High Desert Flyers

Chapter 1345 Bend, Oregon

April 2024 Newsletter

Next General Meeting

Wednesday, April 10

6:00pm
Dinner of grilled hamburgers (weather permitting), potato salad and green salad available for $7 donation to cover our costs

6:30-7:30pm
General meeting

Location:
Bend Builders Assist
63030 Powell Butte Hwy
Bend, OR

Guests are welcome to attend up to two monthly meetings before becoming a member.

Message from the President

Welcome fellow chapter members to our April newsletter. Once again I will be out of town for this month's meeting, and once again Tom Wright has stepped up to lead our event. We will have an interesting program. Steve Bateman will lead a safety discussion which should provide useful information to all of us. If you haven't heard one of Steve's Wings presentations you are going to be impressed. More information is below in this newsletter.

Our chapter RV-12 is finally completed. Thanks to Mike Robertson and his team for getting it done. It will be on its way to a happy pilot soon!

I'm looking forward to selecting our scholarship recipients soon. It's always rewarding helping young people to enjoy an activity that means so much to all of us.

It will be a busy summer for the chapter and I look forward to having you all participating in one of our events.

Safe Flying!

Chris Wallace

April Meeting Agenda

- Welcome visitors and new members — Tom Wright
- Flying Start Update — Tom Wright
- Student scholarship update — Jeff Stolasz
- **Guest Speaker: Steve Bateman, CFI II Human Performance Factors**
  PREPARING FOR THE FLYING SEASON
  Steve is a nationally recognized WINGS instructor who will share with us his practical ideas on getting ready for the upcoming flying season. He calls this 'Preflight in a Box' and asks us:
  - Has your airplane been active or not over the Winter?
  - How about you? Are you current on medical, flight reviews, and human preventive maintenance?

Ray Aviation Scholarship Update

2024 Scholarships

The application period has closed for 2024. We received 6 applications and will begin the interview process soon.

2023 Scholarships

Colton Hardie flew his first solo flight on March 5th. Congratulations to Colton!

2024 Chapter Events Schedule

April 10	Chapter Meeting
April 27, Saturday	**EAA Flying Start Program at Bend Municipal Airport**
May 8	Chapter Meeting
June 1, Saturday	**Young Eagles Day in Madras during Madras Airport Day**
June 12	Chapter Meeting
July 10	Chapter Meeting
TBD, Saturday	**Young Eagles Day at Bend Municipal Airport**
August 14	Chapter Meeting
September 11	Chapter Meeting
TBD	**Fall Fly Out**
October 9	Chapter Meeting
November 13	Chapter Meeting
December 11	**Holiday Party**

More events are in the planning phase. If you have any ideas, please let us know!

Volunteers Needed

Please consider volunteering for one of our many chapter events. It's a great way to get to know other members and give back to our community.

And we are always looking for ideas for speakers/programs for our monthly chapter meetings. If you or someone you know would be interested in presenting to the chapter, please reach out to Chris Wallace at highdesertflyers1345@gmail.com.

For those of you who are new to the chapter….

Young Eagles events offer free introductory flights to local youth aged 8-17. Flying Start is a program for adults to inspire and educate aspiring aviators. Both events are made possible by the generosity of chapter member volunteers.

The Ray Aviation Scholarship program provides up to $11,000 to local deserving youths to help cover their flight training expenses. The scholarships are partially funded `by the EAA National Ray Foundation and partially by our chapter.

For more information on EAA and our local chapter 1345, and to view previous monthly chapter newsletters, please visit our website at https://chapters.eaa.org/eaa1345/newsletters.

A Letter From our Members, Amy and Timber Bionda…

Young EAA Chapter 1345 Member Seeking Summer Employment Opportunity

Happy Spring!!! Chapter member Timber Bionda was just recently accepted to the College of Engineering at Purdue University, where he plans to study Aero/Astro Engineering. In order to help cover the exorbitant costs of college, Timber has applied to a large number of major national scholarships. One such scholarship, where he is currently a finalist, is requiring him to work 240 hours from now to the start of his fall term on August 12th. Unfortunately, his high school schedule is completely packed until mid-June, therefore leaving him only five (non-consecutive) weeks in summer to complete the 240 hours of work (equaling +/- 48 hours a week). Timber is reaching out to see if anyone may know of opportunities for paid work over summer. He is highly motivated (possibility to work two jobs, long hours, weekends), as this may be the only way he can afford to pursue extended education! Even if he does not receive this particular scholarship, he will still need the work! Ideally, Timber would love to work in the field of his future major, for example getting hands-on experience helping to build planes (his dream career). But he also has some experience in engineering, manufacturing and woodworking. If you have any contacts or insights, please reach out to Timber at timber.bionda4@gmail.com or feel free to meet with him after the April meeting, where he can provide a resume and more detailed information about his background.

Work availability (five intense weeks…including weekend): June 17th - June 29th & July 21st – August 9th

Note from the Chapter Board: Timber is a 2023 Ray Scholarship recipient and has been diligently working to complete his certification process to obtain his private pilot license. He is a hard worker and would be a valuable asset to any company.

Timber with his RC sailplane in the Alps

Donated Aircraft Update

The building of the Chapter RV-12 is complete and has passed the FAA air worthiness review. The next step is to complete five hours of test flying, which will begin next week. The RV-12 will then be available for sale. If you know anyone interested in buying it, please contact Chris Wallace at highdesertflyers1345@gmail.com

REMINDER: OUR CHAPTER TO HOST INAUGURAL EAA FLYING START PROGRAM on APRIL 27, 2024

What is Flying Start? This is an EAA program for chapters to educate and inspire adults in our community who are eager to get into aviation but may not know how or where to take the first steps. So, kind of like Young Eagles for adults.

Like Young Eagles, adults will have to register online for the one morning program on Saturday, April 27, 2024. We will limit this to 20 adults. Mike 'Cuckoo' Kloch of Specialized Aero Works has generously offered his hangar and meeting space for this event. I will start with an EAA PowerPoint presentation and video, short Q and A, then our guests will get to meet our Chapter pilots and local CFIs. Interested guests will be offered a complimentary Eagle Flight provided by one of our volunteer pilots at a time convenient for both. Once a flight is completed guests will receive a complimentary 6 month EAA membership.

Why do this? It recruits new Chapter members and engages us in a new program. It helps create new pilots to strengthen the GA community. And, it enhances our Chapter's position as the local access point to aviation. I will discuss this in more detail at our next meeting.

Please contact Tom Wright at wright.thomas@yahoo.com if you are interested in volunteering for the event.

Notes from Members

We would love to include thoughts, travels, flying experience of our members in the monthly newsletter. If you would like to share, please send your articles and photos to Debbie Wallace at highdesertflyers1345@gmail.com.

Museum Finds

Submitted by Chris Wallace

My travels have recently taken me to the Pima Air and Space Museum in Tucson, Arizona. It's an amazing museum with over 400 planes on display. I found three that I flew in the Air Force which brought back many intense and pleasant memories.

Here's the first primary trainer, the robust T-37 "Tweet".

Here's the advanced trainer, the T-38 Talon. Beautiful and fast, it taught the need to think way ahead of the plane. Loop entry airspeed was 500 knots and required 10,000 feet of altitude!

Finally the C-141 Starlifter. Amazing to think as a 26 year old I was the oldest crew member and in command of this plane flying all around the globe. Good times!

Upcoming Pacific Northwest Aviation Events

Airshows

May 17-19	Oregon International Airshow	Hillsboro, OR
June 15-16	Moses Lake Airshow	Grant County Intl Airport, WA
June 15-16	Olympic Airshow	Olympia, WA
June 22-23	Fairchild Skyfest	Spokane, WA
July 22-28	EAA AirVenture	Oshkosh, WI
August 2-4	Boeing Seafair Airshow	Seattle, WA
August 17-18	Wings Over Washington	Bremerton, WA
August 23-24	Airshow of the Cascades Festival	Madras, OR
Aug 31-Sep 2	Oregon International Airshow	McMinnville, OR
September 6-7	Oregon Trail STOL	Ontario, OR
September 7-8	WAAAM Hood River Fly-In	Hood River, OR

Evergreen Aviation & Space Museum

Upcoming events at the Evergreen Museum in McMinnville, home of the Spruce Goose, include:

Tuesday, Tuesday, April 16th
STORYTELLERS SERIES: ROCKETS, ROCKETS, AND MORE ROCKETS – THE DEVELOPMENT OF ROCKET ENGINES FROM THE BEGINNING OF THE SPACE AGE
Presenter: John Jennings
In order to escape Earth's powerful gravity well, we need rockets. For a rocket to go anywhere, a rocket engine is required. Perfecting the design, construction, and launch of rocket engines has continued to this very day. Come learn about the history of liquid and electrical rocket engines, culminating with the active development of the game changing nuclear thermal rocket!

For more information or to buy tickets, please visit their website at www.evergreenmuseum.org.

Western Antique Aeroplane & Automobile Museum

Upcoming events at the WAAAM museum in Hood River:

April 13 – Second Saturday – Pearl Harbor Author Talk
April 20 – Model T Driving School *(advance reservations required)*

May 11 – Second Saturday – Anzani Fan Demo
May 18 – Model T Driving School *(advance reservations required)*
May 25 – Driving Through the Decades - This class gets you behind the wheel of not one, but eight or more of the classic vehicles from WAAAM's vast collection to drive on your very own. You will feel automotive history come alive right in your hands as you pilot several of our restored treasures.
(advance reservations required)

Each month we fly and drive the exhibits. Come and enjoy the fun!

To see more details, please visit their website at www.waaamuseum.org.

EAA National Free Webinars

Below is a list of some of the webinars offered for *free* by EAA National to members this month. Preregistration is recommended since space is limited. For more information and to preregister, go to https://www.eaa.org/eaa/news-and-publications/eaa-webinars. If you miss the live webinar, you can still watch the video at a later date.

- Apr 17: Fueling VFT - Learning from Mistakes to Prevent a Tragedy
- Apr 18: Mr. Bearhawk's Wild Ride: A Surprise Encounter With Extreme Turbulence
- Apr 24: Four Ways to Save Fuel, Time, and Money with Better Flight Planning

2024 Membership Dues

We welcome prospective members to attend up to two of our monthly chapter meetings to learn about the group and meet our members. After attending two meetings, we kindly ask that you join the chapter by paying the annual dues to help fund our activities during the year. Annual membership dues is $25 for individuals and $40 for a family. Dues can be paid electronically by credit card or PayPal on our website at https://chapters.eaa.org/eaa1345/yearly-membership-renewal. If you prefer to pay by check, please make the check payable to "EAA Chapter 1345" and either bring it to the monthly meeting or mail it to:

EAA Chapter 1345
P.O. Box 6732
Bend, OR 97706

If you have any questions, please send an email to highdesertflyers1345@gmail.com.

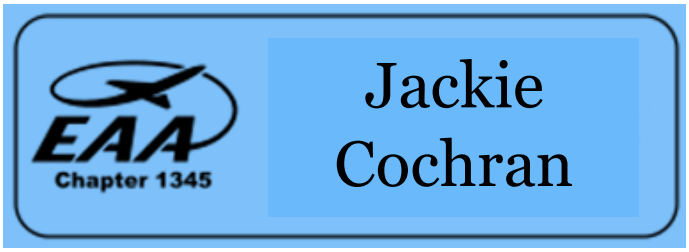
Chapter Member Name Tags

The Chapter is purchasing name tags for all current members who would like one. The name tag will include your name, and a second line of your choice. Maybe your aircraft N number, your nickname, board position, or anything you'd like to say about yourself.

If you would like a name tag, please submit your request to Jeff Stolasz (jstolasz@yahoo.com). We receive a discount on ten or more, so every ten requests we will place an order.

Wear your nametag with pride. You are part of a rapidly growing group!

Here is a sample of the name tag.

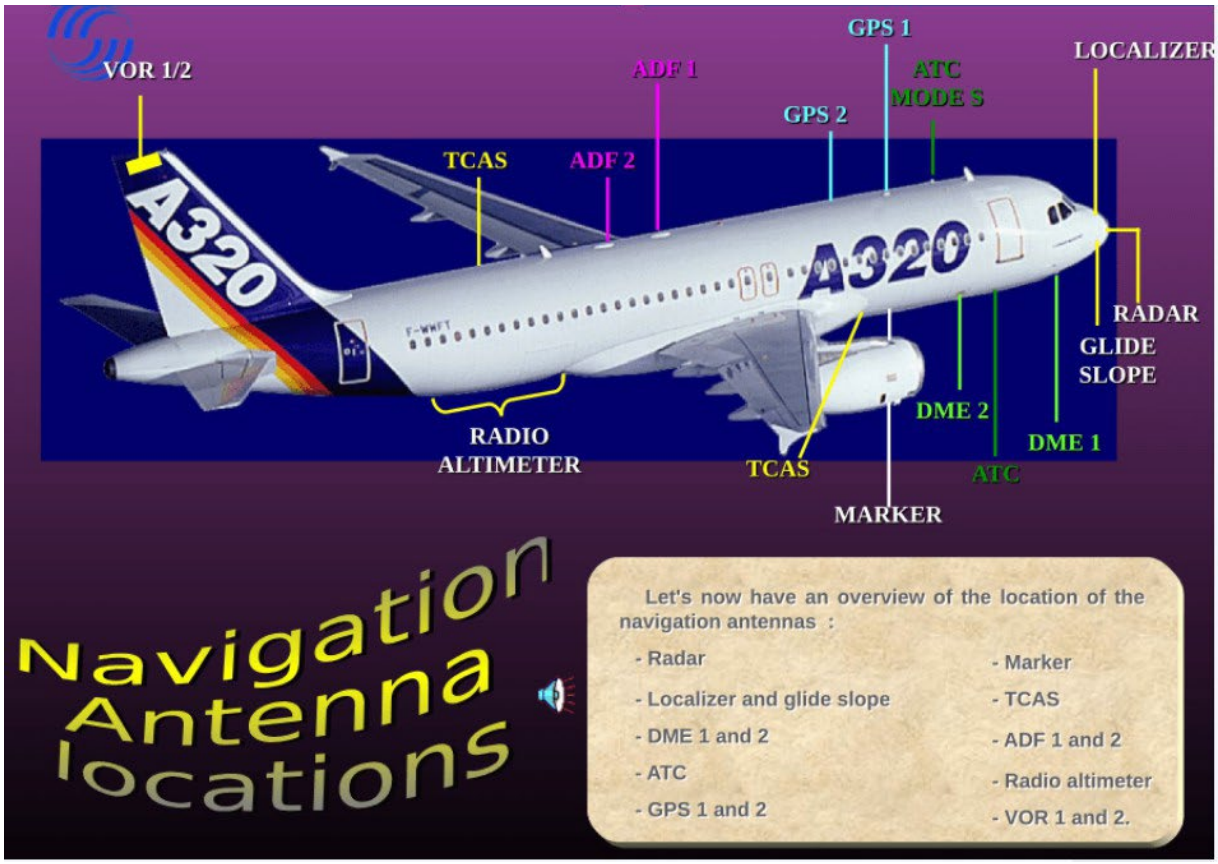


HOW WELL DO YOU KNOW YOUR AIRPLANE ANTENNAS?

Submitted by Steve Gette, WebMaster and Member At Large

In an ever moving aircraft atmosphere, can you imagine what it's like to be without communications, especially in bad weather or unknown territory? Have you given much thought on what many of the navigational cockpit instruments use to get signals in and out of their components? Whether it be a commercial airliner or just a single seater, communication can be critical to know who you are and where you are located and obviously where you are headed.

Generally speaking, all aircraft communications occur through some sort of antenna system. Antennas come in various shapes, sizes, and lengths depending on the type of communication required.



Aircraft antennas play a crucial role in ensuring seamless communication, navigation, and safety for the aviation industry. Some of the various types of antennas, along with their corresponding frequencies and equipment, used in aviation include:

VHF Antennas: VHF (Very High Frequency) antennas are responsible for communication between aircraft and air traffic control, as well as between aircraft. VHF antennas come in various forms, with some examples including the cat whisker, dual blade, and towel bar designs. One common feature among these types is that they are usually mounted on an

aircraft's vertical tail. These antennas typically cover the frequency range of 108-118 MHz for navigation and 118-137 MHz for communication.

GPS Antennas: GPS (Global Positioning System) antennas receive signals from satellites to provide accurate location data to aircraft and help with navigation. These are essential tools for pilots to fly accurately and safely, especially when flying over featureless landscapes or in poor weather conditions. The placement of GPS antennas is crucial so that they have a clear line of sight to the sky. For this purpose, antennas are often located on top of the aircraft, or on the underside for better reception during flying.

Transponder Antennas: Transponder antennas are used by aircraft to relay their location and altitude information to air traffic control and other aircraft through an electronic identification system. These antennas can also provide information on an aircraft's speed, heading, and other data. Transponder antennas can be found in different forms like bladestyle or DME (Distance Measuring Equipment) antennas. These antennas may also serve other functions such as aiding in navigation or marker beacon reception.

Antenna Designs and Styles

Aircraft antennas come in various designs and styles, each having its unique purpose and function. Various styles include:

Blade Antennas: These styles are commonly used on aircraft for VHF and UHF communications. They are aerodynamically designed to minimize drag and ensure efficient signal reception and transmission.

A **dual blade** antenna configuration can provide greater coverage and reduce the effects of shadowing caused by the aircraft's structure. These antennas can be mounted on the top or bottom of the aircraft and are suitable for both commercial and military applications. Key advantages of blade antennas include their low profile and reliable performance.

Towel Bar Antennas: Also known as rod or whip antennas, are used primarily for VHF communications on aircraft. They are designed with a straight or slightly curved rod, extending vertically from the aircraft's surface. These antennas are less aerodynamic than blade antennas, but they provide reliable communication capabilities. Their simplicity and affordability make them popular choices for smaller aircraft.

Loop antennas: These are used for direction-finding purposes and are typically found in Automatic Direction Finder (ADF) systems. They consist of a closed loop mounted externally on the aircraft, with the loop's plane oriented vertically to receive signals from various directions. Loop antennas have the advantage of being less susceptible to interference caused by the aircraft's structure and can determine the bearing of the received signal with relative accuracy.

Cat Whisker Antennas: These types of antennas are used for receiving markers beacons and Instrument Landing System (ILS) signals during approach and landing procedures. They are characterized by their distinct V-shaped design, resembling the whiskers of a cat. This design allows for efficient reception of both horizontal and vertical polarization, essential for the accurate decoding of localizer and glide slope signals. Cat whisker antennas are mounted on the aircraft's lower fuselage, ensuring clear line-of-sight to transmitting antennas on the ground.

Marker Beacon Antennas: These are designed to receive signals from ground-based marker beacons. These beacons provide important positional information for pilots during approaches and landings. Typically installed on the underside of an aircraft, these antennas work in conjunction with nav antennas to help aircraft accurately determine their location and altitude in relation to the runway.

LORAN Antennas: Long-range navigation, or LORAN, is a navigation system that relies on the use of radio waves to determine an aircraft's position. LORAN antennas receive signals from LORAN transmission stations and process the information to provide accurate position data for pilots. While GPS has largely replaced LORAN for civilian aviation, these antennas still play a role in some military and specialized applications.

Radio Altimeter Antennas: A crucial element of an aircraft's navigation system is the ability to determine its altitude accurately. Radio altimeters use radio waves to measure the distance between the aircraft and the ground. Radio altimeter antennas are specifically designed to transmit and receive these radio waves, allowing pilots to monitor their altitude with precision. These antennas are typically located on the underside of the aircraft, providing a clear line of sight to the ground below.

Lightning Detection Systems

Lightning strikes pose a significant risk to aircraft, and lightning detection systems are essential for monitoring and avoiding this threat. Modern aircraft antennas often incorporate lightning detection capabilities, which provide real-time information on nearby lightning activity.

These systems typically operate in the gigahertz band, using specialized antennas to detect electromagnetic radiation produced by lightning. By detecting and analyzing the radiation, lightning detection systems can estimate the distance and direction of the lightning activity, helping pilots make informed decisions to avoid potential hazards.
So, the next time you plan to take to the sky, be sure to stay current with your 'wires' knowing you may be ever thankful for depending on them to someday get you out of a tight spot!

Partial courtesy to Sean Walsh of PILOTPASSION.

Lightspeed Aviation Foundation Affiliate Program

Just a reminder that the chapter has been accepted into the Lightspeed Affiliate Program. If you are in the market for a headset please consider Lightspeed Aviation's product line, especially their flagship product the Delta Zulu ANR Headset. If you make a purchase using the link below our Chapter will get a commission from your purchase.

Lightspeed is a fantastic company, especially their program that gives Ray scholarship recipients a free headset after meeting certain milestones in their training. A fantastic benefit that would be great to support.

Follow this link or use the QR code below if you are in the market for a headset.

https://www.lightspeedaviation.com/?ref=97

LIGHTSPEED

Chapter Board

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Term: Jan 2023-Dec 2024

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