December 7th, 2022

RTAG General Meeting Wings Program

RTAG member Joe Rajacic presented the concept of utilizing an airline-style Advanced Qualification Program (AQP) in order to improve GA safety records. He stressed that he is not trying to increase government regulations, but is instead hoping that CFIs, pilots, and student pilots will take the concept of AQP seriously and incorporate it into their own training routine.

Joe opened the presentation with a video in which airline pilots and GA pilots are asked the same question: "Is the aircraft's maneuvering speed a minimum or a maximum?" Every airline pilot replied that it was a minimum and every GA pilot replied that it was a maximum. What GA pilots think of as "maneuvering speed" (V_A) is called "Turbulence Penetration Speed" in the airline world. The airlines have a Defined Minimum Maneuvering Speed (DMMS). This is the minimum speed at which you can make a 30-degree bank turn and not stall. This is NOT the same as best glide. At best glide, you are NOT guaranteed to be able to do a 30- degree bank turn without stalling. Joe suggested putting a mark on your airspeed indicator to remind you of your aircraft's DMMS speed.

There are 18 main causes of fatal GA accidents, the most common of which is loss of thrust on take-off (LOTOT). No matter how many times we practice engine failure and recovery at altitude, it doesn't prepare us for the human instinct to pull back on the yoke when engine failure happens close to the ground. This is killing too many GA pilots and we must work to fix it. We must also consider the "startle effect," which is the two seconds it takes to react.

Joe suggested that pilots work with CFIs on engine failure and recovery at altitude and then increasingly closer to the ground, with the eventual goal of practicing engine failure and recovery with a CFI at 300 feet AGL at an uncontrolled, quiet airfield with plenty of runway in front of you. It's best to do this with a CFI who has previously done engine failure and recovery at 300 feet AGL.

The average spin recovery altitude for a Piper Arrow is 1160 feet, while most pattern altitudes are 1000 feet. This means you have no chance of recovering from a spin in the pattern. It's safer to crash straight ahead.

Simply lower the nose and fly to the ground. You cannot stall an airplane when the wings are unloaded, flying at zero-G.

The airlines benefit from Flight Operations Quality Assurance (FOQA), which is electronic flight data analysis. GA pilots can now have something similar through Avidyne or Cloud Ahoy.

Joe suggested that every GA pilot do a pre-flight briefing out loud before every flight. Even if you are alone in the airplane, brief every maneuver out loud to yourself. For example, before each flight, practice pushing the yoke forward and saying aloud that you will push the yoke forward if there is loss of thrust on take-off. The combination of hearing yourself say it aloud and making the physical movement should help you in case of an actual LOTOT.

There are AQP Flight Review Checklists available for purchase online. There are also “Annual AQP Certification” certificates for those who complete all 18 training scenarios. Joe sees a future in which having an Annual AQP Certificate could give you a discount on your insurance.

Remember:

Expect a failure
Plan your action
Brief the maneuver
Respond more quickly and correctly

RTAG member Bryan Herter suggested that pilots shouldn’t turn on their headset’s noise-cancelling feature until they are safely away from the ground. This enables them to hear the engine better.

Joe pointed attendees to various websites that discuss AQP for GA, including: <www.dangryder.com/aqp/>, <www.aviation101.com>, and <www.youtube.com/user/blancolirio>.

This program was very well attended and there was enthusiastic support for having Joe teach the other 17 causes of fatal GA accidents at future RTAG meetings. Karen will present the idea to the Board of Directors.