PRISM

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SAFETYWIRE

How to Improve Air Charter Safety: It's All About Culture

(May/June 2022 , Originally published in NBAA Business Aviation Insider)

While the air charter industry is experiencing a business boon during the global COVID-19 recovery, some recent high-profile Part 135 accidents highlight the need for continued – even urgent – enhancements to safety. The reduction in some companies' hiring requirements, along with more turnover than typically seen in the industry, can also create risks, especially with unprecedented demand for charter flights and the industry's desire to maximize revenue generation to offset the initial financial hit of COVID.

The NTSB has called on the FAA to require safety management systems (SMS) for all Part 135 operators, even highlighting SMS for commercial operations in its 10 Most Wanted List for 2021-2022 – and it's no wonder why.

A fully implemented, robust SMS includes many components considered to be keys to safe operations – data sharing, third-party auditing and safety training. Data collection and sharing programs such as the Aviation Safety Action Program (ASAP), Aviation Safety Information Analysis and Sharing (ASIAS), and other initiatives are necessary so the industry can share lessons learned and typically serve in risk management. A third-party safety audit is often used to fulfill part of the safety assurance aspect of SMS. Meanwhile, appropriate training for safety managers is found in the safety promotion component of SMS.

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“NBAA has long encouraged operators to fully implement SMS, properly train safety managers and participate in narrative safety and flight data monitoring safety programs, including ASIAS and ASAP,” said Mark Larsen, NBAA’s director of safety and flight operations.

Implementation of an SMS, successful completion of a third-party safety audit, proper training for safety managers and participation in safety data sharing programs, including the FAA’s ASIAS and ASAP, are all steps to enhance safety in Part 135. But experts say those individual components are not the key ingredient: a healthy safety culture is.

NBAA’s Safety Committee has identified six characteristics of organizational professionalism, which reflects the importance of culture:

- Character
- Culture
- Business Performance and Industry Engagement
- Competency in Vocational Skill
- Conduct and Image
- Continuous Improvement

“A just culture sets the stage for all other safety components,” explained Bryan Burns, president of the Air Charter Safety Foundation (ACSF). “Just culture builds to the SMS, which builds to third-party audits, with data collection through ASAP and even FDM [flight data monitoring] layered in.”

The ACSF aims to reach small to medium operators, providing resources, including a scalable SMS platform and ASAP to help develop safety culture and implement safety programs.

“Safety must be an industry effort,” said Burns. “Collectively, we go farther.”

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“One of the challenges in addressing safety in charter operations is that a lot of the talk about safety has become a sales and marketing tool – somewhat big on superficial claims but short on substance,” said David Rimmer, CEO of AB Aviation Group and the survivor of a major accident himself. “If an operator can point to a third-party audit, an SMS manual on the shelf and an accident/incident-free history, then they are thought to be ‘safe,’ which isn’t necessarily true.”

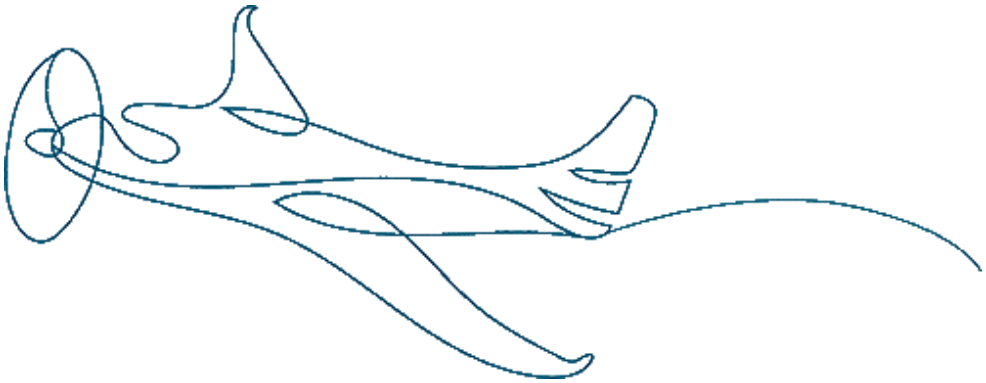
“We should be educating our clients to ask about more than audit status, accident history, aircraft age and refurb dates,” Rimmer added.

So how does an operator show their true safety colors? Consider these questions:

- Does the director of safety have a seat at the decision table?
- Does the director of safety report to senior leadership?
- Are there policies and procedures to insulate pilots from unreasonable or unsafe customer demands?

“We don’t allow a patient or hospital administrator to call a brain surgeon and pressure them into performing surgery when unforeseen circumstances cause the doctor to postpone an operation. Why do we continue to allow passengers or salespeople to pressure pilots?” Rimmer asked.

A safety culture that allows a pilot to make safe decisions is especially important with today’s workforce challenges. A pilot who feels pressured to conduct an unsafe flight has opportunities to work elsewhere.



Michael Klein, a physician and the founder and CEO of OpenAir, a small flight school and charter operator in Gaithersburg, MD, found the “secret sauce” (passion for safety, plus management commitment) to safety culture when he brought on Ben Berman to help him start a Part 135 operation in 2005.

Klein says Berman’s passion for safety drove the organization’s safety efforts, while Berman says the CEO’s commitment to safety sets the tone for the entire organization and is the key to a good safety culture.

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OpenAir believes so strongly that safety starts at the top, key leaders, including Klein, talk with every class of incoming employees so they can share their own perspective on why safety is the top priority at OpenAir.

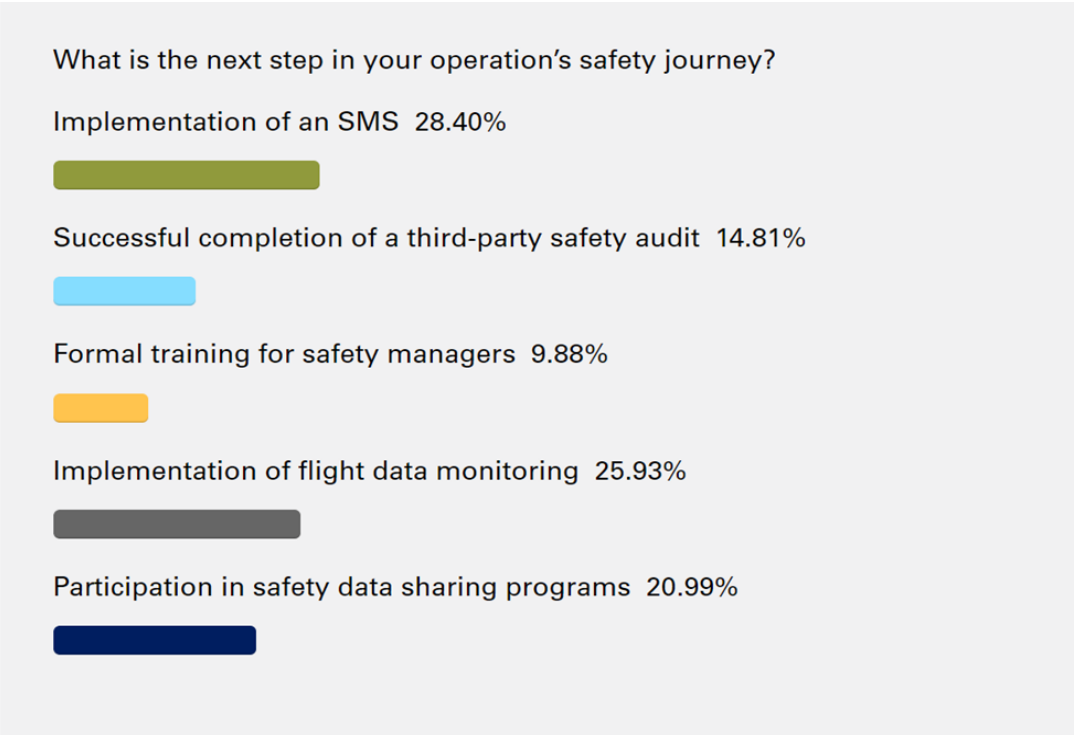
The company has an SMS, scaled for a smaller organization, which Berman calls a “work in progress,” just as any true SMS should be. OpenAir also tries to promote from within – growing students into instructors and then into charter pilots. Klein says this approach enables them to instill the company’s culture early in a pilot’s career.

OpenAir utilizes a structured flight-release process that enables the company to make go/no-go decisions without undue pressure on pilots.

“We have a culture in which people can speak freely. We value an open line of communication between pilots and management,” said Klein.

When an OpenAir pilot cancels a flight for a safety reason, the pilot isn’t berated or pressured to change their mind – they’re thanked for their commitment to keeping passengers and employees safe.

“Safety is earned every day,” said Berman, explaining that each decision a pilot or organization makes is the next step toward either a positive safety culture or a culture of unnecessary risk and acceptable noncompliance.



Safety can sometimes take a backseat, especially while the industry faces soaring demand, ongoing workforce challenges or a desire to recoup losses from early pandemic days. Experts urge industry leaders to instead make safety culture a top priority.

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Rimmer said accident data doesn't lie; without significant commitment from the industry, we'll continue to see an increase in accidents and incidents.

"Now is the time for operators and charter buyers to recommit to a robust safety culture," said Rimmer. "Safety is not defined by a certificate on the wall, a third-party audit, or an SMS on the shelf. We need to come to terms as an industry that we need to do better."

A note from PRISM: The above article mentions some key points that we would like to expand on. PRISM highly encourages and supports involvement in safety data sharing programs, such as the FAA's ASIAS and ASAP, that is why we provide ASIAS and ASAP integrations through the Reporting Program Tracker in PRISM ARMOR. If you participate in either program, you can elect to use PRISM ARMOR to submit your reports directly into ASIAS, or into your ASAP (if you use Air Charter Safety Foundation (ACSF) as a third-party facilitator of your ASAP).

For those interested, PRISM offers a formal three day SMS course for safety managers that also provides safety managers with four (4) credits towards the NBAA Certified Aviation Manager (CAM) Program. Details for this and all of the courses offered are on Page 13 of this SafetyWire, as well as on the ARG/US website.

Did you know that all PRISM Professional subscriptions include a safety culture survey? The survey assesses your operational climate and identifies leading indicators that may be indicative of strengths and weaknesses in your safety culture. For more information on safety cultures, please reach out to the PRISM Team.

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To Aspen, or not to Aspen?

Rhodri Norton-Quick, PRISM

Who doesn't like the mountains? I love them personally, which helps as PRISM is headquartered at the base of the Rockies. Having said that, mountain flying has some unique aspects that make the activity a hazardous one. To highlight them, let's look at the daddy of them all, Aspen. Some say, the mountains there sing you to sleep with ballads of fallen skiers. I say, the hills are alive with the sounds of pilots letting out all the breath they've been holding. ASE is not really all that challenging conceptually. Hug "your" designated side of the valley, put it on the numbers, max braking. The thing is, everywhere else has similar procedures, what they are lacking on a regular basis is the volume of traffic. I have waited in the run-up area for 2 hours with the engines running just to taxi down to another hold area just outside the Atlantic ramp for 30 minutes, followed by a two-hour EDC on the way out. Fun. We're jumping ahead of ourselves though. Let's get into the terminal environment first.

We pick up the action just prior to Blue Mesa VOR (HBU), it's a busy day in December and the first few feet of snow has already fallen. It's cloudy, but not overly so. You and your first officer have been checking the weather for the last hour, asking all the slightly exasperated controllers who have been answering the same question all day whether anyone was getting in. The answer? Some maybe, some maybe not. First thing you must realize about Aspen starts with the topography. It sits in a valley, which dead ends into the face of the mountain range. In fact, if you're especially bored waiting for departure, look to the left of the aircraft, you'll probably see a weekend warrior snowball down the bunny hill. (We call that a "yard sale" out here.) This means the airport is one way in and one way out. They typically try to stagger the arrivals and departures to go in groups to facilitate the flow; same as everywhere, only the groups are much bigger at aspen and the airport is much smaller. It's like an on ramp to the highway in rush hour with one of those 3 second stop lights, only the stop lights are voice commands and they're operated by a man in an office 120 miles away. The first voice command from your ground-based overlord will be to proceed to a fix and expect holding. YOU WILL HOLD AT ASPEN. So, dust off that pencil, hold it up

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at a 45-degree angle and start calculating. (Was parallel the big side? Or was that direct?) Better idea lets plug it into the FMS. I'd budget at least a 30-minute hold when you are fuel planning. No matter what the release says you need, if you're going to Aspen, you're going to need more than 45 minutes and your alternate. Unless your alternate is say, Las Vegas. So great, we've got our alternate, 45 min, and enough to hold. Now the question is, do we have the numbers? Sure, you did the performance calculation on the ground last night, but ASE has swirling winds that rip through that valley. It's to the point where they will issue an "instantaneous wind" report when you check in with the tower. (More to follow on that later). Finally, as a last tip: we all know the rules, one hour before to one hour after……. Plan to have to use an alternate. Your dispatch might not understand, legally you might not have too, but one mistake by someone else at Aspen and you're not going to Aspen. One airliner that declares min fuel and you're not getting into Aspen. No problem, I'll just go down the road to Rifle. Good luck so is everyone else. Have a backup.

Good news, you miraculously managed to finish all that math before the controller cleared you to Red Table. Anyone who knows Aspen, knows Red Table (DBL). But let's look at this from two perspectives needing to shoot the approach, and VFR. First up, the approach. You have two to choose from, the LOC-DME, or the RNAV-F. They both have the same course, and unless you are a CAT-A, the same minimums.

First tip: Be configured already. DBL may be the initial approach fix, but you've got a black diamond run from DBL to the Runway at a 6-degree angle. The approaches have you losing almost 4000ft in a little under 11 miles. I can still hear my first flight instructor "speed, speed, speed, Altitude, speed". You will always have a tailwind going into ASE. Experienced aviators will tell you, you don't realize how much its effect is until you're about 1000' above minimums and you're way faster than you planned. Configure early so you have more time to adjust.

It's a scattered layer just above the field and you're fairly certain you're going to get in so you elect to give it the old college try. Good, decisions are important. I sure hope you "decided" to configure on your way TO Red Table, and not AT Red Table but I digress. You're configured, you're briefed, everything is going great. "Contact tower", so the radio keys up and you hear a response "Instant winds 300 at 8, peak gusts 30kts." You're already on the run, remember-SIX-degree glide slope, and you have another decision to make. The ATIS is reporting winds variable 300-100 at 14 gusting to 40. Continue? Most will, but this is where the next pit fall happens. Speed.

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Speed control is critical on this approach. You need to be as slow as safely possible. It's another reason you need to throw all the drag out into the wind as soon as you can. You've got constantly gusting winds, as well as all the upslope, and downslope gusts, a congested radio, and an overworked crewmate. SLOW DOWN! Remember that with an up, comes a down. "Smooth" adjustments are your friends for thrust and pitch. That runway may be "long" but it's at elevation, you are going to need almost all of it. Remember that tailwind? Yeah, it's going to say hello again right here. Speed. You need to be on the money because 10 kts is the difference between buying a ski pass and gate crashing.

Great you're past the cloud deck, and you can see that lonely piece of pavement sitting just off I-70. You're a little fast, but you're configured and stable. Everything looks good, but then you hear- "Terrain, Terrain". There's a little piece of rock that juts out into the approach corridor. Remember your TAWS calculates closure rate. CHECK YOUR SPEED, both vertically and horizontally.

We're back on speed, on course, on slope and you hear "100 above". Excellent, you're almost in. So, at this point we're going to divide the story again. You land or you don't land, those are your options. Let's go with land first because it's the shortest ending. Don't try to be gentle. Those passengers in the back were never going to tip you anyway, and this whole flight from about Kansas onwards was a paint shaker. You need to get it down, and get it stopped. Period. I'm not suggesting you be unsafe; I just want to stress that trying to win brownie points for buttery touchdowns at Aspen is a recipe for disaster. Max controlled braking and full reverse thrust if you have them. Vacate the runway ASAP because there's someone on short final.

O.K. so that was the happy version. Let's talk about the less happy version. "Go around". It doesn't matter if the FO says it, or tower, or just another airplane on Freq, if you hear that at ASE two things will happen simultaneously. Your stomach will drop out and your hands "should" automatically have hit the TOGA buttons and shoved the levers forward. Don't wait, don't try to verify, just go. Your stomach dropped, because you now must do a climbing turn to 14,000ft and intercept an LDA back course to LINDZ, make another turn and then climb in the hold. That climbing turn? Yeah, you're going to need to have completed that within 3 miles. Here's what I can tell you about when I did it in a jet. I was lucky. My FO was on it, we were experienced, and there was a rockstar controller there keeping an eye on everything, and we still puckered like a lemon. That rock comes up quickly, and the temptation to over bank, over pitch, and fixate are real. Was it as distressing as I was expecting? No, but it's definitely not a cakewalk.

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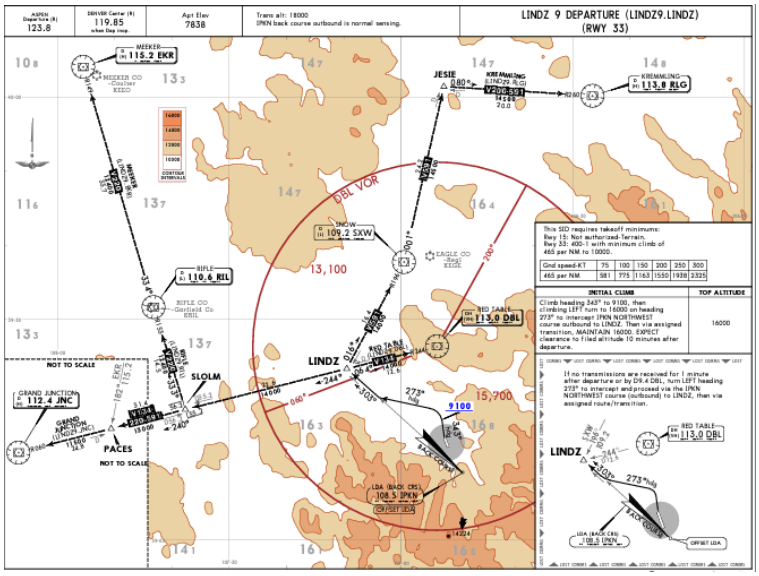
Now for the VFR version. It's short, load the approach, and do everything the same. You won't necessarily feel like you need the approach on the way down but, if you must go around for any reason, 3 miles at full chat is not the distance you need to recover from the initial shock. Better to have a plan that you can execute without thinking first. I feel like this needs to be said as well, if you tend to be "single pilot" of a crew airplane, don't do that either. Use the pilot monitoring. There's too much going on for you to superhero yourself over a mountain.



Now, we've navigated the exorbitant fuel prices, we've picked up the catering, and we've managed to grab a bite to eat from the little café. Time to get out of here. Clearance, start, taxi, that's all standard. On a busy day, plan to run your APU and need to quick start an engine. Be briefed before you taxi off the ramp, and for the love of all that's holy review and all but memorize your single engine procedures. I don't mean the checklist; I mean the actual departure procedure for single engine. It will be long and complicated so use this opportunity to review it as a crew. There won't be time at the end. There probably will be, but you can't plan on anything going like last time at Aspen. For this example, we're going to assume that we are in a jet and one that weighs over 12,500lbs. This limits us to one runway. Most know the Lindz 9 departure so let's use that one. Holding short, you're going to have to wait for the instantaneous wind report to indicate that your tailwind component will be acceptable. Once it "is" you're going to need to do a performance take off. Yes, I know that the numbers say you can roll, but you can't. Once you've blasted the ski school students with your exhaust, release the brakes and off you go. Performance calculations are always required, but here in the mountains, they are beyond required. Don't take "a few pounds" more; weigh your bags, do it by the book no matter the pressures. The side of the Rockies are littered with broken planes that "knew what they could get away with".

On the Lindz, you're going to have to make a turn at 9100ft (airport elevation is 7800ft). Yes, at about the flaps up call, you're going to be making a 15–20-degree banked turn to intercept the LDA back course to Lindz intersection (GPS overlay). You also must climb to 16,000ft. It's impressive to look at when you see something like a Gulfstream turn into the space shuttle.

You'll notice through this article that I haven't mentioned the well-publicized accidents. That's because they are so well publicized. We tend to skip this part of the analysis. It's all well and good to go over the accidents in class but if you've never been there its hard to see why they made the decisions they did. Having said that, to close out the narrative here's a list of possible hazards to mitigate:

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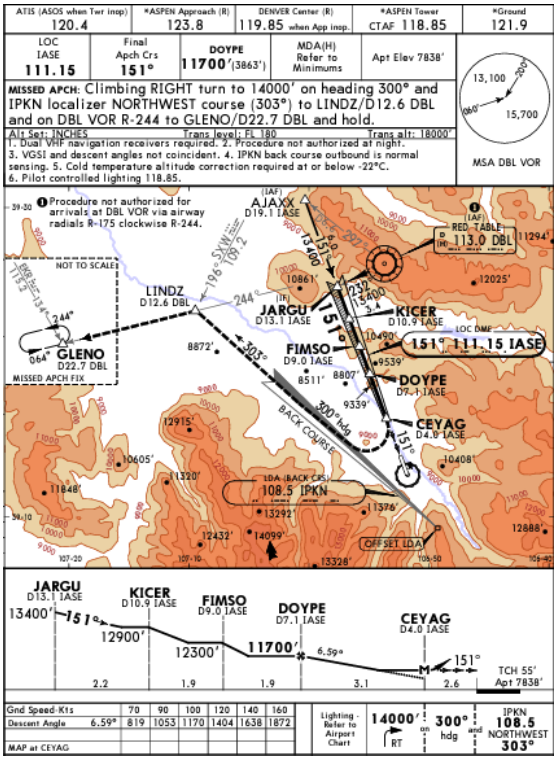
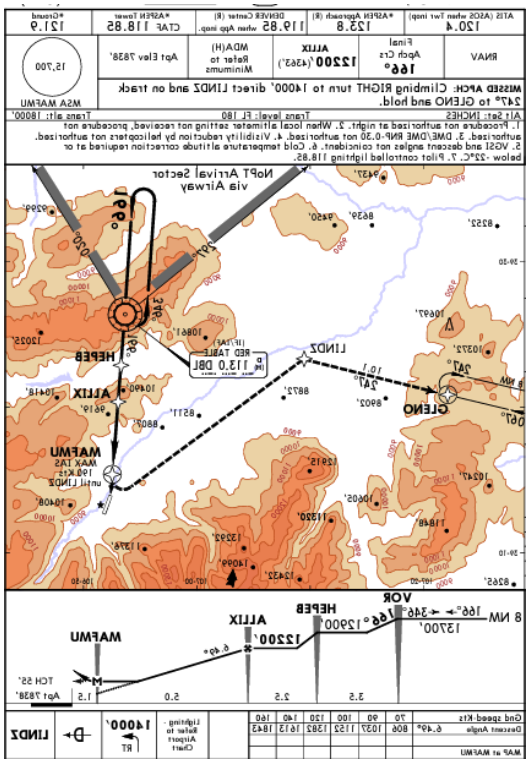
- Windshear- ANY change in direction or velocity
- Traffic- Ski weekend
- Contaminated Runways- October through June
- Poor Visibility- Year-round, especially in the mornings
- Mountain Turbulence- always

This isn't in anyway a comprehensive list or even a comprehensive article. In fact, some may disagree with some of the techniques highlighted here. Safety begins with a conversation. Aspen is a mandatory conversation. It's not making a mountain out of a mole hill if it really is a mountain. Happy Flying everyone. Stay safe and keep the shiny side up.



Localizer



RNAV

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SAFETY MANAGER'S CORNER

AIRPORT COMMENTS

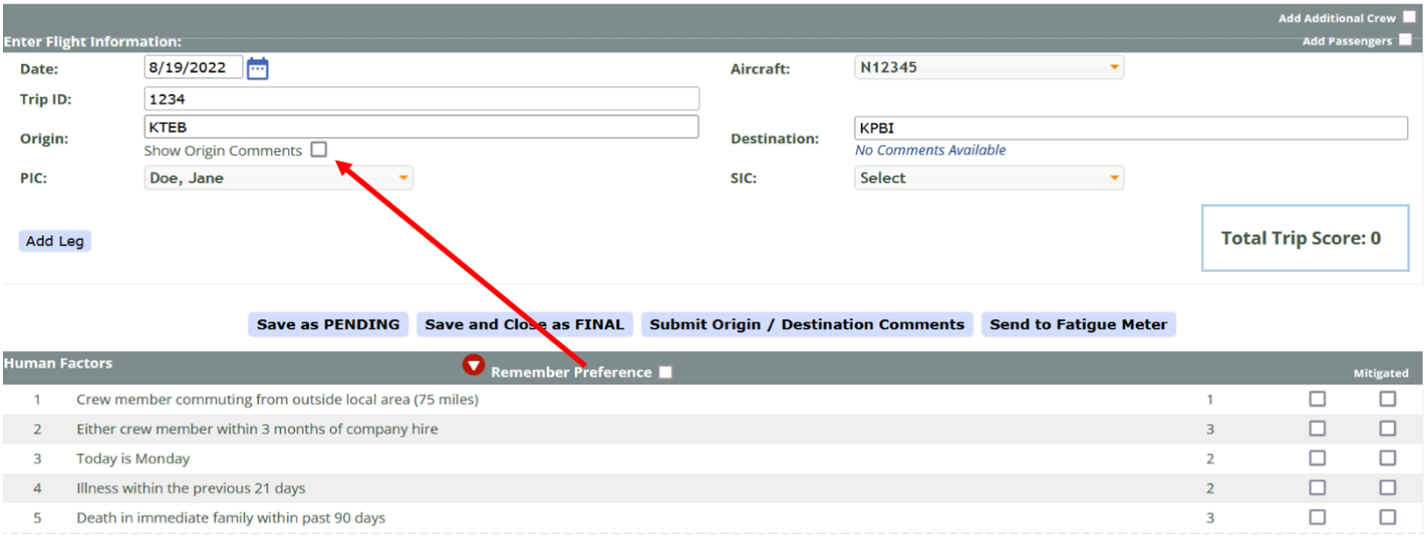
Wouldn't it be nice to have a convenient way to notify flight crews about miscellaneous items at each airfield such as:

- Construction at or near the airport
- Previous issues with the FBO
- Parking issues
- Fuel prices
- Etc.

PRISM's FRAT includes an airport comments feature where flight crews or admin have the ability to add notes/ comments about each airport. Comments can be added directly into a FRAT report or crewmembers can add them after a flight by clicking on the "Click here to submit comments" hyperlink in the email notification that goes to all crew-members when their FRAT is Saved & Closed as Final. The subject line of the email that the crewmembers receive when their FRAT is Saved & Closed as Final will say: Flight Risk Analysis Report – Please Submit Origin/Destination Comments.

If comments exist for an airport, crewmembers will see a small checkbox below the origin and/or destination field in the FRAT that says Show Origin Comments and/or Show Destination Comments as shown below. Flight crews will be able to view all of the comments for that airport by checking the Show Origin/Destination Comments box.

Admin can delete or edit comments from the FRAT homepage under the Manage Comments Quick Link if comments are out of date and are no longer applicable or need to be modified.



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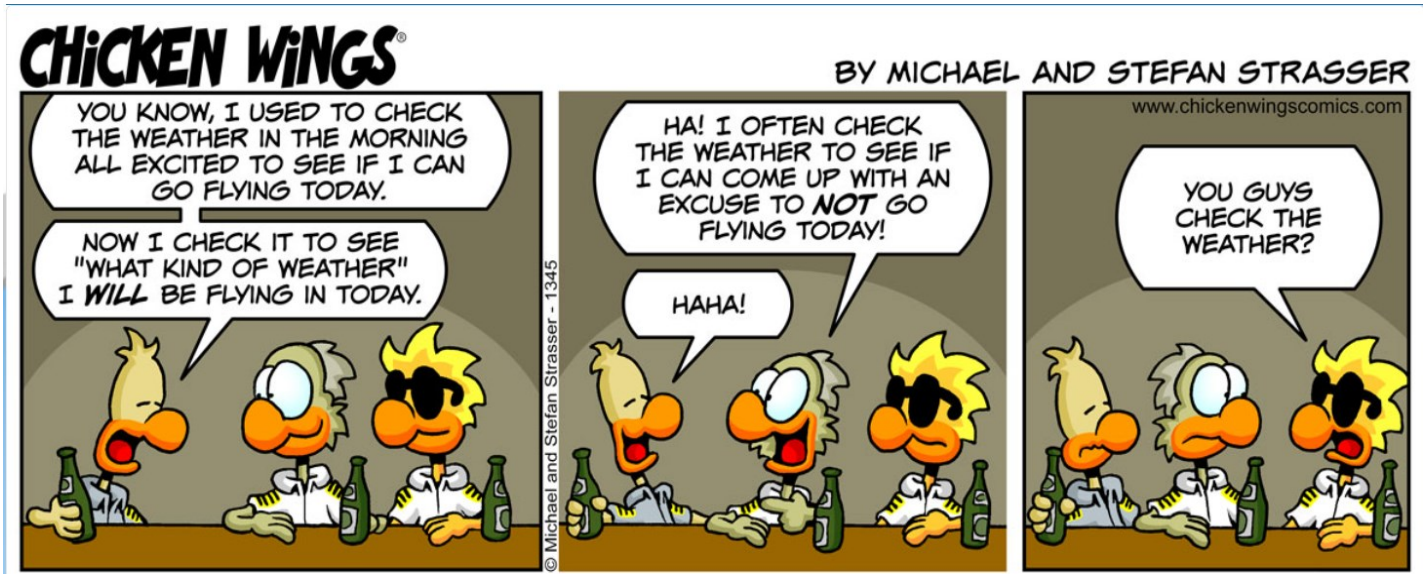
Quote of the Month

"Start by doing what's necessary, then do what's possible; and suddenly you are doing the impossible"

— St. Francis of Assisi

We strive for the impossible in the safety department. A low risk aviation company starts by doing what is necessary to mitigate existing risks. Pretty soon the conversation shifts. It becomes "what can we do?" instead of "what needs to be done?". This subtle change in verbiage is the harbinger of great things. You have decided to move from "necessary" to "possible". Never stop striving, never stop moving the needle, no matter how incrementally; each miniscule movement is a step towards conquering the impossible.



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UPCOMING COURSES

Sept 27 to Sept 29, 2022—PRISM Course
Safety Management System (SMS)
Denver, CO

Oct 3 to Oct 7, 2022—PROS Course
IOSA Auditor Training
Denver, CO

Nov 28 to Dec 2, 2022—PROS Course
Aviation Lead Auditor Training (ALAT)
Denver, CO

Dec 12 to Dec 16, 2022—PROS Course
IOSA Auditor Training
Denver, CO

Go to Upcoming Training Classes to register.