



# FLYING LESSONS for August 3, 2018

by **Thomas P. Turner**, Mastery Flight Training, Inc.  
National Flight Instructor Hall of Fame inductee

*FLYING LESSONS* uses recent mishap reports to consider what *might* have contributed to accidents, so you can make better decisions if you face similar circumstances. In almost all cases design characteristics of a specific airplane have little direct bearing on the possible causes of aircraft accidents—but knowing how your airplane’s systems respond can make the difference as a scenario unfolds. So apply these *FLYING LESSONS* to the specific airplane you fly. Verify all technical information before applying it to your aircraft or operation, with manufacturers’ data and recommendations taking precedence. **You are pilot in command and are ultimately responsible for the decisions you make.**

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## ***This week’s LESSONS:***

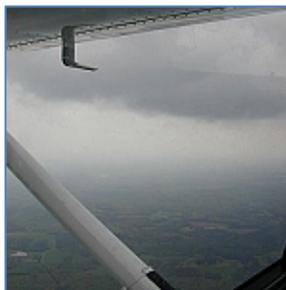
**I planned** to write this week about the conditions I faced and the decisions I made while flying into Oshkosh because of the weather, which was variable and at its best still worse than forecasts had suggested. [Last week’s LESSONS](#) about an attempted visual flight into Oshkosh that same day, however, elicited more reader mail than anything in a long time. Given that much of what they wrote concerns personal minimums, and a “publication minimum” of mine is to keep *FLYING LESSONS Weekly* to no more than six pages if printed, I’ll save that discussion for another day.

See <http://www.mastery-flight-training.com/20180727-flying-lessons.pdf>

**Meanwhile you’ll read** great insights, from 100-hour pilots to retired military and airline captains, in an expanded Debrief. I’ll sum it up at the end in the usual “mastery of flight” way—not to try to explain the scenario that prompted our discussion, for which we do not know all of the facts, but to derive ideas and suggestions of things prompted by what we *do* know...*LESSONS* that apply to the situations we all face every time we fly.

**And at the end** I’ll ask you to let us know the most innovative thing you saw or heard at Oshkosh 2018, or in this year’s reporting from EAA AirVenture. Next week I’ll tell you my vote for “most innovative product or idea”...and you may be as surprised as was I.

Questions? Ideas? Opinions? Send them to [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net)



## **How Much Flight Risk Should You Accept?**

[Watch this video](#) for a thought-provoking answer to this important question.



See [https://www.pilotworkshop.com/how-much-risk?utm\\_source=flying-lessons&utm\\_medium=banner&utm\\_term=&utm\\_content=&utm\\_campaign=risk&ad-tracking=fl-risk](https://www.pilotworkshop.com/how-much-risk?utm_source=flying-lessons&utm_medium=banner&utm_term=&utm_content=&utm_campaign=risk&ad-tracking=fl-risk)

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## Debrief: Readers write about recent *FLYING LESSONS*:

Reader Mike Blackburn writes:

With respect to your latest Mastery about the trip to OSH - I have some thoughts albeit from a VERY low time PPL holder (<100h). I really hate Marginal VFR. **The issue with marginal VFR is that it tempts us into proceeding “because it could get better.”** (It rarely seems to, does it?)

That is an *excellent* observation for a low-time pilot. Mike continues:

There are to my mind a couple of issues here. Firstly, they have flown together before on this trip. This sets up for an “ah how bad could it be, **we’ve done it before?**” attitude. Having flown in before, they set personal limits of 1500 AGL based on previous experience (a bad one?). Then they take two approaches to these minimums - Pilot3 was prepared to fly VMC into IMC (not a great call in my opinion given dangers of VMC into IMC and the large numbers of aircraft in the area). The PIC elected to not enter IMC (good) but rather break his personal minimums (not so good). Neither approach is the correct one and both are dangerous. ***What is the point of personal minimums if you aren’t going to abide by them?***

The issue of setting and expanding personal minimums is one I struggle with from the point of view of saying, well, **how do you expand your minimums?** I think **there is a time and a place for expansion of the minimums envelope, but being on a goal-oriented flight with passengers on board is not it.** I’d rather do that as solo occupant or even better with an instructor.

I agree, Mike. Expanding one’s personal limits, another name for improving one’s skills, is an educational event (with or without an instructor). The FAA provides guidance on the [development of personal minimums](#), beginning with questions about your recent activities. Interestingly, personal minimums begin with the most challenging conditions you’ve faced in practice or with an instructor, and then scale back from there for normal operations. In other words, operational flights are more conservative than practice, not the place to experiment.

See [https://www.faa.gov/training\\_testing/training/fits/guidance/media/personal%20minimums%20checklist.pdf](https://www.faa.gov/training_testing/training/fits/guidance/media/personal%20minimums%20checklist.pdf)

More from Mike:

Then there are the CRM issues - 3 pilots on board but PIC in charge. And **they felt they couldn’t challenge the PIC?** This seems to me to be *groupthink* or *not wanting to be the “Chicken.”*

So yes, despite not planning for the diversion they made their flight successfully. But I agree with your sentiment that it was NOT safe. I would not have launched, or maybe if I had, would have discussed the possibility of not making it to KOSH with the others aboard. The other danger **with successful completion of a dangerous flight is that it’s easier to bust the minimums again [in the future]**, isn’t it?

Of course, it is spectacularly easy to sit in my comfy chair and dissect the decisions but that is a luxury I have. I hope that I’m never in the situation where others have the luxury of doing so with one of my decisions. Keep up the good work.

Great observations for a pilot of any experience, Mike. Thank you.

Reader Gus Gillespie puts it succinctly:

The critical decision was to take off into poor and worsening conditions.

I agree, Gus. The weather was varying and trending worse than forecast as I noted above. A final check before takeoff should have brought pause to even the most goal-focused pilot. As other readers note, there was an opportunity to make this decision even though the PIC reportedly had not checked the weather for two hours before taking off.

Dick Druschel adds:

I just read your article about your friends flying to Oshkosh. Unbelievable! This is a prime example of “get-there-it is.”

Obviously, there was no real planning. Obviously, **there were no real personal limits.** Obviously, there was **no contingency plan.** Obviously, there was a **total disregard for the FAA rules and regulations.** Obviously, **the only thing on the agenda was getting there.**

We will read about them some day when their hair-brained antics end tragically. Hopefully, they will not take any innocent bystanders with them. I truly hope you have a serious discussion with them about this flight. Friends do not let friends do things like this.

I made my thoughts known very frankly to the persons who had come to me to tell the story that prompted last week's *LESSONS*. I later spoke with the one I do not know when he called me, recognizing himself in the report. Your last-sentence summation is my motivation: they are better pilots than this. This experience should cause them to reflect on why they had earlier set limitations for themselves, and why it is so important for them to adhere to them. Thank you, Dick.

Reader Tod Lanham observes:

**Why have personal minimums if you are going to violate them?** I guess the answer to that is **you don't really have personal minimums, you just tell your friends you do to sound cool and safe.**

Pilot 3, the most experienced pilot is sitting in the back seat, along with pilot 2. Who is in the co-pilot's seat? You're flying in **the busiest, most complex situation in the world** and your best help is in the back out of position to help you. Pilot 3 states he would of maintained the 1500ft MSL and didn't care about the FAA regulations because this is OSH and nobody is going to pop out of the clouds. Wow! Trust me there are just more stupid people out there not paying attention to regulations also.

Usually scud running involves low and slow, this here is the highest potential for a stall spin accident. Then they boarded the aircraft when the weather was below their own personal minimums! Again, they didn't have any. Tom, if these are your friends you will be looking for new ones soon!

I'm dismayed by the decisions first-person accounts say were made in this case. But I'm not sure that the same pilots would make the same kinds of statements and decisions any other time of the year. There is a strong emotional pull to flying into Oshkosh for already goal- and "mission"-oriented pilots, an attraction that may be simply too much to resist when the time comes. The peer pressure and internal pressures to "go" are probably greater during AirVenture than any other time of the year. Oshkosh tempts even the most conservative pilot, myself included...and it requires the greatest personal preparation and discipline precisely *because* it is such a complex, busy and enticing destination.



Reader Jim Ratliff puts the "brief" in his Debrief:

The E in **PAVE** becomes *Enormous* when flying to big attractions with friends.

See [https://www.faa.gov/training\\_testing/training/fts/guidance/media/personal%20minimums%20checklist.pdf](https://www.faa.gov/training_testing/training/fts/guidance/media/personal%20minimums%20checklist.pdf)

Reader John Townsley also writes:

I found this very poignant image posted by Pcatt172 (7/26/2018 : 02:16 PM ) on AOPA's Red Board "I Was Wondering: Mayhem at Oshkosh" thread. The image is of Sunday's arrivals (7/22/2018:1500 CDT) which he said a friend sent him. When I saw the picture (and time) all I could say was "WOW"!!!

Your story really resonates with me. I learned long ago that see and avoid just doesn't work in "pretend VFR" or in any kind of scud running weather. I concur with Pilot 2's assessment that the takeoff was ill advised. The nail in a no-go decision should have been known weather conditions enroute and at KOSH. Another factor I would certainly advocate as a key consideration would be nasty 'what if...' engine failure, fire, serious deterioration in the weather, etc. While the ground around KOSH is relatively flat, not every acre is reachable by a gliding aircraft after engine failure at 900' AGL is suitable for an event free dead stick landing. **I hope [the pilots] learned by experience that it's better to say "NO"**, and if necessary hop out on future ill-advised flights and make alternative arrangements than [to] abdicate responsibility and *go along for the ride*. Who in his right mind would want to scud run in MVFR to IMC conditions when faced with this KNOWN!! traffic maelstrom of potential midair collisions? Pilot 2 and the others surely realized that there were likely at least a few inattentive to tentative, yet goal oriented, overloaded pilots flying aircraft in the mix.

I've notched my yoke with an EAA AirVenture arrival and departure in prior years. Ain't gonna do that again. It's fun, but not something I can personally say is worth the prize. Next trip to AirVenture I'll land 50 to 70 miles away and drive into town.

Reader Richard Eastman opines:

Personal minimums **MUST** be followed. **They are NOT personal minimums if you change them to fit the situation!**

This seems to me to be a classic example of “get-home-itis” – except “home” was Oshkosh. The problem was further compounded by multiple pilots flying together. Yes, they had an “agreed” set of personal minimums – but they didn’t abide by them. Thus, **they weren’t really “personal minimums”. Rather, they were “discussion points”**...points of concern where they would discuss whether to proceed or not.

That’s an interesting concept, Richard. It could indeed have opened the decisions up for discussion—not to abdicate pilot in command responsibility (no pilot in the left seat can relinquish decisions and responsibility to another pilot) but to make it *normal* for the PIC to request and consider information and recommendations from other pilots. It’s the way airline operations have become much less risky over the years. Richard continues:

Further, **there was the “group pressure” factor.** They were all pilots. *Not one of them was willing to say “no” and be the cause of the group delaying their flight.* They all “defaulted” to the others ... and **nobody was strong or disciplined enough to be willing to take the responsibility for saying “no go – it’s below our personal minimums”.**

While they had a group agreement to apparently “discuss” the conditions if they were marginal – it seems to me that the [two] deferred to the PIC; and the PIC wasn’t prepared to assume that responsibility in context of the relationship(s) that he had with the others. That situation was an “incident” looking for a place to happen! The fact that it didn’t might be attributed to the fact that all [three] were pilots and that all [three] were likely on “high alert” (i.e. adrenalin pumping) ... and communicating effectively throughout the flight.

I contend that the flight as described to me by participants was indeed an incident, not in the NTSB sense, but in terms of a situation where to paraphrase the late FAA Practical Test Standards the successful outcome was seriously in doubt. “Not having an accident” is not the same as an acceptable level of risk or what would commonly be called “safety.” More from Richard:

Still, the real issue is the fact that **they had a set of agreed “personal minimums” – which they individually and collectively allowed to be broken.** That is both poor airmanship and poor decision-making.

That’s what I’m hoping we all learn from this event—that regulatory limits are non-negotiable, and personal minimums are only valid if we do not violate them when they become inconvenient.

Another brief but wise Debrief, this from reader Kent Stone:

It’s a fly-in, guys! Use your common sense. So what if you miss part or all of it?

And reader Fred Herzner (de)briefly observes:

The “good result” is more attributed to lady luck than to superior piloting skills.

From reader Chris Clearfield:

Great write up. Their situation shows to **classic decision-making traps**, including **diffusion of responsibility** and **normalization of deviance**.

Whenever I fly with multiple pilots, I always try and brief that **“everyone has a veto.”** It’s not foolproof, but **hopefully it lays the groundwork for people to speak up.** An airline-captain friend of mine begins every flight with a new FO [First Officer] by saying “I’ve never done a perfect flight.”

Normalization of deviance is trickier, but sits at the heart of a number of big accidents (including the space shuttle Challenger, where the term was coined). The idea is that, **as we make decisions that chip away at our margin of safety without immediate consequences** (Murphy’s law being wrong most of the time), **we get comfortable with those decisions and are more likely to push the envelope and degrade safety over time** (as this “crew” did in multiple ways). It’s one of the reasons why holding fast to personal minima is a good idea. Or, if we think they’re unrealistically conservative, *change them* (outside of the pressure of a specific flight) rather than violate them.

See:

<https://www.psychologytoday.com/us/blog/happiness-in-world/201006/the-diffusion-responsibility>  
<https://flightsafety.org/asw-article/normalization-of-deviance/>

Reader Stu Spindel chimes in:

Unfortunate that none either read or heeded the advice in the [July issue of \*Twin & Turbine\*](#). Task 1, “Know the NOTAM,” dealt with **the need to consider adverse weather and diversion to another airport.** Nothing

new there, both are items that **should be included in the pre-flight planning and self-brief of any cautious pilot.**

The Personal Minimums were treated as guidelines and recommendations rather than rules to live by. *Most pilots do not come to grief by lack of skill, but rather by a lack of judgement and discipline.* Personal minimums derived in a calm and well-studied exercise should not be cast aside because of the expectations of others. That is where the discipline is required.

I suspect it would have only taken the verbal...call from one [pilot] challenging the wisdom of the proposed flight that would have brought a different outcome. **It takes courage to be the first to speak out.**

Stu is referring to my article in that issue, "[Are You Good Enough to Fly into Oshkosh?](#)" that is an update of my annual review of tasks for preparing for an arrival at AirVenture.

See:

<http://twinandturbine.com/issue/July18/July18T.pdf>

<http://twinandturbine.com/article/4326/>

Frequent Debriefer John Scherer writes:

I just re-read your July 27<sup>th</sup> Mastery Flight article. In my opinion, the pilot in command conducted an unprofessional flight. To launch VFR with IFR conditions at KOSH is not smart. You must have an alternate plan and an "escape route". To not know the procedures for getting into KFLD is also not professional. I know it's hard to wait when weather is rapidly changing, but it seems to me that **mission creep was in play** here. By mission creep, **I mean get-there-it-is.** And having to use your exceptional skills to make an ill-advised flight isn't too smart. No wonder the pilot in the back seat wasn't comfortable.

This was bad CRM (crew resource management) in play as well. **The PIC should have asked the other pilots in the plane what they thought of his plan. Use the experience in your airplane.** Of course, the PIC has to make the final decision, but I don't think he made good decisions on this flight. If I had been administering a check ride to this PIC, it's not hard to see that it was not a passing ride. There should be NO doubt as to the successful conclusion of a flight like this, especially with passengers.

...and reader Robert Thorson wraps it up for this week:

I see the same problems with practical preflight planning all the time. What I mean is this: it is imperative to start at the destination airport and consider all the issues of wind, runway, airport, NOTAMS that stop use of capability. Consider failure of anything, which means **planning a divert and an alternate divert.** In the case of Oshkosh there is a lot of complexity. This is true in major metropolitan areas both VFR and IFR. Then work back to your departure airport with the same issues along your route and at home base airport. **Do your homework** before the trip, when you have a clear mind...not in the heat of the flight with deteriorating weather. Don't put your passengers or yourself at risk.

A personal note: I wrote last week's *FLYING LESSONS* purposely excluding some details to prevent individuals from being publicly identified, so I could highlight the planning and decision-making lapses that frequently arise when pilots are under self-imposed stress to get to a specific destination on a specific schedule. I saw a lot of airplanes flying in to OSH in extremely marginal conditions that day that were facing similar decision points before coming in. "We didn't have an accident" is a very low bar to set as the Debrief of any flight, let alone one that potentially affects so many others. Depending on luck, hope, or even superior flying skills is not a good risk management strategy.

The information provided to me by the participants convinced me that these issues were in play during this attempted arrival as well. They make any excellent anonymous test case for any pilot who is in a similar situation whether solo or as part of a group. It was and is an illustration of an important teaching point that helps us all make better decisions, myself included.

I was extremely concerned for my friends I knew were visually approaching IMC that was even worse than it was when they took off, even before participants provided me the background details. I was genuinely scared for their survival.

Let's review the *LESSONS* provided by our readers. They may have been prompted by the example introduced last week, but they are completely independent of that specific situation, and have applicability to every flight made by every pilot.

- The more enticing the destination and/or time-sensitive your arrival, the more tempting it is to violate the rules and go against your better judgment to get there.
- The rules—regulations and aircraft limitations—are non-negotiable.
- Personal minimums are decisions you make in the comfort of safety and with the luxury of time, so you don't have to try to make critical decisions under pressure and with little time in a situation where you probably don't have all the information you need to weigh options and make an informed choice.
- Consequently, personal minimums are also non-negotiable on all but training flights specifically designed to expand your limits under controlled conditions.
- Expanding personal minimums is something done gradually and deliberately. For example, before accepting a shorter runway that your current personal minimum, practice taking off and landing at anticipated aircraft weights on a longer runway until you can consistently perform to the new standard. It is not something done during "operational" flights.
- Check the weather frequently when conditions are variable and/or worse than forecast.
- Check NOTAMs before every flight—the NOTAM system is needlessly difficult but your diligence is vital. There is movement toward removing the barriers to NOTAM evaluation, so hopefully this will be easier soon. Until then, however, check and know the NOTAMs.
- Solicit input from passengers and other pilots to help you make better decisions. Actively invite them to let you know if they have safety concerns or feel uneasy about the decisions you make. Let them know it's OK to speak up...in fact, you want them to.
- If you're a passenger or observer of another pilot's flight planning, respectfully but firmly make your viewpoint known if you feel the Pilot-in-Command is making questionable decisions. "If you see something, say something."

I hope all pilots reflect on the *LESSONS* that result from this example, and make positive changes in the collective safety culture. The goal is to prevent the need for this sort of discussion on future flights to Oshkosh and any other destination that tempts the pilot to go against his or her best judgment or violate well-considered personal minimums.

Questions? Comments? Suggestions? Let us know, at [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net)

## Oshkosh Innovation

There may not have been many major product announcements this year, but there were many examples of innovation on display at EAA AirVenture 2018. Let us know what *one thing* you found most innovative, and why, at [mastery.flight.training@cox.net](mailto:mastery.flight.training@cox.net).

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