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# CalAERO

DIVISION OF AERONAUTICS
CALIFORNIA DEPARTMENT OF TRANSPORTATION

Winter 2015

In This Issue:



## Unmanned Aircraft Systems

***By* Carol Glatfelter**

Unmanned Aircraft Systems (UAS) are used for a variety of purposes and come in many shapes and sizes from the small hand-held recreational type to the larger military sub-orbital models. However different they may be, one thing they have in common is that very soon there will be thousands of them integrated into the National Airspace System (NAS). According to the Federal Aviation Administration (FAA) *Modernization and Reform Act of 2012*, the FAA must find a way to integrate commercial use UAS into the NAS in a timely and efficient manner by September 2015.

**UAS used in firefighting**

As always, the FAA, as well as Caltrans Division of Aeronautics (Division), is primarily concerned with safety. The FAA is responsible for air safety within the United States, while the Division is primarily responsible for aviation safety on permitted airports within the State of California.

**Bat UAS**

Prior to the UAS craze, these aircraft were considered "drones" or "unmanned flying vehicles" (UAV). When people think of drones, most likely they picture the more well-known military type of aircrafts, such as Global Hawks or Predators. These drones are equipped with both weaponry and photographic capabilities, unlike the recreational or commercial UAS, which are prohibited from being armed in any way.

The FAA authorized restricted commercial and military use of UAS in 1990. Since then, the FAA has authorized limited use for important missions in the public's interest, such as firefighting, Homeland Security, scientific research, law enforcement, environmental monitoring, and cost effective missions (dirty, dull, and dangerous.) The absence of an aircrew means that a great deal of space and weight can be saved.

**Military Predator Drone**

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**Unmanned Aircraft Systems** **Continued from Page 1**

More recently, UAS have become a popular hobby for recreational aircraft enthusiasts. A website sponsored by the FAA provides a quick reference guide to the rules and regulations as they exist today for the various types of popular UAS: Commercial Civil UAS, Commercial Public UAS, and Recreational UAS (Model Aircraft). "*Know Before You Fly*" are guidelines issued by the FAA, which describe the "dos and don'ts" for these types of UAS. The FAA is in the process of finalizing additional rules and regulations; however, the projected completion date has not been determined. Additional information may be found at the Association for Unmanned Vehicle Systems International website: http:// knowbeforeyoufly.org/

Unlike recreational users, commercial or business users cannot fly UAS without the express permission from the FAA. Occasionally, an exemption may be granted called a Certificate of Authorization (COA). The FAA has granted COAs for services such as mapping, land surveys, professional cinematography for film and television productions, and professional wedding photography. In order to receive a COA, the UAS must also be certified by the FAA as being airworthy, and the operator must be a certified pilot.

For public operations of UAS by local, state, and federal government agencies, the same requirements apply as for commercial operations but must be conducted for an approved government function, such as wildlife research, topographic surveys, weather monitoring, etc. In order to apply for a COA, applicants can visit the FAA website where steps have been taken to streamline this process by going online. The average time to process a COA application is 60 days unless there is an emergency or a critical situation, in which case, this process may be expedited. https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/systemops/aaim/organizations/uas/coa/

**A Nano UAS Being Deployed**

California legislators are considering Assembly Bill (AB) 37 - Unmanned Aircraft Systems introduced December 1, 2014, by Assembly Member Campos. This bill is a further attempt to regulate and standardize how UAS data is acquired, stored, and disseminated in California.

The Division of Aeronautics is now the Point of Contact (POC) for the California Department of Transportation regarding UAS information. The primary POC is Don Haug, Aviation Safety Officer, Office of Airports: (916) 654-5376, and the alternate POC is Carol Glatfelter, Associate Aviation Planner, Office of Aviation Planning: (916) 654-5253.

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# ADIN AIRPORT

***By* Parvin Bijani**

Adin Airport is a small rural airport in the northeastern area of Modoc County. The airport serves mostly local residents, ranchers, and government agencies. As close as we can tell from older records, this airport came into existence around 1950.

**Adin Airport**

The airport covers an area of 110 acres at an elevation of 4,229 feet above mean sea level. It has one runway designated 9/27 with an asphalt surface measuring 2,850 feet by 40 feet.

Recently, the entire surface of this airport was crack and slurry sealed. At the completion of the slurry seal, the runway was restriped.

The runway was in very bad condition and was in desperate need of this work. Prior to construction, the County utilized force account labor to mow, clear, and spray for weeds in the cracks and along the edge of the runway. A contractor came in to crack seal the runway, which took approximately two days. After letting the crack sealed runway cure for an appropriate amount of time, the slurry contractor was able to come in and slurry the runway in less than a day. Then the striping contractor was scheduled to complete the striping. "The County feels that this project has added a great deal of life to this runway for a reasonable cost, and the ride has improved vastly," said the Deputy Road Commissioner and Airport Manager of Modoc County, Stephen Jacques.

The State grant for this airport provided the funds that allowed the County to complete the necessary repairs and improvements. A State Acquisition and Development grant of $72,000 was used to complete the project.

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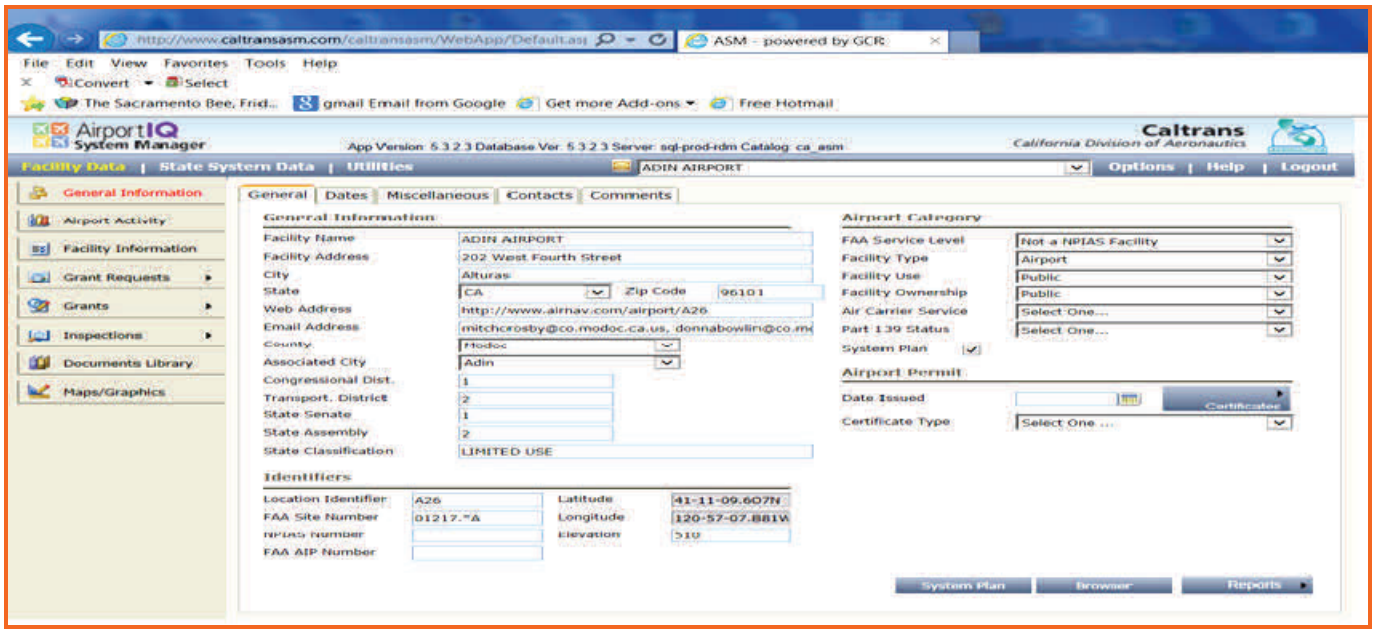
AirportIQ System Manager

***By***
**Danny Uppal**

GCR Inc. currently offers a state-of-the-art application, developed utilizing Microsoft's Net Technology, for the management of state aviation systems. This successor application to the State Airport Information Management System (AIMS) software, previously used by the Caltrans Division of Aeronautics, is now known as the AirportIQ System Manager (ASM). As a component of the new ASM system, airport sponsors will be able to submit grant requests online, eliminating the current paper submittal process. This article is intended as a guide to aid airports' sponsors in submitting their projects online.

**OVERVIEW OF THE ASM APPLICATION AND MODULES**

Through the use of browser-based technology, ASM will run on any computer using Microsoft Windows with a recent version of the **Microsoft Internet Explorer Browser**. (The ASM application DOES NOT operate using other browsers, such as Netscape or Firefox.) The ASM application for California may be accessed at the following web address: http://www.caltransasm.com/. Once you access the application via the internet, the application's login screen will load. You will be provided with a unique username and password by the Caltrans staff. This username will give you access to data related to your airport, while preventing access to other airports' data. Similarly, other airports' sponsors will have access to their airport data, but will not be given access to your data.




Two things are worth noting that apply throughout the application. First, at the top left of the screen are three **Menus**: Facility Data, State System Data, and Utilities. The Facility Data Menu is displayed by default and is shown in the **Navigation Bar** on the left side of the browser window. Each of the modules that are facility-specific is shown here. At the top right of the screen is the **Airport Selector** dropdown box listing

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all of the airports in California. By default, the first airport in the list is displayed. Whenever a different airport is selected, the data visible in the Facility Data menu's modules is specific to that airport.

**GRANT REQUESTS PROCESS**

The Grant Requests module of ASM provides the ability for airports' sponsors to enter and update requests for funding via the internet. This process has been customized to meet the unique needs of the State of California, incorporating the special funding programs that sponsors may utilize.

**ADDING A PROJECT**

The first step to populating the ASM program with one or more grant requests is to select the Add button. This button is a green "+" button found at the top right of the list of projects. Projects may be added at any time, but only deleted before they are submitted by the Caltrans staff. To delete a project that has not been submitted, click on the project name to highlight the desired project, and then click the red "X" button found next to the Add button. When the Add button is clicked, a popup screen is displayed that will ask for the project information. Enter the project's name as you want it to appear in the grant request to be submitted to the Caltrans Division of Aeronautics. Enter the funding year for which funding is being requested. Below the project name, select the Project Type from the dropdown list provided. In the Notes Box, enter the full project description/narrative, indicating all descriptive elements required by Caltrans. Although this box is of a fixed size, the text entered may be longer than the space provided. A scrollbar will appear when the text exceeds the space available. You may cut and paste text into this box directly from another program. Just be sure to check the formatting before continuing.

The final step to request funding for a project is to specify the project's cost, detailing the funding by Federal Aviation Administration, State, and local share. For most project types, all you will need to do is enter a total project cost, and the application will calculate the funding split accordingly. This is not the case for Primary and Commercial NPIAS airports' Airport Improvement Program (AIP) projects, though. For AIP projects, you will need to manually enter each line of the funding share.

After a project has been added, you may edit it by highlighting the appropriate project and clicking the "CIP Data" button found below the list of projects. This button will launch the popup screen containing the detailed information about the project. Once a project is submitted it may only be deleted and/or modified by Caltrans staff.

After updating the project entries, all the projects are ranked according to the California Transportation Commission's approved ranking list. Then the projects are prioritized by ranking.

With user-level access control, you can determine who has access to what data, in what format, and when. From the system administrator to airport engineers and airport planners, user access can be customized by module, by screen, and by report. Users can be assigned to groups, or individuals can have their own unique access privileges. Access can be granted to airport management, contractors, and to others of your choosing.

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## NEW OFFICE OF AIRPORTS EMPLOYEE

Christopher Brooks has joined the Division of Aeronautics as our new Aviation Safety Officer. Chris began work here on November 24, 2014, and brings previous airport management experience as the manager of both the Corona and El Monte Airports. He is a Certified Member of the American Association of Airport Executives, and his aviation background includes work in airside and/or landside management positions at the Burbank/Bob Hope, Los Angeles International, and Van Nuys Airports. He graduated with distinction from Embry-Riddle Aeronautical University with a Master of Aeronautical Science and earned a Bachelor of Science Degree in Management from Golden Gate University while on active duty as a Fire Protection Specialist in the United States Air Force. For his first few months, Chris will be concentrating on training and qualification in the Division and will then be assigned to Area II* sometime in February or March 2015.

* Area II covers 19 counties ranging from Marin, Mendocino, and Sierra to Calaveras Counties.

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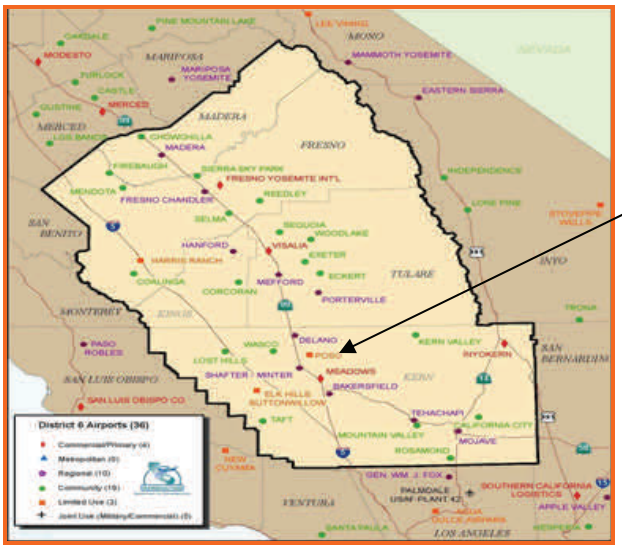
# POSO KERN AIRPORT

***By* Patrick Kyo**

Poso Kern Airport is a public-use General Aviation airport owned and operated by the County of Kern. Located four miles east of Famoso in the southern end of California's Central Valley, the land around the airfield is used for agriculture, and the airport is used for agricultural and training aircraft. This airport has one asphalt-paved single runway (16/34) measuring 3,000 feet long and 60 feet wide.




The last Airport Pavement Management System Survey for this airport was conducted in 2006, and the Pavement Condition Index (PCI) value was rated 84, indicting the pavement was in satisfactory condition. However, the projected PCI value of runway pavement steadily declined. In 2012, it was rated as being in "fair to poor condition." The purpose of this project was to crack seal, slurry seal, and remark the runway to bring the pavement into a satisfactory condition for safe takeoffs and landings. Construction started in May 2014. All cracks in the existing runway were sealed before applying the slurry seal coat and restriping the markings.

Completed on July 22, 2014, the total cost was $49,000 with a State matching grant of $44,000.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## TRIM TABS

***By* Colette Armao**

The first things you notice about Simon Housman are his signature Akubra hat with its 4-inch brim, his hearty handshake, and his sense of purpose. He's a man on a mission, on the job, as a volunteer, and in life. An attorney by profession, Simon believes people have the responsibility to make things better and lives that out by serving on the Riverside County Airport Land Use Commission (ALUC), and as an officer in the Civil Air Patrol (CAP) Palm Springs Composite Squadron 11. He's also an active participant in the California Airport Land Use Consortium, a statewide organization of ALUCs.

Simon has a private pilot's license, Single Engine Land and Single Engine Sea. He found his way into aviation through a friend, who invited him to take a private pilot's ground school course where he got hooked on flying, and now flies for pleasure and with his CAP squadron. He couples his knowledge of aviation with his background in law putting them to work as Chairman of the County's ALUC, a position he's held since 2004. He points with pride to the ALUC's accomplishments and excellent working relationship between the volunteer commissioners and a talented Commission staff, who are all committed to finding equitable solutions to complex, airport-related, land use issues for Riverside County's 13 public-use airports.

Serving on numerous other boards and commissions before joining the ALUC, including the Palm Springs International Airport Commission, Simon joined the ALUC because he felt strongly about the issue of land use compatibility around airports. He describes airports as a twenty-four-hour industrial use operation that the public often doesn't understand. Because it doesn't look like a typical factory, people don't get the sense of its value. Airports are flat, making them less visible, their noise is intermittent, and communities have very different opinions about airports' impacts. He commented, "A good land use plan protects people from airports and airports from people. The job of the ALUC is balancing between the two."

In addition to having an exceptional County staff and Commissioners to work with, Simon said that the ALUC has had the successes it's had because the Riverside County Board of Supervisors generally supports the Commission as an independent entity. This autonomy enables the Commission to do the work it needs to do. The ALUC has an active outreach program in the municipalities surrounding the airports because, ". . . the job is never done. We strive to be consistent, honest, and transparent, and people know that. We tell them what we're doing and why." Because of this open participatory style, the ALUC enjoys broad public support throughout Riverside County.

Simon noted that as the population increases and becomes more dense, impacts increase as well. This makes the Commission's job that much more challenging. The ALUC works to balance everyone's needs including the airport, the developer, and the community where it is safe and prudent to do so. Sometimes the only option the Commission has is to determine that a project is not in the best interest of safety.

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**Trim Tabs**

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The ALUC works to bring reality and practicality into the process. "We strive to be respectful of everyone's needs and perspectives," he said, and expressed appreciation for the work of the California Pilots Association, because the pilots are active participants showing up to represent airports' interests in the process.

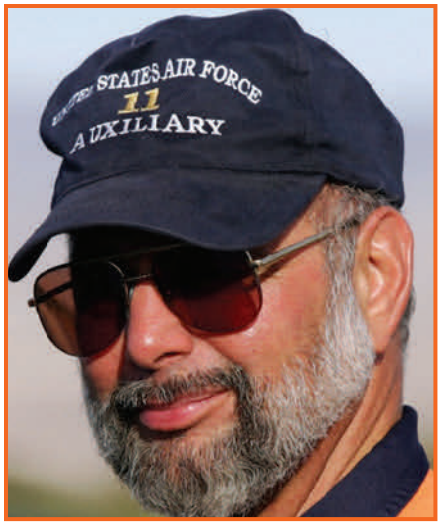
Simon joined CAP in 1995, because he wanted to become a better pilot. He has served in numerous positions including Aircraft Manager for the Squadron's Cessna 182 as well as Squadron Commander. He's a CAP Air Operations Branch Director and Mission Search Pilot, who has flown missions resulting in four finds. Finds occur when the CAP search team locates a missing aircraft or person it has been tasked to find. As part of one of many flight crews on many missions, he's flown a number without finds as well. Simon's held several positions in the Squadron, focusing his attention on cadet leadership because of his deep commitment to developing the next generation of leaders. He strives to keep the cadets interested and motivated by giving them meaningful things to do and teaching them core values.

On a personal note Simon met his wife through CAP. They share a passion for volunteering and a love for aviation. She's a photographer-videographer by profession and has held numerous leadership positions in CAP including Squadron Commander and Regional Director for Social Media. They both belong to the same squadron consisting of thirty senior members and thirty cadets. Squadron 11 encourages its members to participate in CAP's education and leadership programs. Their cadets regularly attend Encampment and National Cadet Special Activities, which are some of CAP's flagship cadet programs. Both individuals and the Squadron have received numerous awards, including California Wing Squadron of Merit in 2013, Quality Cadet Unit Award for the last four years running, and The Aerospace Excellence Award in 2013.

When asked what his fondest dream for aviation is, Simon said, "I'm not much of a dreamer, but I hope we will see a resurgence of aviation in the next twenty years. As technology, avionics, and manufacturing processes improve, the cost of building aircraft will become more accessible. Aviation has never been cheap and never will be, but it will become more affordable relative to the benefits it provides. More people will be flying, and we need to find new ways to bring people back to our airports."

He shared that aviation has a vital role to play in disaster response scenarios. "It's just a matter of time before a big disaster hits. The roads and railroads will be damaged. The only option we may have is air transportation. We must preserve the airports."

Part of the reason Simon belongs to CAP and serves on the ALUC is to further that belief. "When a disaster hits, the locals will respond, and what will we do, when other transportation systems go down? We will start with the ham radio operators, and airports. These are the people that will help jumpstart the recovery and support the professional emergency responders." Following through on his commitment to his core values, Simon recently got his General Class Ham radio operators license. He feels it's just one more way he can contribute.



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## Information on an Updated California Airport

SAN FRANCISCO INTERNATIONAL AIRPORT RUNWAY SAFETY AREA PROJECT

Construction to meet the Federal Aviation Administration's mandated Runway Safety Area (RSA) Program requirements for Federal Aviation Regulation Part 139 airports was completed on August 10, 2014 at San Francisco International Airport (SFO). An Amended State Airport Permit for SFO was issued on November 24, 2014. During the project, Engineered Material Arresting Systems (EMAS) were installed on each end of Runway 1L/19R and Runway 1R/19L. Although no additional pavement was constructed, the thresholds on some runways was relocated to meet geometric design and to enhance operational safety as part of the RSA work. This work included a minor extension of Runway 1L/19R from 7,501 feet to 7,650 feet (Runway 1R/29L remained 8,650 feet). The RSA work on Runways 10L/28R and 10R/28L increased the length of Runway 10L/28R from 10,600 feet to 11,381 feet (Runway 10L/28R remained at 11,870 feet).

## Western Flight Procedures Team Newsletter

ATTENTION AIRPORT MANAGERS! If you haven't yet seen the December 2014 newsletter from the Federal Aviation Administration's (FAA) Western Flight Procedures Team (WFPT), we recommend you take a look at it. Here's a link: WFPT Newsletter First Edition

This newsletter has good information about a recent change to 20:1 Visual Surface Area criteria, an issue which may have impacted your airport and resulted in instrument approaches becoming Not Applicable at night. The change, which reduces the size of the straight-in visual area for Category C and D aircraft, may result in some earlier identified obstructions now being outside the visual area. It's worth a look and the WFPT advises you to contact your servicing FAA Airports District Office if you think restrictions to your instrument procedures may have been due to the old 20:1 Visual Surface Area criteria.

There are also some additional details and guidance about how to use the FAA's Instrument Flight Procedures (IFP) Information Gateway (we provided an introduction about the IFP Gateway in our Spring 2013 CalAERO newsletter). Here's a link to the IFP Gateway: Instrument Flight Procedures Information Gateway

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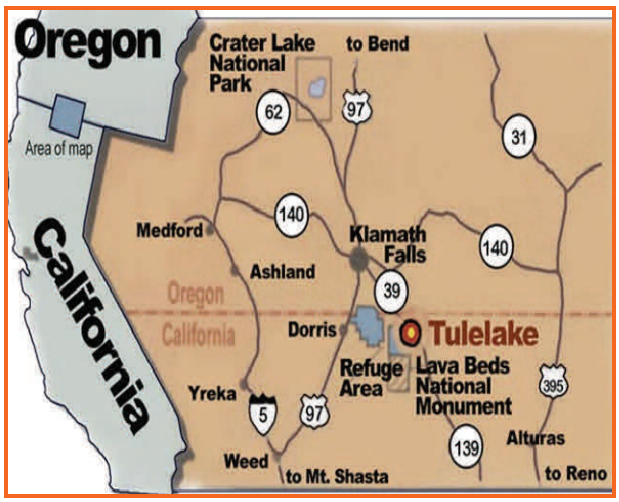
# Tulelake Municipal Airport

***By*** **Carol Glatfelter**

Located seven miles southeast of Tule Lake, California in Modoc County, sits the Tulelake Municipal Airport. This airport covers 358 acres and has one paved runway. Primary users are crop dusting and General Aviation pilots. There is no scheduled service to Tulelake Municipal, and the airport is primarily unattended with no control tower, as there are only seven regular-based aircraft. However, during the agricultural season, a part-time Fixed Based Operator is in attendance to assist the large number of agricultural pilots.




The airport is leased from the city of Tule Lake and maintained by the County of Modoc, who signed a 30-year lease in 2014. It has been permitted by the State Division of Aeronautics since 1954. Macy's Flying Service has been operating an agricultural business from the Tulelake Municipal Airport since 1965, which caters to the needs of surrounding growers applying chemicals by ground or air.

This airport is distinct in that it is located on the site of a historical war relocation center. During the World War II Japanese American Internment process from 1942 to 1945, the Tule Lake War Relocation Center held approximately 29,000 men, women, and children. Tule Lake fields were reclaimed from Tule Lake by the Klamath Reclamation Project. The exceptionally rich soil enabled internment farmers to grow a large variety of crops including turnips, cabbage, bell peppers, lettuce, and more. Many detainees were from the San Joaquin Valley and knew how to grow almost anything in the warm days and cool nights. Tule Lake's 880 acres were some of the most productive among the ten internment camps throughout the United States. In 1975, the State registered Tule Lake as a California State Historic Landmark, thereby recognizing its historic significance.

After the facility's barracks were dismantled in July 1944, two firebreak roads were used as runways. The main runway (11/29) was eventually paved and remains in use today. The smaller runway was eventually abandoned. Many of the foundations of the historical camp are still visible from the air by pilots using the airport.

In 2003, the Federal Aviation Administration (FAA) announced that a 16,000-foot-long, 8-foot-tall fence would be erected around the boundary of the airport to manage the wildlife and provide security. Mitch Crosby, Director of Public Works, who also serves as the Airport Manager, stated that the Tulelake Airport would be the last of the three Modoc County airports to have a new fence, but to date, this fence has not been constructed. The FAA has yet to make their final decision regarding the proposed project.

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# ACRP CALL FOR RESEARCH ARTICLES

***By* Colette Armao**

Once a year, the Airport Cooperative Research Program (ACRP) reaches out to the aviation community with a call for problem statements describing needed research topics. ACRP is an industry driven, applied research program within the Transportation Research Board (TRB), whose goal is to develop solutions to nation's airport problems. ACRP's annual research portfolio is built from the problem statements they receive. Anyone can submit a problem statement.

The submission process is simple. Problem statements are easy to develop and prepare on line. They typically run between one to three pages, and the ACRP provides guidance and instructions on how to prepare them. Research can come from a wide range of topics including operations, design, construction, engineering, legal, maintenance, human resources, administration, policy, planning, environment, and safety for both commercial and general aviation airports. Share your ideas with your fellow aviation professionals and submit them. The closing date for the 2016 program is March 20, 2015.

Application link:
http://onlinepubs.trb.org/onlinepubs/acrp/ACRP2016ProblemStatementSOLICIT.pdf
Additional information about ACRP: http://www.trb.org/ACRP/ACRP.aspx
ACRP's research projects page: http://www.trb.org/ACRP/ACRP.aspx


## Upcoming Events

**California Aviation Day**
**at the Capitol**
**April 22, 2015**

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

Do you have something noteworthy to suggest for future issues of the CalAERO Newsletter?
Send suggestions to: diana.owen@dot.ca.gov