March 2012

T-CRAFT AERO CLUB

THE IMPOSSIBLE TURN- JIM HUDSON

Safety – Membership Director

What will you do if you loose your engine as you are departing and climbing out?

Much has been written about the “Impossible” or “Dead Man’s” turn in the attempt to return to the airport during a loss of power on take-off. We are reminded again of this potentially deadly maneuver in Steve Appleton’s unfortunate accident. Although we don’t know the specific problem he was having, it is clear that he was attempting to return to the runway shortly after takeoff which resulted in a unrecoverable stall/spin.

Why do pilots attempt this maneuver when we’ve been trained and frequently reminded of the consequences? It could be we don’t want to ruin our beautiful airplane. It could be we are so startled at the loss of an engine we become mentally paralyzed. It could be overconfidence, complacency, unfamiliar with the plane we’re flying, or combinations of all of the above. For whatever the reasons, it often ends up with deadly consequences.

I don’t have an answer. I can offer some suggestions, which are reinforcements of many articles and lessons from others.

Have an “**Abort Plan**”. Review your plan every time before you take off (it’s on our check lists). Personalize it for yourself. A good guideline is as follows:

0-50’ AGL - back onto the runway / straight ahead
50-500’ AGL- pick a landing area +/- 30 degrees either side
500-1000’ AGL - pick a landing area +/- 90 degrees either side
>1000 AGL - turn back to the airport if it's the safest alternative
>10,000 AGL - Pick the best airport for a safe landing.

“Know your own capabilities” in the aircraft you are flying and what altitude you need to make a safe return to the runway. What you are able to do in one aircraft may be totally different in another. Simulate an engine failure at take-off conditions at a safe altitude and determine how much altitude you need to return. The following procedure is offered by well known aviation author, veteran flight instructor, and former TWA captain Barry Schiff.

PLANE WASH

Spring Cleaning- May 16

Spring weather is upon us and time to clean up the birds and get them ready for the air.

May 16 is the date for the annual plane wash. Bring out the family for the wash and wax. Stick around for burgers, sodas, and good hangar flying.

Schiff suggests practicing the turn, performing it with an instructor, and considering the options.

1. Line up with a road or reference into the wind to represent the departure runway.
2. Establish the aircraft in a stabilized climb at Vy,
3. Retard the throttle
4. Do nothing for 5 seconds and hold the nose in climb attitude. (simulates the startle/ shock factor of loosing your engine)
5. Roll the aircraft into a 45-degree banked turn and maintain best glide speed.
6. Continue the turn until the heading has changed by 270 degrees.
7. Roll out of the turn and align with your initial reference.
8. Simulate a moderately aggressive flare for a landing.
9. Note altitude when vertical speed becomes zero.
10. Subtract this altitude from the altitude at which you retarded the throttle.
11. The minimum turnaround altitude should be increased by 50 percent.

"Stay current and competent in your flying skills". I flew recently with a former member in his RV7/A. He was a bit rusty in some basic private pilot maneuvers. He had not practiced some of these maneuvers since his check ride in a Cessna four years ago. The stalls in the RV are much more abrupt than in a Cessna, and would be much more likely to go into a stall/spin situation. This gave me a little perspective on how accidents such as Steve Appleton's could happen to experienced pilots that are not current in the plane they are flying.

"Practice simulated engine loss at altitude" as if on a trip, at normal cruse altitude. Can you safely land at a chosen spot, airport or other target? Review the July 2010 Newsletter for tips on practicing this.

There have been recent articles in our own newsletter on the topic. I would encourage you to review these articles. Go to our web page http://www.t-craft.org/newsletter.htm

February 2009 – "What's your abort plan"? What would you do if you lose your engine on takeoff.
December 2009 – "Engine Failure on Take-Off" – Specific advice for Nampa airport.

July 2010 – “Dead Stick landings”. Tips on practicing simulated emergency landings without power.

Some other sources on the topic can be found on-line at the following sites:

The Impossible Turn Flight Sim training video. C172 return after engine failure and tips to practice at a safe altitude. http://www.youtube.com/watch?v=fZbJMT7pEfc

AOPA Real Pilot Stories: http://www.aopa.org/asf/pilotstories/index.html The Impossible Turn”. Actual footage of a Mooney’s successful return. Power Loss on Takeoff. When the engine quits at 200 feet, there’s not much time to decide

Aviation Law Monitor – comments on Mooney accidents. A short video of a stall spin crash – not pretty. http://www.aviationlawmonitor.com/2011/07/articles/general-aviation/the-impossible-turn-and-three-mooney-crashes-in-two-weeks/

One final thought – each time just prior to takeoff ask yourself;

“What will I do if I loose my engine as I’m departing and climbing out”

Fly Smart, Fly Safe, Have Fun, and – Don’t do anything Stupid!

Ouch...a side effect of hand propping

(Bert Osborn photo)

Squawks

375

Seat part had been welded several times & problem to repair – Cessna New $1000; off shelf $500; found used for $185 (ordered).

ANNUAL scheduled for April 2-6.

93S

Annual was completed ($2121.80) –items included new brake linings, all seat rollers & washers replaced, structural work fiberglass cracks on induction air duct, touch up paint on RH rudder damage previous repair.

Strut fairings are becoming cracked and need replaced. On order.

91X

ANNUAL April 23-27..

686

Artificial Horizon at TGH Instruments shop for repairs. Warranty was out by 6 months. Shop said the bearings were dry. They will not work with us on warranty. Cost will be approx. $500.

ANNUAL April 9-13.

Be watchful when closing aircraft doors. If the door handle is in locked position and than door closed this could cause damage to door mechanism. And what a surprise you'll have when you realize you have left the aircraft keys in a now locked cabin!

Membership

We are currently at 74 members