

CANARD_PPUSHER

JULY 2001

RUTAN AIRCRAFT FACTORY

VOL 17 ISSUE 3 NO. 105

Australia — Finally, the big day! I went off to Temora with Jim, my glider CFI. One problem that I did not anticipate was finding a good place (or even any place!) to do a first (or any!) flight.

Considerations of (smooth!) runway, length, altitude, and off-field landing possibilities — not to mention how far away such an ideal field could/should be! Temora 18/36 is 1468m asphalt and about 250 km from home, 3 hours with Solitaire in trailer.

We drove on Wednesday and assembled and checked most things before retiring for the night. After a quick breakfast we completed the checking, having to

pump up the front tyre. We checked the pitot/static circuit and calibrated the airspeed indicator. It is a bit "sticky"; we need to monitor this closely. Jim was a bit doubtful over its performance.

So then it was "Start Your Engine" and do a last taxi-check. The ground handling is improved but steering to the right is still quite difficult, sometimes needing to do a 270° to the left = 90° to the right. I taxied out to 18/36, down to the southend then back down the full length of the strip to the start point. *Nichts wie weg!*

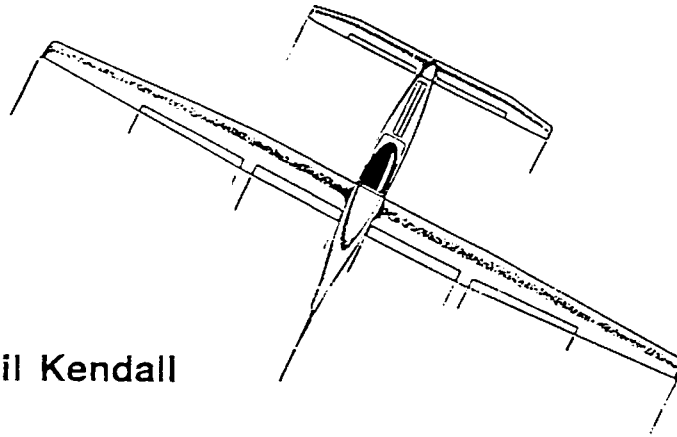
Feed in the power slowly maintaining heading until aerodynamic control then full power. Hold it down until 90 km/h (20-25secs) then ease back (refinement: lift nose at 50, rotate at 75 km/h) — it fairly leaps into the air!

Stabilize climb at 90 km/h, check everything then hold the centerline (8+Kn crosswind from SW, 45° to the right) until a slight turn can be made towards the off-field possibility beyond the strip.

Now a gentle 90° turn, feeling out the 'plane. Feels solid, "stuck well in the air". Keep climbing in lazy

square pattern for a total of 10 mins, about 3500 feet over the strip. Try a "stall"; bring nose up slowly until it drops; about 80 km/h. Time to turn off the motor; cut fuel and wait until rough running begins — then hit the kill-switch.

Solitaire flies upside down! (as seen from Denmark)



by Phil Kendall

Reaction like a cable-break; nose over, stabilize glide (FUST!) then start to line up the prop. This took a while and when ready, motor down! A quick vertical wobble then settle down to glide.

Now a few turns to try it out clean, then another "stall" - about 70 km/h. With- or without power, this is a bit of a non-event; feels solid and controllable throughout, just as

advertised. Laze about a bit more and then think about a circuit. Choose the gravel cross-strip (815m), now with 8+Kn crosswind from the left.

Fly the circuit as for Blanik; difficult to see back over your shoulder to the correct spot for base (refinement: choose spot on back-extended centerline). Turn base (too early), extend downwind then turn final. Looking still a bit too high, nose down a bit and into the air-brakes to hold the aiming point. Getting quite low, check-one and now looking long. Plenty of strip, check-two and hold it off — and float along, holding off then sinking down to the first touch-down (refinement: ease down lower than "Blanik Blick"). Catch the nose-wheel quickly (crosswind crab); roll out then brake to a stop, pulling off the runway a bit.

Restart motor then taxi back for lunch. I made another two flights that day and one more the next (total 118.5 min) before packing it up and returning to Canberra. Thanks again to the builders Kjeld and Ole, for a beautifully made and flying Solitaire! And thanks to Burt for the design and Mike for his involvement. ●

NEW on TV and the WEB

www.discovery.com/diginets/wings

The Discovery Wings Channel is the place for those consumed by the wonder and passion of flight. From the handcrafted beauty of homebuilt fliers to the latest innovations in state-of-the-art aircraft, the Discovery Wings Channel puts you inside the cockpit and into the heart of aviation. Discovery Wings Channel is available on digital cable and satellite TV. Call your local provider for availability in your area

RAF HOURS: Rutan Aircraft is officially open every Wednesday. Please call between 10 am - 2 pm (661) 824-2645 and give your name, serial number and nature of the problem. If you are not in an emergency situation, we ask that you write to Mike.

Note — Sometimes you can catch Tonya at RAF Monday thru Friday. She is in and out. Try and try again.

When writing to RAF, send along a stamped, self addressed envelope, if you have builder's questions that need to be answered. Please put your name and address on the back of any photos you send.

RAF ADDRESS

1654 Flightline, Mojave, CA 93501

RAF PHONE NUMBER

(661) 824-2645

RAF FAX NUMBER

(661) 824-3880

RAF EMAIL ADDRESS

raf@antelecom.net

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\$16; Back issues \$4

RAF is no longer accepting
multi-year subscriptions. Please
renew only after your current
subscription has expired.

If you are building a
RAF design, you must
have the following
newsletters:

VariViggen (1st Ed)

CP 1 to current

VariViggen (2nd Ed)

CP 18 to current

VariEze (1st Ed)

CP 10 to current

VariEze (2nd Ed)

CP 16 to current

Long-EZ

CP 24 to current

Solitaire

CP 37 to current

Defiant

CP 41 to current

A current
subscription of the
Canard Pusher is
mandatory for
builders, as it is the
only formal means
to distribute
mandatory changes.

Composite Roll Over Structure Plans Now Available

The RAF Composite Roll Over Structure plans are free to all owners of VariEze and LongEZs. To receive the 33-page set of plans send a 9x12 SASE with \$1.90 postage.

You will receive 10 pages of instructions; 14 pages of black and white photographs; and 9 pages of Vellum drawings.

We have the photographs available in color but must charge \$16 to cover the high cost of color printing. If you prefer color photographs please send your check or money order to RAF at 1654 Flight Line, Mojave, CA 93501.

The rollover plans are also available IN COLOR as a downloadable file for free at the Rutan Aircraft website www.rutanaircraft.com

ANOTHER Option is to contact Bill Allen whose welded-steel tube roll over structure has appeared in the Central States Association Newsletter and on the web. You can see how Bill Allen's roll over structure was prepared on the web at www.longeze.com/ click on preparation and rollbar.

***Due to rising printing and postal costs
RAF has to increase prices
on some plans***

***Subscription for the Canard Pusher
will remain the same***

Price hikes on plans are as follows:

Building Moldless Composites Manual	- 16.00
Viggen RC Model Plans	- 14.00
Large rudder plans	- 20.00
Speed brake plans	- 14.00
0-235 engine installation	- 21.50
Roncz Canard plans	- 42.50
Flush belhorns plans	- 14.00

**Central States Association
Hot Dog Roast**

Jim Rodrian (WI) - The picnic will be from 4:30 PM to 8:30 PM on Friday, July 27, at the Nature Center Hospitality Tent.

The food will be prepared by Wisconsin Farms Restaurant of Oshkosh and served by my family and other CSA members. The menu, similar to last year, includes brats, hamburgers, chips, relish and soda. Serving will be from 5:00 PM to 8:00 PM.

I can use your help — a reservation to the picnic is not required, but the best way to minimize the cost per person is to have an indication of how many people will attend the picnic. If you plan to attend this year's picnic, please send me an e-mail at CSApicnic@elsyn.com. Indicate the number of people in your group and their preference, if any, for brats or hamburgers and how many of each. I look forward to seeing you there!

CSA

AirVenture 2001 Defiant Builders/Pilots Meeting

Jim Rodrian (WI) - At the suggestion of Harry Manvel, we are having a meeting of Defiant builders and/or pilots at AirVenture 2001. It will be at 3:00 PM, Friday July 27, at the Nature Center tent, before the start of the picnic.

While most Defiant builders/pilots have been flying for years, a couple of Defiants have "recently" made first flights. Let's get together to share our knowledge, congratulate the newest Defiant builder/pilots (Charles Sims, 1999 and Harry Manvel, 2000), and inspire the rest of us to finish our projects.

R.A.C.E. Schedule for 2001

Kanab, UT

September 1, 2, 3 Racing on Sept. 2

Mesquite, NV

October 27, 28 Racing on October 28

Kilo Trials

Buckeye, AZ November 24th

Kanab, Utah - Aikins Lodge 435-644-2625

Jackpot, Nevada - Cacuts Petes Casino 800-821-1103

Mesquite, Nevada - Virgin River Casino 800-346-7721 or

Oasis Resort & Casino 800-621-0187

Wendover, Nevada - State Line Inn (Specify the State Line Inn) 800-848-7300

The dates are subject to change but we'll go with this for now. Please encourage others to come on out and participate or just watch the racing.

Thanks to all of you for your support.
Shirl & Dorothy

Rutan

Oshkosh Schedule

TUESDAY

24 July Tues 1800 Gathering of Eagles — Dick Rutan
 24 July Tues 1930 - 2015 Theater in the Woods — Dick Rutan
 24 July Tues 1000 Hero Stage — Dick Rutan
 24 July Tues 1130 Eclipse Pavilion "Voyager — Largest Homebuilt — Longest Flight"
 24 July Tues 1400 Voyager Exhibit Museum Presentation — Dick Rutan
 24 July Tues 2100 Theater in the Woods Aviation Firsts Program

WEDNESDAY

25 July Wed 1000 Hero Stage — Dick Rutan
 25 July Wed 1000 Hero Stage — Dick Rutan
 25 July Wed 1400 Voyager Exhibit Museum Presentation — Dick Rutan
 25 July Wed 1900 Tivo Pavilion Liquid Cooled Airpower/Bob Adkins & Dick Rutan
 25 July Wed 2100 Theater in the Woods Aviation Firsts Program

THURSDAY

26 July Thurs 0830 Teacher Day Opening Remarks — Dick Rutan
 26 July Thurs 1000 Hero Stage — Dick Rutan
 26 July Thurs 1200 Gift Shop CD Autograph Session — Dick Rutan
 26 July Thurs 1400 Voyager Exhibit Museum Presentation — Dick Rutan

FRIDAY

27 July Fri 0830 Wild Blue Wonders Kickoff Leadership Center - Dick
 27 July Fri 1000 Hero Stage — Dick Rutan
 27 July Fri 1300 Eclipse w/ Jill Rutan Hoffman & Dick Rutan "Oshkosh Memories"
 27 July Fri 1500 Voyager Exhibit Museum Presentation — Dick
 27 July Fri 1500 Nature Center Tent — Defiant Meeting
 27 July Fri 1630 - 2030 CSA Hot Dog Roast at the Nature Center Hospitality Tent
 27 July Fri 2030 Theater in the Woods Receive Freedom of Flight Award

SATURDAY

28 July Sat 1000 Eclipse Pavilion — Rutan & Melvill — Update from Mojave
 28 July Sat 1000 Hero Stage — George "Pop" Rutan & Dick Rutan
 28 July Sat 1030 Hero Stage — George "Pop" Rutan & Dick Rutan
 28 July Sat 1030 Flying the U-2 Maj. Lars Hoffman AirVenture Museum
 28 July Sat 1300 Eclipse Pavilion "Voyager" Dick Rutan
 28 July Sat 1330 Life at the USAF Test Pilot School Maj. Lars Hoffman Museum
 28 July Sat 1430 Eclipse Pavilion — Burt Rutan — Tent Talk Show
 28 July Sat 1500 Voyager Exhibit Museum Presentation — Dick Rutan
 28 July Sat 1630 Oshkosh Memories Jill Rutan Hoffman Museum

SUNDAY

29 July Sun 0830 Eclipse Pavilion — Burt Rutan — Life after Airlines
 29 July Sun 1100 Fergus Chapel Memorial Wall Ceremony
 29 July Sun 1430 Eclipse Pavilion — Burt Rutan — Technical Forum
 29 July Sun 1500 Voyager Exhibit Museum Presentation — Dick Rutan

Check out www.airventure.org/forums for a complete listing

Spin-On Oil Filter Adapter for Lycomings

B & C Specialty Products' latest product is the neatest idea I have seen in a long time. It is a 90-degree, spin-on oil filter adapter for Lycoming engines. It is beautifully made by CNC milling out of a solid aluminum billet and bolts onto the accessory case in place of your oil screen housing or AC spin on filter adaptor. It fits perfectly, does not interfere with the magnetos, the vacuum pump or even the mechanical tachometer drive. It also has plenty of clearance on your engine mount and firewall, important considerations when you operate an EZ!

I installed one on N26MS and now have a full flow, spin on champion oil filter, with no high pressure hoses to a remote mounted filter which could leak. It comes with everything you need to install it: a new gasket, new aluminum washer for the vernatherm, and new copper washer for the oil temperature sensor. They even send a small container of the proper sealant for the gaskets. Of course it comes with new Lycoming bolts to mount it.

It is fairly expensive at \$395 but is available to EZ flyers until the end of 1996 for \$350. I am extremely pleased with mine and I heartily recommend it for anyone running a Lycoming engine on an EZ. A fuel flow spin-on filter allows 50 hours between oil changes and prolongs the life of your engine.

Give B&C a call at (316) 283-8662 or fax (316) 283-8000. You'll be glad you did! *Mike*

RAF Recommended Suppliers

These suppliers are still the only authorized RAF dealers for all your various aircraft materials and components.

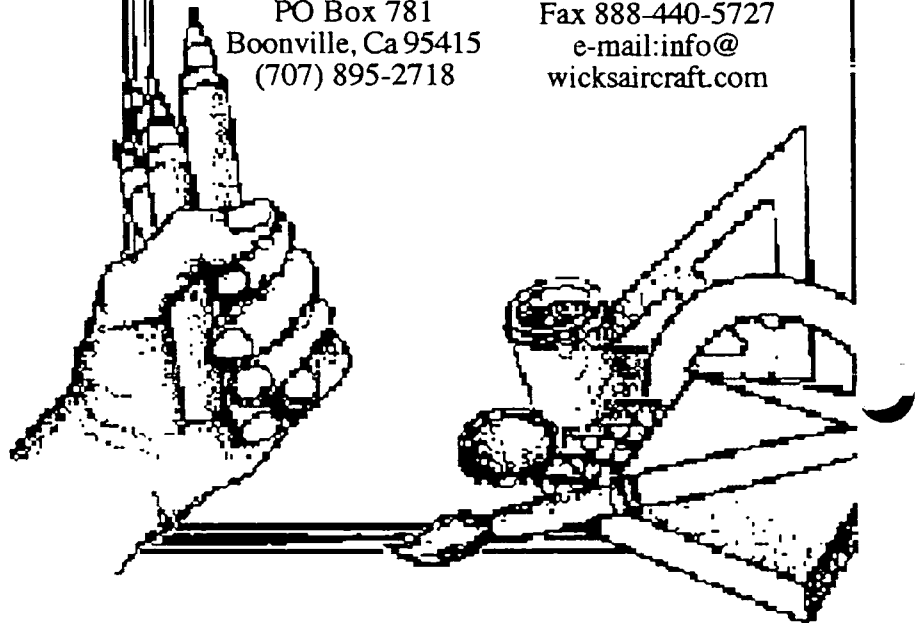
Brock Mfg.
11852 Western Ave
Stanton, Ca 90680
(714) 898-4366

Aircraft Spruce West
PO Box 4000
Corona, Ca 91718-9961
(909) 372-9555
Fax (909) 372-0555

Feather Lite
PO Box 781
Boonville, Ca 95415
(707) 895-2718

Aircraft Spruce East
PO Box 909
Griffin, GA 30224
(770) 228-3901
(800) 831-2949

Wicks Aircraft
410 Pine Street
Highland, IL 62249
(800) - 221-9425
Fax 888-440-5727
e-mail:info@wicksaircraft.com



FLUSH, INTERNALLY MOUNTED ANTENNAS

A complete line of antennas, specifically designed for, and flight tested on, composite aircraft. The antennas are tuned for maximum performance and in general those who have used them so far report reception is doubled over standard external antennas.

VariEze builder/flyer Bill Butters has started a company to develop a full range of buried antennas. These are normally supplied with a BNC connector built into the actual antenna, but can be supplied without connectors to include enough length of co-ax cable to facilitate easy installation with minimum weight and bulk.

Call Bill Butters 800-758-8632 Advanced Aircraft Electronics, PO Box 4111, Florissant, MO 63032

Feather Lite Inc.

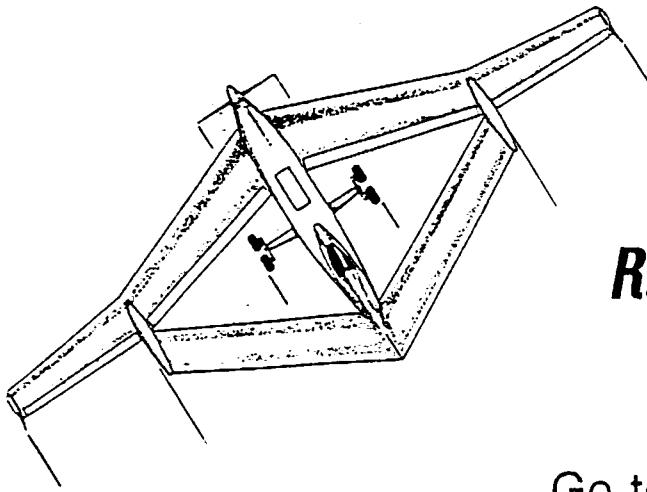
LONG-EZ PARTS PRICE LIST

Main Landing Gear Strut	\$379.00
Nose gear strut	\$64.00
Engine Cowl Glass Top & Bottom Set	\$369.00
Engine Cowl Kevlar Top & Bottom Set	\$499.00
Cowl inlet	\$ 60.00
Wheel pants (3.5x5 set)	\$170.00
Wheel pants (500x5)	\$195.00
Wheel Pants Kevlar	
500x5 Set original style only	\$230.00
NG 30 cover	\$23.00
Pre-cut Foam Cores Canard	\$180.00
*Pre-cut Foam Cores Wing & Winglets	\$1180.00
Leading Edge Fuel Strakes	\$420.00
Bulkheads Left & Right	\$199.00
Strut cover SC	\$23.00
Nose wheel cover NB	\$23.00
Sump blister SB	\$23.00
Carb. Air Box Kit	\$165.00
Baggage Pod Set	\$395.00
Nose Bumper Rubber	\$10.00
NACA inlet	\$55.00 (requires cowl modification)
Propellers, with rain leading edge	(call for quote)

Contact Michael Dilley or Larry Lombard
(both former RAF employees
and EZ builders and flyers)
Feather Lite, Inc., PO Box 781
Boonville, CA 95415
707-895-2718

A check or money order is required to process orders.
Orders are filled by postmark date.
California residents add 7 1/4% sales tax.
All Truck orders shipped freight collect.
We've negotiated a 40% discount with Viking Freight.
Please include a telephone number, a mailing and a street address.
Please allow 30 days for delivery, we will expedite when possible.
We will discuss questions regarding our products by phone or mail.

*Items must be shipped by truck.



***Rutan Aircraft is now
On the Web***

Go to www.rutanaircraft.com

RUTAN AIRCRAFT FACTORY
1654 Flight Line
Mojave, CA 93501



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JULY 2001
CP 105

If your label says **LAST ISSUE CP 105**, this is your last issue and you need to renew.