New York Wing

Standards/Evaluation
Air Operations
Safety Newsletter

Civil Air Patrol
United States Air Force Auxiliary

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Sorry for the delay since our last newsletter, but I have had some “life” changes that interfered with getting this out a little more timely. Lost job, surgery, loss of a good friend, found new job etc...anyway here we are again. Hope you find the articles worthwhile and if you have anything you would like to see appear in this newsletter please send me an email, with attachments. I would be more than happy to oblige.

Since this newsletter mainly deals with flying CAP aircraft, pilot proficiency and safety we will look at some risk factors in our daily flying missions in this issue. ***We have some great contributions by our members this issue, and I want to thank them all for the information they shared.***

One area I have found deficient with pilots of smaller aircraft is systems knowledge. Not just here, but across the board such as flight schools, college aviation departments etc...This is an area that being weak in can be another risk factor in flight. Not counting the fact that poor knowledge of piston engine operation leads to damaged engines, fouled plugs and rough starts. We will look at some of these items in upcoming issues, lets now look at:

Risk-based Decision-making

One of FAA Administrator Huerta’s strategic initiatives is “risk-based decision-making.” The idea is to build on safety management principles to proactively address emerging safety risk by using consistent, data-informed approaches to make smarter, system-level, risk-based decisions. The official description is a mouthful, but the idea is actually very simple: gather all available information, and use it to make decisions that mitigate or manage risk and ensure safe outcomes. Gather all necessary information and use critical thinking to analyze and apply it to ensure consistently positive results.

“FAA Safety Briefing/ September/October 2015 issue”

"Semper Vigilans"

Maj. John Kolmos

NY-001 DOV-A

TOP 5 WAYS YOU CAN AVOID MID-AIR COLLISIONS

(Shared by Maj. Brian Benedict N.Y. Wing DOV)

1. Use an iPad with ADS-B or traffic systems so you know where to look outside.

1.1. Never look down at an iPad or display for more than 2 seconds.

2. Clean your windshield before every flight with water and microfiber

2.1.Window cleaners and paper towels cause scratches and make it harder to find traffic

3. Use flight following on every flight.

3.1. Unless you can see behind you 10 miles in the haze this is it!

4. Always enter non-towered airports the right way

4.1. Cross mid field 1000' above traffic pattern to look for airplanes in the pattern and then enter on a 45 degree angle to downwind. Remember other people flying at that airport may not even have a radio!

5. Fly with all lights on 24 hours a day below 10,000 feet.

5.1.The chances of you getting hit in a mid-air collision are reduced by up to 400% when you fly with all lights on during the day

Please Copy and Share This Handout with Every Pilot You Know!!

Want more free aviation safety resources?

Latest Nall Report Out

AOPA's Air Safety Institute has released its 24th annual Joseph T. Nall Report, including the first review of helicopter accident causes. Overall, accident rates for non-commercial fixed-wing aircraft climbed from 6.30 per 100,000 hours in 2010 to 6.54 in 2012 due to flight time decreasing while accident counts remained level in that period. The fatal accident rate for this category also climbed, from 1.17 to 1.22, which nearly matched the 10-year average of 1.24, the report said. FAA data for 2011 accidents rates were unavailable, so the rates show data from 2010 and 2012. On the commercial side, accident rates fell for both aircraft categories. Fixed-wing aircraft dropped from 2.97 to 2.62 per 100,000 hours while helicopter rates dropped from 2.22 to 1.93. This is not great news for non-commercial fixed-wing aircraft, lets see what Bob Meder (National Association of Flight Instructors Board Chairman) has to say especially in respect to CFI instruction in relation to the Nall Report…

Room for CFI Improvement

The AOPA Air Safety Institute just released the 2013-2014 Joseph T. Nall Report. As you know, the Nall Report takes a statistical look at aviation accidents from the study years in an attempt to categorize them and provide a basis for root-cause analysis.

The report is used throughout the aviation community, from FAASTeams to insurance companies to educators, as a source document to illustrate accident trends.

I've only taken a cursory look at the data so far, but a couple of things jump out. First, the good news is that there were fewer than 200 fixed-wing general aviation fatal accidents in the period 2013-2014. Overall, ASI reports that, for the first time since it has been tracking the data, the fatal accident rate fell below 1.00 per 100,000 hours flown. Unfortunately, due to a decrease in helicopter hours flown and a spike in fatal accidents in 2013, the numbers in that community aren't as good, but the data for 2014 indicates an improvement, and overall the accident rate for rotorcraft is still better than in the previous decade.

So much for my summary of ASI's summary. However, what jumped out at me was this: in the two year period 2013-2014, there were 328 accidents in general aviation aircraft during instructional flights, while there were 530 accidents with a CFI aboard. To be clear, the 530 accidents with a CFI aboard include single-pilot flying - that is a CFI had an accident while doing something other than teaching. If I'm reading the data correctly, 35 instructional accidents had fatalities, while the CFI population as a whole were involved in 92.

I have sympathy for those at ASI who pull this data together, because it's difficult to avoid co-mingling the information. I would love to have break-outs for the type of flying that the CFIs were doing when it wasn't instructional in nature. But the fact remains that we flight instructors were involved in some way not only in accidents while teaching, but in an additional 202 events.

I know that getting to zero accidents, a laudable goal, is very unlikely. And it's all too easy to say that with all of that flying, instructors were "only" involved in 530 accidents. But 28 percent of those involved fatalities vs. 11 percent for instructional flying, so that tells me that not only are we as a group engaging in higher-risk flying, the risks we're taking have greater consequences.

Don't get me wrong - I'm glad the accident rate is trending in the right direction. However, we, the flight instructor community, should be the ones setting the example and should be ahead of the curve. We, as much as the airline community, where some of us aspire to be someday, need to walk the talk. That's how we will improve the community as a whole.

Bob Meder, NAFI Board Chair

Estimating Crosswind on Landing

By Tom Turner

"History shows most loss of directional control during landing crashes occur with less than 10 knots' crosswind component. Loss of control isn't an airplane problem, it's a pilot problem.

The problem is twofold: One, pilots don't go out of their way to practice and remain current in crosswinds. And two, while pilots may compute the crosswind component for takeoff and decide whether or not to fly, we almost never compute the crosswind component for landing after hearing ATIS, AWOS or other current wind reports. We use the reported wind to decide which runway to use at a non-towered airport, but it's extremely rare when a pilot decides not to attempt the landing at all, and diverts to another airport.

Using the recommended aileron and elevator control inputs for taxiing that you learned for your first checkride, even in the lightest winds, will reinforce your reactions when you need them in a crosswind. Actually going out of your way to practice crosswind landings, using care not to exceed your current abilities, will help keep your crosswind landing skills sharp.

When you get the local winds and choose, or are assigned a landing runway, take a moment to estimate the crosswind component using this rule of thumb: A wind from 10 to 45 degrees from runway heading results in a crosswind component of about one-third of the reported wind speed. If the wind is 45 to 60 degrees off runway heading, figure the crosswind component to be two-thirds the wind speed. And if the angle between the runway and the surface wind is greater than 60 degrees, assume the crosswind component equals the reported wind speed.

Listening to AWOS or otherwise learning the winds at your planned destination drives two decisions: which runway to use, and whether to try landing at that airport at all.

Compute and record the crosswind component for every landing you make, with a subjective judgment of your level of comfort making that landing. Then, do not exceed the strongest crosswind component you have comfortably flown in the past month, reducing the crosswind component by one knot for each week after that. If your personal crosswind component gets down to five knots, or less than the typical crosswinds you encounter, it's time get some dual instruction on crosswind landings."

Master CFI **Tom Turner** holds an ATP certificate with instructor, CFII and MEI ratings with a Masters Degree in Aviation Safety. He was the 2010 National FAA Safety Team Representative of the Year and the 2008 FAA Central Region CFI of the Year and has logged over 2,500 hours instructing.

Tom was a Captain in the United States Air Force and has been Lead Instructor for the Bonanza pilot training program at the Beechcraft factory; production test pilot for engine modifications; aviation insurance underwriter; corporate pilot and safety expert. In addition, Tom was a contract course developer for Embry-Riddle Aeronautical University. He now directs the education and safety arm of a 9000-member pilots' organization.Master CFI **Tom Turner** holds an ATP certificate with instructor, CFII and MEI ratings with a Masters Degree in Aviation Safety. He was the 2010 National FAA Safety Team Representative of the Year and the 2008 FAA Central Region CFI of the Year and has logged over 2,500 hours instructing.

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Some great suggestions given by Capt. Frank Agtarap, Long Island Group IP and Boeing 777 Captain (edited):

I believe that we should set up a standard procedures when flying technically advance aircraft. G1000 and G500 in C206. My suggestions are to use com 1 for communication with ATC and com 2 is set for ATIS, FSS or 121.5. This prevents the likelihood of transmitting on the wrong freq.

We should always set open the flight plan page on the PFD or MFD. This procedure helps the pilot ready for a direct to clearance from ATC.

During autopilot operations, we should call out verbally changes on the engaged mode. This procedure help keeps the pilot engaged mentally to the autopilot.

The weight and balance should always be printed with the takeoff and landing distance hand written on the side. This is what's required on a F5 so why not compute it whenever we fly.

We should also call out the runway number and check heading when lined up. This prevents us from departing from wrong runway or taxiway.

These procedures are similar to what we do in the airline flying heavy transport. It has worked for us and maybe it'll work at cap too.

I'm sure it would Capt. Agtarap! Thank you for words of wisdom from an experienced Commercial Captain from the heavy metal side of flying. SOP's that the airlines use are one of the reasons the accident level between 121 and 91 are worlds apart. Thanks also for your contribution as a valued IP on Long Island.

More words of wisdom from our NY DOV Maj. Brian Benedict:

Hypoxia is an insidious threat! Two tragic accidents that occurred within a week of each other, involved pilot incapacitation at high altitudes. While it's impossible to say for certain that hypoxia was the primary cause, the flight profiles and reports from the military pilots who intercepted the aircraft point toward this as a possibility. As a quick reminder, here are some of the typical symptoms of hypoxia:

- Cyanosis (blue fingernails and lips)
- Headache
- Hot flashes or a feeling of warmth
- Decreased cognitive abilities
- Impaired judgment
- Euphoria
- Visual impairment, reduced visual acuity
- Tunnel vision
- Drowsiness
- Lightheadedness or dizzy sensation
- Tingling in fingers and toes
- Numbness - AOPA Air Safety Institute Safety Alert

If hypoxia is suspected in yourself or others on board an aircraft:

- Administer supplemental oxygen (if available). If safe, descend to an altitude (below 10K feet) where supplemental oxygen is no longer required.

-FAA

Thank you Maj. Benedict for reminding us to be aware of aeromedical factors in flight.

Contribution by Lt Col Ed Kopp:

I recently attended a DPE recurrent training class run by representatives of FAA, Oklahoma City. Much of the material was a repeat of things covered 2 years ago, but there was some new material and clarifications of topics that have been previously discussed. Here is some information that might be helpful in your flight instruction and test preparation work.

EFB (Electronic Flight Bag)use. This is a relatively new topic which resulted in some lengthy discussions. I've always been unsure of how to handle applicants who use electronic charts, but here are some insights from the FAA.

Anyone using an electronic device in an aircraft operating under FAR 91 rules must assure compliance with FAR 91.21. http://www.ecfr.gov/cgi-bin/text-idx?SID=74c902ba9e9013cb85e3f41a9cbaca03&node=se14.2.91_121&rgn=div8

This is further explained in AC 91-21. http://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_91.21-1B.pdf

Basically, the pilot must assure any electronic device, used in the aircraft, does not cause interference with other aircraft equipment. (Just using the device and noting no change in other aircraft systems is sufficient.)

The latest FAA policy is to promote use of electronic devices in the cockpit. In addition, an applicant should not be penalized if one of these devices fails. Consider the following scenarios.

Scenario #1. Applicant completes navigation planning using the tools available with Foreflight or Wing X. The applicant selects waypoints and enters aircraft performance data, letting the software compute headings, groundspeeds, fuel burn and wind corrections.) This is acceptable, however they must be able to show that the resulting navigation data is correct. Thus, they must be able to show the "old school" methods as a means of verifying the computer results.

Scenario #2. Applicant is using electronic charts for the cross country portion of their flight test. (The present position function must be "OFF" for the applicant to demonstrate their ability to navigate with Pilotage and Dead Reckoning.) The FAA considers it inappropriate to simulate a failure of the EFB during the navigation portion of the flight test. Failure of the electronic charts will not be the basis for a test failure. However, if there should be a "real failure" and the applicant is not prepared with backup chart data, they may not be able to complete the navigation portion of the test resulting in a letter of discontinuance.

Scenario #3. Applicant is using electronic charts for an Instrument rating test. Use of present position information is allowed for situational awareness, but not as a primary means of navigation.

Checklists must be used. These can be done as a "do" list or as a "check" list. As a "do" list each item is read and then accomplished. As a "checklist", each item is done from a flow or other memorized method then followed up using the written checklist to verify that each item is completed.

ACS (Airman Certification Standards) The FAA is moving from using Practical test Standards to Airmen Certification Standards. Other than a change of title, this will change some of the means for evaluating an applicant. There will be more emphasis on the use of scenarios and demonstrations of risk management. When the ACS are initially introduced, applicants will be allowed the option of being tested using either the PTS or ACS. After the transition period, all applicants will be tested using the ACS. (No dates for this changeover were available.) More information is available at this link: https://www.faa.gov/training_testing/testing/media/acs_briefing.pdf

(continued on next page)

Checklist use. The use of checklists is an area requiring emphasis by instructors and examiners. Many times applicants will use printed checklists for preflight, start, taxi and takeoff. Then, once they are in the air, printed checklists are not used for landing, go-around and various emergencies. The basics follow:

Checklists must be used. These can be done as a "do" list or as a "check" list. As a "do" list each item is read and then accomplished. As a "checklist", each item is done from a flow or other memorized method then followed up using the written checklist to verify that each item is completed.

The PTS states: "Applicant's Use of Checklists.

Throughout the practical test, the applicant is evaluated on the use of an approved manufacturer's checklist or equivalent. If no manufacturer's checklist is published, the appropriate FAA handbook or equivalent checklist may be used. Proper use is dependent on the specific Task being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an objective, would be either unsafe or impractical, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist."

Preflight briefing. Preflight passenger briefings are sometimes overlooked by test applicants. It is important that they be in the habit of briefing passengers before each flight. Perhaps this could be practiced by your students during the test Prep. Phase of their training to get them in the practice of doing it. The PTS states:

"Each applicant should provide a preflight briefing to passengers (examiner). This should include:

Task B: Cockpit Management (ASEL and ASES)

4. Briefs occupants on the use of safety belts, shoulder harnesses, doors, and emergency procedures."

Single pilot resource management. Decision making and single pilot operation is a critical area for all pilots. These concepts should be integrated into each student's training as early as possible. The law of primacy applies. If they become thinking decision makers early in their training, it will be second nature for them by the time they are preparing for their Practical tests. The PTS says the following:

"Single-Pilot Resource Management (SRM) The examiner shall evaluate the applicant's ability throughout the practical test to use good aeronautical decision-making procedures in order to evaluate risks. The examiner shall accomplish this requirement by developing a scenario that incorporates as many Tasks as possible to evaluate the applicant's risk management in making safe aeronautical decisions. For example, the examiner may develop a scenario that incorporates weather decisions and performance planning. The applicant's ability to utilize all the assets available in making a risk analysis to determine the safest course of action is essential for satisfactory performance. The scenario should be realistic and within the capabilities of the aircraft used for the practical test. Single-Pilot Resource Management (SRM) is defined as the art and science of managing all the resources (both onboard the aircraft and from outside sources) available to a single-pilot (prior and during flight) to ensure that the successful outcome of the flight is never in doubt. SRM available resources can include human resources, hardware, and information. Human resources "...includes all other groups routinely working with the pilot who are involved in decisions that are required to operate a flight safely. These groups include, but are not limited to: dispatchers, weather briefers, maintenance personnel, and air traffic controllers." SRM is a set of skill competencies that must be evident in all Tasks in this practical test standard as applied to single-pilot operation."

(continued on next page)

Inoperative equipment. What to do when inoperative equipment is found on an aircraft was discussed. Many applicants have no idea what is required and those that do are often not clear on how to apply FAR 91.213.

For class discussion, this scenario was covered: The applicant finds an inoperative landing light during their preflight inspection. Does the applicant understand the requirements of FAR 91.213 and how to apply it to this situation? Some applicants might decide they don't need the landing light and proceed to fly the airplane. Wrong answer!!

The correct answer is found in FAR 91.213.

First, the PIC must determine if the inoperative item is required (per several FAR 91 references).

Next, If the inoperative item is not required, then the inoperative item must be either:

"Removed from the aircraft, the cockpit control placarded, and the maintenance recorded in accordance with §43.9 of this chapter; or

Deactivated and placarded "Inoperative." If deactivation of the inoperative instrument or equipment involves maintenance, it must be accomplished and recorded in accordance with part 43 of this chapter."

Either of these actions requires the involvement of a properly certified mechanic to accomplish the removal/deactivation and logbook documentation. Neither of these are allowed as pilot maintenance actions. (I know, it doesn't seem to make sense, but that's the FAA interpretation.)

The only way a pilot can operate the aircraft, without the availability of a certified mechanic, is to replace the landing light as an allowed pilot preventive maintenance action. Take a look at FAR 43.

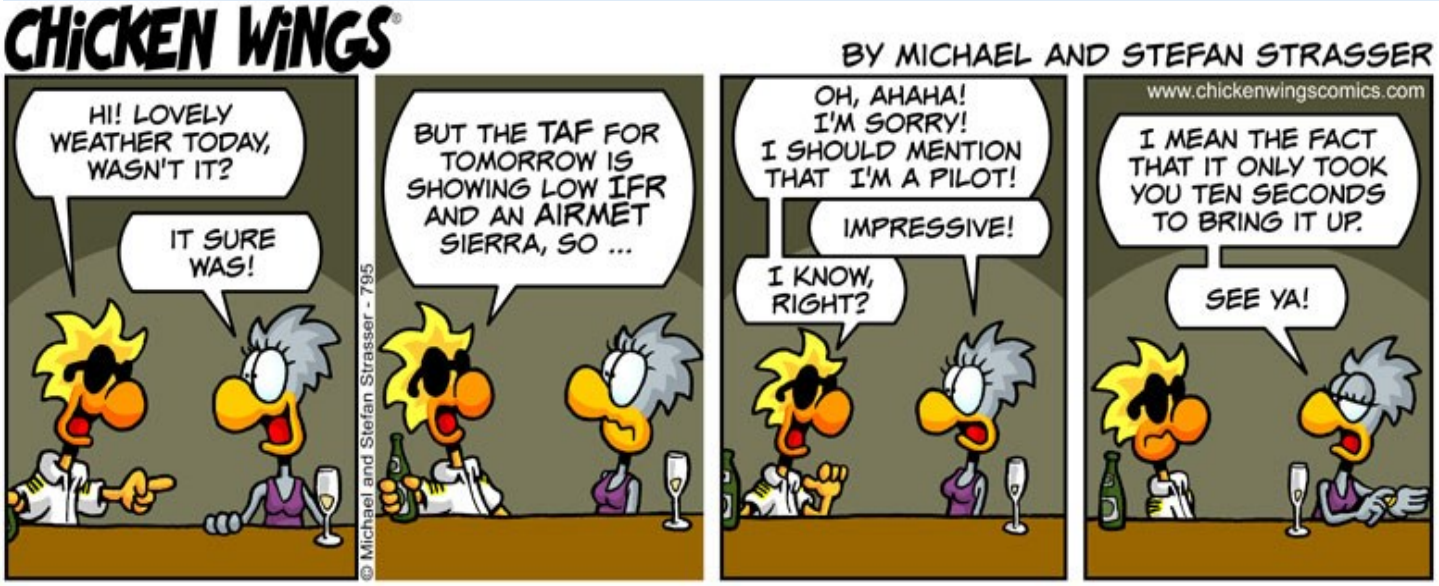
http://www.ecfr.gov/cgi-bin/text-idx?SID=74c902ba9e9013cb85e3f41a9cbaca03&node=se14.1.43_17&rgn=div8

AC 43-12A provides further guidance on Pilot maintenance.

http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAdvisoryCircular.nsf/0/bd6affbba627956c862572c700554d59/$FILE/AC%2043-12A_CHG1.pdf

As usual, the FAA seems to make things more complicated than necessary, but applicants need to realize they cannot just fly the airplane with inoperative equipment.

Thank you Lt Col Kopp for this valuable and useful information for us all. This is an excellent article and took time



N.Y. Wing Flying Events

Capt. Roger Tecks, Lt Col. Diane Wojtowicz and Maj. Brian Benedict took aircraft to WNY group earlier this month...they went onto Akron on a Friday, stayed until Sunday...Using three a/c, two C172 & one C182T.....did 6 F5s and 8 preparatory flights for those wishing to get up to speed for a F5. It went very well, and was a successful mission!

On August 30th. L.I.Group put on a great BBQ and had "O" flights out of Brookhaven Aerodrome. It is a grass strip. Flights were done by Capt. Nate Hilliard in the C206 and Lt Col. Danny Rogers in the C182. They had completed more than10 sorties with the cadets Maj. Aceves was running a tight ship overseeing the flight operations, but very fluid and smooth and everyone enjoyed the experience. This is a grass field under Class “C” airspace with a small cut out and lower than usual pattern altitude (600’). He had the pilots do practice runs into and out of the airport before doing the "O" rides so everyone was on the same page procedurally. The logistics of getting in and out are different than normal also. Great job!

Pilot Insights – Who’s Flying?

Notice Number: NOTC6069 (shared by Maj. Brian Benedict)

Tell me if this situation sounds familiar: You are flying with a friend in her aircraft. All is well until you set up for landing and hear ATIS is calling for some strong gusty crosswinds. Although you have more total flight time than your friend, she has a lot more experience in this particular plane. Not dissuaded by the rough winds, your friend executes a safe, albeit scary landing. After exiting the runway, you each say, “I never would have done that if I was by myself, but I figured you knew what you were doing.”
Or maybe you can identify with this situation: During a flight with your buddy in the left seat, you notice that he seems engrossed in his iPad. You then realize that the plane has wandered off course and altitude a bit, so you nudge it back to wings-level. Your partner notices your action, but does not say anything. After a while, you again notice the aircraft veer off course, and you correct it a second time. A few minutes later, Center asks if you are on your requested heading and altitude, since you seem to be straying from your intended flight path and are no longer at your hemispheric altitude. After a bit of embarrassed radio conversation, the airplane is back on desired heading and altitude. The two of you then look at each other and simultaneously say, “I thought you were flying!”
These two situations highlight the importance of determining who’s really in charge during a flight. Let’s start by reviewing some common misconceptions about pilot in command (PIC) time. Title 14 Code of Federal Regulations (14 CFR) section 1.1defines Pilot in Command, while section 61.51 describes who can log PIC time. According to 14 CFR section 1.1:

Pilot in command means the person who:
(1) Has final authority and responsibility for the operation and safety of the flight;
(2) Has been designated as pilot in command before or during the flight; and
(3) Holds the appropriate category, class, and type rating, if appropriate, for the conduct of the flight.
Note that nothing in this definition relates to actually manipulating the controls.
14 CFR section 61.51, on the other hand, deals with logging PIC time, and it states in part, that a person can log PIC time:
(e) (i) When the pilot is the sole manipulator of the controls of an aircraft for which the pilot is rated, or has sport pilot privileges for that category and class of aircraft, if the aircraft class rating is appropriate…
So, there is a bit of conflict between who logs PIC time, and who acts as PIC. For the purpose of this discussion, I want to concentrate on “who’s in charge here?”

In both of these situations, we need to address who has “the final authority” and who has been “designated as PIC." I often think that when two pilots fly together, the topic does not come up because one or both pilots may feel embarrassed or intimidated to mention it. After all, the PIC is the person responsible to the FAA and the insurance company if something goes wrong. And secondly, when declaring who is PIC, you are agreeing that in an emergency, that person will be telling the other what to do. Hmm. That could be touchy.

Here is how I handle that. Whether I am flying with a friend I know well, or with someone I just met, we agree — on the ground — who will be in command. In our pre-flight briefing, we agree on our destination and what we plan to do while enroute. And of course we agree on who is PIC.
Then there is the question of who is actually in charge of manipulating the controls: PIC, or the non-PIC. Obviously, the person who is actually flying needs to be qualified to do so, but again, both of you need to agree on this. A conversation such as this can provide a simple solution:
“Would you take the plane for a minute?”
“Sure. I’ve got it.”
“Right. You have the plane.”
Then, when you are ready to take the plane back:
“OK, I’ve got the plane again.”
“Roger, you have the plane”
“I have it.”

A little communication goes a long way in preventing that,
“Oh, I thought you were flying” situation.

Christopher Hope, Master CFI
2015 FAASTeam Representative of the Year
To contact the author, go to: http://www.chrishopefaaflightinstructor.com/
For more information on the GA Awards program go to:
http://www.generalaviationawards.org

END NOTES

This will be an open "billboard". If you have anything going on related to aviation, our aircraft operations, pilots, air crews, seminars etc...please email me details at:

Dov.a.nywing@gmail.com

Email me anything you may like to include in newsletter related to aviation, CAP aircraft, events etc…

A LITTLE NOSTALGIA FROM THE GOOD OL 'E DAYS……..

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