APS NEWS

The official Publication of the Auxiliary-powered Sailplane Association, Inc.

Volume XXX Issue #124 **ASA Web Site: <www.motorglider.org>** **Mar - April '09**

Eric Greenwell on Takeoff Roll

In this Issue:

Safe Trailering

Tech Talk - Stranger in our Airspace

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Battery Charging

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 Parowan, Utah at 0930 on Thursday, 18 June, 2009

We normally have our membership meeting at the SSA convention, but that now only happens every two years. This year the meeting will take place at the fly-in in Parowan. The meeting agenda will be posted on the ASA website: www.motorglider.com later this month. Please let the me know if you have agenda items for the meeting.

I have also received a call from the SSA. The ASA is a division of the SSA and our members are to be SSA members. The ASA Board requests that you maintain your SSA membership and support the SSA.

THANK YOU….. To Gary Evans for all the great information in his tech articles !!

Great Soaring !!

Rick Howell, ASA president

EDITOR NEEDS HELP

Thanks to the folks at Eric Greenwell, Gary Evans, Oliver Dyer-Bennet and Michael Coates 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.

Looking Starter

Steve Loudon needs a starter for his Schiebe Super Falke E with a Limbach L2000EA1. It is a Bosh 202 143 020. If you know of one or a rebuilder contact him at 308-746-1950 or cherier54@gmail.com.

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.

From Tom Knauff we have the following article on the Airbus A320 motorglider Hudson River landing.

Training For That Moment When Every Second Counts
By: Val Paget / AOPA / Part II

When Captain "Sully" Sullenberger took the controls, the aircraft was a glider, at 3,200 feet over New York City.

Mountain flying can be the ultimate test of stick and rudder skills, especially when getting home is in doubt.

Mark Montague, a captain currently flying 767-757s for United Airlines and a certificated flight instructor-glider, (CFIG), observed, "Glider flying promotes the sort of informed self-reliance that is essential in successfully handling any emergency. Having taken off, a glider pilot is of course obligated to land- aren't we all?-but can't count on having the option of diverting to an alternate airport, or delaying the landing. It doesn't matter how turbulent it is on final, or how vicious the crosswinds might be, the landing must be accomplished. Gliding is full of opportunities such as this to test oneself, to unblinkingly measure one's ability against one's self-confidence."

In a glider every landing is a dead stick approach. Energy management is everything. Pilots carry energy in the form of speed and altitude. There's only a finite amount of energy to use before the glider will land. The goal is to keep enough speed in the turns, pull spoilers to dissipate the energy, use ground effect, and touch down exactly as planned. More wind than expected? Cut the approach short. More altitude than needed? Use more spoiler, or slip it in. Stall-spins are more likely if a pilot loses control of the flight envelope, or panics. Learning to deal with energy issues gives pilots a real edge in emergencies.

"Glider training provides real insight as to exactly how and why an aircraft flies. As compared to most other heavier-than air aircraft, a sailplane is large for its speed. The dimensions of the glider are not negligible when compared to the radius of a curved flight path. This means that in maneuvering flight, the various parts of the airframe are moving with markedly different speeds and directions," Montague stated. "Because of this, a glider exaggerates all the subtle nuances of aircraft handling; adverse aileron yaw, the tendency to over bank in turns, the penalty for poor coordination of the controls, and so on.

"A good grounding in these details is worth its weight in gold when a pilot is suddenly faced with the need to operate at the very edge of the envelope or to do anything that falls outside of the canned profiles practiced in the flight simulator."

The sport of soaring is getting a lot of publicity as the result of the Hudson River landing. A good pilot, a good flight envelope and a good ending.

Wanted

O2 cylinder for DG400. Please contact Tim Wood, 416-486-2088 or glidersale-timwood@yahoo.ca.

For Sale

Stemme S10VT

Original owner took delivery in 1998. Always hangared, superbly maintained and equipped, 1650 TTAF, 360 TTE (20 since overhaul). Based near San Francisco but can deliver anywhere in the world. See http://tinyurl.com/5ahbcm to get an idea of its unique capabilities both under power and soaring. Contact Marth Hellman at hellman@stanford.ed or call 650-804-0731 US $185,000.

FROM THE DESERT BETA TEST FACILITY

TECH TALK

by Gary Evans

STRANGERS IN OUR AIRSPACE

The technology of small un-manned aerial vehicles much of which came from combat use has accelerated their potential deployment into many different civilian roles such as aerial photography, crop surveys, search & rescue missions and law enforcement. The first big leap in the U.S. was aerial photography since the capital investment required was relatively small and a lot of people were willing to pay for the service. The small aerial photo service industry blossomed virtually over night. FAA, realized that this was exploding and with the other potential uses on the horizon would result in a lot of new unlicensed unmanned aircraft in controlled airspace. For this reason they put the clamp on all civilian non-hobby use of unmanned aerial vehicles in March 2008 and launched a study committee in April 2008 to gather information on what was happening in the small UAV community and what was likely to come next.

Interim Operational Approval Guidance – March 2008 link:
http://tinyurl.com/cvlnr5

Small Unmanned Aircraft System Aviation Rulemaking Committee – April 2008 link:
http://tinyurl.com/dac5b4

That committee membership included representatives from all of the significant stake holders which included FAA, AOPA, UAV systems designers/manufactures, Homeland Security and the aerial photography industry.

The work of that committee was completed early this year and has been forwarded on to the agency for the drafting of proposed regulations. Details of the information submitted has not been released but reading between the lines of all that has disclosed unofficially I expect future proposed regulations in the 2010-2012 time period will significantly restrict the use of these aircraft in controlled airspace. Aircraft certification, user licensing and area use restrictions are among the expected rules. There may or may not be some exceptions for very small light slow aerial vehicles operated at low altitude (under 400 ft AGL) to conduct commercial operations.

If in the meantime if you encounter any big fast unmanned vehicles those would be military and don't expect them to grant you right of way.

Charging your glider from an external battery

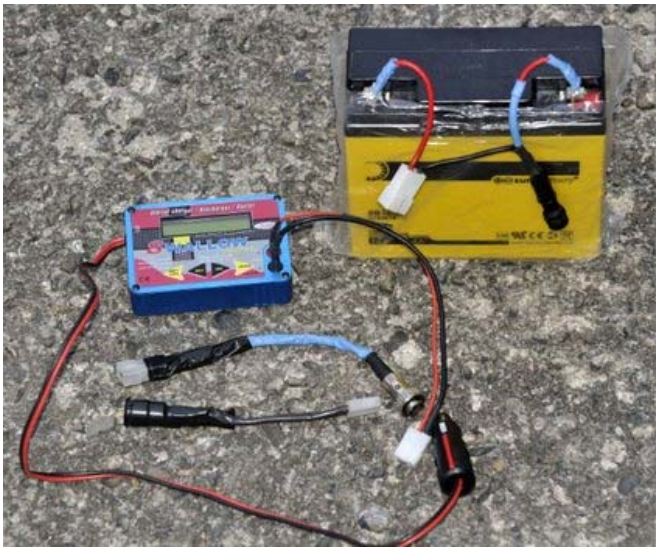
by Eric Greenwell

Chargers that operate from a 12 volt battery provide another way to charge the glider battery when AC power is not available. These chargers are widely used by radio control model enthusiasts, and are relatively inexpensive.

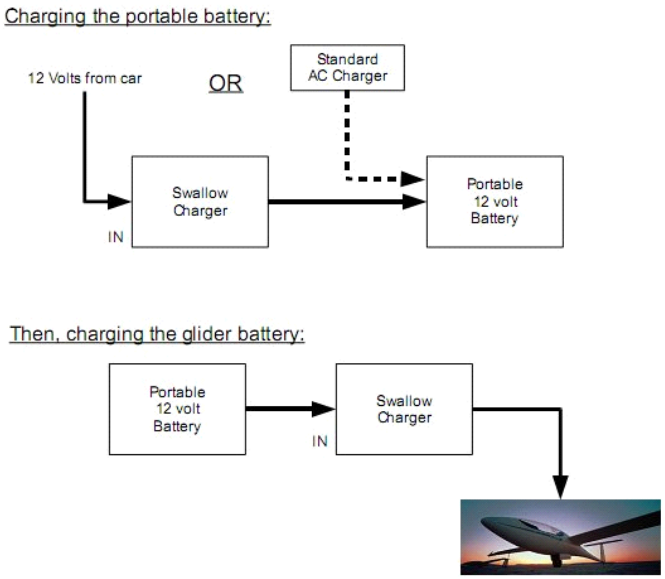
An example from Holger Weitzel

The charger is the small box next to the yellow battery. It's charge rate is adjustable up to 5 amps.

The battery is the same type used in our gliders (12 volts, 18 amphours), and is equipped with a connector (white) and a fuse (black).



The various cables and connectors allow Holger to charge the portable battery in several ways, then to charge the glider battery:



Battery chargers cont...

A portable battery is not required

It is not necessary to use a portable battery to charge the glider as Holger does; instead, some pilots may find it more practical to park their car next to the glider, then charge the glider from the car battery while they prepare the glider. By using a 4 amp charge rate (allowed for our batteries), a one hour charge would compensate for 4 hours of flight in a glider with a transponder, Ipaq flight computer, radio, vario, Zaon MRX, and GPS logger.

Using the battery in a vehicle may also be good choice for that rare event when the glider battery needs a lot charging because a radio or some other device was left on accidentally. The large capacity of the vehicle battery should enable the charger to completely charge the glider battery in 5 or 6 hours at a 4 amp rate.

Where to get a DC charger

The Swallow charger is not available in the USA, but the Multiplex LN-5014 is identical in function and available from many sources for about $80. Here's one: Tower Hobbies

Not recommended: The Triton Jr. is functionally identical to the Multiplex LN-5014, but with the addition of a "safety timer" that shuts off the charger if end-of-charge is not reached. This timer is only two hours long for the Pb (their designation for "lead acid") batteries, which is not near long enough for our glider batteries; further, a VERY loud, CONTINUOUS alarm sounds if the timer shuts off the charging!

The timer can be turned off before each use with 6 clicks on the menu buttons, but not permanently disabled. There is no way to disable or adjust the volume on the alarm, either. I was sure I'd forget to turn off the timer and it would wake up me, my wife, and the whole campground (already did it once!). Also, I didn't like all the cooling openings in the case, as I thought dust would blow in, and rain might splash in. I returned the charger and will order an LN-5014 instead.

Notes from other pilots:

bumper: I purchased my Multiplex LN-5014 from Tower Hobbies. The instruction manual doesn't provide much information about the charger's lead acid battery charging function, just that the voltage is selectable according to the number of cells (6 = 12 volts) and that charge rate is selectable from .1 to 5 amps. No mention of what battery parameters, if any, are used to adjust and/or end charging.

Bench testing shows that when the 5014 is set to charge, the charge current selected will be the maximum charge rate used. This current will taper off as the battery voltage rises under charge. When battery voltage reaches 14 volts, charging will continue but the charging current will taper further so as to keep the battery voltage from exceeding 14 volts. Then, as current continues to decrease to a small value, charging will terminate. When the 5014 terminates charging, it stays off - - there is no maintenance or trickle mode. To enter charge mode again, it must be selected manually.

Even when off charge, the 5014 will continue to present a load of about .070 amps to the host battery, so it is important to disconnect the source or host battery to prevent deep discharge over time. This shouldn't be a factor on some glider trailer installations, those with a roof mounted solar panel to keep the large trailer battery (host) charged should more than make up for the small 70 milliamp drain.

Need your Photos

Your Photos Here

Always Want Photos

Send them at HI rez to

asa_editor@mindspring.com

Towing the trailer safely

Part 1

By Eric Greenwell 05/07/09

(Note: this article originally appeared on the ASH 26 E owners group "Technical Reports" website)

The Warnings – Read this first!

Any combination of tow vehicle and trailer will be safe if you go slow enough. What people really mean when they say "it's unstable", they mean "it's unstable *at the speed I want to tow*".

A problem is we don't have a good way of determining how safe (stable) the combination is at a given speed. By "good", I mean a reliable, simple way to determine the safety margin for you driving your vehicle while towing your trailer. As you know, people sometimes do determine what is definitely too fast by losing the trailer, crashing the tow car (and trailer), or, if they are lucky, just scaring themselves silly. Vehicle engineers can make measurements, calculations, and tests that would determine the safety/speed tradeoffs, but we don't have access to that expertise.

What we have in this section is some generic advice derived from (mostly USA) owners' experience towing glider trailers, and primarily Cobra trailers. Because there are so many variables, you should not automatically assume that what works well/poorly for one person will work just as well/poorly for you. For example, two cars of the the same make, model, and year can come with different tires, wheels, and suspensions, depending on the exact "package" of options purchased with them. This can produce substantial differences in their towing stability.

Some rules to live by (this is not a complete set):

- If the trailer is constantly wiggling, you may be going too fast. Slow down.
- If you feel you might be going too fast, you are going too fast. Slow down.
- If your wife or other people are too frightened to ride with you, you are going way too fast. Slow way down.

Improving towing stability

The simplest technique is "slow down". The slower you go, the steadier the tow vehicle and trailer will be. It works.

Next, check your tire pressures in the tow vehicle and the trailer. Running the pressures 5 psi above normal might make a noticeable difference, but stay within the tire rating.

Ensure you have between 5% and 10% of the trailer weight on the tongue. Shift some of the items you carry (wing dollies, gas cans, tool boxes, etc.) to do this.

And now, the methods that aren't so easy. Some choices have to be made when you select the vehicle or trailer; some can be made to the one you already own.

Selecting a new tow vehicle

There are some design features that make for a better tow vehicle, in rough order of importance:

1. The distance from rear axle to tow ball: shorter is better
2. Wheel base: longer is better

Safe trailer towing cont...

3. CG: lower is better (a low mini-van versus a high SUV, for example)
4. Weight: heavier is generally better.

Some of the newest vehicles have active stability control that may improve towing stability, but I have no idea how much these systems can help us. We are eager to hear reports about these systems, so please report your experience with them to the ASA newsgroup, or as an article in the ASA bulletin!

Part 2 of this series will lists vehicles that other owners have used and how well they worked out for them. Improving your current tow vehicle.
Note: before changing tire types or sizes, check your manual (or with the manufacturer) carefully, as tire choice can affect the safety of some SUVs and other higher CG vehicles by increasing roll-over risk, and perhaps other problems.

The easiest change is better tires. A higher speed rating than the original tires will usually improve the stability, and the higher the better. The ride might not be as smooth.

Next easiest is a "wheel upgrade" to a bigger diameter, ; e.g., from a 15" to 16" (or even a 17"). You'll need new tires of the same outside diameter for the new wheels. That gives you a lower profile tire (sidewall height to tire width), which reduces the tread deflection under side loads (cornering or while "swaying"). The ride will definitely not be as smooth with these lower profile tires, except on good highways. Going to a higher speed rating than the original tires will help, too.

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(remember the new postage rate is 42 cents) to:

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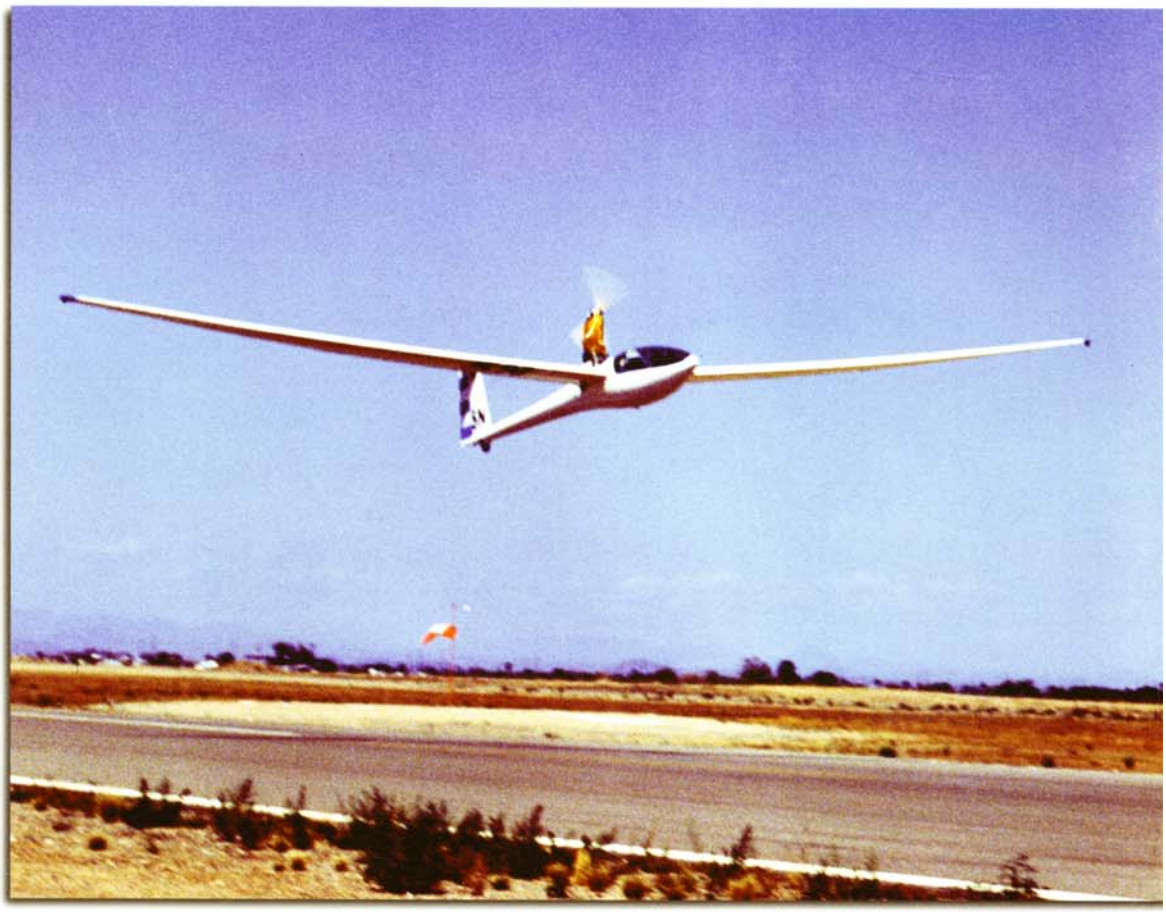
9541 Virginia Avenue South
Bloomington, MN, 55438

Self-Launch!

Retractable Engine Sailplanes



- Development
- Buying & Flying
- Maintenance
- Makes & Models
- Power Plants
- Flight Safety

Foreword by Donald D. Engen, Current Director,
Smithsonian Institution National Air and Space Museum

Peter A. Williams

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.

Make sure the new wheels and tires are compatible with the vehicle and won't cause suspension interference when turning or driving over bumps. The wheel/tire/car dealer should be able to tell you this. A "return if they don't fit" agreement is a good idea.

If you still aren't happy with the tow vehicle, it might be possible to improve it with better shocks, bigger sway bars, or wider wheels. Because it's hard to predict the effects of these changes or to test their benefit easily, you are on your own.

Selecting a more stable trailer

Getting two axles instead of one will give a much more stable trailer. The biggest reason not to get the two axles is the extra difficulty of moving the loaded trailer around by hand. An empty two axle trailer is generally manageable by one person on level ground, but with the glider in it, you'll likely need help or a vehicle to do more than rolling it back and forth with small changes in direction. If you need to turn it 180 degrees in a small area, as I do, you're going to need some more muscle, either on you or in the form of a helpful neighbor!

While the comments above may reflect the majority opinion, not everyone agrees the two axle trailer is that much trouble. Here are some opinions on single versus dual axles:

John Murray (USA Schleicher dealer), Aug. 2007:

> John says he used to agree with Uli [Kremer] at the factory that a single axle is fine, but then "sort of changed my thinking as the ship's value has climbed so much. You have $200K in the box and no one denies that the two axle system is more stable and definitely better in a blow out. I have moved softly to the tandem axle column even though Uli at AS and Alfred [Spindleberger] at Cobra prefer single axles. To me, $200K is a lot of money! You can quote me."

Russ Owens, Aug. 2007:

> "I carefully researched the possibility of ordering a double axle trailer to replace the single axle trailer that I destroyed in the towing accident. Several major factors came into play in deciding against ordering a double axle trailer. All the experienced people I consulted seemed to agree that a double axle trailer is much more difficult or impossible to maneuver when disconnected from the tow vehicle. Since I must maneuver the loaded trailer manually to park it at the side of my house, that was a major factor in my decision to go with a replacement single axle trailer."

Mitch Polinsky, March 2009:

> "I have a two axle Cobra trailer and am very happy with it; not as hard to move around as some suggested, and very stable."

Improving your current trailer

Remember, these are suggestions, not guarantees! While others have had success with these changes, it's not possible to know in advance how well they will work for you. It is even possible a change will worsen your situation, so please be cautious when towing the trailer after any changes.

Do it with tires and wheels..

The easiest change is better tires. A higher speed rating than the original tires will usually improve the stability, and the higher the better.

Next easiest is wheels with a larger diameter, e.g., going from 14" to 15" or 16", or from 15" to 16" or 17"). That allows using a tire with lower profile (sidewall height to tire width), which reduces the tread deflection under side loads (cornering or "swaying"). It's important the wheels have the correct "offset" (the position of the hub to the rim), so the wheel bearings are loaded properly and the tire doesn't rub on the trailer or fender. If you are feeling sporty, you could get some fancy aluminum wheels.

Get tires of the same outside diameter as the original tires, otherwise the surge brakes will not operate properly. Might as well go to a higher speed rating – it helps, and it's usually a cheap upgrade. Splurge and get some cool aluminum wheels, too!

[Cordell **cobra wheel.jpg**]

Safe trailer towing cont...

Safe trailer towing cont...

Tire choices

Commonly available tire types are P (passenger car), LT (light truck) and ST (special trailer). While each tire series shares basic construction methods, the details vary meaningfully among the three.

There are other differences:

1. P tires use a load rating system that is different from ST and LT tires; generally, you have to discount their rating 10% to get the equivalent ST or LT rating.
2. ST tires speed rating is 65 mph. The speed rating increases to 75 mph IF you increase the tire pressure to 10 psi above the pressure required for your load at 65 mph. These are not the tires for folks that like to drive 80 mph across the Nevada highways in 100 deg F temperatures.
3. ST tires come in both bias-belted and radial construction. The only advantage to a bias-belted trailer tire is it's cheaper.
4. LT tires are a bit "stiffer" than either P or ST tires for similar ratings, and are available in speed ratings to at least 118 mph.

Suggestions:

1. P tires might work fine, but I don't know what speed and load ratings would ensure this. If I decided to use P tires, I'd use them at the pressure that gave a load rating of ~40% more load rating than the load they has to carry. I'd choose a speed rating at least 20 mph higher than the speed rating on my tow vehicles tires.
2. If you like the way the trailer tows, staying with the same make and model of tire means no surprises. The same type and size tire from an equally trusted manufacturer is probably good, too.
3. If you like to tow faster than 70, don't use ST tires; instead, get an LT tire rated at least 20 mph more than your intended tow speed.

This web page has more information on trailer tire safety, written by Tom Wilson for Trailer Life magazine in 2002: https://www.subaru.com/my-subaru/tire-safety.html

Do it with a better hitch connection...

The only "sway dampener" I know that is directly compatible with our Cobra trailers is the Alko AKS Stabiliser series, similar to the AKS1300 shown in the picture. Check with the Cobra factory before ordering one so you get the correct model number. It works by clamping onto the towball, using friction to dampen swaying. It replaces the standard coupling on the trailer tongue, and you have to use the correct 50 mm ball and mount with it. The ball can not just be bolted on, as it might work loose.

They cost several hundred dollars and might have to be ordered from England or Europe. The two pilots I know that have used them on their DG 800's say they work very well. See Jim Herd's article in Aug. 2001 Soaring magazine, or Gary Evans' article in the Aug. 2003 ASA newsletter (available online from the ASA web site).

Weight distributing hitches compensate for high tongue loads (relative to your tow vehicle). There are several styles, but only a few that might work with our "pole" (single tube) trailer tongue AND with our surge brakes. I don't know anyone using one on a Cobra trailer, or if they are even available. Start by asking Cobra, then go from there, and please report any that

Safe trailer towing cont...

you find. It possible to convert the surge brakes to electric brakes, then successfully use a weight distributing hitch; again, I'd say start with contacting Cobra or your trailer manufacturer.
Do it with axle relocation...
Moving the axle aft can markedly improve the trailer stability. For our 30 to 34 foot (10.3 meter) long trailers, a reasonable amount would be about 10" (25 cm). This will increase the tongue weight about 100 pounds (45 kg), so your tow vehicle and hitch must be able to handle the increased load.

Several things must be changed to accomplish the axle relocation:

1. New bolt locations for the axle mounts and the shock absorbers.
2. The axle mount to tongue mount straps should (probably) be lengthened.
3. The brake actuation rod must be lengthened.

I know people that did this to Cobra trailers with good results, and they say "it wasn't too big a job". I would talk to one of these people first, however.
Do it by retrofitting dual axles...
I have no idea how practical this is, but it should be a lot cheaper than buying a new trailer!

Other Safety Measures
There are other issues besides stability.

The tongue can crack and break off
Whether you are using chains or not, I think every tongue should be inspected for cracks at least every year. The most likely place these begin is at a weld on the tongue, e.g., where the parking brake bracket is welded to the tongue. I inspect the tongue at least once a year.

The trailer can disconnect while traveling
The trailer can disconnect because the coupler wasn't properly connected in the first place, the tow ball comes loose, the hitch mounting fails, or the tongue breaks.

If you use safety chains between the tow vehicle and the trailer (standard operation in the USA), the chains should be very strong. The trailer can whip violently if it becomes disconnected from the tow vehicle, so I use two chains with links of 5/16" (8 mm) thickness.

Trailers, including older Cobra trailers, have had tongues crack (like mine) and even break off. Safety chains between the tow vehicle and the tongue don't keep the trailer connected when this happens, so some pilots continue the chains back to the trailer body, and also make a sturdy connection there.

The tires can lose air pressure and fail
Most of my towing is with a motorhome. It's size and weight almost completely mask what the trailer is doing. Over the 140,000 miles of the towing the trailer, I've had only one complete tire failure, but I've found two tires with large bulges in the tread, and one where an edge of the tread had the steel belt exposed. After the complete failure (blowout), I decided I needed to know what the trailer tires were doing way back there.

The solution was a Tire Pressure Monitoring System (TPMS) that uses sensors mounted on the two trailer wheels and the six motorhome wheels, and these send the pressure readings by RF signal to a dash mounted display. The display allows reading the pressure in each tire while traveling, plus it automatically warns me if the pressure in any tire drops by 12%. The pressure reading enables detection of a slow leak before the pressure gets to the warning stage; the warning gets my attention if a more rapid loss occurs.

Why a TPMS for the motorhome? Can't I feel when a tire is going soft? No, not if it's a rear tire, because it has dual wheels on that axle, and one flat tire out the four on the axle doesn't seem to affect the handling at all. Of course, it <u>does</u> overload the tire next to the flat one, since it now has to carry the full load for that side. Since I'd had four flats on the motorhome over the years without ever knowing it until I stopped for some other reason, I decided the motorhome needed the TPMS, also.

There are several types of systems. I use the PressurePro system, which mounts a small sensor on each valve stem. It's easy to do, and the cost is reasonable (about $600 for the display and the 8 sensors in 2007). Other types mount inside the wheel like the new cars, but require dismounting the tires to do it. Prices have come down since I bought my system.

Pipistrel News from New Zealand - December 2008 & January 2009 trip

As readers may know Omarama is a world famous gliding venue and it is like a magnet to the gliding fraternity in NZ and around the world, including the writer Alan Clarke and his wife Donna, NZ Pipistrel agents. Alan and Donna are based in Kerikeri, the top end of New Zealand and some 800 miles from Omarama, following is their New Zealand report.

In mid 2008 we decided to spend two months in the South Island starting with a visit to our daughter in Dunedin, and then Wanaka, Queenstown (for XMAS) and then January 2009 in Omarama.

Lots of planning mid 2008 and we left Kerikeri in the northern part of New Zealand's North Island in late November on a perfect day with a good forecast. Liftoff Kerikeri about 11 am and lunch at Raglan at 1 pm, an excellent place to fly into with all facilities with a 10 minute walk of the airfield.

Then down the west side of Lake Taupo to Turangi to overnight with friends who are building a chalet there.

Next morning, a big high was over NZ and it was a clear and a calm day at Turangi. However we ran into low, but fast lifting overcast at Waiouru, with help from some Air Force helicopters we received the enroute weather to Paraparaumu and continued on South.

I broke my own rules at Paraparaumu and did not ring ahead for the actual weather at Omaka.

Cook Straight which separates the north and south islands of New Zealand was fine & clear till we got to the East Bay and then a moderate SE wind was pushing onto the hills and down and down went the cloud. Got an actual at Blenheim from Wellington Control of 800 ft and 5 to 10 mile visibility so thought that is OK, kept flying on and down and down we went, unfortunately turning back looked even worse. Eventually the weather cleared up as we got clear of the hills near Blenheim and on reflection I broke 2 of my important rules.

1st rule, never break your own rules - mine being always ring ahead for actual weather!!
2nd rule, never trust Cook Straight
We over nighted at Blenheim and then flew on the next day destination Dunedin. Perfect weather all the way and my wife wanting me to fly low past each river mouth so she could see if the salmon fishermen were catching anything.

Stopped at Rangiora where the microlight club is one of the friendliest in NZ. Then over a very ugly grain fed cattle farm near Ashburton, horrible, finally stopping at Timaru to visit my 99 year old father (his memory is not great but he remembered I have something to do with aeroplanes).

Arrived in Dunedin about 4.30 pm, staying with my daughter and took a keen local pilot for a demo flight the next day. What a beautiful area Dunedin is from the air, and we even soared at Saddle Hill for a short while. Lots of hills around Dunedin for a Pipistrel owner to get out of the office and go soaring and somewhere I plan to return and explore again.

I went flat hunting in Dunedin with my daughter, and even saw a block of modern flats with toilets in the showers ?, what a place but that's another story.
Spent most of December in Wanaka and Queenstown and somehow got busy "as you do" with family and XMAS and flying didn't happen. However picnicking by the lakeside with a bottle of wine is not all bad!

Omarama
Eventually got to Omarama just after XMAS on December 28 and found our caravan booking had failed but was not a problem, the camp on the airfield is fully equipped and so a $300 tent and a $100 airbed did the job perfectly.Omarama seemed to have a 20 knot westerly daily but the camp is so sheltered that the tent didn't flap even once, in many ways I think it's the best campground in NZ.The foresight of the man from Queenstown who built the camp, airfield, irrigation systems and so on - what a great job he did for gliding and NZ tourism alike.At first sight Omarama looks like a "one horse" town but in fact it has everything.Dozens of hangars, a great camp, two commercial gliding operators, a smart main building with wireless internet, enough shops to have all you need, a grocer with fair prices, and a pub with the best blue cod ever.

The biggest attraction of Omarama is the gliding is amazing!!
It's all there - thermals to 9000 feet, ridge lift and of course, wave!!

Some amazing people with up to 30,000 flying hours frequent the airfield, a mixed group of instructors who instruct in the northern hemisphere in the summer, or fly the big jets in Europe 6 months a year and come to Omarama for the southern hemispheres summer.
Every day starts with a weather briefing at 10 am and then glider and tow planes are heading everywhere.

For non flyers there is a Lake 7 minutes away with water skiing and fishing and there are 4WD possibilities everywhere too.
I am an ex ag pilot with around 6,000 hrs fixed wing and 4,000 helicopter but I had a break from flying for 18 years before taking up gliding in 2004, I came to Omarama with a healthy respect for the Southern Alps and no experience of wave flying at all.
My experiences.....
Day 1, I found a nice thermal at Twizel to 9,000 ft.
Day 2, I took Don from Canterbury with me and learned a lot.
Day 3, I motored up to wave at 9000 ft.
Day 4, I found Grant who used to be a gliding instructor and got a lot more local guidance from him, over several flights.

And so it went, gently feeling my way around a new area, so very different to gliding in North Island where thermals and ridge lift stop at 5,000 ft. Eventually I found I could motor up to 4,000 ft and shut down, and work my way into wave ending up at about 9,000 ft, sometimes taking up to an hour to get there other times much quicker. With no oxygen fitted to my aircraft my wave heights were limited in altitude but none the less it was overall a great experience, Grant taught me a lot, including patience and perseverance and with oxygen fitted next trip, who knows how high I will end up?

How did the Pipistrel do at Omarama at 30:1

I have no experience at competition flying or in a 45:1 glider but these are some of my observations.

	Pipistrel Sinus 30:1	**45:1 Glider**	
Fly 800 miles to Omarama at 100 knots cruise at over	40 mpg	Yes	No
Take off under own power	Yes	Tow plane needed	
Thermal	Good	Very Good	
Ridge Soar	Good	Very Good	
Cross Country Glide	Limited	Very Good	
Suit Competetive Gliding	Probably not	Yes	
Suitable for extreme mountain ridge soaring	Probably not	Yes	
Get home from anywhere	Yes – just start the Rotax		Not always
Cheap to run	Yes	? ?	
Two Seats	Yes	Not always	
Suitable for fun gliding	Yes	Yes	
Suitable for flight training	Yes	No	
Cost	Affordable	Expensive	
One man operations	Yes	No	

So it is not a matter of which is best, it is more of a question "what kind of flying do you want to do?"

Motor Glider West Coast Fly-In

The Grob 109 Pilots Association will be hosting its first annual West Coast Motor Glider Fly-In at Minden-Tahoe Airport, August 21 to 23. All motor glider pilots are welcome to participate either by flying in or as a 'spectator'.

Activities include Flying, round table discussions of joint interest, a seminar on mountain flying and mountain weather by local experts, an on-field BBQ Saturday night, a Basque dinner on Friday and FLYING.

Contact Richard Pearl at pennyrish@aol.com or 916-715-9666 (cell) or Ray Buhr at jb92563@yahoo.com or 858-232-7063 for all of the details.

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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