APS NEWS

The official Publication of the Auxiliary-powered Sailplane Association, Inc.
Volume XXX Issue #126 **ASA Web Site: <www.motorglider.org>** **Sept - Oct '09**

Yosemite
photo by Marty Hellman

In this Issue:
Your Axle
Why Motorgliders are Better
Soaring Yosemite
FREE - Get yours now - ASA Decals!!!
and MUCH MORE!!

NEWS FLASH

Hot off of the Digital Presses
Self- Launch Retractable Engine Sailplanes
Pete Williams definitive book on SMG's
is now available on DVD with bonus features

President's Corner

Notice for ASA general membership meeting!

The general membership meeting will be in Little Rock, AR at 0730 on Saturday, January 30, 2010

This meeting is in conjunction with the Aux-powered Sailplane Association breakfast at the 2010 SSA Convention. We have asked for more space this year so that we can accommodate everyone who wants to attend. Please make your plans early.

Great Soaring !!

Rick Howell

EDITOR NEEDS HELP

Thanks to the folks at Eric Greenwell, Brian Utley, Jim Herd, Marty Hellman, Ken Armstrong, and Oliver Dyer-Bennet for contributing to this issue. For the rest of the readers I could really use your help with articles and photos. There's lots of flying being done and a lot of us have digital cameras so it is easy to submit photos. I am always looking for content so please contribute to the newsletter.

SAFETY COLUMN

Oliver Dyer-Bennet, CFI/CFIG
Safety Director ASA

Devoted to the enjoyment and safety of the sport of high performance powered sailplanes and motorgliders.

The following column was contributed by George Strohsahl, a Carat pilot, naval Admiral ret., Pt Magu commander ret., and former F-18 driver.

George is very active in cross country soaring with his Carat, in SoCal, and has worked up a good check list for our glider towing.

Towing Check List

I. Glider secure in trailer.

   a. Dolly bolts tight.
   b. Loose gear in cockpit/baggage area secured.
   c. Canopy closed and locked.
   d. Trailer solar panel electrical lead, secure.
   e. Tail tie down tight and not rubbing fuselage surface.
   f. Wing dollies fully forward against the stops.
   g. Wing spar hold down clamps tight - Try to wiggle wings.
   h. Wing tip handles, if required, installed
   i. Horizontal tail secure in trailer holder.
   j. No loose objects in trailer, aft of storage bin.

II. Trailer top fully seated, clasps fully engaged, safety pins facing aft and rear of trailer locked.

III. Stabilizer jacks fully retracted. "A definite case of beer for the glider club house if you forget this one & its easy to do, editors note".

IV. Tires properly inflated and wheel chocks removed and stored.

V. Trailer tie downs removed and stored.

VI. Hook up complete to tow vehicle.
   a. Tow hitch with ball installed in tow vehicle receiver with hitch receiver safety in place.
   b. Occasionally check to see that the ball nut is tight on the ball shaft.
   c. Trailer tow bar head is fully seated, attached, over the tow ball and the handle is fully down.
   d. Occasionally lube the tow ball with a good grease.
   e. Safety chain attached with proper slack for turns.
   f. Emergency brake cable attached, if necessary.
   g. Trailer brake released and handle fully down.
   h. Electrical plug fully seated and running lights checked.
   i. Trailer is current in registration.
   j. Jacking wheel retracted and secured, or removed and stored in trailer, or tow vehicle.

VII. Gear in stowage bin secure, door closed and locked.

VIII. After a short trailer tow forward with the tow vehicle, stop and check that all elements of the hook up remain ship shape, and that the overrun brake has released as evidenced by the trailer tow bar being slightly extended with the rubber bellows not compressed.

At least once a year check that the trailer brake shoes are not dragging on the brake drums by towing the trailer a couple of miles and checking the brake drums for excessive heat build up.

WHY MOTOR GLIDERS ARE BETTER
NOTES FROM MY FIRST MG FLIGHTS

by Ken Armstrong

Our 2002 cross country flight to Nanaimo BC looks like the track taken by a drunken sailor over very hilly countryside on the Garmin. The GPS flight review feature reveals apparently meaningless meanderings with occasional continuous turns of more than 720 degrees - certainly no way to get somewhere quickly. On the other hand, this flight is very quiet and extremely fuel efficient - because the two, stick-thin propeller blades stand vertically - serving no purpose other than guides for lining up our constantly changing heading. The mags to the Rotax 912 powerplant were turned off half an hour ago and since then we have been gracefully careening around and over the rocky protuberances surrounding Lake Cowichan. These dark mountain tops have somehow infuriated the sun which has been beating down on them mercilessly. The crests spent the morning absorbing this heat and having grown tired of the game they are now radiating this energy skyward. The light winds carry these rising columns of air downwind of the ridgelines in an invisible climbing slope that ends near the tops of the developing cumulous clouds.

This is my first year of soaring and I have initially confined myself to the general environs of my Brentwood Bay home by Butchart Gardens. Having reached the age group of "crispy critters' and handcuffed by the conservatism, my sorties have been limited to remaining within gliding distance of my base – Victoria International Airport. Another limitation is my requirement to start the engine any time we sink below 3000 feet. Although the engine is a super reliable four-stroke Rotax 912, another safety assumption I make is that the engine will not start. These self imposed operational limitations would be a part of my soaring every year thereafter until 2009 – but, those are different stories - to follow in future editions…. You can appreciate that with an optimistic published L/D of 29 and min sink of 224 fpm that there might only be few good soaring days in cool country every year. However, as this neophyte would learn during meanderings in the search of rising air, the area has abundant thermals, good ridge lift and significant waves off the Olympic and island mountain chains from time to time.

This particular flight will turn out to be my first significant cross country and will take my passenger and I beyond gliding distance from CYYJ. We are all grins as we have been seeing 200-600 fpm ever-upwards for half an hour and are now approaching 9500 feet and the darkened domed base of the towering Cu we are approaching promises stronger lift. And it is! We rocket upwards towards the sinister maw of the cloud base where the ambient temperature mates with the dewpoint and we dive steeply to avoid melding with this convective behemoth. With this increase in potential and kinetic energy we realize it's time to break off head for Cassidy Airport. With a slight tailwind we bring the speed back to min sink to give us a ground speed matching our best lift/drag speed of 57 knots.

It's been difficult for me to picture how far this bird will really glide from a given altitude so it is mentally necessary for me to continually calculate our "glide-able" distance give our height AGL. However, this is really unnecessary because the air is subsidizing our sink rate and we have more than enough altitude to clear Mount Prevost and reach the airport. Besides, there is another column of lift over the mountain as we pass that kicks us back up to 10,000 feet - not that we need it. With our extra height above terrain we set up an 80 knot cruising descent and accept the slightly higher sink rate of approximately 350 fpm and fly westward beyond Nanaimo's Cassidy airport realizing we now have a new base of operations and circle around the airport that will allow us to extend our cross country in many directions. In this rocky and heavily treed terrain, this is the first time a location other than Victoria's airport becomes my landing base. By the time the inviolate supper hour is approaching we have covered a hundred miles on a route dictated by dark based clouds and the final glide to Victoria can be made at high speed. We are nearly delirious with our first great soaring success and our subsequent summer flights broaden our range and typically average 3.5 - 4.5 hours before our tummys' borborygmi sounds summon us to return to earth.

A Closely Kept Secret

My pilot/passenger friends commonly ask me why there aren't more motor gliders flying. It's a puzzlement to me. I have admired the sleek lines, efficiency and soaring capabilities of these "composite" planes for decades. The only answer I can provide is that most pilots are not aware of the capabilities provided by this optimum blend of powered aircraft and glider. Of course, in some cases it is a matter of haughty pride. Many of the owners of high performance gliders feel that powered sailplanes are not worthy of consideration. Sometimes it could be "sour grapes" because an individual cannot afford the extra costs associated with propeller and engine driven variants – or didn't consider motorized gliders. My own perspective is that a glider's performance on a given day is a combination of the glider's performance parameters and the pilot's ability to maximize them and the existing lift. The handicap of a touring motorglider simply gives me more challenge in attempting to keep up with the high performance machines – and therefore more satisfaction.

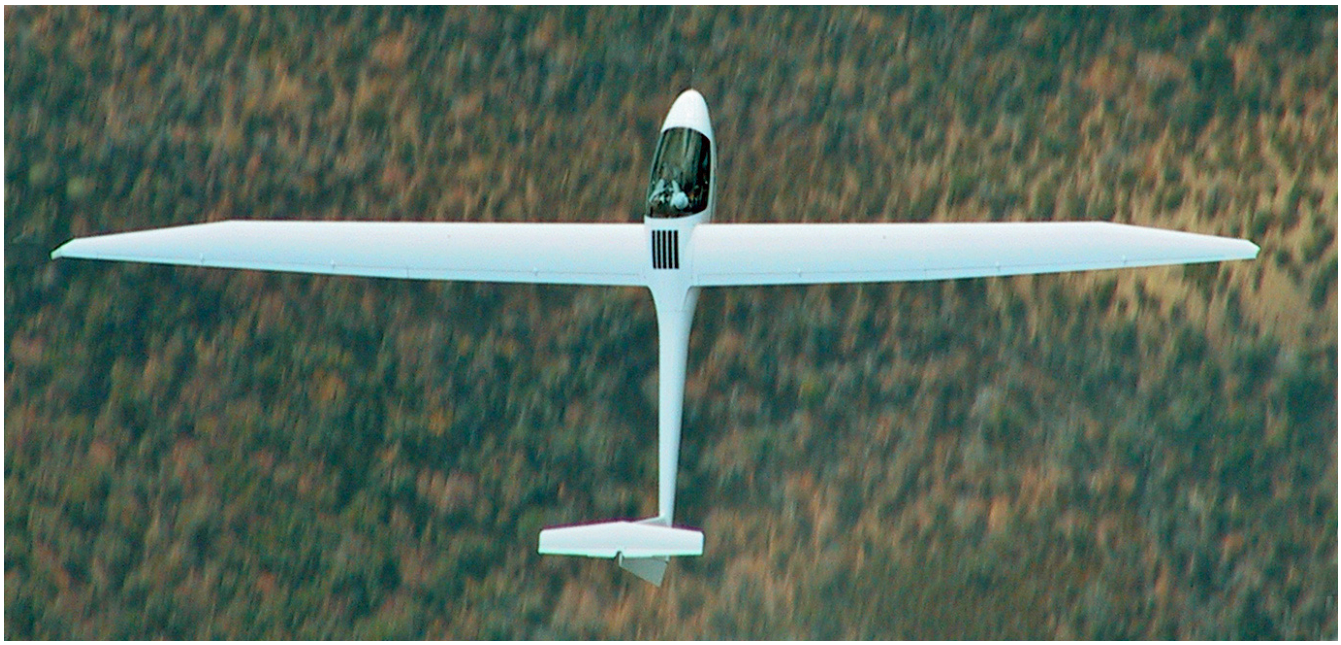
My personal motor glider is a factory built Diamond Katana Super Diamona, aka Xtreme in North America. There are more than 600 flying - mostly in Europe. However, there are many kit and plans built aircraft that are dedicated motor gliders or have the characteristics to excel at soaring operations. Many ultralights are good choices as well because they have large wings and low sink rates which allow them to stay aloft for hours at a time with the engine stop-cocked. While they don't have stellar soaring capabilities for distance flying, they are low cost and an easy to fly alternative.

My Diamond Xtreme is one of the better composite machines in terms of performance but well short of the king of the production motor gliders - the turbocharged Stemme S-10VT (with its price tag nearing $400,000). It boasts a propeller that folds up and is hidden in the nose cowling. The engine is behind the cabin and drives the prop with a shaft that runs under the center console. The L/D ratio of 49 allows the Stemme to glide 92 miles from 10,000 feet AGL - in any direction. Imagine, this aircraft can reach an area of over 27,054 square miles with the engine shut down!
My motor glider with its 28:1 L/D provides more modest performance reaching out 52 miles from 10,000 feet and covering an area of 8,829 square miles. Compare this performance with the typical powered light plane with a L/D of perhaps 8.5/1 with a capability to glide only 16 miles and the difference in performance is abundantly clear. (For those who like the numbers that's only 804 square miles – less than one tenth of my MG.)

Motor gliders don't have to be slouches at cruising neither as their sleek lines belie low drag profiles. This is especially true of cruising or touring motorgliders like mine. My Katana look-a-like cruises at 128 mph on four gallons an hour of auto fuel producing an efficiency of 32 mpg - ins straight lines! We can depart Victoria in the morning and arrive in Calgary for lunch. In a car the trip is an endurance challenge with ferry line ups, winding mountain roads and heavy summer traffic. In effect, this class of motorgliders provides additional capability beyond gliding in that they are efficient cross country aircraft – partially explaining their popularity in Europe where gas prices are much higher….

The fact that motor gliders have large wingspans and high lift coefficients adds additional safety margins as they have resultantly low stall speeds. This has many ramifications. In the case of an accident/incident, impact speeds are kept low - thereby minimizing damage to aircraft and occupants. Additionally, the low stall speed vastly reduces the take off and landing distances. As a rule of thumb, aircraft with twice the stalling speed will require four times the runway length for safe operations. Of course, the long and often low wing spans can be a consideration when taxiing at airstrips with narrow taxiways or obstacles. A wise motor glider pilot once told me to taxi these aircraft as if they were airliners. This includes slow taxi speeds to avoid wing rocking and planning turns well in advance of entering confined parking areas .

YOSEMITE



This was one of those rare days when I was able to soar over Yosemite. Usually, even when the clouds would say "soar here," they lie, and there's not enough lift to stay up. Sometimes I'll be tempted to use my engine to gain some altitude and be able to stay longer enjoying the vistas. But a few times, and May 23, 2009, was one of them, I've been able to really soar over Yosemite. Total flight time was 4.9 hours, with about an hour each for the flights out and return from my home base at Hayward, CA, just south of Oakland International Airport and across the bay from SFO. That left over two hours for soaring over Yosemite and Hetch Hetchy Reservoir (to the north of Yosemite Valley).

A few bands of clouds marked the lift and, several times, I debated whether to leave the safety of one band to head for another, fearful I'd need to use my engine if I lost too much altitude in between. But each time, it worked and I was able to stay a glider for over two hours as I played around Yosemite. Onthe flight home, I was able to glide for about another half hour before I used the engine to gain enough altitude to then glide into Hayward. It helped that the air mass was drier than usual, so cloud bases were around 18,000 feet. The usually moister air over Yosemite can produce summer cloud bases as low as 10,000 feet, which is almost unusable. East of the Sierras, you enter the Great Basin where the air is drier and cloud bases are sometimes over 18,000.

In this photo, Tenaya Canyon is under my wing and flows (from left to right) from Tenaya Lake (not visible here) past Cloud's Rest (partly blocked by my wing) and Half Dome, into Yosemite Valley. Tenaya Canyon now contains Tenaya Creek, but earlier conveyed Tenaya Glacier which helped carve Yosemite Valley. You can see one of the other bands of lift marked by a short cloud street.

Story and Photos by Marty Hellman

Even with modest powerplants, a motor glider's big wings and copious ground effect allow short takeoffs and relatively high rates of climb. With the same 81 hp engine, the motor glider climbs approximately 30% faster than it's clipped wing Katana brother - thanks to its glider wing.

An additional bonus is the use of relatively inexpensive car gas currently at $2.75 a gallon compared to more than a $4.25 for 100LL Avgas. Comparing the two place Xtreme to a Cessna 152 on avgas we find the motor glider takes off shorter, climbs quicker, flies much faster and operates on a fuel burn cost that is only 47% of the Cessna's. Shut off the motor glider's engine and it gets even better. I find the only limiting factor in motor gliders is the fact they are built for two to fly in comfort but they must leave the bulky, heavy baggage behind. Baggage capacity is typically limited to 50 pounds or less.

Even the legal aspects benefit motor gliders. As far as the laws are concerned, these aircraft are self launching gliders. Since they are actually in the glider category, they can be flown in Canada with nothing more than a class four medical by any fixed wing pilot. This means either a PPL or glider license will do. This medical requirement is essentially a self-declaration form that is signed by your family doctor. However, until a pilot obtains the basic glider license he shouldn't intentionally shut down the engine according to the law in Canada. There is no such restriction in the USA.

But, How Does She Glide?

This of course is the question most asked by the glider purists who measure performance almost entirely by minimum sink rate at various speeds. It's true my 28:1 maximum lift drag ratio does not compare favorably with many single place high performance gliders with their 35:1 or better ratios. But, in my limited soaring experience, I have found that when lift is available, it really doesn't pay to compare L/D ratios as all the gliders will be able to soar. Yes, the higher performance machines will get higher, quicker - but it's like the higher performance power plane comparison. Does getting there faster necessarily bring more pleasure?

The question I posed on considering this purchase was: "Have I had enough of the hassle of competitive flying after four decades and would I rather just enjoy the freedom of flight in peace and harmony?" My decision was to avoid competition and mellow out in my latter years. Mind you seven years after the above flight, I was convinced to carry a Volkslogger so my flights could be entered into the On Line Competition (OLC) this summer for the club. On my last flight before putting the bird away for the winter we were able to climb from near sea level to our legal cap of 12,500 (Canada), fly for 6.3 hours (supper then called) and log the longest distance on the OLC for Canada that day. A friend, also with Vancouver Soaring Association was second in his ASW 19. The wind was very strong and turbulent that day in Hope BC. The mechanical turbulence down low was moderate to severe and it was challenging to fly behind the towplane and unless towed quite high, most of the gliders were not able to enter the smooth wave. Advantage motorglider….

My Heart Soars

One of the definitions of soaring in Webster's dictionary is, "To rise above what is usual." This truly captures the abilities of the motor glider because they surpass the capabilities of powered aircraft and overcome the limitations of the glider. Essentially, the best of both worlds…. If you haven't thought of a motor glider for your personal aerial transportation, perhaps it's time you did.

Author's note: This article is written for the relatively inexperienced pilot contemplating a motorglider purchase and provides only the "tip of the iceberg" thoughts for consideration.

Vancouver Soaring Association

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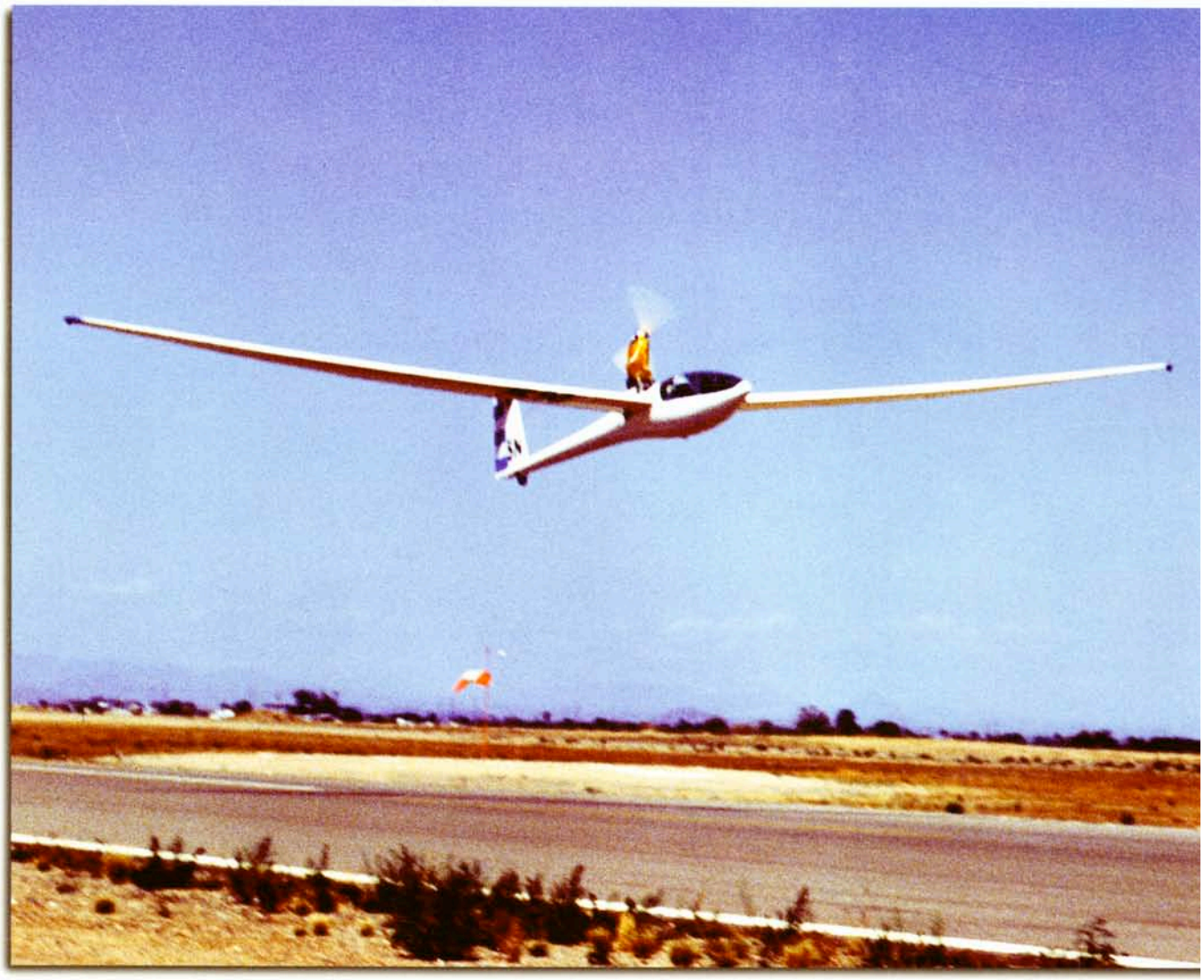

- Development
- Buying & Flying
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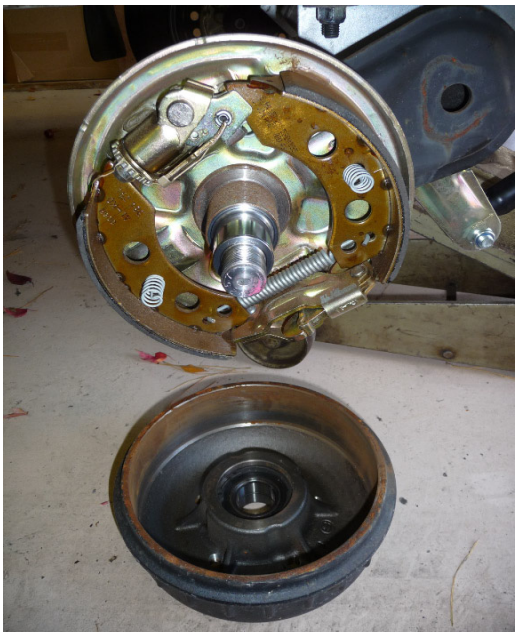
Foreword by Donald D. Engen, Current Director,
Smithsonian Institution National Air and Space Museum

Peter A. Williams

Trailer Tales – Axle anguish
A new axle for my Cobra trailer

by Eric Greenwell



1. Began in 2007 (find article) – beyond lifetime, underrated. New axles have sealed bearings, so one less irritant.
2. Ordered from Cobra to come in Dick's trailer, well that took a long time! Also had to get three new wheels because the old wheels were 4 bolts and the new ones were 5 bolts.
3. made sure I had all the parts. Shock absorber arm was missing, got it from Rex Mayes.
4. Prep: squirted nuts with rust release
5. Removing axle
    1. raise trailer on four jacks
    2. remove wheels
    3. release brake
    4. remove brake cables from pull rod
    5. unbolt axle, lower, and remove
6. Installing axle
    1. raise new axle into place
    2. bolt up each side
    3. remove drums, install brake cables in hub, replace drums
       Note: removing drums not required but it let me check the brake shoes against my spare set. Also, will have to do this eventually to check the brakes – or can that be done from outside?
    4. connect brake cables to pull rod
    5. adjust pull rod
    6. mount wheels and tires on the axle, put spare in trailer
7. Test drive the trailer, ensuring the brakes work properly
    1. test braking – does the trailer stop without a thump?
    2. check parking brake handle
    3. check drum temps
8. After 50 miles, check the lug bolts for correct torque
9. After a few hundred miles, check the axle mounting nuts for correct torque

In the ASA March-April 2007 newsletter, I wrote about discovering the rubber suspension on my then 12 year old Cobra trailer axle was worn out, and the axle was about 5000 miles past it's 125,000 mile (200,000 km) rated life. Alfred Spindleberger, the owner of Cobra, recommended I replace the axle with the 1300 kg rated axle as supplied on the newer trailers, instead of the 1000 kg axle that originally came on my trailer.

He said he'd be glad to sell me one at a "good price", but shipping was very expensive unless it could be placed in a trailer going to the USA. Fortunately, Dick Van Grunsven gave me permission to place it in his Antares trailer, still in Cobra's shop, which would soon be filled with his new Antares and sent to Oregon, only a couple hundred miles from where I live. Perfect!

Two years later, Dick finally got his Antares, the delay caused by Lange Aviation's financial difficulties. Dick suffered much more than I did, as waiting for a new trailer axle doesn't generate much anticipation. Dick was kind enough to bring it and the three wheels for it with him to the Ephrata 18 Meter contest, saving me a couple hundred mile of driving (yes, he flew his new Antares in the contest, and it's beautiful!).

The 1300 kg rated axle appears almost identical to the original 1000 kg axle. It does use 5 bolt wheels instead of the 4 bolt wheels, but still 14" diameter so my tires fit. The new axle has a big improvement over the older ones: it uses sealed bearings, instead of unsealed tapered roller bearings that need occasional attention to ensure the grease and adjustments are still OK.

It was surprisingly easy to remove the old axle (six nuts, plus the brake pull rod) and install the new one – about 3 hours, including getting the tires remounted.

At this point, the trailer was usable, but did not have brakes.

The next day, I spent a three hours installing the brake cables, connecting the brake pull rod, adjusting the handbrake, and testing the trailer behind my mini-van. Had I realized the brake cables could be installed without removing the drums, I could have saved an hour. The problem was getting the extremely tight dust caps off the drums. The ultimately successful technique involved hammering on the edge of the dust cap while slowly revolving the wheel.

The new axle raises the trailer about 1.5". Some of that is certainly due to the stiffer springing of the 1300 kg axle, so I can't say how much the old axle had sagged due to use and age. The trailer feels more stable now; admittedly, a very subjective report! Still, my trailer stability resources person, Nelson Funston, says the stiffer springing and the new shocks should improve the trailer stability noticeably.

If you need a new axle, check with Rex Mayes of Williams Soaring, who carries axles and other trailer parts in stock, and check with other sailplane supply people as some of them also stock parts. Getting an axle that is already in the USA should be a lot quicker than my method!

Need your Photos

Your Photos Here

Always Want Photos

Send them at HI rez to asa_editor@mindspring.com

King Mountain Glider Park is Born!

By Jim Herd DG800B

There is a brand new soaring airfield being developed! Wow! A custom-built field just for soaring aircraft of all types! Wow! Here in the USA, no less! Wow! Is there even one similar airfield concept in all the USA?

King Mountain Glider Park is the dream and the passion of John and Rae Kangas of Boise, Idaho. King Mountain, five miles NE of Moore, Idaho, has long been a treasure for hang gliders and paragliders, and the occasional playground for the lucky few sailplane pilots flying out of Mackay, Idaho. King Mountain sits between Sun Valley, Idaho and Yellowstone National Park, so the scenery is tremendous and the soaring potential is exciting. The Kangas's have acquired prime real estate right at the base of this massive hunk of granite.

The airfield is in the early stages of development and currently has a very serviceable engineered grass runway with basics such as windsocks and tiedowns, but not much else. The Kangas's have a multi-year plan involving improved facilities for camping, a hangar and clubhouse, and a row of building lots butting right up to the runway for vacation homes. While in its infancy, this new airfield is already recognized by the FAA and is fully designed to FAA standards – airport designator is 'ID36'. The motto for the entire project is: "Do it once, do it right!" Another motto is: "All birds are welcome."

There was an inaugural event at King Mountain Glider Park, August 17 to 22, 2009. It's not that the facility is complete and the services are ready for business, not at all. This is a dream in its early manifestation. The idea was to test the concept, kick the tires, learn what works well and what might need revision, get feedback from real pilots, and begin to build momentum. And this extends well beyond the actual soaring operations to involve local citizen goodwill and some sensitive local politics. After all, the modern rule of NIMBY – "not in

Continued page 15

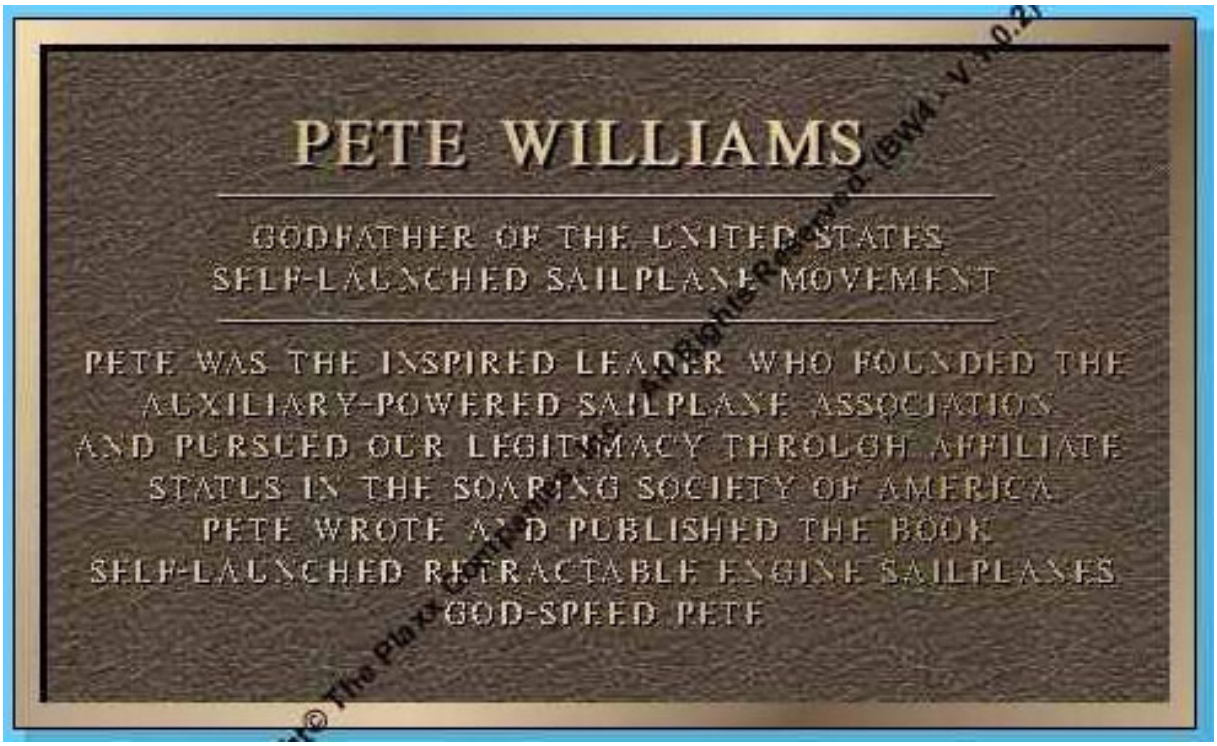
Honoring Pete Williams

by Eric Greenwell

In 2008, the ASA nominated Pete for the SSA Hall of Fame. His name was not one of the two selected selected that year. Because there were several very good nominations in 2008, we believed Pete might be selected this year, and submitted his nomination again. Most distressing to the Board, Pete's nomination was not chosen; in fact, NO nomination was chosen, .

With this clear signal that Pete would not likely be selected in the future, Gary Evans proposed the ASA choose another way to honor Pete's contributions to the sport, and recommended a plaque in a prominent place at the Minden, NV, airport where Pete did most of his flying in motorgliders. The ASA Board concurred.

While a suitable location on the airport is being located, the Board wants members to submit suggestions for the plaque and it's inscription. Here is a suggestion from Gary, as it would look like on a cast bronze plaque:



This cast bronze plaque is 20" x 12", and costs about $850. The Board has given approval for up to $1000; above that, it would reconsider the actual cost and value of the any plaque that exceeds $1000.

The Board invites ASA members to submit inscriptions for a plaque. Cast bronze is recommended, but the board will consider all proposals. The sample above was generated by this website:

http://www.thebronzeplaque.com/wizard.aspx

For this company, the plaque cost depends on the size, not the number of words or characters. You are free to use any means you wish to submit your proposed inscription, and if you find a company with better prices, please let inform one of the Board members. We have not selected a vendor.

Please submit your proposals (inscription, method, and material – cast bronze, aluminum, etc.) to Gary Evans by email or snail mail:

garydevans@cox.net
2445 N. Travis
Mesa, AZ, 85207

We would like to have all submissions by Jan. 7, 2010, in time to discuss them at the ASA meeting at the SSA convention. The Board will determine the method of choosing the plaque by the time of the meeting.

ASA with permission of Charm Williams is re-publishing Pete Williams definitive book on Self Launch Motor Gliders. This DVD has the complete book, cover to cover, as well as an added bonus of every ASA newsletter ever printed through the fall of 2008.

You can get your copy for only $14.95 + $4.05 in postage/handling by sending a check to:

ASA - Pete Williams DVD
c/o Eric Greenwell
222 Thayer Dr
Richland, WA 99352

Also available from Cumulus Soaring.

cont. King Mountain

my back yard" – is alive and well in Idaho, too. Albeit far more muted than in many other parts of the country. In fact, Idaho is perhaps the most aviation-friendly state in the Union, barring Alaska. But soaring in

Alaska is kinda limited, and building a destination soaring airfield in Alaska might be problematic.

Self-launch motorgliders are particularly compatible with King Mountain Glider Park in this early phase, simply because there is not yet a resident tow plane. For the inaugural event, a tow plane was brought in from Montana. A 250 HP Pawnee. About 20 or so sailplanes showed up, and half were "auxiliary-powered". The event also attracted an assortment of hang gliders, paragliders, and other winged vehicles. For some pilots it was an adventure back to their past when they were flying other types of aircraft, for others it was an adventure to satiate curiosity. For all, pilot or not, it was a fantastic new experience.

Soaring weather was varied throughout the week, as you would expect. Every day was soarable and cross-country flights were logged in virtually all directions, often in excess of 500km. Remember, most pilots in attendance were exploring brand new terrain - this wasn't the time to break distance records. Frankly, there was more than enough excitement just from ogling the fantastic scenery for the first time – while on the ground and in the air. With Yellowstone in reach to the east and Sun Valley a jaunt to the west, need I say more?

There was also an endless display of overwhelming hospitality from our hosts and from many of the locals. A new airfield anywhere in the USA is a big deal, and for Butte County, Idaho (population 2000) it is a really big deal! There is a whole lot more to say about this event and about this air park, but that's for another day.

Just browse the website and you will get a lot more info. I don't know when the next event at King Mountain Glider Park will occur, but for motorgliders it need not be a major organized event. John Kangas's parting words were – "All birds are welcome!" http://www.kingmountaingliderpark.com/

ASA Mission

The Auxiliary-powered Sailplane Association, Inc. was founded in 1988 as a non-profit organization to encourage the design, development and safe use of motorgliders, self-launching and sustainer engine sailplanes.

ASA Membership

Membership in ASA is open to anyone interested in powered sailplanes. Write or call: Brian Utley, ASA Membership Chairman, 9541 Virginia Ave. South Bloomington, MN 55438
Ph: 952-941-5683 email:<Utleyb@aol.com> USA Dues $20/yr, $38/2 yrs, $55/3 yrs. International Dues $25/yr, $48/2 yrs, $70/3 yrs.

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