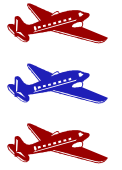


Dayton Pilots Club



May 2007

www.daytonpilotsclub.org

Next Meeting Wednesday, June 20, 2007

Dayton Wright Brothers Airport at 7:00 PM

Mike Nolan, Editor

From the Editor

By Mike Nolan

Can You Zodiac?

Sounds like I might know what I am talking about, but I don't. That is because I haven't taken the time to get checked out in the Zodiac yet. However, I plan on changing that real soon.

It will be nearly a year that we will have had the new Zodiac and several of the club members have had an opportunity to get the checkout done. There are many reason why we need to fly this neat machine. The most obvious is the fun you can have with an aircraft, that responds to modest movements of the stick. The second reason is the cost of flying for one hour, at about the speed of a Cessna 172.

The current rate for this aircraft is \$50 per hour wet. What a deal! Some of us old, no, seasoned pilots recall rates like that in the '70's. Now, if you take the cost of using any other club plane for training, like IFR, it is an affordable way to enhance your rating and ability at the same time.

If you recall an earlier article by club instructor, Andrew Sarangan, he spoke of the characteristics of the Zodiac and some issues one might have with spatial input form the full canopy. Of course, this could be your only opportunity to do it like the F-18 pilots. Most of us will never get the "ride of our lives," like the reporters on TV.



October '06 Issue: Dr. Andrew Sarangan, a DPC instructor, wrote of the Zodiac in his article, ***First Impressions of the Zodiac*** about his experiences and interpretations of the plane and controls as well as the flight characteristics of this aircraft.

So, make that call and get scheduled for your first flight. Checkout is not a lengthy process and you might find that you want to take the "little lady" (Suzanne, you can take Chester) or a good friend up for a semi-local flight to your favorite restaurant or just seeing the sights that the full canopy provides. Get Flying!



Don Utzinger's solo in the Zodiac. He completed the flight 5/4/07. Don was trained by Norm Hignite and if Norm is true to course, Don learned where every critical nut and bolt was on this dandy airplane.

Pilot Safety

Tim Smith

Aircraft are supported in the air by an aerodynamic force called [lift](#), which is generated by the wings of the aircraft as air is forced past the wings by the forward movement of the aircraft. The wings of the aircraft generate lift when they are pointed slightly upward with respect to the direction of the air flowing towards them. If the pilot tilts the aircraft upward, the wings form a larger angle with the airflow, and lift increases. This angle is called the [angle of attack](#), or AOA. The heavier the aircraft and/or the slower the aircraft is flown the greater must be the angle of attack to generate the lift force necessary to maintain altitude.

Although raising the nose of the aircraft increases angle of attack and thus increases lift, this cannot be done without limit. Up to a certain angle of attack, called the *critical angle of attack*, pointing the wings upward continues to produce more lift. However, beyond the critical angle of attack, the airflow behind the wing separates from the wing and becomes turbulent, and the aerodynamic effects that produce the lifting force largely disappear, and the wing *stalls*—that is, it ceases to provide enough lift to support the aircraft. At the same time, the turbulence greatly increases [drag](#), which slows the aircraft down as it moves through the air, and this also reduces lift. As a result of these changes, the aircraft begins to sink rapidly towards the ground.

Recovering from a stall is simple. Since the stall is caused by an excessive angle of attack, simply pointing the nose of the aircraft downward will stop the stall, by reducing the angle between the wings and the flow of air. Some aircraft have a natural tendency to pitch downward (sometimes dramatically) when the wings stall; others must be directed downward by the pilot. As soon as the angle of attack drops below the critical angle, the aerodynamic stall of the wings will cease i.e. the wings will produce lift and far less drag. However, the aircraft may still be flying too slowly to generate enough lift to prevent the aircraft from continuing to descend: Recovery from the stall includes regaining this necessary speed.

Typically a stall is caused by the pilot attempting to fly the aircraft too slowly, or to pull up too quickly from a dive, or to turn too steeply. Each of these causes the nose to be lifted until the wing's critical angle of attack is exceeded. Increasing engine power counteracts the increased drag caused by the stall and also increases air speed, and this helps in recovery from a stall. The critical action in recovering from a stall is, however, reduction in the angle of attack i.e. lowering the nose.

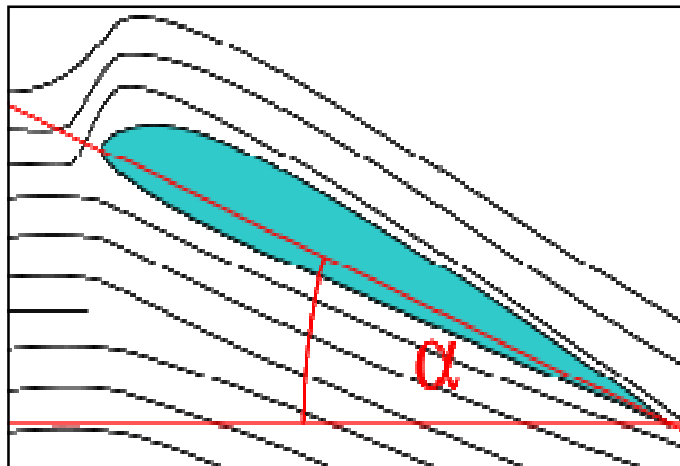
Altitude (height above the ground) is lost by the aircraft during the stall itself but considerably more height can be lost during the recovery i.e. while regaining enough speed to generate enough lift to maintain altitude. If the aircraft is already at a high altitude this is not a problem. If the aircraft is very close to the ground, however, a stall may cause the aircraft to lose so much altitude that it hits the ground before recovery from the stall is possible. For this reason, pilots are especially careful to avoid stalls during take-off and landing procedures, when the aircraft is often very close to the ground.

Stalls in aircraft usually do not occur without warning. Sensors in the aircraft alert the pilot when the aircraft is about to stall, and experienced pilots can often sense an approaching stall in the changing behavior of the aircraft. Since the conditions

that produce stalls are very well understood, pilots can easily avoid stalls, and many pilots never experience stalls outside of their pilot training. Standard pilot training includes training in the proper ways to avoid, recognize, and recover from stalls.

Stalls can be alarming for non-pilots, because the aircraft may drop very suddenly and pitch forward in a frightening way. However, recovery is simple, and stalls are not a cause for concern unless they occur in close proximity to the ground. Commercial airliners never experience stalls in normal flight, and commercial pilots are especially careful to avoid stalls in order to avoid making passengers uncomfortable.

A few types of aircraft with a T-shaped tail or rear-mounted engines can enter a *deep stall* or *superstall*. This is a type of stall that produces turbulence behind the wings that can interfere with the operation of engines or the tail of the aircraft. Recovery from a deep stall can be impossible, resulting in a crash. Some aircraft with such characteristics are fitted with special control devices to prevent the aircraft from ever approaching a position that can cause a deep stall. An example of such a device is a [stick pusher](#), which forces the nose of the aircraft down whenever it approaches a stall, regardless of any actions taken by the pilot.



President:	Greg Halderman (937) 859-3642
Secretary:	Larry Scherr (937) 436-3969
Treasurer:	Tom Weber (937) 748-9084
Membership:	Chester Harris (937) 657-3621
Maintenance :	Clem Gilland (937) 426-1617
Safety Officer:	Tim Smith (513) 403-4721
Newsletter Editor:	Mike Nolan (937) 866-8280 mnolan@woh.rr.com

Newsletter articles Due by July 10, 2007

Around the Hanger

Send your Check Outs, Medicals, and Safety meeting's to Tim Smith, P.O. Box 1144, Waynesville, Ohio 45068-1144 or e-mail: arrowsmith@woh.rr.com

Schedule your check-ride with the new Zodiac as soon as you can get with your instructor.

Jeppesen is helping to create a new website for pilots. The website provides a range of tools and features. Pilots can also store and share information. Your opinion is important as we work to make this site the best it can be. They ask that you go to the following website and complete the survey. <http://208.56.177.109/pilotSurvey/form01.php>

A Message from your President

Saturday, the second of June was our annual DPC plane wash and waxing event. Fortunately, several faithful club members showed up, and made the task of washing and waxing our planes manageable. Clem Gilliland organized the event having provided the coffee, doughnuts, and soft drinks, and making sure all the needed cleaning and waxing supplies were on hand. Tim Smith supplied the power washer, and brought along tools and angle iron to fix our hangar doors. Thanks to Tim, our hangar doors now work properly and are more secure. We didn't have a sign up sheet at the event but I would like to acknowledge those loyal club members that came out to help. I'm going from memory so if I have forgotten someone please accept my apology. Those individuals were; Clem Gilliland, Tom Weber, Larry Scherr, Tim Smith, Ken Lawson, Reiff Lorenz, Dan Reed, Tom Satchell, and yours truly. The planes were looking really great after we finished. Please try to keep them that way by taking the time to wipe off the bugs from the front of the cowling, and

leading edges of the wings after each flight with the bottle of cleaner and towels provided in the hangars.

Change of subject on a more serious note.

As we all know general aviation is having problems these days, with increase cost, continued restrictions, FAA budget cuts, threat of user fees, and the like. DPC has not been spared these same issues. I've been told recently (the Saturday of our plane wash and wax) that our fuel cost is going up again. I know these issues affect us all and have an impact on our flying. However, if general aviation, and more importantly Dayton Pilots Club is to survive, we must all do our part to fly as much as we can. This is not only for financial reasons but for safety as well. Having reduced our fleet to the current three aircraft in an attempt to "right size" our fleet to our flying membership and keep cost to a minimum, we set the current dues and flying rates based on the planes each averaging a minimum of 250 hours per year. We are now in our peak flying season and we are falling short of our budgeted rate of flying hours. For example, the Saturday of the plane wash and wax, and that Sunday as well, were perfect VFR flying days. Not one plane was scheduled either day! If this trend continues we will be faced with the problem of either raising dues and flying rates again, or selling yet another aircraft. Either more flying hours and or additional members will solve this problem. If we're going to keep DPC alive and solvent we all need to fly more and try to recruit new members. I don't know about you, but I'm not ready to stop flying, and since owning an aircraft is not in my future I can't think of a better way to fly than with Dayton Pilots Club!

Minutes of the May 21, 2007 DPC Membership Meeting

Greg Halderman called the meeting to order at 7:00

Larry Scherr read minutes from the May 16, 2007 trustee’s meeting

Greg talked about a discussion about maybe doing some cosmetic repairs to some of the Archers

Plane wash and wax on June 2, 2007 at 10am

Constitutional Amendments

Article II section 3

Notice of the annual meeting of the members shall be sent to each member at such member’s last know address at least five (5) days before such annual meeting.

Motion to make the change by Jim Watts, Ken Ransbottom. Passed

Article II section 6

At any meeting of the members, a quorum shall exist if at least thirty (30) percent of the active members are present.

Motion to make the change by Clem Gilliland, Ken Ransbottom. Passed

Article III section 1.

The powers, business and property of the Club shall be exercised, conducted and controlled by a Board of Trustees consisting of seven (7) members. (to be effected at the next regular election)

Motion to make the change by Jim Waits, Arif Malik. Passed

Tim introduced Rich Fox from DAY Tracon and ATC. Hear back read back, communication over class B, and DAY to ORD.

Excellent program. Richard.c.fox@faa.gov

Trustee Reports

Membership: Chester Harris
No new member, however he is talking to one that is very interested.

Treasure report – Tom Weber

We have a good start, for one month we are showing a “profit”. Aircraft need to fly 250 hours a year. We are behind that target right now.

\$50 Zodiac
\$90 Archer

Safety: Tim Smith
Excellent program from Richard Fox

Maintenance
8078X – Heat lever is sticking on, co-pilot headset giving static
4506W – Reports of engine hesitated on run-up and climb out, it has been to ASI, adjusted fuel mixture and timing
701DP – Adjustment on the voltage regulator, broken ground strap repaired, stall horn switch has been replaced

Ken Fowler is going to see if he can get the repair work done on the fiberglass on the wheel pants.

Adjourned at 8:50 pm

April 2007

F L I G H T O P S	Current Month		Current Year		
	Prior Fiscal Year				
	Aircraft	Hrs	888	YTD Hrs	YTD 888
4506W	13.30	0.00	13.30	0.00	13.30
	19.54	0.00	19.54	0.00	19.54
701DP	15.60	0.40	15.60	0.40	16.00
	0.00	0.00	0.00	0.00	0.00
8078X	14.90	0.00	14.90	0.00	14.90
	20.00	0.00	20.00	0.00	20.00
Totals:		43.80	0.40	43.80	0.40
		39.54	0.00	39.54	0.00