

The website is available at https://www.appliedpavement.com/hosting/wyoming/.

WYDOT rolls out pavement management plan on web site

The Wyoming Department of Transportation's Aeronautics Division launched a new tool for its airport pavement management program in mid-September.

Pavement conditions of Wyoming's public use airports are now available on the WYDOT web site. To see the conditions, go to: https://www.appliedpavement.com/hosting/wyoming/.

Brian Olsen, WYDOT's Aeronautics Division Engineering and Construction Program manager said, "We are excited for the addition of this great tool to help us manage airport pavement assets around the state."

The state of Wyoming, the Federal Aviation Administration (FAA) and local airport sponsors invest a substantial amount of money into runways, taxiways and aprons in the state. About 15 years ago, the division established a group of maintenance projects to help preserve and maintain runways, taxiways and aprons in Wyoming. Some of those efforts included routine crack seal and seal coat.

Because of careful preservation and maintenance of airport pavement assets, Wyoming's airports have some of the best pavement conditions in the country, WYDOT Aeronautics Administrator Amy Surdam said. The state's average area weighted Pavement Condition Index (PCI) is 80 compared to a national average of 75. The information on the web site is designed to continue efforts to preserve airport pavement assets.

What's next:

The State of Aviation

5300 Bishop Blvd. Cheyenne, WY Auditorium 9 a.m.-noon Nov. 14

National Air Space System and NAVAIDS Seminar

5300 Bishop Blvd. Cheyenne, WY Auditorium 1:30 p.m.-5 p.m. Nov. 14 8 a.m.-5 p.m. Nov. 15-16

Aeronautics commission meeting, annual budget & WACIP workshop

5300 Bishop Blvd. Cheyenne, WY Auditorium Dec. 4-5 Time to be announced

New resources

Check our online calendar

WYDOT's Aeronautics Division is now offering a calendar of its public events. See what the division has going on at https://goo.gl/RCUsvE.

Sign up for updates

We've started a subscription list for the newsletter. Check it out and make sure you get updates at: https://goo.gl/forms/s7uPI5sHXaWzRUyZ2.



What's up?

Taylor updates stakeholders

The Northeast Wyoming
Municipal Leader's Group hosted
the 2017 Congressional Fact
Finding Tour here in Wyoming
in August. Approximately 20
Congressional staffers from all
over the United States attended
this four day event. Sheri
Taylor spoke to the staffers over
breakfast at the Devils Tower
Golf and Country Club on the
importance of small community
air service here in Wyoming and
across the nation.

Taylor also recently spoke for panel discussions during the National Association of State Aviation Officials (NASAO) and the Regional Airline Association (RAA). These discussions focused on the final report and recommendations of the USDOT Working Group she participated in earlier this year.

WYDOT pilot, engineering positions open

The Aeronautics Division is looking for a new pilot and an engineer.

If you or someone you know may be interested in these positions, all state of Wyoming job openings are available through A&I's website.

UAS facility maps

Wyoming has eight UAS Facility Maps published by the FAA. We just wanted to ensure everyone knew these were out there and more may be coming. The FAA UAS Facility Maps can be found here.

Eclipse brings heavy air traffic

Wyoming's roads and hotels weren't the only area of the state to see historic increases in traffic during the Great American Eclipse Aug. 21.

Airports across the state reported large increases in traffic, with more than 2,000 aircraft traveling in and out of the state for the event.

The highest amount of traffic was in Casper, serving more than 400 aircraft Aug. 21, and a total of over 800 aircraft in the surrounding days. Despite the additional aircraft at Casper/Natrona County International Airport, there were no delays to commercial traffic.

Casper was highlighted in an Associated Press article when many international private jet pilots made inquiries to fly in to the Oil City for the event, including Saudi Arabia, Russia and Argentina.

Jackson also had record service with more than 500 aircraft – a 110 percent increase in traffic over the previous year, and more than 200,000 gallons of fuel dispensed.

Near Cheyenne, the airspace was busier than Denver that day and the traffic congestion on the ground did cause some issues for aeronautics passengers. Rental car companies as far away as Denver were sold out with passengers flying into areas outside of the path of totality to finish their travel by car. Natrona County International Airport providers brought in 100 additional rental cars in anticipation for the event.

Some airports, including Denver, reported passengers missing commercial flights because they were not able to make it to the airport with the ground-traffic congestion.

Per AJ Schutzman, Aeronautics Senior Planner and WYDOT Eclipse Team Liaison, "This was



The South Big Horn County Airport in Greybull is neighbor to the Greybull Museum of Flight and Aerial Firefighting, which inloudes retired bombers which were converted to firefighting tankers.

a true testament to the airport system and infrastructure that we have in place as well as the diligent planning of the airports. They safely handled and accommodated the large influx of traffic. In many ways, it was a proud day for the skies of Wyoming."

Group holds art contest

The Wyoming Department of Transportation Aeronautics Division is seeking art contest submissions to be considered for the 2018 International Aviation Art Contest.

The contest is open to three ages groups ranging from 6-18

years of age. For brochures to enter or more information, contact Aeronautics Commission Secretary Katie Pfister at (307) 777-4015 or email katie.pfister@ wyo.gov.



Aeronautics Division | 200 E. 8th Ave. | Cheyenne, WY 82003 | (307) 777-3952

Secret to Success: Brubaker

Sometimes one person can change everything. For Sweetwater County Airport, it is very obvious, that one person is Devon Brubaker.

Devon came to Rock Springs two years ago at a time when new perspective was needed. For Devon, it seemed that the airline and airport needed to be more effective partners and there was not enough communication from the airport to the community. The number of enplanements was also at an all time low.

With boundless energy, Devon rallied the troops...and he rallied them in a big way. He started speaking at the Chamber and other community events and the airport started giving tours to school groups and others. Devon says that the smartest move the Airport Board made was hiring an air service development consultant to help them identify their leakage and come up with a marketing strategy to get them back. That marketing strategy includes regular, on time flights to Denver with Sky West at \$99 each way if you stay over for the weekend. This targeted marketing has resulting in a 12% increase in enplanements to date. Through the Air Service Enhancement Program (ASEP), the State of Wyoming has been a valuable partner in assisting the airport in securing its commercial air service.

Next on the docket: a 5.5 million dollar General Aviation Terminal scheduled to open in March 2018. This new terminal will offer pilot lounges and sleep rooms, heated garages for vehicles, and 25,000 square feet of hanger space. This asset will help further the General Aviation market in Rock Springs. It's no wonder Devon was recently named Wyoming Airport Manager of the Year by the Wyoming Airport Operator's Association!

For Rock Springs and many other rural Wyoming communities, its airport and air service are key elements to recruiting and retaining business in the community. Without it, companies like Haliburton, Simplot, and BP, may not be in Sweetwater County.



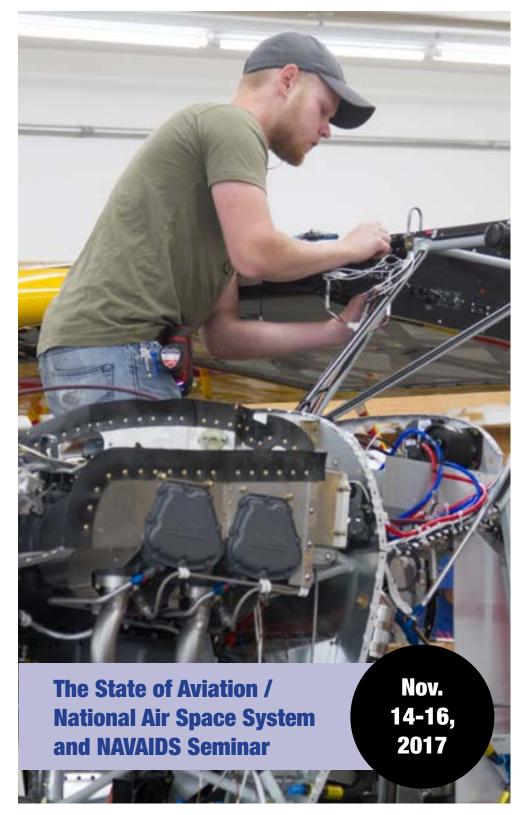
Devin Brubaker

According to the <u>2013 Economic Impact Study</u> for Wyoming Airports, air service generates more than \$1 billion in economic activity in the state annually and supports more than 12,000 jobs.

While the State of Wyoming's Air Service Enhancement Program (ASEP) has been successful in assisting the increasing air traffic in Wyoming, there will be even more challenges in the future that will continue to cause difficulties for air service in communities like Rock Springs and others in Wyoming. Thus, a group of statewide stakeholders are currently looking at a potential public/private partnership project that has proven success in the airline industry. Yes, sometimes, one person can change everything. But for the future of air service in Wyoming, it is going to take all of us.

Review Wyoming's 2016 Air Service Enhancement Program ROI Study.

> Written by Amy Surdam, Aeronautics Administrator



The State of Aviation

9-noon, Nov. 14

We will discuss aviation issues that pertain to Wyoming including air service, the airport system and economic development.

Where:

WYDOT Auditorium, WYDOT Headquarters, 5300 Bishop Blvd, Cheyenne, Wyoming 82009.

Agenda:

- Welcome: Amy Surdam
- Introduction of Aeronautics Commissioners
- Secretary of State Ed Murray: Aviation and Business in Wyoming
- · Director Panos: WYDOT and Aviation
- John Bauer, FAA: The FAA and Wyoming
- Break: 15 minutes
- Senator Von Flatern: Air Select Committee and Legislative Update
- Sheri Taylor: Air Service in Wyoming
- Break: 15 minutes
- Jay Lundell, WAOA President
- · Christy Yaffa: Wyoming's Airport System Update
- Closing Remarks: Amy Surdam

State of Aviation presenters

Ed Murray

Murray was elected as Wyoming's 21st Secretary of State on November 4, 2014. Secretary Murray serves as the State's Chief Elections Officer, Securities Commissioner, Corporations Administrator, Notaries Public Commissioner and in the capacity of Lieutenant Governor.

Additionally, Secretary Murray chairs the State Canvassing Board and serves with the other State-wide elected officials on the State Loan and Investment Board, the Board of Land Commissioners and the State Building Commission.

Sen. Michael Von Flatern

Von Flatern represents Campbell County's Senate District 24. He is a pilot who has served in the senate since 2005. The 1972 graduate of St. Bernards High School in Uncasville, Connecticut, currently serves as the senate vice president.





William T. "Bill" Panos

Panos was appointed the 17th director of the Wyoming Department of Transportation in October 2015. Director Panos came to Wyoming with impressive credentials, drawing from diverse experience he's gained working in both the private and public sectors over the past 37 years.

Bill is a native of California and a graduate of the California State University where he studied physics and forensic science. His previous work has included engineering and leadership positions with the TRW Corporation, the Commonwealth of Massachusetts, the State of Washington and local government.



Bill also plays a leadership role in transportation issues for the United States. Bill serves on the American Association of State Highway Transportation Officials (AASHTO) Board of Directors and the Western Association of State Transportation Officials (WASHTO) Board of Directors. Previously he served as Director for the Port of Sacramento, Advisor to the President's Council on Sustainable Development and Special Advisor to the Chancellor of the California State University System.

His work has intersected with many transportation-related functions and issues, including automotive manufacturing, transportation safety systems, government agency reform, large-scale infrastructure development, capital finance and asset management, public policy and regulation, multi-site operations, advanced risk assessment and inter-agency relations.

John P. Bauer

Bauer is currently FAA manager of the Denver Airports District Office (ADO). He is responsible for overseeing the Airport Improvement Program including, engineering, planning programs, compliance, fiscal control, and environment planning activities for Colorado, Utah and Wyoming.

John has been with the Denver ADO since 1996. He worked as the Assistant Manager, Project Manager, Compliance Specialist, Wyoming State Engineer, Utah State Engineer and Utah/Wyoming Airport Planner.



Amy Surdam

Surdam was appointed Aeronautics administrator in March 2017. She oversees the distribution of state and federal funds for airport development through the state's Airport Improvement Program, air service development through the Air Service Enhancement Program and manages flight services for the governor and other officials on state business.

Amy has proudly lived in Cheyenne, Wyoming, since age 11.

She graduated from the University of Wyoming in 1996 with a BSN, and in 2004 with a MSN. She serves in the Wyoming Army National Guard as a Family Nurse Practitioner. With a few interesting twists in life, she is now the Aeronautics administrator for Wyoming.



She is formerly the executive director of the Cheyenne Downtown Development Authority/Main Street and founder of Children's Museum of Cheyenne. Her talent and passion lies in strategic planning, public relations, public speaking, leadership, connecting people together and making a difference. She enjoys spending time with her family and friends, running, and creating a better tomorrow.



Christy Yaffa

Yaffa, Airports Planning and Programming manager, has been with the department since June 1994. She began as an assistant airports planner after graduating from Embry Riddle Aeronautical University with a degree in aviation business administration. She also served as the department's interim Aeronautics Division administrator during 2016 and 2017.

Sheri Taylor

Taylor is program manager of WYDOT's Aeronautics Division Air Service Development. The program was established to develop and maintain commercial air service throughout the state by complying with the requirements of the statutes, educating and advising both public and government entities, and maximizing air service statewide.

Sheri is a graduate of Michigan State University, with a Bachelors of Science degree in Botany and Plant Pathology. Before joining the Division in 2013, she worked in the airline industry for over ten years in the areas of scheduling, pricing and revenue management. She started her career in aviation as a skydiving instructor and drop zone manager.

Jay Lundell

Lundell is the airport executive director of the Gillette-Campbell County Airport, and has held this position since July of 1993. Jay holds a Bachelor's of Science degree in Business Management from the University of Mary. Jay is an Accredited Airport Executive certified by the board of examiners of the American Association of Accredited Airport Executives. Jay currently serves as President of the Wyoming Airport Operators Association. Jay is a licensed commercial pilot with instrument, flight instructor, and multi-engine ratings and has logged more than 4,000 flight hours, and has served as a designated Federal Aviation Administration written and flight test examiner.









National Air Space System and NAVAIDS Seminar Special Guest Lecturer

Nelson Spohnheimer: Introduction to NAS

Spohnheimer is an internationally recognized technical expert with more than 46 years of professional engineering experience. This included thirty-one years at the Federal Aviation Administration where he served as the FAA's National Resource Engineer for Navigation from 1995-2005.

Nelson's national airspace system knowledge has been sought for navigation and communication design and installation as well as investigating and solving unusual signal-in-space performance challenges. His expertise has been sought for reviewing specifications for national procurement programs such as the

FAA's Category III Instrument Landing Systems (ILS), Portable ILS receivers and Space-based navigation systems. He served as the FAA national member of the ICAO Navigation Systems Panel Technical Work and Study Groups for over ten years, and throughout most of his career, he supported and continues to support the Dept. of Justice on navigation-related aircraft accident lawsuits. He has presented and published numerous technical papers on navigation and flight inspection systems which have been presented in international forums since 1998. He served for many years on national technical committees responsible for facility maintenance policy and taught several hundred technical and policy-related seminars to FAA's workforce. He was an FAA Facilities Aircraft Accident Representative for more than a decade, testified at several NTSB Hearings, and served on several USAF and international aircraft accident investigations.

Mr. Spohnheimer holds a B.S.E.E. Electrical Engineering degree from Iowa State University and was a National Merit Scholar. He is an active amateur radio operator. He continues his career work through a consultancy established in 2005.

Introduction to NAS

Housekeeping

- Breaks & Lunch Times & Sequencing Approximate depending on topic completion
- Step out for phone calls, etc.; phones on silent, please
- · Ask questions & discuss freely

Day 1: 1330-1700

- · Introductions
- High-Level Description of NAS and NAS Operations
- · Topics:
 - Pilots Navigate, Controller Separate (CNSI)
 - ICAO Standards & ICAO-speak
 - Safety Regulation vs Service Provision, General Description
 - National & World Traffic Levels, US & EU Comparison
 - Airways History, Definition, Examples
 - Phases of Flight Departures, Transition, En Route, Transition, Arrivals
 - FARs; Hub & Spoke vs Point-to-Point Routes; impact of "low-cost" airlines, RJs
 - Aeronautical Spectrum LF, VHF, UHF, Microwave Frequency Bands, General Propagation
 - Video OCC, NSCC (INK) flow control, ground stops, etc
 - Aeronautical Information Manual

Break

- Air-Ground Communications System (High/ Low Altitude, Terminal, Flight Advisory, Sectors)
- Navigation Methods and Systems
 - Rho-Theta, Theta-Theta, Rho-Rho
 - Ground-Based Enroute & Terminal
 - Instrument Approach Procedures
 - NDB, VOR/TACAN, ILS
 - Satellite-Based GPS/SBAS; RNAV (several types, enroute & landing)
 - Landing-related Lighting VGSI (VASI, PAPI), ALS
- Surveillance System
 - Traditional Radar (Primary, Secondary), ADS-B
- NextGen CDA, Direct Routing, Increasing RNAV, ADS-B In/Out

Day 2: 0800-1700

- FAA Organization
 - Regulation vs Service Provision "Privatizing"
 - Airports, Aircraft Cert, Flt Standards, Safety Regulation
 - ICAO's SOAP Safety Oversight Audit Program ==> SMS
- <u>Spectrum</u> Aeronautical vs Consumer, Broadcast
- Air-Ground Communications
 - INSIDE Video
 - Typical Site TX, RX, control equipment, telecomm equipment

Break

- Vertical Antenna Patterns/Spaceloss/Max Range
- Propagation Skywave, Groundwave, Anomalous Propagation
- Comm fac photos

Lunch: 1130-1300

- Navigation in the NAS
 - Executive Monitoring Concept (different customers)
 - Low-Frequency Aids [En route] ADF/NDB, Pilot's Indicator, Conops; Photos
 - NDB series resistance model, various antennas
 - Ground currents, Needle errors, ADF RX operation
 - NDB IAPs, SIDs, STARs
 - VHF Aids [En route] Pilot's Indicator; Conops; Photos
 - VOR MON and SIRs (plans), users' interest is low
 - Basics Az & Vert pattern
 - Antenna pics & symmetry adjustments

Break

- Counterpoise considerations, monitoring concept
- Alignment, Bends, Roughness & Scalloping
- DVOR pro's & con's
- Flight Inspection, # aircraft, pics, recordings
- UHF Aids [En route] DME, TACAN
 - · Conops, Photos

Day 3: 0800-1700

- Non-Federal Program
 - FAR 171, MOU, Technician Credentialing, Ground Inspections, Sponsor Requirements & Precautions
- Navigation Systems (Continued; Landings)
 - Instrument Landing systems -Categories of Operations vs Type of Ground Environment
 - Accuracy, Integrity, Continuity;
 6750.24; COS/Burn-in
 - · Foggy Landings Video

Break

- Localizers (lateral guidance) concept, different antenna systems
 - PKN & OMO pics
- Glide Slope (vertical guidance) concept, different versions, smooth ground requirements
- Lighting Systems VGSI & ALS

Lunch: 1130-1300

- Surveillance System
 - Radar concept Skin Paint; Beacon Systems
 - Next Gen ADS-B out/in
 - Free Flight, Direct Routing, Continuous Descent Approaches

GPS

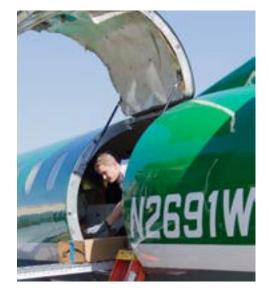
- How it Works, Frailties,
- Aviation Backup; Infrastructure Backup (APNT)
- GNSS-based Approaches RNAV (APV, LPV, etc)
- Instrument Approach Procedures -Airport Requirements

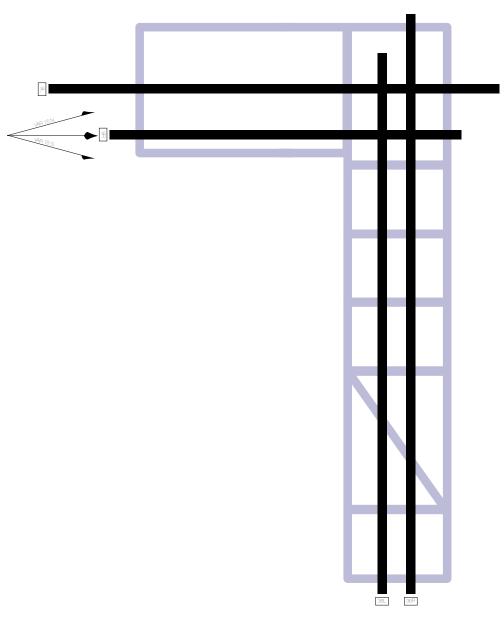
Break

If Time Permits:

Topics to be inserted, no specific order

- Spectrum Details
- HMI Hazardously Misleading Information
- FAA's Tort Experiences re: Facilities, Tough Lessons Learned
- Certification/Verification of Facilities, Documentation
- Diffraction & Blocked LoS, KLFT report, Pt-pt microwave
- Intuitive RFI (Radio Frequency Interference)
- Mtnc Hdbk org; Standards and tolerances





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