

U.S. Department of Transportation Federal Aviation Administration Northwest Mountain Region

A Publication of the Northwest Mountain Region Airports Division — Vol. 29

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Committee for pavement research seeks to provide solid solutions for better pavements

he FAA provides funds each year for research on Portland cement concrete (PCC) and asphalt concrete. The PCC research projects are contracted through the Innovative Pavement Research Foundation (IPRF); the asphalt research is through Auburn University's, Airfield Asphalt Pavement Technology Program (AAPTP).

The purpose of the programs is to provide applied research, technology transfer

implementation, and public education.

The IPRF/FAA research program has been active since 1997. Some of the reports include "Best Practice Manual for Concrete Pavement," and "Stabilized and Drainable Base for Rigid Pavement." Other research includes deicers and alkali-silica reaction (ASR), overlays, a marking handbook, smoothness, and performance of design-build projects. The IPRF program details and other projects are available at http://www.iprf.org/.

The AAPTP/FAA program has been active for a couple of years; yet it already is underway with projects such as a best practice manual, longitudinal joint construction, effects of deicers, fuel resistance sealers, reflective cracking, evaluation of stone-matrix asphalt mixes and super-pave mixes. Details of he AAPTP program and projects may be found at www.AAPTP.us.

Each year a committee consisting of industry, airports, consultants, and the FAA reviews and prioritizes the proposed projects. As a panel member for the FAA, I welcome any pavement research suggestions you may have. Please forward your comments to me at jack.scott@faa.gov.

- Jack Scott

2006 RAP achieving more successes

e are pleased to report the publication of this year's Regional Airport Plan (RAP). Over the years, we have made steady strides in pursuit of achieving the RAP initiatives and national objectives, including improving safety areas, correcting runway line of sight, reducing the potential for incursions by constructing access roads around runways, and adding parallel taxiways.

This year, we have made progress in one of the newer RAP initiatives by completing surveys to determine where alkali-silica reaction is occurring at our airports. The use of localizer performance with vertical guidance (LPV) instrument approaches is a new initiative to help airports achieve better access for pilots. We continue to anticipate future airport needs by preparing airports for business-jet operations, constructing new runways or runway extensions where needed, upgrading facilities to meet a new class of user, and preparing for new technology.

Thank you for your support in our efforts to carry out RAP initiatives. We look forward to achieving more successes.

Editor: Nancy Royak **Airports Division** March 2006



Vol. 29 – March 2006

DIVISION MANAGER'S COLUMN

e are already halfway through the fiscal year and now heading for the construction season. The Airport Improvement Program (AIP) is at a robust level and we expect to be able to support many of your projects before the fiscal year is over. This has been the pattern we have been in for several years under the current AIP authorization. However, the upcoming Aviation Trust Fund and AIP reauthorizations are fast approaching, and many changes are likely to be introduced and on the table for discussion.

The debate on the trust fund is already in full swing. The FAA will be presenting its proposal on financing for the FAA's overall budget, including the AIP. This expectedly will draw lots of interest from users who may be paying into the trust fund. But it should be of equal interest to those who benefit from trust fund expenditures. We hope to have the latest on this subject at our annual Airports conference in April. Work on the AIP reauthorization is getting underway, but it is premature at this point to offer any sense of change.



Lowell H. Johnson, Airports Division Manager

Closer to home, we have prepared a new edition of our Regional Airport Plan (RAP) and have that available on our web site (<u>http://www.faa.gov/airports_airtraffic/airports/regional_guidance/northwest_mountain/</u>), under "*What's_New*." Considerable strides have been made in helping airports accomplish an assortment of development actions to improve the airport system. There is no lack of important work yet to be done, and we have presented once again a strategy for working with the airport community to complete older initiatives and tackle new ones. Take a look at the RAP when you have a chance.

I look forward to seeing many of you at our conference this year.

The annual Northwest Mountain Region Airports Conference in Seattle is almost here



Picture above is the Seattle-Tacoma International Airport Arrivals Hall

oin us for the Northwest Mountain Region Airports Conference, April 10-12, 2006. Conference registration now for the general public is \$310; FAA employees - \$50; and groups of five or more-\$260. Take a look at some of the planned events:

- April 9 Seattle Mariner's Sunday Game, cost \$18
- April 10 Design and Construction of Portland Cement Concrete (PCC) Pavements Workshop, cost - \$50 (includes lunch).

Conference includes 15 sessions with an array of topics such as:

- Aviation Trust Fund
- Localizer Performance with Vertical Guidance Instrument Approach Procedures
- Pavement Deiciers and Alkali-Silica Reaction in PCC
- Wildlife Hazard Training

Next Generation Air Transportation System

Exhibitor Reception and Airport District Office meetings.

- Cathy Zimmerman

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NOTICE EFFECTIVE IMMEDIATELY

SAFE equipment determined unsafe by FAR —

Noncompliance with federal regulations results in ban on some airport lighting equipment

he FAA has removed all products of SAFE Extensions, Inc., from the list of certified airport lighting equipment in Advisory Circular (AC) 150/5345-53C, "Airport Lighting Equipment Certification Program."

We have concluded that the manufacturer did not comply with certification procedures in this AC, nor predecessor AC's. As a result of failure to comply with agency procedures for certification of airport lighting equipment, this equipment does not meet the requirements of Title 14 Code of Federal Aviation Regulations, Part 139, "Certification of Airports," paragraph 139.311, "Marking, Signs, and Lighting."

Equipment by SAFE Extensions, Inc., (*examples pictured at right*), is not to be installed on any runway, or as part of any federally funded project. As this is a safety issue, this notice is effective immediately,



regardless of the stage of a project. If you have a project where the installation of such equipment already has begun, please immediately contact your Airports District Office project manager.

We expect to issue guidance relating to existing installations soon. No action is required at this time for existing installations. However, any information you can gather and provide to your ADO regarding where this equipment has been installed will be very helpful.

— Information Source - Headquarters Memorandum

The aviation forecast through 2017 looks good

The Federal Aviation Administration's (FAA) Office of Aviation Plans and Policy has released the 2006-2017 FAA Aviation Forecast, which notes some interesting industry trends. Despite the financial struggles of air carriers and record fuel prices, the number of people in the United States who choose aviation travel continues to grow. Last year, the number of enplanements increased 7 percent from the previous year. Sluggish growth in aircraft capacity and passengers is predicted for this year, but the long-term growth continues.

Other information gleaned from the aviation forecast is that the overall size of domestic aircraft is expected to decline this year, and the demand for aircraft with 70 to 90 seats will increase. Domestic mainline carrier enplanements rose 4.1 percent, while the regional enplanements grew by whopping 16.5 percent. Perhaps in support of on-demand taxi service, 100 twin-engine micro jets are expected to join the fleet next year, which boosts general-aviation hours flown. International enplanements are expected to grow at an average annual growth rate of 3.4 percent over the next 12 years.

The forecast news overall is good and offers an optimistic outlook for the future of aviation.

Carolyn T. Read

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Follow Concourse to Gate 4



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The grant program is moving along at a good pace

The outcome of these discussions is unknown, but we can report on where the AIP stands so far this fiscal year. We have programmed 163 grants, which account for 246 projects at a sum of \$215.3 million. Our

Airports Capital Improvement Plan forecasts that 196 projects and about \$135 million remain to be programmed. Based on a total program of \$328 million in FY-05, and an expected increase in AIP this year, we estimate that we have programmed approximately 61 percent of the anticipated total funds, and 56 percent of the total projects, which is pretty good considering we are just 6 months into this fiscal year.

Colorado	\$6,333,569	Utah	\$4,499,180
Idaho	\$3,956,048	Washington	\$5,879,266
Montana	\$6,242,161	Wyoming	\$4,096,752
Oregon	\$5,649,418		

Regarding the state apportionment figures, the values are calculated based on population and area, as prescribed in Title 49 of the United States Code, Section 47114. This is done after the non-primary entitlements have been distributed. The table (left) shows the state apportionment figures for FY-06.

Also, the <u>Federal Register</u> notice, published February 3, 2006, establishes May 1, 2006, as the deadline for each sponsor to notify the FAA as to the disposition of these entitlement funds. Please, ensure you advise your Airports District Office (ADO) project managers on this.

Finally, airports that use the Electronic Clearing House Operation (ECHO) to make electronic draw downs of grant funds, must submit the Office of Management and Budget Form 272 (located on the FAA website at: http://www.faa.gov/airports_airtraffic/airports/resources/forms/media/payments_sf272.pdf. This is done each quarter, to support claimed costs. You can fill out this form and print a paper copy, but it will not save the data you input. The electronic word document that allows you to enter data, save it, and email it back to the FAA is at: http://www.faa.gov/airports_airtraffic/airports/resources/forms/media/payments_sf272.pdf. This is done each quarter, to support claimed costs. You can fill out this form and print a paper copy, but it will not save the data you input. The electronic word document that allows you to enter data, save it, and email it back to the FAA is at: http://www.faa.gov/airports_airtraffic/airports/regional_guidance/northwest_mountain/airports_resources/forms/media/payments/sf_272.doc. If you have any questions, please contact your local ADO.

— Warren Ferrell

FAA is developing LPV approaches to achieve best possible visibility minimums at airports nationwide

The FAA has committed to develop in FY-06 300 localizer performance with vertical guidance (LPV) approaches to non-instrument-landing-system runway ends throughout the nation. The Wide Area Augmentation Systems Office (WAAS) is taking the lead to accomplish this goal.

Many FY-06 procedures are in production and most of the surveys are completed. The table (*at right*) shows the current status of LPV instrument approach procedure development in our region.

Because of the time constraints in performing surveys, the WAAS office will do all the needed

Year	Total	Surveyed	In Production	Published
2006	63	48	34	9
2007	81	9	0	0

surveys for runways identified for FY-06 and FY-07 LPV approach procedures. For approaches published in FY-08 and beyond, we plan to work with each of the seven states to fund needed surveys under state system planning grants.

Although the goal is to achieve visibility minimums of ³/₄ mile or better, the FAA will work with airports to determine suitable minimums. In some cases, to achieve the lowest possible minimums, costly infrastructure, e.g., parallel taxiways, may be required as outlined in Change 8 of Advisory Circular 150/5300-13, Table A16-1B. We are compiling a database to track, monitor, and coordinate our efforts to support this initiative.

— Mike Crader



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Advisory circulars changed to reflect new guidance for precision obstacle-free zone

- he FAA has issued new guidance concerning the precision obstacle-free zone (POFZ). The following Advisory Circulars (AC's) have been changed to reflect the new POFZ criteria:
 - AC 150/5300-13, "Airport Design"
 - AC 150/5340-1J, "Standards for Airport Markings"
 - AC 150/5340-18D, "Standards for Airport Sign Systems"

The Airport Design AC defines the POFZ as a volume of airspace above an area beginning at the runway threshold, at the threshold elevation, and centered on the extended runway centerline, 200 feet long by 800 feet wide (see diagram pictured at right). The POFZ is applicable at all runway ends including displaced thresholds. The surface is in effect only when all of the following operational conditions are met:

(1) Vertically guided approach

(2) Reported ceiling below 250 feet and/or visibility less than $\frac{3}{4}$ statute mile (or runway visual range below 4,000 feet)

(3) An aircraft on final approach within 2 miles of the runway threshold.

When POFZ criteria are met, the wing of an aircraft may penetrate the POFZ. However, neither the fuselage, nor the tail may infringe on the POFZ.

In this region, based on our review of airport layout plans, we anticipate the need for changes at Port Angeles, Olympia, Everett, Pasco, Seattle-Tacoma, Tacoma

Narrows, Klamath Falls, Portland, Idaho Falls, Great Falls, Salt Lake City, and Fort Collins airports. These changes may include marking, signing, lighting or a memorandum of agreement with the local airport traffic tower management. Changes involving marking and lighting must be incorporated in this summer's construction projects. The POFZ standard must be met by January 1, 2007.

If you have questions or concerns regarding the POFZ issue, or are a location not mentioned, please contact your Airports District Office project manager.

- Bill Watson

Bureaucratic Balderdash

any have commented that government acronyms are impossible to figure out. Others just have problems with bureaucratic speech in general. We have been told that when you hear some bureaucrats speak, you really need an interpreter. Here are some examples of "bureaucratic speak," and possible interpretations:

"It is in process."

"The entire concept will have to be abandoned." (The only person who understood the project quit.)



about hopeless.)

(It is so wrapped up in red tape that the situation is





Airports web'sters have redefined web site formats

n February 7, 2006, web sites for all Airports lines of business, regional and national, were updated to FAA's latest design (pictured below). Airports webmasters nationwide worked together over a period of months to design a consistent set of subject links in the left navigation bar. Then, each regional webmaster built their site content based on the information in their former sites.

Immediately after publication, this received a number of comments and suggestions, especially in the areas of airport design and construction. These have been discussed, and temporary changes have been made to minimize the issues raised. Our current plan is to leave the new sites the way they are until after we have been able to conduct formal usability tests.

Our new regional home page site is: <u>http://www.faa.gov/airports_airtraffic/airports/regional_guidance/northwest_mountain/</u>. The site is complex; so ,at the bottom of the home page there is a "Site Directory" link. When you click on the link, it takes you to a page that shows all of the first- and second-level topics. Use this to perform quick visual searches of the site, and become better acquainted with its organization.



To get to our home page from FAA's home page, <u>http://www.faa.gov/</u>, just execute the following steps:

- 1. Click on the "Airports and Air Traffic" tab at the top of the page.
- 2. Click on the "Airports" link in the left navigation bar.
- 3. Click on the "Regional Guidance" link under "Airports" in the left navigation bar.
- 4. Click on the "Northwest Mountain" link, either in the navigation bar or page body.

We welcome your comments and suggestions. Please use the link at the bottom of our new home page, titled "Send a message to our Webmaster," to forward your comments.

- Mike Crader

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ach construction season, airport sponsors and their tenants gear up to build or expand facilities on airports. Among these are such sponsor- or tenant-financed improvements as automobile parking lots, T-hangars, and other miscellaneous buildings not funded through FAA grants.

Title 14 of the Code of Federal Regulations (14 CFR), Part 77, and airport grant assurances require <u>all</u> such construction on an airport be coordinated with the FAA **prior to commencement**, using FAA Form 7460-1, *Notice of Proposed Construction or Alteration*. This is required even if the proposed improvement is depicted on the approved airport layout plan (ALP). This is because the FAA must determine that the height, layout and composition of the structure are consistent with the ALP, and that it will not obstruct the navigable airspace or adversely affect such FAA facilities as navigational aids or buried cables.

The FAA receives hundreds of airspace proposals from seven states and typically completes an aeronautical study on proposed construction in about 90 days. Evaluations will be expedited only for emergencies or extraordinary circumstances. Tenants and other proponents should be advised well in advance to expect a turnaround time of at least 3 months from the time the notice is received by FAA. This should be factored into their plans. To advise prospective builders of this consideration, we suggest the airport sponsor notify them through periodic tenants' meetings or newsletters distributed to their airport users. You may download Form 7460-1 from our website at: http://www.faa.gov/airports_airtraffic/airports/regional_guidance/northwest_mountain/airports_resources/forms/? sect=airspace. This "Notice of Proposed Construction" provides instructions for completing it.

A point of emphasis regarding geographical coordinates: latitude and longitude of the proposed improvement must be provided in order for the FAA to evaluate the proposal. Also, the proponent must indicate whether the source of the coordinates was based on the 1927 or the 1983 North American Datum (NAD). This information typically is found on a U.S. Geological Survey 7 $\frac{1}{2}$ quad map. Check the source datum, either NAD 27 or 83, in one of the boxes provided in block 11 of Form 7460-1, below the coordinates. If survey information is not available for the proposed building site, we recommend use of a handheld global positioning system receiver, to get the most accurate coordinates (at the point of the proposed structure closest to runway). For on-airport construction, proponents should provide **one** copy of the form, but **five** copies of any drawings or other enclosures.

For on-airport construction, all tenant or third-party proposals must be submitted *through the airport sponsor* to the appropriate Airports District Office (ADO). The FAA will not process proposals for on-airport construction without evidence of airport sponsor concurrence. Once the aeronautical study is done, the ADO will respond to the proponent with the FAA study determination, and copy to the airport sponsor.

Sponsors also should be alert to off-airport construction in its immediate vicinity, especially in the runway approach areas. Construction cranes and tall structures are of particular concern. Off-airport structures that might affect the navigable airspace are covered under Federal Aviation Regulations, Part 77. A Form 7460-1 also should be provided to those proponents. They should complete this form and submit it to the FAA. In addition, E-Filing is available at: https://www.oeaaa.faa.gov/oeaaaEXT/portal.jsp (see the box labeled, "If construction or alteration *is not located* on an airport"). A similar processing time can be expected. (Note: if you cannot connect directly by clicking on this link, copy and paste it into your browser's "Address" line.)

We are ready to help airports and their tenant/users by evaluating proposed improvements. For more information, contact your ADO.

Don Larson







The Rock Springs-Sweetwater County Airport wins a prestigious concrete award

he Rock Springs-Sweetwater County Airport (*pictured above*) in Rock Springs, Wyoming, has been awarded the 2006 American Concrete Pavement Association Colorado/Wyoming Chapter Pavement Award for excellence in concrete paving at airports.

The 220,000-square-foot commercial apron at the Rock Springs Airport previously was constructed of asphalt, with a concrete hardstand located at the center of the apron for large aircraft parking. The old asphalt apron was severely weathered and deteriorating. The result of a cost-benefit analysis showed that a 6-inch overlay on the entire apron was the best option for the Rock Springs Airport.

The consulting engineer put together a thorough construction operation plan that detailed all coordination between the airport, engineer, contractor, Transportation Safety Administration (TSA), and the FAA. Because this construction would affect the commercial service apron, all closures had to be closely integrated with TSA requirements. During construction, commercial passengers would be shuttled to and from the general-aviation apron, where the commercial aircraft were relocated. The construction operation plan also outlined all required barricades and fences to keep the construction area separate from the commercial flights.

Congratulations to the Rock Springs-Sweetwater County Airport for this excellent paving project, and for completing the project in only 40 days of their 50-day contract, at a cost of \$1,692,053.60.

– Kristin Hartman

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Communication – it is so essential, and it works

s we all continue to work on airport improvement projects, minimum standards, and lease agreements, it is clear that there are several necessary parts to a successful project. Yet, none are more important than having open lines of communication. Sponsors, consultants, and FAA employees all gain greatly from constant communication with each other as tasks are performed.

For example, prior to addressing the requirements and language needed to execute a hangar lease agreement, consultation with the local Airports District Office can help identify issues and concerns that should be considered prior to executing the lease. Taking this extra step will help keep all participants in the loop, and will help avoid

some potentially larger problems, such as exclusive rights or unrealistic and discriminatory terms. Avoiding the need to correct these evils can save all parties a considerable amount of time and money.

Communication throughout airport planning and development projects is essential. It helps projects stay on track and on schedule by not allowing information and questions to get lost in long gaps between conversations. Also, it is much easier to address and find a solution to a problem when it occurs, prior to impacting other parts of the project. Communication provides opportunities for everybody to share their thoughts, opinions and concerns, which in turn will help produce the best possible final product. Having an open dialogue will enable sponsors to act within their grant

assurances and requirements.

While all of our backgrounds, locations and job descriptions are different, we are all one team in the aviation community. By continuing to work hand-in-hand and maintain constant communication, we will aid each other in providing the necessary tools and knowledge to help achieve our aviation goals.

— Marc Miller

Long-time community planner in DEN-ADO takes medical retirement, planning to get healthy

Scott Fredericksen, who was the Civil Engineer and Community Planner for the Colorado Section of the Denver Airports District Office (DEN-ADO), has been medically retired. Scott's retirement became effective on February 4, 2006.

For almost a year, Scott has been undergoing medical treatments for a serious illness. These treatments have restricted his activities, due to their frequency and the associated fatigue.

Medical retirement was not an easy choice for Scott to make, as he very much enjoyed his work in the DEN-ADO. It has, however, provided him a certain peace with regard to his concerns about not "being there" for his Colorado customers and his colleagues. Now, he can channel all of his energy into the healing process, and getting healthier and stronger. Scott says he looks forward to each new day

Colorado, DEN-ADO. (Photograph taken on March 14, 2006.)

with optimism and thankfulness. And, he believes a time will come when he will again be working in the aviation industry. We all look forward to that time as well. Until then, our thoughts and prayers are with him and his family.

Return to Gate 8

he Airports Division is pleased to announce the selection of Carolyn Read to the position of Manager, Planning, Programming and Capacity Branch, effective March 19, 2006. Many of you may already know Carolyn from the great work she has accomplished as the Regional Capacity Program Manager, since 1998. Carolyn was born in Chicago, Illinois, but her family moved to Oahu, Hawaii, when she was 11 years old. The 7 years she lived there were filled with sun and fun, enjoying all kinds of outdoor activities such as swimming, surfing and SCUBA diving. It was the desire to further her education that motivated her to leave the island for Marquette University, where she graduated with a Bachelor of Science degree in civil engineering.

During her university years, she worked as an intern with the U. S. Department of Agriculture Forest Service, helping to design and construct recreational areas. Following graduation in 1980, she went to work for the Boeing Commercial Airplane Company designing galleys.

From there, her interests led to a position with the Department of the Army for Engineering and Housing, which took her to Heidelberg Germany. Her job included planning, construction management, and project design. From Germany, she moved to Ft. Dix New Jersey, and then Ft. Lewis, Washington.

In 1987, Carolyn (*pictured right*) began working in the Military Construction Management Program of the U.S. Army Corps of Engineers, Seattle District Office.

In 1989, she acquired her Washington state professional

engineering license and came to work for the FAA, where she has held various positions, such as compliance officer, Oregon state engineer, regional planner, and Regional Airport Capacity Program Manager. While employed full time for the FAA, Carolyn worked to achieve master's degrees in both business and public administration. Carolyn and her husband Curt have three children and reside in Federal Way.

Carolyn and her husband Curt have three children and reside in Federal Way.

ohn Bauer has been selected as the new Assistant Manager, Denver Airports District Office (DEN-ADO). He brings to the position a decade of engineering and planning experience, and a high level of energy, dedication, and professionalism.

John, who is a native of Colorado, graduated from Colorado State University in 1995, with a Bachelor of Science degree in civil engineering.

In 1996, he began his career with the FAA, when he was hired to work in the DEN-ADO as a project manager and compliance specialist for Colorado, Utah, and Wyoming. In May of 1997, his engineering role became specifically dedicated to the state of Wyoming. He served well in that capacity until 2001, when he became the lead engineer for the state of Utah. Ultimately, he combined his engineering and planning skills to serve both Utah and Wyoming, from October 2004 to March 2006. In each of John's positions in the DEN-ADO, he has maintained the role of compliance specialist for the office.

John enjoys spending his free time with his wife Carmen and their two boys, Sam and George.

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