Redstone Arsenal Flying Activity Monthly Newsletter

Redstone Arsenal Flying Activity

ISSUE 3-2006
March 2006

Aviation

Bird strike Avoidance

It has been nearly 90 years since the first reported collision in flight between an aircraft and a bird. Cal Rogers, the first man to fly across the United States, lost his life in 1912 after a bird became entangled in the controls of his aircraft. Since the number of aircraft and birds alike has risen dramatically since 1912, the risk of encountering a bird while in flight is even more probable today. The average duck weighs from one to four pounds and the larger geese, swans and cranes can weigh between four to 25 pounds. At an airspeed of 125 knots, the force of impact of one of the larger birds could approach 100,000 ft./lb. of energy. While many transport aircraft are designed to withstand bird strikes, little thought of bird strike survivability is incorporated in the design or manufacture of most small, general aviation aircraft. The importance of avoiding birds altogether cannot be overstated. Many pilots assume that a bird strike is an unavoidable and unmanageable risk, akin to being stuck by a meteorite, and as such bird strikes are accepted as just another remote hazard of flight. This doesn't have to be the case. There are very simple and effective steps you can take to minimize the risk of a bird strike. Since 80 percent of all bird strikes occur with the airport environment and below 1500 feet AGL, the time to be most vigilant is during the take off and landing phase. There are also two major seasons of bird migration, Spring and Autumn, when you should carry a heightened awareness of the possibility of a bird strike.

As always, the key to a safe and successful flight begins in the planning stage:

Check airport documentation and NOTAMs for information about permanent or seasonal bird problems at both departure and destination airports. Only 1 percent of general aviation bird strikes occur above 2,500 feet. Avoid flying over bird and wildlife sanctuaries, landfill sites and fish packing facilities. Avoid flying along rivers or shorelines, especially at low altitude. Birds, as well as pilots, use these navigational features. Inland waters and shallow estuaries, even outside the breeding season, may contain large numbers of gulls, waders and waterfowl which make regular flights at dawn and dusk. To minimize the possibility of bird strikes and unnecessary disturbance of birds, DO NOT fly low over such areas. Avoid offshore islands, headlands, cliffs, inland waters and shallow estuaries by remaining well clear, so as not to disturb nesting colonies. While most bird species are active primarily during the day, bear in mind that many birds do fly at night, as well as during dawn and dusk.

Up to 80-90 knots, birds have time to get out of the way but the higher the speed, the greater the chance of a strike. Sunglasses or smoke goggles should be carried on board to wear in the event that the windshield is penetrated. There are three peaks during the year at which there is a greater risk of a bird strike. One is in March and April during the spring migration; one is in September and October during the fall migration; and the last is in July and August when many inexperienced young birds are present, and the flying abilities of adults may be impaired as they molt their flight feathers. Birds of prey have been reported to attack gliders and other aircraft. While at the airport and in flight, be alert for the following:

Pre-flight

In the springtime, pre-flight the aircraft thoroughly as birds can build a nest almost overnight. Any signs of grass, leaves or twigs should lead to further investigation of hard-to-inspect corners. A nest under the cowling can catch fire. If birds are observed, particularly on the runway, report the activity to the ATC and request that airport personnel disperse them before you take off. Never use an aircraft to scare birds away. If the aircraft has windshield heating, remember that its use, in accordance with the Pilots Operating Handbook or Flight Manual, will make the windshield more pliable and better able to withstand bird impact. Use landing lights during takeoff, climb, descent, approach and landing. (Most bird strikes occur during these phases of flight.) Although there is no conclusive evidence that birds see and avoid aircraft lights, they will make the aircraft more visible.

Take-off

As you taxi out, listen for any warnings of bird activity on the ATIS or Unicom. When taxiing, watch for birds on the airport, and report all unusual bird activity to the Air Traffic Control (ATC) or Flight Service Station (FSS). Note: The most frequently struck birds are gulls, which may have a gray or black back that makes them difficult to see on concrete or tarmac runways. If a bird strike occurs during the take-off run, and there is sufficient runway remaining, stop. (Continued on Page 6)

Business Manager's Corner

Tim Thompson
Business Manager

Laser grade Testing:
If you are going to be late or if you need to cancel please contact the flying activity. Please be considerate and let someone know.

Member Car Decals:
Members who do not have a car decal to get on post may now acquire a decal. If you are a member and possess a MWR Patron badge, the Visitor center can issue you an extended vehicle pass that will expire the same day as the patron badge. The Visitor Center is located on Rideout Rd and is open Mon-Fri, 0600-1700. Please be sure you have the MWR patron badge when you show up along with your insurance card and vehicle registration.

Online Scheduling:
Anytime a member schedules a non-RON flight more than 30 days in advance, the scheduled flight will be deleted without notice. We have issued a previous email in September 2005 in regard to the 30 day schedule but some individuals have ignored this policy. We are working on the software to prohibit anyone from scheduling more than 30 days in advance. Once the Advisory Council is formed we will try and see if a 30 day schedule is adequate or if we need to extend it.

Redstone Flying Activity Advisory Council:
Voting has concluded and here are the results: President: COL Walter Lorcheim, Secretary: Leonard Clark, Chief CFI: Max Gurgew, Assistant Chief: Bob Scheppler, Active Duty: John Anglin, Retired Military: Ed Myszka, DOD Civilian: Lewis Spencer, NASA: John Blevins, Member at Large: Lionel Barthelemy. The Council will vote for the Safety and Maintenance Officers at their next meeting.

Ramp Repair: WE'RE TURNING THE CUB INTO CONCRETE
We are still working on this issue and have decided to use the money from the Cub sale to repair the ramp. Contractors should be here early March to assess the repairs and we hope the repairs will be completed by early April.

Safety Meeting:
The Flying Activity Safety Meeting will be March 16, 2006 at 5:30PM, (Note: 1/2 hour earlier starting time). Please note and be prompt. It will be held at Bldg 3711 Redstone Recreation Center Auditorium. Driving directions- PATTON RD SOUTH THRU GUARD GATE-1ST TRAFFIC LIGHT TURN LEFT AND IMMEDIATELY LEFT AGAIN

Maintenance Manager's Corner

Derek Romine
A&P Mechanic

Maintenance Updates:
Piper Arrow N4884T: See the article under Items of Interest Page 6

New Part time A&P Mechanic: We have a new part time A&P mechanic, Telton Tolbert. Telton spent 20 years in the Airforce, 8 years of which were as an aircraft mechanic. Welcome to the Flying Activity.

Telton Tolbert
A&P Mechanic

Warrior N1628H has a replacement battery installed and a new one on order.

The new C-172 N 5697E is undergoing its first 100 hr. inspection at the Flying Activity. So far, Everything looks Good !!

Chief Instructor's Corner

Max GurGew

Yes, they call me boomerang! I did take a several week sabbatical, performed a 360 degree trajectory, and I'm back as the Chief Instructor. We have made some recent changes to the activity and I look forward to continuing down our path of success. Mr. Bob Scheppler will be an assistant and I will appoint another assistant in the near future.

During the last month, I have spent considerable time with my FAA boss, Mr. Billy Hattaway, Safety Program Manager of our Birmingham FSDO and I had the pleasure of having "coffee" with Clyde Shelton, one of our local Designated Pilot Examiners. The topic discussed with both was back to basics flying, mastery of the aircraft. It has become evident that some folks are diverging from the basic skills of "really flying the airplane". As noticed in FAA check rides, this indispensable skill seems to be disappearing from our repertoire, replaced by flying the GPS machine, the autopilot, or barely meeting the minimum standards by forcing the airplane to work. This scares me! As with any project, a solid baseline must be first be established. An instrument student must master the airplane by flight on instruments prior to beginning instrument approaches. The VFR pilot must get those basic skills (maneuvering, coordinated flight, smooth control manipulation, altitude and heading hold), down well before solo and cross-country. Landing an airplane is much easier if you have first mastered the airplane control thing in the practice area. Even after our certification, this skill requires reinforcement, practicing frequently. I find it a pleasure to fly with someone who has these basic principals ingrained. Smooth turns and pitch motions, coordinated rudder, and able to fly slow flight in various configurations at any airspeed and altitude. Understanding control effectiveness at varying airspeeds is cool… using smooth pitch attitude changes verses chasing that airspeed indicator is pleasing. These basis skills of control and precise flying make up our foundation; we must keep those in tact. If you are somewhat weak here, go back and rebuild those basic skills. Student pilots, expect this to be emphasized during the basic training.

These skills should be "re-discovered" during occasional instructor flights. Work hard to keep the foundation solid and push toward high standards.

I'll sometimes take an airplane, with me in it, up to see Clyde and state to him "give me a workout!". I often wonder if that's a mistake because he says "OK, if that's what you want..". After ruining two layers of shirts, spending 2 hours shooting instrument approaches, holding at an imaginary fix, with most instruments covered except the oil pressure gauge, one engine inoperative (tough with a single engine airplane, let me tell you…), I suddenly realized, as I had willingly solicited, this is exactly what I needed! I don't want him to tell me "let's just do a landing, grab a hamburger at Pell City, and if you don't mind, I want to take an aerial shot of the house if we could fly over it" (Clyde wouldn't do that anyway!). I want the instructor/examiner to put me through the paces. I usually (not intentionally, anyway) don't perform stalls when flying passengers to locations nor do I state to them "hey ya'll, watch this stuff…!" as I rack it into a 50 degree bank steep turn, roll out into a modified Lazy 8 commercial maneuver, and follow that by an emergency descent, full flaps, gear down, doors open, nose down 46.2 degrees! I have found that passengers will no longer fly with you! So, when do we get to practice that stuff? Go out to the practice area and work through those maneuvers you performed during the last check ride. Take another pilot (willing type) with you and both of you learn again. Anticipate and request to perform the "hard stuff" during your next activity annual or FAA Flight Review with your instructor. Sometimes it is good to fly with an assortment of flight instructors to get that different perspective.

I have often asked our Activity flight instructors "what standards should you be able to fly?". After careful thought, they reply "commercial pilot or higher". That's probably right. As a CFI, we hold at least a commercial pilot certificate to perform those duties and should, therefore, be able to perform within the minimum standards for a commercial pilot. As a private pilot, each should also be able to perform to those criteria, those minimums of the Practical Test Standards.

When is the last time you tried to smoothly put the airplane down on a specific spot on the runway? Could we possibly be getting a little lazy? That 7300 ft runway is too much to waste… let's use at least half during the landing? The Private Pilot PTS states we should be able to touch down on a spot or within 400 feet beyond (short does not count!).

Work on your standards, increase your abilities, feel more comfortable, and impress the passengers! Get back into the maneuvers and increase all of the standards. Don't just meet the minimums! Work on your standards, increase your abilities, feel more comfortable, and impress the passengers! Get back into the maneuvers and increase all of the standards. Don't just meet the minimums!

One way to pull this off is to participate in the FAA's Wing Program. As outlined in Advisory Circular 61.91H http://www.faasafety.gov/about/AC61-91H.pdf , this pilot proficiency program allows for a single set of wings annually, along with a certificate, if the applicant completes 3 specified hours of dual 1. upper air work, mastery of the airplane stuff, 2. take-off and landings, and 3. instrument work). Additionally, one must attend a FAA sponsored safety seminar. (Continued Page 4)

CFI's Corner: High Altitude Training

Attention members interested in advanced pilot training:

Craig Cruzen
CFI

RAFA Flight instructors are organizing a trip to Columbus Air Force Base (CAFB) in Mississippi to participate in their FAA flight physiological training program. A few times per year, CAFB offers training sessions to civilian pilots so they can learn about flight physiological factors such as hypoxia, spatial disorientation and other effects. Training includes about 5 hours of class room time, and provided you have a current medical and meet a few basic physical standards, a "ride" in the CAFB the altitude chamber up to 18,000'. While it is not necessary to be a pilot to attend the training, an FAA medical certificate of any class is required to participate in the altitude chamber flight. Upon completion of the course, students receive a certificate noting that they have completed the FAA's Physiological Training course. The date we are projecting is mid-June and we plan on using RAFA aircraft to fly to CAFB. Approximate cost will be $35 per pilot plus shared aircraft rental fees. The number of participants will probably be limited to 10. Interested pilots should contact Craig Cruzen at craig.cruzen@nasa.gov

(Chief Flight Instructor Continued from Page 3) training This may be accomplished though several meetings we put on here at Huntsville over the year (some of the club meetings will suffice for this requirement as well; get with me or Rob Lindstrom for information) or there are FAA sanctioned on-line seminars with AOPA as well. Get with the Wings program! Ask any instructor for information. Additionally, if you are not signed up with the FAA safety program to receive meeting notices, other safety related messages, or to access their ever-increasing information database, you should do that now at http://www.faasafety.gov/ . Be sure to register; this is good stuff!

Keep it on the centerline… Max Gurgew

(Continued from Page 1) Vacate the runway and shut down. Inspect the intake, engine, etc., for damage or ingestion, or for bird remains that may be blocking cooling or other airflow ducts. Don't forget to check landing gear and brake hydraulic lines, downlocks, weight switches, etc. If the takeoff must be continued with an engine problem, properly identify the affected engine and execute emergency procedures.

In-flight

If you are flying a quiet aircraft remember that birds on the ground face into wind and may not hear or see you coming. Note the rate at which a bird beats its wings. The slower the bird's wing-beat, the larger the bird and therefore the greater the expected damage. Large birds and flocking birds present the most threatening risk to aircraft. If you see bird's) ahead of you, attempt to pass above them as birds usually breakaway downward when threatened. If dense bird concentrations are expected, avoid high-speed descent and approach. Halving the speed results in a quarter of the impact energy. If the windshield is broken or cracked, slow the aircraft to reduce wind blast and follow approved procedures. Use sunglasses or smoke goggles to reduce the effect of wind, precipitation or debris. Remember to fly the aircraft-don't allow yourself to be distracted by the blood, feathers, smell and windblast. Note: Small general aviation aircraft and helicopter windshields are not required to withstand bird impacts and the propeller gives little protection. If structural or control system damage is suspected (or the windshield is holed) consider the need for controllability. Check before attempting a landing.

Approach and landing

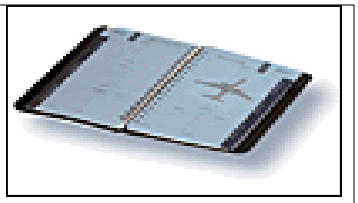
If flocks of birds are encountered during approach, go around for a second attempt because the approach may then be clear.

After landing, if you have had a bird strike, be sure to check thoroughly for damage and report all bird strikes, no matter how insignificant. It is estimated that only 15-30 percent of all bird strikes are actually reported, so the actual degree of risk or the true cost of bird strike damages to the aviation industry is largely unknown By respecting these guidelines and staying on the lookout for birds you can take comfort in the fact that you have significantly reduced the possibility (and severity) of a bird strike. Spring is Nearing! Fly Safely!

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.

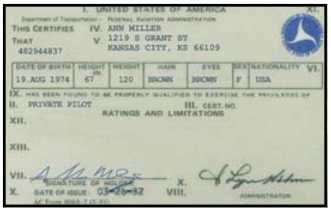
Sales and Purchases: Reminder that there is a volunteer in the office between 9:00 AM and 2:00 PM on Saturdays. If you have a need to purchase equipment, charts, supplies, and t-shirts, they are available for sale.



Flight Accomplishments Corner

Dani Richard: Advanced Ground Instructor

CFI Bart Barthelemy

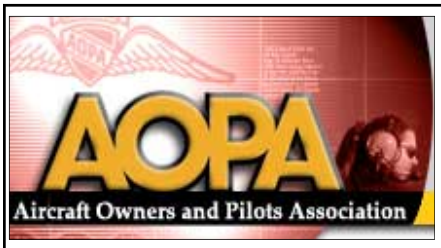


January Question of the Month Winner

January Question: Capt.. Joe flew to the Madison Airport 52A at 2000' and his VOR/DME (AHN) read 199° at 21 NM. This indicates his equipment was functioning properly. This check-point is listed in the AFD.

The winner for the Question of the Month for February is:

LEW SPENCER !!!!



Do The Right Thing—Decision Making for Pilots

Seminar: Lockheed Martin Auditorium - 17 April 2006 7:00-9:00 PM

4800 Bradford Drive Huntsville

Go to the following 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

IFR Charts and Approach Plates To Be Sold At The Flying Activity

There has been an issue concerning the ordering of the aviation charts. Hopefully by March we'll be offering a full compliment of aviation charts for sale at the Flying Activity. They will include VFR Sectionals and Terminal Area Charts, as well as IFR Enroute Low Altitude and US Terminal Procedures (Approach Plates). These charts should cover a range of about 500 miles from Redstone. We will adjust the charts we stock as requests dictate. These charts will be sold at competitive prices and as always tax free. The VFR wall planner is in the process of being updated and we'll also be adding an IFR planning chart very soon. Would you be interested in a chart subscription service? Drop us an email or note in the suggestion box.

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

Capt. Joe successfully navigated to the VOR check-point listed in the AFD and was pleased to learn his equipment was functioning and calibrated properly. He wanted to note his findings today but couldn't remember what was legally required to record a VOR check. Can you help him?

Place your answer with your name and ID number in the suggestion box by 24 March 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

Items of Interest Corner

Piper Cub Has Been Sold!!!: Wow, what a deal!! The Piper Cub brought in a whopping **$27,700.00** on e-bay. A local person, Denis Fairchild is now the proud owner of this aircraft. Hopefully once he restores the plane he will send us some pictures of it or maybe bring it by during one of our Open House events.

Update on N4884T

Ted Stokes has continued to devote his weekends on repairing the Arrow and it looks like

the work will be completed in the March time frame. It has been pain staking, meticulous work that has taken many man-hours. With inspections and checkout, we expect that N4884T will be available again the first part of April.

IT'S HERE!!!

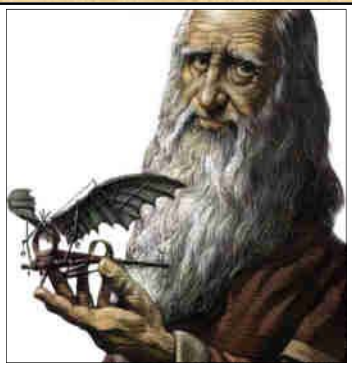
After a long time searching we have acquired a Cessna 172. Redstone Flying Activity Staff and Volunteers went down to Jackson, Mississippi and brought the plane back on Thursday, 22 February. It was immediately taken in for the 100 hr inspection. We are awaiting arrangements to replace the avionics. Depending on the timeframe N5697E will either be placed on line for immediate use or taken to the avionics fa-

cility if the replacement communications package is immediately available. Either way we have another aircraft that will be available for use very soon.

Quarterly Safety Meeting:

16 March 2006
1730 PM

Bldg 3711 Redstone Recreation Center Auditorium



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

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