



THE SPORT FLYER

NEWSLETTER OF THE SHELBYVILLE EAA CHAPTER 1326

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Ch-1326 Website: <https://chapters.eaa.org/ea1326>

Chapter 1326 meets monthly on the Thursday preceding the Fourth Saturday of the month in the Shelbyville airport conference room at 1800 (or 6:00 PM, whichever you prefer.) Any changes of meeting date and venue will be announced in the newsletter or by text message.

Kommandant's Korner

Dear EAA Chapter-1326 members and friends,

Well, hopefully the “dog days of Summer” are over literally, if NOT chronologically. The heat and humidity of the summer have been painful for not only all of us aviators whose aircraft don't have air conditioning, but for our Ch-1326 fly-in breakfast volunteers who have had to contend with the heat the last couple months. Hopefully as we are looking at cooler weather, we can look forward to some more comfortable events be they field trips, fly-ins, or cookouts. Be sure to come visit us for our monthly fly-in breakfast this coming Saturday September 23rd.

Speaking of upcoming events, our fellow EAA members of Chapter 1378 from Cumberland airport (Sparta TN) are holding a Young Eagles rally on September 30th at the Smithville TN airport. If you are a Young Eagles pilot, they would probably be interested in your help. (You can probably reach them through their Facebook page.)

Returning to local area news, we are happy to report that Motlow State University has agreed to sponsor an Aviation Explorer post in

Shelbyville, and we expect that will provide a steady stream of “Young Eagles” needing rides to introduce them to the cockpit environment. Our sources tell us that the goal of this explorer post is to introduce youths to the spectrum of skills and professions encompassed by the aviation community, so don't be surprised if these Explorers' mentors come to ask us to talk to these young budding aviators about our own aviation experience. Stand by for more information and possibly a request for support.

In the meantime, we hope to see you at the field this weekend for breakfast.



Randy Kelly
EAA Ch-1326 President



Letters to the Evil Editor

E.E. Zurg: Humm. It's rare for me to receive personal mail from readers, but this rolled in after last months' newsletter. I pay “Kanard” enough as it is, but I suppose I should say something nice to make him feel appreciated.

~~Dear Evil Editor Zurg,~~ (hmmm...not obsequious enough)

Oh Most Illustrious and Evilicious Editor Zurg,
(finally, an appropriate salutation – E.Ed)

I am writing to thank you for your minion Kanard's suggestion in the August 2023 Shelbyville *The Sport Flyer* to purchase and use the GATS (Gasoline Analysis Test Separator) Jar for taking fuel samples.

As an Eagle Scout, I was always bothered by the practice of just throwing sampled fuel on the ground. First of all, it was wasteful of an expensive product (it was less expensive then, but still you were throwing away stuff that you had paid for). Second, while the volatile compounds would evaporate away, you knew there was lead and other contaminants being left behind.

When I built my Bearhawk, I fabricated the fuel tanks, and with time the leftover drill shavings in the tank (even after trying to wash them out) would migrate to the sump and eventually get stuck in the drain valve, which caused it to leak, and the only fix was to remove and replace the drain valve. We did develop a procedure to swap the drain valve without draining the tank. It was messy and we lost a few ounces of fuel, maybe a quarter to half a cup. When this happened on the first trip to Oshkosh in 2009, my traveling companions told me to stop sumping the tanks, since there was a demonstrated probability that we would have to replace another drain valve.

As such, I got out of the habit of sumping the tanks. I got away with this because I live in the desert where water contamination of avgas is not a problem since there is hardly any water around and certainly not in the air.

Once a year I would sump the tanks as part of the once-a-year (but not "annual") condition inspection. I haven't had any trouble with shavings since that first year when I pulled out the drain valves and let the fuel gush out for a while to wash out any remaining shavings.

When I did sump the tanks, I did it in the hangar where I had a little gas can to drain the sampler into. It was said that you shouldn't pour the fuel back in the tanks because the tester might have contaminants in it. Additionally, the Bearhawk is a high wing, so pouring fuel back in the tanks involves the use of a ladder. I used one of those classic samplers that are about a one inch tube with a screwdriver on the end. The screwdriver is handy for opening the cowl when I'm not at the hangar. The problem is that this tester doesn't have much volume, so you had to be quick on the drain valve lest it fill up and overflow all over your hand. This was especially true on the gascolator drain, since it had several feet more head pressure than the tank drains.

So what was the tipping point? This year my airplane returned to AirVenture after a 10 year hiatus, and I knew it would rain at least once while I was there because it always rains at least once during AirVenture. This could lead to water in the fuel, but how was I going to sump the tanks without throwing the fuel on the ground?

Kanard's article reminded me of the GATS jar, which I had seen before, but didn't have one. I realized that this would allow me to pour the fuel back in the tanks (using a ladder) and I wouldn't have to worry about contaminants because of the built in filter.

I ordered a GATS jar from Sporty's (cheap in airplane terms, only \$33.84 total), and tried it out today. It worked as advertised and had one advantage that I hadn't anticipated. Because it has a much larger capacity than my previous tester, I didn't have to worry about being so fast on the drain valve. In fact, it took longer to get what seemed like a meaningful sample and gave me some extra room in case the valve didn't shut off completely. I didn't have to worry that I was draining so much fuel because it was all going to go back in the tank anyway. I was able to drain the fuel easily back into the tank through the built in filter.

Thank you for a great suggestion. I suggest that you award Dakota Simpson one free breakfast at the next EAA Chapter 1326 Fly In Breakfast. Likewise, award Kanard the sum of

one (1) “attaboy” and then tell him to get back to work. He needs to fly Lois somewhere and then write a story about something interesting he saw on that trip.

Russ Erb
 Bearhawk #164 "Three Sigma" (flying),
 Rosamond CA

Last Month's Meeting

The August 24th, 2023 was a standard business meeting. The more detailed minutes will be covered at the next regular business meeting, but here's a quick synopsis of this meeting:

We clarified who was going to be supporting the breakfast as we usually do, and somebody noticed that the sign that is put up by the Shelbyville Airport staff advertising the breakfast, stated the breakfast went from 07:30 to 09:00 versus 09:30. We notified KSYI staff of the error.

When Randy talked to EAA National the last time he was informed that we needed to fill the vacant Vice President position to comply with TN State laws regarding 501C organizations. Tim Rosser, Mark Cannon, and Tommy Lynch were nominated as possible fills, but since they were all not present, Randy took an action item to speak to them to see if they would accept the nomination, and the vote would occur at a subsequent business meeting. (Editors note: Tim Rosser and Mark Cannon accepted the nomination.)

We continued the discussion about a possible “student membership” to the Chapter for our Alpha Eta Rho members who have been supporting us and the group voted on a \$2 student membership fee. Randy will ask EAA National about the possibility of a National level student membership.

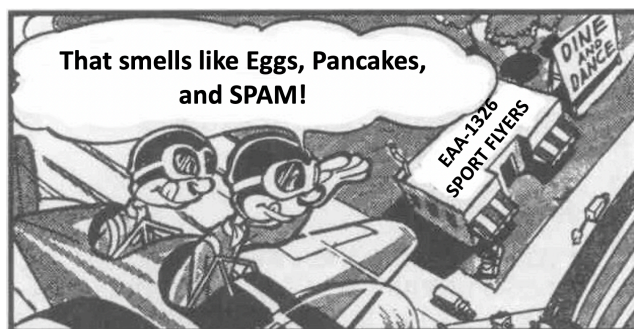
We continued a discussion about possibly awarding “scholarships” to help defer membership costs. Tim Rosser volunteered to be a scholarship chairman if/when we need one.

We are still soliciting proposed logos for the chapter, and we conducted some

brainstorming about how to raise some additional funds for things like scholarships. We discussed the possibility of hosting an additional twice annual cookout for KSYI airport patrons.

Sharon Tinkler
 EAA Ch-1326 Secretary

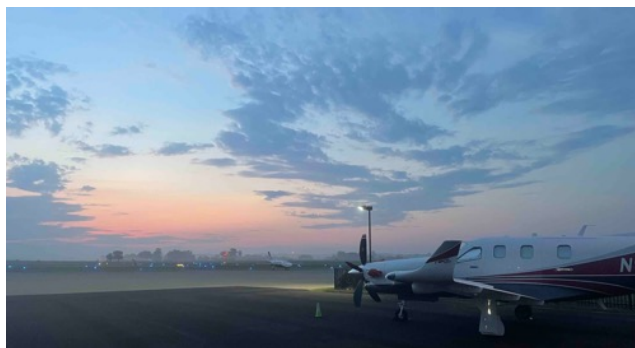
August 26th 2023 EAA Ch-1326 Fly In Breakfast



The sultry “Dog Days of Summer” (Jul 3 – Aug 11) held on for another week this year and both temperatures and humidity in Middle Tennessee have made working outside oppressive for weeks. The misery continued into the weekend of the August 26 fly-in breakfast. For the Friday Aug 25 setup, Mark Cannon showed up about 0700 to beat the heat. Had hangar open, the Warrior out and the steam table and meat cutting table into position by the time Randy got there about 0715. It was already hot. We moved a couple chairs and decided to sit in front of the fan till more help showed up. Garret Bunch of MTSU AHP showed up about 0800 to help us move and setup tables and chairs. Helene Wharton showed up shortly after that and started prepping the serving pans, and Leigh showed up to start inventorying supplies and go buy groceries. Tommy Lynch had already dropped off the hash browns earlier in the week which we moved from the freezers to the refrigerators to start thawing, and I loaded biscuits onto the pans. We were done with the heavy stuff before 0900 and broke for the day.

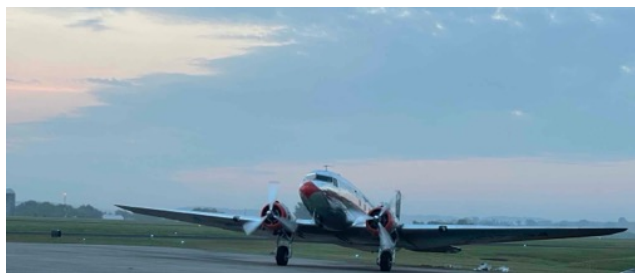
The next day (Saturday), Randy showed up before 0600. The sun was just starting to break the horizon but the crew of the Shelbyville based

DC-3 “Flagship Tulsa” were already there pulling through blades to start her up.



Dawn on the Shelbyville flightline. Looks like pretty weather!

When I asked if they were going anywhere, they said they were just doing some proficiency flying, but were out early to beat the heat. They also asked if the coffee was ready. Not yet, but it should be ready soon.



“Two turnin...”



“...and three “burnin!”

Flagship Tulsa and several other local aircraft were beating up the pattern before 0630, and when the first pot of coffee was ready, I announced that to the Flagship Tulsa ground crews who came over and filled their mugs.

Mark Cannon started slicing and cooking the meats (sausage, SPAM, and bologna). Tommy Lynch arrived with the steaming hot yummy potato casseroles and started loading the steam table. With Mark and Tommy on the meat grill, Helene on the egg grill and Randy on the pancake grill we were ready to go at the 0730 target. Our first “food” customers arrived before the 0730 opening time, and the first aircraft arrived shortly after 0730. Within about 15 minutes we had a fairly steady stream of aircraft showing up to be parked.



The first fly in arrives.



The sun greets aviators, planes, and marshallers alike!

The “0800 rush” was pretty normal (as compared to last month’s breakfast when IFR weather was looming at opening time) but the crowd moved through pretty steadily. We never did fill up all the tables but considering the fact we had set up 2 more tables than we had the previous month, that may have been deceiving.



The 0800 rush starts!



The flight line starts to fill up!

While people were eating, we were busy cooking and training new folks. Mark and Tommy gave some “grill master instruction” to Randy so he could help cook meats if needed later in the year. At the previous breakfast Randy had checked out AHP member Garret Bunch on the pancake grill. Garrett checked out another AHP member, Shannon Spears, on the pancake grill so now we have more pancake cooks. Sharon Tinkler and AHP member Presley Kennmore were working the reception and money table. Tim Rosser was busy shuffling food from the grills to the steam table and Sharon’s friend Diana from the Tullahoma Skypark was helping Helene mix up and scramble eggs.



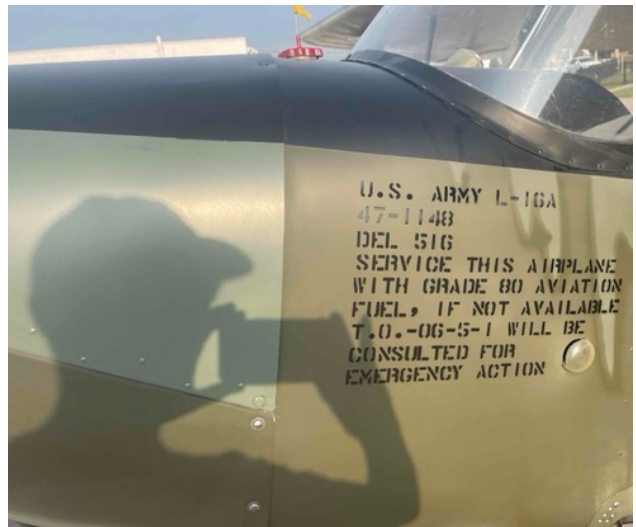
Busy minions cooking and working the food lines.

With all the minions running around cooking and serving, Randy was available to go

shoot pictures of the flight line per Evil Editor Zurg’s directions. 😎



A “Champ” of a warbird (an L-16)!



So – you thought you could get away with burning the wrong fuel? “The Shadow knows...heh...heh...heh”

At one point, both the marshallers and refuelers were so busy with arrivals on both sides of the active line that other pilots assumed marshalling duties to keep the lines safe.



Executive transport circa 1940s. Still in “style”!



More executive transport late 40s early 50s. A Cessna 195 Businessliner arrives!



Talk about “contrast” in paint schemes! 😎



Three Cessnas wondering who that Vans fellow is in their midst 😊.



Wow. That’s a lot of aviation history in one shot (if you know what you’re looking at)!



Makin’ money for the airport. (Jon’s smiling because he knows the airport manager is smiling too. 😊)

Before things started to wind down, we had counted at least 25 aircraft on the ramp. The last arrival we noted was an experimental amphibian – which one of our members had to loan tools to after the amphib pilot traced a tailwheel shimmy back to some slack in the linkages. (Hey, we would like to think we are a “full service” EAA breakfast. 😊)



Last arrival of the day was prepared for wet runways “just in case” 😊

Most of our visitors had finished and taken off by our official 0930 closing time, and our final estimate was that we had about 80 participants. With our usual contingent of EAA Ch-1326 “staff” and a couple of MTSU AHP volunteers, we had everything cleaned up and put away in a little over an hour, and we declared VICTORY and headed out. We hope to see y’all again at our next breakfast, Saturday 23 September.



Randy Kelly
Staff Editor



Technicians Korner: Why You May Want to Use Supplemental Oxygen at Lower Altitudes Than Required

Evil Editor Zurg: This is the final installment of an article written by EAA member and newsletter editor Russ Erb. This article is reprinted with permission from Russ and can be seen in its

entirety in his online blog “The Trailing Edge” (<http://erbman.org/trailingedge>).

PART 3

Filling the Oxygen Cylinder

Filling your oxygen cylinder would seem to be a simple process: go to the FBO, they fill it (assuming they even offer this service), and you hand them a wad of cash. Done.

Yes, that works, but it doesn't have to be like that. The first thing you may notice is that the price for an oxygen fill is a flat rate, regardless of the size of your cylinder. That is because the actual cost of the oxygen that goes in your cylinder is mere pennies. The high price you are paying is essentially the hourly wage of the person who filled your cylinder, since he or she can't be doing any other billable activity while filling your cylinder. Add in a little bit for the insurance premiums for pumping high pressure gas into a cylinder that the FBO has no idea of its integrity.

There is no “certification” requirement to refill oxygen cylinders, so if you are willing to spend money, you can do it yourself. Typically, your small cylinder that goes in the airplane is filled from a large cylinder that stays in your shop. Of course, filling your small cylinder will remove oxygen from the large cylinder, causing its pressure to drop. The two cylinders will stabilize at some pressure below where the large cylinder started. Keep doing this, and the pressure that you can fill your small cylinder to decreases with each fill.

One way to stave off this loss of pressure is to use a series (or cascade) of large cylinders to fill the small cylinder. The large cylinder with the lowest pressure is used first to do the grunt work of getting most of the oxygen into the small cylinder. Then a large cylinder with higher pressure is used to add a little more oxygen to raise the pressure further. A third large cylinder can be used to further raise the pressure. This uses very little oxygen from the third cylinder. More cylinders could be used, but the benefit drops off rapidly after the third cylinder.

When the third cylinder gets to an unacceptably low final pressure, the first cylinder

is swapped out for a new, full large cylinder which takes the place of the third cylinder. The previous second cylinder becomes the first cylinder, and the previous third cylinder becomes the second cylinder.

So how well does that work? Let's do some recreational maths to find out. Starting with the Perfect Gas Law (Equation of State)

$$P = \rho RT$$

Let's break the density apart into mass and volume.

$$P = \frac{mRT}{V}$$

When we connect two cylinders together, then the total mass of the gas must fill the total volume of the two cylinders. Using a subscript “1” for the first large cylinder and a subscript “T” for the target cylinder, the equation becomes

$$P = \frac{(m_1 + m_T)RT}{(V_1 + V_T)}$$

ASSUMPTION ALERT: This very simplified equation has several assumptions that we should be aware of. Even with these assumptions, it still gives a good indication of how the pressures will drop.

1. The equation assumes all of the gas in both cylinders is at the same temperature. As the gas moves into the low-pressure cylinder it will be compressed, which will raise its temperature (just like that bicycle pump you dropped because it got hot). This temperature rise requires energy. This is known as pressure-volume work (Pv work) in the trade. The faster the compression, the more energy is lost to heat from the rising temperature. In practice, the target cylinder is typically submerged in water to absorb this heat. For purposes of this discussion, we will assume that the transfer of gases happens very slowly so there is no significant Pv work and hence no rise in temperature.

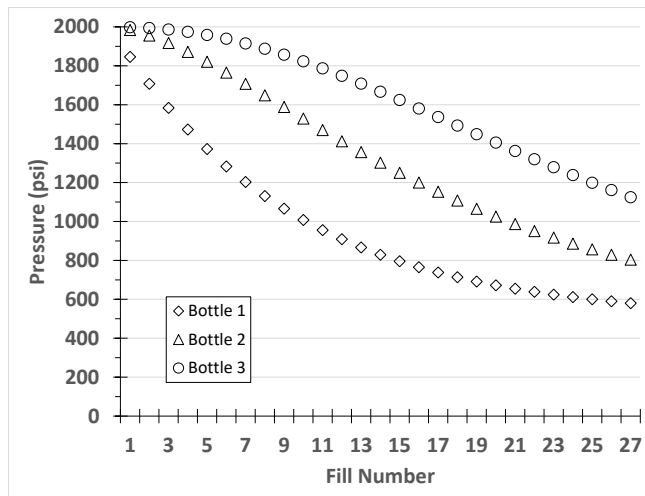
2. The gas constant to be used is not the familiar gas constant for air, but rather the gas constant for pure oxygen.

$$R_{O_2} = 2797.2 \frac{\text{ft}^2}{\text{sec}^2 \cdot \text{K}}$$

Now let us assume we have three source cylinders, each at 2000 psi pressure and a labeled volume of 200 cubic feet. That means that the gas inside the cylinder would have a volume of 200 cubic feet at standard temperature and pressure (STP), which would be 59° F and 14.7 psi (Sea Level Standard). Doing some maths, we find the actual volume of each of these three cylinders is 1.47 cubic feet.

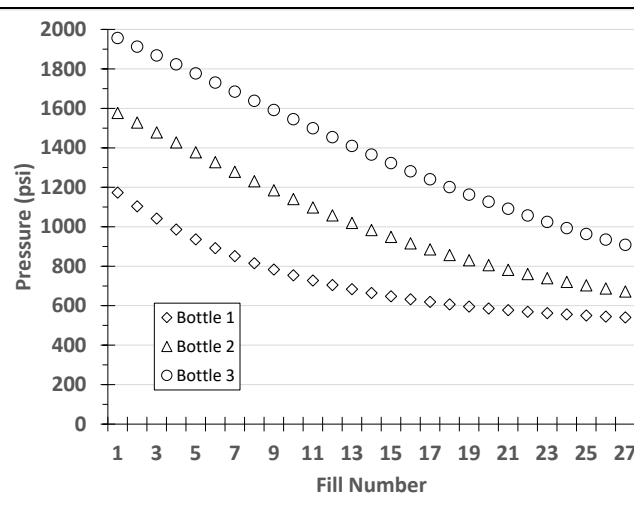
The target cylinder has an advertised volume of 648 liters at 2000 psi pressure. This calculates to an actual volume of 0.168 cubic feet. The target cylinder will be assumed to be at 500 psi at the beginning of each fill cycle.

We will do the analysis at a temperature of 59°F, although strangely the temperature doesn't affect the final pressure, just how much oxygen is in the cylinder at that pressure.



Cascade Pressure of Each Cylinder. Target Cylinder Pressure Equals Cylinder 3

With this setup, we can accomplish 15 fills with the final pressure only getting down to 1623 psi. At this point, Cylinder 1 is getting close to the starting pressure of the target cylinder, and therefore not contributing much to the fill. If we then swapped out Cylinder 1 for a new cylinder at 2000 psi and moved it into the third position, then the graph would look like this:



Cascade Pressure of Each Cylinder After Renewing Cylinder 1 as Cylinder 3

Now we can get eight fills before the target pressure falls below 1600 psi. Compare this to using only one cylinder (see previous chart) where we would only get three fills with the pressure already slightly below 1600 psi.

Where Does the Oxygen Come From?

From the atmosphere, of course! The real question is how is it separated from all of the nitrogen, argon, and other stuff. The answer is surprisingly similar to the way gasoline or kerosene is separated from crude oil—by taking advantage of differing boiling points.

Per Reference 8, air is filtered, and then alternately compressed (which raises the temperature) and then cooled. This is done several times, until the air is at about 2000 psi and 70°F. High pressure air cannot hold as much water vapor as low pressure air, so water is drained out at each step as it condenses out, resulting in almost perfectly dried air. Then the pressurized air is cooled to -275°F and the pressure is dropped to about 90 psi. At this point, oxygen and nitrogen are liquid and everything else is frozen and filtered out. By playing with the temperatures, the oxygen vapor is boiled off. The oxygen vapor, still at about 90 psi, is re-cooled, liquified, and stored in double-walled containers. (Atmospheric air is about one per cent argon, so during this process the argon is separated out to be used for inert gas welding and other processes.)

To get the oxygen to the state that it comes to us, the liquid oxygen is boiled off and the gaseous

oxygen is compressed to 2000 psi to go into the cylinders you pick up at the distributor.

The Aviator's Breathing Oxygen (ABO) myth

According to the FAA (Ref 7), "Aviator's oxygen must meet certain standards to ensure that it is safe to be taken to altitude. Only aviator's grade breathing oxygen meets this specification. Neither medical grade nor industrial grade oxygen is safe to substitute because they do not meet the same stringent standards as ABO." Strangely, this statement is not supported by any extant regulation. It lives on because it is "common knowledge" passed by oral tradition from pilot to pilot. Reference 8 tells that oxygen type is not mentioned in any regulation, only in Advisory Circulars (non-regulatory). Even those Advisory Circulars say the Aviators Breathing Oxygen **or equivalent** must be used. Reference 8 goes on to say "Some really heavy-duty experts have scoured government documents, and queried many government agencies, trying to find out just what the heck 'equivalent' means in this context. Its meaning appears to be nowhere specified, which leaves it up to the user." If anyone ever starts claiming it is against the regulations to use oxygen sold under different names, ask them to show you the regulation they are referring to. Nobody has found it yet.

Oxygen is typically sold (at differing prices) as Aviator's Breathing Oxygen, Medical Oxygen, or Industrial (or Welder's) Oxygen. Remember that part about boiling off the LOX and compressing the resulting oxygen gas? This differentiation comes about because long ago Aviator's Breathing Oxygen and Medical Oxygen were compressed with water-sealed compressors to reduce the impurities added, while Welder's Oxygen may have been compressed by machinery using oil for lubrication.

However, modern industrial processes demand pure gases, so the old ways of compressing died out. Now all oxygen is compressed in compressors using dry lubricants, leading to the same standards of purity and cleanliness for all oxygen. All three types come from the same source. The only difference is the label they put on it.

Medical oxygen is just as dry as the other types. The humidity is added by bubbling the gas through water after it comes out of the cylinder and just before it gets to the patient. Any moisture in the cylinder would threaten to freeze as the pressure drops and block the flow path.

Have you seen all of the oxygen equipment that says "Use No Oil"? Oil in the presence of high-pressure oxygen tends to explode, so why would anyone let oil get into the cylinder?

What does this mean? If you are setting up your own oxygen fill station, it doesn't matter how the oxygen is labeled on the cylinder, because it is all the same stuff.

References

7. FAA, Oxygen Equipment: Use in General Aviation Operations,
https://www.faa.gov/pilots/safety/pilotsafetybrochures/media/oxygen_equipment.pdf

8. Pelican's Perch #13: Getting High on Welder's Oxygen,
<https://www.avweb.com/features/pelicans-perch-13getting-high-on-welders-oxygen/>

- Russ Erb

AirVenture Oshkosh 2023 Photo Essay

Editor's note: Although none of our current Ch-1326 members made it to Oshkosh for this year's AirVenture, I'm not too proud to take advantage of the photo and writing skills of other "Project Police" who did make it there. Sooo – here is a photo essay on fellow EAA member (and USAF flight test engineer) Russ Erb's trip.

In 2023, I finally returned to AirVenture, having last been there in 2014. This time I flew out with Glenn Nicholson in the right seat. Meeting us at Wittman Field as our "Ubernator" was Stormy Weathers, joined later by his son John Weathers.

Flying Out



We worked more this time on minimizing the amount of stuff we needed to carry. We managed to keep the takeoff gross weight down to 2570 pounds. This time I was able to put the cargo net over the stuff to hopefully keep it under control if there was another negative g upset. I don't know how people fly long distances for a week in a two seat airplane. Where do they put their stuff?



*On the ground getting fuel at Cedar City
UT*



To get through the Rockies, we flew north to Provo UT. Flying from Provo to Heber City, we flew over the Provo River through the Provo Canyon. It's weird how this long ridge just suddenly drops down in a "V" to let the Provo River through. To get through here, we were sucking on the oxygen at 11,500 feet MSL.



RON (Remain Over Night) was at Rapid City (KRAP – still the best airport identifier ever) on PSP (Pierced Steel Planking – gives that WWII South Pacific vibe). This is the very location that I discovered the fractured alternator back in 2009. Feeling a little nervous, I checked the current alternator and found it to be operational.



At our fuel stop at Sioux Falls SD (KFSD) the FBO had several complimentary snacks for pilots available, including soft serve ice cream. Even though it was morning, I couldn't pass up free ice cream.



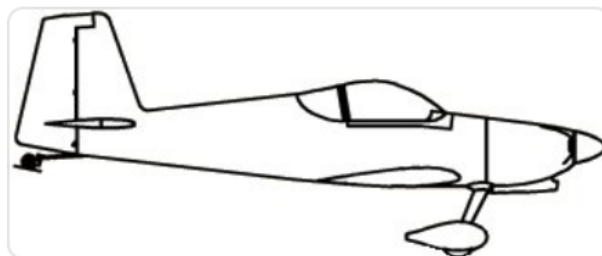
As we approached KOSH, the FISK Approach was shut down because of thunderstorms covering the entire approach. We diverted into a wonderful little airport called Baraboo/Wisconsin Dells (KDLL) to wait out the storm. For some reason, we were offered pride of place right in front of the FBO.

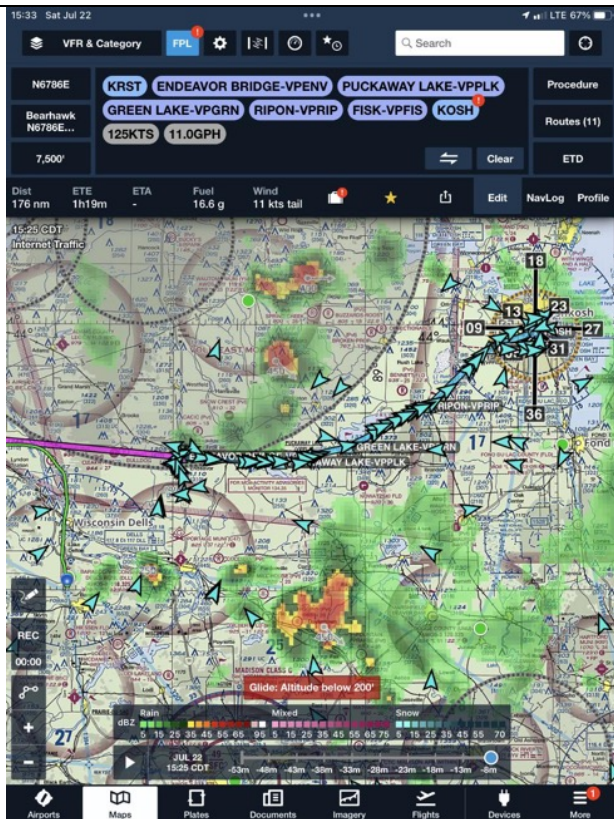


About 20 to 30 of our newest friends also diverted into KDLL. The staff were ready, as apparently this sort of thing happens a few times during each AirVenture.



One of the aircraft diverted into KDLL was this RV-14 from the YouTube channel Flight Chops.





Ever since the widespread adoption of ADS-B, every story of flying into AirVenture includes an obligatory screen shot like this showing the ridiculous amount of traffic we had to deal with. This is when the right seater's primary job is giving a running update on traffic in the area.



Three Sigma parked in the usual spot near Homebuilt Headquarters

On The AirVenture Grounds



For Father's Day, Tuki (Editor: Russ's spouse) fabricated a custom duffel bag for me covered in Peanuts cartoons. I had her fabricate it to be compatible with a survival backpack strap for carrying it the 0.6 mile trek to the Ubernator. This strap is the actual one I fabricated during survival training in 1980. The bag is so heavy that the pressure on my chest is mashing on my innards, causing my stomach to bulge out. That's my story and I'm sticking to it!



Glenn was an AirVenture rookie, so it was imperative to get a picture of him in front of the iconic Brown Arch. Here is a picture of Stormy

taking a picture of Glenn in front of the Brown Arch. Glenn is wearing a T-shirt that he bought in Rapid City, which says "I went through KRAP to get here".



Sunday's task was to go souvenir shopping in the EAA Wearhouse before the stocks are depleted. I found these NASA Pumpkin Suits for kids. When I asked Tuki if she thought Emmy would like one, she said "You may never get her out of it".



I took this picture for Kanard Kelly, since EAA Chapter 1326 has recently had an influx of new members from Middle Tennessee State University



We eventually ran into EAA Chapter 1000 alums Doug and Gail Dodson. Here Stormy and I visit them at their campsite.



On Sunday we were on our way to the Chapter Leadership Corn Roast and were diverted by a closed gate. On our diversion, we ran across a booth from Southern Illinois University, where they were selling these desk lights. I had this one made up custom with my Bearhawk.

Bearhawks



At the Bearhawk booth, a Bearhawk Patrol 2 seater



Center of the booth was this Bearhawk Model 5, a monster with 6 seats



Backside of the Bearhawk Model 5. The new flap design goes all of the way to the wing root.



*A traditional 4-place Bearhawk
Airplanes On and Above the Grounds*



On the West Ramp (we never established who the sponsor was this year) was the NASA Super Guppy with the nose loading door open. In the foreground is a UH-60 Blackhawk in one of the several recruiting booths for the US Army. In the background is the tail of the Boeing Dreamlifter, the airliner that carries airliners.



Another view of the Super Guppy with the nose hatch closed. Originally designed to carry the

third stage of the Saturn V moon rocket, now it is used to carry all sorts of outsized cargo.



CV-22 Osprey and C-17 Globemaster III



A sea of happy people blocking the view of an AT-6, T-38, F-16, and KC-135. There was a large presence of military aircraft this year. Apparently the services finally figured out that AirVenture is a target-rich environment for recruiting



1939 Luscombe (pre-war) powered by a Continental A-65. This aircraft has been owned

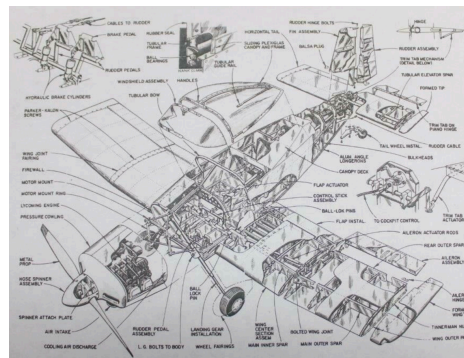
by same guy for 48 years. Very rare is that it still has the original wheel pants. For an airplane that barely goes as fast as your car on the highway, the wheel pants are more about looks than speed augmentation. Still looks good.



1946 (post-war) Luscombe 8A. Part of the much anticipated post-war general aviation boom.

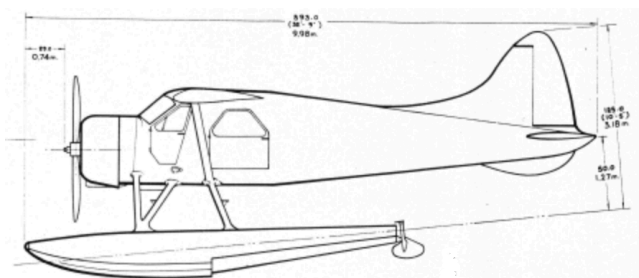


This year was the 60th Anniversary of the Thorp T-18, so they were featured in their own row. I saw Tony Ginn's T-18 there, but he had left before I could get back to track him down.





Outside of Hangar D was this US Forest Service U-6 Beaver. They do have floats for it, but for this event decided to go with the wheels.



In the back of the Beaver was this motor-driven seed spreader for dropping tree seeds. They have all sorts of other devices for dropping things that can fit here, such as a device for dropping live fish to restock lakes.



Other than the glass panels and modern radios, it still looks like a traditional Beaver



Van's Aircraft had the RV-15 prototype in the corner spot. It is still in development, with no promises made for when kits will be available. This is Van's offering for the booming high-wing, back-country market.



Electric aircraft are still working hard to make it into the mainstream. They work reasonably well except for that extremely short range issue. Here the Voltaero is on display trying to build support.



Also on display was the Opener, another electric airplane with a weird, sort of VTOL mode. It doesn't exactly hover like a helicopter, but it does jump off of the ground under propulsive lift with almost no ground roll.



One of our EAA Chapter 1000 alums was very big on the Switchblade, a flying car (actually

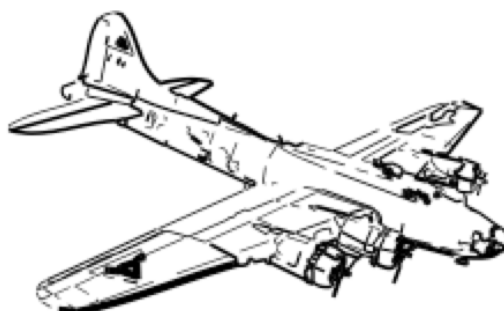
motorcycle). He moved away, so I don't know what his status is. This version looks complete, but there was no mention of actual flight testing.



The back end of the Switchblade.



B-17 Yankee Lady from the Yankee Air Museum at Willow Run Airport, Ypsilanti MI, was selling rides this year, operating from a nearby airport. Aluminum Overcast was not available, as it is still undergoing some major maintenance





The Comp Air 6.2 was on display. I'm really surprised the company is still in business, considering that the Comp Airs were not very popular or well made in 2006

Next month: The conclusion of AirVenture and the flight home.

Project Police Aircraft Spotters Quiz Evil Editor Zurg



Last month's Spotter's Quiz specimen was this beastly somewhat resembling a juvenile Cessna Caravan.



As usual, Project Police member Michael Knight was the first responder with the "Yo, Randy, looks like a GippsAero Airvan. From Oz, I think...". That supposition was quickly repeated by one of Zurg's Minions from (Data Masked). Here is the original photo which was "redacted" to not give away too many clues.



Gippsland GA-8 in CAP Livery

According to Wikipedia, The GippsAero GA8 Airvan 8 is a single-engined utility aircraft manufactured by GippsAero (formerly named Gippsland Aeronautics) of Victoria, Australia. It is powered by a 300HP IO-540, but there is also a turboprop version. In passenger configuration, it carries 1 pilot and up to 7 passengers. Although the aircraft is type certified by the FAA, there are some "unusual" configurations out there, including the Search and Rescue (SAR) tailored version used by the Civil Air Patrol (shown above), and an experimental certified airframe used by the US Navy Test pilot school for some of their training requirements.



For this month's quiz, I've decided to go back to a (not so) classic Warbird to pique your curiosity. (They don't call me "Evil" for no reason.) So here's your mystery aircraft for this month.



As usual, send your answer or best "edumacated guess" to Staff Editor Randy Kelly, at electricrow@pobox.com.



Project Police Tales Wanted

EAA members OR aviation enthusiasts. Do you have an interesting project

you'd like to talk about or show us? Have you seen an interesting or unusual aircraft? Do you have an interesting maintenance or build story? Snap some pics and write up a short report or make some notes to give to our staff writer Randy Kelly for inclusion into *The Sport Flyer*. We're not picky. ***We don't care if you're from OUR EAA Chapter, some other EAA Chapter, or just an aviation aficionado*** – we'll publish your story anyway. ALSO, later in this issue you'll notice an *EAA Chapter 1326 Technical Assistants*. These are EAA and/or other aviation technology enthusiasts who may or may NOT be a real expert in that area, but are willing to share their knowledge and building expertise with other members who need some help (or just a sympathetic ear) while accomplishing their build. If you are able/willing to serve/help in this capacity, please contact Randy Kelly at electriccrow@pobox.com.

Chapter 1326 Mission Statement

The Mission of the Shelbyville Sport Flyers Club, EAA Chapter 1326 is to enhance the quality of aviation life for its members by providing information about aviation, flying, and mechanical/maintenance knowledge shared by fellow members, guest speakers and special events which respond to the expressed needs and desires of all members.

Chapter 1326 Calendar

September 21st, 2023; Regular monthly Thursday meeting, 6PM, KSYI airport conference room.

September 23rd, 2023; EAA Ch-1326 Fly-In Breakfast, 0730-0930, Sport Flyer Hangar, KSYI airport.

October 26th, 2023; Regular Thursday meeting, 6PM. Location TBD.

October 28th, 2023; EAA Ch-1326 Fly-In Breakfast, 0730-0930, Sport Flyer Hangar, KSYI airport.

Special EAA Chapter 1326 Board of Directors Meetings are sometimes held on an unscheduled, as needed basis. If you need to be at one of those, you'll be notified by email or text.

For a good summary of aviation related social and training events in Middle Tennessee, check out the website <https://www.socialflight.com/>

CHAPTER 1326 ADMINISTRIVIA

To join Chapter 1326, send your name, address, EAA number, and \$20/year club dues to: EAA Chapter 1326, 2828 Hwy 231 N. Shelbyville, TN 37160-7326, attn Leigh Kelly. NOTE: You must also be a member of EAA National (<https://www.eaa.org>, or call 1-800-843-3612, \$40/year National dues).

Contact our officers by e-mail:

President Randy Kelly: electriccrow@pobox.com

Vice President: Vacant

Secretary Sharon Tinkler: tinkler@me.com

Treasurer Leigh Kelly: leighkelly@pobox.com

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Inputs for the newsletter or any comments can be e-mailed to Randy Kelly at electriccrow@pobox.com

From the Project Police legal section: As you probably suspected, contents of The Sport Flyer are the viewpoints of the authors. No claim is made and no liability is assumed, expressed or implied as to the technical accuracy or safety of the material presented. The viewpoints expressed are not necessarily those of Chapter 1326 or the Experimental Aircraft Association. Project Police reports are generally printed as they are received in the next "convenient" issue, with no attempt made to determine if they contain the standard aviator caveat of at least 10% truth. So there!

THE SPORT FLYER

EAA CHAPTER 1326 NEWSLETTER

C/O Randy Kelly

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<https://chapters.eaa.org/eaal326>



ADDRESS SERVICE REQUESTED

THIS MONTH'S HIGHLIGHTS:

- Kommandant's Komments
- Letters to the Evil Editor
- August meeting notes
- August Fly-in Breakfast
- Technican's Korner: Conclusion:
Supplemental Oxygen
- AirVenture 2023 Photo Essay
- Evil Editor Zurg's Aircraft
Spotters Quiz
- Monthly plea for "Project Police"
participation for new stories