EAA Mount Rainier Chapter 326 Newsletter

Thun Field – September 2011 153

Meeting Notice

Tuesday, September 13th, 7 PM
CAP Building, Thun Field

Program: Advanced Flight Systems. Rob Hickman

Refreshments: Doug MacArthur

From the President

I've been having a conversation on one of the internet forums I participate in recently that got me thinking. The subject was about can you use "Plane X" to take cross country trips? In this case the question was about the Kitfox and people wondered if it really could be used for traveling. Now all you RV guys may scoff but it turns out that you can actually cover some ground at 120mph just fine. Thinking back it was not that long ago that people traveled all over the country and around the world at those speeds and never thought much about it. Recently I took a day trip over to Idaho to pickup some parts from the Kitfox factory. Over and back in a day, covering 3 mountain ranges, miles of desert and farmland. 7.5 hours of flying and I was back before evening.

It seems it's not really about can the plane do it, it's will you head out and take the adventure that awaits beyond the next horizon? There's a whole world out there to be explored and sights to see. I hope you all are getting a chance to get out this summer.

Fly Safe
Andy Karmy

First Flights

Year after year… nothing but an occasional progress report. Then this year, truly amazing….

Jeff Bloomquist RV-7A
Hal Irvine RV-12
Paul Ohman & Terry O'Brien RV-10
Randy Albritton RV Super 8 (IO-540)

And we're not done yet. Kevin's RV-9A has been signed off by Charlie and should be flying soon. And Curt Bryan received his Onex kit a month ago… so any day now.

Burning Man

I learned a lot more about Burning Man after I got home than before I stopped in there last week. For one week ending on Labor Day, a city is created on the Black Rock dessert. It is a dry lakebed ideal for Ed Shadle doing speed runs in his jet car. It's in northwestern Nevada just east of the airway that takes us to Reno.

They have an airport there too. Even though it only exists for one week, it has an identifier, 88NV that was in my gps database. This year the BLM capped attendance for the first time in 25 years. Attendance was limited to 50,000 people and tickets were sold out in July. At $300, less if you qualify, the economy can't be that bad.

The notams clearly stated that if you didn't have a ticket, don't come. But I wasn't interested in going into the city; I just wanted to see it from the air. And since they were having a breakfast at the airport on Thursday morning, I would land just for that, and the opportunity to land on a dry lakebed for the first time.

The notams are quite detailed. They have a scenic pattern, clockwise around the city with reporting points at clock positions relative to the man. When I switched to 122.9 and got within 10 miles, I could hear all kinds of airplanes in the scenic pattern. The pattern altitude began at 5500' and went up at 500 foot intervals. So there were maybe three airplanes at each altitude and it was hard to get a word in edgewise. I imagined each of them taking pictures of the city and not looking for airplanes. Anyway, not much to see other than the geometry and size of the city… too high to be looking for naked ladies or other attractions. So after a quick lap I entered the traffic pattern and landed.

They have what they call an uncontrolled tower on Unicom. I parked in the transient area and walked toward the operations area looking at 100 or more airplanes tied down on the playa.

Without a wristband, I was greeted by "can we help you" from three young ladies at the security gate. I explained that I was just there for breakfast. "Oh sure, they're still serving and there's a naked lady over there too." Is there something about me that evokes such a response? They directed me to another entrance with a lot of weird looking, costumed characters milling about. Again I explained that I didn't want to go into the city, just breakfast. "Well, through this gate ***is*** the city." They suggested I plead my case to one of the officials but I declined and headed back to my airplane for three granola bars.

I hoped that being on the ground for all of 10 minutes might mitigate the accumulation of playa dust. I read that it isn't easy to wash off… have to check with Ed about that.

Next stop was Alturas (KAAT), about 75 miles west… another curiosity that floats by on the way to Reno. I told the airport lady of my treatment at Burning Man and that it was more amusing than disappointing because it was hard to imagine having much in common with that crowd anyway. She said, "you would be surprised… there are a lot of very intelligent and

creative people there (proves my point), doctors, lawyers, all types."

So by now there is not a trace of the city or the airport… nothing but a dry lake bed like it was a week earlier. Pack it in; pack it out… until next year. Like Andy says… "there's a whole world out there."

I'll leave it to you to learn the whole story of Burning Man, http://www.burningman.com/

And the two-page notam… interesting all by itself. http://www.portofentry.org/2010/BM2011_AirportCharts.pdf

jb

Calendar

Sep 10 WAAM Hood River (4S2)
Sep 10 Klamath Falls Fly-In (LMT)
Sep 14 – 18 Reno Air Races (RNO)
Oct 20 21 22 Copperstate (CZG)

Last Six Minutes of Air France 447

First look at this link and then read the pilot opinion below.

http://www.flightglobal.com/blogs/learmount/2011/05/air_france_447_the_facts_and_w.html

Air France 447 / Airbus A330 Pilot Opinion
From AVweb:

I would like to offer my comments and perspective with regard to the Air France Flight 447 accident. I have been a A-330 captain since 2003 and have over 4500 hours in the aircraft. While many A-320 pilots undoubtedly have more series time, I believe this probably makes me one of the most experienced A330 pilots in the world.

When asked how I like the aircraft, I tell people that there is likely no easier airplane to take over an ocean, and that the systems design and presentation is superb. That said, the automation is more complex and less intuitive than necessary, and the pilot-aircraft interface is unlike that of a conventional aircraft. Most important with regard to this accident is the fly-by-wire sidestick control. The sidestick itself has a very limited range of motion, making inadvertent over-control very easy. Of even greater significance, the stick itself provides no "feel" feedback to the pilot. That is, unlike a conventional aircraft, the pilot does not get a sense through pressure of how much input is being sent to the control surfaces. The most important advice I give to pilots new to the Airbus is to treat the aircraft not as an airplane, but as a video game. If you wait for the sidestick to tell you what you are doing, you will never get an answer.

Taking into consideration that Air France 447 was at FL 350 (where the safe speed envelope is relatively narrow), that they were in the weather at night with no visible horizon, and that they were likely experiencing at least moderate turbulence, it does not surprise me in the least that the pilots lost control of the aircraft shortly after the autopilot and autothrust disconnected.

Let's keep in mind that these are not ideal conditions for maintaining controlled flight manually, especially when faced with a sudden onslaught of warning messages, loss of autofllght, confusing airspeed indications, and reversion to "alternate law" flight control, in which certain flight envelope protections are lost.

A very bad Airbus design feature is thrust levers that do not move while in autothrust. They are instead set in a detent which would equal climb trust in manual mode. If the pilots did not reset the thrust levers to equal the last cruise power setting, they likely eventually ended up in climb power, making it difficult to reset the proper cruise power setting and adding to what was likely already a great deal of confusion.

But the real problem probably occurred immediately after the pilot flying grabbed the sidestick and took over manually. Unfortunately, airline pilots rarely practice hand-flying at high altitude, and almost never do so without autothrust engaged. As a result, we forget that the aircraft is very sensitive to control inputs at high altitude, and overcontrol is the usual result. Because the Airbus sidestick provides no feedback "feel" to the pilot, this problem is dramatically compounded in this aircraft.

I believe the Air France pilot grabbed the sidestick, made an immediate input (because as pilots, that's what we tend to do), and quickly became quite confused as to what the aircraft was truly doing. This confusion likely was exacerbated by fixating on airspeed indications that made no sense while trying to find a power setting with no airspeed guidance.

When transitioning from autopilot to manual control at altitude in the Airbus, the most important thing to do at first is nothing. Don't move a thing, and then when you do, gently take hold of the sidestick and make very small inputs, concentrating on the flight director (which, in altitude hold, should still have been providing good guidance). Of course, this is much easier said than done with bells and whistles going off all over the place, moderate turbulence and a bunch of thunderstorms in the area. As I said before, treat it like a video game.

So why did the Air France pilot find himself at the limits of sidestick travel, and then just stay there, maintaining a control input that simply could not logically be correct? When things go really bad and we are under intense pressure, it is human nature to revert to what we know from previous experience. Remember, the Airbus flies like no other aircraft in that the sidestick provides no feedback to the pilot. It is a video game, not an airplane.

I believe the Air France pilot unintentionally fell back on all of his previous flying experience, in which aircraft controls "talked" to him when he moved them. Distracted by many confusing inputs, he instinctively expected to be able to control the aircraft by "feel" while dividing his attention to address other matters.

I've seen it happen in the simulator, and in an Airbus this is a sure way to lose control of the aircraft and is possibly the most dangerous aspect of Airbus design philosophy.

One last note: Airbus pilots often claim that the aircraft "can not be stalled." When the flight controls are in "normal law" this is a reasonably true statement. However, in "alternate law," as was the case here, stall protection can be lost. If we ever practiced this in the simulator, I don't remember it.

Lest anyone think I am blaming the Air France pilots for this accident, let me be clear. Despite all of my experience in the aircraft, I am not the least bit certain that I would have been able to maintain control under the same circumstances. I do feel certain that were you to spring this scenario on pilots in a simulator without warning less than half of them would have a successful outcome. Safely flying the 320, 330 and 340-series Airbus requires something of a non-pilot mindset.

AVweb Editor's Note:

We have spoken with the writer of this letter to confirm his identity and honored his request for anonymity.

Biofuel in Tacoma?

Federal program aims to help farmers grow biofuel crops

A program to help Washington farmers grow camelina for aviation biofuels kicked off in Seattle on Monday, a week after local companies testified in Washington, D.C., about plans to scale up production.

Through the U.S. Department of Agriculture Biomass Crop Assistance Program, farmers can receive help with startup costs of planting camelina sativa, an oil-seed crop used to produce biofuel. Seattle-based AltAir Fuels plans to build a plant in Tacoma to produce 100 million gallons of jet biofuel a year.

Establishing a local supply chain for biofuels would create jobs on farms in Eastern Washington and at biorefineries in the Puget Sound region, said U.S. Sen. Maria Cantwell, chair of the Senate Subcommittee on Aviation.

Wing Strength Test on B-787

No wonder it has that upswept look!!!

http://787flighttest.com/hanger/wp-content/plugins/flash-video-player/mediaplayer/player.swf?streamer=rtmp://cp81820.edgefcs.net/ondemand/tpn/firstflight/&file=TestLog4.flv

Jetman Flies the Grand Canyon

http://www.google.com/url?sa=D&q=http://www.youtube.com/v/WgdIE2t8QkM%3F

Take A Ride in a U-2 Spy Plane,

Click the link below. Go to the lower right corner of the screen and click the icon immediately to the left of the volume control to bring up the full screen.

http://www.wimp.com/breathtakingfootage/

This is "awesome" indeed! Interesting commentary once the plane has landed, as well. You'll know what I mean when you hear it. You can see why the U-2 is considered the most difficult plane in the world to fly. Each pilot has a co-pilot, who chases the plane on the runway in a sports car. Most of the cars are either Pontiac GTOs or Chevrolet Cameros - the Air Force buys American.

The chase cars talk the pilot down as he lands on bicycle-style landing gear. In that spacesuit, the pilot in the plane simply cannot get a good view of the runway. Upon takeoff, the wings on this plane, which extend 103 feet from tip to tip, literally flap. To stabilize the wings on the runway, two pogo sticks on wheels prop up the ends of the wings.

As the plane flies away, the pogo sticks drop off. The plane climbs at an amazing rate of nearly 10,000 feet a minute. Within about four minutes, I was at 40,000 feet, higher than any commercial airplane. We kept going up to 13 miles above Earth's surface.

You get an incredible sensation up there. As you look out the windows, it feels like you're floating, it feels like you're not moving, but you're actually going 500 mph. The U-2 was built to go higher than any other aircraft. In fact today, more than 50 years since it went into production, the U-2 flies higher than any aircraft in the world with the exception of the space shuttle.

It is flying more missions and longer missions than ever before - nearly 70 missions a month over Iraq and Afghanistan , an operational tempo that is unequaled in history. The pilots fly for 11 hours at a time, sometimes more than 11 hours up there alone. By flying so high, the U-2 has the capability of doing reconnaissance over a country without actually violating its airspace. It can look off to the side, peering 300 miles or more inside a country without actually flying over it.

It can "see" in the dark and through clouds. It can also "hear," intercepting conversations 14 miles below.

The U-2, an incredible piece of history and also a current piece of high technology, is at the center of the wars in Iraq and Afghanistan Enjoy the ride! Lockheed U-2

Thank You Letter from Sidney Waller

Our EAA Academy Young Eagle

Nice letter from a nice young lady.

Dear Chapter 326,

My name is Sydney Waller and I am the one who you sponsored to go to EAA this year. The EAA camp has allowed me to express my love of aviation in a way that I never had before, with a camp full of kids who also share my intrest. I just wanted to let you know how grateful I am to you for allowing me to be able to go to this camp by sponsoring me. In the short period of 6 days I have learned a great deal of stuff about aviation: from the pitch, yaw, and roll to how the engines in a jet work. But the great times does not stop there, they go further and provide you with hands on experience and give you the chance to ride in a plane and a helicopter! I was supised by how steady the helicopter seemed at low altitude! I guessed it was because the blades on the helicopte were longer than on a plane. Once again thank you for letting me go to EAA. I hope to come again!

Sincerly,

Sydney Waller

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