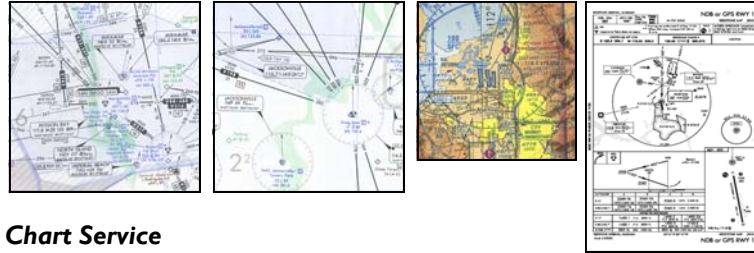


Business Manager's Corner

Tim Thompson

Business Manager

**Chart Service**

We are now offering a wide array of aviation chart's for sale at the Flying Activity. They include VFR Sectionals (Atlanta, Memphis, New Orleans, St Louis, Chicago, Cincinnati, Jacksonville), Terminal Area Charts (Charlotte, Atlanta, Cincinnati, Memphis, New Orleans), IFR Enroute Low Altitude (L13/14, L17/18, L19/20, L21/22) and US Terminal Procedures (SE1, SE2, SE3, SE4, EC3, EC4). There are two separate cost associated with the IFR charts. One for a subscription service and the other is for non subscription service. The subscription service for the charts are as follows, Terminal Area Charts \$3.75, IFR Enroute Low Altitude \$3.25, US Terminal Procedures \$4.00. The price for non subscription are as follows, Terminal Area Charts \$4.25, IFR Enroute Low Altitude \$4.10, US Terminal Procedures \$4.25.

These charts are being sold at a very competitive price and as always tax free.

If you are interested in a chart subscription service please come by the office or call us. We will be adjusting the charts we stock as requests dictate.

CPMC Improvements

During the next couple of months you will be seeing some new items around the activity. The following items should be arriving soon.

Precision weather station (already on hand, awaiting approval from flight ops on frequency)

180hp conversion for N9791F

Standby vacuum pumps for 4 of our aircraft

Garmin 430 for N9791F

Ramp Repair:

This work is still in progress. We have received quotes from the base contractors for the work needed and they have quoted that the cost would be approximately 31k. In the meantime we have contacted the SEABEES (The Seabees are the **Construction Battalions** of the United States Navy. The Seabees have a history of building bases, bulldozing and paving thousands of miles of roadway and airstrips, and accomplishing a myriad of other construction projects in a wide variety of military theatres dating back to World War II.) to solicit their help with this project. If we are able to get this work done from the SEABEES, it should save the activity about 20k. We will keep you informed as we gather more information.

Open House

We are scheduled to conduct our Spring Open House on Saturday, the 13th of May, from 9:00 AM to 3:00 PM (0900-1500). Please mark your calendars, tell all of your friends and neighbors, and bring your young ones. There will be something for everyone. As usual we will be offering mini-flying lessons for the Redstone Community. Our goal is to recruit new members, and introduce young folks to the world of aviation. As always, we cannot make this event happen without the aid of volunteers. If you would like to help, please contact Ms. Mildred Lancaster, Tim Thompson, or Tom Sharp for details and to get assigned a duty position. CFI's, please be prepared. We need you all in attendance.

Redstone Flying Activity Advisory Council:

The Flying Activity Advisory Council has voted on the following positions.

Ted Stokes – Maintenance Officer

Rob Lindstrom Safety



Chief Instructor's Corner: Carburetor Icing

Many aircraft component are designed and manufactured in a somewhat simplistic way. Some of those designs relate back to many years ago, back during the simple days of flying. A small Continental 65 horsepower engine, no generator or electrical system, single fuel tank with a float type fuel gauge, and a lever for the throttle, mixture control, and carb heat. Ah yes, the good ol' days; simple flying in a simple airplane.

Fuel supply and management systems have been simple too. Git ya a tank to hold some fuel; one tank will work but don't forget to vent that thang.... If ya wanna use gravity to help out, put the tank higher than the carburetor. And yes, that carburetor. Most of the flying activity's aircraft employ the carburetor for fuel metering. Same type design as those airplanes built in the early 1900s. Simple for a reason; less to go wrong and it works well just the way it is. Create a smidgen of a low pressure via a venturi, meter the fuel through a simple valve and provide for throttling and mixture control and you're on the way. "No Worries" But as well as the carburetor design has worked for us, it has always possessed an inherent problem; carburetor ice!!

Maybe the carburetor was invented before Bernoulli was born, before we really knew the relationship of velocity and pressure and the corresponding temperature effects. Accelerate the induction air through the venturi and yep, the pressure decreases and so does the temperature. That pesky venturi!

If the induction air can hold enough water vapor (it can't be too cold since cold air is less willing to hold moisture), then you can set up an icy scenario in the area of the venturi and the attached throttle valve. As this occurs, the mixture becomes more enriched as the volumetric area is now smaller, reducing induction air flow.

Some books will state that the most severe carburetor icing may occur between 20 degrees and 70 degrees Fahrenheit and a relative humidity 60% or better. That's probably about right; too cold, no moisture, too warm... well, not cold enough! However, some carb icing events have occurred with temperatures up to 90 degrees F! My experiences with carburetor icing were cheerfully realized while in cruise flight, 55 degrees F outside air temperature, and high humidity. Spring is a perfect time to experience this as I was reminded once again the other day. When icing visits the venturi area, the first indication, if you are paying attention to the tachometer, is a reduction in engine power (indicated by a lower manifold pressure reading if in a variable pitch propeller airplane). Sometimes while enroute, you may notice altitude loss as the power is slowly degrading. This may be the first sign. In so many cases, however, the pilot's first clue is engine roughness. Either way, pull the carburetor heat lever and LEAVE it out (don't use a partial setting!). If icing was the culprit, you will notice a significant reduction in power as you have again decreased the induction air quality by heating it up and as the ice melts and is swallowed! Don't get alarmed...gradually, the engine power will increase as the ice is removed. This may take 5 or more minutes depending on how long it took you to notice the symptoms; don't be impatient and push that carb heat lever in too soon! If your operating handbook requires carburetor heat application during lower power settings such as the landing approach (all Cessna carburetor engines do), use it; the lower power setting sets up an even more ice producing scenario. By the way, always remember.. when carburetor heat lever is pulled, the induction air is not filtered. I saw the results of this once when a fellow aviator/insect (June Bug) decided to visit the carburetor via the carb heat ducting of a C-172 during take-off. Yes, the engine quit! The pilot had traditionally left carb heat applied while performing the before take-off checklist (he doesn't any more!).

In our small airplane world, there are those who have experienced carburetor icing and those who will. Stay attuned to the ambient conditions and be mindful of gradual reductions in power. Don't hesitate to apply carb heat at the first hint of any of the symptoms. -Max



Max GurGew
Chief Flight Instructor

CFI's Corner: Wheels Up or Down??

I once heard that there are two kinds of pilots, those who have landed wheels-up and those who are going to. I don't think it's quite that bad, but it does warrant some serious thought. To my knowledge, there hasn't been a wheels-up landing involving RAFA airplanes for over 30 years. Let's go another 30! Statistics show that the danger period for the pilot of a retractable gear airplane normally is not the first few hours after checkout but, rather, after the pilot has flown enough to consider himself an "old pro". Flying a complex airplane has become instinctive and the procedures have become a second nature to him. He does his GUMP checklist and self-confidence builds up. But during stressful situations when the pilot is pre-occupied and his attention is divided between flying a normal pattern and dealing with an unanticipated problem, or situation, trouble could be brewing. Say, the tower gives you a go-around, and you raise the gear and adjust your throttle and prop settings as you climb out, all the while trying to figure out what is going on out there. When you work your way back into the pattern again you might get another instruction "execute an immediate left 360 for spacing". In this stressful situation you could forget to put the gear down again. In the daytime, the tower operator might just catch you before you land wheels-up, but don't count on it. They are usually too busy to do a job that is rightfully yours. Always have the gear down at the same place in the pattern . . . ALWAYS before beginning your descent on base leg. Also, always check the gear indicators again on short final. Some pilots point to the gear indicators so they are sure that their attention is directed there. Of course, it is possible to point to a gear-UP light absentmindedly! The checklist is a valuable aid if used correctly. The trouble is that after a while you'll know it so thoroughly that using it becomes just a ritual done at certain times. Some pilots glance at it and don't read it. It's very easy to skip at item this way. A checklist is a liability if not used correctly - a quick glance at it may lead you to believe you've done what's necessary, giving you a false sense of security. On the other hand, if you use the checklist religiously, and always put the gear down at the same point, habit may save the day sometime when your conscious mind is on break. Remember - - just because you went through the motions and moved the correct lever doesn't mean the gear is down. CHECK IT! Mechanical devices have their off-days, too. Reference: The Advanced Pilot's Flight Manual by William Kershner



Jim Brewer
CFI/CFII/MEI/GLI



concerning other traffic at the airfield. The GCA controller will clear you to land and advise you to contact the tower after you're down.

Needless to say, this is a very limited scenario of the many functions which occur behind the scenes of our air traffic control system. If you take a tour of both facilities you'll be able to talk face to face with those voices in the sky you've been talking with in the airplane and acquire a first hand appreciation of the complexity of the work the controllers do for us. Visiting these facilities is educational, enjoyable, and highly recommended.

I'd like to thank all the very friendly people at Redstone and Huntsville ATC facilities for taking the time to talk with me and explaining their operations. And a special thanks to Redstone controllers Ron Folsom and Tom Williams, who put up with me for hours and provided some of these pictures. They all do a fantastic job and we appreciate their dedication.

Redstone tower and GCA facility is open for visits from student pilots thru seasoned aviators. Call them at 842-6284 to make arrangements. Huntsville tower and approach control require an advanced appointment, which we're trying to arrange on a monthly basis. Please check the bulletin boards in the RAFA Office in days to come.

Fly safe and enjoy,
-Bob Scheppler

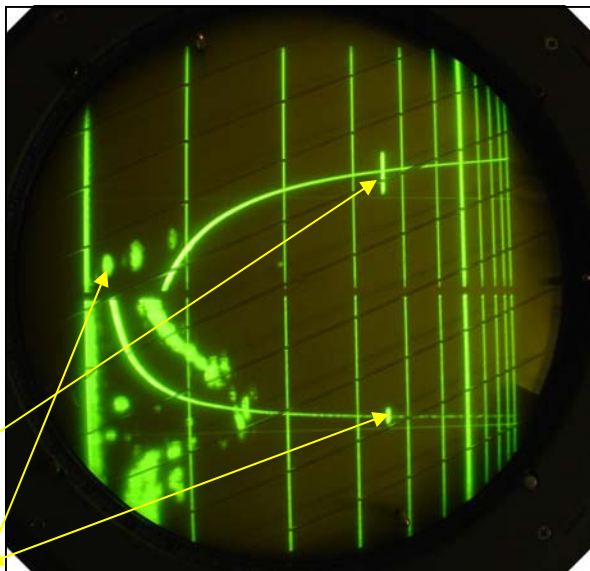


Redstone GCA Control Facility

Vertical Guidance
Aircraft

Horizontal Guidance

Runway 17 HUA



GCA Radar Scope



Approach Control Radar Screen

Note: N757UD a C152, destination RQZ, and controlled by HSV West controller (125.6)!!

Maintenance Manager's Corner



Derek Romine
A&P Mechanic

Maintenance Update:

N5697E: Our new C-172 was sent off to have a new avionics package installed. It should be back the first week in April and we hope to have it on line soon.

N4884T: The Arrow is now sitting on its refurbished landing gear. Except for a couple of parts that we are waiting on, an Annual inspection and test flight we expect to have the aircraft on line early next month.

BIRD BLOCKS/ SUN SCREENS

It is that time of the year when we must use extra caution regarding nesting birds. We all know that the nests are a very serious fire hazard. Be careful and check every time you pre-flight any airplane. It is also time to concentrate on replacing the sunscreens. Direct sun can and does play havoc with avionic equipment



Upcoming events Corner

Flying Activity Cookouts: Just a reminder that each Saturday between 11:00 AM and 1:00 PM the Redstone Flying Activity cooks hamburgers and hotdogs for anyone wishing to partake.

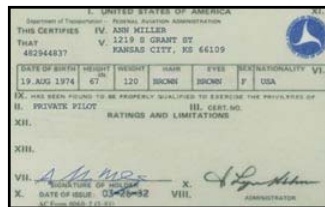
Sales and Purchases: Reminder that there is a volunteer in the office between 9:00 AM and 2:00 PM on Saturdays. If you have a need to purchase equipment, charts, supplies, and t-shirts, they are available for sale.



Flight Accomplishments Corner

Ramona Banks: First Solo
3/07/06

CFI Jim Brewer



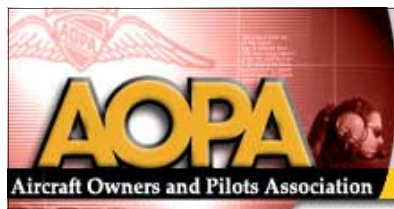
March Question of the Month Winner

March Question: According to 91.171 the date, place, bearing error, and signature of the person performing the test must be recorded in the aircraft log book or other record.

The Question of the Month winner for March is:

Mike Kelley !!!

With only four entries this month, the odds of winning the \$50 flying credit were 1 in 4 !!



Do The Right Thing—Decision Making for Pilots

Seminar: Lockheed Martin Auditorium -17 April 2006 7:00-9:00 PM 4800 Bradford Drive Huntsville

Web address for more information: <http://www.aopa.org/asf/seminars/seminar.cfm#112>

This is an invaluable seminar that is brought to you free from AOPA. It is the latest in the series of Safety Seminars provided by AOPA. I highly recommend that you attend if you can.

Rob Lindstrom



Open House and Airs Show featuring the USAF Thunderbirds on 8 April . Full Information concerning the Air Show can be found at the following website:



<http://www.au.af.mil/airshow/html/index.php>

Redstone Arsenal Flying Activity

The Redstone Flying Activity Advisory Council had their first meeting on 14 March. At the meeting the Safety and Maintenance Officer positions were voted upon. General discussion concerning the roles of the advisory council were discussed and the establishment of future business was identified. The council will be establishing the constitution and



bylaws over the next couple of meetings along with any other business that needs to be addressed concerning the flying activity. If you have any items of interest that need to be presented to the advisory council please contact any member or Tim Thompson RFA business manager. The minutes of every meeting will be published once they have been approved. They will be made available to you on the Flying Activity Web Site. The advisory council has every intention to ensure that the members are kept fully informed of their efforts.

(WIN \$50.00) QUESTION OF THE MONTH (WIN \$50.00)

Capt. Joe checked his VOR receiver and found it within bearing error. Now he decided to fly from Madison, Ga. (52A) into Middle Georgia Regional airport at Macon, Ga. (MCN). Using the Atlanta sectional for planning his trip he discovered he would be crossing two grey colored lines marked VR95 and VR1004. From the legend on the map he learned these were military training routes. He wondered if the labels on the routes were significant and how could he ascertain if these routes were scheduled to be active during his planned flight. Can you help him? **Place your answer with your name and ID number in the suggestion box by 28 April for a chance to win a \$50 flying credit. Winner will be announced in next month's issue.**

Redstone Arsenal Flying Activity**MISSION STATEMENT**

To provide our members with affordable, high quality flight instruction, and a diverse fleet of rental aircraft which meet their local and cross-country flying needs, maintained to the highest safety standards in the industry.

GOAL

Our goal is to be the premier flight training facility in northern Alabama, and through professionalism, safety and customer satisfaction remain a model for military flying clubs throughout the world.

**Redstone Arsenal
Flying Activity**



The Redstone Flying Activity Newsletter is published by the Redstone Flying Activity, an MWR Activity. Opinions expressed by writers herein are their own and are not considered an expression by the Department of the Army. The appearance of advertisements in this publication, to include inserts and supplements do not constitute an endorsement by the Department of the Army or the products or services advertised within this publication. The Redstone Flying activity Newsletter is distributed free of cost to all members of the Redstone Flying Activity and

Items of Interest Corner**Resale Special**

Periodically we will be having a resale special on products that we have to offer. During the month of April we will be selling the Lowrance GPS Airmap 1000 for \$480 while supplies last. This unit sells for \$599 at most places, so get yours today while the cost is low.

Great Moon Buggy Race

On April 7th & 8th the Great Moon Buggy Race will take place at the U.S. Space & Rocket Center. Sonny Morea one of RAFA's Flight Instructors will be one of the judges. On April 8th between 1pm&5pm the author, Billy Watkins will be available with Sonny to autograph Billy Watkins newly released book entitled "The Apollo Moon Misions, the unsung heros". Sonny was selected by the author as one of those and is highlight in Chapter XIV.

Instrument Ground School:

We are looking at starting an instrument ground school. If you are interested in attending please contact Max Gurgew, Bob Schepler or Ms. Mildred Lancaster at the flying activity.

Central Daylight time Reminder !!

Remember we're now on central daylight time (CDT). Zulu time is now five hours ahead of us instead of six.

2006 MWR Veterans Membership

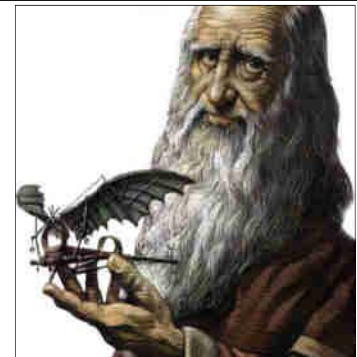
Redstone Arsenal, Morale, Welfare, & Recreation is offering a great new service to all Honorably Discharged Veterans holding a Form DD-214 (proof of Honorable Discharge). This money-saving membership gets you access to Redstone Arsenal and many of the MWR services and programs you enjoyed while serving our country! Whether you served two years or ten years, this great MWR Mem-

bership is just for you! Bring your Form DD-214, valid picture identification, and vehicle registration to join up on Saturday, April 22, from 10 a.m. until 3 p.m. at the 'Links at Redstone' MWR Golf Course.
Maxwell Airforce Base Airshow:

John Anglin has a couple of seats available to fly down to the air show. If you are interested please see the note on the RFA Bulletin Board.

Question of the Month::

With only four entries this month, the odds of winning the \$50 flying credit were 1 in 4 !!



Items for Sale: If you have any aviation items that you wish to sell in this newsletter please let us know.

**Bldg 4828
Redstone Arsenal, AL
35898-5355
Phone: 256-881-3980
Fax: 256-880-9495
E-mail:
admin@flyingactivity.com**

**MWR's Premier Flying
Activity**