

# EXPERIMENTAL AIRCRAFT ASSOCIATION

## Chapter 135 News



### Announcements!

#### Newest Life Time Member!

We would like to welcome our newest Life Time member to EAA Chapter 135, Roger Stewart. Roger joined our chapter in 2012 and has now decided to become a life member. Thanks for your support of the chapter and we look forward to seeing you!

#### New Editor

Wesley McComb has taken over as the new editor of Chapter 135 newsletter. After years of much appreciated work, Marc Broer has handed off the reigns. Thank you, Marc, for your support!



## June Meeting Cookout!

When: June 14th, 2014 - Grill starts @ 5p.m. - Board meeting @ 4p.m.

Where: Dave Kalwishky's Hanger @ Morningstar Y76

Bring your own meat for the grill and a dish/dessert to share if you'd like!

There is cold water in the fridge, however if you would like something else to drink you will need to bring it.

Sectional and Street Map available on Page 7

MORNINGSTAR

## Upcoming Events:

### Friday, June 6

Waterloo Municipal Airport (ALO)

Livingston Aviation

Fly-in for Life (American Cancer Society)

Dinner and Music

5p.m.-9p.m.

Pilots in command eat free

**Phone:** 319-291-3991 (Joel Harris)

**Email:** Joel.harris@forbin.net

### Friday, June 6 - Sunday, June 8

The Eastern Iowa Airport (CID)

EAA B-17 Tour

**Website:**

<http://www.eaa.org/en/eaafly/experiences/aluminum-overcast-eea-b-17-bomber-tour>

### Saturday, June 7

Council Bluffs Municipal Airport (CBF)

Great Plains Wing CAF Flight Breakfast

8:00a.m.-11:00a.m.

**Phone:** 402-981-4633

(Jeff Hutcheson)

**Email:**

[jeffhutcheson3@gmail.com](mailto:jeffhutcheson3@gmail.com)

## Projekt Brainflight Will Let You Fly Planes Using Just Your Brain

By Relaxnews / Posted: May 29, 2014 / [buffingtonpost.ca](http://buffingtonpost.ca)



Never mind autonomous cars. German scientists are well on the way to developing a mind-controlled plane.

In his 1977 genre-defining techno-thriller, “Firefox,” Craig Thomas tells the story of a top-secret Russian fighter plane that can be operated via a pilot’s thoughts and an Anglo-American plot to steal it.

Despite being demised as closer to science fiction than spy thriller, the book was an international best-seller and turned into a film by Clint Eastwood in 1982.

However, fast-forward 32 years from the film premiere and science fiction is now well and truly science fact. Using electroencephalography (EEG) electrodes connected to a cap and placed on the pilot’s head to monitor brainwave activity and turn it into commands, scientists at Technische Universität München and the TU Berlin have proven that flying a plane with nothing more than concentration isn’t just a possibility, but that it can be done with astonishing levels of precision.

The tests, which involved seven subjects, took place in a specially adapted flight simulator, and each of the people

chosen had a different level of flight experience, including one subject who'd never been inside a cockpit, let alone flown a plane.

However, by doing nothing but thinking of commands, the subjects completed the maneuvers with sufficient accuracy to have met the requirements of a flying license test. As aerospace engineer Tim Fricke, who heads the project at TUM, explains: "One of the subjects was able to follow eight out of ten target headings with a deviation of only 10 degrees."

The research is part of the EU-funded Brainflight project, one of the aims of which is to make flying accessible to more people.

"With brain control, flying, in itself, could become easier. This would reduce the work load of pilots and thereby increase safety. In addition, pilots would have more freedom of movement to manage other manual tasks in the cockpit," said Fricke.

Following this initial breakthrough the scientists are now looking at how a cockpit would need to be modified in order to facilitate mind control. For example, physical controls such as the steering offer feedback and resistance that tell the pilot about the loads being brought to bear on the aircraft.

How would this sort of handling information be relayed to someone who was flying hands free?

The scientists plan to officially present their results in September at the Deutscher Luft-und Raumfahrtkongress (German flight and aerospace congress).

In the meantime, it might be worth seeing if "Firefox" is available on Netflix or Amazon Prime.

## Membership Dues

Name: \_\_\_\_\_

EAA No : \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

e-mail: \_\_\_\_\_

Dues are \$20.00 per year — Dues are due July 1 and run through June 30. (After January 1st you may pay \$30.00 for 1 1/2 years)

**LIFETIME MEMBERSHIP DUES ARE \$200.00**

You must be a member of the National EAA.

You may mail your dues to our treasurer:

Alan Hummel  
800 N C Street  
Indianola, IA 50125

## Event's Cont'd:

**Tuesday, June 10-  
Wednesday, June 11**

Ankeny Regional Airport (IKV)

EAA B-17 Tour

**Website:**

[http://www.eaa.org/en/eaafly/experiences/aluminum-overcast-  
eaa-b-17-bomber-tour](http://www.eaa.org/en/eaafly/experiences/aluminum-overcast-<br/>eaa-b-17-bomber-tour)

### Saturday, June 14

Keosauqua Municipal Airport  
(6K9)

Fly Van Buren - Fly-in Breakfast

7:00a.m.-10:00a.m.

Fly-in pilots eat free

**Phone:** 800-868-7822 (Villages of  
Buren, Inc) or 319-293-7111

**Email:**

[audchmbr@iowatelecom.net](mailto:audchmbr@iowatelecom.net)

### Sunday, June 15

Clarinda Flight Breakfast/  
Airshow Clarinda Municipal  
Airport (ICL)

7a.m.-10a.m. (Breakfast)

Fly-in pilots and crews eat free

10:30 a.m.-noon (Free Airshow)

**Phone:** 712-542-0804 (Matthew  
Ridge)

**Email:**

[eaawindriders@gmail.com](mailto:eaawindriders@gmail.com)

**Website:**

[www.clarindaftyin.com](http://www.clarindaftyin.com)

## Around the world on zero fuel

### Solar Impulse 2 unveiled

*By Jim Moore / Posted April 9, 2014 / [www.aopa.org](http://www.aopa.org)*



The new aircraft's empty weight is just a shade over 5,000 pounds, painstakingly reduced gram by gram to its finessed form. The takeoff weight will be just a little higher: add the pilot, food, and drink for up to five days, and that's just about it—there's no fuel on board.

Solar Impulse 2, successor to Solar Impulse, the solar-powered aircraft that traversed the United States in 2013, was unveiled to the world April 9 with fanfare and flair in an event broadcast live online from Switzerland, where the revolutionary aircraft—the brainchild of pilots André Borschberg and Bertrand Piccard—was built.

The new version is larger, more sophisticated, and capable (the pilots and engineers hope) of circumnavigating the globe in 2015, a mission that will include nonstop ocean crossings lasting five days or more that will test both the mettle of the men in the cockpit, and the carbon fiber skeleton and skin of the aircraft.

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## Sunday, June 15

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Dodge Center, Minnesota  
Airport (KTOB)

Flight Breakfast

7:00a.m.-Noon

**Phone:** 507-282-9682 (Tom Hall)

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## Sunday, June 15

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Harlan Municipal Airport  
(HNR)

Flight Breakfast

7:30a.m.-11:00a.m.

All fly-ins eat free

**Phone:** 712-744-3366 (Olie Pash)

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## Sunday, June 15

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Spencer Municipal Airport  
(SPW)

Flight Breakfast

7:00a.m.-11:00a.m.

**Phone:** 712-262-1000 (Gayle Brandt)

**Email:**

[spencerairport@smunet.net](mailto:spencerairport@smunet.net)

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## Thursday, June 19 - Saturday, June 21

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Wayne, NE (LCG)

National Ercoupe Owners Club  
Convention

**Phone:** 402.635.2465

Solar Impulse 2 is the product of a 12-year design effort, including many updates and refinements to the original Solar Impulse, which served as a prototype and test bed for the cutting-edge technologies required to drive an aircraft around the world powered exclusively by the sun.

Borschberg, the Solar Impulse CEO and a former fighter pilot, said the improvements were needed to make circumnavigation a practical possibility.

“We didn’t want to spend too much time taking swimming lessons, so we really had to work on the reliability of the airplane,” Borschber said during the unveiling.

More than 80 engineers (and many more sponsors and companies) have collaborated to increase the performance of Solar Impluse 2, making it more robust and able to handle the weather that the pilots are likely to encounter. Their deign objectives were in conflict, Borschberg noted: increasing performance, strength, and reliability required increased weight, while increased weight would decrease performance. A number of technological innovations were achieved, including development of a carbon fiber skin that weighs 25 grams per square meter, about one-third the weight of typical office paper. A sophisticated autopilot system was developed, a “virtual copilot” able to wake a sleeping pilot if a situation develops that requires human intervention, particularly useful during ocean crossings that will last 120 hours or more.

“We had to find people who did not know it was impossible,” Piccard said, reflecting on an effort that began in 2003. “Solar impulse is one example of what we can do when we believe we can achieve the impossible.”

The new and final version of Solar Impluse will still operate within tight limitations: a maximum bank angle of 5 degrees, a takeoff speed of 26 knots, and a maximum cruise altitude of 27,000 feet. Its top speed at that altitude is 77 knots, by day—at night the aircraft will be forced to slow down to 25 knots to avoid depleting its sophisticated batteries before sunrise. At the lower end of its speed range, it is likely the aircraft will spend a significant amount of time flying backward, as the first Solar Impulse did on a flight from Morocco to Spain. The engineering and support team had planned for that, and assured Piccard that

**Sunday, June 22**

Holland Air Park (36WI),  
Holmen, WI  
Fly-in lunch  
11:00a.m.-3:00p.m.  
**Phone:** 608-582-2747 (Doug Myhre)  
**Email:**  
dougcarolemyhre@centurytel.net  
**Website:**  
[www.307-eaachapter.org](http://www.307-eaachapter.org)

**Friday, June 27 -  
Sunday, June 29**

Sioux Gateway Airport (SUX)  
EAA B-17 Tour  
**Website:**  
<http://www.eaa.org/en/eea/flight-experiences/aluminum-overcast-eea-b-17-bomber-tour>

**Saturday, June 28-  
Sunday, June 29**

FLY IOWA 2014  
Iowa City Municipal Airport  
**Website:**<http://www.flyiowa.org>  
**Phone:**319-356-5045 (Michael Tharp)  
**Email:** [michael-tharp@iowa-city.org](mailto:michael-tharp@iowa-city.org)

he would reach his destination eventually.

“I was a little skeptical in the beginning, but it worked,” Piccard said.

The new aircraft’s cabin is larger, affording room for a more comfortable seat, and, Piccard noted with a wry smile, more room for shark repellent and a life raft. Neither promised their five-month circumnavigation planned to launch in March 2015, will be successful.

“It’s an attempt,” said Piccard, who was in 1999 the first to circumnavigate nonstop in a balloon. “It’s difficult.”

Borschberg said the new aircraft’s first flight is planned in May. Both pilots have spent time in simulations, getting used to the confinement and isolation of spending days on end in a cockpit with little room to spare. The pilots employ techniques including self-hypnosis and meditation to retain their focus and extend their endurance.

“It’s not the easiest way to fly around the world, but it’s probably the most spectacular way we can achieve today,” Piccard said.

**Scales Rental Info**

All scale rentals require a check for \$200 deposit (Will be returned, uncashed, upon timely scale return). Three day rentals. May be extended for three additional days at no charge, if there are no other conflicting requests for their use, with notification by phone. Otherwise late fee of \$100/day applies.

Chapter 135 members (must be member 3 months prior to rental date.).....\$25.00 for 3 days

National EAA member, but not Chapter 135 member.....\$75.00 for 3 days

A&P or FBO rate.....\$125.00 for 3 days

Copy of rental agreement available by fax or email by calling Craig Martin at 515.250.3124 or email to [cmartindsm@gmail.com](mailto:cmartindsm@gmail.com)

Scales are kept at Wisecup Willow Aviation (Craig Martin)  
Des Moines Int’l Airport

### Sunday, June 29

Eagle Grove Municipal Airport (EAG)

Flight Breakfast

7:00a.m.-2:00p.m.

Pilot in command eats free

**Phone:** 515-851-8031 (Rod Rasmussen)

**Email:**  
[rodar1957@yahoo.com](mailto:rodar1957@yahoo.com)

### Sunday, June 29

Marion Airport (C17)

Fly-in Breakfast

6:00a.m.-11:30a.m.

Pilots in command eat free

**Phone:** 319-377-0457 (Jan Walton)

**Email:**  
[marionairport@gmail.com](mailto:marionairport@gmail.com)  
**Website:** [www.fly-iowa.com](http://www.fly-iowa.com)

### Sunday, June 29

Pender, NE (OC4)

Fly-in Breakfast

8:00a.m.- Noon

Pilots eat free

**Phone:** 402-380-9882 (Paul Peters)

**Email:** [ppeters@skyww.net](mailto:ppeters@skyww.net)

### Sunday, June 29

Sioux Gateway Airport (SUX)

Mid America Museum of Aviation and Transportation Flight Breakfast

8:00a.m.-Noon

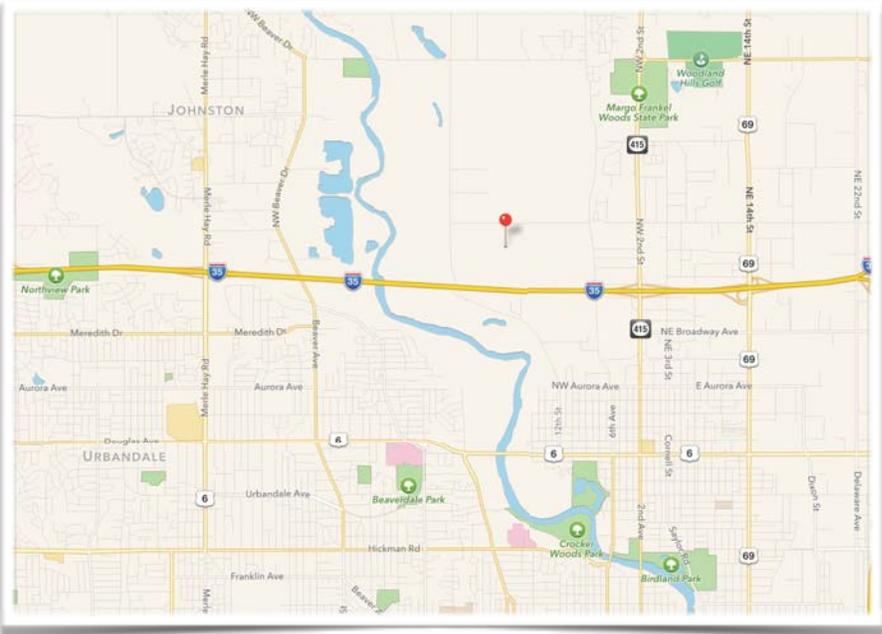
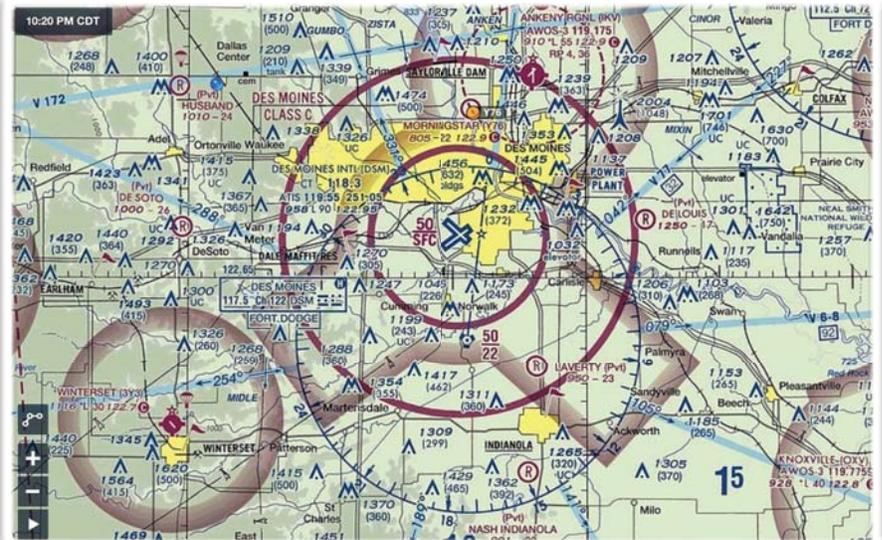
Pilots in command eat free

Car show Noon - 4p.m.

**Phone:** 712-490-0324 (Rick Alter)

**Website:**  
[www.midamericaairmuseum.org](http://www.midamericaairmuseum.org)

# MAPS TO MORNINGSTAR





## EAA Chapter 135

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1607 Vine Street  
Dallas Center, IA 50063  
wmmccomb84@gmail.com

# 2014 Chapter 135 Officers and Board Members

### Officers:

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President:.....Dave Kalwishky.....515-266-4001.....[dave@kalwishky.com](mailto:dave@kalwishky.com)  
Vice President:.....Jim Zuehls.....515-408-8107.....[jjzuehls@gmail.com](mailto:jjzuehls@gmail.com)  
Treasurer:.....Alan Hummel.....515-961-7304.....[hummel7304@gmail.com](mailto:hummel7304@gmail.com)  
Secretary:.....Vacant.....  
Newsletter Editor:.....Wesley McComb.....816-805-4412.....[wmmccomb84@gmail.com](mailto:wmmccomb84@gmail.com)  
Young Eagles Coordinator:.....Alan Core.....515-961-4524.....[indypurr@juno.com](mailto:indypurr@juno.com)

### Board Members:

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Craig Martin.....515-250-3124.....[cmartindsm@gmail.com](mailto:cmartindsm@gmail.com)  
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