Topic of the Month
September
Pilot Deviations

Federal Aviation Administration

Presented to: Salem Area Pilots
By: Thomas Gorski CFI
Date: September 6th, 2014

2014/07/02-055 (I) PP Original Author, FAASTeam; POC Kevin Clover, AFS-850 Operations Lead, Office 562-888-2020; reviewed by John Steuernagle 07/02/2014

Presentation Note: *This is the title slide for Pilot Deviations*

Interactive presentation style: Ask relevant questions frequently. It is more important to address your concerns than to present without regard for your questions.

Holding pattern for unanswered questions.

We can learn as much from each other as we can in this forum.

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Outline

- **Presenter's Background**
- **Overview of FAASTeam**
- **Seminar Focus: Pilot Deviations**
- **Audience Response Quiz Game (Earn up to 15,000 points!)**

Audience Response quiz is based on VFR Jeopardy game with questions about Pilot Deviations.

Presenter's Background

- 1976 – US Army Avionics (Radar) Technician
- 1984 – CFI & Charter Pilot
- 2004 – FO LR-JET
- 2006 – CA LR-JET
- 2008 – FO B747-200, LCF, 400
- 2010 – CA B747-400 Director of Flight Standards
- 2013 – Present Contract CFI & Pilot Services

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Activities of the FAASTeam are organized primarily through a Website, and through the local FAA FSDO.

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Mission Statement:
Improve the Nation's aviation accident rate by conveying safety principles and practices through training, outreach, and education;
while establishing partnerships and encouraging the continual growth of a positive safety culture within the aviation community.

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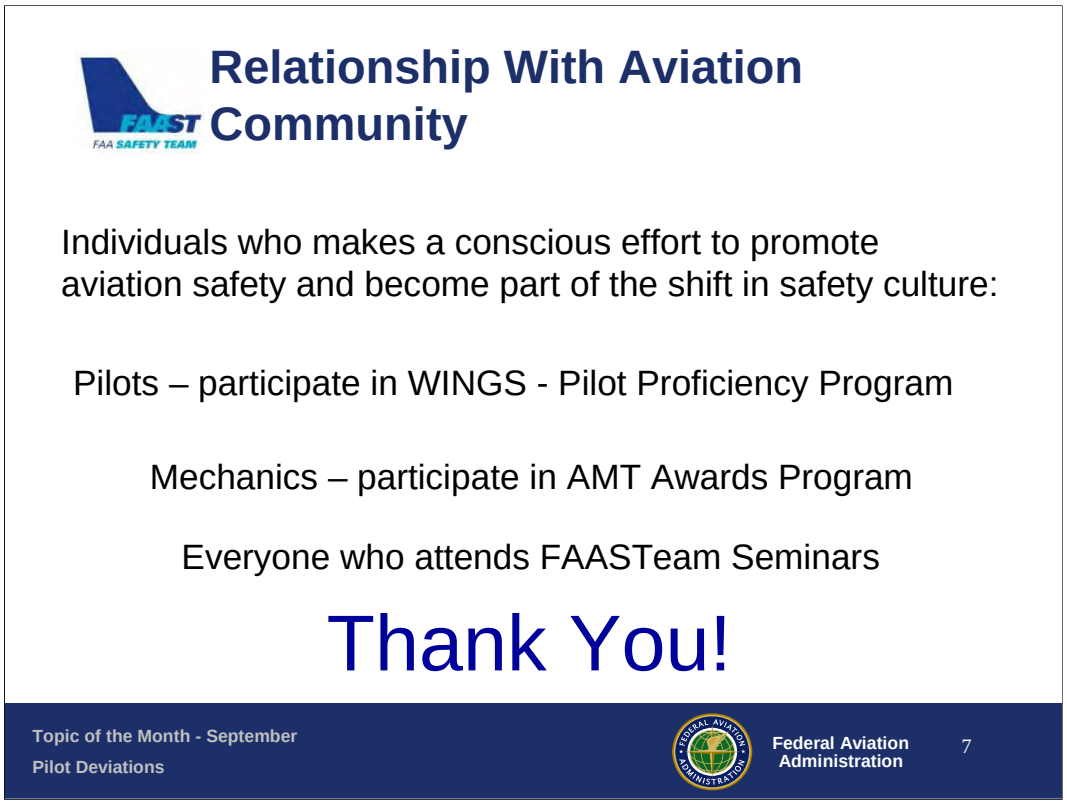
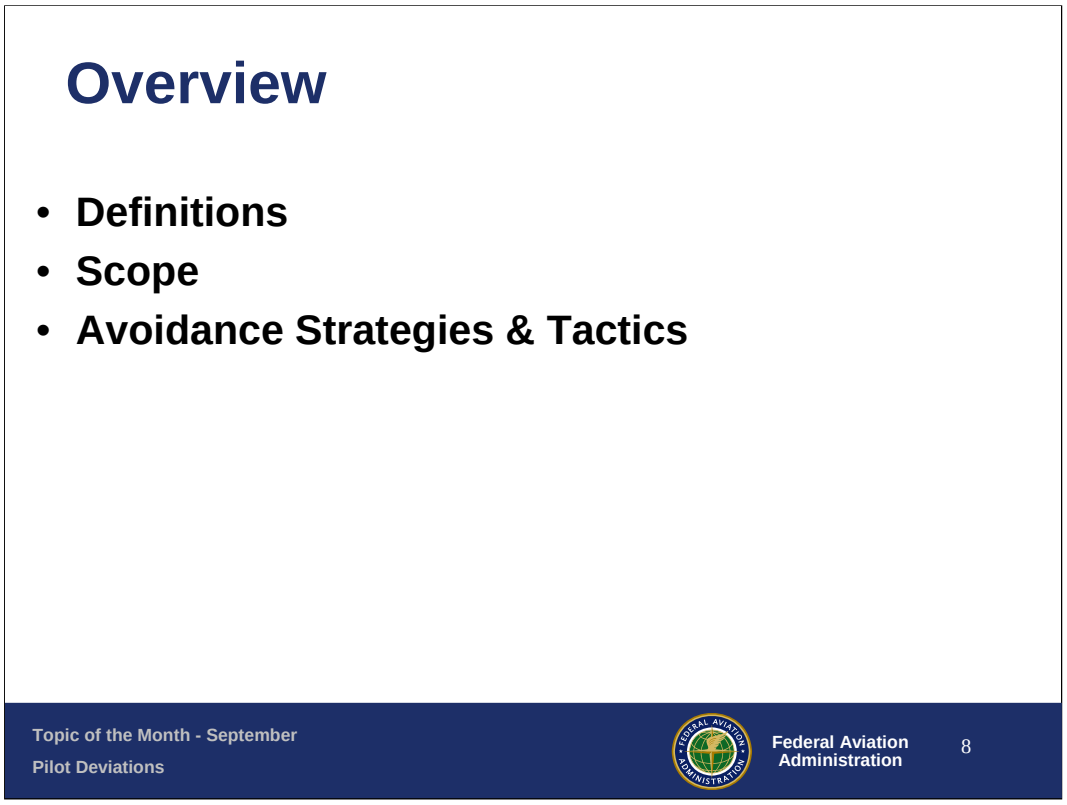


FAASTeam Members are individuals who makes a conscious effort to promote aviation safety and become part of the shift in safety culture. Members are:
Pilots - WINGS

Mechanics - AMT

Everyone who Attends Seminars **(Next Slide)**



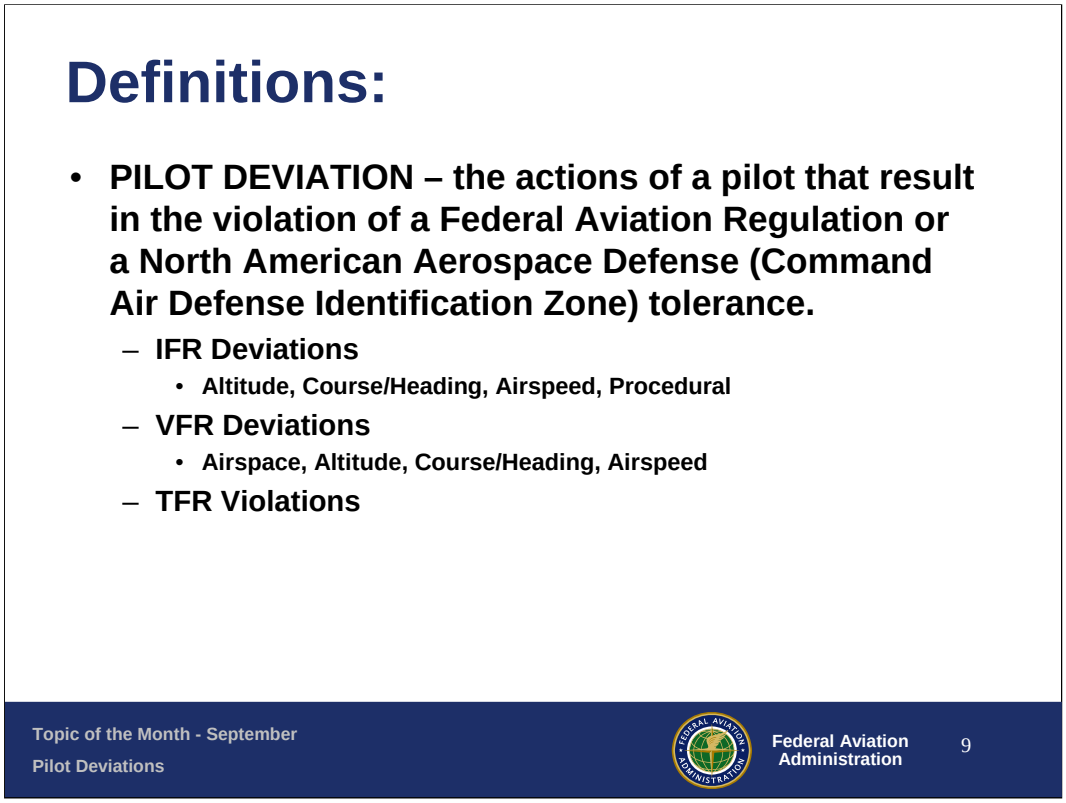
We want to take just a few minutes to talk about pilot deviations. (**Click)**

We'll Define some terms, **(Click)**

provide a sense of the scope of the PD problem**, (Click)**

and discuss some PD avoidance startegies & tactics**. (Click)**

Presentation Note: *If you'll be discussing additional items, add them to this list* **(Next Slide)**



Here's how the FAA defines a pilot deviation: **(Click)**

-the actions of a pilot that result in the violation of a Federal Aviation Regulation or a North American Aerospace Defense (Command Air Defense Identification Zone tolerance. That definition covers a lot of territory and it includes: **(Click)**

-IFR Deviations – the greatest number of which involve altitude busts, followed by course or heading, airspeed, and procedural violations. **(Click)**

-VFR Deviations involve airspace, altitude, course or heading and airspeed problems **(Click)**

-And finally we have TFR Violations rounding out the list.

Background: The types of deviations are presented in order of frequency i.e. Altitude deviations are the most frequent deviation under IFR while Airspace deviations are the most frequent VFR PD.

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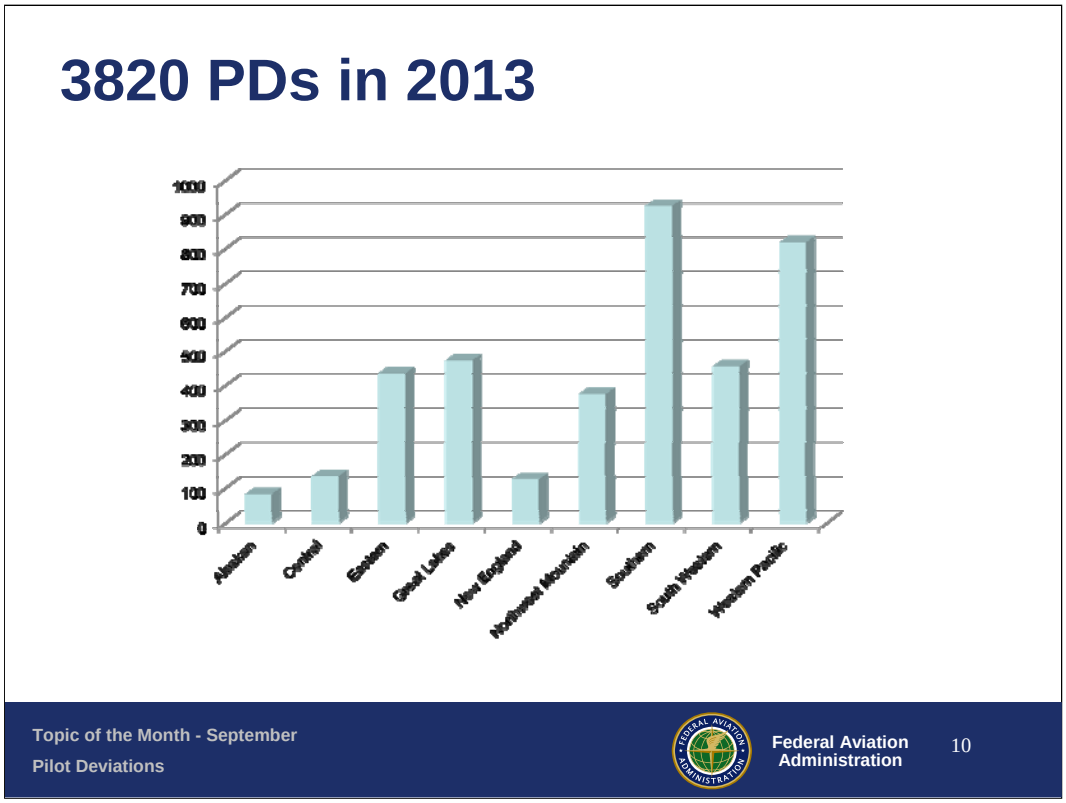

PDs are an all too common occurrence. There were almost 4000 in 2013 alone! **(Click)**

Predictably – they happen where the air traffic is. Alaska Region had the fewest with 81 for the year. Southern Region had the most with 924.

Presentation Note: *Discuss you region's place in the picture here*

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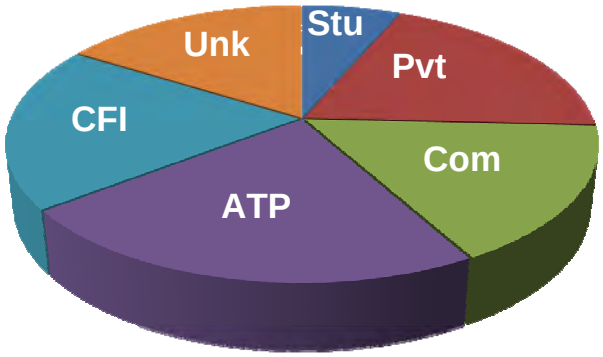
Who's having PDs*



* Based on Long Beach, California PD data. Your mileage may vary.

You might expect to see low time pilots having the greatest number of PDs but in one major metropolitan area at least – the distribution is pretty even across all pilot certificate levels – except for student pilots.

So PDs are a concern for all pilots. Fortunately they area relatively easy to avoid if you take 3 steps:

Background: Although ATP s have the most deviations in the sample above – they don't seem to be having them on the job. Rather they're flying GA aircraft under VFR in very complex airspace when the deviation occurs.

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1. Plan each flight

- **Get the latest data**
  - Charting – paper or electronic
  - Notams - TFRs
- **Airspace requirements**
  - Have a Plan B
- **VFR flight following**
  - Or file IFR
- **Get it on tape**
  - voice or DUATs

Plan each flight – even if you've done it many times before. Charts and airspace are always changing not to mention TFRs that can crop up at any time. **(Click)**

So make sure you have the latest data on paper charts or update your electronic database just before each flight. Be sure to get the latest Notam & TFR data. **(Click)**

Note each airspace class you intend to penetrate and the requirements to operate there. And have a plan B in case you can't get clearance through a particular airspace. **(Click)**

Plan on asking for VFR flight following or file IFR. Either way you'll be in contact with controllers who will help you to avoid Pilot Deviations. **(Click)**

Finally get a preflight briefing including TFRs on tape. All calls to Flight Service are recorded and there's a record of all DUAT computer briefings as well. Having an independent record of your briefing can help to resolve some pilot deviation issues.

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2. Talk and squawk

- **Note altitude heading & speed assignments**
  - Read back all clearances and instructions
  - Set altitude and heading bugs
- **Let George do it**
  - Be comfortable with the autopilot
- **Maintain a sterile cockpit**
  - Manage passenger expectations
  - Make them a part of the crew
- **Update Plan B**

If you're talking and squawking you always have ATC help in avoiding pilot deviations. Believe me, controllers don't like filling out PD paperwork any more than pilots enjoy explaining their actions to FAA inspectors. VFR Flight Following or filing IFR will get you that additional ATC help. **(Click)**

Always make a note of all altitude, heading, & speed assignments as you receive them. Read back all clearances and instructions so there's no chance of misunderstanding. And set altitude & heading bug reminders if your aircraft is equipped with them. **(Click)**

Autopilots can greatly reduce pilot workload but you've got to be thoroughly familiar with their operation. So practice to proficiency with your autopilot and, when you're operating in complex airspace consider letting "George" help with aircraft control. **(Click)**

Maintain a sterile cockpit when appropriate. Let your passengers know that there will be times when you have to concentrate exclusively on flying and you won't always be able to answer their questions or act as tour guide. Better yet – assign jobs like traffic spotting and chart holding to your passengers. It gives them something to do that directly relates to the safety of flight. **(Click)**

Finally always keep your Plan B up to date. If you were planning on a specific routing that doesn't pan out reassess the airspace you'll be penetrating and have a plan for what you'll do if clearance isn't forthcoming.

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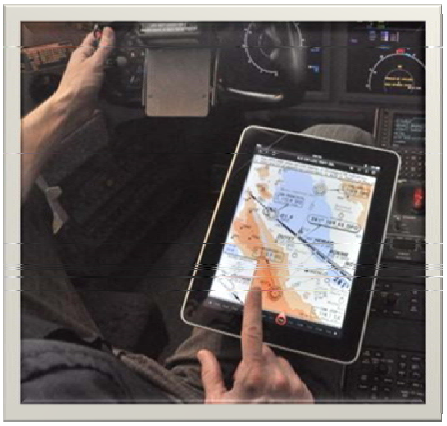
3. Give yourself some room

- **Horizontal**
  - One to two miles
- **Vertical**
  - At least 500 feet
- **Timing**
  - 15 minutes before & after
    - Confirm TFR Expiration w/ATC



Electronic aids to situational awareness have proliferated in just a few years and it's ironic that some pilots were using these devices when they had a PD.

It seems they're so confident in their navigation that they fly just outside airspace they're trying to avoid. Automatic equipment known as TARP (Traffic Analysis Review Program) now reports unauthorized airspace penetrations that may go unnoticed by pilots and controllers. Weeks after the event, pilots have received notices of investigation and - absent a saved flight track in the GPS - ATC radar trumps I Pad

every time. **(Click)**

So give your self some room. Remain one to two miles outside airspace you don't have permission to enter. **(Click)**

And avoid that airspace by at least 500 feet vertically if transiting above or below it. **(Click)**

If a TFR becomes hot at 0900 you don't want to be near it at 0855. Give yourself at least 15 minutes before and after and confirm TFR status with ATC before operating within it's boundaries.

You'll already have the ATC frequency to call if you're on flight following.

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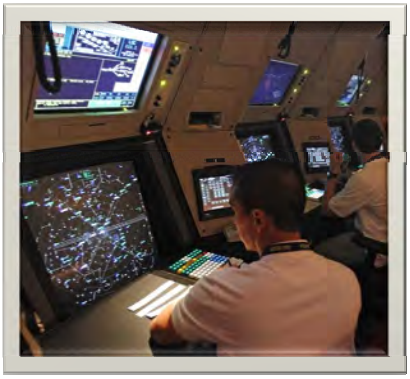
Things we hate to hear

- **N12345, possible pilot deviation. Advise you contact Washington Center at…….**



Thousands of pilots – who haven't attending this briefing – will hear something like this next year: **(Click)**

N12345, possible pilot deviation. Advise you contact Washington Center at. A phone number will follow.

These are chilling words for any pilot but if it happens to you keep in mind that you still have a flight to complete safely. Copy the contact information and you can give ATC a call after you land but right now there's something more important you need to do and that of course is:

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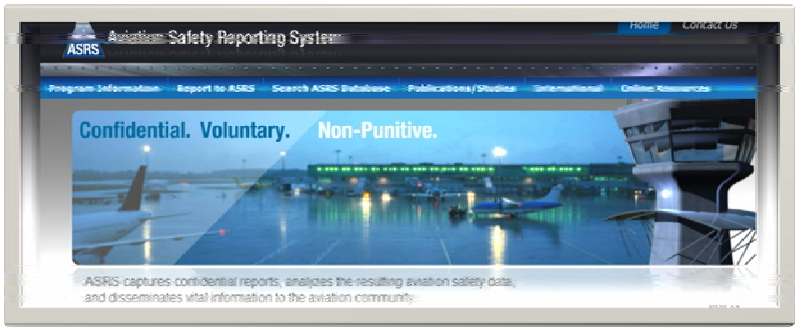
Fly the Airplane!

- **Keep your head in the game**
- **File an ASRS Report**
  - http://asrs.arc.nasa.gov/index.html



That's right – Fly the Airplane..1 **(Click)**

Keep your head in the game and try not to think about the possible Pilot Deviation until you're safely on the ground and the airplane is tied down or in the hangar.

As soon as you can, file an Aviation Safety Reporting System report detailing the events & circumstances that resulted in your PD while they're still fresh in your mind. Such reporting helps to identify system issues that may lead to PDs and attests to your concern for safety.

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•Safety Tip

- **Participate in Wings**
  - **Navigation**
  - **Equipment Operation**
- **Fly a simulator**

Finally; studies show that pilots who participate in the Wings Proficiency Program are much less likely to have an accident or incident than those who don't. **(Click)**

Get together with your CFI and practice Navigation and aircraft equipment operation - preferrably in complex airspace **(Click)**

If there's no complex airspace nearby, fly one of the economical General Aviation simulators available today. They can be programmed to fly anywhere and they're a great way to practice flying to places you're planning to visit. The more familiar you are with the airspace the less likely you'll be involved in a Pilot Deviation.

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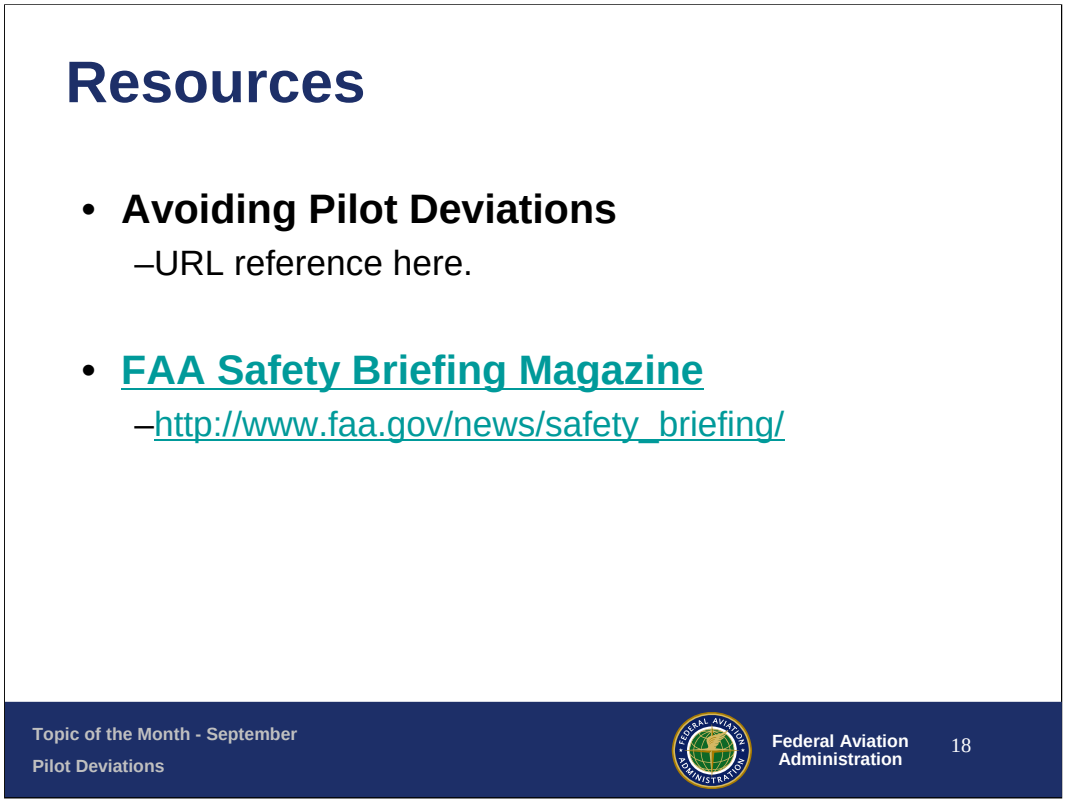

Presentation Note: *If you have an internet connection you can access the resources by clicking on text. If there's no internet access the audience can copy the URLs below each item.*

Here are some places you can go for more information.

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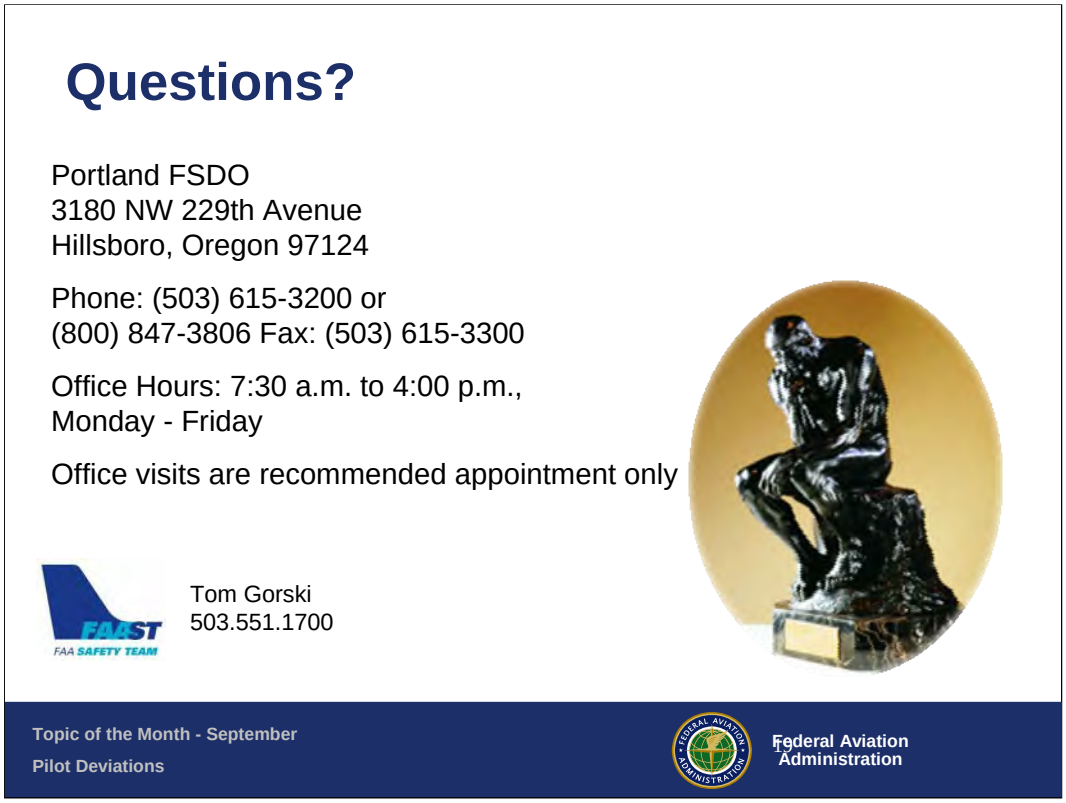

Questions? Then:

(Click)

Contact information and main FSDO phone number here.

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End