



PROPWASH

EAA Chapter 135 Newsletter

Book 7, Chapter 6

June 2005

President's Position

by Dave Kalwishky, President EAA Chapter 135

This past month I've gotten to do some actual flying in the clouds and it has been a blast. As a VFR pilot I never gave much thought to freezing levels, so imagine my surprise when on two different flights in May I encountered ice in the clouds. It never occurred to me that this could be a problem in May; even though I received a good weather briefing and no ice was forecast, this just shows that you need to be careful out there and to always have an out.

I'm sure everyone has heard, there was a Cessna 150 that crossed into the Washington ADIZ on May 13th and caused quite a scare, to the point that the white house was evacuated. I would like to remind everyone that flies cross country to make sure you know where ALL the restricted airspace and controlled airspace is located along your route of flight. One easy way to avoid problems is to fly with a portable GPS, all of the current GPS's out there will show SUA's (special use airspace), this can be a big help in avoiding the accidentally flying into somewhere you shouldn't be. While the FAA has not ruled yet on what will happen to him, AOPA is reporting that it's likely the pilot will have his certificate revoked on an emergency basis. After one year he will be eligible to apply for a new certificate if he passes knowledge and practical tests. Busting airspace is very serious, make sure you know your location at all times.

Our Young Eagles flying on May 21st was cancelled due to weather but fear not, you will have another chance to fly kids during the Aviation camp June 12th – 14th; we will be flying kids from 6pm until 8pm in Boone so let's have a good Chapter 135 turnout and help support this wonderful event.

The NEW chapter website should be online by the time you get this. I am still looking for pictures of member's planes and projects. You don't have to be building something to get your plane online, I will happily post your current plane, one you've built or one you've bought be it experimental or production. If you don't have any digital pictures I would be happy to come to your workshop and take some pictures to put up. If you have something you would like to contribute please let me know and I can get it added. I do not want the website to be everything that I want to put online, I want to put content online that YOU would like to see.

At our last meeting I brought a couple of stories that I'd written regarding a couple of my recent flights; several members attending the meeting found them interesting. I've had several articles published in both the Cessna Owners Organization and Piper Owners Society magazines, I have not mentioned that before because I didn't think it was any big deal but several people though this was neat. I will be making the stories available through the website site. If you have any stories or flight experiences you've written about please send them to me and I will include them on the website.

I have scheduled our visit to the Fort Dodge Flight Service Station for Saturday June 18th with a rain date of the 19th. I'd like to fly up there for the visit; I have access to a plane that carries five people so I can take four others with me. If you are interested in going please let me know soon so I can let Flight Service know how many to expect.

Lastly a reminder that the Quad City Air show (<http://www.quadcityairshow.com/>) is June 25th and 26th, the Thunderbirds are the featured performers this year. I might have an open seat or two in the plane if anyone wants to come along with me.

—Dave



The Old Hong Kong Airport

(submitted by Brant Hollensbe)

I don't generally forward stuff, but these photos brought back too many memories for me, and I just couldn't leave it alone...!! Got these from a fellow retired Captain friend, reminding me of the days when we used to fly this approach in Pan Am's Boeing 707's, way back in 1967 thru 1970...when I was based out of San Francisco. For those of us who've had the "privilege" of landing at the Old Hong Kong Airport... "Fond memories" ? Had it's own built in "pucker factor" didn't it ? Even when the weather was good...which was never...!! You know, the old punching washers out of your seat cushion type of thing...We were definitely sitting up straight and paying attention...!! Couldn't resist adding some of my own comments to his...!!! (italics)

I showed the Jepp approach plates for Hong Kong to an air traffic controller at the Denver Center. His comment was close to, "You gotta be kidding!" There were a few other words in there that I have deleted. Normally, at the bottom of an ILS approach, (Instrument Landing System) you are looking for a runway...This was long before we could trust the autopilot for an "Auto-Approach" hook up, so you always hand flew it. This ILS approach guides you right to the top of a hill, not the runway. If you did a good job flying the ILS all the way to "minimums" you got to see that checkerboard panel in photo #3. If you dropped below minimums in bad weather, you got to die right on the tippy top of the mountain...!! The drill was to fly to minimums, (the hilltop) and then crank it over into a hard right turn and dive for the runway. There was usually a cross wind, which explains some of the other pictures. It was pretty easy to drag a wing tip, or an outboard engine. Some of the lucky ones got both outboard engines, the first at impact (photo # 8) and the second trying to recover from the first engine strike. (photo #9) And you couldn't cheat by going below glide slope or turning in early because of all the tall buildings downtown. And if the approach wasn't enough fun, note that the runway is short. More than one went off the end, or the side, and into the bay. Missed approach? See those hills? Yep, another hard right turn and climb, baby, climb! The weather was usually not clear. Clouds were the norm, with fog or mist, and sometimes heavy rain. It's tropical there. There was an approach to the other end of that single runway. It wasn't much better. More hills and the "missed approach" was a hard left turn to avoid hitting the tall buildings and checkerboard mountain...Yeah, just another day at the office. The new airport is almost easy. There are still the hills all around the bay, but at least the ILS takes you to pavement. And you don't have to look up at the people in the higher floors. You don't really appreciate flying in America until you have flown out of it. Washington National is a piece of cake by comparison. There were some airports in South America that were almost the equal of Hong Kong. Did I mention what braking was like on a rainy day on that short runway? Or the huge puddles that formed because the airport was sinking, and no one would spend any money because they were building the new airport?

Photos # 1 and # 2 were taken from the high rise balconies . (I never quite had time to take a lookback photo from the cockpit here.).....Sort of like driving thru midtown Manhattan to Times Square...!!!



No autopilot stuff here...hand fly that sucker, and don't screw up...!! The Prayer: "Lord, if I'm gonna die...please don't let it be pilot error"



At ILS "Minimums"...you break out of the clouds at the top of a hill...!! First one to see it calls "Checkerboard in sight"...!!



Now...hard right turn and dive !!!...and don't mess around, or you simply won't make it...!! Is that a short runway or what...!!



Woe to you if you're too high...!!!

(continued on page 3)

PROPWASH



Strong cross winds were common...so you had to "crab" all the way to the runway...!!!



Sometimes the cross-winds were stronger than others...



Over shoot, and you're in the drink...kick it out of the crab too soon, and you're blown back off the runway...wait too late and "crunch"...# 4 engine...!!!



Overreact on the crab correction, and "Crunch" # 1 engine...!!!



Don't "Float" or try to make a smooth landing...Just put it on...!!! "Firm" landings help dissipate energy, and help you stop...!!!



Drop too low, and you'll drag your wheels thru the high rises...!!!



What I said was: "I think we're a little high and fast"...!!! ...that was a nice smooth touch-down though, Sir !



Some days you earned your pay more than others!!!

*Ah...Yes, we were all so young then... and fearless...!! And the older we got the more cautious we became...!!! And where has the time gone..? I remember thinking...Wow, ten more years to retirement...and now it's been ten years **since** retirement...!! Back then...my goal was to retire without scratching an airplane...!Today...I'm happy not to scratch my car turning into my own driveway...!!*

Why ARE Men Happier?

Men are just happier people —Here's Why

- * Your last name stays put.
- * The garage is all yours.
- * Wedding plans take care of themselves
- * Chocolate is just another snack
- * You can be President
- * You can never be pregnant
- * You're allowed to wear a white T-shirt to a water park.
- * You're allowed to wear NO shirt to a water park.
- * Car mechanics tell you the truth.
- * The world is your urinal.
- * You never have to drive to another gas station restroom because this one is just too icky.
- * You don't have to stop and think of which way to turn a nut on a bolt.
- * Same work, more pay.
- * Wrinkles add character.
- * Wedding dress \$5,000; tux rental-\$100
- * People never stare at your chest when you're talking to them.
- * New shoes don't cut, blister, or mangle your feet.
- * One mood all the time.
- * Phone conversations are over in 30 seconds flat.
- * You know stuff about tanks.
- * A five day vacation requires only one suitcase.
- * You can open all your own jars.
- * If someone forgets to invite you, he or she can still be your friend.
- * Your underwear is \$8.95 for a three-pak.
- * Three pairs of shoes are more than enough.
- * You almost never have strap problems in public.
- * You are unable to see wrinkles in your clothes.
- * Everything on your face stays its original color.
- * The same hairstyle lasts for years, maybe decades.
- * You only have to shave your face and neck.
- * Your belly usually hides your big hips.
- * One wallet and one pair of shoes in one color for all seasons.
- * You can "do" your nails with a pocket knife.
- * You can do Christmas shopping for 25 relatives on December 24th in 25 minutes.
- * Doesn't mind not cleaning the house until it actually needs it.
- * When the hem on a pair of dress pants comes undone and there is no thread or needle in sight, cleverly staples the hem up, and then colors the staples with a black sharpie marker so no one can tell.
- * Soup is fine straight out of the can.
- * Really doesn't mind eating Ramen for breakfast.
- * When shaving crème unexpectedly runs out, discovers that body lotion works just as well.
- * And last but not least the most important reason they are happier:

You can play with toys all your life!!

Is it any wonder men are happier???

You are a South African bush pilot. You fly in some critical medical supplies, and enjoy a quick lunch at the hospital cafeteria. It's a stifling 100 degrees in the shade and you're eager to get back up to the cool, high blue yonder.

On the way back to your plane, you discover that the only bit of shade, within 1 mile, has become VERY popular. You start calculating the distance to the plane DOOR and ponder....

“Do I feel lucky today?”



HANGAR UPDATE

We have had some delays with the building permit. We feel we have everything ironed out, but are still waiting on the county to send it to us. Once I receive that, and we know when the trusses are to be delivered, I will be calling and getting volunteers to start tearing off the old roof. Until then, rest up and enjoy the beginning of summer!!

—Donna

I found a website containing airport directories of all US airports, current FAA data, local maps, instrument procedures, and weather. Go to <http://www.xcpilot.com>

—Donna

Don't miss "Mail Call" on June 10th

Be sure to watch "Mail-Call" on the History Channel on June 10, 2005. The hour long special was filmed using some of our boys from Air Force base in Sioux City. It will show refueling a B-2 stealth bomber.

June Chapter Meeting The June 11th Chapter meeting will feature Brant Hollensbes "new and improved" Cessna 182. (No, he didn't get a NEW 182) He had a new instrument panel installed in May and is going to show off his new stuff. He installed a Garmin 340 audio panel, Garmin 530 GPS/nav/com #1, JPI FS-450 fuel flow monitor and Davtron 800 Clock/timer. 7 pm at Exec I at Ankeny Airport.

Aviation Safety

(written and submitted by Dave Kalwishky)

The Federal Aviation Regulations state that for a Private VFR Pilot you must have a flight review every 24 calendar months. During that three months if you perform three take offs and landings within the preceding 90 days you are legal to carry passengers.

Flying the minimum to stay legal is very dangerous as your skills probably will not be as sharp as they should be. Last month I wrote about the FAA's wings program, this program was designed to address this problem of proficiency. Once a year you spend three hours flying with the CFI of your choice and one hour of ground instruction.

Last August I completed Phase I of the wings program. For the hour of ground we talked about weather minimums, FAA regulations and reading the sectional. I learned a great deal during this time.

Next it was time to go fly, during hour one we did takeoffs and landings. These ranged from normal, full flap, no flap, short field and soft field. It was a learning experience and nice to have someone along to tell me of any bad habits I may have started forming.

Hour two consisted of instrument training. We did some basic maneuvers under the hood so the only reference I had was the instrument panel. This can be a life saver for the non-IFR pilot who accidentally fly's into a cloud and needs to execute a 180 to get back out. Having spent a few hours in the clouds now I can see how a pilot could become very disoriented.

Hour three was air work maneuvers. We did steep turns, s-turns, stalls, spirals and turns around a point. We performed the same maneuvers that you will on your private check ride. We some time left over once we were done with these so my instructor showed me a few of the commercial maneuvers, we did Chandelles and Lazy Eights. These were a lot of fun and I learned something new. As you might recall I had a near miss experience that I wrote about a few months ago and I firmly believe today that knowing how to perform the Chandelle saved my life and my passenger's life.

Doing the bare minimum is seldom a good or safe in aviation, I'd encourage all of you that are flying to seriously look into the Wings program, it has a lot of value and has made me a better pilot. I can't wait to do it again this August.

YE FLYING—June 12-14 6pm. Boone—Aviation Camp. We need all pilots as there will be loads of kids to fly. E-mail Alan Core if you are available to help fly or ground crew at: indypurr@juno.com

EAA Chapter 135 dues are due this month. Please mail or give check for \$20 to Treasurer, Brant Hollensbe. 512 36th Street, W. Des Moines, IA 50265

**National Association of State Aviation Officials
To hold Convention in Des Moines**

The National Association of State Aviation Officials (NASAO) will hold its 2005 National Convention in Des Moines September 10-14, 2005. More than 300 attendees, including state aviation directors, government officials and aviation industry representatives, are expected to attend the five day event at the Downtown Des Moines Marriott Hotel. The Des Moines Visitors and Convention Bureau is assisting with the event. In addition to convention activities in downtown Des Moines, attendees will also participate in activities at the Ankeny Regional Airport and Des Moines International Airport.

FOR SALE

BRAND NEW GLASSAIR III KIT-(new as of last year) Too many options to list. Asking \$40,000 (cost to purchase it today would be \$49,750)

If interested, Contact Dave Bailie at 515-267-2861

Aviation Computer Resources on the Internet

There are many resources available via the internet that I have come across over the years and I'll be sharing some ones each month with you. If you have a favorite internet site that you think our other members would enjoy please drop me an e-mail and tell me about it.

<http://204.108.4.16/index.asp?xml=naco/onlineproducts>

– This site is operated by the Aviation System Standards. This is a resource for downloading charts, instrument procedures and airport diagrams. I have found it invaluable in planning cross country flights.

www.avweb.com – This is an interesting site that has a lot of information. This site has news articles about things happening in aviation today. You can lookup airman records and N numbers of planes to see who owns them. They have articles on Aviation Law, Avionics, Insurance, Maintenance, Reviews, Safety and much more.

www.faa.gov – This site it operated by the FAA and has a lot of information in aviation safety. You can also search for FAA sponsored Safety Seminars and events around the country.

Special Thanks To Those Who Contributed to the Newsletter this Month:

Brant Hollensbe, John Barcus, Mike Abrahams, David Bailee, Joe Wallace & Dave Kalwishky.

What's Going On In Osceola

TO PROP OR NOT TO PROP THAT IS THE QUESTION

By John Barcus—CFI, Comm. Inst., Osceola FBO

More speed—more pitch—or ?? Here we go. I am going to change my fixed pitch propeller from the one provided by the airframe manufacturer. I am going to exchange for a cruise prop—or change the pitch on my home built. I want more speed. GO FOR IT AND PAY FOR IT! An increase in fuel usage will soon become apparent.

It is well known that the amount of horsepower taken from an engine will have a direct relationship to the amount of fuel used. Therefore, for a it can be deduced that the use of a cruise propeller increased horsepower will be required. As an example, the standard propeller supplied with an aircraft may allow the engine to develop 180 HP at 2700 RPM. Next, let us assume that the same engine-propeller combination is operated at 75% power with the best economy fuel air mixture setting. At sea level and standard temperature to simplify things and standardize the discussion. 75% power will require about 2450 RPM with a brake specific fuel consumption of .435 pounds per brake horsepower per hour.

Fuel usage at this power mixture setting will be 58.7 pounds per hour or 9.8 gallons per hour. Take note here now, that the average pilot has not been taught how to operate an engine, because his instructor did not have the knowledge.

The mathematics to arrive at this fuel usage is simple:

$$180 \text{ HP} \times 75\% \text{ of power} = 135 \text{ HP}$$

$$135 \text{ HP} \times \text{BSFC} = 58.7 \text{ LBS of fuel}$$

$$58.7 \text{ LBS Fuel/HR} @ 6 \text{ gal /lb} = 9.8 \text{ gal/ HR}$$

Now, let's see what happens when the propeller pitch is changed or a cruise prop is installed in place of the original. The first thing we must know is about the cruise propeller is that it has more pitch than the standard prop and it will take a bigger BITE out of the air than the original propeller with each revolution. This bigger bite of air will have an effect on aircraft performance and how the engine may be operated.

Taking a bigger bite of air increases the resistance to the turning propeller. Perhaps, it may be easiest to imagine what happens when you hold your hand out the window of a car in the airstream with the palm forward as compared to having the side of your hand forward. The same is true of a propeller. Because of this increased resistance, the static RPM will be lower than with the original prop. The same thing will be true when full throttle in flight RPM is compared to that of the standard propeller at a similar altitude and temperature. This will reduce takeoff performance of any aircraft.

Using the earlier example, the engine was rated at 180 HP at 2700 RPM. Now, in spite of applying full throttle, the increased resistance reduces the maximum attainable RPM to something less than 2700 RPM. The engine, also, will not develop the power for which it was rated, since the maximum power is less than full rated. Aircraft performance will suffer.

Why does the engine require more fuel with the cruise propeller? (*good question*) It is an accepted fact that the cruise propeller is more efficient for cruise operation, so it would not be unusual to follow this line of thought. 75% of rated power, using the original propeller at sea level and standard temperature, required a throttle setting to achieve 2450 RPM. Therefore, without more thoughtful consideration, it seems logical that the cruise propeller must be set for 2450 RPM when 75% power is desired. Of course, there is an increase in performance, but this can be

attributed to the more efficient cruise propeller. Next comes the realization that the increased cruise performance isn't at all efficient. Instead of 9.8 gallons per hour the engine is now using a greater amount of fuel.

For purpose of this discussion, let's assume we are using 11 gal/hr at this 75% setting now. By reversing the math used earlier, it is possible to estimate the horsepower and the percentage of horsepower actually being used with this new prop. This would be the cruise prop at 2450 RPM and the best economy fuel air mixture.

$$\begin{aligned} 11 \text{ GPH} \times 6 \text{ lb/gal} &= 66 \text{ lbs/ hr fuel burn} \\ 66 \text{ lbs/hr divided by } 435 \text{ BSFC} &= 151.7 \text{ actual HP} \\ &\text{being developed} \\ 151.7 \text{ HP divided by } 180 \text{ HP} &= 84.3 \% \text{ power} \end{aligned}$$

Although we assumed a rate of fuel burn at this setting of 11 GPH, it provides a reasonably realistic example of the effect that a change in propeller pitch or changing to a cruise propeller might create. Watch out now. In addition to changing their habits, it shows a real need for thought. (*in essence, there is no free lunch*) Reevaluate the take off, climb and cruise performance if you change the pitch or propeller.

With this information as a background, it is easy to see that setting a desired power with a fixed pitch prop can only be accomplished if a builder or pilot has a chart that applies to the specific aircraft—engine – prop combination. Now, there is another curve ball for Mr. Roger Bocox, and his RV-6A, Oldsmobile V-8, and WARP ground adjustable propeller. *Note from Roger: Obviously, my testing of my RV prompted this article from John. I am trying to find the best performance setting for prop pitch on my airplane. I think what John is trying to tell me is that without a baseline of specs to start from, I will just have to experiment—trying different settings, evaluating all aspects of the aircraft's performance, not just cruise speed. Thanks, John.*

A Good Friend Goes West

Lee Keesey of Creston died of natural causes Sunday morning May 8, 2005 enroute by Life Flight to Des Moines. A fellow builder of a Loehle 5151, Team Z-Max he was a member of the EAA Chapter 1143, Replica Fighters Ass'n, and Sport Aviation Ass'n. His good humor and quiet manners will be missed. We wish him God Speed and a Safe Landing.

Attention Osceola Members: For the summer months, the Osceola EAA chapter 1143 has changed the day for their monthly chapter meeting. They will be held on the third Sunday of each month. Mark your calendars for June 19, July 17, and August 21. They will be fly-ins (or drive in), and start at 2:00 pm in the city hangar on the field. Jerry Grogan may have his Skybolt at the June meeting.

Osceola Chapter Officers:

Jerry Grogan, President—H—(515)967-2092
cell (515)979-0482

Joe Wallace, Vice President—H—(641)782-8190

Lyle Persels, Secretary/Treasurer—(H)(641)342-4197
cell (641)414-4293

Iowa Aviation Events

For a complete calendar visit <http://www.iawings.com/calender/yearly.htm>

June 2005			June 2005		
Fly-In Break-fast	6/5	7am – 11am Sponsored by: Pilots Association of Washington Pilots in command, Homebuilts, Antiques and Warbirds eat FREE, Young Eagle Rides Washington, Iowa Municipal Airport For more information: 515-334-7473 (John Grim)	Fly Van Buren-Keosauqua Fly-In Breakfast	6/18	6:00am - 10:00am Free To All Fly-Ins Sponsored by: The Keosauqua Lyons Club Keosauqua, Iowa Municipal Airport For more information: 1-800-868-7822 (Stacey)
Fly-In Break-fast	6/5	7am - 10:30am Red Oak, Iowa Municipal Airport For more information: 712-623-6523 (Howard Viner)	Helicopter Display	6/18	9:00-11:00 a.m. Various Helicopters on Display including medical, military, private and law enforcement Helicopter rides Stuart, Iowa (Exit 93 off I-80) For more information: 515-523-2624 (Gary)
Open House / EAA Fly-In Luncheon	6/5	1pm - 4pm Muscatine, Iowa Municipal Airport For more information: 563-263-8672 (Janet Lewis)	Optimists' Fly-In Breakfast	6/19	7am - 1pm <i>Free</i> for Kids 6 & under <i>Free</i> to all Fly-in Pilots Maquoketa, Iowa Municipal Airport For more information: 563-652-2484 (Brian Wagner)
Flight Break-fast	6/5	6:30am - 10:30am <i>FREE</i> Breakfast to all fly-ins Audubon, Iowa Municipal Airport For more information: 712-563-3780 (Barbara Smith)	60th Annual Flight Breakfast	6/19	Sponsored by: 8-Ball Aviation Club <i>FREE</i> to all fly-ins Harlan, Iowa Municipal Airport For more information: 712-744-3366 (Olie Pash)
Flight Break-fast	6/5	7am – 11am Sponsored by: Optimist Club & Denison Aviation <i>FREE</i> Breakfast to all fly-ins Denison, Iowa Municipal Airport For more information: 712-263-2781 Barry	Balloons in June Fly-in Breakfast	6/24-6/26	Fly-in Breakfast on 25 th & 26 th Clinton, Iowa Municipal Airport For more information: www.balloonsinjune.us
Airshow & Flight Break-fast	6/12	7am – 10am Breakfast 10am -12pm Airshow Young Eagle Event& Air Guard Static Aircraft Display Spencer, IA Municipal Airport For more information: 712-262-1000 (Gayle) e-mail: spencerairport@smunet.net	Fly-in	6/26	7am - 12pm <i>FREE</i> Breakfast to Pilots in command 1st fly-in with new terminal & ramp! Pocahontas, Iowa Municipal Airport For more information: 712-335-4382 (Gary)
Fly-In Break-fast	6/17 (FRIDAY)	Hosted by: 1040 WHO Radio Van & Bonnie (Van's Birthday) Pilots in command eat <i>FREE</i> Exec 1 Hangar Ankeny, Iowa Municipal Airport for more information: 515-965-1020 (Jamie)	Flight Breakfast	6/26	Classic Car Show 8am - 12pm <i>FREE</i> Breakfast to Pilots in command Eagle Grove, Iowa Municipal Airport
			Pilot Safety Meeting	6/28	7pm Red Oak, Iowa Municipal Airport For more information: 712-623-6523 (Howard Viner)

PROP WASH



Donna Bocox
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EAA Chapter 135 dues are due this month. Please mail or give check for \$20 to Treasurer, Brant Hollensbe, 512—36th Street, W. Des Moines, IA 50265

UPCOMING MEETING
June 11, 2005 – 7pm—Exec I at Ankeny Airport. Brant Hollensbes “new and improved” Cessna 182 with new instrument panel.

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