

T-CRAFT AERO CLUB

MONTHLY NEWSLETTER

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What's the big deal with April going out like a lion? There's nothing more challenging and rewarding than crosswind landings. Another challenge is updating T-Craft documents and such; the Board has been modernizing our New Member Package, and has produced a darned good looking one that current members and prospective members can view. The Board has also been investigating costs associated with our Club operations, and how we can operate more efficiently; your input is important. This month's issue has another member contribution involving soft field operations and a prop strike. The Club will decide on the T-Craft Newsletter nickname during the May General Membership Meeting; although we have a few suggestions, we hope to receive a more from which we can choose, so please attend (or send us your thoughts). The Club will be kicking off our Membership Drive Committee shortly. The goal is to reach out to more potential members. Billing has been fine tuning our Flight Log electronic logging system, adding multiple backup features as security measures.

From the Membership Director

Pilot's Rules of Thumb

I recently came across a little booklet on Pilot's rules of thumb, available from Flight Time Publishing, www.flight-time.com. They also have similar booklets for a BFR, Instrument Flight Review, Student Pilot Handbook, and Pilot's Pocket Handbook. Prices range from \$8.00 - \$13.00. I have run across many of the rules of thumb in various places, but this little booklet (3"x5" size) lists many in an organized format. Here is a sampling.

Take Off Distance.

- Increases 15% for each 1000' Density Altitude above sea level.
- A 10% increase in aircraft weight results in 20% increase in take off distance.
- An aircraft should obtain 71% of take-off speed by the time it has reached 50% of available runway distance.

Rate of climb

- Climb performance decreases 8% for each 1,000' increase in Density Altitude above sea level.
- Best rate of climb V_y will decrease approx. $\frac{1}{2}$ knot for each 1,000' increase in altitude above sea level
- V_y , V_x , and V_g (best glide) will decrease approx. $\frac{1}{2}$ knots for each 100 pounds under max. gross weight.

Temperatures:

- Standard temperature at Sea Level is 15° C or 59° F
- Standard temperature will decrease 2° C or 3.5° F for each 1,000' altitude gain at standard lapse rate.
- To convert from Celsius to Fahrenheit – double the number of degrees Celsius, subtract 10%, then add 32.

Example: convert 30 °C to °F. $30 \times 2 = 60$. Subtract 10% $60 - 6 = 52$, add 32 = 84. Actual is 86.

- When °C is negative, add the 10% instead of subtracting it.

Altitudes

- Standard pressure at sea level is 29.92.
- Barometric pressure varies approx. 1" per 1,000' or 0.1" per 100'.
- Standard Pressure Altitude is what you read off the altimeter when set to 29.92.
- Hi to Lo – Look out below. Flying from hi to low pressure areas, or warmer to cooler temperatures, the plane will be lower than indicated altitude if no change is made from the original altimeter setting

Rule of the Thumb

- For the average person the distance from the tip of the thumb to the knuckle equals approx 10 NM on a Sectional Chart.

Best Glide Speed

- Maintaining a normal cruise pitch attitude will result in a best glide speed at the current aircraft weight.
- Vg (best glide) will decrease approx. ½ knots for each 100 pounds under max. gross weight.
- Cranking trim to full up trim (in our birds) will get you very close to best glide speed.

Maneuvering Speed

- Va at gross weight equals approx 1.7 Vs1 (clean stall speed, bottom of green arc)
- Va decreases 1% for each 2% reduction in Gross Weight.

Decent Planning

- To determine the NM distance to start a 3° decent (500-600 Ft/Min for our birds), divide the altitude to lose (flight level) by 3.
Example: Cruise altitude 10,500' (FL 105)
Pattern altitude 4,500' (FL 45)
Altitude to lose: $105 - 45 = 60$
 $60 / 3 = 20$ NM

Landing

- For high density altitude approaches, fly the same indicated air speed on final approach as low density altitude airports. Do not be fooled by visual references to ground speed, since TAS and ground speed will be higher in high density situations for the same IAS.
- Plan to touch down in the first 1/3 of the runway or go around.
- A 10 °C increase from standard temperature will cause a 5% increase in stopping distance
- In gusting conditions, add ½ of the gust speed to final approach speed. Example with a 10 Knott gust add 5 KIAS, 20 Knott gust add 10 KIAS.

These are a few “rules of thumb” in this little booklet. These should never be used in critical situations, but may be useful in most cases.

Fly Smart, Fly Safe and Have Fun

– *Jim Hudson*, Membership/Safety Director

Membership: Currently at 70 Members.

New Members:

Please welcome back former member David McDaniels. David re-joined after just a little more

than a year absence and is happy to be in the air again.

Resigning Members:

We lost members Charles Merrell and Karl Hoagan in April. Karl is our New Zealand friend who returned to his homeland.

Training/Events: All training meetings are at 7:00 PM at the hanger, unless noted otherwise. The Board meets on the 2nd Tuesday of each Month.

May 11th at 4:00 PM	Plane wash at the T-Craft Hanger
May 18th at 7:00 PM	EAA/CAP Meeting Room - Flying the Backcountry Seminar.
May 21st at 11:00 AM	Nampa City Parade America
June 21st at 7:00 PM	T-Craft Hanger - Maximizing Aircraft Performance
June 25th at 8:00 AM	Caldwell Airport Caldwell Celebration of Flight Air Show
July 23rd at 8:00 AM	Garden Valley - T-Craft Annual Fly-In / Breakfast

(Members can participate as meetings presenters or contribute safety articles by contacting Jim Hudson.)

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 26 April 2011, 7:00p.m., in the EAA/CAP Building, Nampa airport.

Aircraft Maintenance

Contact Jim Eyre [cell:(208)794-0667] with squawks, and use the notification feature found on-line 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.

375 - Annual completed. New fuel gauge transmitter installed in tank.

686 – Annual completed. New muffler installed.

91X – Will undergo annual inspection week of 24 April 2011.

93S – Wingtip cap damaged by hangar bay man door during high winds (securement pin failed); replacement will be fiberglass (more durable) instead of plastic; expect aircraft return in one or two weeks.

SAFETY NOTICE: It is recommended that no persons occupy aircraft during refueling.

FROM THE BOARD

*** Members wishing to maintain currency may attend the following meetings:***

Next Board Meeting: 5 May 2011, 7:00p.m., T-Craft Hangar training room.

Next General Membership Meeting: 31 May 2011, 7:00 p.m., EAA/CAP Hangar, Nampa, Id

Flying rates effective 8/31/10 [all hours recorded per hour "wet"]:

375	-	\$52.00
64R	-	\$77.00
686	-	\$79.00
91X and 0YD	-	\$109.00
93S	-	\$112.00

Fuel re-imbursement for April 2011: \$4.03/gal.

Our treasurer, Dennis Wheeler, has been vigilantly watching for an opportunity to purchase our next load of fuel. The task is complex, requiring ongoing communication with the F.B.O. to make sure our current supply falls below a specific gallon limit, as well as watching closely the constantly shifting prices for 100LL fuel our suppliers are quoting. We thank you for your patience.

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

Upcoming Local and Regional Events

(See Jim Hudson's note above.)

If you have read or know of events to come, please send the Secretary (jivanho@msn.com) a quick e-mail.

Websites of Interest

The official website of T-Craft Aero Club Inc., www.t-craft.org
Nampa, Id. Airport news, <http://www.nampaairport.org/airport/Category/news>
Survival, and back country gear, www.cubgearstore.com
www.shortfield.com
www.backcountrypilot.org
Idaho Aviation Association, <http://www.flyidaho.org>
Idaho Aviation Association Calendar of events, <http://www.itd.idaho.gov/aero/>
Oregon State, <http://www.aviation.state.or.us/>
AOPA Flight Safety on-line courses, http://www.aopa.org/asf/online_courses/
AOPA's "Let's Go Flying!" <http://www.aopa.org/letsstoflying/>
<http://www.aopa.org/index.html>
http://www.aopa.org/asf/online_courses/
<http://www.aopa.org/asf/publications/advisors.html>
FAA, http://tfr.faa.gov/tfr_map_ims/html/index.html
http://www.faa.gov/regulations_policies/handbooks_manuals/aircraft/airplane_handbook/
Runway safety, <http://www.faa.gov/go/runwaysafety>
<http://faasafety.gov/>
https://faasafety.gov/gslac/ALC/course_catalog.aspx
TFRs on WACs or Sectionals, <http://airspace.nifc.gov/mapping/nifc/index.cfm>
TFRs along your route, <http://www.navmonster.com/>
Large fires, some including TFRs, http://activefiremaps.fs.fed.us/lg_fire2.php
<http://www.weather.gov/aq/sectors/pacnorthwest.php>

National Weather Service – Boise Office, <http://www.wrh.noaa.gov/boi/>
Fire Reporting, <http://www.firedetect.noaa.gov/viewer.htm>
<http://aviationweather.gov/adds/metars/>
http://aviationweather.gov/adds/icing/icing_nav.php?icg_type=CIPSEV50&height=max&fcst_hr=0
<http://www.wrh.noaa.gov/satellite/?wfo=boi>
<http://www.ghcc.msfc.nasa.gov/GOES/goeswestpacus.html>
<http://www.wrh.noaa.gov/zoa/cwa.php>
Magneto fun - http://www.undaerospace.com/cbt_files/virtualengine/Magneto/virtual%20Engine.swf
FAA Safety Briefings: http://www.faa.gov/news/safety_briefing/

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 **ScheduleMaster**. 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".

If you'd like a hard copy of any T-Craft Minutes, e-mail the Secretary (jlvanho@msn.com) with your request, and have a copy sent right to your home.

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

Member Contribution



Prop Strike Incident at New Meadows

About 1015 Sunday, April 24, 2011, I experienced a prop strike at New Meadows Airstrip (1U7). I was giving back-country instruction for McCall Air Service to a licensed private pilot

from Brazil, at the time. We had made 5 uneventful landings, 3 demonstration landings on Saturday with me at the controls, and 2 with the private pilot at the controls on Sunday. We had successfully taxied to the south end of the strip for takeoff to the north on 4 of the landings, and were proceeding to again taxi to the south end with the private pilot at the controls following the 5th landing. The strike occurred while taxiing at walking speed southbound approximately 15 feet to the left of centerline of the well-tracked portion of the runway as the nosewheel of 7MY dropped into mud that overtopped the tire.

I felt the left gear settle slightly into the surface, and called for more power, nose up, and to move to center. Perhaps because the additional p-factor from increasing power or the drag on the left tire (the right tire was rolling freely on firm ground) we started back toward the well tracked surface, but immediately drifted slightly left and started to settle at the nose. At this point I took controls, pulled full aft on elevator and added more power in attempt to get the nose up, but could not stop the nose wheel from settling into extremely soft mud, with the propeller chewing mud for about 2 feet. Once the nosewheel started to settle, resistance of mud against it precluded effective rudder control.

Lessons learned:

- 1) Stay on the well tracked portion of the airstrip! Except for the 30-40 foot long patch we sank into, the sod portions of the runway were only dented by wheel tracks – no rutting was apparent, and we were very close to the hard-tracked surface. We were rolling at walking speed on firm sod right up until I felt the left tire settle.
- 2) If in doubt as to firmness of sod when taxiing to tie-downs, shut down, get out and walk. Later in the season you may be able to identify potential soft spots by their green color as opposed to drier sod around them – this time of year sod is uniformly green!
- 3) Once a nosewheel starts to settle into a soft spot, it may be better to quickly chop power and shut-down, rather than to try to raise the nosewheel with power and elevator. Immediately shutting down might have left us stuck but undamaged. Not certain – the mud was very soft, and the nosewheel had settled quite deeply within a few feet beyond where I added power, even with the full up elevator. Whether the nosewheel would have settled more deeply at that point with power off, or whether the prop rotation would have stopped prior to striking is speculative.

John Baglien



Thanks to all who have sent us photos for our newsletters. We encourage anyone with a camera and a steady hand to submit your stories and pictures for our future editions. We love piloting, and we love seeing the places our aircraft are flown.

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