Longmont, Colorado 80503

Our Next Meeting will be January 13th at 7pm at the Colorado Classic Aircraft Building at Vance Brand Airport.

January

2014

www.648.eaachapter.org

Contents

- . Christmas Party Photos
- . January Program
- . A Message from the Chapter President
- . Minutes of the December Meeting
- . Newsletter Quiz
- . Other Items of Interest
- . List of Officers for Chapter 648

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December Christmas Party Photos

Thank You! Bob and Carol Leyner our hosts...



Okay Dickie... you can't hide from the camera....

















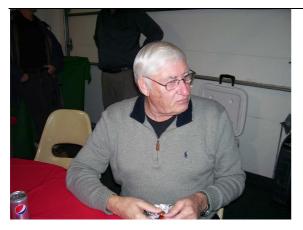






































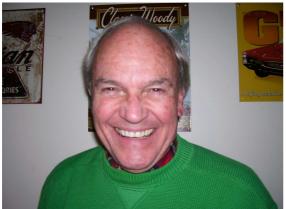


















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January Program

Our program on January 13th will be a presentation about the Rocky Mountain Renegades, a precision formation flying group based at KBJC, Rocky Mountain Metropolitan Airport. Information on this organization can be found on the following website: http://www.rmrairshows.com/

A Message from the President

We've all met examples of those self-described indestructible people who claim, "I can hold my liquor," or "altitude has no effect on me," or "I'm always in control." It's so easy to fail to notice change when it's gradual rather than abrupt. I often wonder how much things change for me when I go from 5000 feet above sea level to 10,000, or 12,000, or higher. Some years ago I heard of a simple experiment that can show the change that occurs. A pilot on oxygen as needed, and a passenger without oxygen, take off and climb through a range of altitude values. Before takeoff, the passenger writes down on a piece of paper the altitude in integer format and as text (e.g. 5000, Five Thousand) and then signs his/her name. The paper is then folded over so that this last line is now hidden. This activity is repeated as the plane passes through 1000 foot intervals to a target maximum altitude. Again, this activity is repeated as the plane descends through 1000 foot intervals. Individuals who have done this type of test confess to being completely taken aback by the amount of change observed in their handwriting even though they claim to have not noticed any effects during the test. It would seem this test could be carried out in one direction on someone drinking alcohol or smoking marijuana, substituting intervals of time for intervals of altitude. This might change a lot of attitudes from "indestructible to vulnerable."

Dick Socash

President, EAA Chapter 648

MeetingMinutes for December 7th, 2012:

None Reported

NEWSLETTER QUIZ

Each month, we will ask a "question" in the newsletter. Answers can only be given if you attend the meeting referenced in the newsletter. At the end of the year, there will be a prize to the person who has the most correct answers. Some will be easy and some difficult.

December Question: What were the principle characteristics of the Davis wing and on what WW2 airplane was it first used?

December Answer: In the summer of 1937 Reuben H. Fleet, president of Consolidated Aircraft met with David R. Davis who was a freelance aeronautical engineer trying to find development funds for his wing design, the "Fluid Foil." Davis had designed the wing "in reverse", starting with a basic low-drag teardrop

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shape and then modifying it as required to provide lift. In comparison to common designs, Davis's design was



relatively "thick", but had a short chord and a high aspect ratio. Davis claimed the new wing would offer much lower drag than designs then in use, and would offer considerable lift even at a small angle of attack. Additionally the thickness of the wing would allow for excellent fuel storage, or even embedded engines (an idea then in vogue). The results of the wind tunnel test were so good they were unbelievable. Caltech recalibrated their wind tunnel and ran them a second time, and then a third time. When they delivered their report to Consolidated it indicated that the wing appeared to deliver everything it claimed, but they also suggested it might be a wind tunnel fluke, something that only gives good results in the tunnel. After considerable thought Fleet decided that it would be used on Consolidated's new twin engine flying

boat, the Model 41, a long-range maritime patrol flying boat built by Consolidated Aircraft for the United States Navy. The Model 31 made its first flight on 5 May 1939, and it completely vindicated the Davis wing. Only one was built and a production order for 200 was cancelled. Maximum speed: 247.31 mph (398 km/h) By this time Consolidated was already in the process of a "secret" project to design a new bomber that would best the then-new Boeing B-17 Flying Fortress and had already selected the Davis wing for this project as well. This design, the Model 32 (which would become the B-24 Liberator), first flew on 29 December 1939. The same basic wing design would be selected for almost every large Consolidated design from that point on, including the Consolidated B-32 Dominator. Special thanks to Haiko Eichler for information and picture.

January Question: A pilot runs into icing conditions. He knows that if he gains 1000 feet of altitude, he will be clear of the icing problem. He applies more power and starts his climb. What speed should he maintain?

AIRPLANE PICTURE OF THE MONTH (#7) -Haiko Eichler's Cessna Skylane

Note: Haiko is probably the only one that has ever painted an airplane on the tarmac of KLMO (2V2).

I bought this airplane in 1981 from then Governor Vanderhoof with 2790 hours on the aircraft and engine. I put another 683 hours on the engine before a major overhaul by Firewall Forward in Fort Collins became necessary in 2000. Before retirement I flew the aircraft primarily for business purposes.

In the summer of 2013 I just got tired of looking at the sad paint job of N8840X, my trusty old 1962 Skylane, the same paint job when I purchased the airplane in 1981. Checking on the cost of having it done professionally and finding out that I would have to pony up about \$15,000 (which I really couldn't afford), I decided to tackle the job myself. For several weeks I pulled my "portable shop", equipped with all the tools needed, including air compressor and generator (picture attached) to the airport and proceeded to tape and prep the airplane. The challenge of course was to pick the days with very little wind - well, good luck with that at the airport. Anyway, the paint job turned out OK as far as I was concerned. Certainly not perfect by professional standards but compared to the original - a major improvement.

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Before Painting

and After Painting



A picture of Haiko's portable painting booth.

Other Items of Interest....

Avoiding Icing Conditions in Clouds

Question:

What about specific types of clouds, and the types of icing you might find in different cloud formations?

Answer

Well, in stratus clouds, which are layered clouds - we generally find rime icing. These types of clouds generally have icing layers no more than, perhaps, 3,000 feet thick. So a change in altitude of several thousand feet may take the aircraft out of the icing conditions.

Lake effect stratus clouds, for instance, south of the Great Lakes in the U.S., are exceptional in that they have very high moisture content. And the Great Lakes region, especially in the early winter when the northwest winds blow over unfrozen lakes, generally have icing conditions in the stratus clouds.

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Cumulus clouds, on the other hand - they might be cumulonimbus or thunderstorm-type formations - generally result from vigorous convection. And they can have a very high moisture content. Cumulus clouds might be home to clear icing. However, they have limited horizontal dimensions, which means we can fly around them and avoid them.

Cirrus clouds are composed of ice crystals. And remember, cirrus clouds are very high clouds. Generally cirrus clouds do not result in structural icing. The reason for that is the moisture is already frozen in the form of ice crystals. And it doesn't deposit on the airframe as do super-cooled water droplets, which might exist in stratus or cumulus clouds.

Gift To Earl and From Earl



EAA National awarded Earl a very nice flight bag in recognition of his Young Eagles work over the years. He recently gave the bag to Connie as a gift. There's a mutual admiration and respect between these two. Just one example of the intangible rewards of membership and activity in the Chapter. We need to encourage more young people to join and become active in the Chapter.

Christmas Party Set-Up Crew



A special thank you to Bob and Carol for once again hosting our Christmas Party. A bit of preparation was required to get the room ready and the call went out to the organization for help. (Actually it was a sign-up sheet at our last meeting.) Needless to say, we also needed help in putting things back together.



Christmas Party Clean-Up Crew

The photos show almost everyone who showed up for each activity. Yours truly, was taking the pictures so add one to the count shown in the pictures. Thanks to everyone who made the party another Chapter 648 success! Special thanks to our cooks, Connie Socash for the turkey and Dickie Socash for the ham.

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Formation Flying?

Two Chapter members, Sykes and Socash, had plans to do some formation flying. The outside winds were too



strong so we decided to move the activity indoors. I'm proud to say that during the entire time, I maintained separation to within a few inches, and that's with a cup of coffee in hand.

A third member, another Socash, is also pictured. Just goes to show there's some advantage to not painting the plane.

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