Plane Freqs

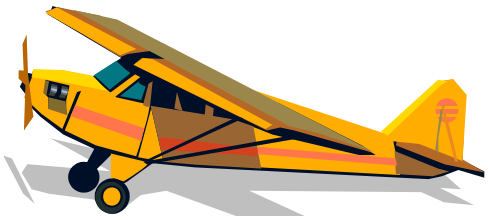
EAA Chapter 29 Champaign, Illinois

January 2012 Volume 55 #1

DECEMBER MEETING

Excuse the quality, my camera apparently doesn't like low light settings.

The December meeting was the annual Christmas banquet, held this year at the Outback Steakhouse in Champaign. About 16 members and guests gathered for an evening of great food and conversation. The evening was topped off when President Walter Clause passed out packages of Chocolate!



JANUARY MEETING

By Walter Myers

The January Meeting will be at "*Lucille's Hot Dog Stand*" on Thursday January 5th at 7:00 pm. "*Lucille's*" is located on Frasca Field at the northwest corner of the hangers. One of the main items to discuss is the completion of meeting schedule for 2012. I hope you will all put some thought into it so we can complete our schedule at one go. You should have completed your 2012 Membership and Chapter Survey and sent it along with a check for $18 to Gil Daily by now. OK bring it to the meeting. Part 3 of the PBS documentary "*Plane Crazy*" will be available for viewing following the business meeting. This video will show you the secrets of how to build and fly an experimental aircraft in 30 days total!

In this issue

Notes for Homebuilders

by Walt Myers

A recent email from Perry Testory about the report on the fatal first flight attempt of an amateur-built Freebird Litesport Ultra at the Decatur, Illinois Airport on December 2, 2010, arrived just after I had the seen the same report in "Light Plane World". That publication is the official e-newsletter of EAA's ultralight and light-sport community.

President
Walt Myers (217) 367-0630
wjmyers@netscape.com

Vice President
Emory Luth (217) 714-4446
emory.luth@midwestprecisionparts.com

Secretary/Treasurer
Gil Dailey (217) 892-2428
tailspin12@mchsi.com

Newsletter Editor
Dave Claxon (217) 369-9389
dclaxon@illinoisalumni.org

Flight Advisor
Tom Gordon (217) 384-4020
t-gordon@uiuc.edu

Technical Counselor
Terry Ladage (217) 863-2094

Young Eagles Coordinator
David Boyd (217) 366-0185
dnboyd1@comcast.net

Mailing Address: EAA Chapter 29
c/o Gil Dailey
1968 County Rd 3000N
Rantoul, IL 61866

Regular Meeting : First Thursday of the month, 7:00 PM

Dues : $18.00 per year, payable January 1st to EAA Chapter 29

Plane Freqs is produced monthly by EAA Chapter 29, Champaign, IL for the enjoyment and education of its members. Opinions expressed are not necessarily those of Chapter 29 or the EAA. Permission is hereby granted to use non-copyrighted portions of this publication provided the source is acknowledged.

The pilot had been cleared to do a high-speed taxi test when the plane apparently made an inadvertent takeoff. The plane went immediately into an uncontrollable pitch up leading to an in-flight breakup consistent with structural overload . The right wing separated from the fuselage and the pilot was ejected from the aircraft about 100 feet above the ground.

While there was no specific finding cited as the primary cause of the accident, the uncontrolled pitch up strongly suggests that there was a lack of sufficient elevator authority to overcome a weight and balance problem. This type of plane normally uses a Rotax 503 engine while is air cooled and weights between 75 and 95 pounds depending on accessories. This particular plane used a converted Chevy Geo Metro G10 car engine which is water cooled and weights between 120 and 140 pounds depending on accessories. This weight does not include the cooling system and contents. The engine is located on top and just forward of the trailing edge of the wing. This places the engine mass aft of the pilot. Since the engine in this location is a significant distance aft of the datum line, adding weight here would tend to move the CG toward the rear limit.

So what is the lesson here for us homebuilders? When making high speed taxi tests make sure you confirm elevator authority by accelerating to 70 knots with the stick forward. In taildraggers the tail should come up at 40 knots or less. In nose wheel planes the nose wheel should stay on the ground. As noted in the report you should avoid unplanned takeoffs when conducting high-speed taxi tests and be ready to abort the flight before leaving ground effect. There seems a strong possibility that an error was missed in the original weight and balance calculations for this plane. This would seem to be an area where there is no such thing as spending too much time as noted by Phil Larsh, an accident prevention counselor, who was quoted as saying, "Never argue with your spouse or a mathematician".