



## President's Message

Greetings, EAA Chapter 524 Members!

After a wonderful flight north where I was able to test my knowledge at a controlled airport, I am looking forward to the new tower at FDK. Kevin Daugherty has been busy giving tours and it looks like they are just putting in the final touches before we'll have to dust off our radio skills. Todd Johnson, the manager of the FDK tower, and members of his staff will be at the Holiday Inn in Frederick on April 24 at 7:00 p.m. to explain operating procedures and answer any questions. It would be nice to put a face to the name of the folks on the other side of the radio, and get to know them a little bit prior to the commissioning of the tower May 1.



Our next meeting is May 3<sup>rd</sup>. **Remember that the meeting begins at 5 p.m.** Doug Kelley set up a wonderful program. First off, our chapter will provide hot dogs, hamburgers, chips and drinks for Chapter members. While you are munching on your food, you can take a break and view the RV-1 which will be on display in front of our hangar. This is *the first* in the series that Van designed and it has recently been restored by a group in Texas called "Friends of the RV-1." The airplane is being flown on a cross-country tour ending at AirVenture, where the plane will be donated to the EAA museum. This is your opportunity to view it first hand and ask questions about the

design and the restoration. (More information on the project can be found at [RV-1.org](http://RV-1.org).) The program continues with a panel discussion on "Homebuilt and Light Sport Safety".

With summer right around the corner, I expect the airport to be busy again. I look forward to future Chapter events and hope that you all have a wonderful flying season.

Wishing you clear skies,

**Mark Gosselin, President**

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## May Membership Meeting Program

As Mark just mentioned, the May membership meeting will be a special one. The program for the meeting proper will be "**Amateur-built and Light Sport Aircraft Safety – Status and Suggestions**". The program will be a panel discussion moderated by Doug Kelly. The panel members are:

- Jim Lauerman – retiring president of Avemco Insurance
- David Kenny – Statistician, AOPA Air Safety Institute
- Sandra McClure – FAA FFAST Team Manager
- Chad Jensen – EAA Staff, Homebuilders' Community Manager
- Terry Bartley – Homebuilder, FAA Representative

The panel discussion will take place during the normal meeting, starting at 7:30.



Come early to see the RV-1 and get some free food. One of the first stops for the RV-1 on this tour was at Sun 'n Fun where the designer and builder himself, one Dick VanGrunsven, got to fly it again for the first time since he sold it in 1968. An interesting side note to the story is that Van no longer fit comfortably into the cozy confines of the -1's cockpit. Apparently he's not as limber as he was back in the 60's. So they made some on-the-spot modifications to the rudder pedals and seat back to accommodate him. [Here](#) are some more pictures of Van getting reacquainted with his baby and checking out all of the modifications that had been made since he built it.

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## **Upcoming Events**

Saturday, April 21: Essex Skypark Pancake Breakfast Fly-in. 8 to 11 a.m. Rain date: April 22.

Tuesday, April 24: *Frederick Airspace & Tower: A New Class of Operations*, AOPA Air Safety Institute seminar. Holiday Inn at FSK Mall 5400 Holiday Drive, 7:00 – 9:00 p.m. No registration required. Arrive at 6:00 p.m. for refreshments.

Saturday, April 28: Chapter 524 lunchtime fly-out to Chester County airport. Contact Neil Dickinson if you're a member currently on non-flying status and would like a ride, or a pilot who would like to offer a ride to a member. Rain date: May 5.

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## **Workshop Dates Set**

Doug Kelly has gotten confirmation on a slate of workshops for this year. They are very similar to last year and can be found [here](#). Also, as we did last year, we will be having a picnic/cookout after one of the Saturday sessions for Chapter members and participants in the workshop. This year it will be after the Saturday session of the Electrical workshop in August.

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### ***The Wright Brothers In 1905 and Their Quest To Develop A Practical Airplane Part 12 – July and August, 1905***

According to Wilbur's Diary, their flying field at Huffman Prairie became flooded due to a hard rain early in July and that delayed flying experiments for several weeks. During this delay the brothers repaired the 1905 Flyer from damage incurred in Wilbur's crash on June 30 and made some changes that they hoped would improve the handling qualities of the airplane. The front rudder was increased to "about 84 [sq.] ft. and placed 12 ft. from front edge of machine. Turns upward 31 [degrees] and downward 26 [degrees]. Total weight about 870 lbs." The first flight in July, number nine for the year, occurred on Friday, July 14. Orville Wright was the pilot. "Time about 12 sec. Distance 568 straight ahead. The machine seemed to steer all right laterally, but after attaining high speed began to undulate somewhat and suddenly turned downward and struck at a considerable angle breaking front skids, front rudder, upper front spar and about a dozen ribs, and lower front spar and one upright. The machine rolled over on front edge. O.W. was thrown violently out through the broken top surface but suffered no injury at all." This accident is similar to the one in August 1904 when Orville was bruised and scratched all over. This was also the first and the last flight of July 1905. A letter to Octave Chanute dated July 16 is revealing regarding the evolution of the Wright flight control system and how the controls were manipulated. "We have made several changes in the operating handles and have had some trouble instantly acquiring familiarity with them. We are sure they will be a good thing when we have learned the combination properly, but they have cost us several rather unlucky breakages, aggregating several weeks of delay."



At this point The Wrights were operating their three-axis flight control system (twisting the wing tips for roll, the canard for pitch, and aft rudder for yaw) with the pilot lying prone on the lower wing. The pilot's left hand operated the pitch control, movement of the hip cradle controlled roll, and the right hand operated the aft rudder for yaw. One can only imagine the difficulties in manipulating these three separate controls with two hands and hips especially if you couple it with the inherent pitch instability of the 1905 Flyer.

Wilbur's Diary for July 25, 1905 lists a very important table that measured center of pressure (CP) travel on two separate 16" x 3 1/8" curved surfaces with depths of 1/19 and 1/12, the deepest curve 1/3 from front. The measurements indicated how the center of pressure moved at varying angles of attack—the Wrights call this the "Angle of Incidence"—referenced in percent from the leading edge. The angle of attack data points ranged from -2 to +89 degrees. Their measurements indicated that from -2 degrees to +12 1/2 degrees, the CP moved aft. From +14 degrees, the CP reversed course and moved forward.

Excerpt from Center of Pressure Table from Wilbur Wright's Notebook H, 1902-1905, p. 16, dated Tuesday, July 25, 1905.

[Travel Of] Center of Pressures

	Ang[le of] Incidence	Percent from front [edge]
	4 3/4 deg.	42 %
	7 1/2 deg.	36 %
Surface 16" x 3 1/8", Depth 1/19	12 1/2 deg.	33%
Deepest curve 1/3 from front	14 1/4 deg.	34%
	16 1/2 deg.	36%
	21 1/2 deg.	42%

The diary does not indicate how the measurements were conducted or why the experiments were undertaken. One can only speculate that Orville's June and July crashes precipitated the investigation of CP travel.

The brothers did not resume flying experiments until late August. On August 10, 1905, Wilbur wrote Octave Chanute, "Owing to daily rains we have had no chance to try the machine yet. It is clear now, but over a large part of the meadow [Huffman Prairie] we can get about only by jumping from hummock to hummock, the level ground being under water. It will probably be several days before we can do anything."

On Thursday, August 24 the flying field had dried up enough and Wilbur made three flights. With a "wind less than 2 mi. from south", Wilbur took off toward the west for flight #10 of the year. He flew "31 and 3/5 sec., 1556 ft. over ground. Found it impossible to make turn in time and so shut off engine and landed within a few feet of the stump." Wilbur's second trial of the day, flight #11, ended prematurely. "Turned up too suddenly. Speed insufficient to get a start as only six weights [on the catapult] (1,200 lbs.) used." His third trial, flight #12, got a good start. "690 meters [in] 45 3/5 sec. Awkwardness in handling side steering devices made it necessary to land to avoid going over fence. Landing made at high speed. [Landed in ditch.] The machine jumped the ditch at the beginning of the L, missing the corner by only three or four feet. Nothing broken in any of these three flights."

Flying resumed on Monday, August 28 with Wilbur making three flights, assisted by Orville and Charles Taylor, their machinist and engine builder. Flight #13 was straight ahead for "31 sec. 1,368 ft. over ground." Wilbur's diary comment is, "Shut off engine to avoid going over fence." Flight #14 did not go as well. "841 meters [in] 49 4/5 sec. Allowed the machine to turn up after shutting off engine and landed, almost at no speed, on rear tip of skids, breaking struts. [Broke rear ends of skids.] Repairs required about an hour before next flight." Flight #15 was a complete success, with Wilbur's Diary recording "1,290 meters [in] 1' 18 4/5 sec. Made complete circle and landed at starting point. Found the rear tail apparently too small. Geo. Feight and 6 farmers present."



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This is the first recorded complete circle with the 1905 Flyer and the fact that Mr. Feight and the six farmers were present indicates that the Wrights' activities were attracting outside attention.

Orville made his first flight since his July 14 crash on Wednesday, August 30. It was very short. Flight #16, the only flight of the day, was for "170 meters [in] 12 sec. This was first trial of O.W. with new rudder. A very comical performance. [Broke rear of four ribs.]" Wilbur's diary does not elaborate on the "comical performance" or describe the changes to the rudder.

On Thursday, August 31, Wilbur made the first, #17, of three flights on that day. He flew 1,041 meters in  $1' 5 \frac{2}{5}$ ", making a complete circle. Mr. Huffman, owner of the flying field, his three children, and a Mr. Morley and his two daughters were present. His second flight of the day, #18, was "541 meters in  $34 \frac{3}{5}$  sec. Large tail was put on just before this flight. It proved awkward to handle and machine was stopped at far end of field (34-ft. tail)."

Orville made the last flight of the day, #18. His flight was for "16  $\frac{1}{8}$  sec. 656 ft. over ground. Machine was allowed to turn up after engine was shut off, landing on rear ends of skids. Both skids injured and a few ribs of right wing broken at rear tips. The tail rudder proved to be hinged back of center of pressure."

This flight ended almost exactly as Wilbur's flight #14 did on August 28. The airplane pitched up and stalled when the engine was shut off.

To be continued... Gerard Blake



## Events

### Chapter Meetings

May 3, 2012 @ 7:30 P.M. – Monthly general meeting

May 10, 2012 @ 7:00 P.M. – Chapter Board meeting

### Lunch Fly-outs

Saturday, April 28 (rain date: Saturday, May 5). Fly-out to Chester County, Coatesville, PA airport (MQS).

Saturday, May 19. Location TBD.

### Chapter Program Schedule, 2012

Month	Program	Month	Program
January	Bob Calo - Ups & Downs of 1 <sup>st</sup> -time Aircraft Homebuilding	July	Engine Management Mark Pankratz
February	Resurrecting the Rare Detroit-Lockheed DL-2A Altair. Tom Haueter & Steve Berkman	August	ADS-B Dan Morris
March	Banquet	September	Velie Monocoupe and Electric Flight Doug Kelly
April	All About Gyrocopters Chris Burgess, CFI	October	TBD
May	RV-1/Homebuilt and Light Sport Safety Panel Discussion	November	TBD
June	AirCam cross-country trip, father and son. Claudius Klimt	December	TBD

### Refreshment Volunteers, 2012

Here is the list of volunteers supplying refreshments for 2012. The Board of Directors thanks you for your support (and munchies).

January	Kris Crone	July	OPEN
February	Jack Fromm	August	OPEN
March	Banquet	September	Mark Gosselin
April	Mark Gosselin	October	Joe Halleman
May	Alex Rossulek	November	Dean Stickell
June	Kris Crone	December	Kris Crone

### Chapter Officers

#### President

Mark Gosselin  
[N511JG@gmail.com](mailto:N511JG@gmail.com)  
703-966-8226

#### Vice President

Tom Proctor  
[proctortp@starpower.net](mailto:proctortp@starpower.net)  
301-972-8115

#### Secretary

Kris Crone  
[tomcrone123@msn.com](mailto:tomcrone123@msn.com)  
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#### Treasurer

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### Contacts

#### Newsletter Editor

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#### SportAir Workshop Coordinator

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#### Chapter Historian

Vacant

#### Young Eagles Coordinator

Vacant

#### Program Coordinator

Doug Kelly  
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301-963-2217

#### EAA Flight Advisors

Vacant

#### EAA Technical Counselors

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Tom Young  
301-667-0964

### The Frederick Flyer

EAA Chapter 524 and  
Aviation Education Center  
(FDK)  
Frederick, MD 21702



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## Workshops

### EAA SportAir Workshops

**June 23-24: Fabric Covering**

**August 18-19: Electrical (picnic to follow)**

**October 20-21: RV Assembly**

**January, 19-20, 2013, SportAir LSA Repair-Inspection Course, Airplane**

Parties interested in enrolling in workshops should contact Mark Forss or Joe Norris at EAA (1-800-236-4800) as soon as possible. You can find course information on the workshop schedule at <http://www.sportair.com/schedule.html>. To volunteer and help out with setup and observe the course, contact Doug Kelly, 301-963-2217.

### EAA Events

Go to EAA Events at: <http://www.eaa.org/news/>

Go to EAA Aviation Calendar of Events at: <http://www.eaa.org/calendar/>

Go to AirVenture at: <http://www.airventure.org/index.html>

Go to EAA SportAir Workshops at: <http://www.eaa.org/sportair/>

Unless otherwise noted, all events occur at the Chapter Hangar.

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## Classifieds

Wing stand (large one - used to hold the wings from a Stearman) is available to anyone wants it.

Thanks!

Mark Pankratz

703-819-1810

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## Chapter Discussion Group

Our Chapter has an e-mail discussion group hosted by Yahoo groups. This is a moderated group so we do not get spam. About a third of the Chapter participates. Chapter members are eligible for membership by joining at: <http://groups.yahoo.com/group/ea524/>

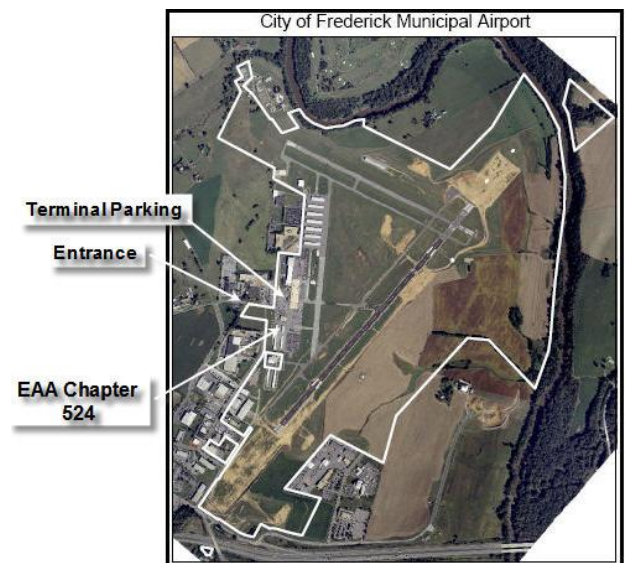
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## Chapter Meeting Location and Time

Chapter 524 meets the first Thursday of each month at 7:30 p.m. at the Aviation Education Center which is located at the Frederick Municipal Airport. As you enter the airport, park in the Terminal Parking lot. Walk south past the flight school (yellow building). There are signs on the end of the second row of hangars for the Chapter.

Additional information can be found at the Chapter website:

<http://www.angelfire.com/space/ea524/>





## EAA Chapter 524 Membership Registration

- For new members, annual dues are \$50 for individual membership or \$75 for family membership. Fill out this form and return it with your dues to the Chapter Treasurer.
- Cash or check accepted. Make check payable to **EAA Chapter 524**. Bring the form and dues to the next meeting or mail to **Neil Dickinson, 119 Heritage Lane, Sykesville, MD 21784**.
- If you have a question about your membership, contact the Treasurer at 443-340-3401 or [meildickinson@netzero.net](mailto:meildickinson@netzero.net). These dues help support the chapter and are not applied to the national organization.

### I. Registration Information (Print please)

Last Name \_\_\_\_\_ First Name \_\_\_\_\_

Member Status: New \_\_\_\_ Renewal: \_\_\_\_ No Changes: \_\_\_\_

Membership Type: Individual (\$50.00) \_\_\_\_ Family (\$75.00) \_\_\_\_

Other name(s) if Family Membership \_\_\_\_\_

EAA Membership Number \_\_\_\_\_ Member Since: \_\_\_\_\_

Phone Number (H) \_\_\_\_\_ (C) \_\_\_\_\_ (W) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

E-mail Address (for receiving notices & newsletter) \_\_\_\_\_

Aircraft/Projects/Interests \_\_\_\_\_

\_\_\_\_\_

### II. For Official Use Only

Status: New \_\_\_\_ Renewal \_\_\_\_ Individual: \_\_\_\_ Family: \_\_\_\_

Dues Paid: Check \_\_\_\_ Number \_\_\_\_ Cash \_\_\_\_ Amount \$ \_\_\_\_

Date Received \_\_\_\_/\_\_\_\_/\_\_\_\_ Fiscal Year (Jan. – Dec.) 20 \_\_\_\_

Treasurer's Initials \_\_\_\_ Roster updated \_\_\_\_/\_\_\_\_/\_\_\_\_ Deposited \_\_\_\_/\_\_\_\_/\_\_\_\_

----- Cut here. Keep Section III for your records -----

### III. Member's Receipt for EAA Chapter 524 Dues

Date paid \_\_\_\_/\_\_\_\_/\_\_\_\_ Dues paid for fiscal year 20 \_\_\_\_

Renewal - Individual Membership Dues: \$50.00 \_\_\_\_

Renewal - Family Membership Dues: \$75.00 \_\_\_\_

New - Individual Membership Dues: \$50.00 \_\_\_\_

New - Family Membership Dues: \$75

