

# The National FAA Safety Team Presents

## Topic of the Month – June 2024 After Market Equipment

Presented to: Safety Minded Aviators, Everywhere...

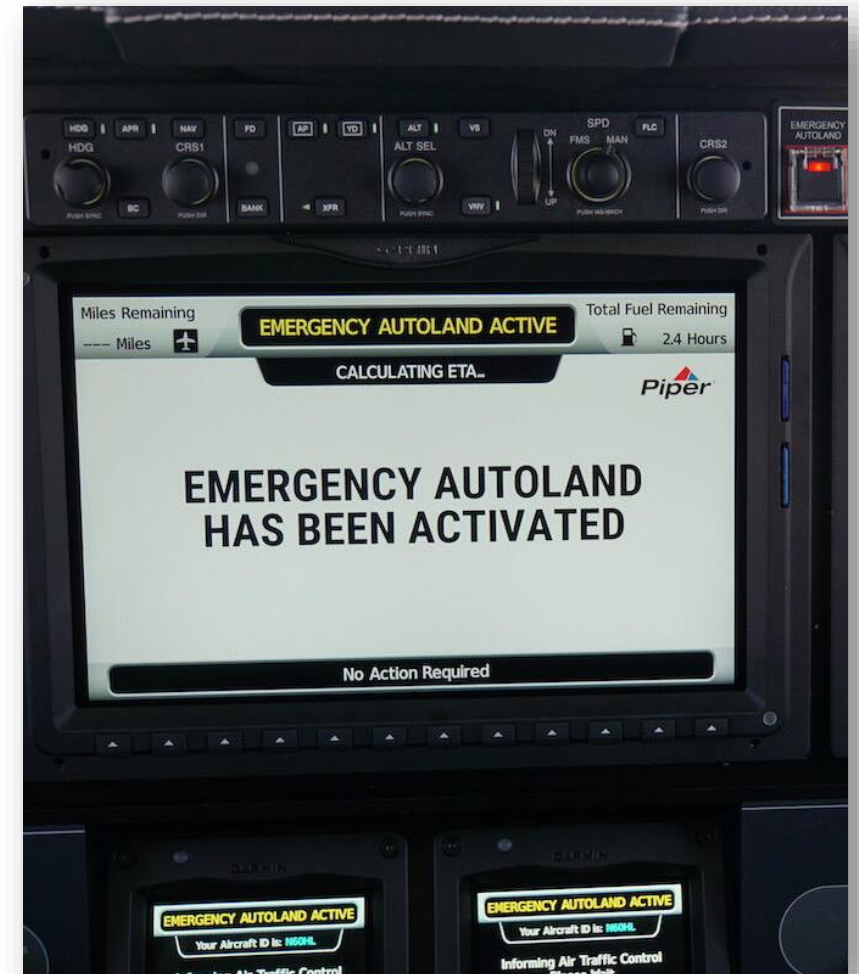
By: Stephen Bateman, CFI, Chocks Away Aviation, LLC

Date: Tuesday 18<sup>th</sup> June 2024

Produced by AFS-850  
The FAA Safety Team (FAASTeam)



Federal Aviation  
Administration



# Welcome

- **Steve Bateman, CFI, LSRM**
  - Chocks Away Aviation, LLC
  - Vice President, Oregon Pilots Association
  - FAA Lead Rep, Portland FSDO
  - AOPA and ASI presenter
  - EAA Chapter 617, Prineville
- **Your monthly dose of aviation safety**
- **Earn *WINGS* knowledge credit in 33-minutes**
- **Contact Info:**  
[sbateman7799@gmail.com](mailto:sbateman7799@gmail.com)
- ***Do not try to communicate using Reply To: from the webinar email!***



**Oregon Pilots Association**  
Preserving General Aviation in Oregon



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Administration

# Not Recorded, But Even Better...

- PDF of these slides available for your further study and use
- Actual slides post on the third Sunday of every month (June 16<sup>th</sup>)
- <https://bit.ly/ToMSafetyArticle>



- Select the safety article (month) of interest
- Open and save the PDF

**I'LL SHOW THIS INFO AGAIN AT THE END OF THE PRESENTATION**

- Thanks to the AOPA Flying Clubs Initiative

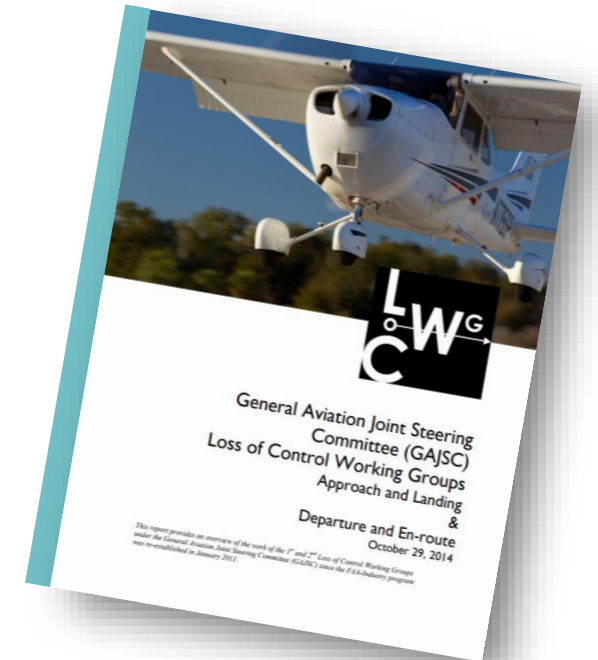


# Overview

- **GAJSC\* Safety Enhancements**

- The General Aviation Joint Safety Committee has determined that general aviation safety can be improved through installation of after-market safety equipment

- **New automation technology benefits us**
- **Examples of available safety equipment**
- **Reduction in regulatory roadblocks**



\* General Aviation Joint Safety Committee



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# Technology development for...

- Drone delivery
  - Autonomous aircraft passenger operations
  - Electrically propelled aircraft
  - Space tourism
  - Improved safety technology
- 
- **We can benefit from this:**
    - Take advantage of (expensive) developed technology
    - Apply it to our application
      - General aviation flying—non-commercial and commercial
    - Integrate it into our:
      - Flight decks
      - Situational awareness
      - Procedures and checklists



# We can benefit by embracing:

- A safety-critical mindset
- Safety-critical systems are designed to prevent or reduce the consequences of hazardous events
- If a safety-critical system fails or malfunctions, it could result in death, serious injury, significant property damage, or environmental damage.
- Safety-critical systems are often used in areas such as medical devices, nuclear systems...and...aircraft flight controls
- The big problem is still...**us!**
- More technology *may* help, but we still have to stop doing risky and stupid things
- Main solutions? Understanding “human factors” and embrace scenario proficiency training, especially with new technologies and equipment



# “Miracle” ...Really?



[https://youtu.be/U\\_XaimUKF68](https://youtu.be/U_XaimUKF68)

Is relying on miracles and luck ever a good strategy?





**Save 60%!**



**In Alaska, we could reduce general aviation fatalities by 60% through adoption of these available products**



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# Airbag seatbelts



## Airframe & Powerplant

Continental IO-550-N 310 HP Engine

Cirrus Airframe Parachute System® (CAPS®)

Airbag Seatbelts (Front Seats)

A screenshot of the AmSafe website. The browser address bar shows the URL: https://www.amsafe.com/airbag-systems/retrofit-aircraft-seatbelt-airbag/. The page features a navigation menu with links for PRODUCTS, SERVICES, ENGINEERING, ABOUT, DOWNLOADS, NEWS, and CONTACT. The AmSafe logo is in the top right corner. The main content area has a breadcrumb trail: Back to Airbag Systems. Below this is a red horizontal line, followed by the heading: RETROFIT YOUR GENERAL AVIATION OR AGRICULTURAL AIRCRAFT. The text below reads: Retrofit your general aviation or agricultural aircraft with an AmSafe Seatbelt Airbag System. A paragraph follows: The AmSafe's Seatbelt Airbag System can be easily retrofit into existing aircraft seats for operators looking to modify or upgrade their interiors. The seatbelt airbag system may not require any modifications to existing seat structure for installation. To the right of the text is a grid of four small images showing different aircraft. Below the grid is a large image of a Cirrus aircraft with the registration N1569. At the bottom of this large image are two buttons: MAKE AN ENQUIRY and PRODUCT SHEET with a dropdown arrow.

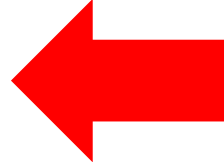
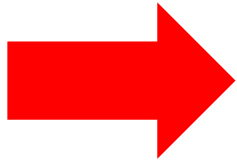


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# Question:

Which way do seat belts unbuckle?

Left to Right or Right to Left



# Answer:

There is no standard. It could be either way.



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# Question:

**Why is it important to know which way my seatbelt unbuckles?**

# Answer:

**You may have to exit the aircraft quickly...**

**...and you may have to do it in the dark...**

**...upside down...**

**...underwater...**



# Exercise:

- **Sit in your usual seat in the plane**
- **Buckle up**
- **Close your eyes – keep them closed**
- **Get out...**
  - Unbuckle
  - Open the door
  - Exit
- **Wear a parachute?**
  - Do it again without also unbuckling your para...!



# Buckle Placement:



# ADS-B IN

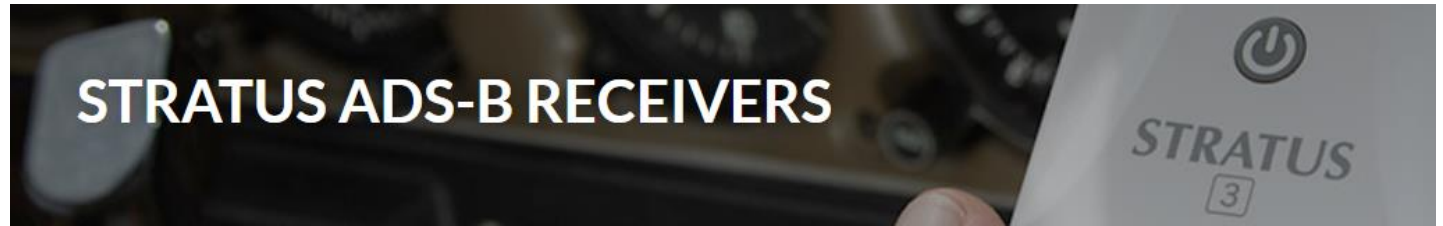


## Situational Awareness



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# ADS-B IN



## FEATURES:

- Subscription-free weather
- WAAS GPS
- Dual-band ADS-B traffic
- Backup attitude (AHRS)
- Pressure altitude sensor
- Smart Wi-Fi
- Auto shut-off
- 8-hour battery life



# Situational Awareness



Federal Aviation Administration

# ADS-B IN



The image shows a white Sentry Plus ADS-B CO GPS device. The device has a small LCD screen displaying "Connected!" and a "CHRG" indicator. Above the screen are three green LEDs and the text "ADS-B CO GPS". Below the screen is a power button and a green LED. The device has "SENTRY" and "PLUS" printed on its front. Below the device is the Sentry Plus logo and the text "All the best of Sentry, plus...".

**Sentry PLUS**

All the best of Sentry, plus...

- DUAL-BAND ADS-B IN TRAFFIC & WEATHER
- G-METER WITH DIGITAL DISPLAY
- WAAS GPS
- CARBON MONOXIDE DETECTOR
- 18+ HOUR BATTERY
- INTEGRATED FLIGHT DATA RECORDER

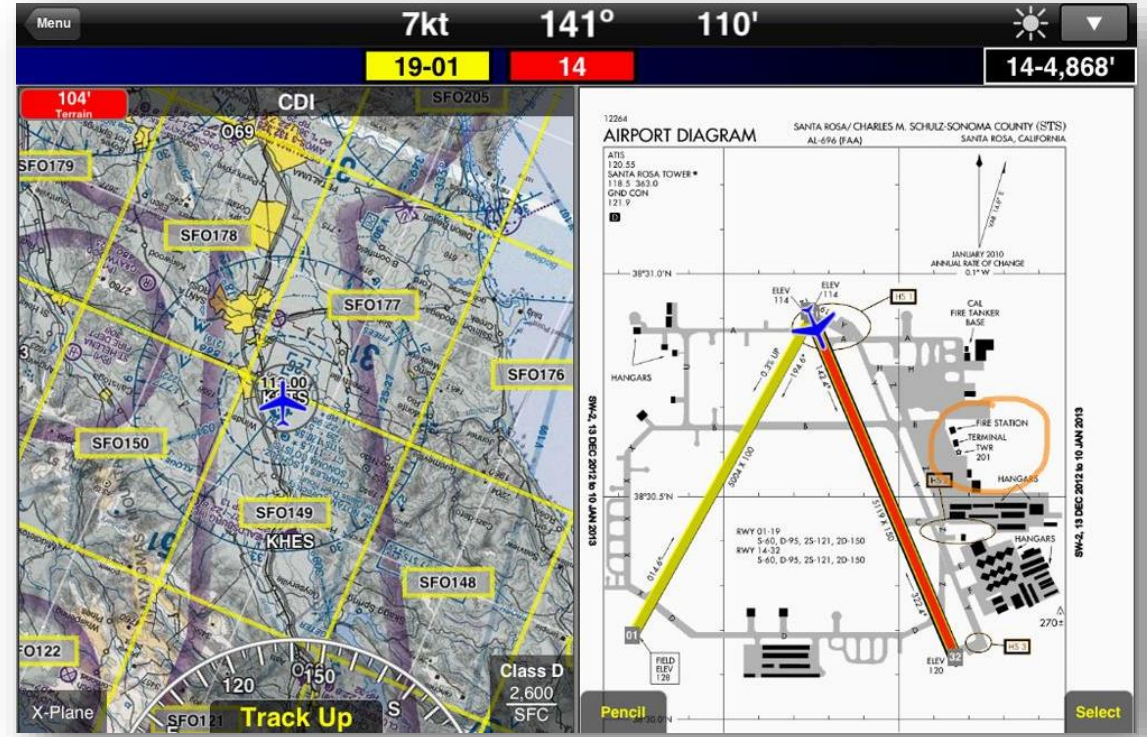
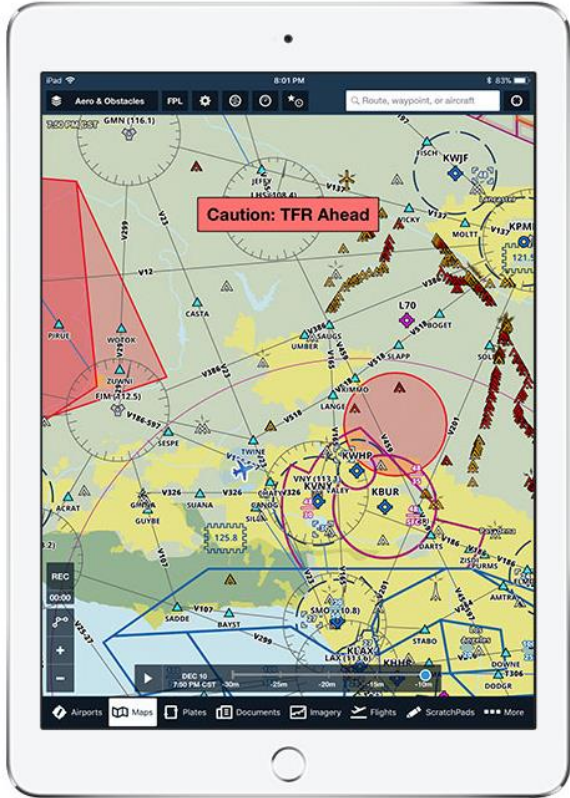
## Situational Awareness



Federal Aviation Administration



# Electronic Flight Bags



[AC 120-76D: Authorization for Use of Electronic Flight Bags](#)

[ForeFlight Workshops](#)

## Situational Awareness



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# Flight Data Monitoring



- Cockpit Voce Recorder (CVR)
- Flight Data Recorder (FDR)



# Flight Data Monitoring for GA



**Flight Data**

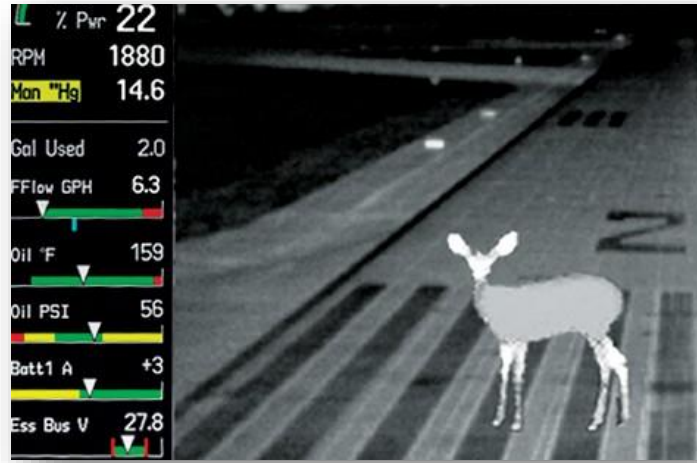


**Flight Data + Visual**

Manufacturers are already offering self-contained flight data and visual data recorders for GA aircraft  
Operators of this equipment must periodically download and analyze the recorded data



# Enhanced Vision



A word of caution:

Enhanced vision technology takes some practice.

You'll have to make the transition to visual references at some point and that can be a challenge



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# Synthetic Vision



Using information from navigation databases we can create a picture of the flight environment and overlay that picture with aircraft instrumentation and weather information to create a single image that contains all of the information necessary for safe flight operations—Gosh!



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# Angle of Attack Indicators



# AOA For GA



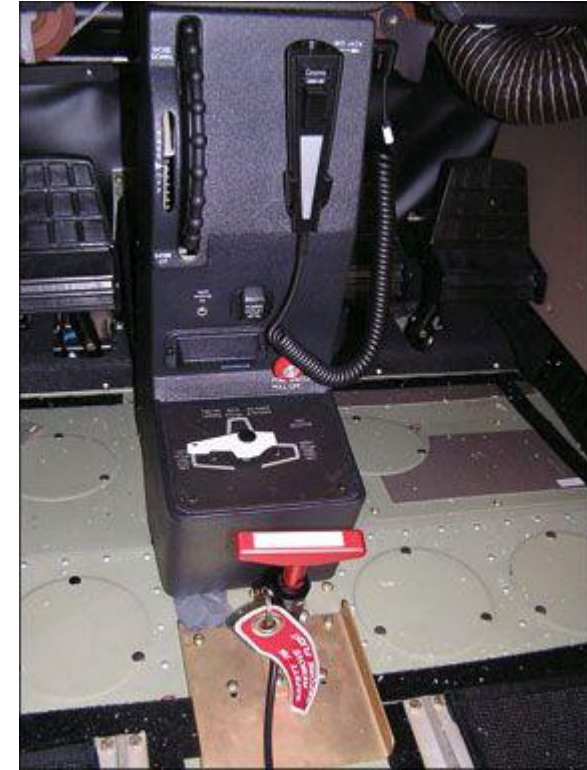
## Crutch or Cure?

Flying with reference to angle of attack, can go a long way toward reducing the number of stall/spin accidents



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# Ballistic Recovery Systems



Ballistic recovery systems (parachutes) are standard equipment on some general aviation aircraft. There's a growing market for retrofit installations.



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# Emergency Autoland (EAL) Technology

- Navigates to nearby 'suitable' airport
- Squawks 7700 and broadcasts on ATC and emergency frequencies
- Aircraft in distress priority
- Does not scan for or avoid traffic!
- Will stop on landing runway and shut down engine(s)



# Electronic Ignition for Aircraft

- **Fewer Mechanical Parts**
  - Generally, more reliable than magnetos
- **Reduced maintenance expense**
- **Increased fuel efficiency**
- **Requires electrical power source...**
- **So, replace one mag only!**



And the list goes on .....

**Flight Management Systems**

**Autopilots**

**Survival Gear**

**Engine Analyzers**



# Streamlined Certification Process

The screenshot shows the FAA website's navigation bar with the logo and links for Home, Jobs, News, About FAA, A-Z Index, and FAA for You... A search bar is also present. Below the navigation bar, a menu lists various FAA services: Aircraft, Airports, Air Traffic, Data & Research, Licenses & Certificates, Regulations & Policies, and Training & Testing. The main content area features a breadcrumb trail: FAA Home > News > Press Releases. On the left, a sidebar lists categories like Press Releases, Fact Sheets, Speeches, Testimony, News & Updates, Media Advisories, Conferences & Events, FAA Safety Briefing, Public Affairs Contacts, and Stay Connected. The central article is titled "Press Release – FAA Clears Path for Installation of Angle of Attack Indicators in Small Aircraft" and is marked as "For Immediate Release". It is dated February 5, 2014, and provides contact information for Les Dorr or Elizabeth Isham Cory. The article's main headline is "Measure Could Improve Safety in Thousands of Aircraft". The text begins with "WASHINGTON – The Federal Aviation Administration (FAA) today took an important step to help improve safety in small aircraft by simplifying design approval requirements for a cockpit instrument called an angle of attack (AOA) indicator. AOA devices, common on military and large civil aircraft, can be added to small planes to supplement airspeed indicators and stall warning systems, alerting pilots of a low airspeed condition before a dangerous aerodynamic stall occurs, especially during takeoff and landing." To the right of the article are "Print" and "Share" buttons. Below the article is a "FAANews on Twitter" section with a tweet from @Pawswithacause about assistance dogs at a conference, including a link to the tweet.

FAA Small Airplane Directorate has streamlined the process for production and retrofit approval of AOA and many other General Aviation safety devices





# **FLY SAFE**

*General Aviation Safety Enhancement Topics*

## Regular **Proficiency Training** Can Prevent Accidents

**GAJSC**  
GENERAL AVIATION  
JOINT SAFETY COMMITTEE



# The Path to Proficiency



***The path to proficiency doesn't end with a check-ride. It continues throughout your flying career***

***There is always more to do.***

***We should strive to be better.***

***Just ask your loved ones.***



# Quite Simple, Really

- **Gift #1 from the FAA: The Flight Review**
- **Gift #2 from the FAA: The *WINGS* Program**
- **Use the *WINGS* program to do a progressive flight review.**
  - Three flights with a CFI in 12-months, rather than “the chore” of the 24-month flight review



# WINGS Topic of the Quarter

- Easiest way to work with *WINGS*
- Three knowledge activities and three flight activities chosen for you
- Do one per quarter—gets you a phase of *WINGS* with all the rewards
- CFIs: Give *WINGS* credit after every instructional flight
- ToQ plans:



[https://www.faa.gov/gslac/ALC/lib\\_categoryview.aspx?categoryId=39](https://www.faa.gov/gslac/ALC/lib_categoryview.aspx?categoryId=39)

Activities, Courses, Seminars & Webinars Maintenance Hangar Pilots Resources Administration Page Help

The FAA Team | Directory | FAQ | Library | News | Notices | Representatives Library | Online Resources | RSS Web Feeds | Search | Sharepoint | Support | Training Providers

## Library

Category: WINGS  
(Return to the Document Category List)

These are the documents in the WINGS category of the Learning Center Library. Click on a link to view any document.

1 to 8 of 8 total 10

	<b>CFI Companion Document for Student and VFR Pilots WINGS Course</b> Viewing Options: <a href="#">Normal</a>
Description: Companion Document for the WINGS Course "How to Conduct Self-Briefings for Student & VFR Pilots"	
	<b>DPE WINGS Trifold</b> Viewing Options: <a href="#">Normal</a>
Description: List of WINGS Flight Activities for common DPE flights. WINGS Promotional product for distribution to successful practical test applicants	
	<b>Use of Flight Simulation Training Devices for WINGS Credit</b> Viewing Options: <a href="#">Normal</a>
Description: How to earn WINGS Flight Credit for training in certain approved flight simulation devices	
	<b>WINGS Common Certification Activities - Credit Request</b> Viewing Options: <a href="#">Normal</a>
Description: Did you know that in addition to getting WINGS credit for completing certain flight activities, you could also get credit through your regular flight certification activities...	
	<b>WINGS Flight Instructor Guide</b> Viewing Options: <a href="#">Normal</a>
Description: Instructions for Flight Instructors to implement and administer the WINGS Program.	
	<b>WINGS Promo - One Page</b> Viewing Options: <a href="#">Normal</a>
Description: A one-page invitation to participate in WINGS	
	<b>WINGS Topic of the Quarter - Checklist</b> Viewing Options: <a href="#">Normal</a>
Description: WINGS Topic of the Quarter has been updated within the WINGS Library Folder. Print documents for use on your path to proficiency. For the new Easy WINGS Activity Plan Alpha...	
	<b>WINGS Topic of the Quarter Overview</b> Viewing Options: <a href="#">Normal</a>
Description: Explains the WINGS Topic of the Quarter Program and links to supporting knowledge and flight activities	





# WINGS Topic of the Quarter – Knowledge



FAA  
Aviation Safety

WINGS Topics of the Quarter

## Knowledge Topics:

### Spring Knowledge Topic

Follow the QR code or link below to take a course on **Aeronautical Decision Making**. (ALC-62)



<https://bit.ly/2G0TY0r>

Date Completed \_\_\_\_\_

*WINGS flying is more than half the fun. Turn the page and complete your Spring **WINGS Flight Activity** with your CFI.*

Basic Knowledge Topic 1

### Summer Knowledge Topic

Follow the QR code or link below to take a course on **Positive Aircraft Control** (ALC-36)



<https://bit.ly/2L1HnbX>

Date Completed \_\_\_\_\_

*It's time to apply your **WINGS** knowledge in flight! Plan to complete the Summer **WINGS Flight Activity** that will keep you flying at the top of your game!*

Basic Knowledge Topic 2

### Fall Knowledge Topic

Follow the QR code or link below to take a course on **Inflight Icing** (ALC-33)



<https://bit.ly/2EtqExi>

Date Completed \_\_\_\_\_

*Enough of the bookwork. Now it's time to fly! Complete the rewarding Fall **WINGS Flight Activity** on the back of this page.*

Basic Knowledge Topic 3

### Winter Knowledge Topic



Follow the QR code or link below to take a course on **Avoiding Loss of Control** (ALC-214)



<https://bit.ly/1q0cP8T>

Date Completed \_\_\_\_\_

*It's time to spread your **WINGS** and broaden your horizons. Schedule your Winter **WINGS Flight Activity** with your CFI..*

Knowledge Topic

## WINGS Tips

- ♦ Complete at least the spring, summer, and fall items on each side of this sheet every twelve months to stay current in **WINGS**.
- ♦ Once you have registered on [FAASafety.gov](http://FAASafety.gov), successful completion of these courses will automatically be credited to your My **WINGS** account.

## Need Help? Ask a Pro!

Search the **FAASTeam** directory to find a **WINGSPro** near you!

- Easy to do the three knowledge activities
- Online proficiency courses
  - Self-paced
  - Do it at home
  - Build solid decision-making skills on the ground and in the air



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Administration

# WINGS Topic of the Quarter—Flight Activities

WINGS Topics of the Quarter



FAA  
Aviation Safety

## Flight Activities For SEL:

### Spring Flight Activity

Flight Activity: A070405-07  
Takeoffs, Landings, Go-Arounds



<https://bit.ly/2L1WceL>

**Objective:** To develop, review, or improve the airman's knowledge, airmanship and understanding the importance of maintaining positive aircraft control during takeoff, landing, and go-arounds.

I certify that  
holder of pilot certificate # \_\_\_\_\_  
has satisfactorily demonstrated proficiency in the required tasks as outlined in the WINGS - Pilot Proficiency Program, for activity #A070405-07 on \_\_\_\_\_

CFI Printed Name: \_\_\_\_\_

CFI # / Expiration: \_\_\_\_\_

CFI SIGNATURE: \_\_\_\_\_

### Summer Flight Activity

Flight Activity: A070405-08  
Slow Flight, Stalls, Basic Instruments



<https://bit.ly/2AZZNFm>

**Objective:** To develop, review, or improve the airman's knowledge, airmanship and understanding the importance of performing intentional stalls to familiarize the airman with the conditions that produce stalls.

I certify that  
holder of pilot certificate # \_\_\_\_\_  
has satisfactorily demonstrated proficiency in the required tasks as outlined in the WINGS - Pilot Proficiency Program, for activity #A070405-08 on \_\_\_\_\_

CFI Printed Name: \_\_\_\_\_

CFI # / Expiration: \_\_\_\_\_

CFI SIGNATURE: \_\_\_\_\_

### Fall Flight Activity

Flight Activity: A100125-07  
Airport Operations



<https://bit.ly/2G5Ybjl>

**Objective:** To develop, review, or improve the airman's knowledge, airmanship and understanding the importance of knowing and abiding by the rules and general operating procedures applicable to airports.

I certify that  
holder of pilot certificate # \_\_\_\_\_  
has satisfactorily demonstrated proficiency in the required tasks as outlined in the WINGS - Pilot Proficiency Program, for activity #A100125-07 on \_\_\_\_\_

CFI Printed Name: \_\_\_\_\_

CFI # / Expiration: \_\_\_\_\_

CFI SIGNATURE: \_\_\_\_\_

### Winter Flight Activity



Flight Activity: A100125-08  
Air Work – Proficiency Maneuvers & Ground Reference Maneuvers



<https://bit.ly/2Ei2rL0>

**Objective:** To develop, review, or improve the airman's knowledge, airmanship and understanding the importance of mastering the ability to control the airplane, and recognize and correct for the effect(s) of wind.

I certify that  
holder of pilot certificate # \_\_\_\_\_  
has satisfactorily demonstrated proficiency in the required tasks as outlined in the WINGS - Pilot Proficiency Program, for activity #A100125-08 on \_\_\_\_\_

CFI Printed Name: \_\_\_\_\_

CFI # / Expiration: \_\_\_\_\_

CFI SIGNATURE: \_\_\_\_\_

- Easy to do these rewarding light activities
  - With your CFI
  - At least 3 times a year!
  - Go on...do the bonus 4<sup>th</sup>!



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# Summer Training (Flight Activity)

Summer  
Flight Activity

Flight Activity: A070405-08

Slow Flight, Stalls,  
Basic Instruments



<https://bit.ly/2AZZNFM>

**Objective:** To develop, review, or improve the airman's knowledge, airmanship and understanding the importance of performing intentional stalls to familiarize the airman with the conditions that produce stalls.

I certify that

holder of pilot certificate # \_\_\_\_\_  
has satisfactorily demonstrated proficiency in the required tasks as outlined in the WINGS - Pilot Proficiency Program, for activity #A070405-08 on \_\_\_\_\_

CFI Printed Name: \_\_\_\_\_

CFI # / Expiration: \_\_\_\_\_

CFI SIGNATURE: \_\_\_\_\_



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Activities, Courses, Seminars &

[Activities](#) | [Courses](#) | [Seminars & Webinars](#) | [Topic](#)

## Accredited Activity Info

Name: ASEL-Slow Flight friendly)

Credits: \_\_\_\_\_

1 Credit for B

Activity Number: A070405-08

Syllabus: [S-BF2-W1.00-0801](#)  
Slow Flight, Stalls,

Request Credit

Name: ASEL – Slow Flight, Stalls, Basic  
– (Pvt, Comm'I, ATP)

Activity Number: A070405-08

Credits: 1 Credit for Basic Flight Topic 2

Revision: June 2019

Syllabus: S-BF1-W1.00-080124-02-01

**1. BACKGROUND** – Loss of control, particularly Aviation fatal accidents. This and other WINGS airmanship, proficiency, flight discipline and r

In this WINGS Flight Activity the airman a recommended procedures for the safe op

Slow Flight and Stalls. It is essential that its aerodynamic buffet or stall-warning, an airplane feels and looks. It is important to develop proficiency in stall recognition an

## WINGS Flight Activity # A070405-08 Worksheet ASEL – Slow Flight, Stalls, Basic Instruments

DATE: \_\_\_\_\_

LOCATION: \_\_\_\_\_

AIRMAN:	AIRMAN CERTIFICATE #:	AIRMAN EMAIL:	TYPE AIRCRAFT/SIMULATOR USED	BLOCK TIME
CFI:	CFI CERTIFICATE #:	CFI EMAIL:	<b>WINGS Flight Activity Completed:</b> <input type="checkbox"/> YES <input type="checkbox"/> NO	

**NOTE:** The Flight Instructor will ensure the airman possesses the knowledge, ability to manage risks, and skills consistent in the performance of flight maneuvers specifically listed in the Areas of Operation for Takeoffs, Landings and Go-Arounds; Emergency Operations, and Night Operations (as applicable) to the ACS completion standards. While this WINGS Flight Activity targets specifically the Takeoff, Landing, and Go-Around Area of Operation, Airmen should satisfactorily demonstrate all pertinent parts of the ACS in their Preflight, Flight, and Post Flight activities consistent with their certificate or rating. For WINGS credit, the airman will satisfactorily demonstrate the maneuvers and procedures listed in bold text below, using both outside visual references and cross checked with the flight instruments, for the privileges of the certificate or rating being exercised in order to act as Pilot-in-Command (PIC).

### Principal ACS Areas of Operations for this WINGS Flight Activity (Bold Items Required):

AREA OF OPERATION	GRADE		AREA OF OPERATION	GRADE	
	FM	SRM		FM	SRM
I. PREFLIGHT PREPARATION			<b>VIII. BASIC INSTRUMENT MANEUVERS</b>		
II. PREFLIGHT PROCEDURES			• STRAIGHT-AND-LEVEL FLIGHT		
III. AIRPORT AND SEAPLANE BASE OPERATIONS			• CONSTANT AIRSPEED CLIMBS		
IV. TAKEOFFS, LANDINGS, AND GO-AROUNDS			• CONSTANT AIRSPEED DESCENTS		
V. PERFORMANCE AND GROUND REFERENCE			• TURNS TO HEADINGS		
VI. NAVIGATION			• RECOVERY FROM UNUSUAL FLIGHT ATTITUDES		
<b>VII. SLOW FLIGHT AND STALLS</b>			• RADIO COMMUNICATIONS, NAVIGATION SYSTEMS/FACILITIES, AND RADAR SERVICES		
1. MANEUVERING DURING SLOW FLIGHT			IX. EMERGENCY OPERATIONS		
2. POWER-OFF STALLS			X. MULTIENGINE OPERATIONS		
3. POWER-ON STALLS			XI. NIGHT OPERATIONS (AS APPLICABLE)		
4. SPIN AWARENESS			1. NIGHT PREPARATION		
5. MANEUVERING DURING SLOW FLIGHT			XII. POSTFLIGHT PROCEDURES		

**COMMENTS:** (Use back for additional notes)

# Need help with *WINGS*?

# Talk with your local *WINGSPro*

Home About the FAASafety Team  
Search FAASafety Website

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The FAASafety Team | Directory | FAQ | Library | News | Notices | Representatives Library | Online Resources | RSS Web Feeds | Search | Sharepoint | Support | Training Providers

### FAASafety Online Directory

sbateman7799@gmail.com (Lead Representative) Logout

FAASafety Team Mission FAASafety Online Directory Join the FAASafety Team Link to FAASafety.gov

Enter a last name or keyword and click Search. You may also select a different Region before clicking Search. Sort the names by making a choice in the drop-down menu in the Sort area and clicking Search. After your list appears, you may click on the name of any person or company in the directory to retrieve more information.

Last Name:  Keywords:

Region:  State:  WINGSPro   
DronePro

Sort By:  Then By:

Select at least one of the following positions in your report

NFM  Nat'l Admin  RPOC  FPM  Lead Rep  Rep  Service Provider  Industry Member  Unassigned

[Click to Hide Map](#)

RESULTS 1 - 3 OF 3		PER PAGE					
Name	Position	Status	Updated	Last Login	ALC-270 Comp Date	ALC-257 Comp Date	Most Recent Other Rep Training Date
Philip Mendel Beverton, OR 97008	FAASafety Team Lead Representative	Accepted	11/26/2021		2/13/2021	6/6/2023	
Stephen Bateman Redmond, OR 97756	FAASafety Team Lead Representative	Accepted	1/29/2024		8/7/2015	1/2/2024	6/29/2016
Ace McCrady College Grove, OR 97424	FAASafety Team Lead Representative	Accepted	10/25/2018		11/28/2017	9/27/2023	

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# Welcome to **E-Z WINGS**

<https://ezwings.net/>

**E-Z WINGS** provides access to FAA accredited activities to earn **WINGS** credits for:

- ALL Check-rides
- ALL Flight Reviews and IPCs
- ALL Categories and Classes of Aircraft
- Now Including Student Pilots
- And Organization Specific Activities



The screenshot shows the E-Z WINGS website interface. At the top, there is the WINGS Industry Network logo, which features a globe with wings. Below the logo, the text "WINGS Industry Network" is displayed in red and blue, followed by "E-Z WINGS" in red. Below this, there are four blue buttons with white text: "Login FAA WINGS", "Request Credit", "Validate Requested Credit", and "Give Credit". At the bottom of the interface, there is a gold pilot wings badge with "FAA" in the center and "FIRST TEAM WINGS MASTER" around it. Below the badge, the text "FAA Pilot Proficiency Program" is displayed in blue.



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# Scenario-Based Proficiency Training Works

- Increases confidence
- Increases comfort
- Expands horizons
- Keeps us safe



Earning any WINGS phase qualifies for a Flight Review!



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# Safety Management Systems (SMS) Coming to General Aviation

## Scale it for your own needs

### Safety Policy

The Certificate Holder's documented commitment to safety, which defines its safety objectives and the accountabilities and responsibilities of its employees regarding safety.

### Safety Risk Management

A process within the SMS composed of describing the system, identifying the hazards, and analyzing, assessing, and controlling safety risk.



### Safety Assurance

Processes within the SMS that function systematically to ensure the performance and effectiveness of safety risk controls and that the organization meets or exceeds its safety objectives through collecting, analyzing, and assessing information.

### Safety Promotion

A combination of training and communicating safety information to support an organization's safety performance and safety culture.



<https://www.faa.gov/about/initiatives/gasafetyoutreach>



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# But I'm just one pilot....

“I don't fly for an airline, and I don't belong to a club. I don't have an organizational culture that influences my operational decisions.”

## Reality:

- You are part of the GA culture, like or not
- *You* are high risk...a fixed wing non-comm GA pilot
- Become a *WINGS* pilot,
- Set personal minimums
- Treat the flight review seriously
- ...get it?
- You have control
- I have control
- You have control—you have one life to make this count



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# Why *WINGS*?

5. *WINGS* Training yields rewards!
4. *WINGS* Proficiency training works!
3. *WINGS* coaching gets results!
2. *WINGS* broadens your horizons!
1. *WINGS* pilots are:
  - Competent!
  - Confident!
  - Safe!



# References-1:

- **FAASafety.gov**
  - Information and enrollment for *WINGS* Pilot Proficiency Program
- **Off Airport Ops Guide**
  - Baseline performance determination examples
  - [https://www.faasafety.gov/gslac/ALC/libview\\_normal.aspx?id=135893](https://www.faasafety.gov/gslac/ALC/libview_normal.aspx?id=135893)
- **Personal Minimums Development Guide**
  - [https://www.faasafety.gov/gslac/ALC/libview\\_normal.aspx?id=9091](https://www.faasafety.gov/gslac/ALC/libview_normal.aspx?id=9091)
- **AC 120-76D** Authorization for Use of Electronic Flight Bags
  - <https://tinyurl.com/2cpsy75p>



# Homework-1: Think before you add...

- **STC or PMA?**
- **W&B considerations**
  
- **Review Mike Busch's (EAA) webinar "Is it legal to install?"**
  - May 2020: <https://youtu.be/padWhgoo9cU>
  - What if you want to install something in your certified aircraft—e.g., an automotive seat heater—but the thing you want to install isn't STC's, PMA'd, TSO'd, or otherwise FAA-approved? Is it legal to do that? Do you need a field approval?



# Homework-2:

- “Supplemental Checklists for Aftermarket Safety Equipment in 57 Seconds”
  - Adding to the basic checklist
  - <https://www.youtube.com/watch?v=6i8I7Nup5Hw>

## Aftermarket Safety Equipment

The installation and use of aftermarket safety equipment like shoulder harnesses, engine monitoring equipment, enhanced and synthetic vision systems, and angle of attack indicators, can significantly reduce the likelihood or severity of some general aviation (GA) accidents.

### Fasten Your Seatbelt

Many GA aircraft are limited to single-belt restraint systems, but adding shoulder belts can give you the best chance of sustaining minimal or no injury in many accident scenarios. Some of these systems also integrate inertia reels and rotary buckles with quick-disconnect release mechanisms. It's fairly common to have this kind of equipment installed via a Supplemental Type Certificate (STC) for many older GA aircraft with single-belt restraints.

Airbag seatbelts are another safety-enhancing option worthy of consideration. Several aircraft manufacturers now provide them as standard equipment, and there's a growing aftermarket



AmSafe's Seatbelt Airbag System (SOARS) is an example of an aftermarket lapbelt airbag restraint system, which is designed to mitigate head and torso injury in aircraft crash conditions. Photo courtesy AmSafe, Inc.

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installation business for airbag seatbelts. These systems are designed to deploy once a certain amount of consistent longitudinal deceleration is detected and to protect occupants from striking the glare shield, instrument panel, and control yoke.

It's also a good idea to be familiar with your seat belt system, especially if you install something new, as the latches could open left to right, or right to left. It may not seem like a big deal, but during an emergency, your ability to release a seat belt and exit the aircraft may be compromised by darkness, smoke, or injury. You may also find that some buckles are difficult or impossible to open under load. Using one hand on or under the seat can help take the strain off the buckle before releasing the latch.

### Recording in Progress

Additional safety features suitable for GA airplanes are flight data monitoring and recording systems.

*Continued on Next Page*

# Homework-3:

- a. Look carefully at your seat belts and ask a few questions...
- b. Do some research on:
  - Synthetic vision
  - Angle of attack indicators
  - Engine and flight data monitors
  - Predictive maintenance (data upload and analysis)
- c. Don't just “wing it”, fly with a CFI doing *WINGS* activities



# Homework-4: GA Proficiency



- [https://youtu.be/3o8\\_f57828U](https://youtu.be/3o8_f57828U)



# Homework-5: Resources—General

- **Spend some quality time with these resources:**
- [Perfecting Your Preflight Inspection](#)
- [A Closer Look at Personal SMS](#)
- <https://www.aopa.org/training-and-safety/air-safety-institute>
- [Safety to Go](#)
- [faasafety.gov](http://faasafety.gov)
- [Pilot Minute](#)
- [57 Seconds To Safer Flying](#)
- [FAA Safety Briefing Magazine](#)
- [From the Flight Deck](#)
  - <https://www.youtube.com/playlist?list=PL5vHkqHi51DSNpsBC8nb8Q8gFcGVmWhGA>
  - [https://www.youtube.com/watch?v=303Pd\\_2UAmU](https://www.youtube.com/watch?v=303Pd_2UAmU)

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# Homework-6: Post-Flight SLAP

After every flight, *SLAP* yourself and create actions for the next flight. Self evaluation:

**S:** How were my **Skills** today?

**L:** What did I **Learn** today?

**A:** How was my **ADM** today?

**P:** How was my **Planning** today?





# Next Month's TOM:

## The National FAA Safety Team Presents

### Topic of the Month—July 2024 Short Field Operations

Presented to: Safety Minded Aviators, Everywhere...  
By: Stephen Bateman, CFI, Chocks Away Aviation, LLC  
Date: Tuesday 16<sup>th</sup> July 2024

**Produced by:**  
**The National FAA Safety Team (FAAS Team)**



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# Thank you for attending!

## You are vital members of our GA safety community!



# Not Recorded, But Even Better...

- PDF of these slides available for further study and use
- Actual slides post on the third Sunday of every month (May 19<sup>th</sup>)
- <https://bit.ly/ToMSafetyArticle>
- Select the safety article (month) of interest
- Open and save the PDF



- Thanks to the AOPA Flying Clubs Initiative

