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

<table>
<thead>
<tr>
<th>Airport</th>
<th>Total Flights</th>
<th>Operated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago O'Hare</td>
<td>2,522</td>
<td>24 hrs</td>
</tr>
<tr>
<td>Atlanta Hartsfield</td>
<td>2,492</td>
<td>24 hrs</td>
</tr>
<tr>
<td>Oshkosh</td>
<td>2,275</td>
<td>10 hrs</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>2,000</td>
<td></td>
</tr>
<tr>
<td>Dallas/Ft. Worth</td>
<td>1,820</td>
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</table>
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special arrival rules,
published in 32-page NOTAM
Five airworthy Piaggio P.136 seaplanes on Planet Earth (63 built from 1948-1961). Two at OSH.

(Also Grumman Mallards, Widgeons, Albatrosses.)
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 Cirruses built
1,250 Icon A5s ordered
Joys of Camping

Severe Weather
OSHKOSH, WI

Special Weather Statement
EXPIRES JUL 22 10:15 PM

Light Rain
RAIN 0.75" FROM S 90% 5 MPH
Thunderstorms ending Thursday at 1:00am

Special Weather Statement

... Special Weather Statement...

At 910 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 915 PM CDT, High Cliff State Park Around 920 PM CDT, Oshkosh And Berlin Around 935 PM CDT, Brill Around 940 PM CDT, Rush Lake Around 945 PM CDT, Northern Lake Winnebago Around 1000 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

Grumman F4U Corsair and F7F Tigercat

(their war never ended)
The Former "Confederate Air Force"...

... now commemo rates 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
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.

"What brings you to Oshkosh?"
Summary

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"How many times have you been to Oshkosh?"
Summary

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"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

Safe Space for Light Aircraft Enthusiasts

At Oshkosh nobody will ask “Why don’t you buy a JetBlue ticket for $99?”