



Higher Living

I can tell it is spring because all the airplanes are dusted with pollen every day.

In this issue of Higher Living I discuss Flight Information Regions, how to become an airplane mechanic, how to become a flight instructor, the differences between a SIGMET and an AIRMET (always important for spring and summer flying) and the mysteries of the fuel gascolator. I hope each of those articles will be interesting to you.

Spring marks the time of year when airshows begin to appear. The first is Sun 'n Fun in Lakeland, FL on April 9-14. In May 11-12 the Marine Corps Air Station Cherry Point

airshow in Havelock, NC. Cherry Point is scheduled to host the Blue Angels. Also, will be an F-22 demo and Harrier and Osprey flights. The next huge event is Airventure 2024 at Oshkosh, WI on July 22-28.

Try to attend an air show this year. They are great family events. A really good website for airshow info is:

<https://airshowstuff.com/v4/airshow-calendar/2024-airshow-aviation-event-calendar/>

Come fly with us.

- David Williams, Editor

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aircraft maintenance. Alternatively, some individuals gain experience through on-the-job training or apprenticeships under the supervision of a certified mechanic. You will need to obtain practical, hands-on experience either through an apprenticeship program, entry-level position, or on-the-job training.

To be eligible for certification, candidates must be at least 18 years old and able to read, write, speak, and understand English. You must pass a series of written, oral, and practical exams administered by the Federal Aviation Administration (FAA). The exams cover various aspects of aircraft maintenance, including airframe and powerplant systems. Upon successful completion of the exams, candidates receive the FAA Airframe and Powerplant (A&P) Mechanic Certificate. Aircraft mechanics may choose to pursue additional certifications for specialization in areas such as avionics, composites, or specific aircraft types.

Aircraft mechanics need to stay informed about technological advancements and changes in regulations. Your A&P certificate needs to be renewed every two years. This typically involves completing ongoing training or continuing education.

Some experienced mechanics pursue an Inspection Authorization (IA), which allows them to inspect and approve aircraft for return to service.

Mechanics are needed in the area so this might be a great side job for you.

What is the Difference Between a SIGMET and an AIRMET?

SIGMET (Significant Meteorological Information) and AIRMET (Airmen's Meteorological Information) are two types of aviation weather advisories issued by meteorological authorities to inform pilots about significant weather conditions that may affect flight safety. While both serve the purpose of providing important weather information, they differ in terms of the type of information they convey and the criteria for issuance. Here are the key differences between SIGMET and AIRMET:

SIGMETs are issued to alert pilots about significant meteorological phenomena that may affect the safety of all aircraft in a specific area. These phenomena include severe turbulence, severe icing, and volcanic ash clouds. They primarily focus on severe or hazardous weather conditions that pose a significant risk to aviation safety.

SIGMETs are issued intermittently and only when significant weather conditions occur. They are not regularly scheduled. The information is time-sensitive, and pilots should take prompt action to avoid the specified weather phenomena.

SIGMETs are issued by Aviation Weather Centers (AWC) or meteorological authorities responsible for providing aviation weather information.

AIRMETs are issued to inform pilots about weather conditions that may be hazardous to smaller aircraft or to pilots with limited flying experience. These conditions may not be as severe as those covered by SIGMETs. They cover a broader range of weather, including moderate turbulence, low-level wind shear, and IFR (Instrument Flight Rules) conditions. They are advisory in nature and provide cautionary information.

AIRMETs are issued on a scheduled basis, typically three times a day, and cover a broader range of less severe weather conditions. They cover a more extended period, often up to six hours. This allows pilots to plan for weather conditions that may affect their flight during the specified time frame.

AIRMETS come in three flavors:

There is an AIRMET Sierra issued for IFR conditions with ceilings of less than 1000 feet and/or visibility of under 3 miles over at least 50% of the affected area.

An AIRMET Tango is issued where there is moderate turbulence, non-convective low-level wind shear, or sustained surface winds of 30 knots or more.

Finally, an AIRMET Zulu is issued for moderate icing conditions and

freezing levels. When an AIRMET Zulu is in place, there are freezing conditions in the area, so pilots should be alert for icing.

AIRMETs are issued by local weather offices or centers responsible for providing routine weather information to pilots. They can be in text or graphical forms.

In summary, SIGMETs are issued for severe and immediate weather threats, focusing on phenomena that can significantly impact aviation safety. AIRMETs, on the other hand, provide cautionary information about a broader range of weather conditions that may affect a wider range of aircraft and pilots, with a focus on less severe phenomena. Pilots use both SIGMETs and AIRMETs to make informed decisions about their flights and adjust their plans to mitigate the impact of adverse weather conditions.

How to Become a Certificated Flight Instructor

Becoming a flight instructor is a significant step in a pilot's career, as it not only allows you to share your knowledge and passion for flying but also enhances your own skills. Here's a step-by-step guide on how to become a flight instructor:



The start of the whole process is a Private Pilot certification and probably an Instrument Rating. The Instrument Rating increases your proficiency and makes you more marketable as an instructor. The next step is a Commercial Pilot certificate. There are no particular number of hours required to qualify for the CFI but getting the Commercial will require at least 250 hours.

Pass the Fundamentals of Instruction knowledge test. This test is very different from any you have taken as a pilot. It concentrates on the process of learning.

Take and pass the Certified Flight Instructor (CFI) knowledge test. This test evaluates your understanding of aviation principles, regulations, and teaching methods.

Enroll in a CFI training program with a flight school or an independent instructor. This training focuses on teaching techniques, flight instruction procedures, and how to prepare students for their checkrides.

Successfully complete the Certified Flight Instructor practical test, also known as the checkride.

This involves demonstrating your ability to teach and assess the performance of a student pilot.

Some flight instructors pursue additional certifications such as the Instrument Flight Instructor (CFII) or Multi-Engine Instructor (MEI) to broaden their teaching opportunities.

Once you become a certified flight instructor, gain experience by teaching a variety of students. This experience is valuable for honing your instructional skills.

Stay current on your flight instructor certificate by meeting any recurrent training requirements. Additionally, consider continuous professional development to enhance your skills and knowledge.

Network within the aviation community to learn about job opportunities. Many flight instructor positions are obtained through personal connections and recommendations.

Apply for flight instructor positions at flight schools, universities, or other aviation organizations. Some instructors start as independent contractors.

Always be a professional. Demonstrate professionalism, reliability, and a commitment to safety in your work. Building a good reputation is crucial for long-term success in aviation.

In order to maintain your instructor privileges you must have a number of hours of training

every two years, either online or in person.

It can be very satisfying to become a flight instructor and EFTS can help you get your certificate.

What is a Gascolator?

A gascolator is a component in some aircraft fuel systems designed to remove water and contaminants from the fuel before it reaches the engine. The term "gascolator" is a combination of "gas" (referring to aviation fuel) and "colator" (suggesting the process of straining or filtering).

Here's how a gascolator typically functions:



The gascolator is often located at a low point in the fuel system, typically between the fuel tank and the engine. In a Cherokee the lower portion of the gascolator protrudes from the bottom left side of the engine compartment where it is accessible for draining.

Its primary purpose is to separate any water or solid contaminants that may have entered the fuel system. Water can condense in

the fuel tanks due to temperature changes, and contaminants can enter the system during refueling or through other means.

Gascolators usually consist of a bowl or chamber where water and contaminants can collect, and a drain valve to remove them. The drain valve is opened before every flight to allow any collected water and contaminants to be drained out of the system.

Pilots inspect and drain the gascolator during pre-flight inspections or as part of routine maintenance. This is crucial for ensuring the fuel reaching the engine is clean and free from water, which could otherwise lead to engine performance issues. The draining procedure involves opening the drain valve and allowing any collected water or contaminants to flow out. You have been draining it every time you fly perhaps without knowing the exact reason.

In more modern aircraft, additional filtration systems may be used, and some aircraft may not have a separate gascolator if the fuel system design already incorporates effective means of water and contaminant separation. As with any component of an aircraft, proper maintenance and adherence to manufacturer guidelines are crucial to ensure the safety and reliability of the aircraft's fuel system.

Sky Team – Board Game Review

On Valentine's Day this year my wife gave me a board game called Sky Team. I want to review it a bit here because I believe it is something that pilots can enjoy playing. I think it's fun.



The game is available on Amazon, and other sources, for \$29.99, and is a cooperative game for 2 players and plays in about 20 minutes. The two people form a pilot/co-pilot team to land a plane. As both people have separate, but equally important, tasks to perform, it does not matter which position you choose.



It is interesting to me because it manages to simulate communication with ATC, lowering of flaps and landing gear,

leveling the airplane, adjusting the airspeed, and setting the brakes for landing. Also, pilots will recognize the sterile cockpit concept which is an important part of each turn. Additionally, it includes numerous different approaches of varying difficulty in terms of traffic volume, speed, turns and length. Also, it includes options for fuel related issues. Google "how to play Sky Team" to see numerous videos of how to play the game. Enjoy!

Question of the Quarter

Who was the first female pilot?

Answer:



Raymonde de Laroche, a Frenchwoman, became the world's first licensed female pilot in 1910.



Harriet Quimby was the first American woman to gain a pilot's license (August 1, 1911), to fly at night, and to pilot alone across the English Channel (1912).

You just learned something new.