Auxiliary-Powered Sailplane ***NEWS***

The Official Publication of the Auxiliary-powered Sailplane Association, Inc.
Dean Carswell-President
ASA is a Division of the Soaring Society of America

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President's Column

eparations are well advanced r ASA's involvement at the 01 SSA Convention in dianapolis. The ASA Lunch d Annual Meeting of embers will be held on iday February 9, 2001 at .30 am. I am very pleased to able to announce that the ynote speaker at the lunch ll be Martin Heide of exander Schleicher, the chief signer of the ASH-25 and e ASH-26E. I hope you will able to come along and that I all see you there. If you have t made arrangements to end, you should do so thout delay - information and tails of the application ocess, including the making reservations for the ASA ınch, appear in *Soaring* agazine and on the SSA ebsite, www.ssa.org.

ontinuing with ASA's tiative and commitment to ıprove sailplane safety, if you e planning to attend the onvention, I would strongly commend that you take the portunity to go to the aring Safety Foundation's fety Seminar, to be held from 00 pm to 5.00 pm on ednesday February 7, 2001. eakers will include such well own figures as Bob Wander, ted gliding instructor, writer d safety advocate, Dr. Walt ınnon, longtime soaring pilot d surgeon, who will address uational; awareness problems pilots and other ysiological issues, and Burt ompton, experienced gliding structor, who will look at actical accident prevention ategies. *Dean Carswell*

Technoflug's CARAT is a unique single-place motorglider in that it is a meldin nose mounted engine aircraft fuselage with the wings of a Schempp-Hirth meter Discus. The 4-stroke air cooled 54hp Sauer engine makes possible cruise of 124Kts at 75% power with a range of over 562sm with 1/2 hr reserve. The propeller blades fold forward automatically with the engine c speeds of below 55mph. The leaf spring landing gear retracts forward ele hydraulically. Disc brakes are standard. The average climb rate is close to 300fpm to15,000 ft msl. During takeoff under sea level conditions the air breaks ground after a roll of 740ft and climbs out at 700fpm. Schempp-H spoilers make for precise control on landings. Its Empty Weight is 717lbs the Maximum Gross Takeoff Weight is 1037lbs. Wing loading varies fron 9.1 lbs/ sqft. Vne is 135kts and the Carat stalls at 43kts at Max TOW. The aircraft sells for about $144,900DM. Add basic instruments, a VHF radio Cobra Trailer for another $24,112DM for a total ex-factory cost of about $169,012 not including GPS, or shipping. Based on an exchange rate of DM@.44, the cost is $73,365 (Sept 2000 rate). For more information see Technoflug web site at http// Technoflug.com or contact the U.S. Dealer C Dyer-Bennet at DG-USA Pho: 707-942-5727, Fax: 707-942-0885. The co is comfortable allowing a parachute. The seat back is adjustable as are the rudder pedals. The instrument panel is quite roomy allowing an assortmen GPS, basic flight instruments, transponder and vario displays. Behind the s adequate baggage space. Useful load is 320 lbs. Controls harmony is excel *The March-April Issue will contain Oliver's impressions of the Carat after s flights during a visit to the factory.*

Revised Newsletter Format

What your looking at is an 81/2 X 14 inch legal page size sometimes termed a "tabl format. It provides more space for larger type and images and is similar to the layout

A 326.6km Flight in the Czech Republic

s is an account from Zbynëk Jaros, an engineer who works for TeST, a ıufacturer of self-launching sailplanes in the Czech Republic. It is written in own words with a limited amount of editing for English clarification. The ngle flown was not an FAI triangle but was essentially a "challenge flight" nëk purposed to accomplish. It was not an easy flight due to weather ditions with altitudes above the ground varying from 6,000 to 800 ft. The und level was generally 1,500 ft msl. As I reviewed his account of this and e other flights it became evident that if a soaring pilot desires to make record aking cross-country flights, the Czech Republic is not the place to attempt it. nëk is commended for his tenacity in accomplishing this flight in relatively performance sailplane without the help of the engine except for the launch. story follows. Ed.

ır airspace is crowded. It is not easy to fly some routes. The Prague area is ays restricted, the other TMA/CTR areas are sometimes free after the permit is en by radio (some of them are free during all weekends). There are military es, usually free during weekends, during working days the pilot has to receive ntry permit at first. There are low flight zones for jets limited usually 300 ft - 00 ft or GND - 1000 ft. Normally, we can overfly them, only in an emergency (field landing, not so attributable for self launchers) one must pay great ntion but they are, like most of the restricted areas, activated only sporadically. basic rule is, the pilot must inform himself of the actual activations before his ht.

ıngle: Lysice - LKHS (Hosin) - LKTA (Tabor) - Lysice
Leg: airstrip Lysice - LKHS (airfield Ceske Budejovice-Hosin), 153.6 km; Leg: LKHS - LKTA (airfield Tabor), 42.0 km; 3rd Leg: LKTA - airstrip ice, 131.0 km Total Distance: 326.6km
ler: Self-Launcher TST-8 ALPIN DM, (2-place 15.6-meter span powered by a ax 503 producing 46hp, best L/D 28-29:1) piloted by Zbynek Jaros, 30th gust 2000. See ASA Jan-Feb 2000 Newsletter for more details on this self ıcher.
ather Forecast: Cumulus - time weighted average 5/8 (on the beginning 1/8, on end 7/8, bases 4300 - 7200 ft MSL (2200 - 6000 ft AGL). Approaching ntegrating cold front from south-west. Almost no wind during all the flight.

The Flight

ıg aware of the approaching front, and shorter days resulting in more and e limited thermic intervals, I self launched shortly after 11 AM. In spite of the tively low cloud base, the penetration forward went smoothly. Under the ıy side of each cumuli, there was a sound thermal giving good 2 - 3 m/sec, ıetimes my vario showed even an extraordinary 5 or 6 m/sec. Single clouds e 5 - 10 km apart, enabling jumps from the bases to the next thermal. Under ı conditions, the run went quickly to the first turning point, aeroclub airfield ın near Ceske Budejovice. Only last 20 km were complicated due to no ıds in the sky - I had to glide to the turning point, but fortunately to the right ıy course, I saw a newly forming cotton-wool like cloud which provided me necessary lift. This was indeed typical. In fact, I could see just the next row ıe cumulus, but behind them, there was a clear sky. In other words, I was ays heading toward newly forming clouds which produced good thermals. I a lucky man! After climbing it's base, I left this cotton-wool like cluster for turning point, and very quickly left this down-stream area returning to the e altitude giving cloud - in fact, it was in line of my second leg, in direction ıe aeroclub airfield, Tabor. Also the second lap was without any problems, a sky paradise! Then remained only the course back to my home base Lysice l km). The first 10 kilometers was fantastic. There was a great, dark cloud, ereby I gained the highest altitude of the flight, 7,200 ft MSL. Initially it ned, that this would be a king's ride home, directly under this long cloud. , the zero on my vario soon dropped to minus 0.8 m/sec and the altitude an to decrease. The terrain was shadowed by the clouds, so there was no hope some new thermals. After leaving this great dark cloud above Pelhrimov ding so directly for about 40 km), I saw, that the sky was covered by 7/8 of ner cumulus, now disintegrated into a dead layer giving no thermic. I had 4,200 ft MSL (about 2700 ft AGL). To the right from my course, there e pretty cumuli, but I was afraid that they must have been also been about to ay, as the ground was everywhere showing no sunshine.

I decided to go on direct, trying to utilize any tiny lift found near illuminated ds. But my attempts were mostly futile, making a turn always meant just a of my precious altitude. That is why I preferred to continue further forwards, head on the horizon, there was sun shining on the countryside. Slinking like , I reached the town Jihlava, with its aeroclub airfield in sight. The god of all ing pilots, Thermoska, stayed aside me - the warm city gave me small, but le thermals - initially not more than merely 0.3 m/sec, later slightly over 1 ec. Of course I was happy for this gift from the sky as my beginning altitude only 800 ft AGL and I have climbed to more than 4,000 ft! A great stone has en down from my heart. Of course, I could have any time extracted the engine, imply landed on the Jihlava airfield, but I so much wanted to continue in pure orless flight. The remaining 70 km were I would call classical - with some mals, and also with some missing thermals under quite pretty clouds.

ıtinued on Page 6.....

ix T was the first sailplane built using composite sandwich (fiberglass reinforced plastics-FRP) construction. It was gned and built in the mid 50s by Hermann Nägele, Dick Eppler and Rudi Linder. First flight was Nov 27, 1957 .followed 300km flight in Spring of 1958 by Linder. Rudi also won the German Championships in it and broke Dick Johnson's lon nce world record. Its empty weight was 364lb.It had a glide ration of 40:1. With only a 6 meter span and an aspect ratio c it was truly an amazing ship and the forerunner of todays composites structures used in sailplane construction .
Circa 1960 from SE Modeler Magazine Nov 2000 Issue.

g the DG-800S -Year 2000

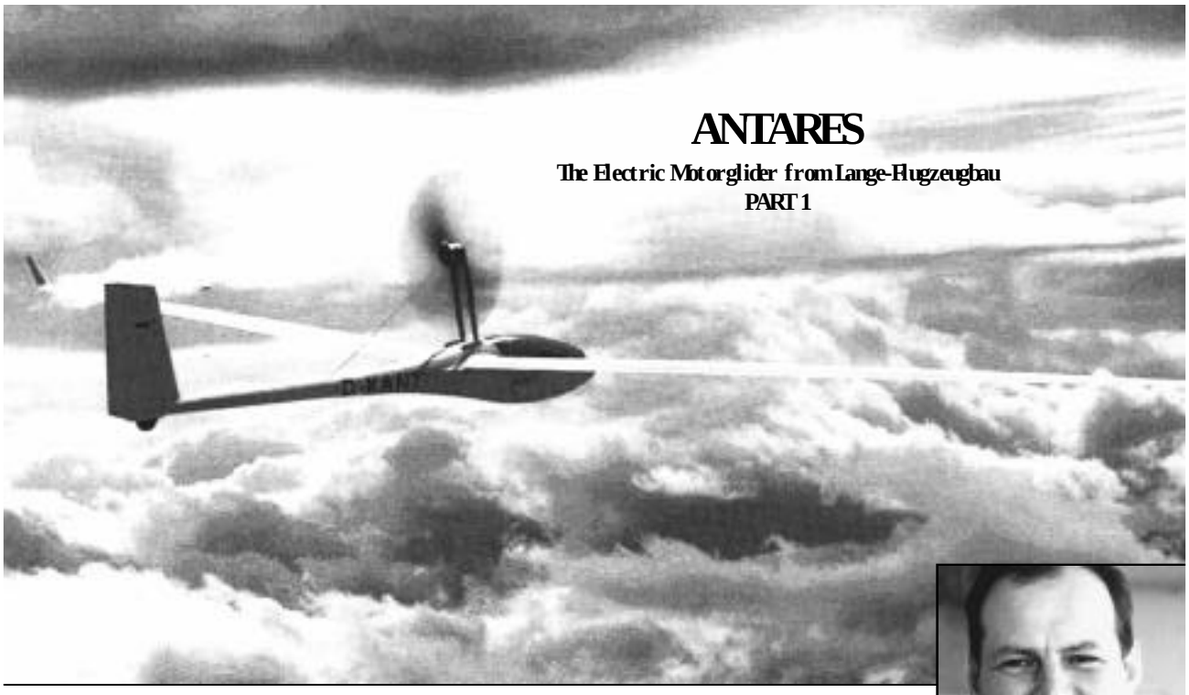
ver Dyer-Bennet, DG-USA

summer our efforts went into campaigning the 1st DG-800S in the USA, many major contests as we could attend. Since the DG-800S is basically ıme as the DG-800B, ASA members might find this article interesting. art the Year 2000 millennium, Chip Garner and myself, with some factory ort from DG Flugzeugbau, decided to campaign a DG-800S 15/18M, in all of ajor sailplane contests in the USA. This would be the 1st, DG-800S in the and we were excited to see what we could achieve. After a whirlwind ing of the DG-800S from Germany, importation in the USA and licensing, ere ready, with two days to spare, for the first contest, the Senior Nationals in la.While an unofficial entrant (you have to be 55 years old or older), Chip er was in 1st place at the beginning of the contest. Chip finally finished in lace out of a field of 49 pilots. Included in the contest were 14-ASW27's and 7-Ventus's. The next contest was the 15M Nationals i sylvania. Out of a field of 46 pilots Chip finished in 6th place. Charlie Spratt in the Spratt Report said, "Chip had more than his sh oblems at this race, (height penalty on day one, two missed turns, on day three, due to GPS errors,). Chip could have easily won thi without the problems." Included in this contest were 14-ASW 27's and 14-Ventus's. Up next was the 18M Nationals in Texas. Chip start at this contest with a land out on the first day. However by the end of the contest Chip has pulled elf up to a respectable 12th place out of a field of 33 pilots. Included in the contest were 6-ASW27's 0-Ventus's. The end of the year 2000 racing season came with the hotly contested Southern California on 12, 15M contest in the Mojave desert. Chip wound up this contest in a solid 2nd place, 46 points f 1st place. Chip was the only pilot to get around the course every day. The 15M class had a field of 20 , which included 1-ASW27 and 7-Ventus's.

s take on the DG-800S was,"I can't believe it, this glider outclimb's everything and runs with any of at the same wing loadings. Dry I am climbing at about 41 knots indicated, 45 knots if banking ly, with 13 degree's of flap. In this configuration and with an equal wing loading, I leave them, the s great". The Millennium 2000 racing year was a success. Next year we hope to do the same or better.

"This is a picture of my DG-400 at Omarama with the parachute on the wing to hold it down in 20k of wind. Ha just been to 23,000 ft msl in wave and come back down d to cold feet, temperature wise that is! Jon Ludgater, Cathy Pacific Air, Hong Kong. China."

" I have been touring for three years in my Ximango 200 "ZBN". Have just completed our third trip to the Morning Glory roll cloud which occurs in the Gulf of Carpentaria a top of Australia. We were soaring 80 miles out to sea at 1,200ft at 115 kts for 3-4 hours. The return trip was back down through the centre of Australia..about 6,000 miles tl trip.The Ximango at 12 litres/hr is just great for long dista trips and very robust for outback landings, Have just receiv my #2 AMT Ximango 200S "ZBF" and am very happy w its performance. The factory backup has been tops. Barry



ANTARES

The Electric Motorglider from Lange-Flugzeugbau
PART 1

Antares, is a red supergiant star of the first magnitude and is the brightest star in the constellation Scorpio which is part of the Milky Way. It is 500 light years from Earth and has a surface temperature of about 3,500C. Was this name selected by Dipl. Ing. Axel Lange becaus this star is bright, big and hot? Perhaps, as his new electric powered sailplane shows great promise in the use of a relatively simple, silent a powerful method of propulsion. Couple this with an advanced state of art low drag wing, tail and fuselage design and there is indeed somethi bright, big and hot going on at the new Lange-Flugzeugbau factory at t Zweibrücken Airport, Germany.

Most of the test flying is completed and there are, according to compar information, 23 fixed delivery positions sold as of November 2000. Serial production is scheduled for Autumn 2001 with deliveries startin in 2002. It is reported that several world-class soaring pilots have **Anta** delivery positions. The aircraft has both 18 and 20 meter wings with winglets for the 20 M span. The structure is predominantly carbonfiber composite materials. The cockpit is designed as a survival space with a crash zone integrated into the forward fuselage. The power-plant is a 56 brushless electric motor located at the propeller hub. The slow rotating propeller (1,500rpm) has a 6.5ft diameter. Nickel-Metal-Hydrid batterie are located in the wings. A single lever controls the motor speed and extension-retraction.

large analog/digital cockpit display shows output, errors or warnings which are signaled both optically and acoustically. ıe **Antares** concept was designed and developed from the ground up as an electric powered sailplane by a team of experts: erodynamic Design and Wind Tunnel Research: Loek Boermans Associate Professor of Aerospace Engineering at Delft, olland. Electric Motor: Professors R. Jeanneret and A. Vezzini of HTL Biel, Switzerland. Composite Structures: Joachim L oduction Specialist CNC Technology. The basic objective of this design team was to develop an ultra high performance ele wered sailplane with a rapid powered climb (944 fpm to over 8,000ft msl), an excellent glide ratio (18M-52, 20M-56), cellent penetration at high speeds (116-128kts), overall very pleasant handling characteristics, minimum induced drag (supe ipse wing), winglets on the 20mm span for further reduction in induced drag, forgiving stall characteristics, a high aspect r ng (32:1), minimal aerodynamic losses at the wing fuselage juncture, specifically designed wing airfoils (nine in all fine tu each other), a crash safety cockpit incorporating a Survival Zone (special stringers and spars surround the pilot). Price as of ovember 2000, not including trailer, is DM 208,500. Part II will contain detailed design features and specifications. ore info? <www.Lange-Flugzeubau.com> or <Lisa.Martin@Lange-Flugzeubau.com> Tel: 011-49-6332-962720; x: 011-49-6332-962729.

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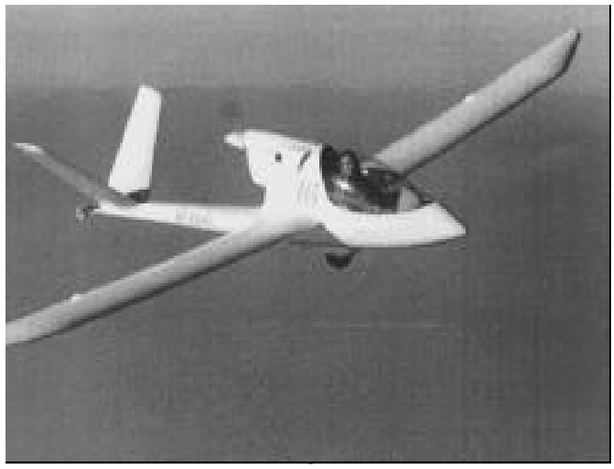
rmer NASA pilot and ASA member Stan Nelson (left), flew with adventurer Steve ssett piloting his own aircraft on an around the world flight. Stan served as the recting official for the National Aeronautic Association of the United States the flight. Stan accompanied Steve Fossett and two relief pilots on a Cessna itation X on a flight which began and ended in Mexico. The flight began the y before Thanksgiving from Los Cabos, Mexico and ended there two days ter. Refueling stops were made at Kona Hawaii, Majuro Atoll, Babelthuap alau, Singapore, Mali, Nairobi Kenya, Abidjan Ivory Coast, Fortaleza Brazil, d Barranquilla Colombia. The aircraft landed again in Los Cabos after unding the earth in fifty- one hours and thiry six minutes setting an official world record of 500.3 miles per hour including the time for ground fueling stops. Each stop took between twenty and thirty five minutes. The ight spent much of its time at 49,000 feet cruising at nearly 600 miles per our in eighty degree below zero temperatures. Each stop was coordinated in lvance to reduce the time spent taxiing, refueling and filling out paperwork quired by each country. The record must be approved by the United States ational Aeronautic Association and the Federal Aeronautique International in



J6 Fregata--An Aircraft with Glider Capabilities

By Wojciech Jeziorski

single-seat J6 is not an ordinary motor glider. The idea to develop an aircraft with glider capabilities. This way :tified engine was not required at the beginning of the ;n phase. Since the J6 Fregata has flown during tests in t over 160 hours, its really not enough to finalize all ɔrmance data such as the glide ratio. Last October with eration with Warsaw University of technology we ucted stress tests. Because of fact that J&AS Aero gn Ltd has all equipment necessary to manufacture at 500 units of J6 It is hoped we can soon begin serial uction. The most impressing feature of J6 is range of ircraft. J6 can fly with engine "on" 944 sm.! Using J6 glider during flight can increase the range! Second essing feature is fuel consumption. J6 is powered by stroke, liquid cooled Honda BF 45A engine. This ıe has been developed as motor boat power unit. ks to deep redesign now its high performance, long (1500 hours) aviation engine. The fuel consumption of power unit is 1.5 - 1.75 gal/h! Third feature, very ıl for some pilots is fact that medicals are not necessary y J6 Fregata. This means for many people come back to :ion adventure with high performance machine!

J6 SPECIFICATIONS

ing Span	12.55M (41.2ft)
ing Area	9.135Msq (98.33 sq ft)
ıpty Weight	245kg (540lb)
oss Weight	410kg (903.8lb)
el Capacity	60 liters (15.8gal)
wer Plant	4-stroke 3 cyl, liquid cooled 52hp
duction Gearing	2.12:1 belt driven
ɔpeller	2-blade (4.1ft dia)

J6 POWER PERFORMANCE

ıe	250kmh (155mph)
ax Cruise	191kmh (118mph)
% Power Cruise	180kmh (112mph)
ax Rate Climb	6.6m/sec (1260fpm)
rvice Ceiling	7000M (23,000ft)
ıll Speed	70kmh (44mph)
koff Roll	120M (394ft)
nding Roll	140M (460ft)
aximum Range	1600km (944 sm)

J6 ENGINE OFF PERFORMANCE

ax L/D	20:1
in Sink	1.2 m/sec

nore information on the J6, please contact Wojciech Jeziorski at AS Aero Design Ltd., Nowomiejska 2m.29 PL. 91-061 Lodz, Poland. Pho/Fax: 011-48-42 632 3552 email: xwojtasx@wspiz.edu.pl

YET ANOTHER REASON TO GET A SELF-LAUNCHE

by Jim Herd

On a Saturday in November 1 spent the day PASCO Annual Safety Seminar and Awards Ba here in the San Francisco Bay Area. It was a lot - that group really has its' act together! Peter Kell there and he swore on a stack of Bibles that S was going to be soarable at Williams. Williams hour North of San Francisco in the California C Valley, with 7,000 foot mountains close by. Wi is often a great soaring site, in the mountains and flats - but not with an ugly high pressure in late I found Pete's bravado both tantalizing unbelievable! But he is the expert, and I am th guy. Well, we both arrived at Williams about a.m. on Sunday, and I greeted Pete with more dis and cynicism. Here are the facts - you be the Mid-November, temperature in the mid-fifties cool), soundings showing a huge inversion, overcast, skuzzy visibility, and light North winds. tell me, is that not a classic day to stay home and the leaves fall??

Williams has a bunch of dirt strips littered arou valley far and wide - used mostly by crop-d tending the rice paddies. Which, I might add, already partly flooded! So, we launched, and Pe me around the valley "hopping" from dirt strip t strip. Sure, we had to "top off" with a quick bu engine power every half hour or so, but w delightful two plus hours! Not only was it fun, was excellent thermalling practice in extremely conditions. Also, air restarts are always go practice. Hey, just staying off the ground is a rea in mid-November! The point is that this joyfu would have been practically unobtainable with self-launcher.The only downside was a distasteful for me - crow!! Pete was right after all and I had my words!

Jim Herd snaps a shot of Peter Kelly's DG-800B cruising alongside in a tight wing position near Williams, Californ

Bruce Templeton Resigns

As of 1 January 2001, Bruce Templeton resigne VP and Secretary of ASA. Bruce's wife, Amy, lost an ongoing battle with cancer and Bruce is taking time off to be with his two children. We mourn Bruce's loss and his contribution to ASA over the years will not be forgotten.

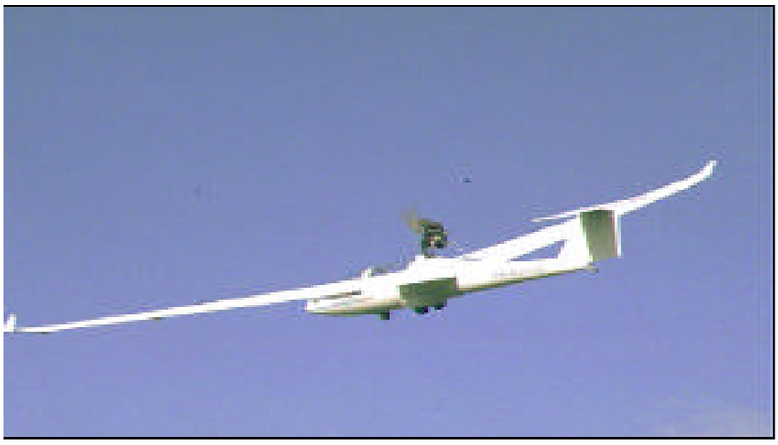
6 km Flight...continued from page 2

ike the first and second legs, I had to turn (and was glad to have this sibility) in only one meter of lift. But the final destination, my airstrip Lysice, step by step slowly approaching. When I was 40 km out, I decided for the l glide, having 5,400 ft MSL (3900 ft AGL Lysice). Since that moment, I was turning at all, just retarding in thermals and accelerating in down streams. In e of troubles, I could have utilized some of these thermals on my route, but it not necessary. After 5:42 hours enroute, I was back over my hangar at 600 ft L for the landing pattern. Total distance flown: 326.6 km. Total flight time- 4 hours. On Course - 5:42 hours.

Conclusions

s was a very happy complex of occasions. Starting earlier, I would have had to e with low cloud bases forcing me to extract the engine. Starting later, the hcoming decaying cold front would have destroyed all the thermals just 160 from my home, which would last all the return flight. Half an hour after my ling, the dead non-thermic air arrived in the Lysice region. In fact, nearly all return leg was just ahead of the approaching front which was ost catching me in its claws in the middle of the final lap. Perhaps, it would e been better to start half an hour earlier - then instead of catching the decaying on the last lap, I could have found still active thermals in the same places. on the other hand, no clouds would have been on my first and second legs nember: they were just starting to form). As it turned out my timing was ed ideal. After the landing, I was tired, even exhausted by the concentration ng all the flight, but happy, happy, happy. Thanks to God, my first 300 km ngle has been achieved. And there is a hope for the future - under similar ditions, a 500 km triangle is feasible - however not this autumn, but next son in the late spring, when the thermals are strongest and active sometimes for r 10 hours.

plan and execute some 500 km FAI triangle with destination and final point at home base Lysice will not be easy..... the greatest obstacle is the Prague on, that cannot be avoided. However, there is some gap - probably with one ing point at Hosin (the same one like during my 300 km flight) and the other he north-eastern Bohemia (LKJC or LKVR, both shown on one of the os)..... thus just touching the Prague area on its eastern border. In any case, I going to do my best to fly the 500 km route next May or June. I hope I will e still some years available for these attempts. For my TST-8 this 500 km e will be probably the feasible maximum in our soaring conditions - so I feel my honest duty to try to fly it." *Submitted by ASA Member Zbynëk os/October 2000*



Ing. Zbynek Jaros and his TST-8 ALPIN DM**.** His first glider solo was in a Blanik L-23 in July 1997. He has 1,090 flight hours with 24 in pure sailplanes, 786 in motorgliders, 156 in self-launching sailplanes and 126 in powered aircraft. Jaros is the Marketing Manager for TeST, a producer of motorgliders and self-launchers in the Czech Republic. " The 1,090 hrs in my logbook were flown in a short period 1994-2000 because of the communist regime in my country from 1948-1989. My first powered aircraft solo was in Oct. 1994. Zbynek and his wife, Macik, live in Brno, a city of 386,000 in south-central Czech Republic. Images via Zbynek

Self-launching Sailplane Reciprocating Engines a Review

From a humble beginning using an air c 9hp motorcycle 2-stroke engine successfully self-launch the British Ca Baynes Auxiliary (Scud III) in 1935, m today's modern self-launchers are po with a 50hp-65hp 2-stroke power plan exception being the Stemme which can as much as 115hp output from a turboch 4-stroke engine. Along the way sus engined sailplanes with as little as 20 were used. The Ventus cM had 30 hp provided for a limited self-launch capa if the field altitude and density al conditions were satisfactory. I have seen remain at one wingspan from the ground liftoff for a long time until the pilot find enough lift to return to the field, and retune the carbs for maximum o Other sailplanes with limited self-l ability includes the ASW-24E and DG- due to low hp output using a single cy air cooled Rotax engine.

Today's production engine is a single ca cylinder, liquid cooled 2-stroke with displacement producing 50-53hp at rpm. Aircraft using this engine are the 800B, Schneider's LS-9 and Sche Hirth's Ventus 2cM This is a Solo e which has replaced the 43hp Rotax 5(cooled engine used in the DG-400, 20E/30, ASW-22 and Grob Twin III Sl gain additional hp, dual carbs are ins resulting in an output of 63hp. This engine powers the Schempp-Hirth Ni 4M and 4DM and DG's DG-500M Breaker points ignition systems have replaced with a CDI solid state elect dual ignition system. Air cooled engine now replaced with liquid cooled systen cooler running and extended engine life exception to all of the above is the Mid-West rotary engine which is used i ASH-26E, ASH-25M and the ASW-22 A newer version now has fuel injectio produces 57hp.

Propeller technology has also moved for to a high pitch paddle-type blade maximum climbing performance. Mo engines now employ 3:1 reduction rat engine rpm to prop rpm. The reduced tip speeds provide for lower noise emis Automatic retraction/extraction system now the norm resulting in reduced cc work load. Auto-prime systems are also which sense engine temperature and accordingly.

Still another innovation is the fact th new production self-launchers hav "buried" engine that remains in the e bay using a belt drive to swing the pro which is mounted on a mast. So we ca that in the last 15 years many changes been made to increase hp output, r noise emissions and improve reliability only system that has remained rela unchanged is carburetion which still em the venturi/diaphragm system and all pilots can attest to the fact that a clean is not always possible. Perhaps there th fuel injected 4-stroke in the future or the Smart Plug? Email SmartPlug@aol.cor more info.

Pete Williams

ASA Mission

xiliary-powered Sailplane Association, Inc. unded in 1988 as a non-profit organization ɔurage the design, development and safe motorgliders, self-launching and sustainer sailplanes.

ASA Membership

ership in ASA is open to anyone interested ered sailplanes. Write or call: Brian Utley, Membership Chairman, 1930 S.W. 8th a Raton, FL 33486-5205 Tel: 561-750- ax: 561-393-7458 Annual Dues: $20 USA, ternational

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Contributors are requested to submit hardcopy typewritten or keyboarded text 12pt font size is b accurate scanning. If submitting text on a floppy please advise the word processing program used. may be edited as required to fit the newsletter. T newsletter is produced on a Macintosh G-3 using AppleWorks word processing software. Photos a always welcome and will be returned promptly.

The newsletter is delivered to the printer the last in Jan; Mar; May; July; Sept & Nov. ASA desires on what the members want in this newsletter and are doing all we can to keep it informative and interesting. ***It's your newsletter, so please le hear from you!***

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ASA member Ruud Rozendaal soars his DG-400 over the French Alps. An award winning photographer, he used a Nikon camera with a 20mm wide angle lens triggered by an infrared system. Ruud normally flies from either Cap/Tallard or St. Crepin airfields.

Auxiliary-powered Sailplane NEWS

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DG Shop Talk
Batteries
Part 1

/ Oliver Dyer-Bennet

battery is the heart of the al system of a self-launching e. In the DG-USA service shop the Annual Inspection of the ers motorglider, we give the system special attention. We ound that the battery is usually son the engine is either quick to r slow and hard to start. The 505 and 535C engines have used on many of the self- ng sailplanes over the last years. The Rotax repair manual "The cut-in RPM, (ie. when the unit gives the first sparks), is mately 300 rpm.Therefore the must be sufficiently charged to at least the above minimal g RPM. (normal cranking RPM fully loaded battery is imately 500 RPM)."

wer self-launching sailplanes are ne German SOLO 2625 engine. G-800B maintenance manual for LO engine says; "If the engine t less than 500 RPM, there are ks at the spark plugs. Therefore tery must be charged enough to his RPM, (normal starting RPM well charged battery is mately 600 RPM.) Once the begins to turn over with the motor, the fuel/air mixture is into the cylinders. If the starter cranking speed is below the triggering speed RPM, no al spark is generated at the plugs. The engine soon floods uel and becomes very hard to ow long is your aircraft battery or? Usually about 4-6 years, or he same length of time as the utomobile battery. If your self- ng sailplane is slow or hard to heck your battery system. They be undercharged or ready for ment.

A is the factory authorized and repair facility for DG ugbau GmbH of Germany

amaged PIK-20E

ow Flying Service at Moses Washington has available for lamaged PIK-20E and will in offers for either parts or the te ship for rebuilding. Right roken at juncture of eron. Fuselage broken off engine doors. 97 hrs on Rotax gine. 02 system. Custom . **Contact Ron Piercy at**

Wilhelm Dirks airborne over Germany in the 18-meter version DG-800B prototype, circa 1994. This ship and 4 others has the MidWest 50hp power plant and a bumper system fo prop alignment. Experimental winglets are attached. Current production 800Bs have the Solo engine, a prop braking system and the new higher winglet design. D-KBDG is now N885N (5N) and is flown by Pete Williams out of the Minden-Tahoe airport, USA.DG-8 s/n 8-8B1 will be 7 years old in July 2001. It arrived in Houston with 221 landings, 243 airframe hrs and 68 engine hrs. Dirks flew it in the 1995 German Nationals (7thplace). Th logbook has many famous names in it like Axel Lange, the man who is now producing a electric powered sailplane. The ship was also featured in Aerokurier and photos taken by Jochen Ewald who also flew this ship. At 50 hrs engine time, the MidWest 2-stroke was removed April 18, 1996 and sent to Solo for disassembly and inspection. Nothing was so back together it went. The machine tool marks on the piston walls are still visible tod Its last flight in Germany was Nov 6, 1996, pilot Wessing. Current times are 585 TTAF 101:39 engine. (117 USA flights). The bird has an interesting history and it appears mos glitches and elves in der voods have been removed. Lets face it, part of owning these machines is fixing them. In the process the machine becomes a personal item, like a favo car. The payoff is the freedom of self-launch. *Pete Williams*

Above: Stan Nelson's ASH-25's left wing is seen while thermaling at the 2000 Senior Championshi near Seminole Lake, FL.
Left: Oliver Dyer-Bennet holds a Solo 2625/01 engine. This liquid cooled 2-stroke produces 55hp and is used in the DG-800B and LS-9.
Below: 2-place DG-505MB with 63hp Solo 2625/0 engine in retraction process.