September 2009
Texas A&M Flying Club **Flightline**
NEWSLETTER

Texas A&M Flying Club
PO Box 2051
College Station, TX 77844

Bookkeeper's Notes

TOP TEN HABITS THAT TICK OFF THE BOOKKEEPER

10. Not writing your FMS number on the Hobbs sheet when you log your flight, especially if you have a last name shared by several members

9. Leaving an expired mailing address, or email address, on file; your statements KEEP coming back!

8. Placing your payment or receipts into the Treasurer's Tray, or the Membership Coordinator's tray, or the VP Business Ops tray, then calling to complain that the *Bookkeeper* hasn't credited your payment! (Hint: it's the Bookkeeper's tray that you want.)

7. Putting multiple names on a single box on the Hobbs and expecting the bookkeeper to "split the time evenly"

6. Writing your name on the Hobbs sheet, illegibly, in barely visible pencil.

5. Canceling your credit card without letting the bookkeeper know

4. Two words: Bounced checks

3. Trying to get reimbursed for expenses that are from 2008 (reminder: the limit is 2 months old)

2. Letting your account get more than 60 days past due

1. Seeing that the pink sheet is full, writing Hobbs times on on the bottom of the page, then on the back, then on the barf bag in the cockpit

Upcoming Events and PR

Howdy Flying Aggies,

As we all know, summer is flying by and the fall semester is getting close. That means that open house is coming up. The date has been set for September 6th, and due to the MSC renovation, the open house will be held in either the Reed Arena parking lot, or possibly across from Reed Arena in the parking lots behind the Rec. We are planning to bring an airplane as usual, however this time I would like to update some of the posters and information

Fuel Prices

Year 2009

2009	01	$3.12	562 gal $1751
2009	02	$3.18	793 gal $2518
2009	03	$3.34	809 gal $2703
2009	04	$3.34	730 gal $2438
2009	05	$3.39	1168 gal $3959
2009	06	$3.54	896 gal $3173
2009	07	$3.68	935 gal $3439

Maintence Corner

Plane Update

N49785: Back From Annual! Oil Dip Stick Replaced so 5 Qts is Great!
N631TK: Flying Great!

N93124: Shimmy Dampener Rebuilt, Flying Great!
N5400J: Flying Great! DME Short Found and Fixed

N5452D: Radios Repaired, Doors Fixed, Flying Great!
Oil Guide for the Aircraft

- All 152's 5 Qts is Best for All Flight, 4 Qts MIN and 6 Qts MAX, Aeroshell 100
- 5400J 5 Qts is Best for All Flight, 4 Qts MIN and 6 Qts MAX, Aeroshell 100 Plus
- 5452D 7 Qts is Best for All Flight, 6 Qts MIN and 8 Qts MAX, Aeroshell 100

-Always Lean The Aircraft; Prevents Fowling Spark Plugs, Prolongs Engine Life

-Make sure you do not leave oil funnels, rags or bottles (full or empty) in the aircraft

-Please clean up the interiors after each flight for the next people to use it

-Always fill out a squawk sheet (above computer) if there is any discrepancies with the aircraft and put in the right aircraft box.

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CFI Notes and Help - LEANING THE MIXTURE by Steven Mapel

Many articles have been written on how to properly lean the mixture in Lycoming engine. Many of these talk of power curves, engine monitoring gauges that you've never heard of, and thermodynamics. I going to try to make it simple and try to encourage everyone to follow these guidelines when you fly the club planes.

Engines like to run at a particular fuel to air ratio. We can adjust that ratio, by adjusting the mixture control knob (which controls how much fuel gets to the carburetor and engine). If the fuel/air mixture gets to rich (too much fuel, not enough air) then the engine runs rough and loses power. Conversely, if the fuel/air mixture gets to lean (not enough fuel, too much air) then engine runs rough, loses power and gets hot. Many articles and pilots will talk about engines getting too hot and damaging engines when the mixture is run too lean. This talk and the confusion about leaning often cause pilots not to lean at all at lower altitudes. These are real potential problems with running an engine too lean. However, these problems and other heat management problems are much more likely to occur in high performance engines. The Cessna 152 and Cessna 172 do not fall into that high performance engine category. What I mean is that properly functioning 152 and 172's usually stay plenty cool under almost all but the most trying of conditions. On the other side of things, engines that are not leaned enough burn more fuel and foul spark plugs quicker. Now, the POH for these aircraft says that you should lean when your above 3,000ft and using less than 75% base horsepower (BHP). What it doesn't say is that you can and should lean at all altitudes. Here is my advice, lean when idling, taxiing, cruising, and climbing above 3,000ft. You can also think about it this way, lean whenever either of these conditions is met: the rpm's are less than 2500 or you're higher than 3,000ft. So pretty much, you can lean all the time except for takeoffs below 3,000ft and climbs below 3,000ft or anytime you are using full power below 3,000ft.

We lean for two conditions, for best power and for best economy. We usually lean for best power in a climb above 3,000ft. We do this, because the air gets less dense the higher we go and we know that the engine likes a particular fuel/air ratio. As we climb, the engine gets less air, so we decrease the fuel to find that optimal fuel/air ratio. Leaning for best power is easy: set the power and lean the mixture until you have obtained the highest rpm. The higher you are, the more dramatic the rpm change will be when you adjust the mixture. We usually lean for best economy when we are at level flight (cruise flight). To lean for best economy: set the power, lean out until you see an rpm drop, and then enrich back in until the rpm's return to pre-drop level and the engine is running smoothly.

Here is a typical flight scenario: start up the engine, check the oil pressure, and lean the mixture. Don't try to get overly accurate on this one, just lean it. Probably somewhere between 1 to 3 inches, every aircraft is a little different (N5400J has a much more sensitive mixture control than the other planes). But, as long as the engine is running smooth then your fine. Easterwood airport is only 325 ft above sea level, so go full rich for takeoff. Stay full rich until you level off or climb above 3,000ft. So, you level off at 1500ft, reduce power to a cruise setting 2100 to 2400 rpm's and lean the mixture (pull it or twist it out) until you get a drop in the rpm's, then twist it back forward until the rpm's return to the pre-drop level and the engine is running smoothly. Again, as long as the engine is running as smooth as it was before you leaned it, you're not too lean so stop worrying. Don't forget to enrich the mixture as you descend from altitude, and don't forget to go full rich for landing at airports below 3,000ft. Why didn't your instructor tell you this? Because you're never very high or at cruise for very long during a training flight and because he didn't want to confuse you are give you one more thing to do. So, many times you left the mixture full rich for the whole flight. Doing this isn't wrong, but it is not optimal either. So, for your club and the sake of your maintenance manager's sanity; please follow prudent leaning practices when you fly, and taxi, and even when you just sit there with the engine idling. Declaimer: This article describes a KISS method (keep it simple, stupid) for mixture control. This article was written primarily for the club aircraft. Higher performance aircraft often require more specific leaning requirements. Always adhere to the Pilot Operating Handbook (POH) for the aircraft you are flying!!!!! For more info on leaning, AOPA members try http://www.aopa.org/members/ftmag/article.cfm?article=4246 or contact your flight instructor or email Steven Mapel @ slm1979@yahoo.com

Newletter Editorial

Hey - I'm John Romero and I'm the new (again) Newsletter Editor for our wonderful Texas A&M Flying Club. If you have any news, announcements or banter that you would like to discuss - feel free to contact me and get your voice heard at john.romero@greenoverblue.com