



CFJ Quarterly

A newsletter from your Board of Aviation Commissioners

Pilots come to Crawfordsville to hear the news

There's lots of news in aviation!

Pilots from around Indiana gathered at the Crawfordsville airport recently to learn about new technology and new regulations that are changing the way pilots fly.

There's **new technology**: GPS—not just the GPS that guides your car to its destination. For aviation, it's a much bigger deal.

A new technology called “Nex-Gen” is being adopted in the United States and in many other countries. Using GPS references and new electronics, aircraft are being equipped to see each other without help from ground-based radar. New “black boxes” are being installed in aircraft of all sizes. These boxes talk to each other so pilots can know the exact positions of other aircraft, even before they're close enough to be seen. This system is coded “ADS-B” for “Automatic Dependent Surveillance-Broadcast.”

And there's news about **new regulations**. Pilots came to Crawfordsville to learn about new legislation passed by the US Congress. A new act, called “The Pilots Bill of Rights 2” trims back the current federal medical bureaucracy and assures that pilots can more easily maintain their required medical certification.

This is the news that drew more than 60 pilots to Crawfordsville on March 4. Our airport hosted a seminar to update them on these latest news items. Many participants flew in, some drove in, and all enjoyed the hospitality that our airport always provides.



Pilots fill the Crawfordsville maintenance hangar for an aviation news briefing.

Many of the visitors had never seen our airport. They remarked about our snazzy new terminal, the spacious and clean hangar that served as the meeting room, and several asked how we manage to keep everything so neat and new-looking.

To answer these questions, airport board member **Myra Dunn Abbott** opened the meeting by updating the visitors on all the recent improvements. “We've had a lot of new things happening at Crawfordsville and we're pretty excited about it,” Myra said. She listed these projects:

- Continually making major improvements in our airport.
- Extending our runway to 5,500 feet (more than a mile long).
- Building new long taxiways to serve the longer runway.
- Installing new brighter, bigger runway end safety lights (REIL and PAPI).



“Black box” expert Josh Wright explains how the new ADS-B system works.

- Installing new LED lights to outline the longer taxiways.
- Planning to build new hangars to accommodate more aircraft.
- Launching a program for hangars to be built at the occupants' expense.

Joshua Wright, owner of Lafayette Avionics, explained how the new ADS-B system will provide improved traffic control for aircraft. Josh is a pilot and uses the latest ADS-B equipment in his plane. He explained the basics of the new system:

- ADS-B replaces the 60-year-old radar-based system now in use.
- ADS-B is extremely accurate, guided by 10 to 12 GPS satellites at all times.



Maintenance expert Dave Gevers covers the new medical regulations.

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Welcome to our new board member, Deanna Durrett

The newest member of our Crawfordsville Municipal Airport Board of Aviation Commissioners was born in Crawfordsville and is now enjoying rural life in our community. Deanna Durrett and her husband, Rob, live on a farm where they love being outdoors. "I wake up every morning to sunshine, birds and flowers," she says.

Deanna has long had an interest in aviation. Her husband, Rob, was an air traffic controller in the Air Force and Deanna has a special admiration for that famous female flyer, Amelia Erhart.

Deanna has had an active role in our community, having served for a time as Acting Director of Economic Development of this area. She noticed that the airport is usually a topic of interest to businesses considering coming here. "This facility is such an asset to the economic development of Crawfordsville and Montgomery County," she says. "Many people may not be aware of how active this airport is." 



New lights for the taxiways

With the excellent runway we now have, improved taxiways are needed to give airplanes ready access. Previously, there were no lights on the taxiways, and planes arriving in dark hours had to rely on their landing lights to find their way to the terminal. When the runway was lengthened, the taxiways were lengthened, too. And, as a temporary measure, blue reflectors were placed along the taxiways.

Now a first-class system of LED lights is ready to be installed. Materials have arrived, and when weather and conditions allow, the lights and their underground wiring are ready to be put in place. This will further extend the usability of our airport, a full 24/7. 

Airport Board inspects the runway



At its most recent board meeting, members of our Board of Aviation Commissioners examine the runway to determine what maintenance is needed to keep the runway in first class

condition. Airport manager Bill Cramer points out cracks which need to be filled. Our consulting engineer, Ken Ross, advised that, with proper care, this runway can last for many years to come. 



Blue reflectors like this will be replaced with new electric lights.



New taxiway lighting materials are in place, ready for installation.

Dave's Aviation Tips

Doing your own maintenance

There are 32 Owner Performed Preventive Maintenance items described in FAA Advisory Circular 43-12A. You can get the full details from FAA.GOV. The titles of each task are shown below with our comments in italics.

1. Removal, installation, and repair of landing gear tires.

We can show you the proper way to break the bead (we have the tool), apply lubricating powder, align the red dot at the stem, and to ensure that the tube is not pinched.

2. Replacing elastic shock absorber cords (bungee cords) on landing gear.

We have a specialized tool for bungee cords.

3. Servicing landing gear shock struts by adding oil, air, or both.

We can show you how to use the nitrogen tank and specialized tool call a "strut pump".

4. Servicing landing gear wheel bearings, such as cleaning and greasing.

5. Replacing defective safety wiring or cotter keys.

We can show you how to twist safety wire using a safety wire pliers.

6. Lubrication.

7. Making simple fabric patches...

8. Replenishing hydraulic fluid in the hydraulic reservoir.

9. Refinishing decorative coating of fuselage.

10. Applying preservative or protective material to components.

11. Repairing upholstery.

12. Making small simple repairs to fairings, nonstructural cover plates, cowlings, and small patches and reinforcements.,

13, 14, 15, 17, 18, 19, 21, 22: Replacing: side windows, safety belts, seats or seat parts, bulbs, reflectors, and lenses of position lights, wheels and skis, cowlings, hose connections, prefabricated fuel lines.

16. Trouble shooting and repairing broken circuits in landing light wiring circuits.

20. Replacing or cleaning spark plugs and setting of spark plug gap clearance.

We have the tools to clean and gap plugs.

23. Cleaning or replacing fuel and oil strainers or filter elements.

We have tools required to cut open an oil filter for inspection.

24. Replacing and servicing batteries.



25. Cleaning of balloon burner.

26. Replacement or adjustment of nonstructural standard fasteners incidental to operation.

27. The interchange of balloon baskets...

28. The installation of anti-misfueling devices..

29. Removing, checking, and replacing magnetic chip detectors.

30. The inspection and maintenance tasks prescribed and specifically identified as preventive maintenance in a primary category aircraft (excluding...

31. Removing and replacing self-contained, front instrument panel-mounted navigation and communication devices that employ tray-mounted connectors...

32. Updating self-contained, front mounted panel-mounted Air Traffic Control (ATC) navigational software databases (excluding...

Must be a certificated pilot holding at least a Private Pilot certificate.

Must have appropriate maintenance and service information available.

Must log name and certificate number of person doing the work, date of work performed, and description of work done in maintenance records.

Must not involve complex assembly. 

Blackhawk helicopter makes touch-and-go



This military UH-60 Blackhawk helicopter visited our airport very briefly a few days ago. Airport board members watched as it approached, hovered to a position near the airport apron, then set down.

It flew away after executing a quick pilot change.

Blackhawks are widely used by the Army, Navy, Air Force, and Coast Guard. They don't often come calling at local airports. 

Pilot's news update *continued*

Josh Wright's ADS-B comments continued

- ADS-B gives complete information on aircraft position, direction of travel, speed and identification.
- The deadline for installing ADS-B equipment is January 1, 2020.
- All aircraft must be properly ADS-B equipped to fly into major traffic areas such as around Indianapolis, Fort Wayne and Chicago.
- The only exempt aircraft are those few built without electric generators or alternators.
- There are two ADS-B systems: UAT and 1090ES, with different equipment requirements.
- Many types of equipment are available, some also showing radar weather.
- Avionics shops are busy with ADS-B installations; Josh's shop is booked until November, 2017.



Hangar talk is part of any pilot gathering.

Dave Gevers, the head of maintenance for the Crawfordsville airport and a certified flight instructor, gave out the news about the new Act of Congress that affects all pilots:

- The Pilots' Bill of Rights 2 was signed into law on July 15, 2016.
- It has **two major parts**:
 - 1) More effective **enforcement procedures** for pilots, and
 - 2) More efficient **pilot medical certification**.
- In **enforcement procedures**, pilots have better access to information and appeals.
- The FAA now has an alternative to harsh enforcement actions such as license suspension.
- The alternative, compliance action, can involve retraining and recertification of the airman.
- In **pilot medical certification**, a new system is available called BasicMed.
- Requires a valid state driver's license and a valid FAA medical certificate, regular or special issuance, within the previous ten years from the date the legislation became law (July 15, 2016).



Visitors admire the world's biggest biplane.

- Pilots must complete a free web-based medical education course every 24 months. The certificate of completion must be kept in the logbook.
- Pilots must complete a prescribed physical exam every 48 months by any state-licensed physician. A notation of the visit and results are kept in the logbook.
- As before, if you develop certain cardiac, neurological, or mental health conditions, you must obtain a new medical certificate before you can fly.
- As before, pilots must continue to perform a biennial flight review with a certified instructor every two years.
- Pilots can elect not to use BasicMed and can continue to visit the AME doctors as before, at their option.
- Limitations on flying under Basic Med:
 - Aircraft up to 6,000 pounds maximum gross weight (per the type certificate),
 - Up to five passengers plus the pilot,
 - No higher than 18,000 feet,
 - No flying for compensation or hire,
 - But you can share cost with passengers, fly in coincidence with your business and in special events.
- BasicMed takes effect on May 1, 2017.



It's a great chance to share ideas.



Pilots flew a variety of airplanes to Crawfordsville for the update session.