



NEWS In the Sky

June 2021

(www.opa.aero)

**June 3, 2021 - Social Hour 6:30 p.m.
Dinner Meeting at 7:00 p.m.**

**Speaker: Grayson Ardies, Director
State Aeronautical Commission**

Grayson Ardies has been the Oklahoma State Director of Aeronautics (OAC) since November 2020. The OAC's mission is to promote aviation and aerospace, which includes fostering the growth of the aerospace industry and ensuring that the needs of commerce and communities across Oklahoma are met by the 108 public airports that comprise the state's air transportation system. Ardies' emphasis is on promoting the aerospace industry, one of the state's largest industries and top employers; critical planning and development for the state's air transportation system; making the state's 49 regional business airports the best possible economic centers in their communities; and encouraging public-private partnerships to promote the aerospace industry. Ardies began working for the Commission in 2009 as an intern. Rising through the ranks, he became the lone 5010 airport inspector as an Aviation Program Manager, conducting airport and pavement inspections at Oklahoma's public-use, general aviation airports to provide each community with a foundation for the federal and state capital planning process. In 2016 he became Manager of the Airport Division to oversee the development of the Commission's Five-year Airport Construction Program which directs approximately \$25 million of federal, state, and local funding per year. He was responsible for airport inspections, airspace zoning reviews in accordance with the State's Aircraft Pilot and Passenger Protection Act, the state's anemometer tower marking law, and providing assistance to airports with their development, operation, and technical documents. Ardies served as Deputy Director from January 2019 through October 2020; and was unanimously selected by the seven-member Commission to fill the State Director of Aeronautics position, beginning November 2020.

He has led many statewide agency initiatives, including a three-year effort working with the state legislature regarding the protection of military training airspace. He also managed a two-year project that conducted an Aerospace and Aviation Economic Impact Study which established the industry as the second largest economic engine in the state. Under his leadership the Commission developed a unique P3 (public/private) partnership at Carlton Landing Airport on Lake Eufaula; and guided the difficult, but necessary, five-year effort to close Lake Murray State Park Airport.

Ardies was awarded the honorable 2020 State Aviation Distinguished Service Award from the National Association of State Aviation Officials (NASAO). The award, which was established in 1989, honors State Aviation personnel who have excelled in their service and dedication to aviation progress and development in their state. Ardies was also listed in the Power 15 List in Aviation and Aeronautics in Oklahoma by the Journal Record in 2020.

Director Ardies graduated from the University of Oklahoma with a degree in Aviation Management with double minors in Business Administration and Air Traffic Control. As part of his education through the aviation program, he also received a commercial pilot's license with single and multi-engine instrument ratings and is a certified flight instructor.

**July 1, 2021 - Social Hour 6:30 p.m.
Dinner Meeting at 7:00 p.m.**

**"Oklahoma locations for aerospace production and
the locations where our astronauts lived."**

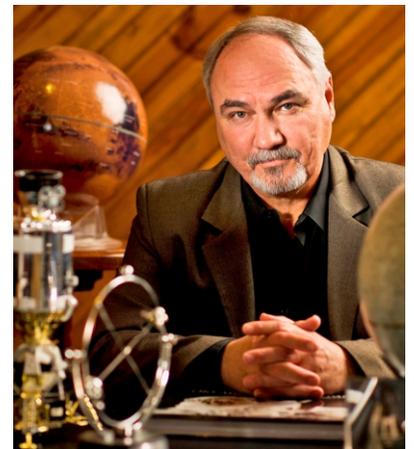
Bill will explore some of the Oklahoma aerospace companies who produced products or actual parts of the spacecraft. We will talk about the excitement of the Kennedy years and the Oklahoma companies that took part in building the vehicles that took us to the Moon, as well as where our astronauts lived and what motivated them to take to the skies and then to space.

Bill Moore is the author/co-author of five books including "Oklahomans and Space" and producer of a 7-part documentary public television series based on that book, with numerous periodical stories on the topics of aviation and space. Moore retired from the Oklahoma History Center, is a member of the Oklahoma Historians Hall of Fame and the University of Oklahoma's College of Journalism Distinguished Alumni Award.

**If you plan to attend, please
RSVP as soon as possible so
we can get a count to the
caterer (\$15 each). You can
RSVP by sending an email to
dinner@opa.aero**



Speaker: Bill Moore





Oklahoma Pilots Association is a member-controlled not-for-profit organization for all pilots and aircraft owners. OPA strives to serve the needs of general aviation pilots statewide, promoting aviation, education and safety in personal and business flying.

Membership consists of student pilots through airline transport pilots, both civil and military and is open to all pilots and aircraft owners. Annual membership dues are currently \$35.

OPA holds monthly dinner meetings at the C. E. Page Building on Wiley Post Airport in Oklahoma City. Distinguished guest speakers present educational and safety related programs at the monthly dinner meetings.

OPA hosts monthly Fly Aways for lunch or dinner and weekend Fly Aways to interesting destinations.

OPA, through its charitable non-profit corporation, accepts money or property donated to fund the Vic Jackson Memorial Scholarship Fund which is awarded annually to a college student with career aspirations in the field of aviation. Your contributions of money or property are tax deductible.

OPA Newsletter Staff
 Editors: Ben & June Roy
 Circulation: Mike Rangel

Members' contributions of articles and other information relative to aviation are encouraged.

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I realize we have not hit the "dog days of summer" yet, but they are coming and I simply want to remind you to take into consideration the effects that pressure, temperature, and humidity have on your aircraft performance. Recently, I was reading an article by Aleks Udris and I want to take the time to pass it along to you as we begin our approach in to summer. Enjoy the read! (Part 1 of 2)

**3 FACTORS THAT EFFECT DENSITY ALTITUDE
 By Aleks Udris – 6/11/2014**

It's almost summer, so you're probably starting to think about density altitude, right? (Ok - it's not your first thought, but I bet it's crossed your mind.) If you're a pilot, you know that a higher density altitude means less performance. And, you know that on hot days, density altitude works against you. But, how much do temperature and pressure actually affect density altitude, and what role does humidity play? Take a look...

Density: Why It Matters

Pressure, temperature and humidity all affect air density. And you can think of air density as the mass of air molecules in a given volume. Why does that matter? More air mass flowing over your wing allows you to generate more lift, and more oxygen mass in your cylinder allows you to burn more fuel - meaning more power. Increasing air density increases your engine, propellor and wing's performance. Decreasing air density decreases performance.

The Starting Point: Pressure

You can think of pressure as the weight of a column of air. And, as the amount of weight increases, you cram more air molecules into a given volume. So, for a given volume of air:



When the pressure is greater than standard, you have more air molecules in the volume than you would on a standard day, and
 · When the pressure is less than standard, you have less air molecules in the volume than you would on a standard day.

In fact, increasing the pressure by one inch of Mercury (inches Hg), or 33.9 millibars (mb), decreases your pressure and density altitudes by 1000 feet - so your airplane performs like it's 1000 feet lower.

The sea level pressure usually ranges from 28.9 inches Hg to 31 inches Hg (980 mb to 1050 mb), which means that your aircraft often performs as if it's 1050 feet below or above your actual altitude.
 To be continued next month...

Highlights from the May Dinner Meeting Thanks to Brian Hancock for the article Thanks to Kyle Fulton and Mike Grimes for the pictures

Max Ary, the Director of the Thomas P Stafford Air and Space Museum in Weatherford, OK, was the Oklahoma Pilots Association's guest speaker at our May Dinner meeting. Max was introduced by Joey Sager as one of the leading authorities on the history of manned space flight.

The Stafford Air and Space Museum houses numerous aviation and space related memorabilia and has been undergoing a 20,000 square foot expansion over the past year to bring its total to 62,000 square foot.

Max opened the presentation by elaborating on a story Joey told during his introduction about getting into Russia by claiming to be the mission commander of the non-existent Apollo 18 mission. Max was visiting Russia to celebrate the 30th anniversary of Yuri Gagarin's space flight. Max was going through the VIP customs office and to minimize the time to get through his guide told him that he needed to tell them he was an astronaut. While going through he was asked for his autograph by the customs agent, which he gave, after telling her he was the commander of Apollo 18... he passed through without issue.

Max remembered opening the first two rooms of the museum while he was director of the Cosmosphere in Hutchinson, KS. The museum was only 600 square feet and Max remembered that Gen Stafford was astonished that there was a museum bearing his name of that size... he never imagined it would happen. Since then, there have been 6 expansions to its present size. The latest expansion added room to house several new exhibits that Max highlighted throughout his presentation.



The first thing you'll notice is a new A-10 Warthog that was recently added as a static display outside the entrance of the Museum. Max explained the Museum has plans to install engines in the aircraft and paint the plane. Once inside the entrance Max pointed out you'll notice a new front desk and signage welcoming visitors. They also added an events space they call the Explorers Room and already have 80 events scheduled for the upcoming year.

Over the next couple years Max noted that almost every exhibit space in the Museum will undergo some sort of renovation. They will add video presentations and new interactive displays to many of the display spaces. They will also be adding over 400 new exhibits to the Museum over that time.

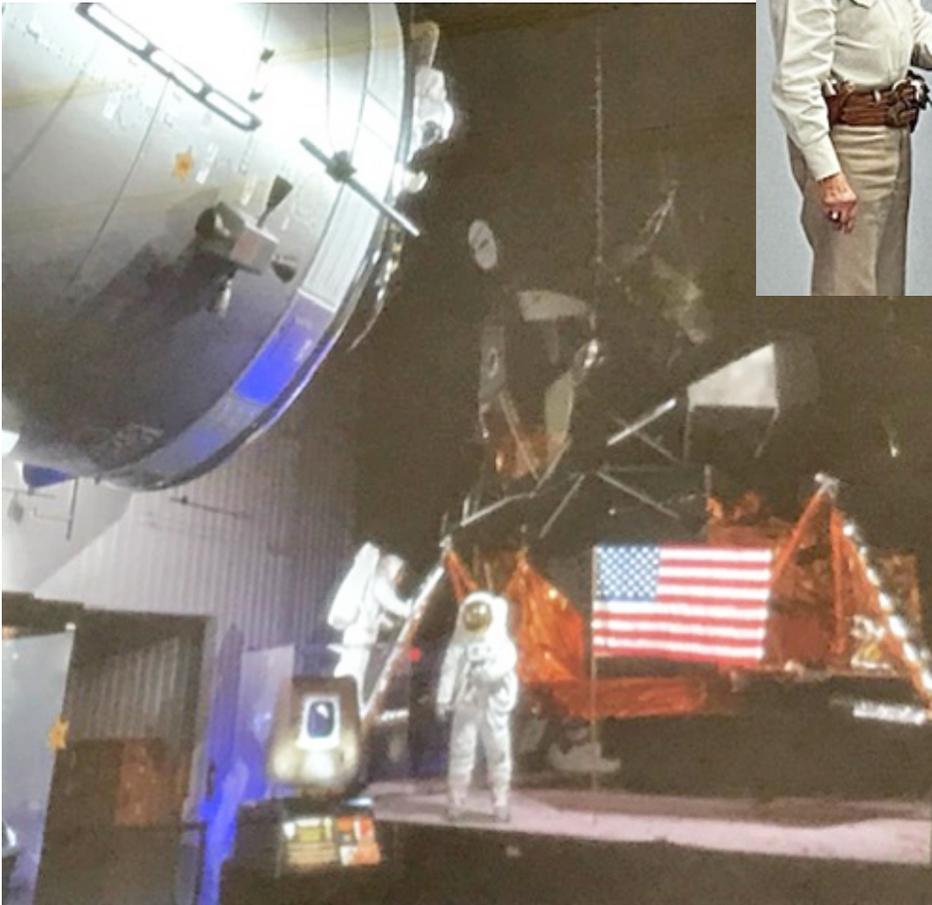
Max noted they are currently renovating the Wright Flyer area with help from students from South Western Oklahoma State College. He highlighted a new exhibit presently on display they refer to as the "holy grail" of manned flight... a swath of cloth from a wing and a piece of wood from the prop from the original Wright flyer that Neil Armstrong carried with him when he walked on the moon. This is something unique to the Stafford Museum and cannot be found at the Smithsonian or any other Museum in the country.



Highlights from the May Dinner Meeting
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Other items Max highlighted that are either on display or will be added over the next couple years include:

- The Space Shuttle Command training simulator used by all 135 Space Shuttle Crews to train for their missions at the Johnson Space Center. The future display will include lit up panels and working monitors to simulate what the training teams would have seen.
- General Stanford's actual Gemini space capsule will be made into a new display and will sit next to a Titan II rocket, like the type, used to launch the capsule in space.
- Another display will highlight nuclear weapons and will explain the importance and inherit hazard having these weapons have caused the world. Max explained they will have a mockup on AGM-129 Nuclear stealth missile credited with being one of the pieces of military hardware that scared the Russians to come to the negotiating table to end the Cold War.
- The Museum will display several different rockets from history including mockup of the first liquid fueled rocket created by Robert Goddard to a Saturn V engine (the most powerful engine ever built) used to launch the Apollo missions. Max explained that they needed a unique way to explain "to Oklahoman's" how much power the Saturn V engines generated... so, they will have a display that shows the most powerful John Deere tractor and the fact that it generates the same power as 283,000 of those tractors.



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The newly added spaces will house several pieces from the various Apollo missions including a new mockup of a lunar lander, a lunar command module, and artifacts from Thomas Stafford's mission aboard Apollo 10. Another new area will display an F-117 Stealth Fighter along with other stealth technology.

The Stealth Fighter should arrive to the Museum within the next year and will be on display shortly thereafter. The Stealth Fighter will be the cornerstone of the new entrance display and the triangular windows at the front of the building were designed to mimic the shape of the aircraft. At night, the aircraft will be lit up and visible through the windows. The Stafford Museum will be one of 6 locations that will have a Stealth Fighter on display.

Max let everyone know that the city of Weatherford has decided to upgrade the terminal for the airport... they have this world class museum and the city felt they needed a world class terminal to welcome aviation visitors. Construction of the new terminal will begin this summer.

Max welcomed visitors to the museum and noted that those that fly in and purchase fuel get free admission to the museum. Museum hours are Monday through Saturday, 9am-5pm, and Sunday from 1-5pm.



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OPA Fly Aways

Plan, plan; execute, postpone, or cancel.

(Or could we call this the Fly Aways that just didn't fly?)

Thanks to Lee Holmes for the article

APRIL 10: Hutchison, Kansas - Rain, cold, windy so couldn't go. Forgot to call the Cirrus guys so they could go home. Mea culpa. (Remember, Lee is a lawyer!)

APRIL 13 – 17: Lee & Roy Cowan and Dwayne Janes went to Sun 'n Fun in Florida.

APRIL 17: Only two going and bad weather again, so canceled Saturday morning.

MAY – McAlister planned; but weddings, graduations, etc., only a few going and bad weather, nobody goes, so canceled again.



**June 19 OPA Fly Away - Chickasha, OK
2021 Wings and Wheels Fly-In & Car Show - 8:30am-3pm**



JUNE 19 OPA Fly Away
(The Power of Positive Thinking!)

There will be sunshine, no bad winds, so we plan to go to Chickasha (KCHK). From Tulsa International 140 SM. From Hutchison, KS. 205 SM. From McAlister, OK 125 SM. From Lakeland, FL (KLAL) [Home of Sun 'N Fun] 1,058 SM. And if flying from Page Airport (KRCE) only 24 SM.

What is there to see in Chickasha? 2021 Wings and Wheels Fly-In & Car Show – 8:30am-3pm. Free Air show, Young Eagles, Free Father-Son Airplane/Motorcycle Race, AND much more.

(TFR)- Airport is closed 12:30-2:30pm

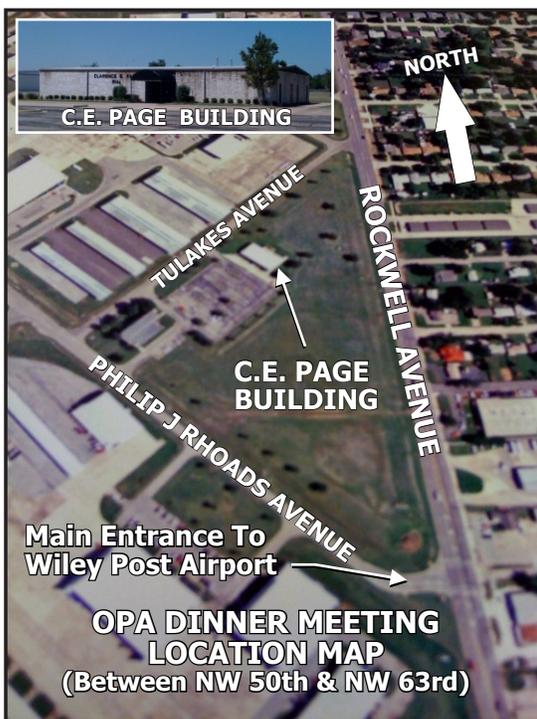
11:30am – OPA Members meet in front of Terminal Building for picture

Flying there or driving? Please let Lee know – Flyaway@OPA.aero

Driving: Chickasha Airport is on the west side of Hwy 81 about 2 mi west and 2 mi N of downtown Chickasha.

Please wear your OPA Name Tag or another name tag. You could wear an OPA shirt if you have one.

The Oklahoma Pilots Association (OPA) meets the 1st Thursday of each month at the Clarence E. Page Building, located on Wiley Post Airport. From N. Rockwell, enter the airport at the traffic light (Phillip J. Rhoads Ave.), take the first right, and drive back to the light gray brick building.



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Three Oklahoma Teams Prepared to Participate in this Years All Women's 2021 'Air Race Classic'

Three female flight teams from Oklahoma are set to compete in this year's 2021 Air Race Classic (ARC) all women's air race.

Dating back to the Women's Air Derby of 1929, of which famed racers such as Amelia Earhart, Louise Thaden and 'Pancho' Barnes competed, tradition is a rich part of the history of today's Air Race Classic.

With an alteration from the traditional competition, this year's Air Derby teams will plan their own routes, with 5 legs of over 65 NM or more, creating and submitting a detailed flight plan. The pilots will then be scored on times that match their submitted flight plans as closely as possible.

This year's race has over 90 teams competing, the race will take place in June.



Thanks to Angela Drabek for the article and photos



Elaine Reiger and Holly Blunk - Racer #46



Angela Drabek and Isabelle Kearney - Racer #99



Deirdre Gurry and Kristen Betz - Racer #1



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 For Page Building rental rates contact: Steve Schroeder: 405-691-8629 (home phone) sandsschroeder@cox.net or QB Governor Jim Sutton 405-760-1988 (mobile phone).

All scheduled items are subject to change as necessary for the health and safety of our members and guests.
2021 OPA Calendar

June 3 - OPA Dinner Meeting 6:30pm
 Page Building, Wiley Post Airport

June 19 - OPA Fly Away
 Chickasha Fly In - Young Eagles - Airshow

June 17 - OPA Board Meeting 6:30pm
 Page Building, Wiley Post Airport

July 1 - OPA Dinner Meeting 6:30pm
 Page Building, Wiley Post Airport

July OPA Fly Away - To Be Announced

July 15 - OPA Board Meeting 6:30pm
 Page Building, Wiley Post Airport

August 5 - OPA Dinner Meeting 6:30pm
 Page Building, Wiley Post Airport

August OPA Fly Away - To Be Determined

August 19 - OPA Board Meeting 6:30pm
 Page Building, Wiley Post Airport

Make dinner reservations at dinner@opa.aero
\$15 per Dinner due to increased cost

Monthly Oklahoma Fly-Ins
CHECK THE OPA CALENDAR PAGE ON THE WEBSITE FOR UPDATES

1st Saturday - Ponca City Aviation Booster Fly-In Breakfast - Call Don Nuzum 580-767-0470

1st Saturday - Pauls Valley Lunch Fly In
 Call 405-268-3925 (Breakfast in Summer)

3rd Saturday - Enid Fly-In Breakfast - Woodring Airport (WDG) April through October

3rd Saturday - Goldsby Airport breakfast.
 Donations benefit youth aviation.



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Oklahoma Pilots Association Membership Application New Membership Renewal Update

Date _____ Referred By _____
 Your Name _____ Occupation _____ **Name tag** Yes No
 Spouse _____ Occupation _____ **Name tag** Yes No
 Address _____ E-Mail Address _____
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 Phone (Residence) _____ (Business) _____ (FAX) _____

Pilot information: Are you a Aircraft Owner? Yes — No — Type _____ N# _____

MEMBER: Approximate Hours _____
 Private ___ Commercial ___ Instrument ___
 ATP ___ CFI ___ CFII _____

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ANNUAL DUES ARE \$35
ALL DONATIONS ARE TAX DEDUCTIBLE

The OPA General Aviation Newsletter is published monthly. Articles for the newsletter are sought from members, trade organizations, etc. Stories and articles can include flying trips, rebuilding and restoration experiences, special tips, activities, etc.

Material for publication will be accepted up to the deadline which is the 15th of each month, space permitting. The editorial staff reserves the right to accept, refuse, or edit any material submitted. Publication of articles and opinions in the OPA Newsletter is not an endorsement by the Association, nor does the Association assume any responsibility for the accuracy of the information contained in the Newsletter. Permission is granted to reprint, provided credit is given to The Oklahoma Pilots Association Newsletter. **For circulation issues including newsletters not received or email and address changes contact Roger Walton 405-219-5149 or email mem@opa.aero.**



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