

Oshkosh 2018: Safe Space for Light Aircraft Pilots

Philip Greenspun, for MIT 16.687, January 2019

EAA AirVenture 2018

July 22-28, Oshkosh, WI



Aviation City.. or Universe

- "homes": tents, RVs, ...
- Bus routes, restaurants, ...
- workshops, seminars, ...
- fly market
- OEMs



What is Oshkosh? ("EAA AirVenture")

- 10,000+ airplanes (homebuilts and antiques)
- 600 000 attendance (100K/day)
- 12 000 camping sites
- 40 000 campers
- 1500 workshops/seminars etc



Planning began in April

Philip+Ray+Cirrus SR20 (from East Coast Aero Club rental pool)

out: BED to IAG (Niagara Falls) to MBS (Saginaw) to OSH

back: OSH to MCD (Mackinac Island) to CYTZ (Toronto City) to SYR to BED

Customs decal

Life raft recertification

PLB battery check

Purchase camping gear



Oxana joins in!

Payload is 540 lbs. at full fuel.

Ray+me+camping gear+raft+life jackets+tiedown kit = 540

With fuel required (29 gallons), we can hold 700 lbs.

Oxana, an ECAC aerobatic pilot, and her camping gear = 155.

So we were at gross weight if everything went perfect. Add outgoing fuel stop SYR.



The busiest airport in the world

- 19 000 aircraft operations

Sunday, July 23, 2017

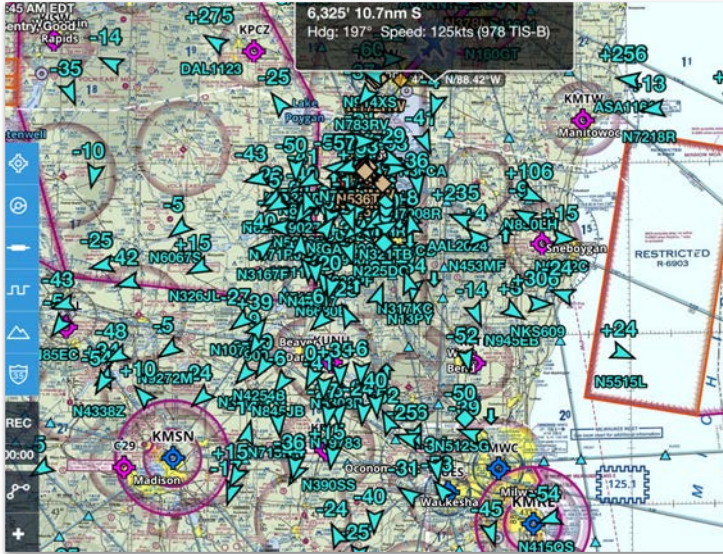
Airport	Total Flights
1. Chicago O'Hare	2,522
2. Atlanta Hartsfield	2,492
3. Oshkosh	2,275
4. Los Angeles	2,000
5. Dallas/Ft. Worth	1,820

operated 24 hrs

operated 10 hrs



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special arrival rules,
published in 32-page NOTAM

land on the dots





Lincoln Page LP-3



Safari, Cub, Turbine
PZL Wilga 2000, 1928
Travel Air 4000





Five airworthy Piaggio P.136 seaplanes on Planet Earth (63 built from 1948-1961). Two at OSH.

(Also Grumman Mallards, Widgeons, Albatrosses.)



Family DC-3!



Tuesday morning Innovation Forum

Pat Anderson: bolting electric engine to piston airframe analogous to bolting jet engine to piston airframe

Mike Sennett of Boeing: 800,000 new pilots needed for 42,700 new airliners

Adam Warmoth from Uber: 6 billion people will be living in cities. 150 mph aircraft that can hold 4 PAX at \$100 each. Launch in LA by 2023.

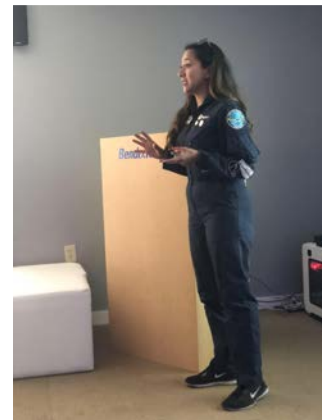


Round-the-world Pilots We Met

Dick Rutan (Voyager 9-day non-stop in 1986 with Jeana Yeager)

Shaesta Waiz (145-day 22-country solo in Bonanza)

Italian SR22T owner (4 days from Italy to OSH)



A lot of great skills-building workshops for kids



Over by the Museum
(Pioneer Airport)





Terrafugia
receives FAA
type
certificate...

(help from 1949
Taylor Aerocar)

Paul Poberezny: from P-51 and P-38 to plywood



Stits DS-1
Baby Bird



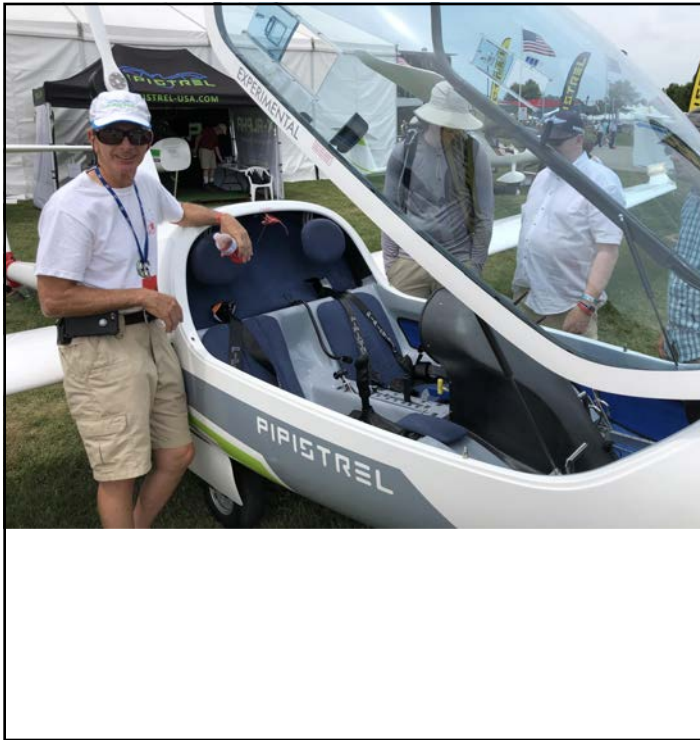


15 Years!

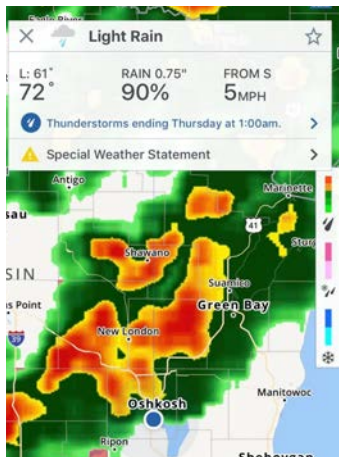


7,000 Cirrus built
1,250 Icon A5s
ordered





Joys of Camping



Severe Weather
OSHKOSH, WI

Special Weather Statement
EXPIRES JUL 25, 10:15 PM

... Special Weather Statement...

At 9:10 Pm Cdt, Doppler Radar Was Tracking Strong Thunderstorms Along A Line Extending From Little Chute To Kimberly To Near Lake Poygan To Near Redgranite. Movement Was East At 35 Mph.

Winds To Around 45 Mph And Torrential Rainfall Will Be Possible With The Storms. Torrential Rainfall Will Lead To Ponding Of Water On Area Roadways.

Strong Thunderstorms Will Be Near... Appleton And Menasha Around 9:15 Pm Cdt. High Cliff State Park Around 9:20 Pm Cdt. Oshkosh And Berlin Around 9:35 Pm Cdt. Brillion Around 9:40 Pm Cdt. Rush Lake Around 9:45 Pm Cdt. Northern Lake Winnebago Around 9:55 Pm Cdt.



The Seaplane Base



Four Hangars of Vendors



Day Airshow

- David Martin; Beechcraft Baron
- Jim Peitz; F33C Bonanza (aerobatic)
- Jeff Boerboon; "Yak-110" (Yak-55+Yak-55)
- Aaron Fitzgerald; Red Bull Bo 105 helicopter
- Patty Wagstaff; Extra 330S
- Mike Goulian; Extra 330SC
- Philipp Steinbach in the [GB1 GameBird](#)



Night Airshow!

See [video on YouTube](#)



Make War, not Love



(their war never ended)

Grumman F4U Corsair and F7F Tigercat





The Former "Confederate Air Force"...

... now commemorates the Tuskegee Airmen (Lt. Col. George Hardy and Col. Charles McGee):



Turtles Fly Too!

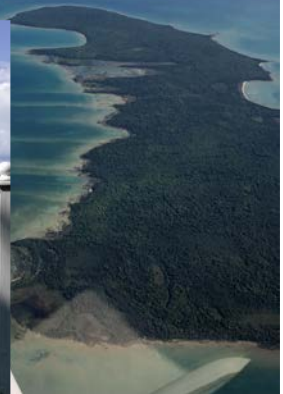


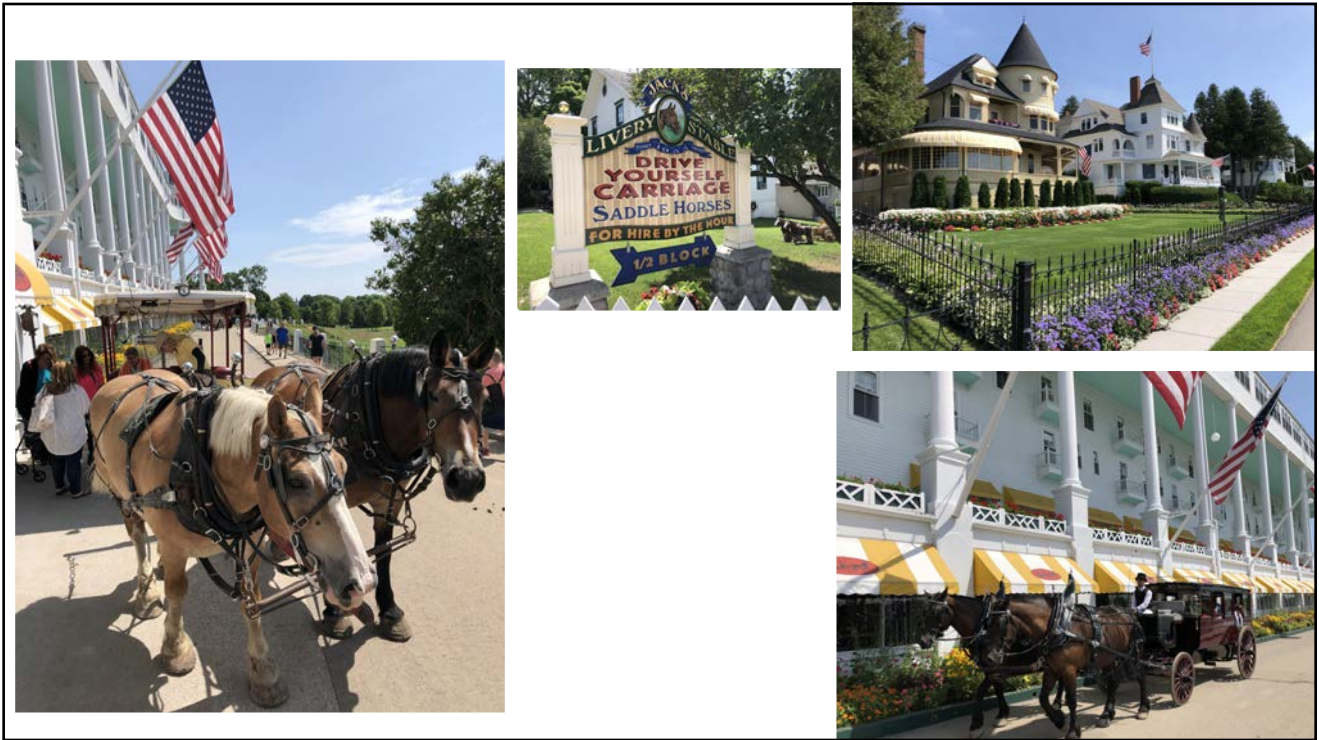
Saturday morning: Time to Leave

We saw about 30 percent of what we'd hoped to see and about 1 percent of what there was to see.

On to Mackinac Island.

(Right: The One-Week Wonder on Friday)





Saturday: Toronto





Metropolitan Hotel



Sunday: Toronto to Syracuse to Bedford

Clear customs SYR.

15.2 hours total Hobbs (\$3,000 retail).



Planning for next year

- JetBlue to ORD
- rent car
- drive to dorms at University of Wisconsin, Oshkosh
- shuttle bus or Uber to the heart of the show
- decent restaurant food 2X/day

Summary

"In 10 years the smallest GA plane will be a Gulfstream" -- charter operator

Yet as private operation of piston aircraft fades in the U.S., EAA attracts more people to Oshkosh every year.

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"How many times have you been to Oshkosh?"



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Yet as private operation of piston aircraft fades in the U.S., EAA attracts more people to Oshkosh every year.

"What brings you to Oshkosh?" -> "People"

"How many times have you been to Oshkosh?" -> Year varies, but then "Every year since."

More

These photos: <https://tinyurl.com/Oshkosh2018PG>

These slides: <https://tinyurl.com/Oshkosh2018mit>

- <http://blogs.harvard.edu/ph ilg/2018/08/20/oshkosh-reflections-and-tips-for-next-time/>
- <http://blogs.harvard.edu/ph ilg/2018/08/16/realistic-aerobatic-excitement-at-oshkosh-gamebird-gb1-and-l-39x/>
- <http://blogs.harvard.edu/ph ilg/2018/08/14/shaesta-waiz-at-oshkosh/>
- <http://blogs.harvard.edu/ph ilg/2018/08/12/what-i-learned-about-aircraft-paint-at-oshkosh/>
- <http://blogs.harvard.edu/ph ilg/2018/08/10/transitioning-to-electric-flight-lectures-at-oshkosh/>
- <http://blogs.harvard.edu/ph ilg/2018/07/30/icon-aircraft-at-oshkosh-2018/>
- <http://blogs.harvard.edu/ph ilg/2018/07/17/folks-i-want-to-meet-at-oshkosh/>

Safe Space for Light Aircraft Enthusiasts

At Oshkosh nobody will ask "Why don't you buy a JetBlue ticket for \$99?"

MIT OpenCourseWare
<https://ocw.mit.edu/>

16.687 Private Pilot Ground School
IAP 2019

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