



February 2016

APA NEWSLETTER

## President's Report

Tommy Thomason, APA President .....2

## Executive Director's Report

Jim Timm, APA Executive Director .....3-5

## General Aviation Joint Steering Committee

Tina Buskirk, FAA .....6

## Back to Basics - Departure Abort Brief

David Duntelman .....7-8

## AZ Aviation Accident Summary

Jim Timm, APA Executive Director .....9-11

## Mountain Canyon Flying Seminar

Tommy Thomason, APA President .....12

## Arizona Airparks - Hangar Haciendas

Kit McCloud .....13

## — SHORT FINAL —

## GAARMS Report

Fred Gibbs .....15-18

## Looking Back in Time

Howard Deevers .....19-20

## APA Website & Newsletter Contributors

Stefanie Spencer, Webmaster .....23

## Advertisers and Membership

Join the APA support team .....24

In this issue:

**General Aviation Joint  
Steering Committee  
Topic-of-the-Month**

**Back to Basics**

**Hangar Haciendas**

**GAARMS Report**



# President's Report

## Aviators and Aviation Enthusiasts,

Greetings aviators and aviation enthusiasts. Welcome once again to the Arizona Pilots Association monthly newsletter. Can you believe the great weather we've had for flying?! A bit of rain early in the month, but most recently, we couldn't ask for better aviation conditions. The most recent Grapevine weekend had 9 planes in on Friday to finish up the crack sealing project. On Saturday there were about 20 planes come and go throughout the day. Many of the pilots and their passengers hung around for Paul Borys' awesome hamburger lunch. Aviation Day at the capitol was also another great success. The "Back to Basics" seminar by Dave Duntelman at Ak-Chin (A39) Airport had an almost overwhelming attendance. Brad Lawrence's Get Away flight to Guymas Mexico looks like it is gathering a lot of interest. Several of us have taken the opportunity to just go fly. For those who enjoy a dirt strip and cafe, pretty much in the middle of nowhere and, a great breakfast or lunch, try the Wayside Café on the road to Alamo Lake.



Have Fun, Fly Safe,

*Tommy*





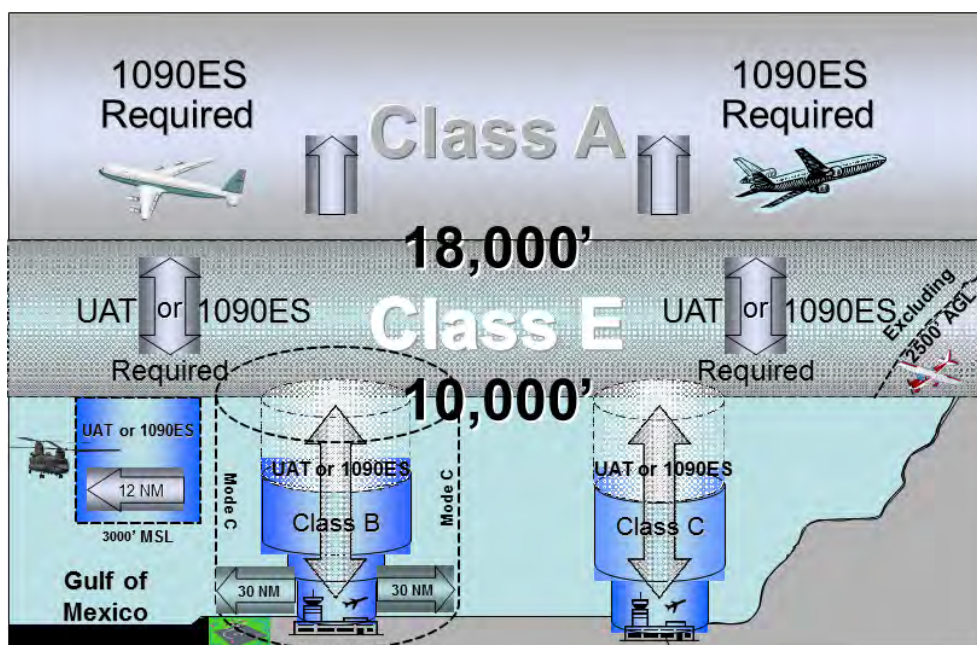
# Executive Director's Report

Jim Timm — February 2016

I hope the New Year has started well for all of you. The flying weather has been pretty good and I hope you have been able to take advantage of it and get some flying time in. We ended last year with an outstanding safety record, and I hope we can maintain it for 2016. I'll appreciate not having to write a long safety report each month. Many fly in events will be coming up and I will be planning on seeing you at them.



In the near future, anyone flying in airspace that currently requires the use of a mode C transponder, will be required to be equipped with ADS-B Out, and this upcoming requirement for ADS-B equipment has everybody's attention, and there seems to be a lot of questions without many good answers. To help in providing more answers, the FAA has recently released a revised ADS-B advisory circular, AC 20-165B, "Airworthiness Approval of Automatic Dependent Surveillance - Broadcast OUT Systems." This is the guidance material for those seeking approval for installation of ADS-B Out systems. This revision to AC 20-165 contains a number of significant changes including the elimination of the criteria that installation of ADS-B Out transmitters and position sources be automatically treated as a major alteration. This means ADS-B Out upgrades will still require the initial approvals, but within specific limitation, allows ADS-B Out installations to be treated as a "normal" avionics installation.



## MISCELLANEOUS ITEMS

Once again, we have received a last minute Flight Advisory Notice of GPS Interference testing at China Lake in California that could impact us in Arizona. As before, if you experience a short term GPS navigation problem, advise ATC and us at the APA, providing the date, time, location and altitude.

In a recent meeting, I was advised by the FAA that there is a problem with an increasing number of aircraft entering and passing thru the restricted area R-2310 between Florence and Florence Junction. Be advised, this area is being intensively used for UAV testing and UAV pilot training. A collision with a high density UAV could be devastating for an airplane of the size we fly. Avoid cutting



thru this restricted area at any time. The restricted area isn't very large, and I don't think the UAV student pilots using the area are any better than our student pilots, and I would consider giving the area a wide berth. Be aware, and avoid a serious problem.

Be aware, there is going to be a significant amount of airport construction activity still going on in the Phoenix and Tucson areas, and around the state. Be sure to check for NOTAMs before taking off for another airport so you don't encounter a nasty surprise when you get there. Also, be sure to add TFRs to your preflight checklist.

The past aviation accident reporting period was relatively good with only one accident being reported by the NTSB. The bad news, however, was that it did involve four serious injuries. Perhaps the efforts put forth by the Wings Safety Teams with all the safety briefings has begun to pay off. Based on the low accident/injury rate in 2015, I hope we can get the pilots in Arizona to continue this trend and have a safe flying year in 2016. For more details go to my February Aviation Accident Summary report. By next month, enough of the 2015 NTSB accident information should be available to permit preparation of an accurate year end summary and comparison to previous years.

APA is still working with various airports around the state, providing the pilot and aircraft owner perspective in the process of updating their Airport Master Plans. An update of the Sedona Airport (SED), Deer Valley Airport (DVT), and Grand Canyon Airport (GCN) master plans are currently in process.

## THINGS TO DO - PLACES TO GO FOR BREAKFAST:

- The first Saturday of the month fly in breakfast is at Coolidge Municipal Airport (P08).
- The second Saturday of the month, Ryan Field (RYN) fly in buffet breakfast should have restarted. However, breakfast is available at the restaurant next door.
- The Falcon Field EAA Warbirds Squadron fly in breakfast and car show is on the third Saturday.



- The third Saturday of the month there is a fly in breakfast at Benson (E95) at Southwest Aviation. (There are special fuel prices for breakfast attendees.)
- Also on the third Saturday, around noon, a donation lunch is served by the APA at the USFS [Grapevine Airstrip](#) over at Roosevelt Lake.
- The last Saturday of the month there is still a fly in breakfast at Casa Grande Municipal Airport (CGZ). The Airport's restaurant, Foxtrot Cafe, operating in the Terminal Building, is open 6:30am to 2:00pm Monday thru Saturday. On the last Saturday of the month they have a "Fly in Breakfast Special" available on the menu; the price for adults is \$7 and kids \$5.



*Jim*

Check with the  
[APA Getaway Flights](#)  
[program and online calendar](#)  
 for fun weekend places to fly.





# General Aviation Joint Steering Committee

## General Aviation Joint Steering Committee (GAJSC) **Topic of the Month**

The General Aviation Joint Steering Committee (GAJSC) was launched in 1997 as part of the industry-government “Safer Skies Initiative” to improve aviation safety. The GAJSC, which was revitalized in 2011, works to improve general aviation safety through data-driven risk reduction efforts that focus on education, training, and enabling new equipment in general aviation aircraft.

The GAJSC analyzes aviation safety data to identify emerging issues and develop mitigation strategies to address and prioritize safety issues. GAJSC participants include the Federal Aviation Administration and industry stakeholders, including pilot organizations, flight instructors, mechanics, builders, and manufacturers.

The GAJSC has developed a “Topic of the Month” in an effort to increase safety awareness on specific topics. The GAJSC selects subject matter based on and directly linked to an analysis of accident and incident data that shows a commonality of risk factors nationally.

Each “Topic of the Month” includes a PowerPoint presentation, Course Guidance, and Notes. These can be downloaded and tailored to the specific audience and presenter. It is the goal of the FAA Safety Team (FAASTeam) that the “Topic of the Month” be promoted and presented to as many local aviation entities and individuals as possible. So, please feel free to download and use these presentations, whether it be to a large group, or for individual airman training.

**[You can find all of the files on the APA website here.](#)**

### **February 2016 Topic is *Advanced Preflight after Maintenance* (NTSB SA-040)**

The FAA and industry will conduct a public education campaign on the benefits of conducting enhanced preflight inspections of aircraft that are being returned to service after maintenance.

- Discuss the consequences of inadequate preflight inspections of aircraft that are being returned to service after maintenance.
- Discuss common problems that have led to accidents.
- Encourage pilots to coordinate with mechanics before flying aircraft that have recently been maintained.



# BACK TO BASICS

## ABORT BRIEFS AND LOSS OF CONTROL CONSIDERATIONS

Come Join the APA at Deer Valley Restaurant for a presentation on briefing a rejected takeoff, actions for surviving an engine loss after takeoff, preventing loss of control during an engine failure after takeoff, and techniques and considerations for practicing "the impossible turn." Be there at the Deer Valley Restaurant at 5:30 on Feb 26 for a presentation and dinner to follow.



Issue 2, February 3, 2016

### Program

February 26,  
5:30 PM  
Deer Valley  
Airport

Abort Brief Considerations  
Practice Abort Briefs

## Why do an Abort Brief?

Immediately prior to takeoff, pilots can improve the chance of a successful emergency procedure by reviewing the actions that they will take in the event of an engine failure on takeoff. If the engine fails, the pilot does not have to think about what action to take—they simply execute what was discussed in the brief. This provides additional benefits when flying with another pilot—both pilots know exactly what is going to be done if the engine failure occurs and can speak up or intervene if during the excitement of the event the pilot flying is tempted to stray from the brief.

In my brief I discuss three potential scenarios. First, if the engine fails during takeoff with sufficient runway to land straight ahead on the runway, next the procedure if too low to turn back to the airport, and last the altitude and direction of turn based on winds for a turn back to land opposite direction. This altitude varies based on weight, runway slope, wind, and density altitude. Practice in your own aircraft with a qualified instructor.



### Review from January Event at Ak-Chin

Outstanding participation! We had 44 pilots and 30 aircraft attend. We looked at lots of numbers and they showed us this: We are all used to flying out of our home field and have no trouble there, but when we go somewhere else and add altitude, a passenger, more fuel, a rough surface or an uphill slope, and maybe a tailwind, we can easily increase our takeoff distance FOUR TIMES. Then ... Ground Rush and Longer Takeoff Roll easily combine to make us want to rotate early with potentially disastrous results. So stay on the safe side: Fly early when it's calm and cool. Stay light. Know your numbers and use the "71% speed at runway midpoint" rule.



## How do you prepare for Departure?

Immediately after my before takeoff checklist I brief myself, other pilot, and or passenger about what we will do in the event of engine failure during takeoff.

When flying a large commercial aircraft this is my abort brief. It is accomplished with each new first officer of a pairing and updated for each takeoff with any special changes based on runway length, surface conditions, specials procedures for an engine out turn, and intended divert field in case return to the departure airport is unfeasible.

I have a go mentality on aborts—Assume we will continue the takeoff. That said, we cannot continue the takeoff when below 80 knots and a warning horn or bell sounds—in the event of a warning horn or bell below 80 knots company procedures dictate we must abort—expect “Reject” or “Reject, I have the aircraft” if you are the pilot flying.

If we have a master caution below 80 knots and I assess we could not continue to our destination with the condition—for example a cargo door light that may affect pressurization—expect me to call for a reject. Otherwise, expect to continue.

Above 80 knots we will only Reject for Fire, Fire Warning, Engine Failure, Predictive Wind Shear, or the aircraft is unsafe or unable to fly.

I will address the flight attendants and passengers of our intentions and

you advise tower and have them roll the safety equipment. Any questions?

In a single engine GA aircraft this is my abort brief.

(1) In the event of an engine failure on takeoff, if I can land on the remaining runway I will do so by pulling the throttle to idle and stop straight ahead. If I am going to depart the prepared surface I will secure the engine by pulling the mixture to idle/cutoff, rotate the fuel selector to off and turn off the master switch after a radio call to tower roll the fire trucks. If I need to stop short of a fence I, ditch or building I can intentionally ground loop by stepping on one brake.

(2) For an engine failure after takeoff where I can not get land in the remaining runway and I’m below 600’ AGL—2100’ MSL at my home field—I will make a turn not to exceed 45 degrees and divert my flight path left or right to find the most hospitable terrain for an off field landing. My first priority is to fly the aircraft to touchdown even into trees if that is all that is there. I will maintain flying airspeed and if flying into trees aim to break off the wings in-between the largest trunks to dissipate energy.

(3) If I lose the engine above 600’ AGL I will make a turn into the wind—today a left turn to land opposite direction on Runway 7R or the parallel taxiway A. When able I

will declare an emergency and make my landing location known.

(4) If departing a backcountry strip I will discuss my climb out and egress plan.

If you do this brief regularly, it will become second nature and in the event you have an engine failure on takeoff valuable time will be saved as you automatically go through this procedures rather than having to assess the situation and decide what to do. By doing the brief, you are reviewing the actions you are going to take in the event of a problem. You are making your choices while on the ground and simply executing them in the air. These are very valuable exercise to practice with a competent CFI who has trained to handle these emergencies.

With proper training, consistent briefings, and in flight practice with an instructor, it is possible to reduce loss of control situations that plague the engine failure after take off scenario that has given rise to the term “the impossible turn.” Lets go out and train at altitude to learn the turn back altitude for your aircraft!



# February Aviation Accident Summary

by Jim Timm

The following are the NTSB reports of aviation accidents that have occurred in Arizona from late December, 2015, thru late January, 2016. We will use this detailed accident information in the coming year to develop safety programs and briefings that will help pilots learn from the mistakes being made by others and then take the action necessary to prevent similar accidents from happening to them. Based on the most recent reports, I hope we can get the pilots to continue flying carefully in 2016, generally as they did in 2015. Again, while most of the reported accidents were not too serious, I hope we can continue, and have a safe 2016 flying year.

Because this report was prepared so close to the end of the year, all the NTSB data for 2015 was not yet available for the preparation of an accurate year end summary. A year end accident summary will be available next month.

From a flight safety standpoint, this reporting period was not as good as it could have been, but fortunately, only one accident was reported and the details are contained in this report.

Previously missing information and NTSB findings on accidents that had occurred in October, November and December has finally been made available. The accident details and the NTSB determination of probable cause of these accidents are appended to the end of this report.

Based on information available when this summary was prepared, the accidents this reporting period are as follows:

## **Accident Date: Saturday, December 26, 2015**

Report Dated 1/11/16

Title 14 CFR Part 91

Location: Nogales

Aircraft Type: Aerostar M20F (Mooney)

Injuries: 4 Serious

## **CONTROLLED FLIGHT INTO TERRAIN**

On December 26, 2015, about 1340 MST, an Aerostar Aircraft Corporation of Texas, M20F airplane impacted hilly terrain about 10 miles from the Nogales International Airport (OLS) shortly after takeoff. The private pilot/owner was operating the airplane as a personal cross-country flight. The student pilot, instructor, and two passengers received serious injuries. The airplane sustained structural damage.

According to responding law enforcement, the airplane collided with a hillside before coming to rest upright a short distance from the first identified point of impact (FIPI). One of the landing gear had separated and came to rest near the FIPI, and the engine separated from the firewall, but remained in its relative normal position at the front of the airplane.

Reported weather from OLS at 1354 was wind from 320 degrees at 11 knots, gusting to 26 knots; clear skies; 10 statute miles visibility; temperature 06 degrees Celsius; dew point -13 degrees Celsius; altimeter setting 29.86 inches of mercury.

Visual meteorological conditions prevailed for the flight, and no flight plan had been filed.



**THE FOLLOWING FOUR ACCIDENTS WERE PREVIOUSLY REPORTED DEVOID OF ACCIDENT INFORMATION. IN THIS REPORTING PERIOD, THE FOLLOWING ACCIDENT DETAILS HAVE BECOME AVAILABLE.**

**Accident Date: Sunday October 4, 2015**

Report Dated 12/23/2015

Title 14 CFR Part 91

Location: Marble Canyon

Aircraft Type: Super Bushmaster (Canadian Registry)

Injuries: 1 Minor, 1 Uninjured

**LOSS OF CONTROL LANDING**

According to the visiting foreign pilot's written statement, while on approach to land at a desert airport, he encountered severe turbulence, was unable to maintain altitude, and the airplane impacted the ground 50 feet short of the runway. The nearest weather reporting station was 12 NM to the north-east, and reported that the wind was 150 degrees true at 13 knots, with gusts to 19. The airplane sustained substantial damage to the wings, fuselage and empennage. The pilot reported that there were no mechanical failures or anomalies prior to or during the flight that would have prevented normal flight operation.

**Accident Date: Monday October 12, 2015**

Report Dated 12/23/2015

Title 14 CFR Part 91

Location: Marana

Aircraft Type: Beechcraft F33

Injuries: 3 Uninjured

**LOSS OF CONTROL LANDING**

According to the flight instructor, during the turn from base to the final, the stall warning horn sounded and the aircraft descent rate increased. The flight instructor reported that he told the student pilot to go-around, and the student increased the power, but the airplane continued to descend and touched down on the runway briefly. He reported that the student then tried to "pull" the airplane off of the runway and either failed to apply sufficient right rudder, or accidentally applied left rudder, and the airplane abruptly yawed

to the left. The flight instructor reported that he immediately took control of the airplane which exited the runway to the left.

The flight instructor recounted that the airplane continued accelerating a few feet off of the ground. He reported that the airplane's left main landing gear struck the ground, and the "left wing tip must have scraped" the ground at that instant. He reported that he regained control of the airplane, initiated a climb, and executed a go-around. The flight instructor contacted the pilot of an airplane that was holding short of the runway and asked the pilot to look at the landing gear as he made a low pass. The pilot on the ground confirmed that the landing gear was intact. The flight instructor landed the airplane and contacted the operator. The airplane sustained substantial damage to the left aileron. The flight instructor reported that there were no mechanical failures or anomalies prior to or during the flight that would have prevented normal operation.

**Accident Date: Monday November 2, 2015**

Report Dated 12/23/2015

Title 14 CFR Part 91

Location: Douglas Bisbee

Aircraft Type: Cessna 182

Injuries: 1 Uninjured

**LOSS OF CONTROL TAKING OFF**

The student pilot reported that he was performing a touch and go and his landing was "normal." As he applied power for takeoff, the airplane veered to the left and he responded by applying right rudder. The airplane continued to the left, departed the runway, and collided with a bush which caused the left main landing gear to collapse. The fuselage and left elevator sustained substantial damage. The pilot stated there were no mechanical malfunctions or failures with the airplane that would have precluded normal operation.



**Accident Date: Tuesday, December 15, 2015**

Report Dated 1/4/16

**Title 14 CFR Part 135**

Location: Superior

Aircraft Type: Airbus Helicopters AS350-B3

Injuries: 2 Fatal, 1 Serious

## **CONTROLLED FLIGHT INTO TERRAIN**

On December 15, 2015, about 1723 MST, an Airbus helicopter, AS350B3 was substantially damaged when it impacted terrain while maneuvering near Superior. The commercial pilot and flight nurse sustained fatal injuries, and the flight paramedic sustained serious injuries. The cross-country positioning flight originated from the Phoenix-Mesa Gateway Airport (IWA), Mesa, Arizona, at 1705 with an intended destination of Globe, Arizona.

According to the operator, the air ambulance helicopter had transported a patient from the Cobre Valley Community Hospital, Globe, to the Baywood Heart Hospital in Mesa. The flight originated from their base in Globe, with a planned return to their base at the conclusion of the operation.

After transporting the patient, the helicopter was repositioned to IWA for refueling. It subsequently departed IWA for the return flight to its base in Globe. The flight was being tracked by satellite at the company's national communication center, AIRCOM, in Omaha, Nebraska. The company's operations control center (OCC), located in Denver, Colorado, was monitoring the flight on their Flight Management System. At 1723 MST, satellite tracking of the helicopter was lost. AIRCOM notified the OCC and a search was conducted by a company aircraft. The wreckage was located as a result of an aerial search at about 2054.

Examination of the accident site revealed that the helicopter impacted mountainous terrain about 10 miles north-northwest of Superior. All major structural components of the helicopter were located within the wreckage debris path, which was about 380 feet in length, and oriented on a heading of about 200 degrees magnetic.

Visual meteorological conditions prevailed and a company visual flight rules (VFR) flight plan was filed for the flight.

## ***Finish Your Instrument Rating!***

Are you one of the many pilots who started instrument training, only to quit out of frustration with the quality or pace of your training?

I will design a **personalized** program for you to **minimize the time and cost to finish your rating** and **insure you get the training you need!** I specialize in instrument training (I have given over 2500 hours of instrument flight instruction) and have helped many pilots complete their instrument rating.

- 5438 hours of flight instruction given
- 6787 total hours flight time
- Cirrus Standardized Instructor, Avidyne & Garmin 1000
- Cirrus Pilot Proficiency Program (CPPP) Instructor
- Cessna FITS Instructor Plus (CFAI+)
- Columbia Factory Flight Instructor, Avidyne & Garmin 1000
- Author of the book *Glass Cockpit Flying*
- FAA Master WINGS Holder
- Advanced and Instrument Ground Instructor

**Bob Littlefield, Gold Seal CFI, CFII, MEI**  
**602-228-9145 • [bob@flightskills.com](mailto:bob@flightskills.com) • [www.flightskills.com](http://www.flightskills.com)**

# Mountain and Canyon Flying Seminar

1/30/16 Held at P48 Pleasant Valley

---

The Arizona Pilots Association was honored to have mountain and canyon flying expert Lori MacNichol as our guest at the 4<sup>th</sup> Annual Pleasant Valley (Turf/P48) Fly-In. Lori conducted a 6 hour presentation using her most recent syllabus and workbook for 60 very interested pilots. Lori has over 20 years of experience teaching mountain and canyon flying in Idaho and Utah. Topics of her discussion included how to characterize stall speeds of your airplane, the “canyon turn,” navigating through mountainous areas, and hazards to be aware of when flying in the backcountry. If you ever get the opportunity to attend one of Lori’s classes, you will certainly come away with skills you would never learn on your own. Visit her website at [www.mountaincanyonflying.com](http://www.mountaincanyonflying.com).

Also at the 4<sup>th</sup> Annual Pleasant Valley Fly-In, Bernie Gross coordinated some accuracy landing and “frog” drop competitions that a number of pilots participated in. We had about 25 planes in the parking area at any given time with lots of fun by everyone. -Tommy





# AIRPARKS OF ARIZONA

By KIT McCloud

## HANGAR HACIENDAS AIRPARK (AZ90) LAVEEN, AZ

This airpark has to catch your eye if you've flown over it or driven by it. Nestled between South Mountain of Phoenix and a small ridge to the north, Hangar Haciendas Airpark is slightly out in the country you might say, but at the same time close to the metropolitan Phoenix area. As you can see in the photo on their website, there were only a couple of houses on the airpark in 1984. This park has developed rapidly compared to most airparks in Arizona. The residents have over 25 planes based here including a helicopter. The private airpark has 38 one+ acre lots, and 26 are developed with a house. The County of Maricopa provides street maintenance, the City of Phoenix provides water, and most lots have a septic system. If you take a look at the airpark's website, you can see it is quite thorough in covering the ins and outs and dos and don'ts of the airpark. The Hangar Haciendas Homeowners Association (HHHA) not only oversees the bylaws, but is very aggressive in maintaining a "good neighbor" status with surrounding residential subdivisions. They encourage noise abatement procedures, as well as host social events for their neighbors.

Scott Johnson is the present HOA President who gave input for this article. If you would like to land at the airpark you must be invited by one of the owners and sign a Hold Harmless Agreement which is fairly standard for private airparks. Their [website](#) lists all the procedures for landing and taking off as well as frequencies and airspace. Hangar Haciendas is directly south of Phoenix's Class B airspace, so a little care must be given to this, but in all other directions one can operate up to 5,000 msl until out of the area. The runway is hard surfaced and 2,600' end to end with the entire length useable for landing.

**Hangar Haciendas** Laveen 39 lots w/sep taxi-ways Mgr: Scott Johnson (602) 320-2382

**Kevin Baker, Realtor® Realty ONE Group**

**480-432-9800 [www.azaviationproperties.com](http://www.azaviationproperties.com)**



*Hangar Haciendas*  
Laveen, Arizona

AZ90





AIRPARK NAME / CONTACT	CITY	Homes / sites	REALTOR
<b>Big Springs Airpark</b> Mgr: Peter Hartman (928) 626-7207	Prescott	12	
<b>Castle Wells</b> Mgr: Gerald DaFoe (810) 516-9122	Morristown	5/10	<b>Pat Mindrup</b> - WEST USA Realty 928-671-1597 <a href="mailto:pat@wickenburgpat.com">pat@wickenburgpat.com</a>
<b>Eagle Roost Airpark</b> Mgr: John Greissing (928) 685-3433	Aguila	85 / 115 (5 acre lots)	<b>Pat Mindrup</b> - WEST USA Realty 928-671-1597 <a href="mailto:pat@wickenburgpat.com">pat@wickenburgpat.com</a>
<b>Flying Diamond Airpark</b> Mgr: Lou Cook (520) 399-3879	Tucson	20/97	
<b>Flying J Ranch</b> Mgr: Howard Jenkins (928) 485-9201	Pima	2/ 28	
<b>Hangar Haciendas</b> Mgr: Scott Johnson (602) 320-2382	Laveen	39 lots w/sep taxi ways	<b>Kevin Baker</b> - Realty ONE Group 480-432-9800 <a href="http://azaviationproperties.com">azaviationproperties.com</a>
<b>High Mesa Air Park</b> Mgr: Phil DiBartola 928-428-6811	Safford	/19 (2.5 acre lots)	
<b>Inde Motorsports Ranch Airport</b> Mgr: John Mabry (520) 384-0796	Wilcox	4/9 (1 acre lots) on 100 acres w/race track	
<b>Indian Hills Airpark</b> Mgr: Gerry Breeyear (928) 916-0608	Salome	75	
<b>La Cholla Airpark</b> Mgr: Larry Newman (520) 297-8096	Oro Valley	122	
<b>Mogollon Airpark</b> Admin: Cheri Thomas (928) 535-3071	Overgaard	60	
<b>Montezuma Heights Airpark</b> Mgr: Glen Tenniswood (928) 274-1233	Camp Verde	43/44	
<b>Moreton Airpark</b> Mgr: Daniel Kropp (602) 315-0323	Wickenburg	2	<b>Pat Mindrup</b> - WEST USA Realty 928-671-1597 <a href="mailto:pat@wickenburgpat.com">pat@wickenburgpat.com</a>
<b>Pegasus Airpark</b> Mgr: Jack @ 1st Svc Res (480) 987-9348	Queen Creek	15/40	<b>Kevin Baker</b> - Realty ONE Group 480-432-9800 <a href="http://azaviationproperties.com">azaviationproperties.com</a>
<b>Pilot's Rest Airpark</b> Resident: Dave Mansker 818-237-0008	Paulden	4/25	
<b>Ruby Star Airpark</b> Mgr: Wendy Magras (520) 477-1534	Green Valley	13 / 74	
<b>Valley of the Eagle (Sampley's) Airpark</b> Mgr: Jerry Witsken (928) 685-4859	Aguila	30	<b>Pat Mindrup</b> - WEST USA Realty 928-671-1597 <a href="mailto:pat@wickenburgpat.com">pat@wickenburgpat.com</a>
<b>Skyranch at Carefree</b> Mgr: Tommy Thomason (602) 708-2040	Carefree	20	<b>Kevin Baker</b> - Realty ONE Group 480-432-9800 <a href="http://azaviationproperties.com">azaviationproperties.com</a>
<b>Stellar Air Park</b> Mgr: SRUA, Inc. (480) 295-2683	Chandler	95/105	<b>Kevin Baker</b> - Realty ONE Group 480-432-9800 <a href="http://azaviationproperties.com">azaviationproperties.com</a>
<b>Sun Valley Airpark</b> Mgr: Jim Lambert (928) 768-5096	Fort Mohave	55/107	
<b>Thunder Ridge Airpark</b> John Anderson janderson72j@gmail.com	Morristown	9/14 (on 160 acres)	<b>Pat Mindrup</b> - WEST USA Realty 928-671-1597 <a href="mailto:pat@wickenburgpat.com">pat@wickenburgpat.com</a>
<b>Triangle Airpark</b> Mgr: Walt Stout (702) 202-9851	White Hills	115 acres	
<b>Twin Hawks</b> Mgr: Tim Blowers (520) 349-7677	Marana	2/40 (4 acre lots) on 155 acres	
<b>Western Sky</b> Mgr: Mr. Hauer (877) 285-0662	Salome	all 200 acres for sale	<b>Pat Mindrup</b> - WEST USA Realty 928-671-1597 <a href="mailto:pat@wickenburgpat.com">pat@wickenburgpat.com</a>
<b>Whetstone Airpark</b> Mgr: Brian Ulmer (520) 456-0483	Whetstone	5 / 12	



# Short Final

*The following articles contain content that is not necessarily the opinion of the APA.*

## *GAARMS Report: February 2016*

**By Fred Gibbs**

### **GAARMS V, the fifth *General Aviation Accident Reduction and Mitigation Symposium*, is planned to be held on a Saturday morning in March from 9:00AM to Noon, at the ASU campus on the Wil-**

**liams-Gateway airport. As you probably already know, GAARMS is a major joint safety initiative by the Arizona Pilots Association (APA), The Arizona Safety Advisory Group (ASAG), and the Scottsdale FSDO Safety Program, directly targeting the Arizona-based and trained pilot community. As a member of APA, it is one of the many benefits we offer.**

**We strongly urge you to attend, and to bring a "Wingman"! Stay tuned and watch for more information later this month on our website, in the March newsletter, and it will also come out in Late February/early March as a FAA safety program with WINGS credits.**



At the GAARMS symposium, we will be dissecting the two fatal accidents that occurred in-state (Arizona) during calendar year 2015, as well as the two fatal out-of-state accidents involving Arizona-based aircraft. All four of the accidents involved Arizona-based pilots. To the best of my knowledge, none were APA members, and none of them ever attended an APA safety program or seminar. While GAARMS will (attempt to) go deep into the accidents, in a nut-shell, there were three accidents that occurred during the takeoff phase of flight. Two are still actual causes unknown, and the third one was categorized as a Loss of Control, an apparent, but not verified, low level stall. (One should never be too quick to pass judgment, or assume anything about an accident is simple, until ALL the facts are uncovered.) The fourth, the recent helicopter crash, is also cause unknown. All of these accidents will be analyzed, scrutinized, and sanitized, so we can present them to you without any finger-pointing or blame. The intent is to educate you about what and how it happened, NOT who to blame, so that you can learn from others' mistakes. That is a critical part of flying – and life – learning from other folks' mistakes, because none of us will live long enough to make all of them ourselves!

With regard to the ever-growing controversy and aggravation over unmanned aerial systems (UAS) and unmanned aerial vehicles (UAVs), otherwise referred to as those "pesky drones," Lockheed Martin flight Services has taken some innovative approaches to addressing both the user interface (of drones into the airspace) as well as the pilot notification issues associated with those "pesky drones." On the next page is a copy of the article as it appeared in the December issue of Aviation Week and Space Technology.

If any of our members or readers of our newsletters experience an issue with a drone, be sure to report it to the nearest ATC facility and to us (The APA safety program folks) or the Arizona Safety Advisory Group (ASAG) so we can track any issues here in the state to possibly help alleviate any future issues. The FAA also just released a new regulation requiring all drones over 250 grams (9 ounces or .55lbs) to be registered with the FAA, and each drone is required to have the FAA-assigned registration number – which is NOT an "N" number - affixed onto the drone (or any and all drones you personally own). By the way, did you know that the FAA actually prohibits ANY drone flights within the 30 mile SFAR around Washington, DC, except by prior permission?



# Managing Unmanned

Existing flight-services capability provides mechanism to integrate UAVs into airspace

Graham Warwick Washington

**A** demonstration showing that unmanned aircraft systems (UAS) can be integrated into national airspace without the need for a major infrastructure program has been conducted by Lockheed Martin using its unmanned Kaman K-Max helicopter and fixed-wing Stalker XE.

During the November demo in Rome, New York, the Stalker XE directed the K-Max to extinguish a fire while operation of the two UAS was integrated with the national airspace system (NAS) using Lockheed's prototype UAS air traffic management (UTM) system.

The demo tested planned enhancements to the flight briefing and planning services Lockheed provides to general-aviation pilots under its Automated Flight Service Station (AFSS) contract with the FAA.

"We started to engage on UTM about two years ago, and we have a Space Act Agreement with NASA to share information" says Mike Glasgow, chief architect for Lockheed Martin Flight Services. "We are really focused on deploying operational capabilities into flight services automation for the FAA."

Last January, Lockheed deployed a situational awareness and safety capability through its flight services website, 1800wxbrief.com, that enables operators to file UAS operating areas (UOA)—the equivalent of pilots' flight plans for manned aircraft—to provide awareness to other airspace users.

The website produces maps on which other airspace users can see details of planned UAS operating areas, puts UOAs into graphical briefings for pilots along with other airspace information, and sends adverse-condition alerts to pilots if UAS operating areas pop up during flight.

The demo extended this capability to introduce operational aspects including actively monitoring UAS activity and dealing with exceptional circumstances, says Glasgow. "The ground-control stations [GCS] for the two aircraft were modified to talk to UAS services in AFSS," he says.

The operators reported where they

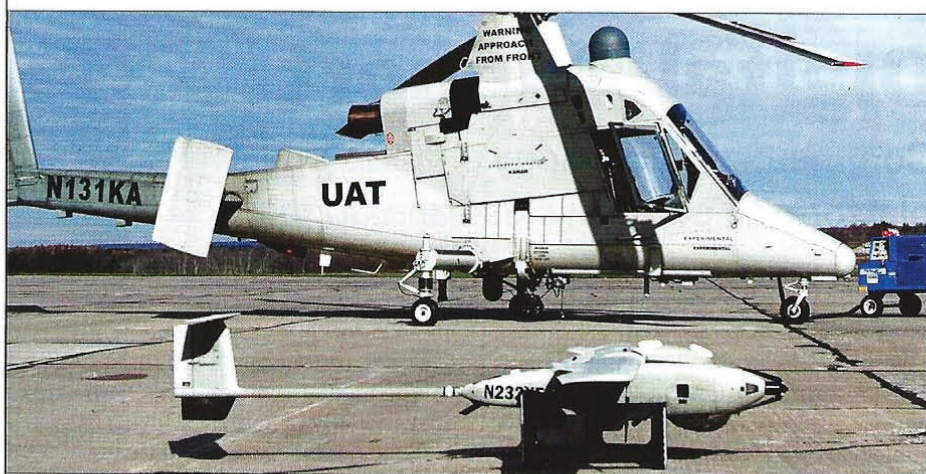
intended to fly in Class G airspace and, in addition, this information was passed to the Lockheed-developed En Route Automation Modernization (ERAM) system—the backbone of U.S. air traffic control (ATC).

"In Class G, ATC should not have to worry about you at all," says Glasgow. But the UAS operating information passed to ERAM provided controllers with a display layer they could turn on to see the airspace situation.

reports is relayed to ERAM to provide a warning volume—"a conservative approximation of where the UAS can go, updated with position reports."

The warning volume goes into the conflict probe, and the controller gets an alert, as he does do now, if there is a conflict between manned aircraft or between aircraft and special-use aircraft, he says. "The controller is not bothered unless there is a reason, and if there is a conflict they know where, when and why."

A third integration step is to take information from ERAM on a conflict between manned and unmanned aircraft and send it back to the flight services UTM capability and forward it to the UAS ground control station for situational awareness. "The controller, pilot and operator all know, and we have the first half of a ground-based sense-and-



Unmanned K-Max and Stalker XE (foreground) teamed for fire fighting demo.

As a second step, the UAS information was fed into the ERAM conflict probe. This takes airspace volumes and automatically probes for aircraft-to-aircraft and aircraft-to-airspace conflicts. "You plug into the probe to see if any aircraft operating at very low altitude, such as a public-safety helicopter, gets a conflict detection against a UOA."

The next integration step demonstrated involved taking the position information received by the GCS from the aircraft and relaying it to UAS services within AFSS. "Flight services monitors the position reports versus where it said it would fly, and if it goes outside that because of a flyaway, or something, they can detect it," says Glasgow.

"The next question is does ATC care? If it is over a cornfield in Kansas, they may not, but if it is in proximity to Class A, B, C, D, E airspace, ATC needs to know," he says. So a copy of the position

avoid capability," Glasgow says.

The next step, not yet demonstrated, is to bring in a collision-avoidance capability and automate the ground-based sense-and-avoid system. "Operations get more complicated when you bring in collision avoidance," he says.

Because AFSS is a service contract, Lockheed can bring in new capabilities quickly—the initial UTM functionality is being developed and deployed in just a few months. The company will proceed "as quickly as possible" to field the ability to send UAS position reports to flight services "in the next few months."

"We think this is a good opportunity for the FAA," he observes. "There has been a fear of UTM and UAS integration being another very large infrastructure program, but our main message is it doesn't have to be this big, new expensive thing. It can be modest modifications to existing capabilities." ☐



## FAA Issues New Student Pilot Rules

Under a new rule released by the FAA, **effective April 1, 2016**, student pilots will no longer get their student pilot certificate from an aviation medical examiner. Instead, they can apply in person at a FSDO, through a designated pilot examiner (DPE), with a Part 141 flight school or a CFI. The **IACRA** system – the same one you use to apply for any new certification, i.e., “a check ride,” is to be used to submit the required data to the FAA. Instructors are advised to please help any new student through the application process. The TSA will then vet the application, and a plastic certificate will be sent to the student by the Civil Aviation Registry. Student pilots still will have to visit an AME to acquire a separate medical certificate.



Student pilots who already have a paper certificate can continue to use it until it expires, according to the rule. Plastic replacements can be requested, but there will be a \$2 fee. How long it will take for the TSA to complete its vetting process is not clear. The FAA says it will "take steps to expedite student pilot applications ... so they may exercise the privileges of the certificate as soon as feasible." The FAA estimates that the turnaround time "can be reduced to an average of 3 weeks or less, provided that initial security vetting by TSA indicates that the applicant is eligible for the certificate." If an applicant is deemed ineligible by the TSA on security grounds, he or she will be able to appeal that decision through the TSA's administrative procedures. David Oord, AOPA's vice president of regulatory affairs, told AVweb today AOPA is hopeful that timeline can be expedited. Some schools, he said, try to solo students soon after they start, "similar to AOPA's 'one week to solo' project at last year's Sun n Fun." For now, he said, instructors and students should submit their student pilot application as soon as possible to be sure the certificate is issued in time for solo.

### To all flight instructors:

Here is an excerpt from the final rule re: student applications -

*The FAA expects that all authorized individuals will utilize IACRA for the purpose of accepting a student pilot application. IACRA is a Web-based certification/rating application that guides the user through the FAA's application process. The FAA notes that IACRA currently may be used to submit a student pilot application and therefore will not require substantial modifications to the Web-based application system. However, IACRA will be modified so a student pilot certificate will not be issued at the time of application.*

*A person who meets the eligibility requirements of a student pilot certificate may register as an applicant through IACRA which stores FAA form 8710-1 electronically until an authorized individual accesses the form. FAA form 8710-1 may be accessed by an authorized individual by searching for the person's unique FAA tracking number (FTN) assigned by an FAA internal system after the person has completed the required items on the student pilot application form. The authorized individual will verify that the applicant meets the regulatory eligibility requirements, and that the application has been completed properly. Additionally, the authorized individual will verify the applicant's identity in accordance with TSA security vetting requirements as described in Appendix 2 of Advisory Circular 61-65 and input the identification data into IACRA when prompted. Once the authorized individual has completed the application through IACRA, it will be transmitted electronically to the Civil Aviation Registry for processing.*

*All authorized individuals will have the ability to accept a student pilot application in paper format to ensure all applicants have uninterrupted ability to apply for an FAA student pilot certificate. The same information captured on the paper FAA form 8710-1 is captured within IACRA. However, once the authorized individual verifies that the application is complete in accordance with the form's instructions and FAA Order 8900.1, the Flight Standards Information Management System, the indi-*

vidual will send the student pilot application to the Civil Aviation Registry via first-class mail. The FAA notes that the submittal of a paper FAA form 8710-1 may delay the issuance of a student pilot certificate because of mailing time. While an authorized individual has the ability to accept a paper FAA form 8710-1, the FAA anticipates that a majority of these applications will be submitted via IACRA.

### **Flight instructors,**

***This is a big change – no more student pilot certificate endorsements. All endorsements must be in the students' logbook, and they will be closely scrutinized by examiners for any student showing up for a check ride. I strongly suggest you coordinate with your local DPE to ensure what and how with regard to endorsements so as to easily and completely meet their requirements. OOHRAH!!!***

### SAFETY PROGRAMS:

Should you desire a safety or educational program at your local airport, simply contact me directly at [fredgibbs@npgcable.com](mailto:fredgibbs@npgcable.com), or call me at 410-206-3753. The Arizona Pilots Association provides the safety programs at no charge. We can also help you organize a program of your choice, and we can recommend programs that your pilot community might really like.



Fred



***Don't come to a safety program by yourself, and don't just bring your old buddy who always comes with you, bring someone new, and get your BFF to also bring someone new! We need you to help us expand our audience, to expand our reach, and to expand that ocean of faces.***

***Statistics show that the folks having accidents are the ones who don't participate in the WINGS or safety programs, so help us reach out to those folks and pull them in.***

***A big thank you to our  
Corporate Sponsor!***





# LOOKING BACK IN TIME

By Howard Deevers

At the end of the year I usually have some extra time to clean out my office spaces. 2015 was no different. I pitch out books or catalogs that I have not even looked at for a year, or longer. Dust off the shelves and try, one more time, to organize my life.

Before actually throwing things away, I do look at them to see if it is something that I should keep. I found a real gem this year: An article that I had saved from AVIONICS NEWS, January 1996, twenty years ago. (Do I keep things too long?) The article: *The Federal Radio Navigation Plan* talked about the future of GPS navigation and the discontinuance of the VOR, NDB, LoranC, and even the ILS. According to the article, all of these would start coming out of service by 2000, and the ILS gone by 2010.

The article was right about the Loran, but not about the date. It actually lasted until 2010. NDB's are still around, although not as many. As we know now, the VOR's are coming out of service, but the new plan is to keep many of them for many years to come. ILS is still a very important part of any IFR system. Nowhere in the article did it say anything about ADS-B. I guess the "crystal ball" of that time had not looked that far into the future.



But here we are, 20 years later, living with the predictions that were made then. As I re-read that article, I had to wonder what the *next* 20 years will bring for us. The year 2020 is the mandate for the ADS-B, now less than 4 years away. It was announced in 2008, and the FAA gave us until 2020 to equip, a pretty long time for technology equipment. The iPad had not even been invented then, and we are already on generation (what?) now. So, by the 2020 mandate for this new technology, the system, the equipment, and the idea may already be obsolete. What then?

Well, we still don't have a "crystal ball" that will let us see into the future, but it sure is fun to read history, and even more fun to take part in it. We are talking about technology history here, not

about World Wars. How many computers have you owned in the last 20 years? If you own a computer that is 5 years old or more, you are considered "out of date." And software? Let's not talk about software here...



Panel mounted GPS, and hand held GPS were coming into general use by 2000. In that year, a panel mounted Garmin 430 Nav/Com, *before WAAS*, would cost you \$10,000 to buy, install, and get certified for IFR use. Today that same unit is considered obsolete, and the manufacturer may not support it a few years ahead. Ten years from now? Who knows?

Twenty years have passed and we are still teaching VOR and NDB Navigation and ILS approaches, and the Practi-

cal Test Standards haven't changed much in the last 10 years. Sure, if you are GPS equipped you must demonstrate the use of the technology, but we are still with the "old stuff" and I don't see that changing as fast as technology does. Maybe the "old stuff" really is reliable, and not as expensive as we thought to manufacture, maintain, and use. The article did say that all of this was subject to change.

To be sure, GPS technology is going to be with us for the foreseeable future. Every device that the government turns off and takes out of service has the tag: to save money. The Loran shut-off was going to save \$190 Million over *ten years*. Meanwhile the installation of new ground based technology for the ADS-B has cost well over \$1 Billion. Satellites don't last forever either, and they are really hard to get to in order to fix them. Eventually they will just fall out and burn up in the atmosphere. And, they are expensive to replace. Never mind that the whole system could be shut down by the government in an emergency, or at their whim.



GPS has changed the way we live. Many new cars come equipped with GPS just as they did with radios decades ago. Truckers use GPS; boats, both inland and at sea, use GPS; and even if you hike in the mountains, a pocket GPS would be a good companion to have along. There is even talk of using drones with GPS to deliver packages to your door.

No doubt that aviation has benefited from GPS technology. Air Traffic Controllers tell us that fewer pilots are getting lost and needing assistance than ever before, but those that do get lost are *really lost* and harder to help. That brings us back to basics. New student

pilots still need to be taught basic navigation skills such as dead reckoning and ground features for navigation. It doesn't hurt for experienced pilots to practice those skills as well.

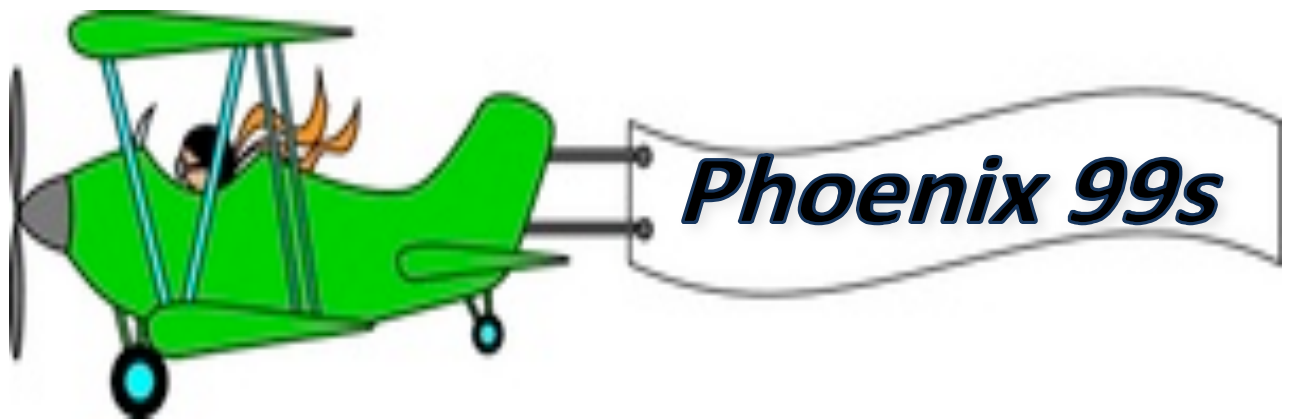
Your ARIZONA PILOTS ASSOCIATION has offered many free seminars on how to use your iPad with the proper app for navigation. If you have not attended one of these seminars, you might be surprised at how much you can learn in such a short time. Look for the next safety seminar, and don't forget to "Bring your Wingman."

Howard





# Flying Companion Seminar



**Saturday, Feb. 20, 2016**

702 West Deer Valley Road

Phoenix, AZ 85027

(Deer Valley Airport terminal upstairs)

**9 - 4 with Lunch included**

All materials provided

Reservations required

For more info and to register go to

**[www.phx99s.org](http://www.phx99s.org)**

or call 623-486-7255 or

or [beenflying1979@gmail.com](mailto:beenflying1979@gmail.com)

This event is geared towards the Non-flyer, your "right seater". Cost \$45.00 for the day prepaid, \$55.00 at the door.





# 58th Cactus Fly-In

March 4-5, 2016 | Casa Grande, AZ



## Welcome!

Cactus Fly-In is the premier event for antique airplanes in Arizona. Come check out a host of unique aircraft, learn something new during forum presentations, and mingle with folks who enjoy history and the machines that flew us to the present!

Thank you for joining us at the 57th Annual Cactus Fly-In! The awards given at this year's fly-in are available to view online: [2015 Cactus Fly-In Awards](#)

### 58th Cactus Fly-In

March 4-5, 2016

Casa Grande Municipal Airport (CGZ)  
3225 N. Lear Ave. Casa Grande, AZ 85122

---

### Admissions

**Gates open:** 8:00 am

**Modern Aircraft:** A donation of \$10 per person or \$20 per plane load is asked.

**Guests:** A donation of \$10 per person is asked. 18 and under are free!

**Motor Homes, Campers & Recreational Vehicles:** A donation of \$20 per vehicle is asked.

Your donation is good for admission throughout the entire Cactus Fly-In Event!



# 58th Cactus Fly-In

March 4-5, 2016 | Casa Grande, AZ



## APA Website

Please visit our website for the latest information.

[www.azpilots.org](http://www.azpilots.org) A great resource for APA's work in the state, archived newsletters, current events, APA's continuous work with legislators, a calendar of activities, and more.

APA is a completely voluntary organization. It survives on membership dues and sponsor revenue. One of the highlights of the organization is the Website. Stefanie Spencer manages the complete Website on a continuous basis. Leave email for Stefanie:

[Webmaster@AZPilots.org](mailto:Webmaster@AZPilots.org)

## Newsletter Contributors

Article Deadline

20<sup>th</sup> Editor reminds "The Team" to submit articles

25<sup>th</sup> Authors submit articles and advertisements

Contact the newsletter editor:

[Newsletter\\_Editor@AZPilots.org](mailto:Newsletter_Editor@AZPilots.org)

For anyone wanting to contribute to this newsletter please submit your writing in an email file along with photos and captions (separate files). The APA would like to publish information about what's happening in your area of Arizona. Subject matter could range from regulatory issues to new places to eat (or old places) to airport management to safety. Of course the APA would like to know about any political activities that could potentially compromise Arizona's pilots or its airports.



*New pilots welcomed!*



*Writers welcomed!*



Stefanie Spencer— Webmaster



## APA Clothing

The online store is currently on the [Square Market, click here](#).

## Advertisements

As a benefit to current members, you may advertise aviation related items in the APA Newsletter and online. Classified ads for items that you own are completely free, just send those requests to our webmaster [Stefanie](#). Photographic ads range from business card size to full page. Please contact our sponsorship and advertising chairman [Rick](#) for more information on advertising.

## APA Membership

If you are not a member of APA you are encouraged to join and help us keep General Aviation available, safe and fun for all. Your support is very much appreciated. Please visit our website for details and where you can [join APA](#). If you have questions, please go to our website's contacts web page where you can send an email, see our mailing address or contact us by telephone. You can also help APA by purchasing some of our logo items, Caps & T-Shirts.

## Volunteer 501 (c) (3) Organization

The Arizona Pilots Association (APA) is an all volunteer 501 (c) (3) organization. The articles you find in our newsletter are written by volunteers and do not necessarily reflect the opinions or position of the APA, nor have they been vetted for technical accuracy.

