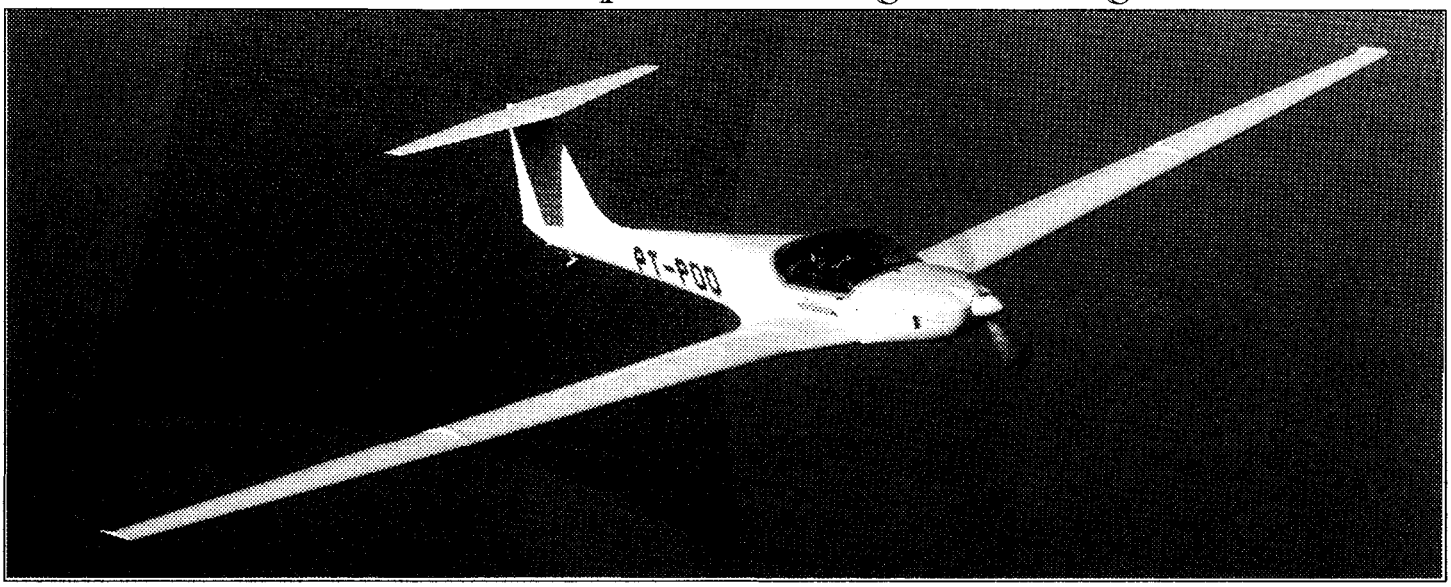
AMT-200 Super Ximango Motorglider



Produced by AEROMOT in Porto Alegre, Brazil, the FAA certificated (JAR-22) 2-place Super Ximango has a wing span of 17.47 meters (57.3'). With the wings folded the span is only 33.3 ft. Power is provided by a 4-stroke liquid cooled Rotax 912A engine developing 80 hp. The variable pitch Hoffman prop has 3 positions (climb/cruise/full feather). Empty weight is 1331 lbs; Max TOW is 1870 lbs for a wing loading of 9.3 lbs/sq./ft. Useful load is 539 lbs., L/D is 31:1, Fuel capacity is 20 gallons. Speeds are: Cruise 127 mph; Maximum 151 mph. Climb rate (standard, sea level conditions) is 590 fpm. Range is 800 sm. Construction is of composite materials (fiberglas with carbon fiber wing spars). For more information contact: Express Design, Inc., P.O. Box 609, Redmond, OR 97756 503-548-2723 FAX 503-548-2949

Self-Launching Sailplane Pilot's Assn.

NEWSLETTER

NOVEMBER ~ DECEMBER 1994

Published Bi-Monthly by SLSPA, Inc • Pete Williams, President and Editor • Bruce Templeton, Vice President • Issue #41 Vol. VI

FCC Radio License Fees...

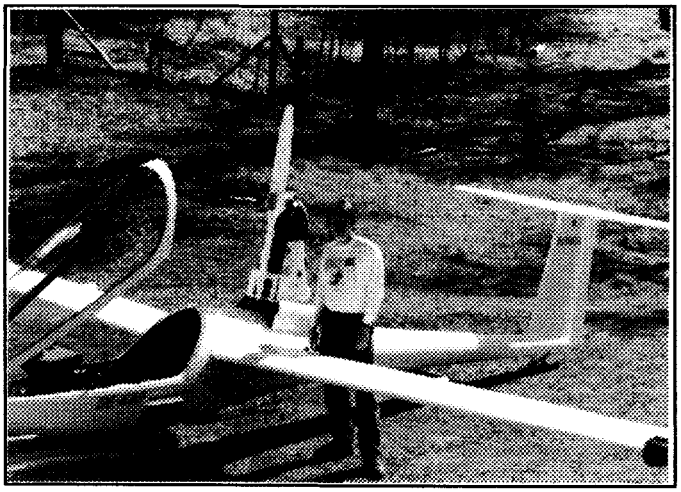
FCC reauthorization bill (H.R. 4522) provides for exemption of non-commercial aircraft from FCC radio license fees. This bill failed to pass the Senate in the closing session but should be one of the first on the docket for the new Congress. It is expected to pass. (AOPA Pilot Dec. 1994)

Fuel Gauge Calibration in DG-400, 800 and 500M...

Fred Jacobs advises that when pressing the small reset button on the face of the DEI to calibrate the fuel gauge that a small rod should be used since a ballpoint pen tip is too large. The Flight Manual provides instructions for fuel gauge calibration which should be done after each filling of the tank. The importance of accurate fuel readings take on new meaning when you are reading 4 liters and may have to use most of your fuel to complete the flight. When was the last time you calibrated your fuel gauge?

X-C Commuting in a Motorglider
Part 1
By Ken Seymour

Over the past three years I've been traveling monthly to Nevada from eastern Washington. After soaring in the northwest for a few years in an HP-11 (81B), I purchased a DG-800, dreaming that someday I'd be able to soar the 500 mile commute, expecting to use the motor to cover part of the distance or for relights from remote airports en route.



I took delivery in February '94 at San Francisco, drove it to Nevada, and enjoyed my maiden flight soaring locally around Reno on March 17 for two hours (which I believe was the first U.S. launch for an 800). After one more short flight the following day, I spent the next week pouring over sectionals and airport guides, setting up some spreadsheets on a pocket computer (Psion 3A) to prepare for my first attempt from Reno to Pullman, Washington. The route is particularly challenging due to high and desolate terrain; several stretches would require climbs to 11K to insure a glide to safety in the absence of lift and a motor failure.

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On March 28 the weatherman predicted clear skies with gentle southwest winds and an expected high of 70°, so I filed a flight plan, assembled the bird and fueled up with about 40 liters split between the fuselage and wing tanks. Finally self-launching from Reno-Stead by 11:15a.m., a bit late for a 500 mile attempt this time of year. For the first 40 miles to Honey Lake I alternated between thermalling and motoring, getting a handle on the restart procedure and on thermalling with the altimeter (my TE probe wasn't working). The next 250 miles to Burns were easy to cover with blue thermals keeping me above 9K, pushing me up to 14.3K over Lake Albert! (On a good March day in eastern Washington I feel lucky to reach 8K.)

About 15 miles north of Burnes I decided to try a cold restart as I was dropping below 8K (3000 AGL); the next 60 seconds were tense as I fiddled nervously with the throttle and choke, wasting 700 feet of precious altitude needed to get back to Burns. I found a thermal just as the Rotax kicked in, promising myself that I'd do cold restarts either above airports or in lift next time.

One more thermal and a short engine run brought me to John Day, although the winding route through an unfamiliar canyon had me doubting my final glide calculations. I finally spotted the airport on the bluff southwest of town, two miles out and 1500 feet up, waiting nearly until the threshold to extract the motor, climbing noisy out over the town (to the dismay of a local soaring enthusiast who was apparently eagerly awaiting my arrival).

I had hoped to reach Walla Walla or at least La Grande by sunset, but opening the wing tanks didn't affect the fuel gauge, and smoke indicated a stiff headwind from the north, so I veered eastward aiming for Baker. Cold feet (literally) and a lack of confidence in the linearity of the fuel gauge kept me flying closer to the ground than I would have liked (climb rate suffers at altitude); at least restarts were immediate with a warm engine. I landed at Baker with 4L left on the gauge, 15 minutes before the 6p.m. closing time. Filling the 22L tank only took 4 U.S. Gallons... you figure.

The next morning I took the free shuttle from the Best Western, wiped off the frost and remembered to connect the gas lines to my wing tanks for the first time. I took off at 8a.m. with a 15 kt southeast breeze which provided a good 500 feet of climb in a wave just south of La Grande behind a 1500 foot bluff. Two hours later I bounced into a difficult landing at Pullman; one of the power instructors on the field said that he had used all of his skills to set down a Cessna a few minutes earlier, fighting the turbulence caused by crosswinds over the hills alongside the runway.

...to be continued

Editor's Notes: SLSPA member Ken Seymour is a computer engineer with over 600 soaring hours. His use of the DG-800 as a commuter vehicle is unique in that he has a destination and a plan to use wave, if available, and run the engine only when absolutely necessary during each trip. His route is not exactly user-friendly with average terrain in excess of 4,000 agl. He is to be commended for planning and completing these challenging flights. Part II continues in Jan/Feb 1995 Newsletter

Rotax 505, 235, 275 Overhaul Update...

Correction: *The Sep/Oct Newsletter stated the O/H requirement was 300 hours or 6 years which ever comes first for all Rotax engines. This is Rotax's recommendation for all engines* ***except*** *the 912A which is 600 hours or 10 years.*

As a result of a meeting between Wilhelm Dirks and FFA's representative for glider certification Herman Belderok at Bruchsal, SLSPA was advised by Dirks on 26 October that FAA's position on the 300 hr/6 year overhaul was that it would be necessary for only those ships used for commercial purposes. Therefore, according to Dirks, ships in the Experimental and Standard categories will not be required to conduct the O/H at the 300hr or 6 year time interval. Dirks says that FAA considers the O/H requirements in the Rotax engine manuals as a recommendation only. Dirks advised that the next revision of the DG Maintenance Manuals would remove the requirement for the overhaul from the Limitations Section.

Glaser-Dirks is now in contact with FAA's European Aircraft Certification office in Brussels to confirm FAA consensus on this matter. (FYI, Belderok [FAA Kansas City office] is the FAA official that is working with SSA's Jim Short on glider certification.)

As of this newsletter there are 20 pilots who have expressed interest in flying Minden '95

62ND US NATIONAL OPEN CLASS CHAMPIONSHIP
8TH US NATIONAL AUX-POWERED CHAMPIONSHIP
SANCTIONED BY THE SOARING SOCIETY OF AMERICA
SPONSORED BY THE MINDEN SOARING CLUB

JUNE 11–22, 1995

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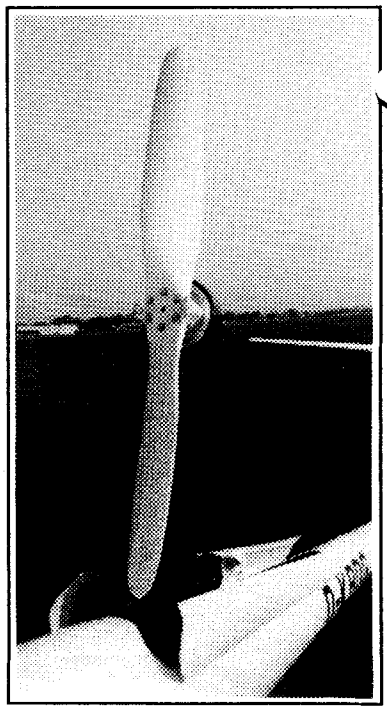
RICK WALTERS 702-267-4497 • 702-265-4555 FAX
PAT PHILBRICK 916-622-9185
TOM STOWERS 702-782-4944

P.O. BOX 361
MINDEN, NEVADA 89423
USA

DG-800B Update...

Wilhelm Dirks advises the ex-factory base price of the 800B is 143,500 DM without wing parting. With wing parting the price is 146,500 DM. For 15M wingtip with winglets add 2,600 DM. A deposit of 9,300 DM secures the order and Dirks advises FAA certification is now underway and that prices are expected to be raised in the Spring of 1995. The photo shows the rather wide paddle blade MT prop and the housing containing the enclosed drive belt. For more information contact Glaser-Dirks USA at 707-942-5727; FAX 707-942-0885



☛ For Sale

PIK-20E: Rotax 501; Factory Trailer; 420TTA-190 Engine; Excellent condition; Full Instruments with Winter Vario, Mode C transponder and upgraded electrical system. $34,000. Ray Carter 904-771-6354 (FL).

VENTUS CT: 16.6 meter tips; Masak winglets; 335 hrs TTA; 14 hrs engine;Complete instrumentation including ILEC Computer; Bohli Compass; Becker Radio; Aerograf Baro with engine recorder; 22 Cubic ft. 02; Dual Ricoh cameras with electric shutter release; strong parachute; Corbra Trailer with solar vent and 2 solar panels for battery charging. Gil Fitzhugh 201-425-9010 (NJ)

Wanted: DG-400 or 800 Jerzy Plaszowieki 206-936-4465 (WA) (days).

1995 Calendar

March 1-5	SSA Convention- RENO, NV SSA Office 505-392-1177
April 16-21	Region 5 North- CHESTER, SC Eric Mozer 704-588-6600
May 27-29	Region 11- MIDDLETOWN, CA Ty White 415-962-5876
May 28-June 3	Region 4 North- FAIRFIELD, PA Carmen Walters 717-642-6253
May 29-June 2	Region 9-ESTRELLA SAILPORT, AZ Bill Ordway 602-893-0481
June 10-24	Badge/Records/Dist. Camp-PAROWAN, UT Gary Kemp 916-934-2482
June 13-22	Open and MG class NATS-MINDEN, NV Rick Walters 702-267-4497
June 13-22	Sports Class NATS-ALBERT LEA, MN Bill Sproull 612-962-4249
June 26-July 6	15 Meter Class NATS-HOBBS, NM Doris Miller 505-392-7421
July 3-8	Air Sailing Sports Class- WARM SPRINGS, NV David Volkmann 916-223-2585
July 11-20	Standard Class NATS-MONTAGUE, CA Gary Kemp 916-934-2428
August 6-12	Region 10-UVALDE, TX Mark Huffstutler 210-278-4481
September 2-4	PASCO Cross-Country Camp- MIDDLETOWN, CA

Woodstock TWO Self-Launching Sailplane Update...

The following is an update from Paul Liebenberg. Paul homebuilt a self-launching Woodstock several years ago with a fixed (buried) Rotax 277 engine and a retracting prop mast. The performance was adequate according to Paul, but inspection and maintenance was a bear due to the buried engine components. For those interested in homebuilding a self-launcher, Paul has come to these conclusions:

a) A 15 hp engine turning a 48" dia. prop is not adequate for a 620# gross SLS.

b) A 27 hp engine turning a 54" dia. prop is more than adequate for a 640# gross SLS.

c) Buried engines are to be avoided in monocoque fuselages (especially wooden ones).

d) Buried engines might be OK in skeletal fuselages; i.e., steel tube (with completely removable skin panels for engine service access).

e) Large propeller dia. is essential.

f) Long belt drives can be made to work for distances about double the industrial use recommendation.

g) De-coupling the engine from belt drive (fixed buried engine as on my Woodstock) via de-tensioning the belt (and allowing it to "crumple" for retraction) works OK but shortens belt ("Poly-Vee" type) life.

h) Centrifugal clutches are a must for reduction drives using small one and two cylinder engines.

i) To do it again, I'd pursue the retractable engine route, even though the wing/fuselage/drag spar juncture would need a complete redesign.

For more information contact:
Paul Liebenberg
96 Pan Tempo Way
Hollister, CA 95023
408-636-6580

Ted Nelson's Hummingbird Sold...

On Monday November 21, 1994 at Douglas County Airport, Minden, Nevada, SLSPA member Bob Moore took delivery of the Hummingbird motorglider owned by the late Ted Nelson. This red and yellow 2-place self-launching motorglider is completely instrumented and even has a spare engine. Ken Rinear assisted Bob in preparing the ship for trailering to its new home in Richland, Washington. This pusher powered motorglider was developed in 1953 by Harry Perl and Ted Nelson. Only seven were built and five are believed to still be active in the U.S. Advanced for its time, the all-metal (except for control surfaces) Hummingbird is a tribute to the engineering expertise and tenacity of Perl and Nelson. Bob Moore plans to get in the air as soon as possible and will offer rides in this historic ship.

Specifications:
Span 54'
Area 185 sq. ft.
Empty Weight 800lb
Maximum Weight 1200lb
Engine: Nelson 2-stroke 49hp
L/D 25 at 55 mph
Minimum Sink: 3 fps at 52 mph