

Volume 8, Issue 11, November 2011, T-Craft Aero Club Inc., All Rights Reserved

Well, there you go...austerity measures are in place; 91X is mothballed, and club leadership responsibilities we be consolidated after the first of the New Year. Since there won't be a General Membership meeting in December, make sure you attend the Board meeting the second Tuesday of the month. If you are not planning much in the way of flights as we progress into the winter months, this might be a great time to review our newsletter issues; and, in case you missed any one of them, you can find them on our website; there's some great stuff to help build on your piloting knowledge and skills. The newsletter is looking for stories and photos for our December edition; this would be a perfect time to share the sunshine and warmth from this past summer with your friends. We've got a couple stories later in this newsletter; one as a lesson on weather, another a lesson on greatness.

From the Membership Director That Mysterious Speed We Call "Maneuvering"

One very important speed that I find is not well understood is maneuvering speed. I didn't realize the importance of this myself for some time after I obtained my Private Pilot Certificate. It wasn't until I was taking Mountain Flying Lessons that the instructor asked why I was not slowing down when we encountered some turbulence. Not wanting to admit my ignorance, I said "oh yea!", then slowed down to a speed slightly below V_a (given for gross weight). The instructor had me slow down even more to a speed he thought would be safe for our light loaded condition. Being too embarrassed to ask questions, I did some studying and refreshed my knowledge on this important speed, and how it changes with weight. I don't recall any of my instructors in primary training teaching me the importance of this speed, although they probably did and I didn't remember.

That incident has made me much more aware of its importance, and the potential consequences of not adhering to the correct speed when doing maneuvers or encountering turbulence.

<u>What is maneuvering speed</u>? As you may recall, aircraft are designed to withstand a certain amount of loading before structural damage is done. This is the design load limit, or the amount of G's the aircraft can withstand without structural damage. For most GA planes under 12,000 pounds, this is 3.8 positive G's and 1.52 negative G's. For our C172's in the utility category, and our C152, the load limit is 4.4 G's positive and 1.76 negative G's, with which you can perform some mild aerobatics, such as spins. In normal flight one typically would not exceed these limits. However, in turbulence or high G maneuvers, these limits could be exceeded and structural damage would occur. The amount of load that can be imposed on an airframe depends on the aircraft's speed. An abrupt pull up from a high speed dive exerts much more loading or G's than a lower speed recovery.

An important airspeed related to load factors and stall speeds is the **maneuvering speed** (V_a). This is the maximum speed at which you can use full, abrupt control movements without overstressing the aircraft. Any airspeed in excess of V_a can overstress the airframe in

turbulence or abrupt maneuvers. If you operate below V_a and the G loading increases inadvertently too much, the airplane would stall before exceeding the design load limits and any structural damage occurs.

Maneuvering speed V_a varies with weight. It seems counterintuitive, but it is reduced as weight is reduced. It decreases because an aircraft operating at lighter weights is subject to more rapid accelerations from gusts and turbulence.

When do I have to worry about maneuvering speed?

You need to be concerned anytime you experience moderate to severe turbulence, or perform any hi-G maneuvers, such as recovery from a steep dive, stall or spin recovery where speed increases too



much, or steep turns exceeding 75° of bank in smooth air (approximately 3.8G). For seat of the pants reference, you will experience 2 G's in a sustained 60° bank in level flight. (Note also that zero G maneuvers may exceed the negative G limit.)

<u>How do I determine maneuvering speed</u>? You should know the correct maneuvering speed at the beginning of your flight and how it changes during the flight in case you experience any turbulence, or if you are planning maneuvers which may push the load limit.

The formula for determining maneuvering speed, when you are less than gross weight (which is probably most of the time) is:

 $V_a1 = V_ag \sqrt{W1/Wg}$, where V_a1 is the maneuvering speed at your current weight. To calculate V_a1 , multiply V_ag (maneuvering speed at gross weight) times the square root of your current weight (W1), divided by Wg (gross weight). For example, one of the C172's with pilot and passenger totaling 280 # and full tanks start out on a 3 hour trip at 2,060#. Maneuvering speed at the start of the trip is:

 $V_a1 = 112 \sqrt{2060/2300} = 112 \sqrt{0.896} = 106 \text{ mph}$

At the end of a 3 hour flight with 25 gal of fuel spent (at 6 lbs. per gallon), the weight has been reduced to 1910 pounds and maneuvering speed would be 102 mph. Should you encounter turbulence during your trip, you need to get your air speed down below these numbers.

Weight and Balance Calculations

Even when you know you will be underweight for a flight, it is still important to do a weight and balance calculation, so that you know your weight and what your maneuvering speed should be. Also, other V speeds, such as Vx, Vy, Stall speeds, and best glide are reduced as weight is reduced from gross weight.

The weight and balance Excel spreadsheet available on the club computers and on the club web page calculates the maneuvering speed and other V speeds according to the aircraft weight at the beginning and end of your flight.

You can download this spreadsheet from our web page at: <u>http://www.t-craft.org/siteindex.htm</u> under "W" Weight and Balance Worksheet.

The new check-lists have maneuvering speeds at various weights to give you an idea on how

much you need to reduce your speed, but you have to know your aircraft weight at any given time.

For more in-depth reading on the subject, refer to the FAA Publication Pilot's Handbook of Aeronautical Knowledge FAA- H-8083 -25A, Chapter 4 Aerodynamics of flight.

If you don't have a copy, you can find it free on line at:

http://www.faa.gov/library/manuals/aviation/pilot handbook/

Fly Smart, Fly Safe and Have Fun, Jim Hudson

Resigning Members: We're sorry to see some long time members resign, but hopefully they will soon be with us again.

Jim Faull – Class II member, joined 6/12/2001Bob Van Allen – Class II member, joined 10/11/2005

New Pilot Ratings this Month:

Cangratulations Ta: <u>Steve Chaffin</u> – Private Pilot Robert Shepherd - SOLO

Special Announcements

Training/Events:

No events planned for December – Please give me your ideas and suggestions for future training topics.



PROP BLAST FROM THE DOM

It's a CAVU day with a light breeze from nowhere. You decide to take advantage and go for that juicy \$100 hamburger at your favorite grease joint. Blissfully en route you happen to glance at the engine instruments.

You have normal oil pressure, but high oil temperature. What does this mean? Or perhaps you see indications of low oil pressure with high oil temperature. Would that make any difference? Giving you credit for even noticing these indications means you're already ahead of the game.

Hate to say it but the ugly truth is that many pilots do not pay adequate attention to engine instruments. Airplanes and people are not infallible. If they were, airplanes would not come with warranties, and the term *pilot error* wouldn't be in the FAA's lexicon.

Even for the seasoned pilot, engine indications can be confusing. Some indications simply mean that everything is OK. Those are the ones with a lot green on both sides of every needle. Other indications are signs of trouble, how much trouble to expect, and how soon to expect it. Key word is *expect*, making the difference between your finding trouble in time to address it, and trouble finding you after it's too late to do anything about it – the difference between a precautionary landing and a forced landing. In addition to the way an airplane sounds and feels to the pilot, the airplane tells you about its health through the engine instruments.

Two of the most important engine instruments are the oil temperature and oil pressure gauges. They are the "airplaneese" your airplane uses to describe its health. Here are some quick lessons in "plane" language.

High Oil Temp with Normal Oil Pressure: this is a tough one with a mountain of possibilities. No way to tell what is going on w/o further investigation. Best policy is to head for nearest airport – just in case. Err on side of safety always. High oil temperatures in flight may indicate high OAT or poor cooling during a long climb to altitude. Some airplanes just run a little hotter than others. May sound strange but something may be wrong with the electrical system.

In some older aircraft an electrical short may cause oil temperature gauge to behave like an ammeter – higher the electrical load, the higher the indicated oil temperature. Try turning off unnecessary electrical equipment, one item at a time. Check circuit breakers and recycle the master switch.

Ironically, indications of high oil temperature with normal oil pressure are common and commonly the result of *pilot error*. Did you miss something during your preflight inspection or make some sort of inflight mistake. Was there oil leaking from bottom of cowling? Shouldn't have been. Did you even remember to check the oil? The airplane might be telling you that you have been using too much power with the mixture too lean. Pilot error?

Normally you shouldn't lean the mixture when using more than 75% brake horsepower (BHP). This can cause detonation and eventually pre-ignition. That is when parts inside the engine cylinder heat to an incandescent state, causing fuel to ignite prior to normal ignition forcing the cylinders to fire out of sequence. These conditions put a serious strain on the engine, will cause a loss of power, and may cause engine damage or even failure. Check the performance section of POH to find out what constitutes 75% BHP and notice that this figure changes with pressure altitude and OAT.

Regardless of the leaning procedure used, if the engine begins to run hot or rough, you've over-leaned the mixture. Here's a way to determine whether you are running too lean: set your power and lean mixture until you believe its set properly. Now activate the carburetor heat and note indication on tachometer. If rpm increased, you've over-leaned. Heated air being less dense results in less air for same amount of fuel.

Another common cause for high oil temp with normal oil pressure is the use of too high a power setting at too slow an airspeed. This can happen during an extended performance climb at V_x . You are over working the engine, airspeed is too slow to provide adequate airflow through the engine cowling for cooling and the oil is trying to compensate. If an engine runs too hot for too long, the oil pressure will eventually decrease because of thermal breakdown. Oil will lose its lubricating capacity. Now you've really got a problem. High engine temperatures can cause a loss of power and eventually engine damage or failure.

Treat any engine that is overheating, detonating, or pre-igniting in exactly the same fashion: smoothly reduce power, gradually enrich the mixture to full rich, lower the nose slightly to increase the airspeed. If there are cowl flaps, open them. Hold level flight – don't descend – you don't want to shock-cool the engine (may cause cylinder heads or engine casing to crack); conserve your altitude just in case you actually do have a problem, because you will come to miss altitude very quickly when you really need it and don't have it.

Normal Oil Temperature w/Low Oil Pressure: Bit easier to deal with. Airplane is saying "I'm going to be sick." Low oil pressure is a bad sign, a warning of the onset of a few possible problems, the least of which is a gauge malfunction. There may be an obstruction in the oil line. An oil line, gasket or seal may have blown and the engine may be losing oil which will invariably lead to a high temp/low pressure issue indicating an oil circulation issue and w/o oil engine failure is imminent. Assume gauges are right and head for the nearest airport. If one gauge is wrong the worst that will happen is that you will make a safe precautionary landing. If you see oil temp rising further or if this is accompanied by decreasing oil pressure, don't panic. But do expect a partial or full loss of power as the airplane is saying "I'm dying." Look for a place to land safely and go to it immediately.

Normal Oil Temperature w/High Oil Pressure: this is rare. Could be obstruction in oil line, a malfunctioning oil regulator valve, faulty gauge or an electrical problem. Airplane is saying "Something's wrong, Not sure what." Watch the gauges and proceed with caution to nearest airport. Expect oil temp to rise.

High Oil Temp w/Low Oil Pressure: Two gauges indicating serious trouble. Airplane is saying "I'm Dying." Don't waste time trying to work this one out because both gauges can't be wrong. Engine is definitely about to give up the ghost. Find a spot to land and treat the engine as though it has already failed. Get the approach right the first time – you may not have an engine for a go-around. Don't bet your life or the lives of others on a gauge malfunction.

Any engine indications that are not normal are just that - *NOT NORMAL*. Listen to your airplane. If something doesn't look right, expect a problem and you won't ever be caught off guard. Don't Panic. You won't just fall out of the sky. If the engine is still running then you still have an airplane. If not then you at least have a glider. Continue to fly either one for as long as it will fly.

Remember to look outside. AVIATE, NAVIGATE, And COMMUNICATE. Your primary responsibility to yourself, passengers, loved ones, and strangers on the ground is to keep it in the air until otherwise necessary. Don't get caught in the same trap as the airliner crew that crashed into the Everglades in 1972 when the pilots were distracted by a panel problem. The gear was down and locked, but 100 people perished because a \$10 landing gear position light burned out.

A smart pilot on the ground is a safe pilot in the air, and a pilot who listens to his airplane will be a smart pilot on the ground again. --- *Qim Eyre, Maintenance*

Contact Jim Eyre [cell:(208)794-0667] with squawks, and use the notification feature found online in Schedule Master to alert pilots intending to use impacted aircraft. Write the tachometer time on the Squawk Sheet clipboard found on the hangar wall. Sign your name, and include a phone number where you can be contacted. Document Hobbs time for all other recordings. Report leaks immediately.



"Winter flying hours: during the months of December, January and February the monthly 'use it or lose it' minimum flying charges may be combined for credit in any of these months. For example, if a member did not fly in December or January but flew the equivalent of 3 hours of 152 time in February, the December, January and February 'use it or lose it' credits would be applied to the February billing period. The same is true if the 3 hours were flown in December." -- T-Craft Information Packet, page 7

Flying rates (effective 26 July 2011)

375	-	\$ 58.00*
64R	-	\$84.00
686	-	\$86.00
91X and 0YD	-	\$121.00
93S	-	\$124.00

*[all rates recorded per hour "wet"]

Fuel re-imbursement for November 2011: \$4.89gal

(Review your receipts and confirm \$.25/gallon is recorded. Report any discrepancies ASAP to Dennis Wheeler.)

NEW MEMBER NOTICE

T-Craft Board approved members must be formally accepted into the Club by member vote during a General Membership Meeting. The next General Membership Meeting is scheduled for 31 January 2012, at 7:00p.m. in the EAA/CAP Building, Nampa airport.



(Members wishing to maintain Club currency may attend the following meetings)

<u>Next Board Meeting</u>: 13 December 2011, 7:00p.m., T-Craft Hangar training room.

Next General Membership Meeting: 31 January 2012, at 7:00 p.m. in the EAA/CAP Hangar, Nampa, Id

Member Contribution

"Why I Cancelled My Flight", by Bill McGlynn

"Third Times a Charm", "Three Strikes You're Out", "The Third Rail" are slogans about "threes" that everyone's familiar with. But did you know it also applies to pilots? Research has shown that most accidents follow a chain of three - three mistakes, which individually are insignificant, but when combined, line up to be the big bad luck we all try to avoid.

I recently had one of these "chain of three". I had been planning a trip to Missoula for about the past two months. Yes, November is a challenging time to be flying over terrain like the mountains between Boise and Missoula, but being the eternal optimist about weather, even in November, I booked 93S Nov. 8 through Nov. 10, with the intention to fly back on the 9th, but possibility of an unplanned layover until the 10th.

I started following the GFS models even before they could see Nov. 8th, looking for insight into wx trends. Finally the day came, 16 days out before Nov 8, when I got my first view of statistical weather, aka Model Output Statistics from the new NCEP site

(http://mag.ncep.noaa.gov/NCOMAGWEB/appcontroller). I was delighted to see no precipitation on the 850mb run of the model. As days passed, I checked first thing every morning to see the latest run. Was it getting more favorable closer to my flight? Would I get a lucky break with "severe clear" hole in the otherwise gray abyss of Idaho winter? It was not looking promising.

The model vacillated more than a flakey NDB signal. First it showed no precipitation at all, then five days full of snow (the blue line clear down in Arizona), then back to clear skies and then another depressing view of a massive low descending all the way from the Gulf of Alaska to ruin my trip. I even showed everyone at the Weather Seminar that it was highly likely I was going to be held on the ground by a short wave riding down from BC sent to make sure I flew to Missoula in my car.

But when it came down to 12 hours before take-off, I chose to cancel my flight, even though the weather was looking more favorable. But why, you ask? The reason comes from an old rule that I heard early on in my flying career. When you start to see a chain of potentially unfavorable factors entering into your "go-no-go" decisions, pay close attention, for these are the aviator's telltale warnings that luck may be running low, or in poker parlance – "going for an inside straight."

My three factors were these:

Differences - the GFS MOS for ceilings (http://www.nws.noaa.gov/mdl/forecast/graphics/MAV/) showed there should be plenty of head room over Lolo Pass (the lowest pass between here and there), with cloud bases between 6600 and 12000 ft. for the time of my flight, but the NAM version showed lower with a cloud layer extending further south. Lolo Pass is 5262 ft., so it doesn't have to get much lower to become impassable. In addition, the Missoula office of the NWS was summarizing that there could be a 20% chance of rain or even snow in the Missoula valley potentially clearing up later in the afternoon, (when exactly IS later in the afternoon?). The GFS showed any precipitation to be north of Missoula. Boise NWS was hinting of fog in the West Central valleys - although it should be gone by afternoon - right?

Get-there-itis - I really need to be at this meeting in Missoula and can't just casually cancel because my flight didn't work out. In my planning, if I got to Lolo Pass and couldn't fly over, or couldn't find any other nearby safe route, I could still drive and get there in time. This can have an undesirable effect on any pilot because we all like to be right and dependable. We should all recognize this as a trap that we should not ignore and assume our good judgment can override.

Number three - ok, I don't have a number three, but I haven't even looked at the plane yet - so I only need one more issue to pop up to have my three and an empty bag of luck. What if the oil pressure went to zero over MYL and there's a fog layer there? What if my doc gives me a flu shot and I react to

it? Did I mention I had a doctor appointment before my flight? (And by the way, I did get the flu shot, but had no reaction.)

So in my book, that's strike three - time to apply good judgment over my burning desire to fly - too much risk, not enough pay off. I think I'll save my flying for a clear blue day when the views are stunning instead of covered in fog and clag and I don't have to get anywhere by a certain time.

OK, now after having driven to Missoula, I am very glad I made my decision to drive. Cloud cover appeared as soon as I got to Cascade, with low scattered layer over Tripod Peak and West Mountain. It cleared up over Grangeville, but as I climbed toward Lolo Pass up the Lochsa River, the cloud layer continued to descend. There were blue sucker holes but no route that would have gotten me over the mountains.

Here's a photo as I was driving up to the summit of Lolo Pass - can you imagine looking at this through the windscreen??? On the pass it was VV001 (maybe not even 100 ft.).

Here's to your good weather decisions over the next few months!



Bill

Websites of Interest

(Hover your pointer over the link, hold down the Ctrl key, and then click your left mouse button.)

http://activefiremaps.fs.fed.us/lg_fire2.php, Large fires, some including TFRs
http://airspace.nifc.gov/mapping/nifc/index.cfm, TFRs on WACs or Sectionals
http://aviationweather.gov/adds/icing/icing_nav.php?icg_type=CIPSEV50&height=max&fcst_hr=0
http://aviationweather.gov/adds/metars/
http://faasafety.gov/
http://tfr.faa.gov/tfr_map_ims/html/index.html, FAA
http://www.aopa.org/asf/online_courses/
http://www.aopa.org/asf/online_courses/, AOPA Flight Safety on-line courses
http://www.aopa.org/asf/publications/advisors.html
http://www.aopa.org/index.html
http://www.aopa.org/letsgoflying/, AOPA's "Let's Go Flying!"
http://www.aviation.state.or.us/, Oregon State
http://www.faa.gov/go/runwaysafety, Runway safety
http://www.faa.gov/news/safety_briefing/, FAA Safety Briefings
http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/
http://www.firedetect.noaa.gov/viewer.htm, Fire Reporting
http://www.flyidaho.org, Idaho Aviation Association
http://www.itd.idaho.gov/aero/, Idaho Aviation Association Calendar of events
http://www.nampaairport.org/airport/Category/news, Nampa, Id. Airport news
http://www.navmonster.com/, TFRs along your route
http://www.undaerospace.com/cbt_files/virtualengine/Magneto/virtual%20Engine.swf, Magneto Fun!

http://www.weather.gov/aq/sectors/pacnorthwest.php http://www.wrh.noaa.gov/boi/, National Weather Service – Boise Office http://www.wrh.noaa.gov/satellite/?wfo=boi http://www.wrh.noaa.gov/zoa/cwa.php http://www.ghcc.msfc.nasa.gov/GOES/goeswestpacus.html https://faasafety.gov/gslac/ALC/course_catalog.aspx www.backcountrypilot.org www.cubgearstore.com, Survival, and back country gear www.shortfield.com www.t-craft.org, the official website for T-Craft Aero Club Inc.

Reminders

Answers concerning our Club, Policies, or even locating a **New Member Application Form** for your friend or family member can be found on the T-Craft website: www.t-craft.org.

T-Craft Business Cards and Pamphlets are available. Share them with friends and acquaintances in the community who may be looking for piloting opportunities.

Delete the remainder of any unused flight time from ScheduleMaster immediately after landing. Somebody may be able to use that time.

T-Craft Members are responsible for keeping their **contact information** (phone numbers, email addresses, postal address) updated in <u>ScheduleMaster</u>. To check or update your information, login to ScheduleMaster, click the "User" tab at the top, then click the link that says "Click here to edit your user info".

Got something aviation **you want to sell**? Post it in the T-Craft Newsletter. Send your advertisement to the Secretary at: jlvanho@msn.com.

Old Aviators and Old Airplanes

This is a story of a P-51 and its pilot, by a fellow who was 12 years old in Canada in 1967.

It was to take to the air. They said it had flown in during the night from some U.S. Airport. The pilot had been tired.

I marveled at the size of the plane dwarfing the Pipers and Canucks tied down by her. It was much larger than in the movies. She glistened in the sun like a bulwark of security from days gone by.



The pilot arrived by cab, paid the driver, and then stepped into the pilot's lounge. He was an older man; his wavy hair was gray and tossed. It looked like it might have been combed, say, around the turn of the century. His flight jacket was checked, creased and worn - it smelled old and genuine. Old Glory was prominently sewn to its shoulders. He projected a quiet air of proficiency and pride devoid of arrogance. He filed a quick flight plan to Montreal (Expo-67, Air Show) then walked across the tarmac.



After taking several minutes to perform his walk-around check, the pilot returned to the flight lounge to ask if anyone would be available to stand by with fire extinguishers while he "Flashed the old bird up, just to be safe."

Though only 12 at the time, I was allowed to stand by with an extinguisher after brief instruction on its use -- "If you see a fire, point, then pull this lever!" I later became a firefighter, but that's another story. The air around the exhaust manifolds shimmered like a mirror from fuel fumes as the huge prop started to rotate. One manifold, then another, and yet another barked -- I stepped back with the others. In moments the Packard-built Merlin engine came to life with a thunderous roar, blue flames knifed from her manifolds. I looked at the others' faces, there was no concern. I lowered the bell of my extinguisher. One of the guys signaled to walk back to the lounge. We did.

Several minutes later we could hear the pilot doing his pre-flight run-up. He'd taxied to the end of runway 19, out of sight. All went quiet for several seconds; we raced from the lounge to the second story deck to see if we could catch a glimpse of the P-51 as she started down the runway. We could not. There we stood, eyes fixed to a spot half way down 19. Then a roar ripped across the field, much louder than before, like a furious hell spawn set loose---something mighty this way was coming. "Listen to that thing!" said the controller.

In seconds the Mustang burst into our line of sight. Its tail was already off and it was moving faster than anything I'd ever seen by that point on 19. Two-thirds the way down 19 the Mustang was airborne with her gear going up. The prop tips were supersonic; we clasped our ears as the Mustang climbed hellish fast into the circuit to be eaten up by the dog-day haze.



We stood for a few moments in stunned silence trying to digest what we'd just seen. The radio controller rushed by me to the radio. "Kingston tower calling Mustang?" He looked back to us as he waited for an acknowledgment.

The radio crackled, "Go ahead Kingston."

"Roger Mustang. Kingston tower would like to advise the circuit is clear for a low level pass." I stood in shock because the controller had, more or less, just asked the pilot to return for an impromptu air show!

The controller looked at us. "What?" He asked. "I can't let that guy go without asking. I couldn't forgive myself!"

The radio crackled once again, "Kingston, do I have permission for a low level pass, east to west, across the field?"

"Roger Mustang, the circuit is clear for an east to west pass."

"Roger, Kingston, I'm coming out of 3000 feet, stand by."

We rushed back onto the second-story deck, eyes fixed toward the eastern haze. The sound was subtle at first, a high-pitched whine, a muffled screech, a distant scream.

Moments later the P-51 burst through the haze. Her airframe straining against positive Gs and gravity, wing tips spilling contrails of condensed air, prop-tips again supersonic as the burnished bird blasted across the eastern margin of the field shredding and tearing the air.





At about 500 mph and 150 yards from where we stood she passed with the old American pilot saluting. Imagine. A salute! I felt like laughing, I felt like crying, she glistened, she screamed, the building shook, my heart pounded.

Then the old pilot pulled her up and rolled, and rolled, and rolled out of sight into broken clouds and indelibly into my memory.

I've never wanted to be an American more than on that day. It was a time when many nations in the world

looked to America as their big brother, a steady and even-handed beacon of security who navigated difficult political water with grace and style; not unlike the pilot who'd just flown into my memory. He was proud, not arrogant, humble, not a braggart, old and honest, projecting an aura of America at its best. That America will return one day. I know it will. Until that time, I'll just send off this story; call it a reciprocal salute, to the old American pilot who wove a memory for a young Canadian that's lasted a lifetime.