



THE GRAPEVINE



There is a very fine line between "hobby" and "mental illness."

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Meeting And Program

NOTICE: Our March meeting will take place at 7:30 P.M. on the 2nd of March. The meeting will be at the FBO (Five Rivers Aviation) on the grounds at KLVK.



Month	Date	Speaker	Topic
January	4th	Steven DeFord	How to Survive after an Accident
February	2nd	Adrian Townsend	Savion Aerospace
March	2nd	Steve Radcliffe	How To Maintain, also much more

For our March Program: Steve Radcliffe will be discussing maintenance on your engine, and also will go over Tip's and Tricks. Steve is currently a Commercial, CFI,IA and MEI. I am also a advance ground instructor. I also hold Air Frame and Power Plant Mechanic Certificate with Inspection Authorization. I have owned a Spam can since 1981. I am also a member of AOPA,EAA and the Cessna Pilots Asco.

Thanks Dave Anderson!

Author: Richard Wood

How Did the O-2's Get To Vietnam?

It's 1967 or maybe early 1968, I forget, and the Air Force has bought a mess of Cessna Super Skymasters and called them O-2s. The Cessna factory at Wichita , Kansas is pumping them out at a pretty good clip and your problem is to figure out how to get them to Vietnam where they are needed.

Your choices are: 1. Fly them to the West coast and turn them over to the Army for transport by cargo ship. 2. Take the wings off them and stuff them three at a time into the belly of C-124s and fly them over. 3. Fly them over under their own power with no C-124 attached.

Question: Which method was used?

Right! Every single one of those puppies was hand-flown across the Big Pond to Vietnam . That sounds like it might have been a Mickey Mouse operation. Believe me, it wasn't that good. Air Force Systems Command (AFSC) was running that show and their knowledge stopped somewhat short of knowing anything about ferrying airplanes. The Air Force had a perfectly good organization called the 44th Aircraft Delivery Group which operated world wide and managed the ferrying of all aircraft; except the O-2s. AFSC contracted with some outfit in San Francisco to deliver the planes to Saigon .

The contractor hired a bunch of civilian pilots who couldn't find honest work elsewhere. Since the O-2s were technically "public" aircraft (as opposed to civil or military aircraft) no pilot's license was necessary to fly one, and I'm not sure that all of the pilots had licenses. Some of them were pretty good, but the rest of them were the most god-awful collection of unqualified scruffy-looking alcoholics you ever saw. The dregs of the flying profession. The deal worked like this.

The pilots were given a plane ticket to Wichita , where they got a quickie checkout in the O-2 if they needed one. Then they launched in bunches of four and headed for Hamilton AFB on the west coast of California . Enroute, they were instructed to carefully monitor and record their oil consumption, which, of course, they did not do. That type of pilot does not monitor and record oil consumption.

At Hamilton , the Air Force removed all the seats except the left front one. The seats were shipped to Vietnam by air, which is what should have happened to the rest of the plane, too. Extra fuel tanks were installed in the vacant floor space followed by the pilot himself. He had to crawl over the co-pilot tank to get to the left seat. Next, they installed an oil tank on top of the co-pilot tank followed by a small emergency HF radio on top of that.

Now, the pilot was truly locked in. To get out, he could either wait for someone to remove the radio and oil tank or crawl out the emergency escape window on the left side. Takeoff must have been something to watch. With all that fuel, the planes were way over max gross weight. They had no single engine capability at all for about the first five hours of flight. If either engine hiccuped, the pilot went swimming.

The route was Hawaii (Hickam), Midway, Wake Island, Guam (Anderson), Philippines (Clark) and Saigon (Tan Son Nhut.) The Hamilton-Hickam leg was by far the longest; nominally about thirteen hours.

The O-2s were carrying fuel for about fourteen and a half hours of flight.

Navigation was strictly dead reckoning. The pilots took up a heading based on wind calculations and flew out their ETA hoping to be lost within range of a Hawaiian radio station. They had no long range navigation equipment. The fuel tanks were disposable and were dropped off as they were no longer needed. The fuel pumps were not disposable and the pilots were instructed to bring them back along with their dirty underwear and the HF radio.

The trip was supposed to take about a week and each pilot carried an airline ticket from Saigon to Wichita to go back and pick up another plane. For this, the pilots were paid \$800 per trip with the flight leader getting \$1,000. They planned on averaging three trips a month and getting rich doing it. How come I know so much about this? Well, I was the Director of Safety at Hickam AFB and every single one of over 300 O-2s passed through my domain and created almost constant headaches.

Before this all started, I had no idea what an O-2 even looked like much less any knowledge of the overall ferrying scheme.

The trouble started with the very first flight and began with the extra oil tank. The reason for determining oil consumption on the Wichita-Hamilton leg was to know how much oil to add during the really long legs. There were no oil quantity gauges. Shortly after takeoff from Hamilton, boredom set in and the pilots would give the oil tank wobble pump a jab or two and squirt some more oil into the engines. The O-2 didn't need that much oil. All this did was over-service the engines which resulted in fluctuating oil pressure. The pilots didn't like that at all, so they added more oil which led to more pressure fluctuation. Meanwhile, they were totally lost and not getting much closer to Hawaii .

Time for the old MAYDAY call on the HF radio. When that call came in, the Coast Guard in Hawaii was running a very interesting seminar on sea rescue in downtown Honolulu . I was attending which is how I found out that we had an O-2 problem. The Coast Guard shut down the seminar and launched their C-130 and a pair of cutters to find the O-2s; which they did.

They herded them to the nearest runway which happened to be the Marine Corps Air Station at Kanehoe on the Northeast side of Oahu.

I drove over the mountains to Kanehoe to find out what the hell this was all about. That's when I saw my first O-2; actually my first four O-2s. Aside from being ugly, they were all soaked with oil overflowing from both engines and they didn't have ten gallons of gas among them. One had flamed out taxiing in from landing. They had been airborne for 14 hours and 45 minutes. The Coast Guard was really pissed when they learned the full story and was making noises about sending someone a bill for the rescue effort. I must say, I agreed with them. That silliness continued for three or four weeks with every single flight of O-2s getting into some sort of trouble.

At Hickam, the O-2 pilots were fairly easy to find. Most of the time they were draped over the bar at the O-Club; a situation which was attracting the attention of the Officers Wives Club; always a dangerous thing to do. I went to PACAF Headquarters and told them what was going on and they were absolutely appalled. Civilian misfits ferrying Air Force airplanes across the Pacific to a combat zone? No way! Between us, we began firing off messages to get this idiocy stopped.

AFSC couldn't understand what the problem was and probably still doesn't. Hamilton AFB was taking a lot of heat for participating and allowing them to launch at all. I was agitating about the stupidity of this through all the safety channels. I think I may have mentioned that when the inevitable accident occurred, they better

hope it was out of my area. If I had to investigate it, they were definitely not going to like the report. I was prepared to write most of the report right then before the accident even happened.

AFSC backed down and agreed to let the 44th Aircraft Delivery Group run the operation. The 44th wasn't too happy about that because the civilian pilots didn't seem to take instructions very well. Nevertheless, that brought some organization to the festivities which included things like mission planning, briefings, weather analysis, flight following and escort. The O-2s weren't allowed to fly unless accompanied by a C-47 or C-7 Caribou who could fly at their speed and handle the navigation. That wasn't much of a problem as there were two or three of those planes being ferried each week to Vietnam .

That procedure eliminated most of my problems and things settled down to a routine. The delivery rate to Vietnam was slowed somewhat, but I think more total planes actually got there because of it. During the entire process, only two planes were lost. One ditched due to engine failure on the Wake-Guam leg. The pilot managed to get out of the plane and bobbed around in his life jacket until picked up by a Japanese cargo ship. The other crashed in the Philippines killing the pilot. I never knew the circumstances.

We had, of course, the occasional problem at Hickam. I remember one pilot who landed nose gear first and managed to snap the gear off completely and ding the front propeller. I went out to see what had happened and got a load of bull**** and a strong whiff of gin from the pilot. The plane (he claimed) was nose heavy on landing and the elevator trim was inoperative. He couldn't get the nose up. Furthermore, his transmitter was out and he couldn't tell anyone about his problems. I checked the plane and found the elevator trimmed full nose down, but the trim switch and trim tab worked just fine. Just to the left of the trim switch, I noticed that the microphone toggle switch was actually bent backwards. After several hours of martinis, the pilot was trying to trim using the mic switch. He trimmed the plane full nose down while trying to talk to the control tower on the trim switch. Case closed.

None of these accidents consumed any of my time. I had learned another quirk in the AFSC way of doing business. Appearances aside, the aircraft were not Air Force aircraft and wouldn't be until they arrived in Saigon and were formally delivered and accepted. Since they weren't, technically, Air Force aircraft; they couldn't have an Air Force accident. The planes weren't registered as civil aircraft, so they couldn't have a civil accident either. They were in regulatory limbo and any accidents were non-events. Nobody cared. That suited me just fine. I had other things to do and I couldn't see how an investigation of stupidity would contribute anything to the Air Force safety program.

Incidentally, how do you suppose they got the O-2s out of Vietnam and back to the United States ? They took the wings off, stuffed them three at a time into the belly of C-124s and flew them back. AFSC was not involved which, I later learned, tended to improve almost any operation.



FEBRUARY 2017 MINUTES: GENERAL MEETING EAA CHAPTER 663, 2/2/2017, 7:30 PM FIVE RIVERS AVIATION MEETING ROOM, KLVK.

Chapter President John Goldsmith called the meeting to order. Joining him were Vice President Chuck Ray, Treasurer Mark Palajac and Secretary Kirk Knight.

John welcomed everyone to the chapter meeting at Five Rivers Aviation meeting room, again thanks to the generous support from Pete Sandhu, founder of Five Rivers, and the efforts of Chuck Ray.

John pointed out that the Chapter squawk list for the intermittent time-out problem with the Sony flat screen TV has been cleared. Chuck pointed out the solution was a different TV.

Several guests introduced themselves. Peter Brooks is an Aussie pilot who recently picked up a '46 Ercoupe from a lady's front yard in Danville that needs some work. He thought he could benefit from the shared knowledge of the Chapter.

Elvin is a Foothill High school student, age 18, who is a member of the Explorer Post and heard about EAA just the previous Saturday and thought he should check us out.

Our next guest was actually our Guest Speaker, Adrian Townsend, cofounder of a very innovation aviation startup, Savion Aerospace. Adrian stopped by the Livermore Airport Open House where he met many members of the Chapter, impressing everyone with his enthusiasm and experience. Adrian promised to not introduce any physics into his presentation – a remark that drew moans from our members who really do enjoy physics!

Jim Barker and Peter Brooks are experienced A&Ps with an odd challenge. Jim owns Sheet Metal Express, where he repairs planes. He and Peter are seeking help and guidance in restoring a wood, fabric and dope aircraft in Stockton that previously was owned by Marlene and Fred Garrity. The Garrity's took it home, took it apart with the goal of a complete restoration, and it sat that way years. Sadly Fred had medical issues so the project is now in Jim's care. Jim called his friend Pete and put the project in his hands. That drew strong laughter from the members. Some kind of friend! They especially need help with learning how to stitch the fabric. In case you're looking for him, Jim lives in Linden near the VOR, but he neglected to share the radial. John invited members to talk with Jim and Peter during the break to share knowledge.

January Minutes as published in "The Grapevine" Newsletter were approved. The links are now working again.

Treasurer Mark Palajac reported that the Chapter had 2017 members. The Chapter bank account had a balance of \$9092.42.

The Annual Dinner had 90 paid attendance. We had just over \$3,000 in total receipts. Expenses were \$4,200. We paid a fee to the speaker, Brian Shul, and were negative a bit on the event as expected. We now have 64 members and after expenses for the dinner we have \$6,755.86 in the bank.

John noted that the dinner was very good, but luke warm due to some delays with the caterer. The server staff of Rainbow girls was great and Brian Shul gave a great talk. We're starting to think about a speaker for next

year's dinner.

Young Eagles – Trina alerted all pilots that Young Eagles events would be the second Saturday in every month, starting in April. She is awaiting confirmation with Turlock folks for August or September. She'll post information in the Five Rivers window. We can always use more pilots.

Eagle Flights –John Youngblood reported that the Chapter's first official Eagle is Secretary Kirk Knight, and the forms finally arrived for him to complete the signup. Kirk is back in the air again as a student in the left seat. There are 3-4 other Eagle pilots awaiting improvement in the weather.

Tool Report – Bob Farnam has been shopping for a good bead breaker. There are two types, one requires you to put the wheel on the ground and uses a bar and muscle power to break the bead. The other has a screw action. They're intended for 5" and 6" wheels.

There was also a question about SWR (aka Voltage Standing Wave Radio) field strength meter to measure radio signals. An SWR is too weak to measure an aviation radio without an amplifier. But even a basic SWR it will find a break in coax – by measuring reflectance.

Newsletter - Trystyn Clark wanted to acknowledge the contributions of Bruce Cruickshank to the article links that are added to the newsletter. Trystyn also acknowledge Tom Irion for the cache of flying and flying history videos assembled by a Google employee on YouTube.

Next Board Meeting next Board meeting will be Thursday February 16 at John Goldsmith's house; next Chapter Meeting is Thursday, March 2.

Lots of reminders about events are in the Mailbag – check your email.

Annual Dinner 2018 will be Saturday January 27, 2018.

Mimi Steel has to move her hangar. It's a small "L" space at the end of the row and rent is \$250. It's a roll-up door, not a hangar door.

LVK Airport Commission Report – Ralph Cloud reported that there was no January meeting. A couple people commented about the new white LED runway lights at LVK. They aren't visible 180 degrees off axis – aka – when flying downwind. However, the blue taxiway lights are visible. Chuck Ray suggested this could also make it easier to know when to turn base as the lights became visible again. That may or may not have been sarcasm, but it lead to other contributions. Key take away – lighting appears different than it previously appeared, so be prepared.

SAFETY TOPICS – Trystyn brought up three distinct aerobatic boxes that may or may not appear in NOTAMs. One is used by the Patriots jet team (monitor 122.75) northeast of Discovery Bay, another is near Tracy and the last is Mount Diablo. He suggested requesting NORCAL Flight Following when you are in the area.

There is also a skydive area near Byron, and a new skydive operation at Gness Field in Novato. Trystyn was asked to include a drawing on the Sectional in the newsletter.

Renee Robertson brought up the proposed changes to Bravo airspace; the FAA Comment Period is now open through March 16.

John thanked the pilots and ground crews who helped on Young Eagle's events during the year. The Chapter is thanking each of those who participated with a Certificate as well as a modest amount of fuel.

John gavelled the meeting to break.

MEETING BREAK at 7:57 PM

GUEST SPEAKER at 8:11 PM

Guest speaker Adrian Townsend is cofounder of Savion Aerospace. He earned a BS in Aeronautics and Astronautics at MIT, an MS in Applied Mathematics from the University of Washington. He worked for two years as a research at the Gas Turbine Laboratories at MIT, then two years at the high speed aerodynamic product development at Boeing. Since leaving Boeing he's been consulting in the fields of commercial and industrial energy efficiency, practical element and computational fluid dynamics and cofounder of Savion Aerospace.

Little did we anticipate we were in for 90 minutes of high-energy discussion about the next generation of flying embodied in Savion. Adrian used EAA pilots as participants in exploring key concepts in aircraft and airlines. Sadly his presentation is a bit too long to transcribe, but the Chapter Secretary could provide a recording for personal use by Chapter Members.

To cut the story short, Savion is proposing a nearly self-flying 4-6-passenger airplane for relatively short haul flights. It will be a twin jet aircraft powered by natural gas, which appears to be a cheaper, cleaner and lower maintenance fuel for the future. They propose a model somewhat like SurfAir, but the twist is that the pilots will remain on the ground. This greatly reduces costs and enables pilots to control more planes by focusing on the takeoff and landings.

It sounds pretty far over the horizon until you consider the improvements in artificial intelligence for self-driving cars in just a couple years.

Aside from his engaging personality, what made Adrian a phenomenal speaker was his genuine invitation to the Members to participate in adding ideas to the vision. He wasn't selling a product, he was literally designing the product with the Members in a directed collaboration. The expertise of the Members helped inform Adrian on topics where he lacked familiarity. Of course, EAA Members like to build and fly our own planes, but that also added to understanding of the areas of complexity, novelty and reliability.

Adrian also added many anecdotes about his design and engineering experience with Boeing and highly advanced aerodynamic topics. There is no question he knows his stuff and our Members walked away with an

education.

He is welcome to come again as the Savion project progresses.

MEETING ADJOURNED at 10:05 PM. By John Goldsmith.

Minutes humbly submitted by Secretary Kirk Knight.

Feedback/Questions/Suggestions

Any and all feedback is welcome. Please take a few minutes to send suggestions, tips, corrections or any other feedback to: Trystyn1271@gmail.com

Cool videos found on the internet.

<https://www.youtube.com/watch?v=TDUtRaPMook>

<https://www.youtube.com/watch?v=FAwM8TkHtwQ>

<https://www.youtube.com/watch?v=Rg90PF4mWJs>

<https://www.youtube.com/watch?v=AAuTXZKqOAI>

https://www.youtube.com/watch?v=b_AZeMRqCfg



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