July 2019 APA NEWSLETTER

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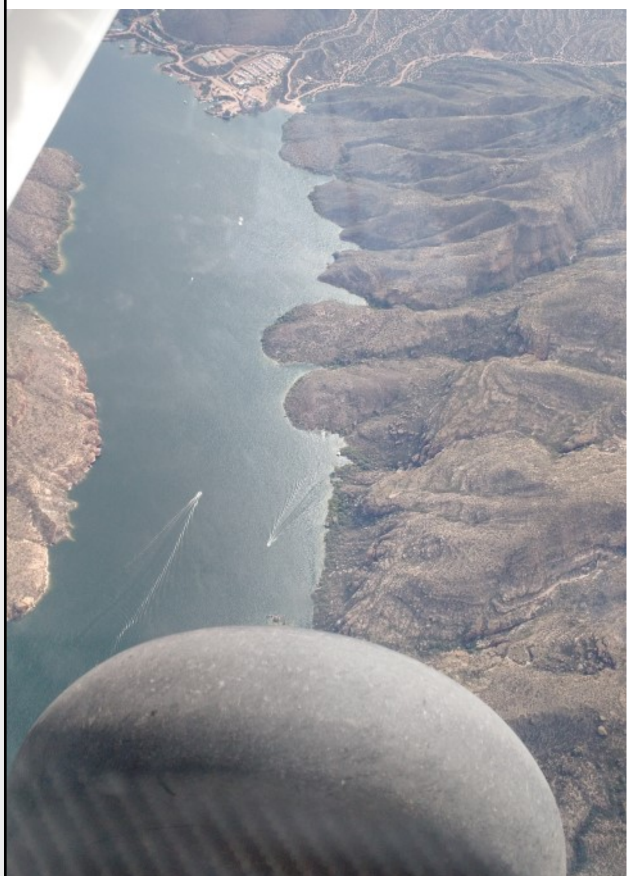
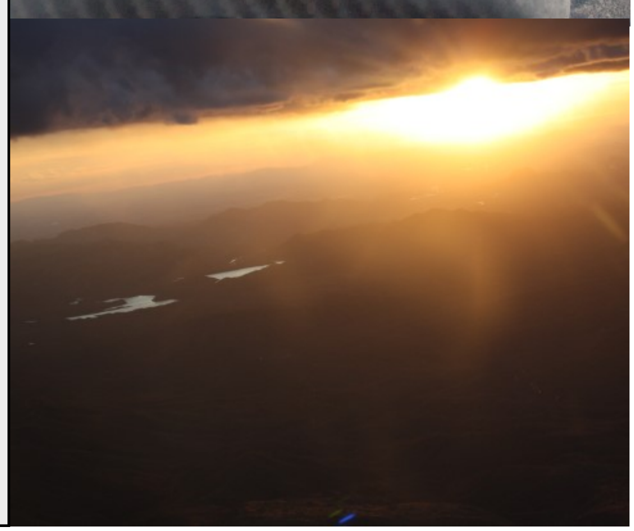




President's Report

Greetings,

With triple-digits in much of the state, the sound of airplane engines is starting much earlier in the morning. The thought of sweating it out in a flying greenhouse isn't too appealing. It is sometimes easier just to schedule flights for later this fall. There are a few ways to stay involved in aviation and remain safe while your plane remains grounded.

Attend WINGS training and FAAST seminars. These are conducted year-round and all over Arizona. These seminars cover topics from communication with ATC to off-field practices to emergency procedures and nearly every other aviation related topic. Did I mention they are free? Stay current in your knowledge of aviation by participating in these opportunities. If you haven't already done so, create an account at faasafety.gov. You'll get regular notices of opportunities near you.

Another habit to stay current in is flight planning. Use charts or your favorite EFB to plan out your

next trip or vacation. Plan the whole thing. Fuel stops, route, weather briefing, weight and balance, takeoff and landing distances, and alternate airports. This helps you maintain “muscle memory” of the process while also keeping your head in aviation. The bonus is that when you start flying again, you’ve done most of the legwork for some epic trips.

The point is to stay safe and to stay current. Our membership is among the safest in aviation and we should be proud of that. We should also aim to maintain it.

If you are still out flying, check out our online calendar that is still filled with fly-ins and events around the state through the summer.

Blue Skies,

Brian

Got great aviation photos that you’d like to share?

newsletter@azpilots.org

Executive Director's Report

Jim Timm — July 2019

So far this summer the mornings haven't been too bad for the Saturday morning breakfast flights, as they have been comfortable and relatively smooth. However, the return flight home can get a bit bumpy if you visit too long and get a late start. I can imagine it has to be challenging for these foreign students trying to learn to fly and having to fly later in the heat of the day. My airplane has been fine tolerating the heat, but my iPad EFB has had two inflight over temp shutdowns on me. Looks like I'm going to be more careful and keep it out of the sun or get a cooling mount for it. It's amazing how addicted we get to some of the electronic gadgets we have. Anyway, keep cool and fly safe.

The year is half over, and the deadline for acquiring ADS-B out for our airplanes is rapidly approaching. Most everyone I know has acquired the equipment required because we are based under the Class B airspace 30-mile veil. What about those living and flying elsewhere? Per the FAA, operators who fail to have ADS-B out equipment installed by the January 2020 deadline will get a very cool reception from air traffic control according to a recently issued policy statement.

The rule, published in the Federal Register, says both scheduled and unscheduled operations with ADS-B equipment missing can receive rarely issued waivers to transit ADS-B airspace, but those exceptions will be few and far between and cannot be relied upon on a routine basis. Operators of unscheduled aircraft - in other words GA - will receive a cold ATC shoulder at "capacity-constrained" airports. Operators of unequipped, unscheduled aircraft may request an ATC authorization to transit controlled airspace under 91.225(g), but "operators might not be accommodated for a variety of reasons."

In summary, the rule states that to operate in ADS-B airspace, an operator who has chosen not to equip with ADS-B Out must obtain a preflight authorization from ATC for all ADS-B Out airspace on the planned flight path. However, the FAA will be unlikely to issue routine and regular authorizations, especially near high-density airports.

There are some relatively inexpensive ADS-B Out units available, and a lot of aircraft owners are going to have to decide whether or not they want to be constrained in their future operations. Time is rapidly running out, and the reports I have heard is that avionics shops are now requiring a six month or more lead time to install ADS-B equipment. Time is running out.

“

Operators who fail to have ADS-B out equipment installed will get a very cool reception from air traffic control.

MISCELLANEOUS ITEMS

In the regular June APA meeting an election of officers was held, and the new officers for the coming year are as follows:

President - Brian Schober

Vice President North - Tommy Thomason

Vice President South - Mark Spencer

Secretary - Kit Murphy

Treasurer - Stefanie Spencer

These are the officers that will be leading APA for the coming year and their contact information can be obtained from the APA website.

We have been advised that Coolidge Airport (P08) has received a grant to have runway 5 - 23 reconstructed, and work is scheduled to begin in August, and runway 5 - 23 will be closed for approximately 160 days. During the reconstruction work, instrument low approaches to the runway will not be allowed. During the construction period, runway 17 - 35 will remain open. Please use caution to avoid the parachute drop zone immediately south of the airport.

Last month we advised that the Picacho Army National Guard Heliport (PCA), also known as “Stagecoach AAF,” northwest of Picacho Peak was experiencing a problem with aircraft passing through their airspace unannounced. The problem is aggravated, no doubt, by the fact that the airport doesn’t have an associated Class Delta Airspace assigned to it, and without this designation, the existence of the heliport, and especially it’s “controlled” airspace is not obvious and is very easily missed. We have received inquiries as to why they don’t have a Delta Airspace. Well, it turns out that PCA is the only airport in the nation with an active control tower without a Delta Airspace assigned to it. For the FAA to assign them a block of Delta Airspace they must have certified equipment to provide a barometric pressure and other atmospheric conditions, or be within a rather short distance from an airport that can provide the information. PCA doesn’t comply with either requirement and the Army is reluctant to budget funds for the required instrumentation. While it appears that they may be experiencing an increase in operations in the near future, something needs to be done. In the interest of aviation safety, APA will be getting involved to determine what can be done to get the necessary airspace designated and charted.

The last month has still been okay from a flight safety standpoint. In the past reporting period there were five accidents reported by the NTSB, and none of them involved fatalities. Three of the five reports didn’t have the preliminary report released for review, and hopefully, they were minor in nature. I really hope that this current trend continues for the rest of the year, and pilots are being more careful in what they are doing, and keeping their airplanes properly maintained. See

my July Accident Summary for details.

We have again been reminded that many of the airports around the state, and especially in the Phoenix area, are planning, and are having construction projects started. So, we have to keep reminding you to always check for NOTAMS for your destination airport, and always fly informed, and have a safe flight.

As you are aware, APA is working with several airports around the state to update their Airport Master Plans, providing the pilot and aircraft owner's perspective in the process. Kingman Municipal Airport (IGM) currently has a phase report out for review and comment by the PAC Committee. Page Municipal Airport (PGA), Lake Havasu City Municipal Airport (HII), Superior Municipal Airport (E81), Sedona Airport (SEZ), Flagstaff (FLG), and Grand Canyon Airport (GCN) are also currently in their Master Plan update process.

THINGS TO DO - PLACES TO FLY FOR BREAKFAST:

- The fly in breakfast at Coolidge Municipal Airport (P08), normally on the first Saturday of the month, is on summer hiatus. They will resume in October.
- The Falcon Field EAA Warbirds Squadron fly in breakfast, and car show on the third Saturday of the month is also on summer hiatus. They are planning on restarting on Saturday October 19.
- On the third Saturday, the fly in breakfast at Benson (E95) at Southwest Aviation is now on a quarterly basis. Check the Calendar for the next fly-in date. (There will still be special fuel prices for breakfast attendees.)
- The Grapevine Airstrip (88AZ) next to Roosevelt Lake is open to fly into any time, but the BBQ lunch hosted by APA on the third Saturday weekend of each month is also on summer hiatus. Watch the APA Facebook page for postings when there are special military practice days that you will want to avoid.
- 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, is operating in the cool air conditioned Terminal Building. It's open 6:30am to 2:00pm Monday through Saturday. On the last Saturday of the month they have a "Fly in Breakfast Special" available on the menu; the price for adults is $8 and kids $5.
- At Tucson's Ryan Field Airport, Richie's Cafe, is serving breakfast and lunch daily. The hours are 6:00 am to 2:00 pm

Check with the APA Getaway Flights program and online calendar for fun weekend places to fly.

Jim

July Aviation Accident Summary

by Jim Timm

The following are the NTSB reports of the aviation accidents that occurred in Arizona from late May through late June. APA will use this detailed accident information to develop safety programs, briefings, and posters/flyers that would help pilots learn from the mistakes being made by others and take the action necessary to prevent them from having similar accidents.

Fortunately, the accident summary is relatively short this reporting period, covering only five accidents, with three of them occurring in June. It appears pilots are still being a bit more cautious and are not damaging airplanes and getting hurt.

In this past reporting period, the NTSB indicated there were five accidents that occurred, and unfortunately, three of them didn't have their preliminary accident reports released for public review. The five reports are as follows:

THE FOLLOWING ACCIDENTS OCCURRED IN THE PAST REPORTING PERIOD

Accident Date: **May 13, 2019**
Preliminary Report Dated: 6/6
Title 14 CFR Part 91 Operation
Location: Gila Bend
Aircraft Type: Piper PA 28R
Injuries: 1 Minor

GEAR UP LANDING

On May 13, 2019, about 0926 MST, a Piper PA-28R was substantially damaged during a runway excursion at Gila Bend Airport (GBN). The commercial pilot and sole occupant received minor injuries. Visual meteorological conditions prevailed for the personal flight, and a flight plan was filed, but not activated for the cross-country flight that departed Marana (AVQ) at 0915.

According to the pilot's recount, he descended the airplane from 4,500 ft, and used the standard acronym "GUMP" as a landing checklist, which requires the pilot to verify that the landing gear is in the desired position. During this time, he may not have verified the position of the landing gear through the gear indicator due to heavy traffic in the airport traffic pattern. In the last 2 minutes of his approach to the runway, an aural alarm engaged, which he dismissed as a false stall warning. The pilot later surmised that the aural warning may have been part of a feature that automatically extends the landing gear when the airplane reaches a low altitude. As he reached the runway surface, he flared the nose and the airplane touched down on the main landing gear. He heard a sound as he lowered the nose and decided to add some power. The airplane turned about 45° to the left, despite the pilot's attempt to maintain directional control, and departed the left side of the runway before coming to rest in the dirt.

A witness who was piloting an airplane on a nearby taxiway observed the accident airplane when it was about 30 ft above ground level without the landing gear extended. The landing gear was not extended when the airplane began to flare. The witness attempted to advise the pilot of the landing gear anomaly on the airport's Common Traffic Advisory Frequency, but the airplane impacted the ground and departed the left side of the runway.

Post-accident examination of the airplane by representatives of the Federal Aviation Administration revealed substantial damage to the fuselage and wings. Additionally, the runway surface showed striated gouges and two long skid marks that traced the airplane's departure path from the runway.

Accident Date: **May 23, 2019**
Preliminary Report Dated: 6/17/19
Title 14 CFR Part 91 Operation
Location: Nogalas
Aircraft Type: Cessna 172
Injuries: UNK

THE NTSB HAS NOT YET MADE A REPORT AVAILABLE

Accident Date: **June 2, 2019**
Preliminary Report Dated: 6/4/19
Title 14 CFR Part 91 Operation
Location: Sedona
Aircraft Type: Taylorcraft 12BC
Injuries: UNK

THE NTSB HAS NOT YET MADE A REPORT AVAILABLE

Accident Date: **June 5, 2019**
Preliminary Report Dated: 6/19/19
Title 14 CFR Part 91 Operation
Location: Sedona
Aircraft Type: Cameron A-275 (Balloon)
Injuries: UNK

THE NTSB HAS NOT YET MADE A REPORT AVAILABLE

Accident Date: **June 11, 2019**
Preliminary Report Dated: 6/19/19
Title 14 CFR Part 91 Operation
Location: Phoenix
Aircraft Type: Mooney M20V
Injuries: 1 Serious

INFLIGHT LOSS OF POWER

On June 11, 2019, about 1451 MST, a Mooney M20V airplane collided with street light poles and a concrete Jersey barrier during a forced landing near Deer Valley Airport (DVT). The private pilot was seriously injured and the airplane was substantially damaged. Visual meteorological conditions prevailed and a visual flight rules flight plan was filed for the cross-country personal flight. The flight departed Scottsdale Airport (SDL) about 1437, and it was destined for Carson Airport (CXP), Carson City, Nevada.

According to Air Traffic Control (ATC) communications, about 7 minutes after departure, and about 8 miles northwest of DVT, at an altitude of 9,100 ft mean sea level (MSL), the pilot reported a "rough running engine" and subsequently declared an emergency. The controller offered the pilot Pleasant Valley Airport (P48), which was near his position, and Glendale Municipal Airport (GEU), 12 miles south of his position for possible landing airports. The pilot chose GEU, and turned to the south, and lined up for the approach to runway 19. A few minutes later, at about 4,700 ft msl, the pilot decided that he was not going to reach GEU, and turned eastward towards DVT which was about 8 miles to the east. No other transmissions from the pilot were recorded. The track continued on its eastern track before it ended near the accident site, about 2 miles west of DVT.

According to a witness, he stated that he saw the airplane as it approached the street from the west, avoiding high tension wires on the south side of the street by banking to its left. The airplane then impacted two light poles, separating the right wing, and somersaulting across the south side of the street, impacting a concrete Jersey barrier, and sliding about 50 ft before coming to rest inverted.

The wreckage debris field was about 360 ft long, and was contained within the 4-lane street, and on the south side sidewalk area. The main wreckage cabin area was mostly consumed by post impact fire. All flight control surfaces were located, and flight control continuity was established. Engine control continuity was also established from the cabin engine controls to their associated engine components. During the recovery of the wreckage, it was noted that the left-wing fuel tank contained an undetermined quantity of fuel.

The airplane was manufactured in 2019 and was purchased by the pilot on May 6, 2019.

AFTW

ARIZONA FLIGHT TRAINING WORKGROUP

WE ARE A SAFETY-FOCUSED GROUP OF AVIATION TRAINING PROFESSIONALS WHO RECOMMEND BEST PRACTICES FOR UTILIZING AIRSPACE IN ARIZONA WITH THE ULTIMATE GOAL OF REDUCING ACCIDENTS, INCIDENTS AND PILOT DEVIATIONS.

We make an effort to:

- **Facilitate communication and address safety concerns between flight schools, flight instructors, the FAA and other airspace users**
- **Share training tools, concepts, and ideas**
- **Improve understanding among operators**

CHECK US OUT!

AFTW.ORG

On our website you can find:

- **Practice area charts and information**
- **Stanfield VOR procedures**
- **Safety Topics of the Month from the GAJSC**
- **Meeting minutes and events**
- **Flight training resources, news and more!**

GAJSC

General Aviation
Joint Steering Committee

Stabilized Approach and Go-around

This outreach guidance is provided to all FAA and aviation industry groups that are participating in outreach efforts sponsored by the General Aviation Joint Steering Committee (GAJSC). It is important that all outreach on a given topic is coordinated and is free of conflicts. Therefore, all outreach products should be in alignment with the outline and concepts listed below for this topic.

Outreach Month: July 2019

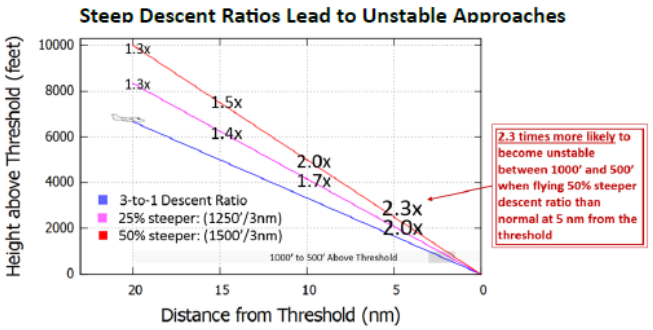
Topic: Stabilized Approach and Go-around

Background:

The General Aviation Steering Committee (GAJSC) work group contends that a unstable approaches and the disinclination of many pilots to go-around when an approach becomes unstable are precursors to many GA landing accidents. Emphasizing stable approaches and making early go-around decisions are key to reducing landing accidents.

Teaching Points:

- Define stabile IFR and VFR approach criteria.
- Discuss the advantages of stabile approaches
- Discuss the hazards of continuing an unstable approach to a landing.
- Encourage pilots plan for a go-around on every approach, to make the go-around decision as soon as the approach becomes unstable or the runway becomes unusable.
- Caution Flight Instructors to not salvage approaches for students but rather let the students identify unstable approaches and go-around as needed.



References:

- *General Aviation Power Point and Presentation Notes*
- *Airplane Flying Handbook (FAA-H-8083) Chapter 8, Stabilized Approach Concept*

DOWNLOADS: PowerPoint Presentation Slides...

Stabilized Approaches

By Paul Wiley

This article is an overview of what constitutes a "stabilized" approach and provides some guidelines and generally recognized best practices for executing a safe and good stabilized approach in VFR conditions. Most of what is covered here concerns the final approach segment. However, a few words are appropriate regarding the traffic pattern and how a properly flown traffic pattern facilitates a safer final approach.

Please refer to the Airman's Information Manual (AIM) chapter 4, section 3 (Airport Operations) for details describing traffic patterns and airport operations. Also, Advisory Circular AC 90-66: Non-Towered Airport Flight Operations contains information about traffic patterns, communications and procedures at non-towered airports. Any local procedures specific to the airport where you are flying should always be followed.

A well-flown traffic pattern is entered at the proper point and altitude, distance from the runway and airspeed, and results in the airplane being aligned with the extended runway centerline when on final approach. Communications are as recommended in the AIM. It is recommended that aircraft enter the traffic pattern at pattern altitude, abeam the midpoint of the runway, and normally the entry is on a heading approximately 45 degrees from the downwind heading (calm wind conditions). This is the standard entry and results in your best chance to see and be seen by other traffic in the pattern. Other entries (e.g. straight-in final) are possible, but extra vigilance and clear communication (position reporting) is required to see and avoid other aircraft that may already be in the traffic pattern.

Complete the pre-landing checklist prior to entering the pattern and maintain pattern altitude on the downwind leg until abeam the approach end of the runway. Normally turn base leg when approximately 45 degrees from the approach end of the runway. Base leg is your best chance to see the runway and judge your situation, i.e. are you too high or low, too fast or too slow, too close in to the runway, etc. Normally complete the turn to final about 1 to 2 miles from the runway approach end, but not less than ¼ mile from the approach end of the runway. It is important to note that the AIM states: "A pilot may vary

the size of the traffic pattern depending on the aircraft's performance characteristics." A common error leading to unstabilized approaches, especially in high performance airplanes, is flying a pattern that is too small. This reduces the time the pilot has to assess the situation, react and make changes to the aircraft configuration and speed thus making it more difficult to execute a stabilized approach when on final.

On final approach here are the main components of stabilized approach:

- **In Landing Configuration** – this means gear confirmed down and flaps are set appropriately for the conditions. Normally gear was extended prior to pattern entry, checked down on the downwind leg and "double checked" again to be down and locked on final.
- **On flight path** – this means you are on a normal approach angle to the runway, and if the runway has a Visual Glideslope Indicator such as VASI, you are on glide path, i.e. not too high and not too low. Being on flight path at the proper speed normally results in a descent of 500 feet per minute or less.
- **On airspeed** – this means you are flying the recommended final approach speed found in the Approved Flight Manual or aircraft Owner's Manual. Your speed should be as recommended within a +10/-5 knots tolerance. Note: too fast means too much energy which results in the airplane "floating" down the runway. Being just 10% too fast results in approximately 20% more distance required for landing. Too slow means the safety margin between final approach speed and stall speed is not sufficient. The often referenced 1.3 times power off stall speed means you have a 30% safety margin above the stall speed when flying at this recommended final approach speed.
- **Aligned with the extended runway centerline** – This means that as soon as you roll out of the turn from base leg to final (or shortly thereafter) you have the airplane tracking a course over the extended runway centerline. Depending upon the wind direction and speed the actual heading of the airplane may be different from the magnetic course of the runway. This is known as a "crab" angle and the final approach can be flown in a crab down to a short final; however, the airplane's longitudinal axis must be aligned with the direction the airplane is traveling prior to

touchdown. Another technique is to use a forward slip (always with wing down into the wind) to fly the plane down final approach course and touch down on the upwind main landing wheel first, then allow the downwind wheel to touch down while keeping the longitudinal axis aligned with the direction the plane is traveling using rudder. In a strong crosswind this technique must be used from at least short final to touchdown to control side drift. The crosswind correction, i.e. wing down into the wind, is held using sufficient aileron and rudder coordination throughout the touchdown and roll out. It is recommended that pilots practice crosswind takeoffs and landings with a CFI on a regular basis to maintain proficiency.

- **Adequately correcting for crosswinds, especially in gusty conditions** – whether you choose to use the crab method until just above the runway touchdown and then use rudder to "kick out" and align the longitudinal axis with the flight path, or use the slip to land method with wing down into the wind, sufficient and coordinated control forces must be applied continuously to fly the plane to a safe touchdown and roll out. In gusty crosswinds add 1/2 of the gust factor to final approach speed. For example: the winds are a direct crosswind reported at 10 knots gusting to 20. The steady wind speed (10 knots) is 10 knots different from the peak gust (20 knots). Thus the gust factor is 10 knots and a prudent pilot will increase his final approach speed by 5 knots in this example to provide an increased margin of safety.

Best Practices:

- Manage distractions when in the traffic pattern (Rule No. 1: FLY the plane)
- Always be prepared for a go-around and execute a go-around promptly if not stabilized by 500 feet AGL on final
- Practice go-arounds until you are proficient
- Use small corrections of pitch and power to stay on flight path and on speed +10/-5 knots
- Turn final at least 1/4 mile from the approach end of runway
- Coordinated turns are crucial in this phase of flight

- In gusty crosswinds add 1/2 of the gust factor to final approach speed
- Practice landings with different flap settings (including no flaps)
- Get refresher training, e.g. Wings, and practice regularly, especially if rusty
- Learn and practice good communications especially at non-towered fields

Factors contributing to an <u>un-stabilized</u> approach:

- Too much or too little speed
- Improper power management
- Flight path too high or too low on final (and not correcting promptly)
- Traffic pattern too small, turning on final too close to the runway
- Allowing distractions to interfere with safely flying the plane
- Not aligning with extended runway centerline on final
- Not correcting adequately for crosswind

Avoid:

- Overshooting final approach and then overcorrecting with excessive bank and rudder. This is a set-up to a stall/spin accident; and a stall when turning final is unfortunately too common, usually unrecoverable, and all too often fatal.
- Excessive speed on final. For any approach, but especially if high and fast on short final, it is safer to go around than to try to salvage a good landing from a bad (unstabilized) approach.
- When executing a go-around, avoid retracting the flaps too soon or all at once. The proper procedure for a go-around is: Apply full power, ensure the plane is flying at a safe speed, retract the first increment of flaps, e.g. from 40 degrees to 30 degrees, stop the descent with a small controlled increase in pitch attitude, continue to accelerate to Vx, Best Angle of Climb speed, retract the gear and continue to incrementally retract the flaps, and finally accelerate to Vy, Best Rate of Climb speed and climb straight ahead unless otherwise directed by the tower.
- Avoid too much “head down” when in the traffic pattern. Be especially vigilant at non-towered airports where aircraft may be operating without a radio.
- Do not allow distractions, including communications with the tower or internally with passengers, to interfere with your first priority: FLY the plane!
- Finally, avoid the common error just after touchdown of relaxing controls held on final approach for crosswind.

In summary, flying a stabilized approach is safer and gives you the best chance to make a good and safe round out (flare), touchdown and roll out. Good landings follow good approaches.

Paul

MEMBERS' PHOTO CORNER

Thank you to **Rob Turchick (YipDog Studios)** *for this month's photo!*

Where will you go next? Send your photos to newsletter@azpilots.org!

Red Star Pilot's Association over Deer Valley

Pair of Nanchang CJ-6's and a North American T-34

CLASSIFIEDS

Wanted: Cessna 177/182—First time Owner!

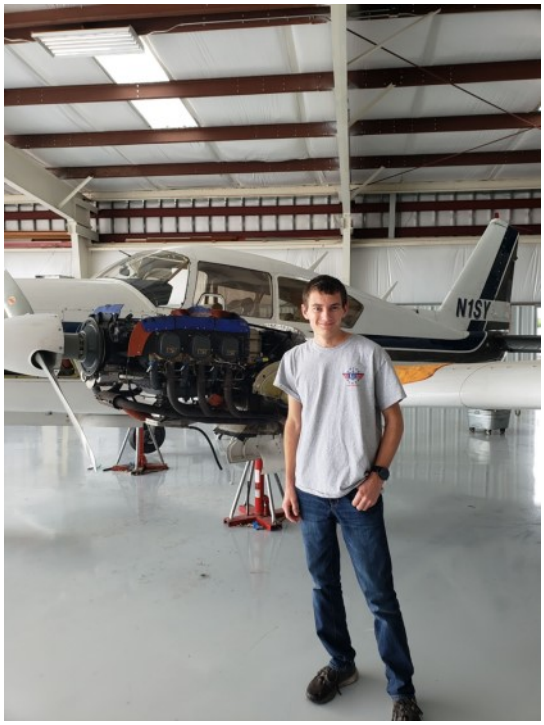
Price:$ 75 000.00

Email: Jason Lewis at jason@ecospace.com

~ Scholarship Corner ~

Scholarship Winner: Kobe Lomasney

by Andrew Vogeney



I hope you've enjoyed meeting our 2018 scholarship winners in the newsletter over the past few months, and hopefully in person at our recent membership meeting. It's an incredible (and difficult) joy for those on the scholarship committee to choose our lucky and deserving recipients each year, and I hope you feel proud to have contributed to our ability to help them – if even just through your reasonable membership dues. Today I get to introduce you to this year's final scholarship winner, Kobe Lomasney.

"Moving to Arizona has become a miracle to my life; it has introduced me to aviation and led me on an amazing journey of discovery.

My journey of aviation began with the astonishment of watching cropdusters buzz the cornfields of Nebraska. I knew I wanted to do something in aviation, but I wasn't sure exactly what. Moving to Arizona introduced me to EVIT, where I was able to explore aviation and discover my true passion in aviation. I am thrilled and eager to begin my career in aviation."

Congratulations, Kobe!

Now… it's hot out. You're not flying as much. Neither am I. In another part of this newsletter you'll get some suggestions on things to do so you can keep your head in the game – attend a safety seminar, plan your fall flying vacations, etc. And I would be remiss if I didn't suggest making a small donation (maybe an unflown tank of gas worth) to our scholarship program. Hopefully you agree these kids are worth our time and money, and with your help, maybe we'll have even more young aviators to introduce you to next year! You can [donate on our website 24/7.](#) Big or small, your generosity makes this program possible – and we thank you!

Andrew

A Few Words About Safety

Denny Granquist

“Flying with pilots is harder than flying without them.”

“Reading lots of accident reports make you a better pilot.”

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Email: da737retired@gmail.com

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

Words Have Meaning

By Howard Deevers

English is the official language of aviation, worldwide. We all learn that when we learn to fly. Of course, aviation has its own language as well. We had to learn new terms and phrases, and words that we use nowhere else. And, don't forget the abbreviations; a whole book full of shortened terms.

Let's start with VOR. We all learn about the VOR navigation very early in training, the Very High Frequency (VHF, another abbreviation) Omni-Directional Range transmitter that is used for aviation navigation. It would be way too complicated to call it by the formal name, so it is just shortened to VOR. We can make it even more complicated by calling it VOR/DME. What's that? DME is short for Distance Measuring Equipment. If you have a DME receiver in your plane, you can not only get a direction to, or from, a VOR, but even tell the distance to it; nice to know information.

The VOR came into use after the ADF. Remember the ADF? Automatic Direction Finder. The ADF came first and was considered a very revolutionary advance to air navigation. The ADF is an AM (not FM) receiver that gives you relative bearing *to* a radio transmitting beacon, or an AM radio station. The earliest devices had a "fixed" compass card with a needle that would point to the transmitter. It required the pilot to do some mental gymnastics to find the correct heading TO the transmitter. More modern ADF receivers have a rotatable card, so just rotate the card to your present heading, and the needle points to the heading you will need to fly to get to the station, no mental math needed. I'm sure that I got that answer wrong on my first Instrument Written exam.

These wonderful Navigation Aids (NAV/AIDS) came well before GPS. Global Positioning System, which is a satellite-based, rather than ground-based, system. GPS changed everything. GPS can be used for every type of navigation: hand held GPS receivers can be used while hiking, driving, or flying! Nearly all new cars seem to come equipped with GPS receivers built in, ships at sea can navigate with GPS to anywhere on earth, and, of course, our airplanes can have either a GPS built in or portable GPS system helping you find any airport, VOR, NDB, intersection, or "waypoint" in the US or other countries, if you have a database for

those countries.

GPS came about as a result of the “Cold War.” Russia had launched the first satellite to orbit the Earth in 1957. The US wasted no time in getting into the act. The early satellites were crude compared to what we have today, but the course had been charted for future GPS navigation.

That leads us to the next acronym ADS-B, or the Next Gen of air traffic control (or management). ADS-B is short for Automatic Dependent Surveillance – Broadcast. Like the VOR, this name needs to be shortened, too. VOR sounds easy, but ADS-B sounds cumbersome. It has one letter too many. Everything else we use has only 3 letters. Pilots are still struggling with how to use this term when talking to ATC (Air Traffic Control, another easy 3 letter acronym). I hear pilots responding to ATC when they get a traffic advisory with, “I’ve got him on my ADS-B.” That could be very confusing for the ATC person. Does that response mean that the pilot actually sees the traffic; does that pilot have ADS-B *in* only and not the *out* and sees that traffic on his iPad along with 5 other traffic displays; or is the pilot just not looking outside at all?

ADS-B was introduced at Oshkosh over 10 years ago, and the mandate for equipping is January 1, 2020. Neither the FAA nor pilots have come up with any shorter way to say ADS-B. Of course, ADS-B has two parts: IN and OUT. The IN part is easy, and not too expensive. You can purchase an ADS-B IN receiver for about $600 or build your own using a Raspberry Pi and plug in USB GPS receivers for about $250. These will display traffic and weather on your iPad and do not have to be permanently mounted in the plane. Be warned, however, that without ADS-B out, you may not be getting the full traffic picture!

The OUT part requires a permanent mounting in, or on, the plane. This must include a WAAS GPS source to supply position information to be transmitted on your Transponder. The FAA called this “the Next Gen” of Air Traffic Control; meaning, Next Generation. With the rapid advances in electronics, we just wonder what comes after this, Next Gen II? Or maybe something like that. I do think that we will use this “Next Gen” system for at least 10 years, but a lot can happen in 10 years, especially when you are talking about electronics. Our space travels may have a bigger effect on earth-bound traffic than we think. Only time will tell.

Don’t forget to check the ARIZONA PILOTS ASSOCIATION web site for another safety seminar near you. They are free, and be sure to “Bring Your Wingman.”

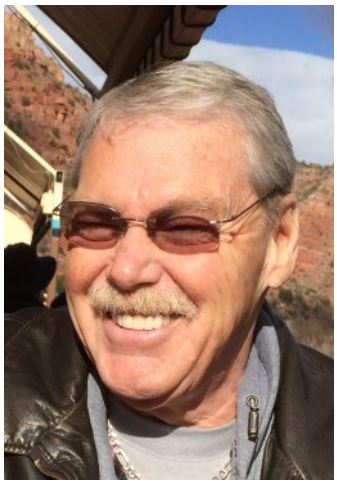
Howard

GAARMS REPORT

JULY 2019

By Fred Gibbs

(Your guy in Flagstaff)



Well, we are still doing great so far this year. As of July 1st, the general aviation fatal accident rate for the state of Arizona remains at only one, the crash of a Piper PA-22-160 south-southeast of Kingman.

Within the fatal accident guidelines of the GAARMS reporting process, our safety performance still stands at an outstanding rate of 100% safe, with NO Arizona-based general aviation pilot fatalities so far this year. In the Kingman crash cited above, the student pilot received serious injuries, but the owner/non-pilot rated passenger received fatal injuries.

GAARMS maintains the auspicious goal of trying to reduce the fatal accident rate to zero, or said a different way, to operate every flight safely, with a 100% success rate. That rate means NO fatal accidents with NO fatalities, including passengers. You have often heard me tout "The Four 9's Program", where we try to operate at a safety rate of 99.99% for any given year vis a vie the pilot population here in Arizona, currently at approximately 26,000 pilots. As of June 30th, we actually stand at a pilot safety rate of 100%. That is really outstanding, but the real challenge facing us is to stay at, or greater than, the 99.99 percentile for the rest of 2019!

During the month of June, 2 more GAARMS safety programs were held. So far this year, we have reached out and touched over 225 pilots in our effort to educate our pilot community! For July we have the following safety programs planned:

- ***Saturday morning, July 13th at the Lake Havasu airport terminal building, Lake Havasu city, AZ***
- ***Thursday July 25th Runway Safety Meeting is tentatively planned for the Flagstaff Airport***

Watch for announcements on FAASAFETY.GOV to register, or you can always just walk in and join in the fun. If your organization or airport community would like to sponsor a presentation, just contact me through the APA website.

Fred's Perspective…

Summer has (finally) come to the high country. The weather up here in Flagstaff has turned beautimous (*Is that really a word?*), and if not for the wind would be Mecca. But it is windy, and appears to want to stay that way, often with afternoon winds gusting in excess of 35 knots! Ride reports of turbulent conditions exist most of the day, creating challenging conditions, especially when trying to do initial private pilot training.

On a different subject, if and/or when you plan to fly up to Flag, please remember to use Phoenix approach for Flight Following. Flagstaff has become quite busy, with a significant increase in airline operations. It is not unusual to see 2 or 3 commuter jets parked at the terminal, and there are many more scheduled commuter jet arrivals and departures during the day and evening hours. They fly a much larger traffic pattern, geographically speaking, than the GA aircraft, so be alert to very wide and high downwind legs and especially to 5 or 6 mile final approach legs. Be very careful NOT to turn in front of them. They are much faster than us little guys, and that could cause some very exciting - and potentially dangerous - situations. If the tower says you are number 2 behind a commuter and asks you to report that traffic in sight, DO NOT turn inbound until you actually have that traffic in sight and determine when you can safely turn in behind them. Do not turn in until you tell the tower you actually have the traffic in sight and can safely follow that traffic. If you lose sight of the traffic, tell the tower immediately so they can provide separation. And when things are dicey, radio phraseology - and listening intently - is very important. Remember, if unsure, talk to the tower... communicate, communicate, communicate!

Some points to ponder: Did you know –

- ***Is the surface wind direction in a METAR is relative to true north?***
- ***Is the surface wind direction in a TAF is relative to true north?***
- ***Is the wind aloft direction is relative to true north?***

  YUP, that is all correct, so you need to add or subtract the magnetic variation to get the corrected magnetic direction. Why, you might ask? Well, it is simple, actually. All the weather reporting data is part of a world-wide database, and it all needs to be in one format, i.e., relative to true north. So at your specific location, you add or subtract your local magnetic variation to get a correct magnetic value. A quick rule to remember this is*: The written word is TRUE.*

- ***Is the surface wind direction in an ATIS relative to magnetic north?***
- ***Is the surface wind direction given by the tower relative to magnetic north?***

YUP, that is correct, and you DO NOT need to add or subtract the magnetic variation. Why the difference, you might ask? Well, again, there is a simple reason. A quick rule to remember this is: *The spoken word is MAGNETIC*. All runways are aligned relative to magnetic north. PS – Ever wonder why runways are not perfectly aligned magnetically, like Runway 21 here at Flag? It is actually closer to 214 degrees, but all runway numbers are aligned to the nearest 10 degree increment, thus 214 becomes 210, or just runway 21. So, why do runway numbers change? Again, simple. The earth is covered by tectonic plates that are constantly, albeit very slowly, moving, and the magnetic north pole moves with those plates. Using Flagstaff as an example, over time, the magnetic pole will move just enough to move the magnetic variation another 1 or 2 degrees, changing the actual runway heading to 216 degrees, thus requiring a new paint job to change the runway to 4-22. Fortunately, those tectonic plates move very slowly, so changes may not occur but once or twice in our lifetimes.

- ***When the ATIS says the weather is better than 5000 and 5, is that NOT the actual weather conditions?***

YUP, that is correct, and that is not what the AWOS is reporting. When you hear 5000 and 5, that is an ATC phraseology statement simply stating there is NO ceiling below 5000ft AGL within the control zone, i.e., the class Delta airspace, and the visibility is greater than the 5 mile radius of the control zone, i.e., the class Delta airspace, and, therefore the tower and/or Phoenix approach control can allow IFR traffic to conduct visual approaches to the airport. No ceiling below 5000 ft means the lowest layer of clouds constituting a ceiling are at least at 12,000 ft MSL, but it could well be 13,000ft overcast. However, once clouds appear, the tower usually drops the 5000 and 5 terminology and uses the AWOS data to more accurately report the current conditions within the control zone, i.e., the class Delta airspace. One must also remember the ATIS broadcast is recorded once every hour on the hour, actually between 55 and the top of the hour, so it can be as much as 45 – 50 minutes old. That is why the tower always gives you the current winds when cleared to land, and it is always in reference to magnetic north (*remember – the spoken word.)*

- ***Unlike Deer Valley or Prescott, is Flagstaff tower NOT authorized to use "Line up and Wait" ?***

YUP, that is correct, so do not expect to hear that up here at Flag. Maybe, if we get busy enough, it could be authorized, but not now. So, just sit at the hold line until actually cleared for takeoff.

- ***Unlike Prescott, is the Flagstaff tower NOT able to use "LAHSO"?***

Again, correct, so do not expect to hear that up here at Flag. LAHSO is designed for airports with a crossing runway, thus Flag (with only one runway) doesn't need such a procedure.

- ***Are Hazardous Inflight Weather Advisory Service (HIWAS) broadcasts being terminated?***

YES, that is correct, HIWAS is being eliminated. The FAA is proposing to discontinue HIWAS now that the internet and other technologies give pilots multiple sources of the same, or better information–with graphics. From the FAA's point of view, user behavior suggests that HIWAS, which was established to give pilots access to hazardous weather information without having to raise a Flight Service specialist on the radio, has outlived its usefulness. "With the advent of the internet and other technology, the demand for inflight services from Flight Service specialists has declined.

- **Factoid:** Staffing was 3,000+ specialists in more than 300 facilities during the early 1980s and now consists of three hub facilities.
- **Factoid:** In 2018, radio contacts dropped to less than 900 per day from an average of 10,000 radio contacts per day,"

The proposal to eliminate the service is part of the FAA's effort to "modernize and streamline service delivery."

- ***Is it true, the June 20 issue of the chart supplement included a new batch of air traffic control facility phone numbers that pilots can call to receive or cancel IFR clearances as the FAA ends the practice of flight service "relaying" clearances to pilots from ATC?***

YUP, big change for IFR clearance delivery. The phone numbers for 27 approach/departure control facilities and 20 air route traffic control centers, added to dozens published since 2017, put pilots in direct contact with the ATC facility that issues their clearances to both streamline and reduce the risk of error in the clearance delivery process. The FAA is not currently publishing a phone number if the airport has a frequency located on the field for pilots to contact either the tower, the approach control, air route traffic control, or flight service. Existing options to receive clearances by radio from ATC or flight service radio frequencies are not affected by the change.

AOPA reported on the program at its outset in May 2017, when clearance delivery phone numbers were published for 30 FAA facilities covering approximately 660 public-use airports. Phone

numbers for about 26 more FAA facilities were added in the fall of 2018. Leidos, the FAA's flight service contractor, can also provide pilots with the name and phone number of the facility to contact to obtain or cancel an IFR clearance. "Pilots may continue to request clearances via radio from air traffic control or Flight Service," the FAA said in a notice on the FAA Safety Team's website.

- **Factoid:** This initiative does not affect pilots operating in Alaska.

And finally, January 2020 is just around the corner. if you fly anywhere a transponder is required today, you will need "ADS-B" out by that date. The backlogs at the avionics shops are growing rapidly, so if you need to install "ADS-B" in your airplane, you better get to it.

Fred

Don't come to a safety program by yourself, but 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.

We never complain when a program runs out of chairs!!!

Mogollon Airpark Fly-in & Campout

Friday July 12, 2019

Arrival Friday June 12, 2019 (No arrivals after dark)

Pot Luck Dinner Friday @ 5:30 pm.

BBQ Steaks and Pot luck dinner will be provided for fly-in campers (2 persons per plane until steaks are gone.)

Mogollon Airpark will provide Pot Luck dishes to share…however feel free to bring your favorite dish to share.

All Mogollon Airpark events are BYOB.

Restrooms and showers will be made available in the Clubhouse. Contact Dennis Collins for more information @ Luscombepilot@hotmail.com

Saturday July 13, 2019 EAA Chapter 1044 Pancake Breakfast@ 7am

Pilot Briefing: Pilots review our Mogollon Airpark Operating Guideline – Aviation on Mogollonairpark.com

Celebrate the 50th anniversary Of Apollo11 launch…under the stars at Mogollon Airpark

Don't Forget to check your Density Altitude

Planes & Pancakes
in the Pines

sponsored by EAA Chapter 1044

$6 adults

$3 children
12 and under

Proceeds benefit aviation education for local youth

Mogollon Airpark (AZ82)

Sat. July 13th, 2019 7am - 11am

Camping space available for those flying in Friday night

Elevation	Unicom	Daytime VFR Operations
6,658 MSL	122.9	

EAA CHAPTER 1044

For more information, please visit eaachapter1044.org

THUNDER OVER FLAGSTAFF

Flagstaff Airport Event

Airport Open House & Car Display

Benefiting Youth and Aviation
EAA Chapter #856

August 24, 2019 8am – 3pm

AIRPLANE FLIGHTS FOR KIDS AGES 8-17

at no additional charge • 8am - 1:30pm

SUGGESTED DONATION

$5 Per Person • Family Max $20 • Children Under 8 Free!

MANY MILITARY & CIVILIAN AIRCRAFT ON DISPLAY

South of Flagstaff off I-17

FOR MORE INFORMATION:

dennyliz@cox.net

FlagThunder.org

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SUPERIOR RESTORATION SERVICES

AIRPARK NAME / CONTACT	CITY	Homes / sites	REALTOR
Big Springs Airpark Mgr: Peter Hartman (928) 626-7207	Prescott	12	
Castle Wells Mgr: Gerald DaFoe (810) 516-9122	Morristown	5/10	**Pat Mindrup** - Tinzie Realty 928-671-1597 pat@wickenburgpat.com
Eagle Roost Airpark Mgr: John Greissing (928) 685-3433	Aguila	85 / 115 (5 acre lots)	**Pat Mindrup** - Tinzie Realty 928-671-1597 pat@wickenburgpat.com
Flying Diamond Airpark Mgr: Lou Cook (520) 399-3879	Tucson	20/97	
Flying J Ranch Mgr: Howard Jenkins (928) 485-9201	Pima	2/ 28	
Hangar Haciendas Mgr: Scott Johnson (602) 320-2382	Laveen	39 lots w/sep taxi ways	
High Mesa Air Park Mgr: Phil DiBartola 928-428-6811	Safford	/19 (2.5 acre lots)	
Inde Motorsports Ranch Airport Mgr: John Mabry (520) 384-0796	Wilcox	4/9 (1 acre lots) on 100 acres w/race track	
Indian Hills Airpark Mgr: Gerry Breeyear (928) 916-0608	Salome	75	**Pat Mindrup** - Tinzie Realty 928-671-1597 pat@wickenburgpat.com
La Cholla Airpark Mgr: Larry Newman (520) 297-8096	Oro Valley	122	
Mogollon Airpark Mgr: Brian admin@mogollonairpark.com	Overgaard	60	
Montezuma Heights Airpark Dr. Dana Myatt (602) 888-1287	Camp Verde	43/44	
Moreton Airpark Mgr: Daniel Kropp (602) 315-0323	Wickenburg	2	**Pat Mindrup** - Tinzie Realty 928-671-1597 pat@wickenburgpat.com
Pegasus Airpark Mgr: Jack @ 1st Svc Res (480) 987-9348	Queen Creek	15/40	**Erik McCormick** - Choice One Properties 480 888 6380 Erik@Pilotexpeditions.com
Pilot's Rest Airpark Resident: Dave Mansker 818-237-0008	Paulden	4/25	
Ruby Star Airpark Mgr: Wendy Magras (520) 477-1534	Green Valley	13 / 74	
Valley of the Eagle (Sampley's) Airpark Mgr: Jerry Witsken (928) 685-4859	Aguila	30	**Pat Mindrup** - Tinzie Realty 928-671-1597 pat@wickenburgpat.com
Skyranch at Carefree Mgr: Tommy Thomason (480) 488-3571	Carefree	20	**Erik McCormick** - Choice One Properties 480 888 6380 Erik@Pilotexpeditions.com
Stellar Air Park Mgr: SRUA, Inc. (480) 295-2683	Chandler	95/105	**Erik McCormick** - Choice One Properties 480 888 6380 Erik@Pilotexpeditions.com
Sun Valley Airpark Mgr: Jim Lambert (928) 768-5096	Fort Mohave	55/107	
Thunder Ridge Airpark John Anderson janderson72j@gmail.com	Morristown	9/14 (on 160 acres)	**Pat Mindrup** - Tinzie Realty 928-671-1597 pat@wickenburgpat.com
Triangle Airpark Mgr: Walt Stout (702) 202-9851	White Hills	115 acres	
Twin Hawks Mgr: Tim Blowers (520) 349-7677	Marana	2/40 (4 acre lots) on 155 acres	
Western Sky Mgr: Mr. Hauer (877) 285-0662	Salome	all 200 acres for sale	
Whetstone Airpark Mgr: Brian Ulmer (520) 456-0483	Whetstone	5 / 12	

APA Website

Stefanie Spencer— Webmaster

Please visit our website for the latest information. 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 volunteer run organization. It survives on membership dues and sponsor revenue. Stefanie Spencer manages the website on a continuous basis.
Email Stefanie at:

Webmaster@AZPilots.org

Newsletter Contributors

Article Deadline

20th	Editor reminds the Team to submit articles
25th	Authors submit articles and advertisements

Contact the newsletter editor, Cathy Paradee:

newsletter@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!

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

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