

The Congressional Record

Newsletter of the Congressional Flying Club and Montgomery Senior Squadron, CAP

Vol. 27, No. 5

Gaithersburg, MD (KGAI)

May 2009

In this issue

President's message	1
Aircraft rates	1
Chaplain's corner	1
Crew chiefs	2
Work hours	2
Work hours monitor.....	2
The job's not finished until.....	2
Membership renewals	3
New CAP requirements	4
Goodness gracious, great balls of fire!.....	4
Fly-ins.....	5
From the FAASTeam.....	6
Run-up: Listen closely!.....	7
Your flying account	7
Address for checks.....	7
Funny stuff.....	7

President's message

The trailer is finally up and working. There is still much to be done, but it is functional at this point. Dick and I continue to work on the internet connection; meanwhile, we have installed a large screen desktop computer at the front end of the trailer. The purpose here is to provide everyone with a way to get some weather (once the internet connection is working and stable) and file both SFRA and regular flight plans.

The annual inspection on 739BA is progressing (slowly), but so far we have not found anything major. The instrument panel will get replaced as well as the center pedestal. While these are aesthetic, they are a necessary item — I know that each of us likes to take a friend for a ride and we all want the planes to look sharp.

A reminder that EVERYONE has to fill out a club application form. We do this every year so that **Dan Golas** can create a matrix of our membership for the insurance company, which in turn gets us our rating and renewal cost. Please get these done in the next couple of weeks so that Dan can prepare the paperwork. You can send a copy to Dan electronically or print out a copy, bring it to the trailer, and leave it for Dan (in his mailbox).

Elsewhere in the newsletter you will find an article by **Dick Stroock** regarding the clarity of the charge tickets used to account for aircraft usage. Please take a moment to follow these guidelines — I'm sure if you had to do the accounting you would be screaming bloody murder

about the penmanship and lack of detailed information.

❖ **BOB HAWKINS**

Aircraft rates

Following are our aircraft hourly rates as of 1 May 2009.

Aircraft	Rate
N15624	\$125
N20300	\$105
N25883	\$69
N5135R	\$88
N739BA	\$88

Unless otherwise noted, rates are per tach hour, wet.

❖ **BOB HAWKINS**

Chaplain's corner

"MY BROTHER AND MY SISTER'S KEEPER"

Undoubtedly, the most commonly remembered of all Biblical scripture is recorded in the Gospel at John 3:16: "For God loved the world so much that he gave his only Son, so that everyone who believes in him may not die but have eternal life." This is quite a profound verse and yet quite a simple statement. It refers to the nature of sacrifice and calls us to ponder the same. The concept of sacrifice is well informed in ancient Hebraic sacred scripture. So many animals and birds were sacrificed for so many and various reasons. The concept is found in many forms in every culture. It has manifested itself gruesomely at some points in the development of some civilizations, especially when human sacrifice is practiced. Perhaps the most noble concept of sacrifice is the one where one genuinely gives of oneself for the good of another. We have seen many among us serving above and beyond the call of duty. We give from our knowledge, skill, competence, and caring so that all together in the Club and Squadron may experience acceptable and welcome outcomes to the tasks that have come heavily upon on several fronts in these days.

Our fellowship together is not just sociological; it is also faith-based. We believe in all that God reveals to us in all of sacred scripture. We believe in one another. We are told that we are created in the image of God. We understand

The Congressional Record

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Vol. 27, No. 5

Gaithersburg, MD (KGAI)

May 2009

that God has given of Himself that others might live. We, too, give of ourselves that we might live well together. We are privileged to fellowship where we can practice the greatest of all endeavors. We can give of ourselves that each of us might live and enjoy our life in Club and Squadron! Thanks be to God for the opportunity to be persons who constantly live a lifestyle that embodies the concept of sacrifice. May each and all see the life and love of God expressed by us always in our service and sacrifice for the good of one another! Thus may we become indeed both our brothers and our sisters' keeper! Amen.

❖ **CHAPLAIN (LTC) EDCO BAILEY, D. MIN.**

Crew chiefs

A/C	Chief (Assistant chief)
N15624	Dan Hayes (Dan Larson)
N20300	John Peake (Dan Boyle)
N5135R	Vic McGonegal
N739BA	Dick Strock
N25883	Ruth Hornseth (Bruce Drury)
N6429T	Gashaw Mengistu

Work hours

Amy McMaster (AJMcMaster@venable.com) is our Work Assignment Officer; contact Amy to find out what jobs are available.

Mike Regen takes care of recording the hours that you work. You can e-mail your work hours to me (capflyer071@yahoo.com). When sending them to me, please put in the subject line: *Work Hours, your name, # hrs worked*. This will help me organize the e-mails for future reference if there are any discrepancies.

❖ **MICHAEL REGEN**

Work hours monitor

May is the twelfth month of the "work hours year," so by 31 May you should have 20 hours of credit.

Here are the work hours "waypoints" listed by quarter. If you have the indicated number of hours at the end of a quarter, you're on course.

Qtr 1	31 August	5.0
Qtr 2	30 November	10.0
Qtr 3	28 February*	15.0

Qtr 4	31 May	20.0
*29 February in a leap year		

Mike Regen, Keeper of the Hours, has the following reminder:

Please remember that you need to have half of your work hours (10) done by the end of November. This should be an easy month to build them up between moving out of the trailer and into the new one, the annual on 883, and a new engine install on 9BA.

If you're in doubt about your work hours, contact **Mike**; if you're looking for jobs to do, contact **Amy McMaster**.

The job's not finished until...

I'm sure all of you have heard the saying, "The job's not finished until the paperwork is done."

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Meetings: Every Tuesday at 2000 at the CAP Trailer, Montgomery County Airport (KGAI), Gaithersburg, MD

Physical address: Box 4, 7940-I Airpark Dr., Gaithersburg, MD 20879

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The Congressional Record

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Well, a similar refrain can be said about a flight — “The flight’s not completed until the logs are complete.”

The Club has recently had a rash of flight logs that have not been properly completed. This results in the Club accountants having to track down pilots to obtain the necessary information in order to complete the account postings. This is quite inconsiderate and, in my opinion, displays a lack of respect for the job that our volunteer accountants dutifully perform.

Included among the sins committed by our fellow pilots and club members are:

- incomplete fuel entries
- missing fuel entries
- missing dates
- missing aircraft designator
- illegible entries
- missing pilot name
- incorrect math

Probably the most frequent problem is incomplete fuel entries. If the entry isn’t complete, correct, and legible, your flying account may not be properly credited. If this results in a surcharge for an account balance that is below minimums, well, that’s tough.

The most important items here are the quantity and total cost – the accountants can figure out the cost-per-gallon. These fuel entries are also important because they are used to compute fuel consumption, and fuel consumption impacts aircraft rates, and ... Okay, by now you should get the picture.

The rest of the sins are somewhat less bothersome. The accountants can usually determine who flew the plane from the scheduling system (illegible entries, missing dates, missing pilot name), and incorrect math is pretty easy. Missing aircraft designators can be determined from tach readings.

But why place this burden on our volunteer accountants! Suggestion: take as much care in completing the flight logs as you do with your logbook.

When you’ve properly secured the aircraft, *and completed the flight log*, then the job is finished.

❖ **DICK STROCK**

Membership renewals

As you know, the CFC membership year ends at the end of this month and it's time to fill out a new membership renewal form. This applies to everyone — members, members on special status, and designated CFIs, even if you just joined within the last month or two.

Only the 2008 edition of the forms will be accepted. These are available in the "Files" section of the AircraftClubs.com web site in two versions. "CFC application blank - 2008.doc" can be filled in on your PC before you print it out and sign it.

"CFCapp2008.pdf" can be printed out and then filled in by hand before you sign it. There are also some copies available in the trailer you can pick up and fill out.

Since I would like to receive the forms with your original signature you can either leave them in the Air Operations mail box in the trailer, or mail them to me at our CFC address or to my house:

Dan Golas
24925 Dunnivant Dr.
Gaithersburg, MD 20882

As always, try to be reasonably accurate with your hours and other information. Since this information is used for our insurance renewal, any false statements could have unfortunate consequences if you have the misfortune to have an accident, or if we have to file a claim with the insurance carrier, i.e. you could be on the hook for more than the deductible.

Some comments from previous applications:

1. Most people will check at least one box for Ratings ASEL (Airplane Single Engine Land), unless you are a student pilot.
2. Constant Speed Prop hours means time in an airplane with a variable pitch propeller, not C-152 or C-172 time.
3. I can usually tell if you are guessing at your hours if the hours listed are less than the year before. If you want to at least be consistent you can call me or send me an email and I can tell you what you entered on your application last year. Also, an entry like “500+” or “>150” doesn't help.
4. Don't forget to check all the questions either yes or no. If you have a conviction for a traffic violation also include your driver's license num-

The Congressional Record

Newsletter of the Congressional Flying Club and Montgomery Senior Squadron, CAP

Vol. 27, No. 5

Gaithersburg, MD (KGAI)

May 2009

ber. You don't have to say what the conviction is for — if the insurance company really wants to know they can access your driving record themselves.

Complete and submit the forms as soon as you can. After a reasonable time anyone who hasn't submitted their renewal will be locked out of the scheduling system.

❖ DAN GOLAS

New CAP requirements

There are two new requirements that CAP members must complete by the end of September.

First, there is a new training requirement to watch a training video on ground handling and take a short ten-question test for anyone who is or will be involved with CAP aircraft on a regular basis. The training is required for anyone who fits the following categories:

- CAP Pilots
- All Commanders
- Anyone with mission staff ratings involving aircraft (IC, OSC, AOBD, MSO)
- Aircrew Members
- ARCHER Personnel
- Flight line Personnel

Training must be completed by 30 September or the applicable ratings will be suspended. Pilots must complete this training annually. All others must complete it once every 3 years.

There are two ways to complete the training

1. Log on to CAP eServices
(<https://www.capnhq.gov/CAP.eServices.Web/Default.aspx>)

On the left side of the page pick "CAP Multimedia"

Choose "Video Courses"

Pick the only choice listed, which is the ground handling course, and in the drop-down menu select either the dial up or broadband video depending on your connection speed.

Watch the video while trying to stifle any negative thoughts on the production quality and IQ of the intended viewer, and at the end take the test. Your score and completion will be automatically recorded, and if you want you can go back to the drop-down menu and print out a

course completion certificate suitable for framing.

2. Come to the MSS squadron meeting on 26 May with a bag of popcorn and watch the video and take the test.

The second requirement is to take a short course called "Equal Opportunity Training".

This is also located on the CAP eServices web site. After logging in choose "Online Exams" on the left side of the web page. Next you will see "Equal Opportunity Training" listed with two choices. You can view it by either looking at Power Point slides or PDF slides. At the end you have to check a box saying you agree with the information presented in the slides and it will be automatically entered into your records.

❖ DAN GOLAS

Goodness gracious, great balls of fire!

I had initially intended to title this article "A Primer on Priming," but I thought that might be a little boring and not get your attention.

Okay, now that I've got you hooked....

One of our club members recently had a "great ball of fire" engulf the lower cowling of one of our Skyhawks while attempting an engine start. As luck would have it, a Club CFI was in a nearby aircraft, grabbed a fire extinguisher, and bolted for the illuminated plane. Another club pilot, just returning from his flight, ran toward the plane, arms flailing in the air.

It turns out the Skyhawk pilot used five strokes on the primer prior to attempting to start the engine, which, given the relatively mild weather, was probably a bit excessive. When, upon attempting to start the engine, it didn't catch right away, the pilot pushed the throttle ¼ to ½ of the way in, which, added more fuel to the ensuing fire.

Additionally, the pilot had just completed the pre-flight and there was obviously a nice invisible cloud of fuel vapor under the fuel strainer, *i.e.*, enveloping the lower cowling.

Ironically, the pilot of the illuminated aircraft saw no sign of flame or smoke. In any case, the "ball of fire" quickly burned itself out and there was no need to use a fire extinguisher, and there was no damage to the aircraft.

The Congressional Record

Newsletter of the Congressional Flying Club and Montgomery Senior Squadron, CAP

Vol. 27, No. 5

Gaithersburg, MD (KGAI)

May 2009

Let's look at what might have happened.

First, the preflight checklist says to employ 3–5 primer strokes before an attempt to start. On our 4-cylinder engines (all our Cessna aircraft) three of the four cylinders are primed with raw fuel. When the primer is pulled out, one can hear the primer filling with fuel. You should wait for the sound to stop to ensure the primer is full. When the primer plunger is pushed in, this fuel is sprayed toward the intake valve port just outside the cylinder. If the intake valve is open (only one intake valve is fully open at any given time) most of this fuel is sprayed directly into the cylinder. On the other cylinders being primed, the fuel is most likely hitting the bottom of the closed intake valve, then running back down the intake manifold toward the carburetor. So, we've effectively primed one cylinder and two intake headers.

Now let's consider what happens when the throttle is pumped. The carburetor contains a device called an *accelerator pump*. This consists of a small plunger and a fuel-filled cylinder connected by mechanical linkage to the throttle. When the throttle is advanced, this plunger pushes fuel from the little cylinder and sprays it into the carburetor venturi. The carburetors are *updraft* carburetors, meaning air is pulled into the bottom of the carburetor, up through the venturi where it mixes with the fuel, up through the intake headers to the intake valves and into the cylinder.

When the engine is not turning and no air is flowing up through the carburetor, the fuel just falls down through the carburetor and into the airbox. One or two strokes of the throttle and fuel will be dripping from the airbox, onto the lower cowling, and even onto the ground.

Keep in mind that liquid fuel doesn't burn — it's the *fuel vapor* that burns. The colder the temperature of the outside air, the slower the fuel vaporizes. Now here is a point of contention: in the winter is it best to attempt an engine start right away, or should one wait 30–60 seconds to give the fuel a chance to vaporize before engaging the starter?

Experts (that is, A&P's) disagree. Some say waiting just lets the fuel run back down the intake headers, increasing the risk of a fire. Others say give the fuel a chance to vaporize. Pick your poison!

In warmer weather, or if the engine is still warm from a previous flight, the fuel will vaporize much more quickly. So after five full primes, we've got a slug of liquid fuel in one cylinder, and a couple rivers of fuel running down the intake headers toward the carburetor, airbox, cowling, and ground. Add a shot or two of fuel from the carburetor, an errant spark or backfire and you've got some real excitement!

With so many variables to consider when starting an engine, it is difficult to set down some hard-and-fast rules. So here are some guidelines:

Under warm conditions, 2–3 primes should be sufficient; in cold weather, 4, maybe 5.

In cold weather, either wait several seconds or hit the starter right away. Do what works and what you are comfortable with.

Don't pump the throttle. Make sure it is open about ¼ inch. This should allow adequate air-fuel mixture to reach the cylinders.

The information above applies to all our Cessna aircraft. The six-cylinder Cherokee, with its short-stroke primer, may require one or two strokes more than the Cessnas.

The previous engine in N739BA was particularly difficult to start during cold weather. This was because it primed only one cylinder. The new engine now primes three cylinders so much of the cold-weather starting problems should be resolved.

If you have any more questions regarding what has been presented in this article, please don't hesitate to ask one of the club A&P's. Or better yet, stop by the hangar when an aircraft is in for maintenance and we'll be happy to perform a show-and-tell.

❖ DICK STROCK

Fly-ins

READING AIR SHOW – SAT 6 JUNE

Plan on going up to Reading for the WWII air show and some good food there if you like BBQ or sausage with peppers and onions and such. AOPA is not having the open house, so you will be looking for something to do ... here it is. Plan on leaving about 9-9:30 and be back by 18:00 – 19:00 depending on if you get to take off mixed in with the warbirds. Get out of their way and

The Congressional Record

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Vol. 27, No. 5

Gaithersburg, MD (KGAI)

May 2009

take lots of pictures !!

Somerset – Sat 20 June

We're talkin' food here.....wow, still full from buffet at Cove Restaurant on Sunday. You need to bum a ride to get from airport to town and back, but it's not too hard to do. Taxis sometimes available, but don't count on. It's an all-you-can-eat Crab Feast from 11:00 to 15:00 for \$25. For other stuff in town [seewww.visitsomerset.com](http://www.visitsomerset.com) for waterman's festival etc.

Hearty eating !!! (Gas was \$3.90 at press time.)

❖ **JOE STUBBLEFIELD**

From the FAASTeam

[We reprint here in its entirety a recent FAASTeam Safety Tip, Notice Number: NOTC1639]

FAAFTeam Safety Tip

by Max Trescott, author and 2008 National CFI of the Year

Build Your Experience in Aircraft Type and in the Armchair

It's a common myth that the performance level that pilots (and athletes) attain is determined by some innate inner talent. One study dispels this myth by showing that it's not talent or strength that determines performance, but rather having the proper mindset and focus. Another study shows that the number of hours of practice is the primary factor that differentiates performance levels. A separate study of F-15 fighter pilots showed that fully 92.5 percent of the variability in their situational awareness scores was attributed to the total number of hours they flew in F-15s.

As a pilot gains experience and accumulates hundreds or thousands of flying hours, it's easy to assume that this brings with it a cloak of immunity from accidents. Statistics reveal, however, that accidents are correlated more with the number of hours of experience a pilot has in a particular aircraft model and not with his or her total number of flight hours. Accidents tend to decrease after a pilot accumulates at least 100 hours of experience in the aircraft he or she is flying. Thus when learning to fly or transitioning into a new model, your goal should be to concentrate your flying hours in that model, while

perhaps getting additional dual instruction, until you reach 100 hours of experience. If you fly relatively few hours per year, maximize your safety by concentrating those hours in just one aircraft model.

Another major category of experience that counts but may get overlooked is "armchair flying." I often tell my clients to practice armchair flying when they have a few quiet moments at home. Why? I recall reading years ago about a study in which three groups of basketball players were tested on their ability to throw baskets at the beginning and the end of an experiment. Group 1 was told to do no practice between the tests, Group 2 was told to actively practice shooting baskets, and Group 3 was told to spend time imagining they were shooting baskets. The results? Group 2 improved their performance the most, but Group 3 improved almost as much.

A similar study showed that successful Olympic athletes did more mental practice in the final stages of their preparation than less successful competitors did. I tell my clients that, when they're practicing at home in an armchair, they should do more than envision themselves flying a perfect approach to a perfect landing. They should also visualize deviations and the corrections they would make in response. For example, imagine that you notice you've blown to the left of the runway and then visualize using a sideslip by lowering the right wing and pushing on the left rudder until you return to the centerline. From the armchair, you can just as easily fly an entire instrument flight by visualizing getting the ATIS, briefing the approach, flying the procedure turn, adding power to level off after each descent, and so on.

Whether in the air or from the armchair, when you fly, concentrate your hours by building experience in a particular aircraft type and by mentally practicing flying from an armchair to accumulate even more experience. Both kinds of experience will make you a more proficient pilot.

[The FAASTeam has asked Max Trescott, the 2008 National CFI of the Year, to write a series of safety tips. Max, a San Francisco area-based Master CFI, specializes in teaching in and publishing training materials for glass cockpit aircraft. You can read more of his work at <http://www.maxtrescott.com/> and

The Congressional Record

Newsletter of the Congressional Flying Club and Montgomery Senior Squadron, CAP

Vol. 27, No. 5

Gaithersburg, MD (KGAI)

May 2009

<http://www.q1000book.com/> or e-mail him at info@sflight.com]

Run-up: Listen closely!

A couple of weeks ago, my wife and I got in the 235 for a weekend in Vermont. During the run-up, the engine was acting kind of rough and required more than a little leaning and L-R comparison to smooth it out. All went well on the take-off and flight to a great airport and restaurant at 44N, Sky Acres, near Poughkeepsie.

On run-up there, after lunch, it ran rough again. Same drill, leaned it out, taxied to the end of the runway, and poured on the coals. But just before liftoff, at a good 50 mph or so, the engine really sounded off and began coughing and sputtering. I quickly cut power and rolled ahead to the taxiway exit. A mechanic was on duty and diagnosed the problem as both sparkplugs in cylinder #1 having gone bad—that is, zero combustion in # 1. New sparkplugs did the trick and the rest of the flight north, and three-plus hours returning were uneventful.

The plane had just gone through a 50-hour which included pulling the plugs, cleaning them and re-gapping.

Talks with the experts, including Bill Hughes, Dan Hayes, and Bob Hawkins all indicated possible lead fouling of the plugs, or perhaps a small piece of lead which sometimes inadvertently remains after cleaning, it was said. It seems to be just one of those things that both plugs failed at about the same time on the same cylinder on the take-off roll.

I share this because in retrospect, I wish I had been more suspicious during the run-ups. Leaning had solved the roughness problem every time before, but this time it was a different story. As the stock brokers say, past performance is no guarantee of future results! Listen closely to that run-up.

❖ SANDY GILMOUR

Your flying account

Piotr Kulczakowicz and **Raj Upoor** are the club flight-time accountants.

Reports are posted in the Files section of the *AircraftClubs.com* site. They will also be avail-

able in a binder in the trailer about the 15th of each month for the prior month.

If you return to GAI after fuel has closed for the day and can't enter your fuel purchase in the aircraft logbook, e-mail Piotr at:

go62onair@hotmail.com

Also contact Piotr if you find discrepancies in your account.

Address for checks

Please note that the address to mail Congressional Flying Club checks is:

Congressional Flying Club
7940-I Airpark Road
Gaithersburg, MD 20879

Checks can also be brought to the meetings, where **Bob Hawkins** and I will deposit them to the flying club account.

❖ ZELICK (ALEX) WAGANHEIM

Funny stuff

[*Paying another visit to the Land of Bftsplk — it's time for another of Bftsplk's Laws.*]

Bftsplk's Law states that all greaser landings will be made in total solitude, not another living soul within miles, whereas an egregious bouncer will be in full view of everyone you know at the airport.

❖ ANDY SMITH

Coming next month!

Don't miss our June issue, in which we will present Part 1 of **Dave Lawlor's** gripping saga of his CFI ride. If you ever thought of becoming a CFI, this is a must read.

The Congressional Record

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What else will be in the June issue? That depends on you, our loyal (we hope) readers. Remember, writing for the newsletter gets you work hours!