

CalAERO

DIVISION OF AERONAUTICS

CALIFORNIA DEPARTMENT OF TRANSPORTATION

Spring 2016

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California Aviation Day at the Capitol

By Kevin Ryan

On April 20, 2016 from 11 a.m.–1 p.m., the Association of California Airports and the California Airports Council, representing general aviation and commercial service airports in the State of California, will host Aviation Day at the Capitol.

This marks the fourth annual event for California's Senate and Assembly members, their staff, and the general public to have an opportunity to meet with the aviation community and learn how aviation facilitates the efficient transportation of people and high-value goods and services throughout the State of California.



Airports are a vital part of our community. Aviation operations conducted from these valuable transportation nodes support the State's economy (\$168.7 billion in economic output; 1.2 million jobs) by providing and improving corporate connectivity, agricultural activities, environmental research and monitoring, mail and air freight shipments, flight training, as well as emergency and disaster response.

The California Department of Transportation, Division of Aeronautics' goal in aviation is to foster and promote the development of a safe, efficient, dependable, and environmentally compatible air transportation system, including issuing permits and conducting annual permit safety compliance inspections at the 244 public-use airports and 163 hospital heliports. To learn more about the State's role in aviation, please visit our website at <http://www.dot.ca.gov/hq/planning/aeronaut/>

We invite you to come out and learn more about aviation in California from the airport sponsors and the public and private organizations that are responsible for the many services at California's airports. For more details, please visit the website at <http://caaviationday.com>



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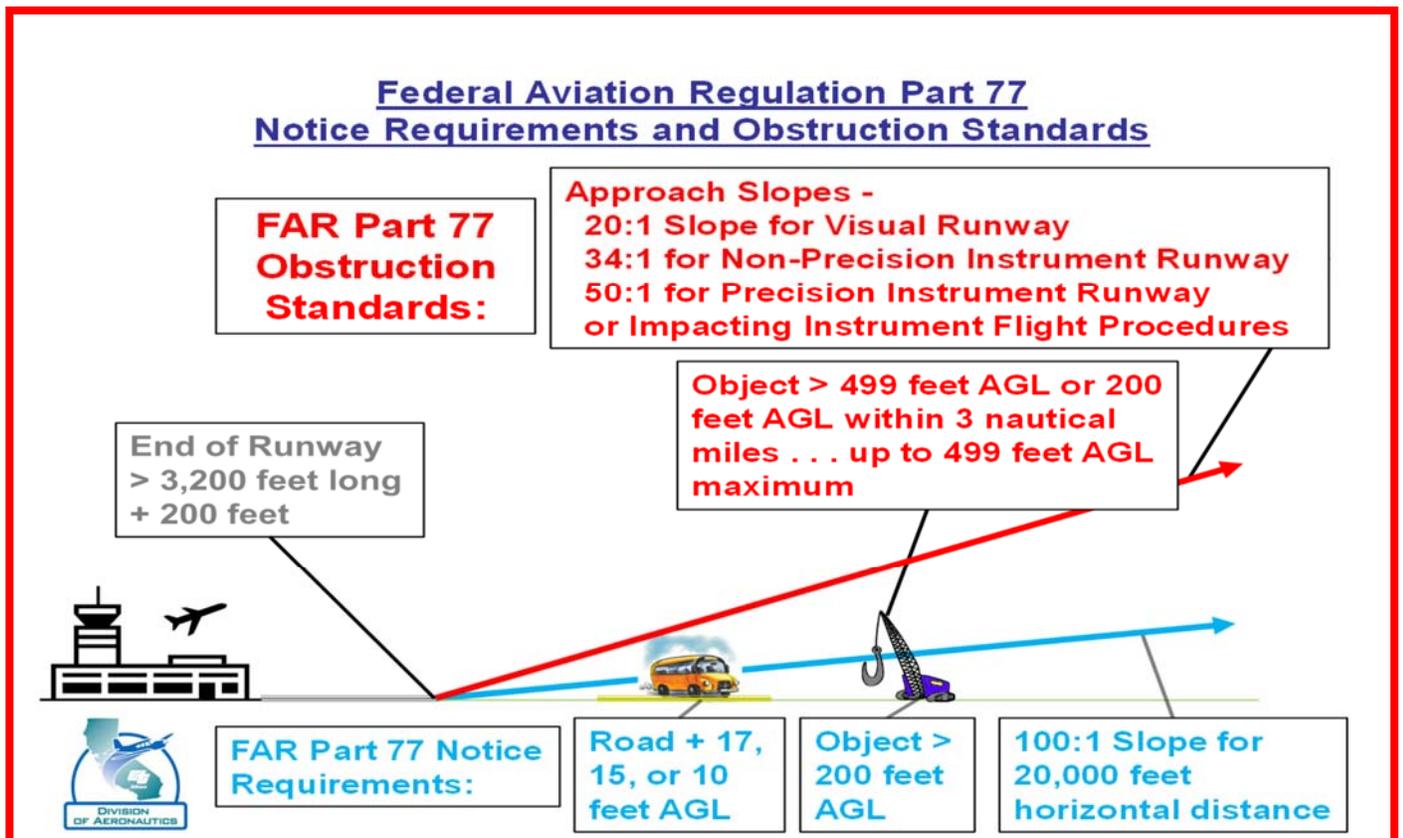
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Overview of Federal Aviation Administration Criteria for Obstructions Near Airports

We continue to see situations involving the erection of new obstructions near airports. These can be the physical structures themselves, or for the associated cranes and construction equipment. In some instances, we have heard from airports that the installation of a crane (or cranes) was only discovered by direct observation or pilot reports. These obstructions may be hazardous to navigable airspace. So we believe it's a good time to review notification requirements and obstruction criteria.

The Federal Aviation Administration (FAA) is responsible for the regulation of aviation and airspace in the United States. One of the regulatory requirements and tools to promote operational safety in the National Airspace System is Federal Aviation Regulation (FAR) Part 77. FAR Part 77, last updated January 18, 2011, defines civil and military airport and heliport imaginary surfaces, notice requirements, obstruction standards, and explains FAA airspace studies and determinations. Additionally, FAR Part 77 details a process for evaluating whether proposed objects will be obstructions to navigable airspace. The simplified graphic below may serve as a helpful reference as the elements of the obstruction evaluation procedure are explained. The graphic represents a runway greater than 3,200 feet long. Different criteria exist for heliports and shorter runways.



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In general, with respect to the requirements for providing “notice” to the FAA, project sponsors must file FAA Form 7460-1, Notice of Proposed Construction or Alteration, for structures that:

- Are more than 200 feet Above Ground Level (AGL)
- For qualifying airports, exceed a slope of:
 - a. 100 to 1 for a horizontal distance of 20,000 feet from a runway > 3,200 feet long
 - b. 50 to 1 for 10,000 feet for runway ≤ 3,200 feet long
 - c. 25 to 1 for 5,000 feet from heliports
- Exceed the height of a or b above for a highway (Interstate) plus 17 feet, public road plus 15 feet, private road plus 10 feet, or railroad plus 23 feet
- Are on an airport or if requested by the FAA

Note: FAR Part 77 should be consulted for waterways and other specific criteria.

“Qualifying” airports and heliports are defined in FAR Part 77 as:

- Public-use
- Military or public-use, under construction
- Operated by federal agency or Department of Defense
- Have at least one FAA-approved Instrument Approach Procedure

If required to file notice, sponsors must do so at least 45 days before the earliest of the construction start date or the date the construction permit application is filed. Go to the FAA Obstruction Evaluation/Airport Airspace Analysis web page for instructions at: <https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

As you can see in the graphic, there is a difference between FAR Part 77 notice requirements (blue line) and obstruction standards (red line). The notice requirements are much more conservative, so having to submit a Form 7460-1 does not mean there is a problem, but sponsors must file regardless.

The general FAR Part 77 criteria is that objects are obstructions to air navigation if they:

- Are at a height of 499 feet AGL or taller
- Are more than 200 feet AGL within 3 nautical miles (NM) of the Airport Reference Point of an airport with a runway > 3,200 feet long (increased proportionately by 100 feet for each additional NM up to 499 feet)
- Are at a height that would impact certain minimum instrument flight and en route obstacle clearance altitudes
- Exceed FAR Part 77 Imaginary Surfaces (Primary, Approach, Transitional, Horizontal, Conical, etc.)
- Exceed the height of a highway (Interstate) plus 17 feet, public road plus 15 feet, private road plus 10 feet, or railroad plus 23 feet

Note: FAR Part 77 should be consulted for waterways and other specific criteria.

Once the FAA receives a Form 7460-1, they conduct an Airspace Study. The study results in an Airspace Determination. The Determination will either result in a:

- Determination of No Hazard to Air Navigation—The FAA may impose some conditions, but they have otherwise concluded that the object is not an obstruction.

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The Office of Technical Services and Programs



Parvin Bijani, Bambi Jake, Philip Crimmins, Tarek Tabshouri, Patrick Kyo, Danny Uppal

The Division of Aeronautics, Office of Technical Services and Programs (OTSP) provides engineering services, financial assistance, and environmental stewardship to benefit aeronautics activities in California. The OTSP areas of responsibility include Grants and Loans, Engineering, and Environmental/Noise.

The OTSP strives to support safety, maintenance, and capital improvements at airports by overseeing the California Aid to Airports Program (CAAP). The CAAP consists of three grant programs and is funded by fuel excise tax revenues:

- ⇒ **Annual Credits** provide a \$10,000 per year non-discretionary entitlement to eligible, publicly-owned, General Aviation (GA) airports for airport and aviation purposes.
- ⇒ **Airport Improvement Program (AIP) Matching Grants** provide a 5 percent State match to assist GA and Reliever airports in meeting their local match requirement for Federal Aviation Administration Airport Improvement Program grants. Funding is subject to allocation by the California Transportation Commission (CTC).

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- ⇒ **Acquisition and Development (A&D) Grants** are available for eligible airports subject to programming and allocation by the CTC. A&D grants fund 90 percent of project costs. This program supports the National Plan of integrated Airport Systems (NPIAS) and Non-NPIAS Airport projects as well as Airport Land Use Compatibility Plans (ALUCP). Projects and ALUCPs programmed for A&D grants constitute the Aeronautics Program.

The OTSP also administers the California Airport Loan Program, which provides discretionary loans to eligible airports for construction and land acquisition projects that benefit an airport and/or improve its self-sufficiency (see California Airport Loan Program article on Page 8). Our Grants and Loans Specialist, Bambi Jake, oversees the disbursement of the CAAP and Loan Program funds

Our airport Engineers, Parvin Bijani, Danny Uppal, and Patrick Kyo, provide engineering support and technical assistance to the Division of Aeronautics and to General Aviation airports. Through consultation with airport managers, these Airport Engineers administer A&D grants by compiling the statewide Capital Improvement Plan, creating the multi-year Aeronautics Program, approving project plans, and preparing grant agreements.

Our Environmental Specialist is Philip Crimmins. Philip provides California Environmental Quality Act (CEQA) oversight for CAAP projects and CEQA review for development projects in the proximity of airports. He also oversees the airport noise program and other noise related provisions of the State Aeronautics Act.

The Office of Technical Services and Programs is here to assist you. Tarek Tabshouri, OTSP Chief, can be reached at (916) 274-3775, or by email at Tarek.Tabshouri@dot.ca.gov.

ACRP Spring Webinars

April 25, 2016 — 2:00pm ET

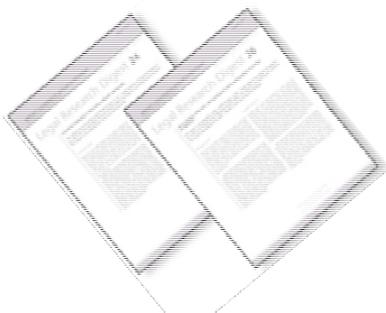
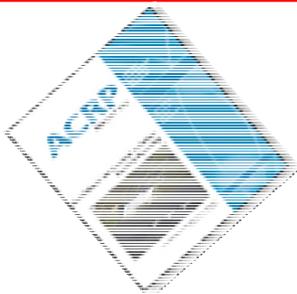
Guidance for General Aviation

May 24, 2016 — 2:00pm ET

Legal Aspects of Airport Programs

To participate, please visit this ACRP website:

www.trb.org/ACRP/ACRPwebinars.aspx



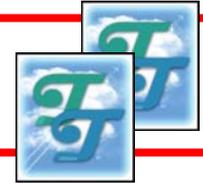
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TRIM TABS By Colette Armao



One of Angela (Angie) Jamison's greatest strengths is her ability to build collaborative trusting relationships between San Diego County's airports, their neighboring communities, and the public. Angie's communication skills come in handy in her position as the San Diego County Regional Airport Authority's Airport Planning Manager. She and her staff are responsible for airport planning for San Diego International Airport (SDIA), as well as the land use planning for the County's 16 public-use and military airports.

In addition to its public-use home to several important and Angie's duties with all of the airports compatibility. As a County, land use one of the ongoing works on planning Airport Development includes frequent and it is one of the parts "really enjoys."



airports, San Diego is military installations, include working on land use mostly urbanized compatibility is issues she deals Angie also for SDIA's Plan. The job public outreach, of her work she

Angie's path to her current college. She loves to fly and ment and commercial ratings, and Science degree from Metro State College. Continuing in a Masters Program at the University of Illinois, she created an independent major in Regional Planning and Airport Development. During this time, Angie worked in an internship with the Illinois Department of Transportation. She was hired to create Illinois' first airport economic impact study for the state's 100-plus public airport system. Part of the project included visits to all the airports in the state. She said it was delightful visiting the airports and definitely a worthwhile project.

position began in completed both her instru-graduated with a Bachelor of

After college, she worked as a Consultant with the Federal Aviation Administration (FAA) and other companies. During this time, she developed state system plans, airport master plans, obstruction analyses, cost benefit studies, and statewide economic impact studies. At one point, she worked for the United States military in several Middle Eastern countries and with the International Civil Aviation Organization, which governs global air traffic management, sets standards for airports, communications, weather reporting, navigation, mapping, and aircraft airworthiness guidelines between its 191 member states and industries.

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Angie's work in the Middle East focused primarily on obstruction analysis. Working with the many different often conflicting criteria was challenging, but she "learned a lot." The need was great, immediate, and "... you had to find ways to get things done quickly. Safety was the priority, as well as producing significant results, and getting things done." She described it as "rewarding and meaningful."

In 2010, Angie's husband's job change brought her to San Diego. Initially working at CH2M Hill, she was eventually hired in her current job with the San Diego County Regional Airport Authority. She manages a staff of five fantastic, high producing, super smart, talented people capable of handling anything in the way of airport related issues that emerge and says, "I'm blessed to have a really great staff." While they rarely agree on anything initially, they work things out internally until the differences are resolved. The end results are "really good final products that have considered all aspects of the issue."

Angie is committed to building trust based relationships with the public and believes in the importance of good long-term planning. Her approach is to communicate plans to the public early in the process, provide frequent updates, and take the time to do things right from the start. Extensive public outreach is how she demonstrates her commitment to that philosophy. The Regional Airport Authority enjoys a good relationship with the public. Angie mentioned that one of her biggest learning lessons was the need to let communities not affected by airport projects know that they would not be impacted by an airport project, stressing, "It's important to tell them that." Doing a little extra initially pays off in earned trust and better relationships with the public.

Commitment to engagement and outreach extends to Angie's Airport Land Use Commission (ALUC) partner agencies. She's involved with the California Airport Land Use Consortium (Cal-ALUC), an informal statewide group of airport land use agencies, planners, private, and public agencies, and interested individuals. The group formed as a self-help organization to share knowledge and information and assist each other to get the training they need. Participation in Cal-ALUC is voluntary; members participate as much as they can. Cal-ALUC activities include conferences held approximately every two years. Angie and the Regional Airport Authority hosted the August 2015 conference in San Diego.



When asked what she hoped for aviation, she said, "I hope that the State has a safe, sustainable, effective transportation system for people and goods for the foreseeable future that includes airports." She noted that it is important to make good decisions today, that you can build on in the future. Every decision and project she makes is done with an eye on future decisions. Her airport goal is to ensure that SDIA can meet the current and future demands of the region's need for air service from the State's most land use constrained, single runway, commercial airport. As the County's ALUC, that goal is to insure that future development around the County's airports doesn't create new safety or noise issues, and that new projects are done in a way that protects both people and airports.

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California Airport Loan Program

By Parvin Bijani

The California Department of Transportation (Caltrans), Division of Aeronautics, is able to help enhance your airport's ability to provide general aviation services. Subject to certain conditions, Caltrans may provide funding in the form of loans to the eligible sponsors through the California Airport Loan Program.

There are three different types of loans available under this program. The sponsor may request a loan at any time, and no local match is required for the loan.

Revenue Generation (Application Form DOA-0020)
Matching Funds (Application Form DOA-0019)
Airport Development (Application Form DOA-0013)

The program provides discretionary State loans to eligible airports for projects that enhance an airport's ability to provide general aviation services (hangars, terminals, utilities, fueling facilities, Acquisition and Development-eligible projects, etc.) A loan may also provide the local share for an Airport Improvement Program (AIP) grant. Such a loan may be used in conjunction with a State-funded AIP Matching grant. The loan interest rate is the same as the State general obligation bonds, which are yielding 3.0 percent APR as of October 2015. The maximum length of a loan is 17 years.

Caltrans approves the amount of the loan in accordance with the project's feasibility and the sponsor's financial records. The project feasibility requirements include engineering, economic, and financial considerations. Funds expended under this program shall be repaid to Caltrans with interest. An example of the benefit of the loan program to general aviation airports is the fuel facility replacement project at Paso Robles Municipal Airport in San Luis Obispo County (below).



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According to Airport Manager, Mr. Roger Oxborrow, “The fuel facility at Paso Robles has been a tremendous benefit to the airport and to the flying public, replacing outdated equipment that was no longer compliant with today’s standards. Completed in late April of 2015, the facility has already pumped well over \$0.5 million gallons of fuel as we support not only general aviation, but the two State agencies—California Highway Patrol and CalFire—which are based here. We have also seen a significant increase in military traffic as it fuels here and then goes on to the local bases—Camp Roberts and Fort Hunter-Liggett. The total cost of the facility was just under \$1.0 million. The \$600,00 loan from the State Aviation fund provided the basis, which made this effort possible. The flowage fees derived from our fuel sales will easily cover the annual repayment amount. The City of Paso Robles is most appreciative of the support of the State and its efforts to continue to work to develop a viable aviation system in California.”

For details including eligibility, please see “State Dollars for Your Airport” Chapter 2 and the California Code of Regulations, Title 21, Division 2.5, Chapter 5 “California Airport Loan program.” All publications and forms referenced can be found on our website at: <http://www.dot.ca.gov/hq/planning/aeronaut/> If you have further questions, please contact Bambi Jake, Aviation Funding Specialist, at: bambi_jake@dot.ca.gov or (916) 654-4718.

Erratum

The article “Estimating the Cost of a Runway Paving Project” published in the CalAERO newsletter, Volume 8, Issue 1 (Winter 2016), stated:

Contingency should be part of any estimate. A CIP estimate should have up to 20 percent of the total added on as contingency. The final Engineer’s Estimate accompanying design plans typically has a contingency of five percent. Cost escalation is also another factor. Historically, construction costs escalate over time due to inflation as well as increases in costs of material and labor. A two–three percent per year compounding escalation should be applied to an estimate from the current year to its assumed construction year.”

Currently, neither Caltrans’ Division of Aeronautics nor the Federal Aviation Administration allow “Contingencies” or “Escalations” to be itemized in State Acquisition and Development grant projects and federal Airport Improvement grant projects respectively. This fact should have been stated in the article.

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Going North

By Matthew Leitner, Director
Border Coast Regional Airport Authority

The year 2015 proved to be an exciting and successful one for the Del Norte County Regional Airport (CEC) in Crescent City . . . this following the uncertainty of 2014 when CEC's sole commercial air service provider announced it was discontinuing service just as the airport was beginning its comprehensive Runway Safety Area project and gearing up for construction of a new passenger terminal facility.

The Border Coast Regional Airport Authority worked hard with community and regional business partners to secure a commercial air carrier offering reliable service and good connectivity. Peninsula Airways, operating as PenAir on a code-share agreement with Alaska Airlines, was awarded CEC's Essential Air Service contract in March of 2015 with the initiation of service on September 15, 2015. Service is provided twice daily to and from Portland International Airport utilizing a 34-seat Saab 340 configured for 30 seats, which offers additional passenger comfort. Coincident with the arrival of our new commercial air carrier, CEC was upgraded to an Federal Aviation Regulation Part 139 Class 1 certificated facility.

Construction of the new passenger terminal facility is anticipated to begin during the summer of 2016. The first phase will include the realignment of Dale Rupert Road and installation of new utilities and physical infrastructure. The second phase, which will include the new terminal, aircraft apron, and parking lot, is anticipated to follow toward the end of 2016 and 2017. This new terminal facility will be constructed adjacent to the reconfigured Dale Rupert Road and will offer greatly enhanced capacity, numerous amenities, and superior aesthetic appeal. Passengers will enjoy an unobstructed view of Castle Rock, spacious waiting areas, easy check-in, and convenient parking.

Looking further into the future, CEC intends to add taxiway lighting for both of our taxiways, and engage in a pavement rehabilitation project for Runway 18/36, along with the acquisition of a new Airport Rescue and Firefighting vehicle. I urge my fellow aviators and citizens to come check out our airport if you haven't already, or if it's been a while. Our FBO, Cal-Ore, offers sterling flying service and low fuel prices. Moreover, a variety of instrument approaches is available.



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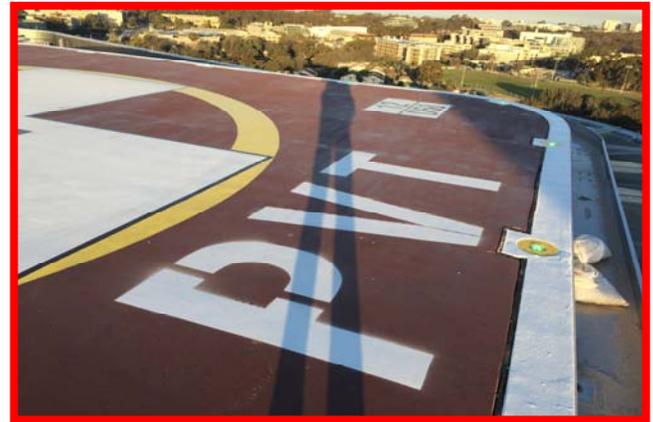
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New and Updated California Heliport and Airport

UCSD JACOBS MEDICAL CENTER HELIPORT - The University of California, San Diego, Jacobs Medical Center was issued a State Heliport Permit for a new Hospital Heliport on February 10, 2016. The design helicopter for this heliport is a Bell 205, 212, or 412. The facility is designed for a helicopter with a rotor diameter of 48 feet, and maximum overall length of 87 feet, and is lighted for night operations. For more information on this facility, see the Hospital Heliport Dataplate on the Division of Aeronautics website at: <http://dot.ca.gov/hq/planning/aeronaut/helipads/dataplates/index.htm>



METROPOLITAN OAKLAND INTERNATIONAL AIRPORT RUNWAY SAFETY AREA PROJECT - Construction to meet the Federal Aviation Administration's Runway Safety Area Program requirements has been completed. These improvements were mandated for Federal Aviation Regulation Part 139 airports. During Phase One of the project, the length of Runway 12/30 was increased from 10,000 feet to 10,520 feet; however, the useable runway was retained at 10,000 feet through the application of Declared Distances. Phase Two included installation of an Engineered Material Arresting System at the departure end of Runway 28R. Additionally, runway designators have been updated to 10L/28R, 10R/28L, and 12/30 for magnetic variation. A corrected State Airport Permit was issued on February 18, 2016.



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Overview of Federal Aviation Administration Criteria for Obstructions Near Airports, Continued

Continued from Page 3

- Notice of Presumed Hazard—This is normally an interim phase where the proposal exceeds obstruction standards and the sponsor needs to resolve any problems with the FAA.
- Determination of Hazard—The FAA has concluded that the project exceeds obstruction standards and will have a substantial (negative) aeronautical impact.

FAR Part 77 contains additional information on effective periods of determinations, petitions for discretionary review, and other elements of the obstruction evaluation and airspace analysis process. Readers are also reminded about California Public Utilities Code section 21659, which prohibits the construction of structures that exceed FAR Part 77 standards, dependent upon an FAA determination of “no hazard.”

We hope you keep this information in mind when you hear about projects near airports, get calls from project sponsors, etc. In addition to potentially avoiding construction of a safety hazard, early action in meeting FAR Part 77 notice requirements may prevent costly construction delays or the halting of a project. Also, feel free to call the Aviation Safety Officers in the Division of Aeronautics. We’re here to provide assistance, if needed.

Upcoming Events



SWAAAE Summer Conference
Henderson, Nevada
July 24–27, 2016

ACA Conference
South Lake Tahoe
September 14–16, 2016



Mailing Address:
Department of Transportation
Division of Aeronautics, MS 40
P.O. Box 942874
Sacramento, CA 94274-0001

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future issues of the CalAERO Newsletter?
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Call: (916) 654-4848