



VARIOMETER

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KANSAS SOARING ASSOCIATION**

Editor: Tony Condon

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Number 1

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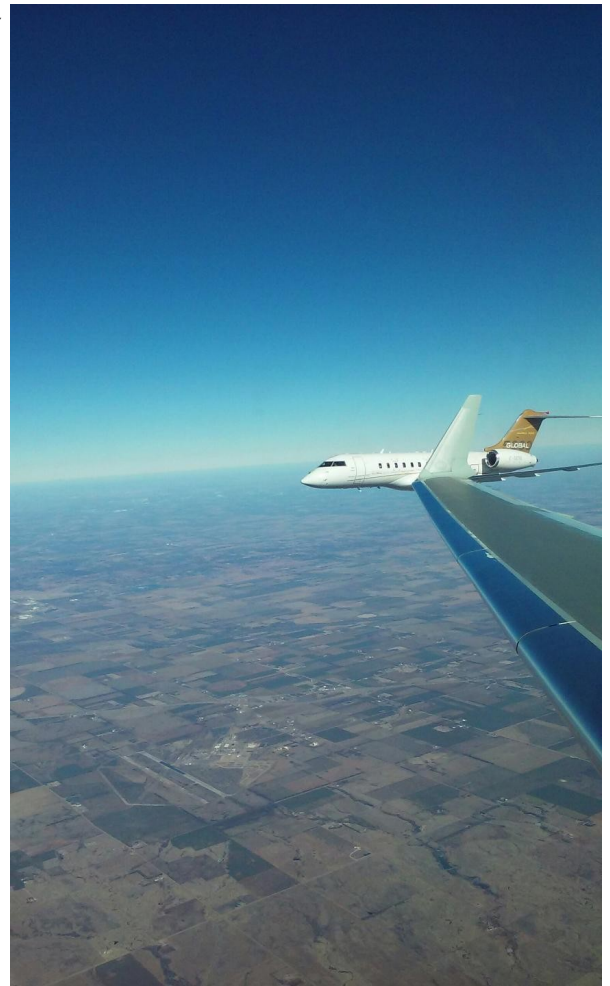
TIM DOUBLE (2016-2017)



2-22 ready for Auto Tows on January 29th

KSA CALENDAR

February 13th - KSA Meeting - Wingsuit Flying - Cabela's - 6:30 PM
February 18th-20th - SSA Convention - Greenville, SC
March 12th - KSA Meeting - Soaring Technique Roundtable - Cabela's - 6:30 PM
March 22nd - 31st - Sequatchie Valley Badge & Record Camp - Jasper, TN
April 9th - KSA Meeting - Spring Safety Meeting - Cabela's - 6:30 PM
April 16th - Opening Day at Sunflower
May 11th - 20th - 18 Meter Nationals - Lancaster, SC
May 14th - KSA Meeting - Cookout at Sunflower
May 15th - 21st - Region 7 Contest - Albert Lea, MN
June 11th - KSA Meeting - Cookout at Sunflower
June 11th - 19th - Club Class Nationals - Wurtsboro, NY
June 21st - 30th - 15 Meter, Open, Standard Nationals - Nephi, UT
June 25th - Kansas Kowbell Klassic
July 9th - KSA Meeting - Cookout at Sunflower
July 9th - 16th - International Vintage Sailplane Meet - Elmira, NY
August 7th-15th - Sports Class Nationals - Uvalde, TX
August 13th - KSA Meeting - Cookout at Sunflower
September 10th - KSA Meeting - Cookout at Sunflower
September 22nd - 25th - Wichita Vintage Rally
October 30th - Closing Day at Sunflower



A few Global jets over Sunflower. Photo **Aaron Maurer**

It Is not the Fall---

By Paul Sodamann

As the old joke goes, it is not the fall that kills you it is the sudden stop at the end. Hopefully we can all avoid any falls from the sky but just in case some of you have parachutes to deal with just such emergencies.

As a reminder take some time to look over your chute and make sure there has not been any damage from the dog sleeping on it over the winter or the cat using it as a scratching post. Parachutes need to be opened, inspected and repacked every 180 days to be current for use. If yours is out of date it is time to consider getting it repacked. If you want it for the main part of KSA soaring season then a repack dated early May will get you through to the end of October. As a rigger I am willing to pack chutes again this year. I will try to make it as convenient as possible for you by picking your rig up at a club meeting and packing it as close to the pack date you request. Then I will either return it to you at a club meeting, at Sunflower or any other location and time we can agree on.

Remember it is not just a fancy seat cushion It is a valuable piece of emergency equipment that we all hope never to use. But should the time ever come it is nice to know it is there and in proper working condition.

Notes from the President

Hello KSA! We've had a busy winter and preparations for the 2016 season are in full swing. The Banquet was once again a great gathering, with many achievements and contributions recognized. We had a great class of students this year and I am looking forward to all of them starting to soar in 2016 while we carry the momentum to continue making new glider pilots.

Neale Eyster has retired from service as the KSA Secretary/Treasurer. Thank You **Neale!** In the interim, I will be acting as Secretary/Treasurer until a permanent replacement can be found. So please direct your 2016 dues to me at the February meeting or mail them to my house:

Tony Condon
911 N Gilman
Wichita KS 67203

The date for Kowbell this year has presented an interesting problem, with the Summer Solstice and Full Moon falling on the same date. The rub is that the Full Moon occurs earlier in the day than the Solstice. After much discussion and historical research, the board decided that the date for 2016 would be set on June 25th. Our feeling was that the intent of the Kowbell rules was to consider the date of the Solstice and Full Moon (In Kansas), and not the exact second of their occurrence. So, start arranging for crews now, and I'll see you on the grid June 25th!

2015 provided a reminder that we need to have a real emergency response plan in place at Sunflower. **Tim Double** is working on developing a written plan that will be distributed to all members. A key component of this is that we have current contact info as well as emergency contact info for everyone who is flying. There will be opportunities at all of our spring meetings to confirm your contact info and emergency contact info is accurate in the KSA database. I would also like to remind you all to make sure to have an ICE contact set in your cell phones. ICE stands for "In Case of Emergency". This allows any person or first responder to call your emergency contact without having to know their name.

For 2016, we'll continue with 2nd Saturday cookouts at Sunflower in May - September. **Don Jones** will be ready to sign you up for Line Duty at the upcoming meeting.

-Tony

KSA Banquet

The KSA banquet was well attended and enjoyed by all. Thanks again to **Bob Blanton** for organizing the event at the Kansas Aviation Museum. **Tony Condon** presented the travelling trophies with SSA State Governor **Jerry Boone** awarding the Rex Hamilton Memorial Trophy. **Steve Leonard**, Kansas state record keeper, recognized state records won by **Tony Condon**. Here are the trophy winners for the 2015 season:

Wooden Wings:

Matt Gonitzke - 142.2 Miles - SH-1

Mamie Cup:

Tony Condon - 273.7 Miles - Std. Cirrus

100 KM Speed:

Tony Condon - 45.6 MPH - Twin Astir

Dennis Brown Memorial 200 KM Speed:

Tony Condon - 48.6 MPH - Std. Cirrus

300 KM Speed:

Tony Condon - 56.6 MPH - Std. Cirrus

Curt McNay Pilot of the Year:

Tony Condon - 3783 Points

Henning Memorial Trophy:

Tony Condon - 50.7 MPH - Twin Astir & Std. Cirrus

Praying Mantis:

Mike Logback

Kansas Kowbell Klassic:

Tony Condon - 273.7 Miles - Std. Cirrus

Kansas Kowbell Klassic Konsolation:

No claims

WSA Triangle:

No claims

Club Maintenance:

KC Alexander

Tow Operations:

Bob Hinson

Rex Hamilton Memorial Trophy:

Harry Clayton & Sue Erlenwein - For tireless work promoting Soaring in our community

NRL Tests Cooperative Soaring Concept for Sustained Flight of UAV Sailplanes

Contact: Daniel Parry, (202) 767-2541

The U.S. Naval Research Laboratory (NRL), in collaboration with the Air Vehicle Intelligence and Autonomy (AVIA) Lab at Pennsylvania State University (PSU), completed testing of cooperative autonomous soaring algorithms used to keep unmanned sailplanes aloft for sustained flight durations - demonstrating the concept of shared soaring data between two unmanned aerial vehicles (UAVs) in flight.

During the weeks of September 28 and October 26, the team launched 23 flights over a nine-day period resulting in greater than 30 hours of combined flight. The tests, conducted within restricted airspace at Phillips Army Airfield, Aberdeen Proving Grounds, culminated with two 'powered' sailplanes sharing telemetry data and cooperatively and autonomously soaring at altitudes in excess of one kilometer and for flight durations of over five hours.

The NRL-developed Autonomous Locator of Thermals (ALOFT) autonomous soaring algorithm guided NRL's aircraft. The PSU aircraft was guided onboard by the AVIA-developed AutoSOAR autonomous soaring algorithm, which drew inspiration from NRL's ALOFT techniques. AutoSOAR's addition of a series of atmospheric mapping and collision avoidance algorithms demonstrated in-flight cooperation between the two aircraft on multiple flights.

"Autonomous soaring algorithms seek out naturally occurring areas of rising air called thermals," said Dr. Dan Edwards, aerospace engineer and principle investigator of the solar-soaring program.

"Cooperative autonomous soaring combines data from multiple autonomous soaring aircraft to make a more complete measurement of the local atmospheric conditions. This atmospheric map is then integrated to guide both aircraft toward strong lift activity quicker than if it was just a single aircraft, a technique very similar to that used by a flock of soaring birds."

Both aircraft demonstrated a robust autonomous soaring capability during the two weeks of testing. PSU's aircraft flew multiple 2.5-hour flights despite carrying a battery with only enough capacity for four minutes of motor run-time. NRL's best soaring flight was 5.3 hours while only running a motor-driven propeller for 27 minutes. Both aircraft rode thermals to altitudes in excess of 1,400 meters with several individual climbs in excess of 1,000 meters using nothing more than the power of the atmosphere.

"These tests showed both the NRL and PSU's autonomous soaring algorithms are successful at finding and using thermals by themselves," Edwards said. "More importantly, this testing showed proof of concept on multiple occasions, with both aircraft finding thermals and 'calling' the other aircraft over to use the same area of lift to increase endurance of the swarm."

Future testing will focus on reducing the separation distance such that both aircraft can actively soar in the same thermal at the same altitude. The team will also investigate the inclusion of solar photovoltaics to the cooperative autonomous soaring techniques, enabling long endurance flights of unmanned sailplanes using the power of the sun.



Researchers at the U.S. Naval Research Laboratory (NRL) and the Air Vehicle Intelligence and Autonomy (AVIA) Lab at Pennsylvania State University (PSU), demonstrate autonomous soaring algorithms used to keep unmanned sailplanes aloft for sustained flight durations, a benefit aimed at improving the availability of a 24-7 Information, Surveillance, and Reconnaissance (ISR) mission data. Image captures a view taken from a tail-mounted camera onboard the PSU aircraft at one kilometer above Aberdeen Phillips Army Airfield.

(Pennsylvania State University)

Solar photovoltaics will allow conversion of solar radiation directly to electricity to charge batteries or provide power for longer endurance or payloads. NRL is developing "drop-in" power electronics and solar wings, which will enable charging batteries and aiming for overnight flight.

The Solar Photovoltaic and Autonomous Soaring Base Program and the US Marine Corps' Expeditionary Energy Office Cooperative-Soaring Program are aimed to improve the availability of a 24-7 Information, Surveillance, and Reconnaissance (ISR) mission without using logistics fuel, benefitting the expeditionary warfighter by enhancing the endurance of existing and future UAV assets.

- See more at: <http://www.nrl.navy.mil/media/news-releases/2016/NRL-Tests-Cooperative-Soaring-Concept-for-Sustained-Flight-of-UAV-Sailplanes#sthash.OgloRluZ.dpuf>



The U.S. Naval Research Laboratory (NRL) and Pennsylvania State University combined efforts to demonstrate sustained unmanned, powerless flight of two UAV sailplanes during testing of the solar-soaring and cooperative soaring algorithm-based concepts. The test flights occurred during the weeks of September 28 and October 26, 2015, successfully demonstrating proof-of-concept of in-flight collaborative soaring and swarming capabilities of non-powered UAVs. Pictured (left to right) are NRL team members Chris Bovais, Dan Edwards, and Trent Young and PSU team members Jack Langelaan, Nate Depenbusch, and John Bird. (U.S. Naval Research Laboratory)

See the July 2014 *Variometer* for John's paper on this subject

Sunflower Seeds

January 29th: Auto Towing in the 2-22. **KC Alexander** did most of the driving. **Brian Silcott** and **Alex Hunt** did most of the flying with Matt Michael (visiting from Iowa) getting one flight in with **Tony** who served as instructor. **Don Jones** ran wings. **Steve Leonard** observed and helped with some rope splicing. Pulley method was used until Pulley overheated and entered early retirement. Then the crew resorted to straight auto tow on 2000' rope. Also seen at the field was **Dave Pauly**. We were treated to a fly-by from **Mike Logback** as we were packing up. A nice January day!

NWS Wichita Soaring Forecast

The local NWS office has updated their Soaring Forecast and it will be live in time for the 2016 season! The link to the Soaring Forecast is <http://www.weather.gov/ict/soaring>. It is part of their larger aviation weather offerings at <http://www.weather.gov/ict/aviation>

The forecast is just that, a forecast. It uses Sunflower as its location, the NAM model I believe, and some input from the forecaster. This tool is based on the product that the Boulder NWS office issues, without the discussion about wave soaring.

We will need to spend some time using this forecast and noting how well it works, and also noting what parts of it are useful or not. The local office is very keen to help make this a useful tool for our members and is very interested in getting feedback on it. So lets start taking a look at it and taking notes and gathering some feedback for them to make it even better!

2016 Dues are Due!

KSA & SSA Regular Membership - \$100

KSA & SSA Family Membership - \$70

KSA & SSA Youth Membership - \$70

KSA Membership Only - \$50

Send your renewal payments to:

Tony Condon
911 N Gilman
Wichita KS 67203

**2016 Kansas Airport Directories
and Aeronautical Charts will be
available at the February Meeting**

FOR FREE DISTRIBUTION



Airport Directory

2016 - 2017

Download [Here](#)

SUNFLOWER GLIDERPORT

Est. 1976

The Bill Seed Soaring Scholarship

The Sunflower Soaring Foundation provides scholarships to support soaring as part of its actions as a non-profit activity. This scholarship provides training at Sunflower Gliderport and Aerodrome so that qualified youth are given the opportunity to obtain glider pilot licenses that permit participation toward growth and development in all phases of soaring flight.

Bill Seed is the original owner and operator of the Sunflower Gliderport and Aerodrome. Bill has supported soaring at the local, regional, and national level since the creation of the Sunflower Gliderport. This scholarship is created in the spirit of selflessness demonstrated over the many years by Bill.

The scholarship is awarded yearly to a 14-22 year old non-pilot full time student with a minimum 2.5 GPA. The application requires an essay, which must present a convincing argument that the applicant desires to participate in soaring and has an appreciation for the nature of the sport and the effort required to obtain proficiency. The essay must be of a high quality that demonstrates communication skills. Applications must be received not later than April 1st 2015. The award will be announced by April 30th. The recipient may not reach their 23rd birthday prior to September 30th 2016.

The award will consist of one year membership in SSA & Club Dues, Tow fees, Glider rental, and Instruction fees. The scholarship will be extended one year if the student has demonstrated consistent progress toward the glider pilot license goal.

The winner must participate in the SSA ABC badge program as they progress.

Applications may be obtained from and returned to the Sunflower Soaring Foundation Secretary:

Tony Condon
911 N Gilman
Wichita, Kansas 67203
abcondon@gmail.com

Sunflower Soaring Foundation
Bill Seed Soaring Scholarship Application

Date _____
Name _____ Age _____
Address _____ Street _____ DOB _____
_____ City _____ Gender _____
_____ State _____ Zip _____ E-Mail _____
School of enrollment _____ Grade _____ GPA _____

Expand answers onto separate pages if necessary. Attach Essay to this application.

Flying Experience

Experience associated with soaring

Soaring Goals

Other related Aviation Activities

Other activities, honors, and awards

Financial Need

Recommended by _____ SSA#(not req'd) _____ Date _____

The Michael Wallace Memorial Scholarship



An opportunity for a young student interested in aviation to begin or further his or her flight training in sailplanes.

This year, the amount of the scholarship grant is \$1,000.

You must be between the ages of 14-22, be a full-time student and have at least a 2.5 grade point average.

You must also show a strong desire to learn to fly.

This grant may give you a start on the road to becoming a glider pilot, and beyond.

The deadline for receipt of applications for this grant is March 15. The grant will be awarded by April 30.

For an application, call or write today.

Or download an application from www.cypresssoaring.org. Click on the "Scholarship" button.



Michael Wallace was a young man who was always interested in airplanes.

He set his career goal at becoming an airline pilot.

He soloed in sailplanes at age 16, and earned his private pilot glider rating at age 18.

He was proud to be a glider pilot.

This scholarship is offered in Michael's memory.



The Michael Wallace Memorial Scholarship Fund

1784 Muirfield Lane • Beaumont, CA 92223

APPLICATION FORM THE MICHAEL WALLACE MEMORIAL SCHOLARSHIP

Michael Wallace was a young man who was always interested in airplanes. He set his career goal at becoming an airline pilot. He soloed in sailplanes at age 16, and had earned his private pilot glider rating at age 18. He was proud to be a glider pilot.

On February 15, 2001, at the age of 18, he had just begun his training in powered aircraft when he and his flight instructor, and two other pilots, lost their lives in a mid-air collision over the harbor in Long Beach, California. This scholarship is offered in Michael's memory.

It is an opportunity for a young student interested in aviation to apply for a scholarship/grant to begin or further his or her flight training.

The Scholarship awards one or more grants each year for the purpose of flight training in sailplanes. This grant will be paid directly to the glider flight training organization the recipient chooses, and is to be used only for the purpose of providing glider aerotows, flight instruction, and aircraft rentals to the recipient.

WHO CAN QUALIFY

- The applicant must be between the ages of 14 and 22, and will not reach his/her 23rd birthday before April 30.
- Applicant must be a full-time student and have at least a 2.5 grade point average. Proof of current grades must be submitted with application.
- Previous flight experience is not required.

ENTRY DEADLINE

- Complete entries must be postmarked no later than March 15th. The Scholarship Grant will be awarded by April 30th.

JUDGING

- The applicants will be judged based on their desire to learn to fly. A one-page essay must be submitted by the applicant, explaining why he or she wants to learn to fly gliders, what goals he or she may have in aviation, and what career goals he or she may have for the future.
- Financial need will also be a consideration. The Applicant's financial resources will be compared to that of the other applicants for the same grant. Financial need will be determined based on this comparison.

APPLICATION

- A recommendation from a school teacher OR flight instructor/flight school is required.
- If you are chosen for this grant, you must select a soaring club or fixed base operator who provides glider flight instruction, and whose name will be co-written on the award check along with the recipient's name.

The Michael Wallace Memorial Scholarship Fund

Application Form

Application Date _____

Name _____ Birthdate _____ Age _____

Address _____ City _____ State _____ Zip _____

Phone _____ E-Mail address _____

School Attended _____ City _____ State _____ Zip _____

Grade or Year in School _____ Grade Point Average _____ (Attached last grade report or letter from school verifying current GPA)

Are you attending any aviation classes? No Yes What kind of class(es)? _____

Have you had any flight training? No Yes What type of aircraft? _____

How many hours of flight training have you had? _____ Have you soloed? No Yes

Do you hold any FAA Ratings? _____

Do you work? No Yes Employer _____ Phone _____

Approximate earnings per month \$ _____

Parents/Guardian:

Name _____ Relationship _____

Address _____ City _____ State _____ Zip _____

Phone _____ E-Mail address _____

Employer _____

Total annual household income from all sources: \$ _____

Consent statement by parent or guardian of a minor: I give consent for _____ to apply for the Michael Wallace Memorial Scholarship which will provide a grant for the purpose of glider flight training, and will consent to allow him/her to receive such flight training as deemed appropriate by a Certified Flight Instructor.

Signature _____ Relationship _____ Date _____

Teacher Recommendation:

Teacher's Name _____ Signature _____

School _____ Phone _____

Why do you recommend this applicant for this Scholarship Grant? _____

OR Flight Instructor/Flight School Recommendation:

Instructor's Name _____ Signature _____

School or Club _____ Phone _____

Why do you recommend this applicant for this Scholarship Grant? _____

Please give the name, address and telephone number of the glider club or flight school you would like to have receive this grant on your behalf should you be chosen for this scholarship.

Flight School or Club _____

Contact Person _____ Phone _____

Address _____ City _____ State _____ Zip _____

Please write an essay, one page in length, hand or type written, about your interests in aviation and in particular gliding. Tell us why you want this scholarship. Also explain any future goals you have in aviation, and also your career goals.

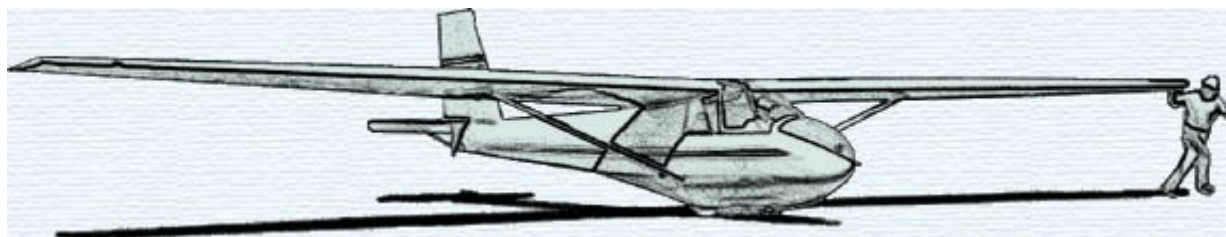
Mail to: The Michael Wallace Memorial Scholarship
c/o Arthur Wallace • 1784 Muirfield Lane • Beaumont, CA 92223

KSA VARIOMETER

911 N Gilman

Wichita, KS 67203

abcondon@gmail.com



KSA Meeting

Gliding in a Wingsuit

Cabela's Wichita

February 13th, 2016

Kansas Airport Directories & Charts

Pay your 2016 Dues!