

# CASCADE FLYER



Website: <http://co-opa.com/>

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## ***President's Message:***

Late minute events have shot down my well-laid plans for this month's meeting. We can still expect another fun and productive meeting so get down to the Flight Services Building at 6pm, June 17th, for some hanger flying, stay for the delicious potluck at 6:30pm and participate in the formal program at 7pm. No pilot should miss it.

Coming up at our July meeting, Jim Hultgrien Jr. from the Portland FSDO will join us for a safety presentation and will present two Wright Brothers Master Pilots awards. Should be a fun meeting so be sure to save the date.

And last but not least, be sure to come on down for Bend Airport Day on 19 June. The EAA will serve breakfast at 8pm and Cafe 3456 will be serving \$5 burgers for lunch. Airport Day usually winds down by 2pm but Steve Gibson plans to have music, food and drink going well into the evening in the Red Hanger. What a great way to start the Father's Day weekend!

## ***Calendar:***

17 June - Monthly Meeting  
19 June - Monthly FlyIN - Bend Airport Day  
  
15 July - Monthly Meeting  
17 July - Monthly Flyout  
  
19 August - Monthly Meeting  
21 August - Monthly Flyout.  
27-28 August - Air Show Of The Cascades @ S33  
  
16 September - Monthly Meeting  
18 September - Monthly Flyout

## ***Web doings:***

The Oregon Department of Aviation plans to publish a quarterly newsletter.

Sign up to be emailed a copy:

<http://listsmart.osl.state.or.us/mailman/listinfo/oda-flightlines>

Looking for an event to fly to?

Check out the OPA Calendar:

<http://www.oregonpilot.org/calendar.html>

As always you can check out current and past CO-OPA newsletters, view our membership list and view hot aviation links on our website at:

<http://co-opa.com>

To access the members only areas the username is "BDN" and the password is "123.0".

## ***My Inbox:***

The Bend Bulletin reported three encouraging local aviation stories this month. The FAA grants each airport \$150k for airport projects each year. Christmas Valley has negotiated a swap so that Bend gets their current FAA grant money and in return Bend will give Christmas Valley its 2012 grant. Combining that grant money with a Connect Oregon grant will fully fund an update to the KBDN airport master plan. No money will come from the City of Bend. The lack of a current master plan has been a point of contention between the city and the county so this is a welcome turn of events.

The FAA also struck a deal with Prineville to not only fund their current runway expansion but also a matching taxiway all to be completed this year. When it is completed their new runway will be 5,750 feet, which is 550 feet longer than the Bend runway.

### ***My Inbox - continued:***

In other good news, seven former customers of Epic Aircraft have formed a new company and are reopening the Epic factory. They already have 16 full time employees on the books and are working to resume production soon. We expect to see more new beautiful flying machines leaving their factory soon.

### ***Random Thoughts:***

Bad weather struck out last month's OPA board meeting but many of the Chapter representatives were still able to meet on a Skype conference call. Skype conferencing was a first for an OPA meeting but all involved were impressed with the quality of the sound as well as the savings in time and gas. Not as good as a face-to-face meeting but certainly a good alternative.

Topic number one for the OPA is the decline in total membership. A lot of pilots only pay dues to their local chapter, and many more do not even belong to a local chapter. Times are tough but \$25/year is a small price to pay for all that OPA stands for.

We need to get out the message about the benefits of OPA membership. Flying is by nature a solitary pursuit so major goals of the OPA are to provide a framework to gather, share our love and knowledge of flying, and work to preserve, protect, and even improve aviation in Oregon and beyond.

Most of the gathering occurs at the chapter level, but the OPA also hosts a day long annual meeting as well as holding quarterly meetings of chapter representatives around the state. While not very visible to the general membership, these meetings are an important conduit for the business of the association.

The general membership mostly sees the work of the OPA through the bi-monthly newsletter PropWash. Much more work happens behind the scenes. Members can always grab a copy from the OPA website at:

<http://www.oregonpilot.org/propwash/>

Not so obvious to the casual observer are many of the important functions of the OPA.

The OPA helps the chapters learn from each other to be stronger and also gains strength from the chapters to be heard at the state government level. Without our voice the state government could easily think that only air transport concerns are worth hearing.

OPA works extensively with the Oregon Department of Aviation (ODA) on the many issues that concern us. Our input to ODA has been important in rolling back some of the stupid ethanol diluted gasoline laws, ensuring that GA gets a fair share of Connect Oregon grants, working to keep airports open, and preserving 'through the fence' access

The OPA also sponsors the non-profit Aviation Safety Education Foundation (ASEF) which awards annual aviation scholarships.

Certainly all the benefits of joining the OPA apply doubly for joining the CO-OPA. I know that I am mostly preaching to the choir here, but I hope that each of you will continue to value your OPA/CO-OPA membership and do some of your own preaching to the yet to be enlightened.

***Gary Miller***



***Well, you-know-who didn't win the Bend Beard contest but apparently is still in training to scare the kids at Halloween***

## ***BDN incident 20100609***

Bend Municipal Airport has a very busy traffic pattern, especially for an uncontrolled airport! We have it all—airplanes, helicopters, high-performance aircraft, and gliders—sharing a single runway and single (for now) parallel taxiway. This is no longer your daddy’s quiet little rural airport.

While holding short of Runway 16 the other day, I watched a near mid-air happen on downwind. Cimarron City almost became Conflagration City. Both aircraft were making radio calls reporting their positions, yet one aircraft made a non-standard pattern entry, ignored right-of-way rules and created the conflict.

Here’s what happened:

A Cirrus was approaching the airport from the east, and a Cessna was approaching from the west. Both made a position reports on CTAF at approximately 8-10 nm out and approximately 5nm out. Then:

- The Cirrus stated his intentions were to “enter left 45 Runway 16.”
- The Cessna reported his intentions were to “cross midfield to the east and enter left traffic Runway 16.”
- The Cirrus then reported “3 mile left 45 Runway 16”.
- The Cessna then reported “one mile west, crossing overhead.”
- The Cirrus then reported “left downwind runway 16.”
- The Cessna then reported “overhead entering left traffic 16.”

The two aircraft ended up converging on each other at midfield, both in a turn—neither had the other in sight. The Cessna was blocked from the Cirrus’s view because the Cirrus was wing-up. The Cessna should have been able to see the Cirrus had he been looking. The Cirrus was the aircraft on the right, and had the right-of-way, yet the Cessna cut him off. The Cessna not only created a hazardous situation, he violated FAR 91.113.

### ***ISSUE #1: Non-standard pattern entry***

The FAA-recommended entry into a traffic pattern is a 45-degree midfield intercept to the downwind leg.

Over the years, I have heard many arguments about why it is still OK to follow the route the Cessna took. “The FAA recommendation is not required.” “You can see the traffic better if you enter at *<my favorite entry>*.” “It’s OK if the airport is not busy.” Etc. ... ***Hogwash.***

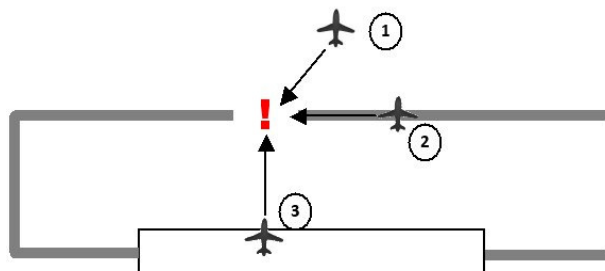
The FAA-recommended pattern entry procedure is better and safer for the following reasons:

1. It creates a standard. If everyone follows the same procedure, the likelihood of confusion and misunderstanding decreases.
2. It establishes one place in the traffic pattern where at most two aircraft are converging. In addition, when aircraft on the 45 and downwind come together the rate of convergence is relatively low and wings are level allowing for better visibility.

I’ve been in the pattern numerous times at Bend with up to 6 aircraft all lined up in order on the 45 and it works great! Problems only seem to occur when a rude pilot crosses midfield and jams himself into the downwind without regard to the other traffic. It’s like watching a bowling ball hit a bunch of pins, with aircraft scattering every which way.

I once had a Seneca cut me off in this way, and by the time I got back onto downwind, that very same Seneca cut me off again. He had crept up the tail of his preceding aircraft, did a go around, and made a climbing crosswind turn at midfield to cut me off for a second time.

Retribution can be divine, however. A couple weeks later, I saw the same pilot have a dual prop-strike after forgetting to put down his landing gear.



Aircraft that cross mid-field at pattern altitude and turn directly onto the downwind create a situation where there are potentially three aircraft converging on the same spot: the overhead aircraft, any aircraft already on downwind, and any aircraft on the 45.

## ***BDN incident - continued***

That requires all three pilots to see and avoid two other aircraft simultaneously! That is a lot to ask of a pilot in addition to all his pre-landing workload. In addition, the overhead and 45 traffic are converging in a near head-on—combining a highest closer rate with a lowest visibility profile.

I teach my students always to enter on the 45. It adds at most three minutes to your flight, but usually less. Assuming traffic is using Runway 16, if I am arriving from Northwest clockwise to Southwest, I simply stay far enough away from the airport that I can fly directly to the 45. If I am coming from the West, I overfly the airport 2,000 feet AGL (5,500 MSL). This allows me to stay 1,000 above normal traffic and 500 feet above high performance traffic. I then proceed one minute east (heading 070) and one minute south (heading 160). That puts me right on the 45. After crossing the traffic pattern eastbound, I start my descent, and by the time I turn onto the 45, I am at pattern altitude. It works every time!

The thing I like about this practice is that it gives me time to build my situational awareness. I can listen for other aircraft and establish visual contact. It allows me to enter the pattern calmly and in control. Don't be in a rush to foul things up!

### *ISSUE #2: Poor communication*

I spoke to the Cirrus pilot after the incident and it turns out that both he and I assumed the Cessna pilot was going to cross overhead and enter on the 45. In fact, as I was departing, I told the Cessna over the radio that I thought he said he was planning to enter on the 45. He responded that he said he was going to “cross overhead and enter left traffic”, which is true.

So where did the confusion come from? Both the Cirrus and my flight were conducting training. Both instructors interpreted “cross overhead to the east and enter left traffic” to mean the recommended procedure to fly east of the airport and enter on the 45. The gotcha here is that the term “enter left traffic” is ambiguous.

When you state your intentions, you should be very specific about which leg of the traffic pattern you plan to enter. For example, the Cessna could have avoided any misunderstanding by saying he was going to “cross overhead and enter left downwind.” Precise phraseology is a bugaboo of mine. It seems like any time I observe confusion between two pilots it traces back to sloppy radio work.

One of my pet peeves is the “entering 45 to downwind leg.” That phrase can be confused over a scratchy radio with “entering downwind leg.” How about we keep our position reports short and sweet:

- Cirrus 935CD, left 45 Runway 16.
- Cirrus 935CD, midfield left downwind Runway 16.
- Cirrus 935CD, left base Runway 16, full stop.
- Cirrus 935CD, final Runway 16, full stop.

Including full-stop vs. touch-and-go intentions on the base and final legs helps the pilot behind you determine the appropriate spacing before turning base. There's nothing more frustrating than being on short final behind an aircraft that has not yet cleared the runway.

I firmly believe that if we can get more of our fellow pilots to follow standard pattern and radio procedures, we can make Bend a much more enjoyable and safe place to fly.

***Peter King, MCFI***

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## ***Hybrid wing body***

An MIT-led team has designed a hybrid wing body aircraft to carry 350 passengers on international flights, filling the role now dominated by Boeing's 777.

The design improves aerodynamics and creates a forward lift that eliminates the need for a tail to balance the aircraft.



The design also allows for different propulsion systems, such as a distributed system of multiple smaller engines.

MIT said that, while the design "meets NASA's emissions-reduction and runway-length goals," researchers "will continue to improve the design to meet more of NASA's objectives." NASA also awarded similar research contracts for subsonic commercial planes to four other teams, led by Boeing, GE Aviation and Northrop Grumman, respectively, and two contracts for supersonic planes to teams led by Boeing and Lockheed-Martin. The MIT-led team also includes Aurora Flight Sciences Corp. and Pratt & Whitney. Members expect to hear within the next several months whether NASA has selected it for a second phase.



## **Single data burst can locate crash scene**

By Alton K. Marsh (for AOPA)

A newly commissioned search-and-rescue ground station at NASA's Goddard Space Flight Center near Washington, D.C., takes advantage of search-and-rescue repeaters on GPS satellites. It's the only one of its kind in the world.

The repeaters are on only a few satellites at the moment. It will take at least until 2017 to equip all new generation GPS satellites. The ground station is capable of receiving instantaneous bursts of data, relayed by the satellite, including the GPS location. It provides search capability for ships, aircraft, and hikers.

Just like the lottery, you must play to win. If you want to take advantage of the latest search-and-rescue system, you must have a 406-MHz ELT. (The FAA does not currently require aircraft to be equipped with 406-MHz ELTs.)

In order for searchers to call the right location to begin their detective work, the unit must be registered with the government. And if you want your exact GPS location sent automatically, you need to have a 406-MHz locator that can be connected, and then have an avionics technician actually hook it up.

There are 275,000 406-MHz locators in the government database, but only 45,000 are registered. Officials from several agencies giving a joint press conference from the Goddard Space Flight Center this week said pilots flying over water may want to have a handheld 406-MHz locator as well as the one required for their aircraft. If a pilot is floating in a raft, the raft may be miles from where the airplane ELT was when it transmitted the location.

The new system at Goddard is called Distress Alerting Satellite System (DASS) and will be fully functional when all new-generation GPS satellites have repeaters aboard in the next seven to 10 years. It is estimated that when completed, four or more satellites will hear and repeat the same distress signal.

Software then takes over, creating a three-dimensional map of location and terrain. A fly-by map shows rescuers what they can expect to see in the way of terrain when approaching the site. Weather can be added as well.

Lt. Col. Charles Tomko, commander of the Air Force Rescue Coordination Center, said the 406-MHz system worked perfectly in the crash of a Coast Guard helicopter. It was registered, allowing searchers to check with the unit headquarters operating it, and it broadcast exact GPS information. Rescuers found the crew within hours before they would have been forced to spend a winter night in the mountains of the western United States.

Capt. David McBride, chief of the Office of Search and Rescue, U.S. Coast Guard, said too often people put their trust in a radio or cell phone, only to find they do not work in extreme or remote conditions.

## **Methanol powered battery recharger**



MTI Micro Fuel Cells is seeking beta testers for their methanol (wood alcohol) powered battery recharger. They claim one canister can recharge an iPhone seven times, or other similar devices. Click on 'sales inquiry' at [mtimicrofuelcells.com](http://mtimicrofuelcells.com) to nominate yourself for the beta testing. It will be interesting to learn how this widget operates at 18,000'.

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