

# Giving Wings to Those in Need

# **Aviation News**

Muskegon County Airport rates now on par with other regional airports

President Obama arrives at Detroit Metro Airport

(KGRR) Ford Airport's 2014 passenger traffic cruises to new record high

Passenger traffic up 5% for 2014 at Kalamazoo/Battle Creek International Airport

Officials in Marquette County approve timber sale at airport

West Michigan pilot recreating authentic, flyable World War I-era biplane

Encouraging news about the airport service [at Alpena]

\$320,000 in Jackson County airport contracts slated for approval by county commissioners

Logbook

#### Jan. 13

Timothy Brenner and Brad Bigelow Cirrus SR20 KOZW-KTVC-KRST-KOZW

#### Jan. 14

Mike Miller and Jason Blair Baron KAZO-KRST-KBIV-KAZO

#### Jan. 16

Thomas Wilkoski and Jimmy Szaikovivs Baron KUES-KRST-KTVC-KUES

Jan. 28
Jerry Schmidt and

Meet Our New Flight Director...

Hello Pilots,

My name is Judith Brewer and I am very excited to be joining Wings of Mercy as your Program Manager/Flight Director. To let you know a little about me; I grew up in Holland, attended Holland Christian and Hope College, and now live in Zeeland. For the past 10+ years I have worked for a non-profit arts organization in Grand Rapids (a long commute in a snow storm)



Judith Brewer

so now I am very happy to be back home in Zeeland. I will be working in the office along with Grace, and look forward to helping you coordinate your flights and assisting our patients in getting to their destinations.

Feel free to email me at <u>judith@wingsofmercy.org</u> or call the office to get in touch with me at any time.

I hope to meet all of you soon!

--Judith

**A Patient Story** 

Wings of Mercy pilots made it possible for Tina to return to the Mayo Clinic in Rochester last month. Tina's symptoms are baffling her local doctors and although she did not get immediate answers, she knows she is in good hands. "The pilots go above and beyond to make sure you are comfortable and safe," said Tina. She has confidence that her team at the Mayo Clinic will be able to diagnose her condition and she is very grateful to Wings of Mercy for the free flights.



Tom Wilkoski and Jimmy Szaikovivs with Tina and her friend Vicky

"It's because of those wonderful pilots that I can even get

George Schoene Cherokee 6 KCVX-KARB-KSJX-ISQ-SAW-KCMX-SAW-KCVX

Wings of Mercy flight needs change regularly. Click here to login and view the

# Current WOM Flight Needs

Wings of Mercy is a 501 (C)(3) non-profit organization funded solely by individual and corporate contributions.

If you are able to help out, click below to donate.



Wings of Mercy Pilot Newsletter February 24, 2015

there! Thank you, thank you!" Tina

**Pilot Tips** 

## Review Your Engine-Out Procedures if you Fly Multi-Engine Aircraft More Often than Just Your Last Checkride

By: Jason Blair

In the past few months, at least two aircraft accidents have made the news for what appears to have been Vmc rollovers shortly after takeoff. With many of us flying multiengine aircraft for Wings of Mercy flights, it is something we should take notice of and remain proficient in our awareness of and skills to manage potential Vmc conditions.

For most multi-engine pilots, the last time a Vmc demonstration was practiced was the last time a practical test or make and model currency (most commonly for insurance reasons) was required. We lull ourselves into the normalcy of flying day-to-day trips with both of our engines operating properly and our skills for managing and identifying Vmc hazards dull. But by initial indications, both in a Wichita King Air crash (Flying Magazine: Four Dead in King Air Crash into FlightSafety Wichita Learning Center http://www.flyingmag.com/technique/accidents/four-deadking-air-crash-flightsafety-wichita-learning-center) and oversees in the recent TransAsia ATR72 (ABC News -TransAsia Pilots Apparently Shut Off Wrong Engine http://abcnews.go.com/International/engines-lost-powertransasia-crash-aviation-official/story?id=28769196), it looks like aircraft that had engine troubles shortly after takeoff and should have been able to maintain flight on a single-engine, resulted in fatalities due to how the pilots responded to the engine troubles. In both cases, it appears, at least initially, that some form of Vmc condition resulted and was contributory to the crashes that took place.

Most of our light aircraft require us to drop our noses and accelerate to a "blue line" speed or better to maintain best glide or climb (whichever our aircraft can do on a single-engine in a multi-engine aircraft) before we continue into the rest of our engine failure procedures. Most pilots get this far, but then during the subsequent processes things tend to be less reliable in terms of pilot response as they try to identify the problem, fix it, or return to an airport.

No matter what a pilot does after an engine appears to fail and they have achieved a "blue-line or better airspeed," the most critical thing they need to do is maintain control of the aircraft. Fly the plane is now first and foremost.

Engines can quit on multi-engine aircraft for many reasons. Probably the most common is running a fuel tank dry before switching to other on board fuel tanks. Mechanical failures are possible (although rare). And a pilot could choose to shut down an engine for precautionary reasons such as a fire (also obviously rare), rough or improperly running engines, or any number of other potential problems. In any case, once a pilot has an engine problem and is operating on a single-engine, maneuvering is the most dangerous thing a

pilot can do.

Any time a multi-engine aircraft is operated with a single-engine failed, the pilot is in a condition that Vmc must be considered. For a quick refresh, Vmc an airspeed at which a pilot would no longer be able to maintain directional control of the aircraft. This speed changes based on loading (heavy or light weight, forward or aft CG), drag factors (gear, flaps, slats, prop feathered or wind milling), and density altitude. While for certification purposes (and training purposes) a pilot typically will consider a Vmc at max aft CG, gross weight, and with a wind milling propeller, and this will result in the worst possible Vmc speed, the "red-line" on the airspeed indicator should generally be considered a speed a pilot never goes below unless they are taxiing.

A Vmc can result in a rollover of the aircraft as the "good engine" pulls the aircraft over the "bad engine," most commonly trained as using the "critical (left) engine" as the failed engine, but it certainly could be the right engine. The factors differ slightly, but are generally similar in conventional twins and aircraft with counter-rotating propellers.

Where this becomes most critical is when a pilot attempts to maneuver back to an airport for a landing and is turning while operating on a single-engine in a multi-engine aircraft. When a pilot makes a turn, typically their airspeed reduces, in many cases pilots begin a slight climb, and the vertical component of lift is transitioned to a horizontal component, thus increasing both stall speed and the Vmc speed. In this critical phase, tragedy can happen.

If a pilot experiences a failure, as was the case in both of these recent incidents, shortly after takeoff, their altitude is minimal and their options for recovery if a Vmc condition is experienced may not be sufficient.

In light of these recent accidents, it is worth all of us taking a few brief moments to review our own practices in our aircraft for recovery in the event of an engine failure, at any phase of flight, but certainly after a takeoff.

If it happens, the key to remember is stay in control of the aircraft, keep the aircraft at an appropriate flying speed for a climb or minimal descent, and then take the time to carefully address the potential problem while carefully maneuvering if necessary.

Wings of Mercy is a volunteer organization that provides free air transportation for people with limited financial means who need treatment at distant medical facilities. Patients are carried on private aircraft by volunteer pilots.

www.WingsofMercy.org

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