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18 June 2024

MEMORANDUM FOR RECORD

FROM: CAWG/CC

SUBJECT: Nondirective Publication Disclaimer – CAWGP 70-1-10

1. Attached to this memorandum is California Wing Pamphlet 70-1-10. This pamphlet is a nondirective publication, as that term is defined on page 18 of CAPR 1-2.

2. Compliance with this pamphlet is not mandatory. Any requirements or procedures explained in this pamphlet are either directed by other, directive publications or are provided as suggested methods, techniques, and/or best practices.

3. To the extent that the requirements or procedures explained in this pamphlet exceed the requirements and procedures directed by Civil Air Patrol, Pacific Region, or California Wing directive publications or by applicable law, a failure to comply with the requirements or procedures explained in this pamphlet shall not constitute a discrepancy for purposes of a Compliance Inspection or Subordinate Unit Inspection, nor shall they be grounds for termination of membership under CAPR 35-3.

4. Any directive language used in this pamphlet to describe a requirement or procedure which exceeds the requirements and procedures directed by Civil Air Patrol, Pacific Region, or California Wing directive publications or by applicable law, shall be interpreted as nondirective.

CRAIG E. NEWTON, Col, CAP
Commander

Attachment:
CAWGP 70-1-10, 18 Jun 24

California Wing Pamphlet 70-1-10
CAP Cessna T206H Introduction
18 June 2024
OPR: DOV

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1. Introduction

1.1. This pamphlet will focus on post-2011 model year Cessna T206Hs in Civil Air Patrol. The T in front of 206 means turbocharged or Turbo. And all of CAP's Cessna T206Hs have G1000 with GFC700. Accordingly, this pamphlet assumes that the aircraft is an H-model Cessna 206 with a turbocharger and G1000 with GFC700.

1.2. This guide is assuming you are familiar with California Wing's G1000 Cessna 182T guide. Most of CAP's pilots transitioning to the T206H have likely flown the 182T aircraft with CAP. There are many similarities between the two aircraft. Please review the 182T guide if you have not already.

1.3. This guide will not cover mandatory G1000 topics, Turbo, or 206 specifics that your instructor needs to cover. That is for separate teachings, but this guide covers many of the missed items by many pilots transitioning.

1.4. With the Form 70-5 process, once you are qualified in the T206H, you will be able to fly the 206H, U206G and TU206G too. Assuming you are already 182 qualified before and this is your first Turbo Form 5, you will then also be able to fly the T182T. Flying these aircraft have quite a few differences. It is paramount you review the individual POH before flying. While a separate Form 5 is not required, going with an instructor prior is encouraged if not already familiar and comfortable.

1.5. There are many turbo T182Ts, and some are even being ordered brand new. If you are comfortable in the 182T and T206H, the T182T is an easy transition but you are required to review the individual POH prior as PIC. There are many older normally aspirated U206Gs so review those individual POHs thoroughly as it has quite a few significant differences.

1.6. Some Turbocharged transition material was trying to accommodate older turbo aircraft procedures and limitations. Be careful of some of that material for items that may not apply to the T206H.

2. Generations

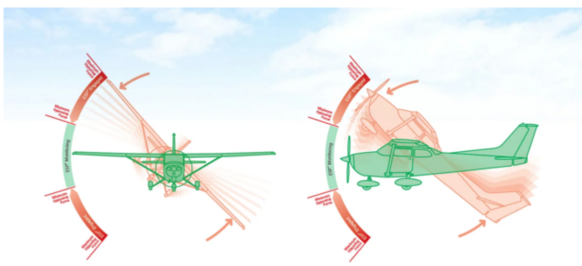
2.1. There are relatively fewer different versions of the T206H in CAP when compared to the 182T.

2.2. All the CAP T206Hs will have the G1000 with GFC700 autopilot.

2.3. However, the aircraft delivered between 2011-2017 will be before NXi. This also means features such as new Vectors to Final, programmable holding patterns, etc. may or may not be installed. These features may be software upgraded but some aircraft may not have received the upgrades.

2.4. In 2017, Garmin introduced the G1000 NXi. T206Hs from this year and on will have NXI.

2.5. In 2019, Garmin added the feature called Electronic Stability Protection or ESP. Again, an important distinction is that there are G1000 NXi without ESP and G1000 NXi with ESP. ESP and NXi are not interchangeable terms. All new G1000 aircraft after 2019 will have ESP.



2.6. In 2022, Cessna removed the Vacuum system and traditional standby instruments. Instead, a Garmin GI 275 is installed. All new aircraft after 2022 will have this feature. There are quite a few differences between each generation of G1000 and we'll cover them as much as possible. But you must still refer to individual POHs and STCs. Speaking generally, CAP does not purchase significant upgrade packages on the G1000 aircraft to bring them all up to the newest features. You should have familiarity with all you might encounter.

2.7. Cessna began offering HD versions of the T206H around 2017. Not all new deliveries from 2017 came with HD. This offered an increase in maximum takeoff weight.

2.8. The same scenario of NXI with ESP or without ESP still applies.

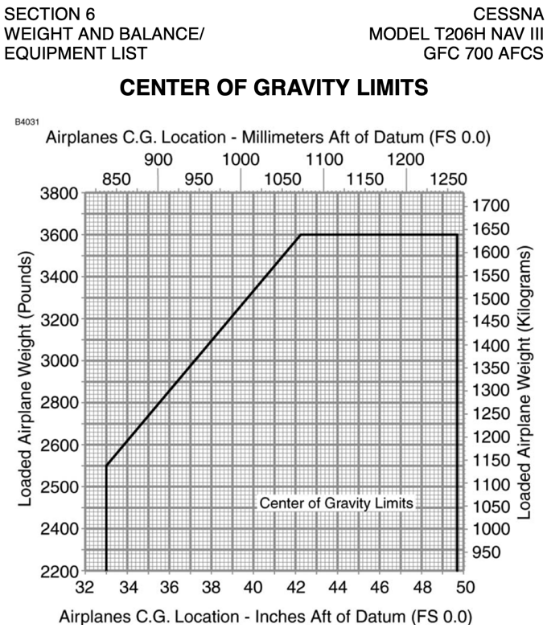
Without ESP

G1000
NXI

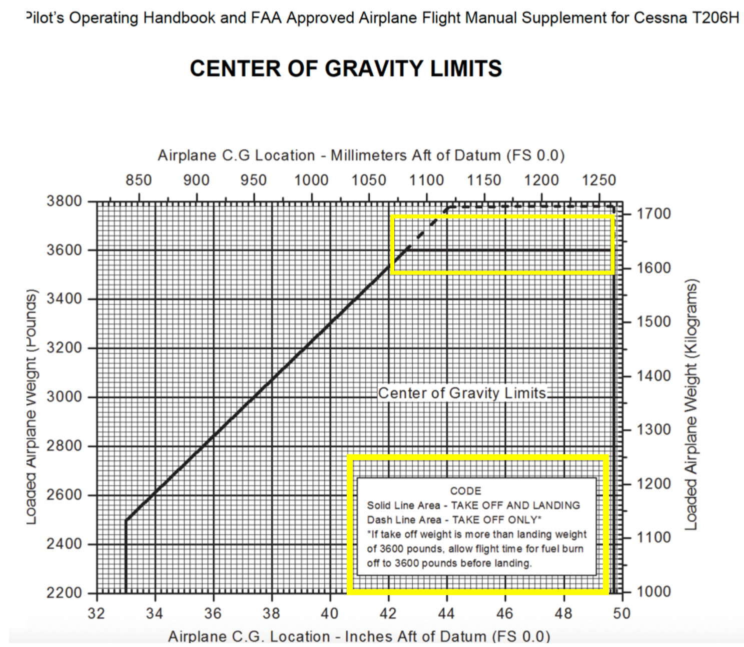
With ESP

3. Weight and Balance

3.1. Probably the most consequential aspect to the weight and balance is that the takeoff weight and landing weight are not identical for the some of the T206Hs. The word "some" is vital because it is aircraft serial number specific.



Original Weight



STC Weight

3.2. In approximately 2017, Cessna offered a STC to increase the maximum takeoff weight from 3600 lbs. to 3789 lbs. It did not change the maximum landing weight of 3600 lbs. CAP did not purchase this STC for all existing T206Hs. CAP did not opt for this STC on new T206Hs from the factory until around 2020. If you have a 2021 or later year model, it probably has the STC. Only some older T206Hs have the STC. You MUST check your individual aircraft's POH/AFM and STC to be certain.

3.3. Besides additional paperwork, the STC changes items such as V speeds. Software updates can change the G1000 or GI-275 airspeed bands. A new standby airspeed indicator is optional or can keep the current one with notations.

3.4. The different takeoff and landing weight present the same scenarios as in the 182T. You must plan the flight to burn off enough fuel. The 189 lbs. difference will not be hard with the typical fuel burn rates of the T206H. It will burn roughly 120 lbs. per hour at cruise plus takeoff and climb would have had much higher burn rates. Again, just like the 182T, if you need to land for safety of flight or an emergency, PIC has discretion. But coordinate with an aircraft maintenance officer to get an A&P for an overweight landing check.

3.5. The STC also changes the takeoff distances at maximum takeoff weight and other performance considerations.

3.6. The Foreflight Weight and Balance tool should be accurately reflecting the actual maximum takeoff weight. Check your aircraft's specific POH to be certain if you need to utilize a weight over 3600 lbs. Also, the CAP checklist may be utilizing speeds in reference to the lower takeoff weight. Again, check if the STC is there and it matches what you know. Let the aircraft maintenance officer know if the data from the POH/STC do not match CAP's database as this should be rectified.

EMERGENCY PROCEDURES

Cessna: CT206H (NAVIII)
CVD: 6 Mar 19 (G1000/GFC700&GW)

CAP Checklist for Weight Increased STC'd T206H
GW: Gross Weight Increase

Engine Failure During Takeoff Roll

1. Throttle....... Idle (pull full out)

Original Standby Airspeed
Note the bottom of the white and green arcs.

STC Standby Airspeed
Note the higher bottom of white and green arcs.

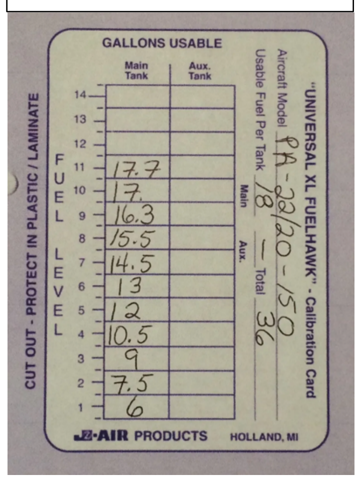
4. Fuel vs Useful Load

4.1. The fuel tanks on the 182T and T206H have the same capacity.

4.2. There is no consistent fuel level for the T206H to be kept at. Local policy will dictate like other aircraft. But topped off full is one value that is most common. There is a fuel tab indicator that is 32 gal in each that if perfectly at the bottom tab would total 64 gal. That is also common.

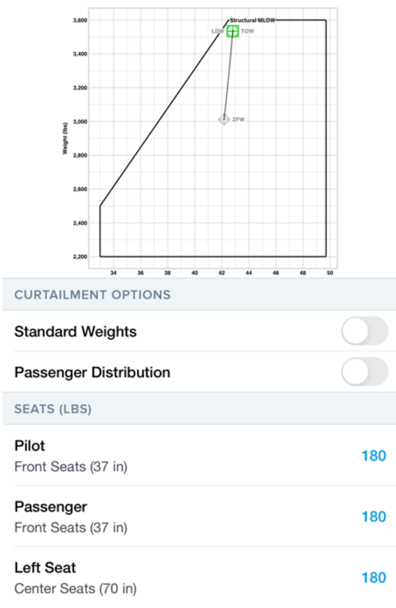
4.3. Another issue is there are no commercially available, off the shelf, T206H specific fuel dip sticks. If trying to use a generic dip stick, it would need to have been calibrated with a reference sheet. Your local aircraft may or may not have this option already available.

Example of another aircraft type. Not for actual use.

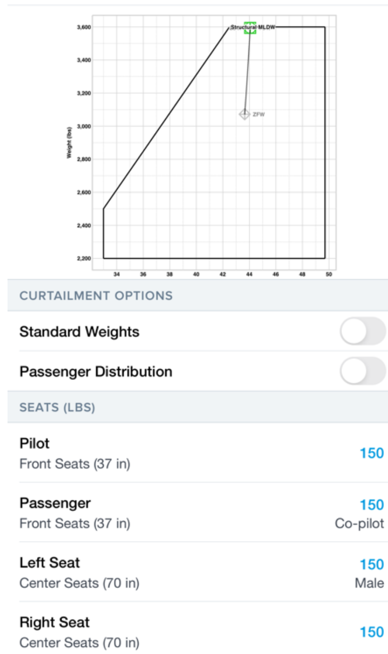


4.4. Generally, most T206Hs will be kept with only four seats for everyday use. There are options to add a third row for six seats for more people. Or you could even remove the second-row seats for more cargo. This would not be something an individual CAP pilot would decide to do on their own. Permission should be sought and the seat addition or removal needs to be coordinated. The weight and balance will need to be calculated to account for the seat removal/installation

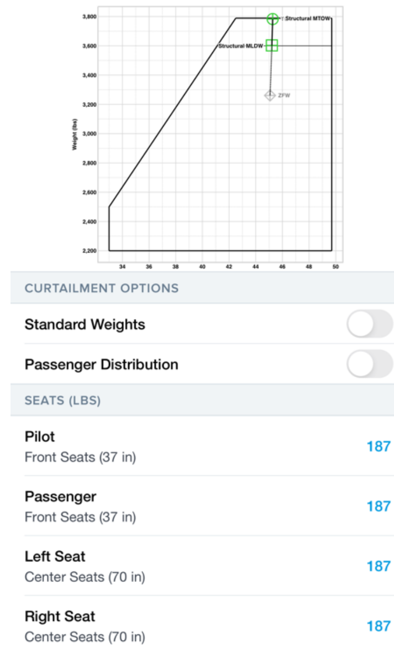
4.5. With topped off full fuel, three persons will work with many combinations. With four, it may require the overall persons to be below usual average. The STC for increased takeoff weight can make a big difference in this case.



Example only of three 180 pound persons with full fuel and 100 pounds of cargo.

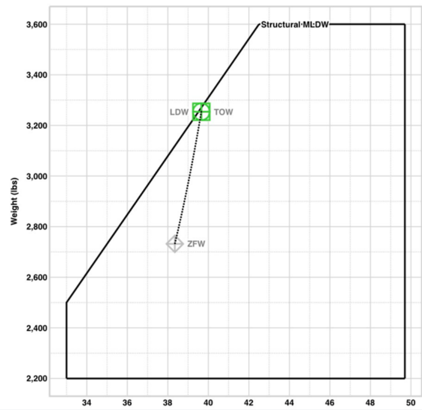


Example only of four 150 pound persons with full fuel and 100 pounds of cargo.



Example only of a Weight Increase STC with four 187 pound persons with full fuel and 100 pounds of cargo.

4.6. With just two persons onboard and full fuel, the aircraft will tend to be near the forward CG limit. There's a chance it may actually be too far forward. There should be a survival kit and other miscellaneous gear in the back normally though. Extra cargo in the back may be helpful and/or needed to bring the CG aft. Examples only below with full fuel and absolutely zero cargo to include no personal flight bags or survival kit.



CURTAILMENT OPTIONS

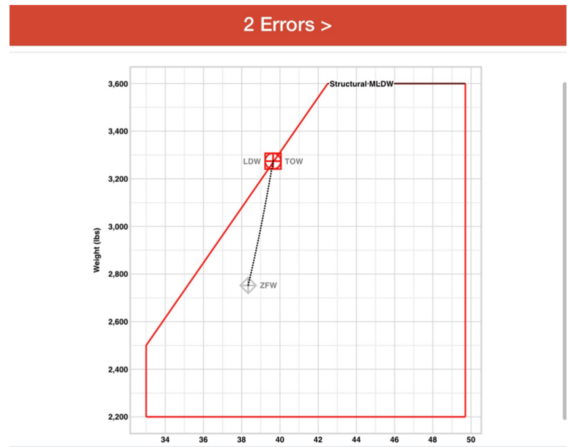
Standard Weights

Passenger Distribution

SEATS (LBS)

Pilot Front Seats (37 in)	180
Passenger Front Seats (37 in)	180

Two 180 pound adults in the front seats with 87 gal and zero cargo. At the forward limit.



CURTAILMENT OPTIONS

Standard Weights

Passenger Distribution

SEATS (LBS)

Pilot Front Seats (37 in)	190
Passenger Front Seats (37 in)	190

Two 190 pound adults in the front seats with 87 gal and zero cargo. Exceeded the forward limit.

4.7. Another factor is CAP adds extra equipment compared to a stock T206H. The Rhotheta DF and CAP radio add weight. Also, many T206Hs have even extra specialized equipment onboard such as FLIR pods, special radios, etc. This will also add weight.

5. Fuel Planning

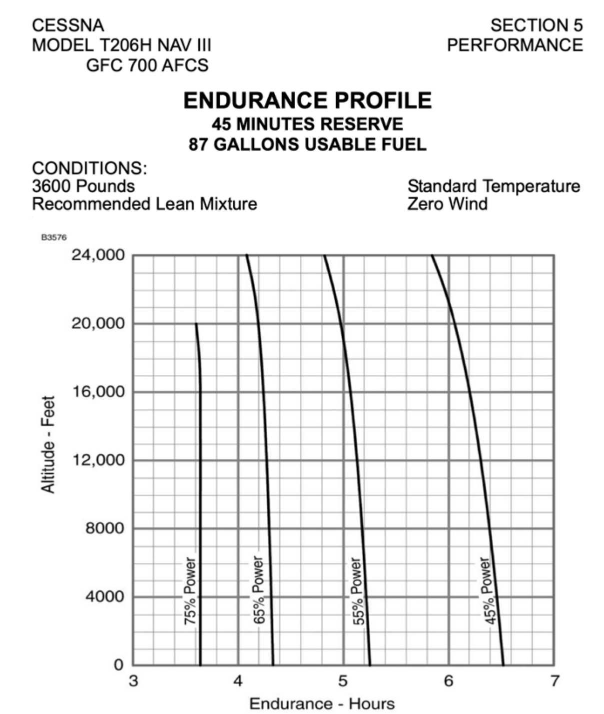
5.1. The pre-defined values for the fuel totalizer on the T206H are 87 or 64 gallons. It functions just like the 182T totalizer.

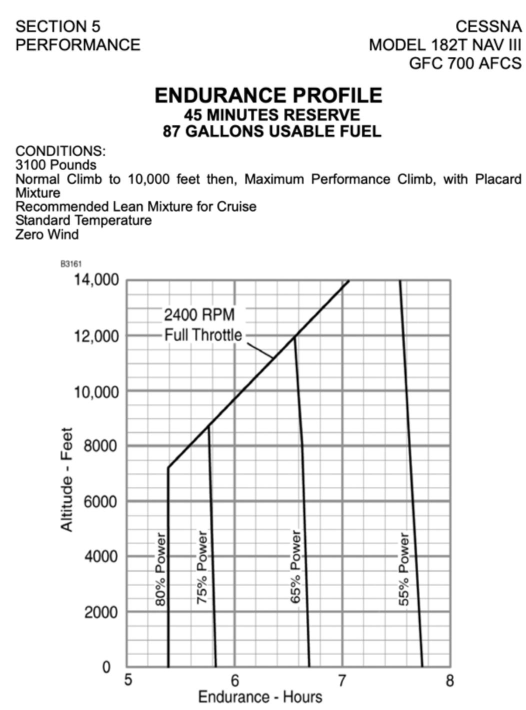
5.2. The climb fuel burn rates per hour are high but you will reach cruise much faster. In cruise, you should be less than 20 GPH fuel flow if following the POH recommendations. Most of the POH performance is based on having wheel fairings and CAP does not use those.

5.3. When comparing a 182T with full fuel tanks to a T206H with full fuel tanks, you will notice the T206H has less range and endurance. But the plane can haul more weight and do it faster and higher. The plane must burn more fuel to do all this though.

5.4. If there is terrain that can be flown over vs having to travel further going around lower, that is a small potential advantage for fuel.

5.5. This is just to give awareness to watch your fuel burn rates. But T206H's advantages are climbing faster and higher, going faster, and taking more payload.





6. Unleaded Fuel STC

6.1. As of this publication, the T206H cannot use UL94 fuel. Prior planning may need be needed for certain airports.

7. Kinds of Operation Equipment List

7.1. The T206H utilizes a KOEL.

7.2. There are a few extra items now required due to the turbocharger. But the list format and how it works remains the same.

7.3. The CHT Cylinder that is required by KOEL is different compared to the 182T.

SECTION 2
OPERATING LIMITATIONS

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

KINDS OF OPERATIONS EQUIPMENT LIST (Continued)

System, Instrument, Equipment and/or Function	KIND OF OPERATION: VFR DAY	VFR NIGHT	IFR DAY	IFR NIGHT	COMMENTS
VACUUM					
1 - Engine Driven Vacuum Pump	0	0	1	1	
2 - Vacuum Indicator	0	0	1	1	
ENGINE FUEL AND CONTROL					
1 - Manifold Pressure Indicator	1	1	1	1	
2 - Fuel Flow Indicator	1	1	1	1	
ENGINE INDICATING					
1 - Tachometer (RPM)	1	1	1	1	
2 - Cylinder Head Temperature (CHT) Indicator	1	1	1	1	Cylinder #5
3 - Turbine Inlet Temperature	1	1	1	1	
4 - Oil Pressure Indicator	1	1	1	1	
5 - Oil Temperature Indicator	1	1	1	1	
ENGINE OIL					
1 - Engine Crankcase Dipstick	1	1	1	1	

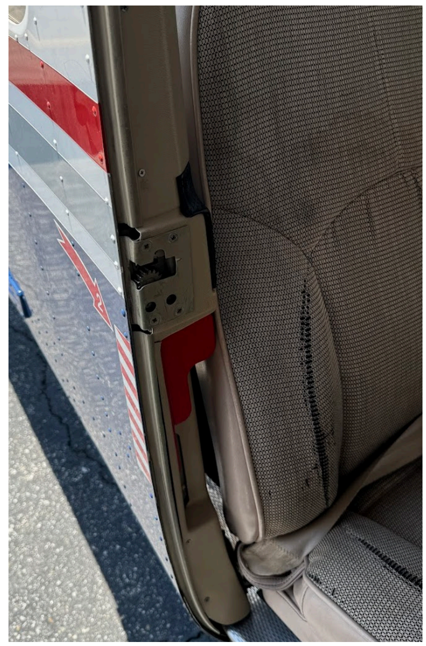
8. Cargo Door Operation

8.1. T206H uses a two-piece cargo door on the right side. There is a forward door and aft door. For those used to older U206Gs, it operates in much the same way but there are some subtle differences.

8.2. There is no key lock mechanism on the cargo door on the T206H. This is a big difference from the older U206G. The cargo door is locked for unauthorized external access via a pin inserted from the inside. This pin should be removed prior to flight. Do not lose this pin. Re-insert the pin after your flight to lock up. With no pin inserted, the outside handle can open the door freely.

8.3. There are multiple safety considerations for the cargo door. With the flaps down, the forward cargo door is blocked from opening more than four inches. This door is the most convenient door for the second-row passengers to evacuate if it can be opened. There could also be room through the front left door depending on how far back the pilot seat is positioned.

8.4. The aft cargo door handle can be reached if the front cargo door is partially opened. If the flaps are down, the procedure is written on the door as a placard. But even with the placard, passengers should be thoroughly briefed on this procedure.



8.5. The cargo doors and handle must be absolutely verified to be secured prior to flight. If the aft cargo door becomes open while airborne it will be flung back with the slipstream. The pin keeping the door from going back too far is meant for ground operation with the wind. It will likely not hold while airborne. The aft cargo door will end up hitting the rear fuselage skin repeatedly. This sort of damage can potentially climb into the six-figures dollar wise to fix.

8.6. There is a switch along the door frame of the front cargo door. The flaps will not move either direction if the switch is not pressed in. The front door when closed should press in this switch. This is meant as a function on the ground in that if the door is open, it keeps the flaps from motoring into the door that's in the way.

8.7. In flight, this switch works the same way. If the door pops open, the flaps will not move. There's a chance the door may be slightly out of position but not enough to notice it is wide open. But if the switch is not pressed in fully, it will prevent flap movement.

8.8. A small number of CAP T206Hs have been modified with a front right seat door.

9. Prop Heat

9.1. The propeller blades are equipped with electric heaters. The switch is on the light panel. Flight into known icing is still prohibited.

9.2. The switch is a three-position switch. Middle is the Prop Heat On. You might accidently go into Test thinking it's On. The Test position is spring pressured to prevent staying in Test.

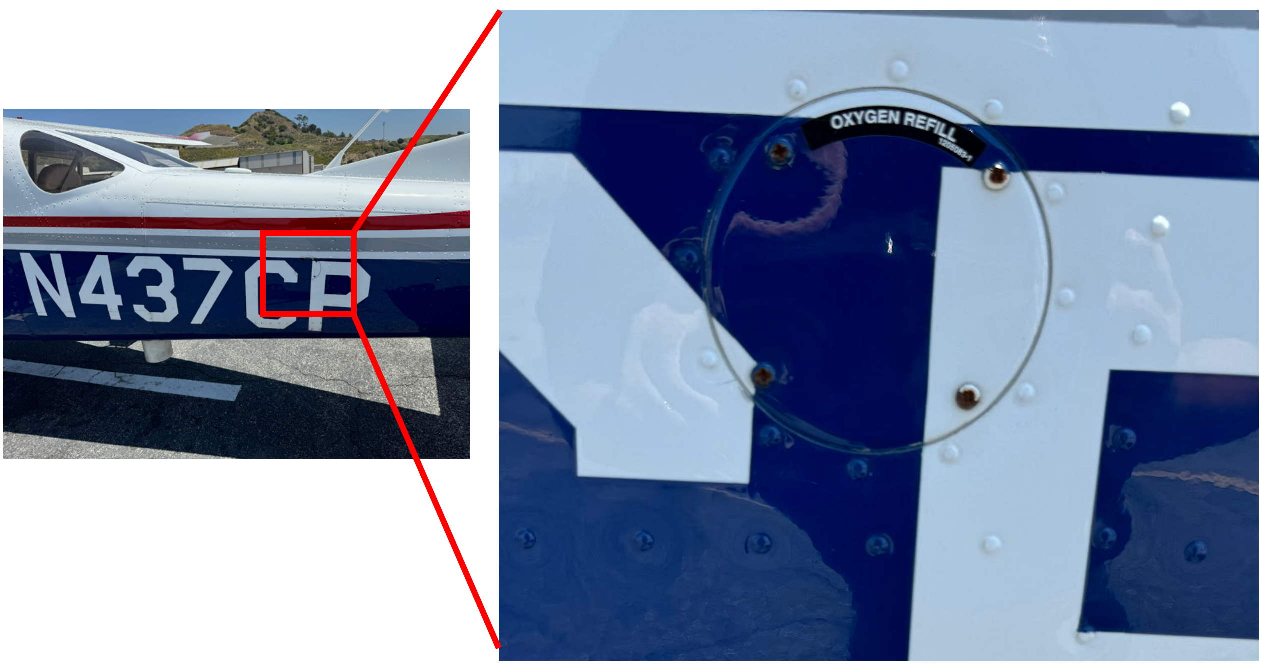
9.3. The G1000 has two messages that can pop up. The green means the prop heat is on and is working. The yellow means something needs attention. There is no extra wording on the screen, just the color differences. Check the POH if you get the yellow as you may have a problem. The yellow could be from simply being in the Test position. Or it could mean a more serious problem.

10. Oxygen

10.1. The oxygen bottle and system are integrated into the T206H airframe.

10.2. The switch to turn on and off the oxygen is on the ceiling.

10.3. Refilling the oxygen bottle is done via a connection panel.

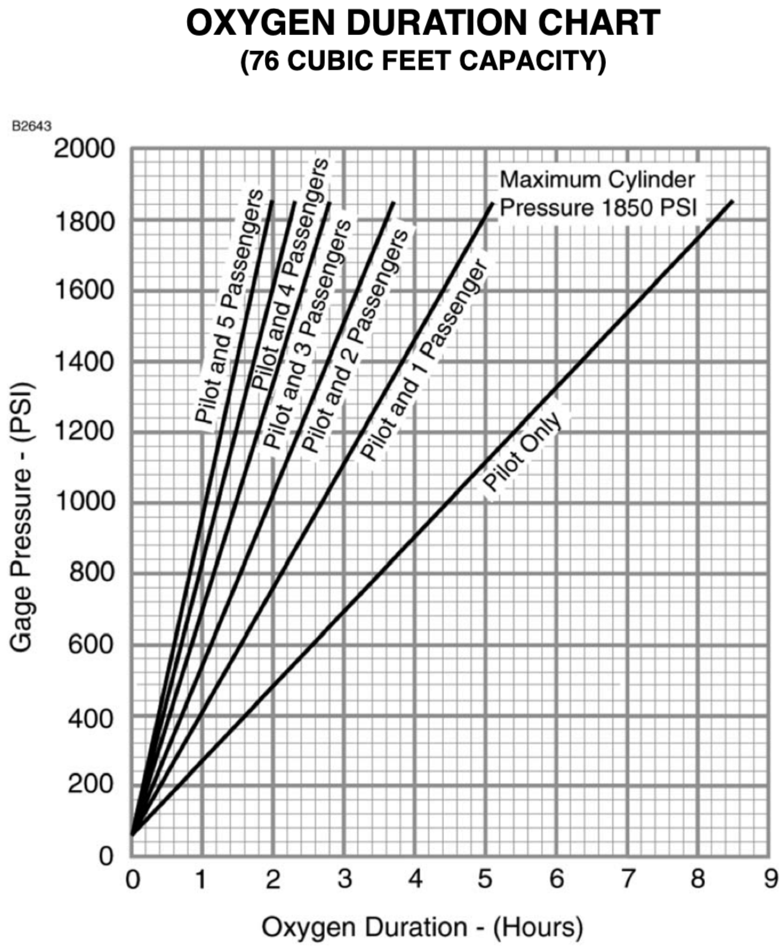


10.4. It is not practical to remove the bottle itself and walk it to a shop to refill unfortunately. If it must be done it can, but it requires removing the rear cabin panel. This bottle is also heavier than the typical portable bottles.

10.5. The chart in the POH has an oxygen duration chart. But it is based on using the standard masks and hoses provided by Cessna. Below 18,000 ft, most crews will use personal nasal cannulas only and simpler flow meters as they are far more comfortable. Above 18,000 ft, the nasal cannulas cannot be used.

Below 18,000 ft, can use the typical nasal cannulas and flow meters. This is similar to the standard equipment you use with the portable oxygen bottles in the 182Ts.

10.6. Cessna provides red and orange color coded line fittings and masks. These should be used above 18,000 ft. Only the red line fitting is meant for the integrated microphone mask.



NOTE

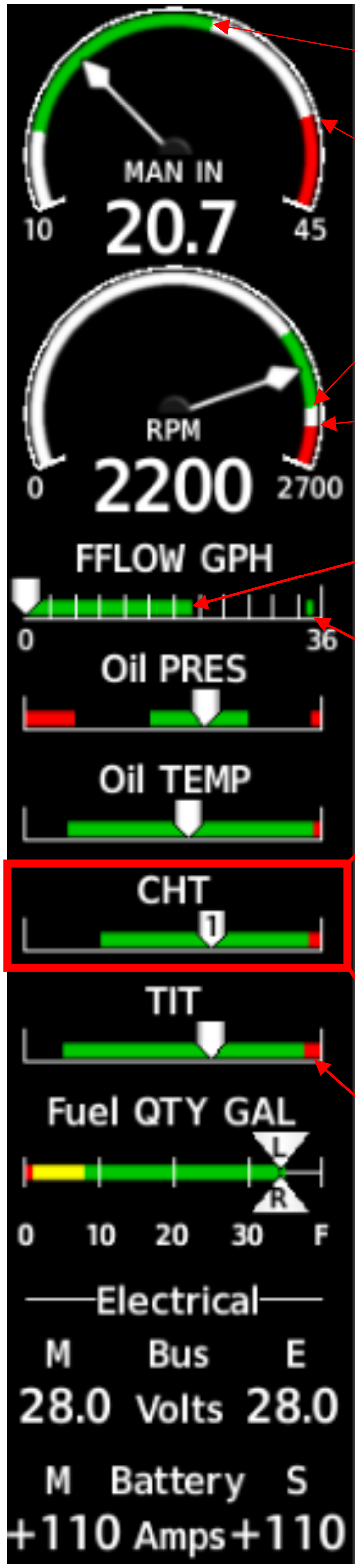
This chart is based on a pilot with a red color coded oxygen line fitting and passengers with orange color coded line fittings.

Must use full face masks above 18,000 ft with appropriate line fittings. Most aircraft only have one mask with the integrated microphone and multiple masks without microphones.

11. Cowl Plugs

11.1. There should be three pieces to the cowl plugs. Make sure to remove all three during your preflight. The oil cooler inlet is the smaller opening. On the chance you only see two pieces, make certain the smaller inlet is clear.

12. Engine Indications



30” MP is the upper end of the green band (green meets white)

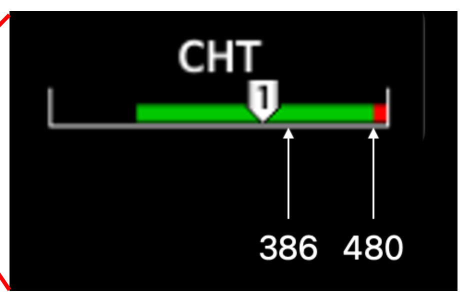
39” MP is the upper end of the white band (white meets red)

2400 RPM is where the green and the white meet

2500 RPM is where the white and red meet

20 GPH is the little green tick mark

34 GPH is the far right of green band



480 degrees F CHT is the far-right side of the green band

386 degrees F CHT is two-thirds of the green band

1675° is the far-right side of the green band

13. Tach Time and Vacuum

13.1. Just like the 182T, the normal first page of the G1000 Engine Indicating System (EIS) will not have tach time or the vacuum. You must press ENGINE then SYSTEM. Tach time will be called ENG HOURS. Vacuum is also on this page. If on newer aircraft with GI 275, there is no vacuum system and thus no gauge to display.

14. Takeoff and Climb Power

14.1. The Turbo Transition training material is going to talk heavily about Takeoff and Climb Power. This will go over more common errors or things to reinforce during that training.

NORMAL TAKEOFF

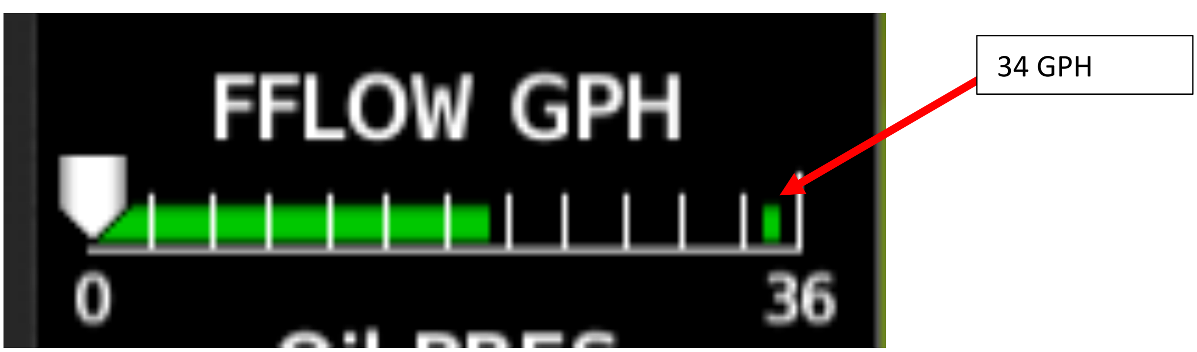
1. Wing Flaps - UP - 20° (10° preferred)
2. Throttle Control - 39 in.hg.
3. Propeller Control - 2500 RPM
4. Mixture Control - ADJUST (to 34 GPH fuel flow)

14.2. With the automatic wastegate, the 39 in hg. MP should not require a super slow throttle movement to avoid over boost. Moving it too slowly means on a rolling takeoff that you could be wasting a lot of runway available. The Lycoming Operator's Manual mentions taking at least four seconds from idle to full throttle. The context is not for over boost but gives a good baseline.

a. Subject engines are equipped with a dynamic counterweight system and must be operated accordingly. Throttle movements from full power to idle or from idle to full power are full range movements. Full range throttle movements must be performed over a minimum time duration of 4 seconds. Performing a full range throttle movement at a rate of less than 2 seconds is considered a rapid or instant movement. Performing rapid movements may result in detuned counterweights which may lead to failure of the counterweight lobes and subsequent engine damage.

14.3. The 2500 RPM should require no actual control effort. If the Prop Control (Blue Knob) is full forward, it should develop 2500 RPM once in the governed range.

14.4. The takeoff roll should be started at full rich mixture. Not ground lean for taxi. The 34 GPH will be depicted by a small green tick mark on the fuel flow indicator. It is the minimum fuel flow for maximum power. You may see it called maximum power fuel flow but that can lead to some confusion. It is the minimum fuel flow for maximum power, not a limitation on max fuel flow.



14.5. As a side note, the older TU206G does have a maximum fuel flow number and much of the generic turbocharged training material may be referencing this aircraft.

INSTRUMENT	RED LINE MINIMUM LIMIT	GREEN ARC NORMAL OPERATING	YELLOW ARC CAUTION RANGE	WHITE ARC NORMAL CLIMB RANGE	RED LINE MAXIMUM LIMIT
Tachometer	- - -	2200 - 2500 RPM	2600 - 2700 RPM	- - -	2700 RPM
Manifold Pressure	- - -	15 - 30 in. Hg	35 - 36.5 in. Hg	- - -	36.5 in. Hg
Oil Temperature	- - -	100° - 240°F	- - -	- - -	240°F
Cylinder Head Temperature	- - -	200° - 460°F	- - -	- - -	460°F
Fuel Flow (Pressure)	(3.0 psi)	6.0 - 20.0 GPH	- - -	20.0 - 27.0 GPH	31.0 GPH (19.5 psi)

TU206G Fuel Flow and POH/AFM Excerpt

POWERPLANT INSTRUMENT MARKINGS

INSTRUMENT	RED LINE (MIN)	RED ARC (LWR)	YELLOW ARC	GREEN ARC (NORMAL OPERATING RANGE)	RED ARC (UPR)
Tachometer	----	----	----	2000 to 2400 RPM	2500* to 2700 RPM
Manifold Pressure	---	---	---	15 to 30 in.hg.	39* to 45 in.hg.
Cylinder Head Temperature	----	----	----	200 to 480°F	480* to 500°F
Oil Temperature	----	----	----	100 to 245°F	245* to 250°F
Oil Pressure	----	0 to 20 PSI	----	50 to 90 PSI	115* to 120 PSI
Fuel Quantity	0 (2.5 Gallons Unusable Each Tank)	----	0 to 8 Gallons	8 to 35 Gallons	----
Fuel Flow	----	----	----	0 to 20 GPH 34 GPH	----

T206H Fuel Flow and POH/AFM Excerpt
Note the lack of a red line limit on fuel flow.

14.6. Depending on your previous experience, the first few takeoffs may have some steep learning curves. The airplane will need more right rudder compared to a 182. And setting the throttle to avoid over boost is also important. On a rolling takeoff, keeping directional control on the runway and careful throttle input are far more important than fine tuning the fuel flow to be absolutely perfect. As you gain more familiarity with the takeoff control inputs, you can focus a little more attention to the fuel flow.

14.7. There is a penalty to distance in performance for takeoff roll when mixture is set too rich. But on a Short Field Takeoff procedure, fuel flow via mixture should be set prior to brake release. So, this should create much less of a distraction during the actual takeoff roll. Being momentarily static at this high-power setting is normal for engine temperatures but it should be as momentary as possible.

SHORT FIELD TAKEOFF

1. Wing Flaps - 20°
2. Brakes - APPLY
3. Throttle Control - 39 in.hg.
4. Propeller Control - 2500 RPM
5. Mixture Control - ADJUST (to 34 GPH fuel flow)
6. Brakes - RELEASE

14.8. There are two options for climb power. The CAP checklist only has room to fit one of them.

NORMAL CLIMB

1. Airspeed - 95 - 105 KIAS
2. Throttle Control - 30 in.hg.
3. Propeller Control - 2400 RPM
4. Mixture Control - 20 GPH or FULL RICH (if less than 20 GPH)

CAP Checklist
No mention of Max Climb

MAXIMUM PERFORMANCE CLIMB

1. Airspeed - 89 KIAS
2. Throttle Control - 39 in.hg.
3. Propeller Control - 2500 RPM
4. Mixture Control - 34 GPH

NOTE

- Refer to the Minimum Fuel Flows Maximum Continuous Power placard, in Amplified Normal Procedures, for maximum continuous power manifold pressure and fuel flow above 17,000 feet.

After Takeoff and Climb

1. Airspeed……………..….95 - 105 KIAS
2. Throttle…………………..... 30 in.Hg
3. Propeller Control…….…..2400 RPM
4. Mixture…..…….20 GPH or Full Rich (if less than 20 GPH)

14.9. There is no limitation on using Maximum Continuous Power for climb. If you have a reason to use it, then use it. It will burn more per hour, but you will reach cruising altitude much sooner. Watch your engine temperatures, CHTs and TIT on climb.

14.10. There is no time limit for Maximum Continuous Power on the T206H. If you are used to the U206G or TU206G, there is a time limit for Maximum Continuous Power on those older aircraft.

14.11. The minimum fuel flow placard is not available by the yoke like you might be used to on the 182T. Instead, it is in the POH. As you'll notice, it keeps the same power setting up to 17,000 ft. And this happens to be the same engine settings as on the takeoff to easily reference. The T206H is seldom taken above 17,000 ft for CAP, but if you do, check inside the POH.

For maximum power, the mixture should be set in accordance with the Minimum Fuel Flows Maximum Continuous Power placard. The fuel flow values on the placard are minimum fuel flows.

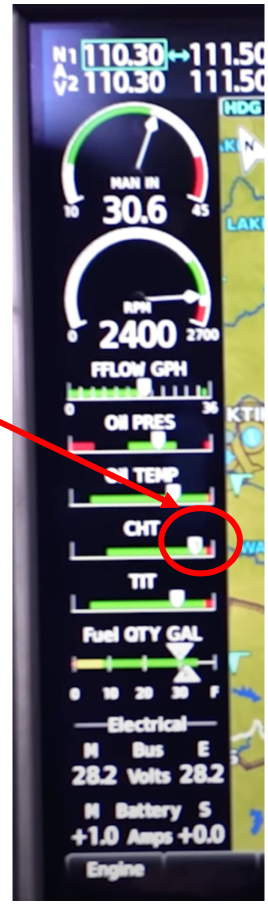
MINIMUM FUEL FLOWS MAXIMUM CONTINUOUS POWER 2500 RPM		
ALT (FT)	MP (IN.Hg)	FUEL FLOW (GPH)
SL - 17,000	39	34.0
18,000	37	30.5
20,000	35	28.5
22,000	33	26.5
24,000	31	24.5
26,000	29	23.0
28,000	27	21.0
30,000	25	19.0

14.12. While the word minimum is used multiple times, it does not mean you should fly ultra-rich all the time. The stated fuel flows should work. But many pilots were treating the number value as a maximum and being too lean to not hit what they perceived as a limit.

FUEL FLOW

Fuel flow is shown on the ENGINE page by the FFLOW GPH horizontal indicator. The indicator range is from 0 to 36 gallons per hour (GPH) with 3 GPH graduations. A green band from 0 to 20 GPH is the normal operating range, and a green mark at 34 GPH is the minimum fuel flow for maximum power (39 in.hg. manifold pressure and 2500 RPM). A white pointer shows the measured fuel flow.

14.13. You should monitor TIT and CHT throughout the climb. At certain atmospheric conditions, the stated minimum fuel flow values may not adequately keep the TIT and CHT cool. There are a few options to consider. One is to richen mixture and get a higher fuel flow. Another is to lower the nose to increase airspeed and thus airflow over the engine parts. Leveling off and reducing power momentarily may need to be considered.



14.14. Here is an example of Normal Climb power settings. Note the CHT is getting closer to redline and is beyond recommended temperatures.

14.15. Everything is still in the green bands but something should be done in this situation. Don't just allow this to continue. If you insist and intend to climb with Normal Climb power settings, the airspeed needs to be faster for better cooling. This will lower climb rate so there's a tradeoff.

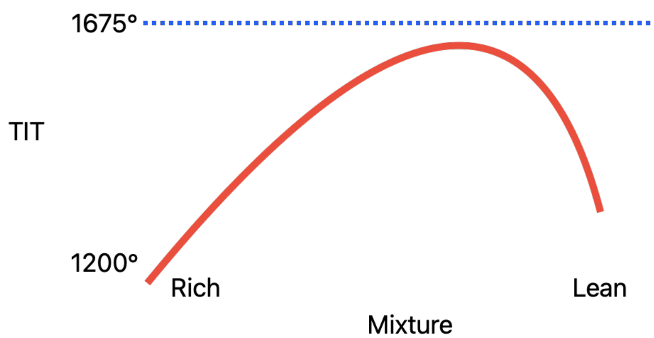
14.16. The example on right shows Maximum Continuous Power. Note the CHTs and TIT are in a good range. Fuel flow is slightly high but gives great performance and cooling.

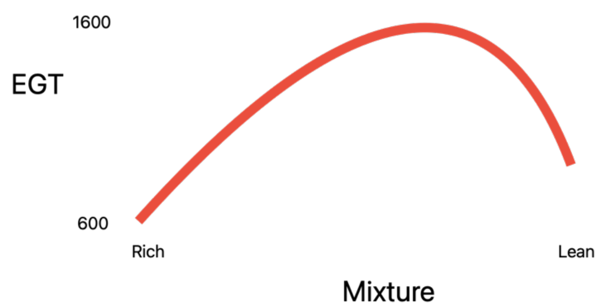
15. Leaning for Cruise

15.1. Before going further, the POH recommends one method for leaning which will be explained first. But given the sensitivity of the engine parts and higher demands and temperatures, other possible ways to lean may exist that may fit the CAP type of flying better. This will be explained later on.

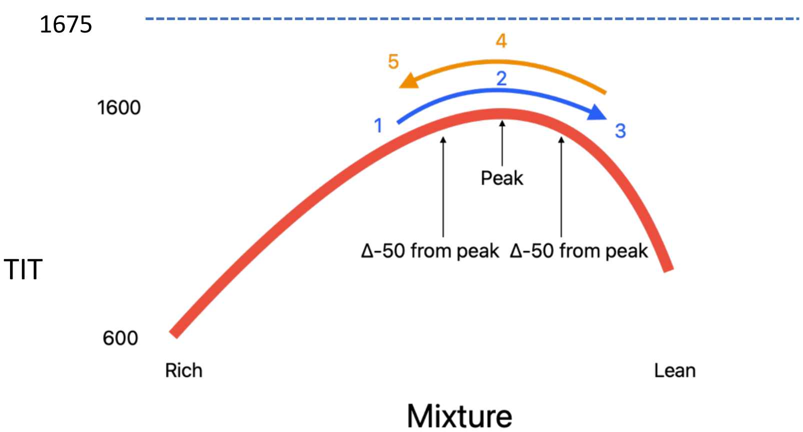
15.2. If you have mastered leaning the 182T in cruise, in ideal circumstances, the T206H will be a simple crossover. The biggest difference is the Lean Assist is in reference to the TIT, not EGT.

15.3. The TIT and EGT behave much the same way. The temperature rises as you move mixture lean to a peak and then drops down the further lean you go.



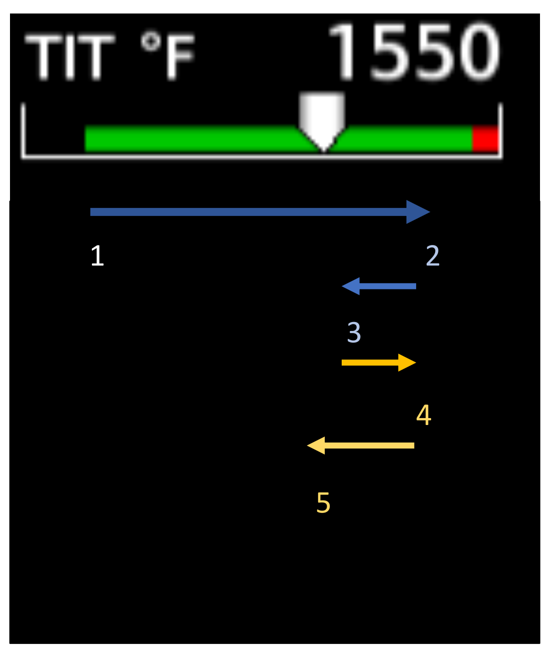


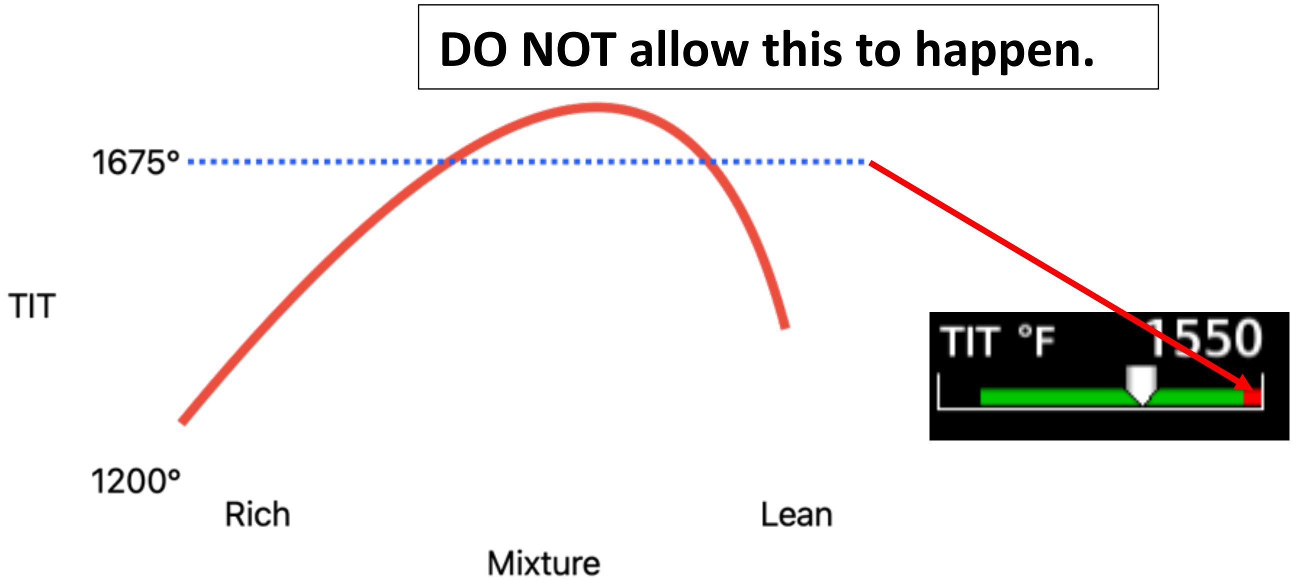
15.4. We target a temperature at either the Peak TIT or something with a mixture more Rich based on Peak TIT. Lean of Peak TIT is not approved per the POH. It is acceptable to be slightly Lean of Peak momentarily to find peak, but don't stay there.



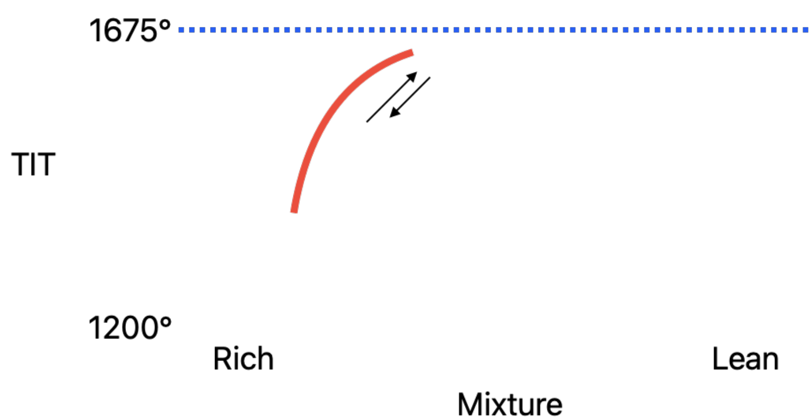
CAUTION

OPERATION ON THE LEAN SIDE OF PEAK T.I.T. IS NOT APPROVED.



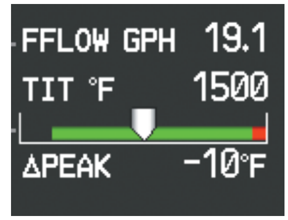


15.5. The biggest difference though with EGT vs TIT is that TIT has an upper limitation. You cannot exceed 1675°. At some atmospheric conditions and higher power settings, there is a very decent chance to exceed this before you get to a peak. As you lean to find peak, you may notice the temperature is not dropping back down as you get closer to 1675°. If you're at 1600° and still rising, STOP leaning.



15.6. If you find yourself in this situation, first move to rich. Then one option is continue moving the mixture rich and just use a targeted cooler temperature as target TIT. Lycoming recommends no hotter than 100° from TIT limit, in this case 1675-100= 1575°. You may want to consider even cooler than this. Or reduce MP and/or RPM to get a lower power setting and reattempt the lean assist. Hopefully, peak TIT is way lower than 1675° at the lower power setting. Also, to avoid this scenario, you may want to try the leaning scenario of published fuel flow referenced later in this chapter.

15.7. The AFM/POH has three stated positions for leaning with reference to TIT. Recommended lean is 75° Rich of Peak TIT. Best Economy is Peak TIT. Best Power is 150° Rich of Peak TIT. You are not absolutely required to be at these values but have a reasoning.



15.8. Just like the 182T, the Lean Assist function on the T206H G1000 is looking for any drop in the TIT number. If one were to use the proper technique, it would show peak TIT (a steady rise then drop). The G1000 displays a minus based on the first drop of TIT. The G1000 has no context of why the TIT dropped, it just registers the first drop. The G1000 has no context if you are lean or rich of peak. It only shows a Delta (Δ) number based on that first drop in TIT. You must understand the theory behind leaning for TIT and use the Lean Assist as a tool.

15.9. The leaning procedure mentioned is only at cruise if power is at or below 75% power. Generally, if the MP and RPM are in the green bands, they should be below 75% in the majority of cases. But there are exceptions with colder days and at higher altitudes in that the green bands might be more than 75%. From surface to 20,000 ft, 30" MP and 2400 RPM might exceed 75%. But 28" MP or less and 2400 RPM or less should be below 75% from surface to 20,000 ft in conditions from 20°C below and 20°C above standard temperature.

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 5
PERFORMANCE

CRUISE PERFORMANCE
PRESSURE ALTITUDE 8000 FEET

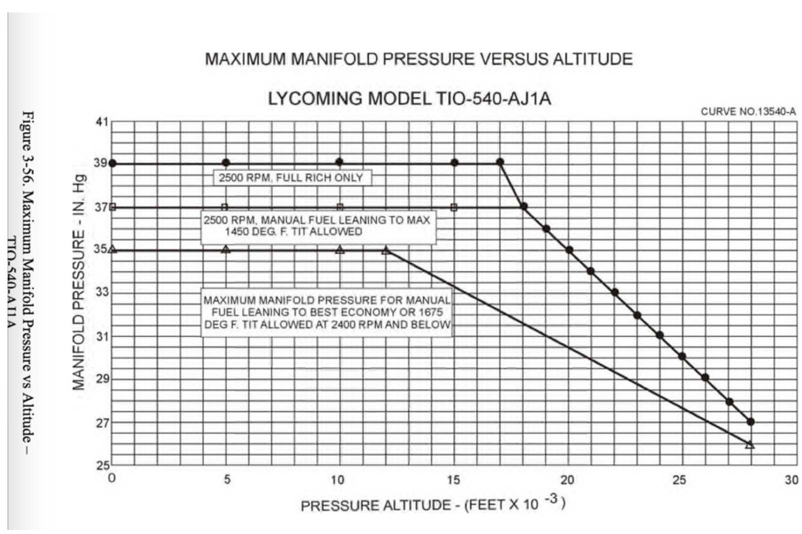
CONDITIONS:
3600 Pounds
Recommended Lean Mixture
Cowl Flaps CLOSED

		20°C BELOW STANDARD TEMP -21°C			STANDARD TEMPERATURE -1°C			20°C ABOVE STANDARD TEMP 19°C		
RPM	MP (in.hg.)	% MCP	KTAS	GPH	% MCP	KTAS	GPH	% MCP	KTAS	GPH
2400	30	---	---	---	75	147	19.2	70	146	18.0
	28	75	144	19.1	70	144	18.0	66	142	16.9
	26	69	139	17.7	65	139	16.7	61	137	15.6
	24	65	135	16.5	61	134	15.6	57	132	14.6

- Power settings not approved for cruising are indicated by dashes.

This is inside green band.

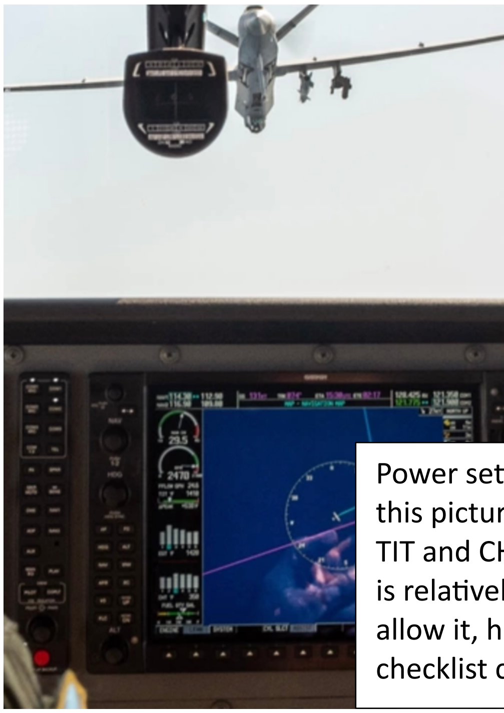
15.10. If you really need to go above 75% power operationally in cruise for a short duration (i.e. you must reach a critical time on target or catching up to a MQ-9 Reaper), you should go either mixture full rich or use the minimum fuel flow settings. Don't use peak TIT. The full rich or minimum fuel flow will burn much more fuel so watch your planning to leave adequate reserve fuel. Continue to watch TIT and CHTs to ensure they stay below recommended maximums.



Excerpt from Lycoming Operator's Manual. POH/AFM is still controlling. But note the desired mixture setting.

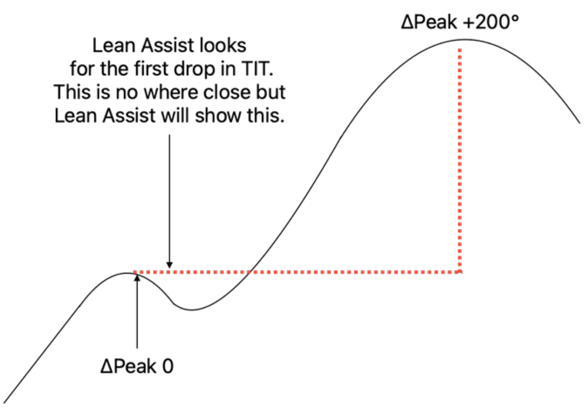
15.11. In a perfect world, you should never see a positive number for the ΔPeak. However, you must remember the Lean Assist is only looking for the first "drop" in TIT. Same principles from the 182T apply as far as positive peak numbers.

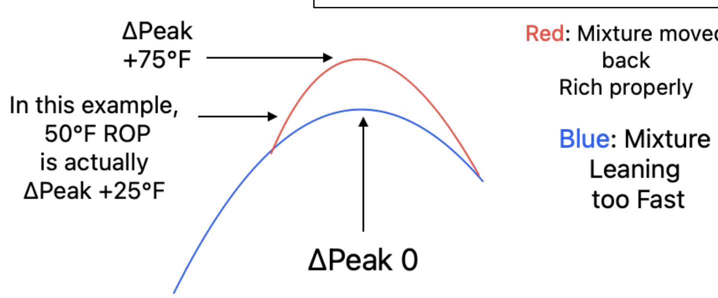
15.12. Another note, you don't have to use the Assist function. You're welcome to just watch the TIT numbers and note the highest number shown. Then do math to subtract 75° if you wanted 75° rich of peak. Example could be 1475° is highest temperature noted before it drops, then shoot for 1400° on the rich side as you enrichen.



Power setting is high in this picture with good TIT and CHT. Fuel flow is relatively higher to allow it, higher than the checklist cruise number.

If these situations happen, consider redoing the Lean Assist. Go back very Rich and press Assist to get a blank ΔPeak and Lean until peak then go Rich.





15.13. The POH talks about peak TIT but there are some other techniques potentially available. One is you could look at the performance tables and set a Fuel Flow value from the chart. This means not having to mess around with peak TIT and putting TIT closer to the red line limit. You should still carefully watch CHT and TIT to make sure they're remaining cool. This method may not be the most efficient, but it should be close enough except on a longer long cross-country.

15.14. There are many pilots who prefer this method as primary and essentially never find peak TIT for everyday operation. Except at the low end of power settings, there is a real chance of hitting 1675° TIT in trying to find peak. True Airspeed could be slightly off from the published table numbers, but this method does reduce the risk of TIT exceedance. While not in the POH, the Lycoming Operator's Manual does mention this option of leaning.

15.15. An example of deciding to use 6,000 ft at standard temperature and 2200 RPM with 20" MP. That shows a fuel flow of 11.3 GPH. In this case, set the MP and RPM. Then move Mixture to get the 11.3 GPH. Then watch the TIT and CHT to be below recommended numbers. No worrying about lean assist or peak. Richen mixture and/or open cowl flaps if 11.3 GPH does not work.

CRUISE PERFORMANCE
PRESSURE ALTITUDE 6000 FEET

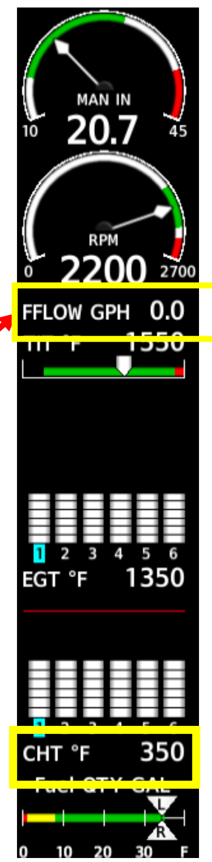
CONDITIONS:
3600 Pounds
Recommended Lean Mixture

Cowl Flaps CLOSED

RPM	MP (in.hg.)	20°C BELOW STANDARD TEMP -17°C			STANDARD TEMPERATURE 3°C			20°C ABOVE STANDARD TEMP 23°C		
		% MCP	KTAS	GPH	% MCP	KTAS	GPH	% MCP	KTAS	GPH
2400	30	---	---	---	75	145	19.2	70	144	18.0
	28	75	141	19.1	70	141	18.0	66	140	16.9
	26	69	137	17.7	65	136	16.7	61	135	15.6
	24	64	133	16.5	61	132	15.5	57	130	14.5
	22	59	127	15.0	55	126	14.1	52	123	13.3
	20	54	122	13.7	51	120	13.0	47	115	12.2
2300	30	76	142	19.5	72	142	18.3	67	141	17.2
	28	71	138	18.1	67	138	17.1	63	137	16.0
	26	65	134	16.7	62	133	15.8	58	131	14.8
	24	60	129	15.4	57	128	14.5	53	125	13.6
	22	55	123	14.1	52	121	13.3	49	118	12.5
	20	50	117	12.8	47	114	12.1	44	109	11.4
2200	30	73	140	18.6	68	139	17.5	64	138	16.4
	28	67	135	17.2	63	135	16.2	59	133	15.2
	26	62	130	15.8	58	129	14.8	54	127	13.9
	24	56	125	14.4	53	123	13.6	50	120	12.8
	22	51	119	13.1	48	116	12.4	45	112	11.7
	20	46	111	11.9	44	108	11.3	41	103	10.7

Set the FFLOW GPH per what the POH says it should be.

Monitor TIT and CHT. If too hot, maybe open cowl flaps or mixture richer or less power.
TIT less than 1575°
CHT less than 400°



15.16. The POH red line numbers for TIT and CHT are considered too hot for normal operation by the Lycoming Operators Manual. This manual recommends no more than 1575° TIT and 400° CHT. There are many third-party sources saying to keep it even cooler than this. As a newer pilot to this type, you may want to consider giving yourself some margin and operate cooler. This will likely require a higher fuel flow. While not regulatory in nature to follow this guidance, the airplane being out of service for engine repair has consequences and missed opportunities.

16. Engine Settings for Descents

16.1. When at lower power settings, the engine is usually better served by mixture being more lean. While higher fuel flow rates are great for high power settings, the opposite can be true for lower power settings to an extent. Cowl Flaps should be closed for descents.

16.2. Before we get too deep into descents, at some point before landing, you need to move mixture to full rich and prop control full forward in case of a go-around. There's no exactly defined point this should be done. 1,000 ft AGL tends to be a good target altitude to do this or maybe a little lower or something higher. But something like 5,000 ft AGL would be quite high to go mixture full rich. If you must do a go-around unexpectedly and mixture was left very lean, move it full rich as soon as possible. Then fine tune for desired 34 gph fuel flow.

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 4
NORMAL PROCEDURES

DESCENT

1. Power - AS DESIRED
2. Mixture - ADJUST (if necessary to make engine run smoothly)
3. Cowl Flaps - CLOSED

BEFORE LANDING

1. Passenger Seats - AS FAR FORWARD AS PRAC
2. Pilot and Passenger Seat Backs - MOST UPRIGH
3. Seats and Seat Belts - SECURED and LOCKED
4. FUEL SELECTOR Valve - BOTH
5. Mixture Control - RICH
6. Propeller Control - HIGH RPM (push full in)

16.3. As with before, Lycoming recommends taking at least 4 seconds from full throttle to idle but for longevity of the counterweights. Under ideal circumstances though, throttle shouldn't need to be rapidly brought back to idle in cruise to start a normal descent. But an emergency descent may require rapid throttle movement to idle, and the word emergency means engine management is not the priority so do whatever PIC determines is necessary in that scenario.

EMERGENCY DESCENT

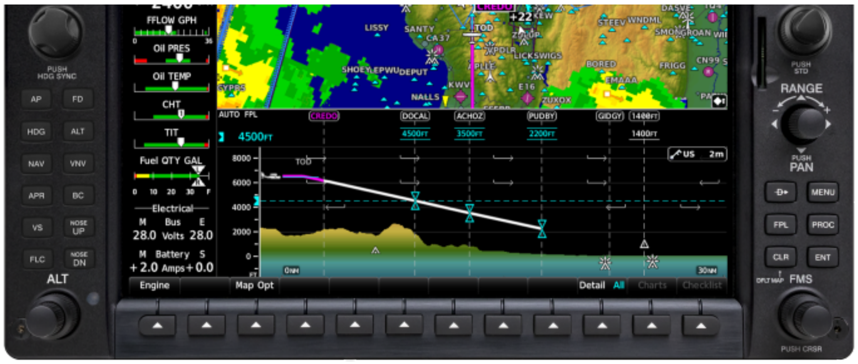
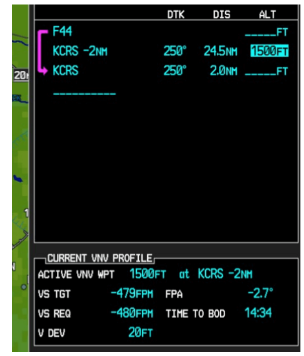
SMOOTH AIR

1. Seats and Seat Belts - SECURE
2. Throttle Control - IDLE (pull full out)
3. Propeller Control - HIGH RPM (push full in)
4. Mixture Control - FULL RICH (push full in)
5. Wing Flaps - UP
6. Airspeed - 182 KIAS

16.4. However, planned practice emergency descents should try to move throttle to idle as smoothly as possible. The recommended Lycoming number of 50° F per minute CHT reduction can be done all the way to idle but it takes a little time.

16.5. Under an ideal situation, i.e. long time at cruise and a normal descent without terrain or ATC concerns, you should try to reduce power no lower than the green arcs, 15" MP and 2000 RPM initially. Mixture should be left at the cruise position and gradually moved rich on descent.

16.6. The Vertical Navigation in the G1000 can be a great tool for planning descents.

16.7. The real-world means having less than ideal circumstances during a descent though. If practical, a circle or S turn on descent to help lose altitude is a potential option. The Flaps are a great tool to increase drag without reducing power all the way suddenly. While you might be only used to them within the traffic pattern environment, they can be helpful from higher altitudes if a steeper descent is needed.

DESCENT

At 75% MCP or less (both manifold pressure and RPM indicators in the green arcs), adjust the mixture if necessary to get smooth engine operation. Avoid using FULL RICH mixture during long or low power descents. Using FULL RICH mixture under these conditions can cause carbon and lead deposits to be formed in the engine which could result in roughness or hesitation.

16.8. Going to throttle idle for flare and touchdown is expected and normal. But ideally, the power settings have been relatively low for a good while before that point.

16.9. Lycoming's How to Avoid Sudden Cooling of Your Engine article.

Sudden cooling is detrimental to the good health of the piston aircraft engine. Lycoming Service Instruction 1094D recommends a maximum temperature change of 50˚ F per minute to avoid shock cooling of the cylinders.

Operations that tend to induce rapid engine cooldown are often associated with a fast letdown and return to the field after dropping parachutists or a glider tow. There are occasions when Air Traffic Control also calls for fast descents that may lead to sudden cooling.

The engine problems that may be expected when pilots consistently make fast letdowns with little or no power include:

1. Excessively worn ring grooves accompanied by broken rings
2. Cracked cylinder heads

3. Warped exhaust valves
4. Bent pushrods
5. Spark plug fouling

Generally speaking, pilots hold the key to dodging these problems. They must avoid fast letdowns with very low power (high-cruise RPM and low manifold pressure), along with rich mixtures that contribute to sudden cooling. It is recommended that pilots maintain at least 15" MP or higher, and set the RPM at the lowest cruise position. This should prevent ring flutter and the problems associated with it.

Letdown speed should not exceed high cruise speed or approximately 1,000 feet per minute of descent. Keeping descent and airspeed within these limits will help to prevent the sudden cooling that may result in cracked cylinder heads, warped exhaust valves, and bent pushrods.

The mixture setting also has an effect on engine cooling. To reduce spark plug fouling and keep the cylinder cooling within the recommended 50˚ per-minute limit, the mixture should be left at the lean setting used for cruise and then richened gradually during the descent from altitude. The lean mixture, maintaining some power and using a sensible airspeed should achieve the most efficient engine temperatures possible.

The operating techniques recommended in this article are worth consideration as they will be a positive step toward saving dollars that might be spent on maintenance. Whatever the circumstances, pilots must plan their flight operations so that the potential damage caused by sudden engine cooling can be avoided.

17. CHT Management

17.1. The biggest factor Lycoming has identified for potential wear on the engine is higher sustained CHTs. There are some non-intuitive factors on the T206H to consider with respect to the CHT.

GENERAL RULES

Never exceed the maximum red line cylinder head temperature limit.

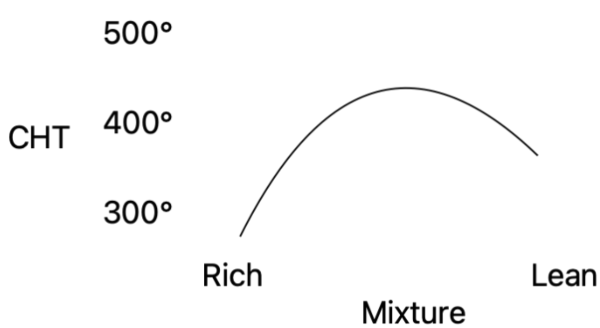
For maximum service life, cylinder head temperatures should be maintained below 435°F (224°C) during high performance cruise operation and below 400°F (205°C) for economy cruise powers.

Excerpt from Lycoming Operators Manual

17.2. If CHTs are exceeding 400° F in continuous cruise, you must do something to bring the temperature down. Even if you followed the AFM/POH procedure to lean and at an approved power setting, there's always a chance the CHT will exceed 400° F during routine operation. The POH mentions opening the cowl flaps partially and to the extent necessary to provide cooler air.

While in cruise flight, cowl flaps should be closed unless hot day conditions require them to be adjusted to keep the CHT at approximately two-thirds of the normal operating range (green band).

AFM/POH excerpt

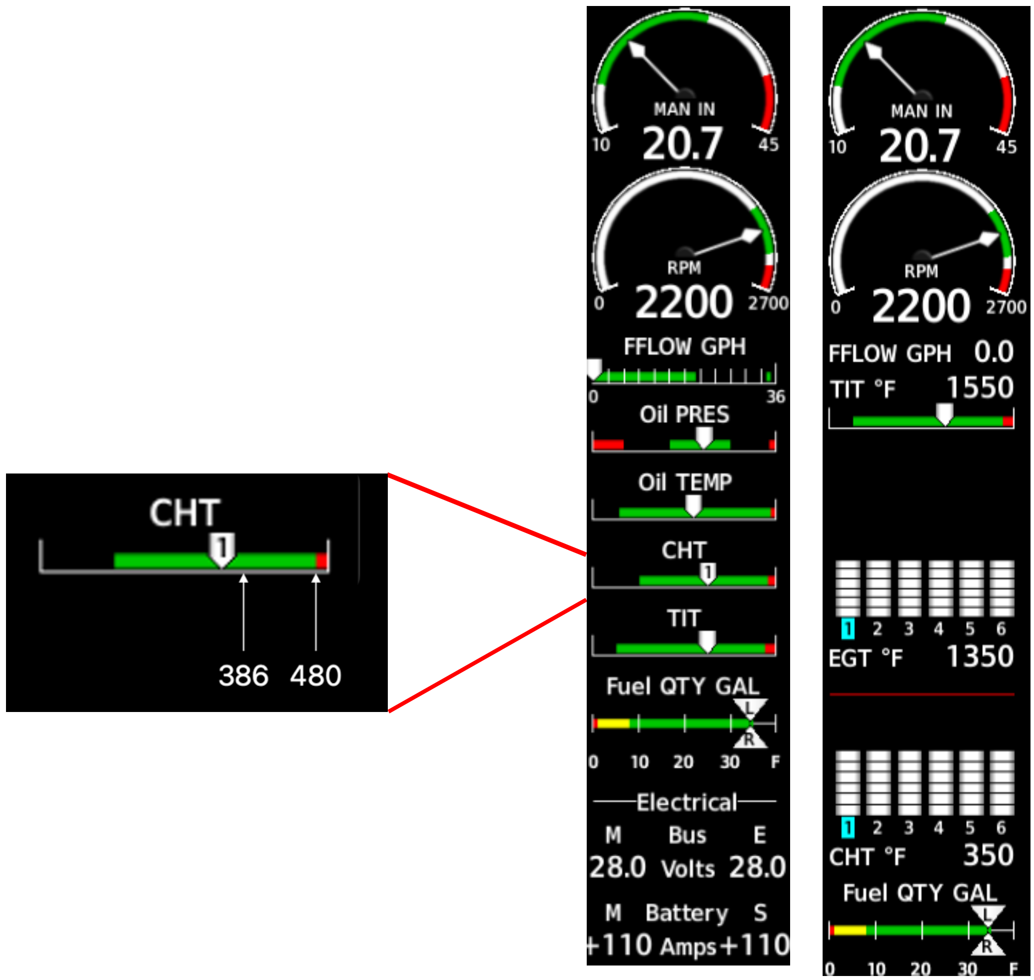


Like TIT and EGT, CHT will change on a parabola with mixture change. Richer mixture will cool CHTs but only on one side of the arc. You may get a rise in CHT before a drop when moving rich.

17.3. Figuring out the CHT is not intuitive. The front-end EIS screen has a green band. About 2/3 of the band is 386° F. The other option is go to the Engine – Lean page.

17.4. Officially, the POH says 480° F for the CHT is "normal". Almost every external source to include Lycoming will mention that 480° is far too hot for continuous normal.

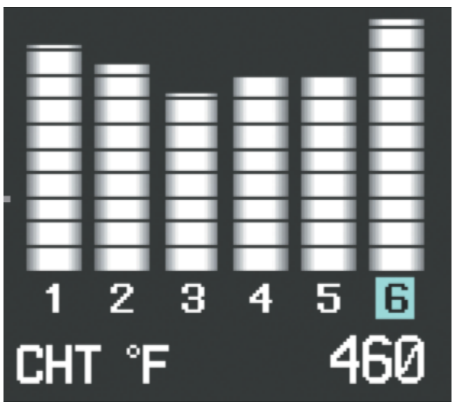
> While in cruise flight, cowl flaps should be closed unless hot day conditions require them to be adjusted to keep the CHT at approximately two-thirds of the normal operating range (green band).

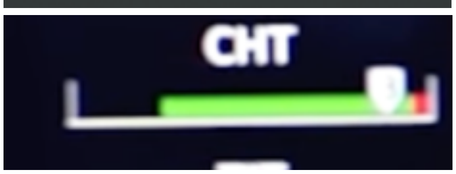


17.5. If you are getting hot CHTs, a few options to consider in cruise. The POH's recommendation is to open Cowl Flaps partially. If you must fully open cowl flaps, you will get a 5 knot decrease in TAS. Increasing fuel flow by moving the mixture rich will help cool CHTs if you're Rich of Peak. But this will burn more fuel. Other option is to reduce power by reducing MP or RPM or both. But protect the CHTs.

17.6. If your fuel flow or TAS are so negatively impacted that you must now make an unplanned fuel stop, treat that as a cost and hassle of operating the aircraft. It's going to be far cheaper and less impactful in downtime in the long run. Cylinder replacements are costly, and parts are in short supply.

17.7. If hot CHTs are persistent in normal ambient temperatures (less than 23° C above standard), you will want to get the aircraft inspected by an A&P. Maybe the baffling needs work. Or a component needs replacing.





Nothing will be flashing red. But this is not a good long term CHT. DO SOMETHING to cool.

SECTION 3
OPERATING INSTRUCTIONS

LYCOMING OPERATOR'S MANUAL
TIO-540 SERIES – ANGLE VALVE CYLINDER HEADS

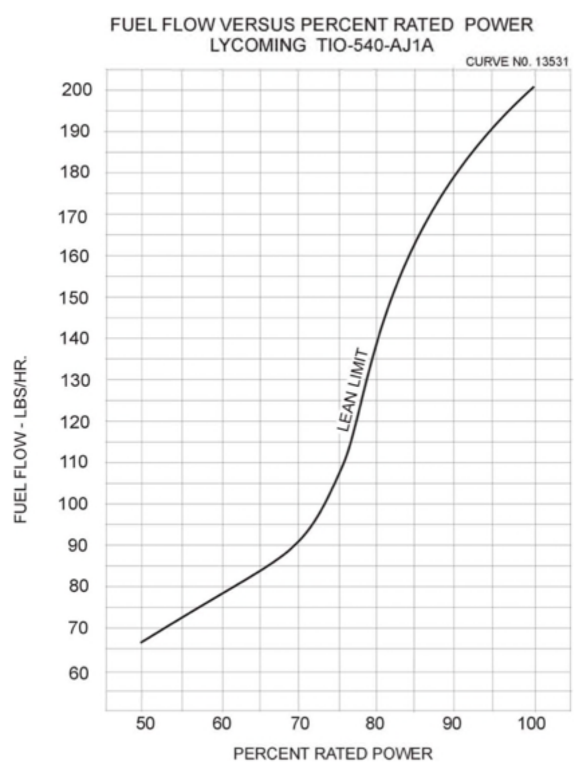


Figure 3-55. Fuel Flow vs Percent Rated Power – TIO-540-AJ1A

18. Turbocharger Failure

18.1. Turbocharger failure is meant to be covered by your Turbo transition training. The POH has relatively little information on turbocharger failure.

18.2. This POH language works well for the scenario of increasing MP that is diagnosed as an over boost. The common question comes up on how to identify the difference between a power loss turbocharger failure or a more traditional engine failure or power loss.

> **TURBOCHARGER FAILURE**
>
> The turbocharger system's purpose is to increase manifold pressure and thus engine power to a level higher than can be obtained without it. A failure of the system will cause either an overboost condition or some degree of power loss. An overboost can be determined on the manifold pressure indicator and can be controlled by a throttle reduction.
>
> If the turbocharger failure results in power loss, it may be further complicated by an overly rich mixture. This rich mixture condition may be so severe as to cause a total power failure. Leaning the mixture may restore partial power. Partial or total power loss may also be caused by an exhaust leak. A landing should be made as soon as practical for either an overboost or partial/total power loss.

18.3. If MP is decreasing and you're not sure if it's an engine failure or turbocharger failure, look at the fuel flow meter. Typical engine failures will usually draw little to no fuel right away. But a turbocharger failure will generally continue to draw a good amount of fuel for a while. In this scenario, bringing the mixture lean to an extent can hopefully restore some power.

19. Shutdown

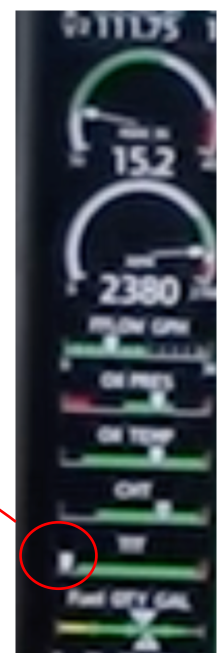
19.1. During your Turbo transition training, you will likely hear about making sure to not shutdown the engine too quickly. The primary logic for this is to let the turbocharger cool to prevent the oil from coking.

19.2. The POH for the T206H makes no mention of at all of a minimum time or some fixed number value to reference before shutdown.

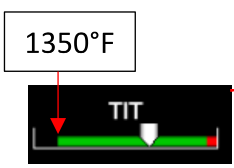
19.3. The Lycoming Operator's Manual for the TIO-540 says to wait until a decided drop in CHT is noted. This is the cylinder head temperature, not the TIT. For context, this advice is also in the non-turbocharged procedures as well for general cylinder health, not the turbocharger.

19.4. This means there is no published procedure for the T206H for shutting down. It is ultimately up to you as pilot in command. Use the knowledge passed on from the turbo training as appropriate.

19.5. To help you decide if you should wait to shut down, you may want to think about what conditions might warrant waiting.



19.6. If on a long flight with a long descent and a typical approach to landing, the turbocharger has had time to cool down relatively already. A normal taxi-in will probably suffice as enough time to allow adequate cooling. In this example, the TIT is already at the far-left end of the scale in this descent profile.



19.7. The left end of the green bar for TIT is 1350°F. There is no published scale for the black area.

19.8. But if you're arriving at a very busy airport and ATC asked you to do maximum forward speed for as long as practical, this may have required way more than the usual power setting for longer. If you had to do go-around with a lot of power, that is another consideration.

19.9. Another scenario might be if you end up doing an extended run-up and decide to not fly, you may want to consider waiting a few minutes after the higher power setting if the taxi time back to parking was short.

19.10. Some airports may require significant power to taxi uphill so that is another consideration. If significant power was added for another reason, that should be considered too.

19.11. Some third parties recommend looking at the TIT. And then shutting down upon being below a certain number. Again, there is no Lycoming or Cessna number or procedure. However, usual descents have the TIT well lower than the green band and usually full-scale deflection left. If somehow, you're in the green band, as in above 1350°F TIT, maybe ask why and really strongly consider a waiting period. Being in the black but close to the green band and not close to full scale deflection left might also warrant that same question and consideration.

20. Cowl Flaps Misc.

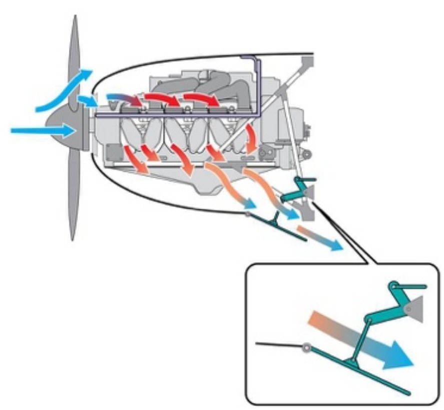
20.1. Just like the 182T, there are some phases of routine flight that have no guidance on the Cowl Flaps in the AFM/POH. Ultimately it is your discretion as PIC. But this will give you some tips and thoughts for consideration.

20.2. During maneuvers such as slow flight, if cowl flaps are closed, you will easily exceed 400° CHT. Strong recommendation is to keep them open.

20.3. Touch and gos don't have a published procedure. If the runway is long and wide enough, you could close them on downwind and then after landing touch down, open them while on the runway before power addition. This is the ideal method for engine management but will add a distraction during a critical phase of flight. If the runway is long and wide enough, maybe an acceptable option. If you don't want to do this for whatever reason, one option is to open them after becoming airborne again on the upwind/departure leg after. Another option is to open them on short final. Just leaving them open entirely is a less than ideal option. A balance needs to be struck balancing practical aircraft control safety with engine management. PIC discretion is needed.

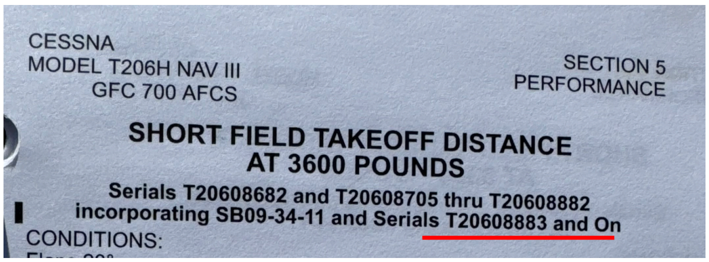
20.4. Planned low approach or go around is another area to use discretion on. From the context of developing good habits, keeping them closed and then going through the motion of opening them after the go-around is a positive habit. If you encounter an unplanned go around, it's a good habit to develop.

20.5. Simulated engine failures from up high to low with extended throttle at idle should probably be kept closed. Remember to reopen when adding power.



21. Rotation and Approach Speeds

21.1. In 2009, Cessna released a service bulletin to replace the static port buttons. If the bulletin was complied with, the airspeed readings were considered much more accurate. Aircraft serial numbers T20608883 and on were delivered from the factory with this in compliance already. Based on research, it is believed that the oldest T206H in CAP is T20609001 and on. You will likely see two sets of speeds for takeoff and other speed and altitude references. The CAP T206Hs should all be in the batch with newest serial numbers.


CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 5
PERFORMANCE

SHORT FIELD TAKEOFF DISTANCE
AT 3600 POUNDS
Serials T20608682 and T20608705 thru T20608882
incorporating SB09-34-11 and Serials T20608883 and On

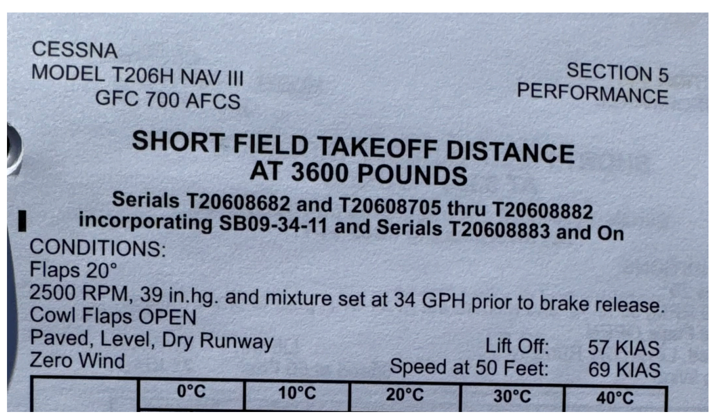
CONDITIONS:

21.2. If the POH home study only copy has one set of speeds for Short Field Takeoff, it may be an old version. The kept up to date serial number specific POH/AFM in the aircraft is the controlled reference to fly on. While this is not ideal for studying the airplane at home ahead of time, you must comply with the official document. The same issue applies for the gross weight increase STC.

21.3. The speed the POH recommends for rotation on normal takeoff is 55 KIAS. Weight increase STC is 56 KIAS. Unlike the 182T, there is no speed range. This speed is no matter the weight or flap setting. But flaps can be UP, 10°, or 20° for takeoff.

21.4. The G1000 has an “R” symbol on the speed tape which is for rotation. It is defaulted to 55 KIAS.

21.5. Most other aircraft, the normal takeoff rotation is faster than short field. But at 3600 pounds, the Short Field Takeoff lift-off speed is 57 KIAS. The speed does get lower with weight to 50 KIAS for 3000 pounds. Weight increase STC aircraft at 3789 pounds have rotation at 58 KIAS.


CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 5
PERFORMANCE

SHORT FIELD TAKEOFF DISTANCE
AT 3600 POUNDS
Serials T20608682 and T20608705 thru T20608882
incorporating SB09-34-11 and Serials T20608883 and On

CONDITIONS:
Flaps 20°
2500 RPM, 39 in.hg. and mixture set at 34 GPH prior to brake release.
Cowl Flaps OPEN
Paved, Level, Dry Runway
Zero Wind

Lift Off: 57 KIAS
Speed at 50 Feet: 69 KIAS

	0°C	10°C	20°C	30°C	40°C

21.6. The POH normal procedures and CAP checklist do not mention liftoff speeds for Short Field Takeoff. It's just the Speed at 50 ft of 69 KIAS. A risk exists with trying to hold the nose down on the runway until 69 KIAS and wheel barrel.

1. Wing Flaps - 20°
2. Brakes - APPLY
3. Throttle Control - 39 in.hg.
4. Propeller Control - 2500 RPM
5. Mixture Control - ADJUST (to 34 GPH fuel flow)
6. Brakes - RELEASE
7. Elevator Control - SLIGHTLY TAIL LOW

(Serials T20608682 and T20608705 thru T20608882)

8. Climb Airspeed - 74 KIAS (until all obstacles are cleared)

(Serials T20608883 and On)

8. Climb Airspeed - 69 KIAS (until all obstacles are cleared)
9. Wing Flaps - RETRACT SLOWLY (when airspeed is more than 90 KIAS)

21.7. Approach speeds for a normal landing are in a range. With Flaps Full, 70-80 Knots. Weight and flap setting are the biggest contributor to that determination. Flaps Up, is 80-90. With partial flaps, you'll have to interpolate.

21.8. If flying solo and fuel has burned after a long flight, you may want to be on the lower end of the airspeed. If having three persons onboard and after a short flight, maybe the upper end. Adding gust factor is an additional consideration. Short field techniques are different and covered later.

21.9. There's a discrepancy in the Short Field Approach and Landing speed. The POH/AFM Section 5 Performance speed is shown as 64 KIAS. But the POH/AFM Section 4 Normal Procedures says to use 67 KIAS. These are both assuming maximum landing weight.

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 5
PERFORMANCE

SHORT FIELD LANDING DISTANCE
AT 3600 POUNDS

CONDITIONS:
Flaps - FULL
Paved, Level, Dry Runway
Zero Wind

Power - IDLE
Maximum Braking
Speed at 50 Feet: 64 KIAS

Pressure Altitude - Feet	0°C Gnd Roll Feet	0°C Total Feet To Clear 50 Foot Obst	10°C Gnd Roll Feet	10°C Total Feet To Clear 50 Foot Obst	20°C Gnd Roll Feet	20°C Total Feet To Clear 50 Foot Obst	30°C Gnd Roll Feet	30°C Total Feet To Clear 50 Foot Obst	40°C Gnd Roll Feet	40°C Total Feet To Clear 50 Foot Obst
Sea Level	695	1340	720	1375	750	1415	775	1450	800	1490
1000	720	1375	750	1415	775	1450	800	1490	830	1530

SHORT FIELD LANDING

1. Airspeed - 80 - 90 KIAS (Flaps UP)
2. Wing Flaps - FULL (below 100 KIAS)
3. Airspeed - 67 KIAS (until flare)
4. Elevator and Rudder Trim Controls - ADJUST
5. Power - REDUCE TO IDLE (as obstacle is cleared)
6. Touchdown - MAIN WHEELS FIRST
7. Brakes - APPLY HEAVILY
8. Wing Flaps - UP

SHORT FIELD LANDING

For a short field landing in smooth air conditions, approach at 67 KIAS with FULL flaps using enough power to control the glide path. Slightly higher approach speeds should be used in turbulent air conditions. After all approach obstacles are cleared, smoothly reduce power and hold the approach speed by lowering the nose of the airplane. The main wheels must touch the ground before the nosewheel with power at idle. Immediately after the main wheels touch the ground, carefully lower the nosewheel and apply heavy braking as required. For maximum brake performance, retract the flaps, hold the control wheel full back, and apply maximum brake pressure without skidding the tires.

21.10. For context, the non-Turbo 206H shows Section 5 Performance speed of 67 KIAS at the same weight. The numbers for ground roll are exactly identical to the Turbo 206H approach speed of 64 KIAS at the same weight. The brakes and airframe are essentially identical. The non-Turbo 206H uses 67 KIAS in it's Section 4 Normal Procedures. The individual POH is controlling but hopefully this helps you draw your own conclusion as PIC on which speed was intended by the manufacturer.

Turbo T206H

SECTION 5
PERFORMANCE

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SHORT FIELD LANDING DISTANCE
AT 3600 POUNDS

CONDITIONS:
Flaps - FULL
Paved, Level, Dry Runway
Zero Wind

Power - IDLE
Maximum Braking
Speed at 50 Feet: 64 KIAS

Pressure Altitude - Feet	0°C		10°C		20°C		30°C		40°C	
	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst
Sea Level	695	1340	720	1375	750	1415	775	1450	800	1490
1000	720	1375	750	1415	775	1450	800	1790	830	1530

Non-Turbo 206H

SECTION 5
PERFORMANCE

CESSNA
MODEL 206H NAV III
GFC 700 AFCS

SHORT FIELD LANDING DISTANCE
AT 3600 POUNDS

CONDITIONS:
Flaps - FULL
Paved, Level, Dry Runway
Zero Wind

Power - IDLE
Maximum Braking
Speed at 50 Feet: 67 KIAS

Pressure Altitude - Feet	0°C		10°C		20°C		30°C		40°C	
	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst	Gnd Roll Feet	Total Feet To Clear 50 Foot Obst
Sea Level	695	1340	720	1375	750	1415	775	1450	800	1490
1000	720	1375	750	1415	775	1450	800	1790	830	1530

Note the speed being different. But the weight and performance numbers the same. Both POHs mention 67 KIAS many times for both airframes. Just this one page on the Turbo POH has 64 KIAS. 64 KIAS is not mentioned anywhere else.

22. Flaps

22.1. A note about the Flap Settings. The actual degree measurement for Flaps FULL in the T206H is 40°. There is no notch in the Flap handle for 30°. The maximum speeds for each flap setting are the same as in the 182T so it provides a great transfer of knowledge.

22.2. While the flap degree angles are very similar to a 182T, the surface area of the flaps on the T206H are significantly bigger. 2.5 feet of length on each wing more.

22.3. Expect a significantly greater sink rate at Flaps Full compared to other Cessna types. This needs to be managed with either more power, steeper approach angle, or delayed flap deployment.

21. Control Surface Movements

Wing Flaps:	Down 40° +1°, -2°	
Elevator Tab:	Up 25° +1°, -0°	Down 5° +1°, -0°
Ailerons:	Up 21° ± 2°	Down 14°30’ ± 2°
Elevator:	Up 21° ± 1°	Down 17° ± 1°

23. Fuel Drain Location

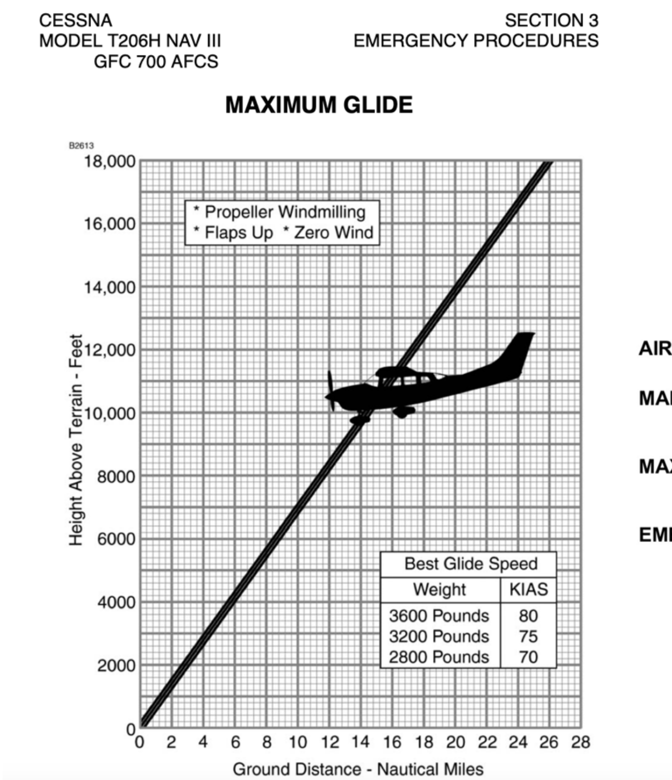
23.1. Many pilots will sometimes struggle to find one of the fuel drain locations located forward of the cowl flap. And unlike the 182T, the bottom fuel drains on the T206H is located more on the Pilot side of the airframe. There should be three total on the bottom still.

24. Best Glide Speed

24.1. The T206H with large variance on weight will have the best glide speed vary significantly. Of note is that published best glide speed of 80 KIAS is for original maximum takeoff weight. STC'd aircraft have a published best glide speed of 82 KIAS at maximum takeoff weight.

24.2. While it is possible to be at maximum takeoff weight, it is not very common. The G1000 speed tape has a "G" symbol at 80/82 knots. But again, we rarely fly at the weight that 80/82 KIAS is for.

24.3. The checklist will only say 80 or maybe 82 KIAS. What you might want to consider is "what is today's (not published) best glide speed?". Also remember, the recommended Approach speeds without Engine Power are different than best glide speed.



Higher gross weight STC

SECTION 3
EMERGENCY PROCEDURES

AIRSPEEDS FOR EMERGENCY OPERATIONS

MANEUVERING SPEED
3789 POUNDS..125 KIAS

MAXIMUM GLIDE
3789 POUNDS . . . . .82 KIAS

EMERGENCY DESCENT
Rough Air:
3789 POUNDS . . . . .125 KIAS

25. Crosswind

25.1. The demonstrated crosswind component is 20 knots.

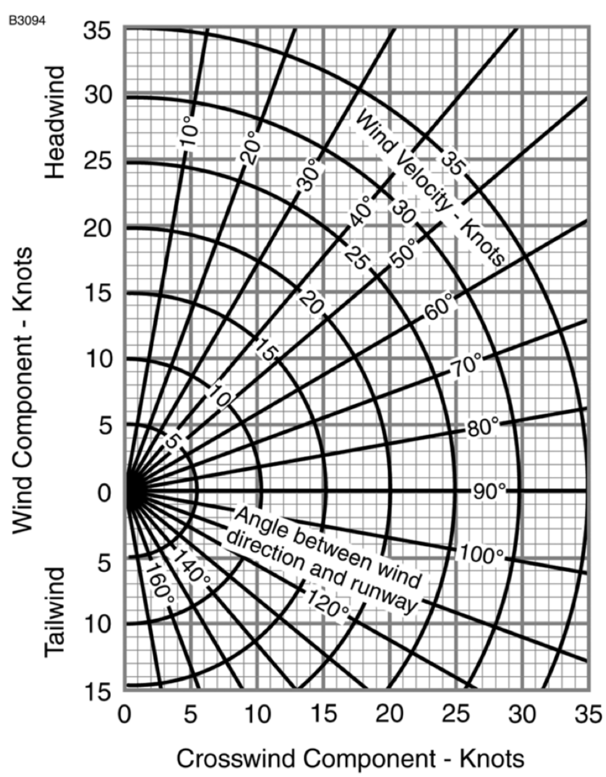
25.2. CAP Regulation 70-1 mentions an aircraft is prohibited to operate above the maximum demonstrated crosswind velocity. Without more context, this would permit flying into 20 knots of crosswind by regulation. However, as of this document's publication, CAP-USAF has directed that no aircraft should operate above 15 knots no matter the POH demonstrated crosswind on all Air Force Assigned Missions. These would be A or B mission symbol flights.

25.3. However, on Corporate or C mission symbol flights, flights into 20 knots of crosswind in the T206H are not prohibited. With that said, PIC caution should be heavily exercised with respect to the crosswind no matter the regulatory restrictions. You should never feel compelled to fly into crosswinds beyond your personal self-proficiency or comfort.

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 5
PERFORMANCE

CROSSWIND COMPONENT



NOTE

Maximum demonstrated crosswind velocity is 20 knots (not a limitation).

26. Power-On Stall

26.1. The T206H is an aircraft you will want to avoid full-throttle to induce for the Power-On stall.

26.2. Unfortunately, there isn't a great rule of thumb power setting to get 65% power. The plane has so many altitudes and power setting combinations. And there is no cruise performance table for 2500 RPM.

26.3. For reference, 4,000 ft at these temperatures work with 28" MP and 2400 RPM in the example below. But power could be even lower on colder days. If you want the absolute lowest power setting to make the maneuver simpler, look it up on the day of flight.

26.4. As a tip, reducing the airspeed to approximately 60 KIAS before adding power and pitching up will make the maneuver far easier to accomplish.

CESSNA
MODEL T206H NAV III
GFC 700 AFCS

SECTION 5
PERFORMANCE

CRUISE PERFORMANCE
PRESSURE ALTITUDE 4000 FEET

CONDITIONS:
3600 Pounds
Recommended Lean Mixture

Cowl Flaps CLOSED

RPM	MP (in.hg.)	20°C BELOW STANDARD TEMP -13°C			STANDARD TEMPERATURE 7°C			20°C ABOVE STANDARD TEMP 27°C		
		% MCP	KTAS	GPH	% MCP	KTAS	GPH	% MCP	KTAS	GPH
2400	30	---	---	---	75	142	19.1	70	141	17.9
	28	74	138	18.9	70	138	17.8	65	137	16.7
	26	69	134	17.6	65	134	16.6	61	132	15.6
	24	64	130	16.3	60	129	15.4	56	127	14.4
	22	58	125	14.9	55	124	14.0	51	121	13.2
	20	53	119	13.5	50	117	12.8	47	113	12.0

Task	*C. Power-On Stalls*
References	FAA-H-8083-2, FAA-H-8083-3; AC 61-67; POH/AFM
Objective	To determine that the applicant exhibits satisfactory knowledge, risk management, and skills associated with power-on stalls. ***Note:*** *See Appendix 6: Safety of Flight and Appendix 7: Aircraft, Equipment, and Operational Requirements & Limitations.*
Knowledge	The applicant demonstrates understanding of:
PA.VII.C.K1	Aerodynamics associated with stalls in various airplane configurations, to include the relationship between angle of attack, airspeed, load factor, power setting, airplane weight and center of gravity, airplane attitude, and yaw effects.
PA.VII.C.K2	Stall characteristics (i.e., airplane design) and impending stall and full stall indications (i.e., how to recognize by sight, sound, or feel).
PA.VII.C.K3	Factors and situations that can lead to a power-on stall and actions that can be taken to prevent it.
PA.VII.C.K4	Fundamentals of stall recovery.
Risk Management	The applicant demonstrates the ability to identify, assess and mitigate risks, encompassing:
PA.VII.C.R1	Factors and situations that could lead to an inadvertent power-on stall, spin, and loss of control.
PA.VII.C.R2	Range and limitations of stall warning indicators (e.g., airplane buffet, stall horn, etc.).
[illegible]	[illegible] erations.
[illegible]	[illegible]
[illegible]	[illegible] ntrol stalls.
PA.VII.C.R6	Effect of environmental elements on airplane performance related to power-on stalls (e.g., turbulence, microbursts, and high-density altitude).
PA.VII.C.R7	Collision hazards, to include aircraft, terrain, obstacles, and wires.
PA.VII.C.R8	Distractions, improper task management, loss of situational awareness, or disorientation.
Skills	The applicant demonstrates the ability to:
PA.VII.C.S1	Clear the area.
PA.VII.C.S2	Select an entry altitude that will allow the Task to be completed no lower than 1,500 feet AGL (ASEL, ASES) or 3,000 feet AGL (AMEL, AMES).
[illegible]	Establish the takeoff, departure, or cruise configuration, as specified by the evaluator, and maintain coordinated flight throughout the maneuver.
PA.VII.C.S4	Set power (as assigned by the evaluator) to no less than 65 percent power.

PA.VII.C.S4	Set power (as assigned by the evaluator) to no less than 65 percent power.

27. Mixture Lean for Ground Ops

27.1. The order of the CAP Checklist will follow the POH Checklist with some minor changes. One item of note is the location of the item to Lean the Mixture while on the Ground after start. CAP has it on the Taxi Checklist.

27.2. Depending on the exact CAP Checklist, there are approximately 16 items between the movement of mixture to full rich for start to the mention of leaning on the ground. These 16 items can take quite a while, especially for newer transitioning pilots learning.

27.3. As just a suggestion, doing the leaning the mixture for ground operation right after the actual engine start will lead to less carbon buildup on spark plugs. Doing the 16 items between start and leaning could be over 5-10 minutes or longer.

27.4. The POH checklist does not have a specific item for Leaning the Mixture for Ground operations on the ground. The procedure is listed in the text but not in a specific order.

17. Mixture Control……..Advance to full rich when engine starts ← **Start**

Note: *If the engine floods, place the mixture control in the Idle Cut Off position, open the throttle control ½ to full, and engage the starter motor (Start). When the engine starts, advance the mixture control to the Full Rich position and retard the throttle control promptly*

18. Oil Pressure ....Check
19. Amps (M Batt & Batt S)........Check charge (positive)
20. Low Volts Annunciator .....Verify Off
21. Avionics Switch (Bus1&2) ....On
22. Mission Master Switch.............On
23. Check MFD for correct A/C type and Navigation database expiration dates, then press ENT
24. Flight Data Logger-Status........Check
25. ESP....................Enabled/Disabled
26. Fuel Totalizer.......................Reset
27. ATIS / AWOS.......................Copy
28. Altimeters: PFD & Standby........Set

30. Transponder......Code/Flight ID/ALT
31. Wings Flaps......................Retract
32. Flight Plan...........................Enter
33. Parking Brake..................Release

Taxi

1. Mixture........Lean as desired for GND Ops ← **Lean**
2. Brakes ....Test

FUEL SAVINGS PROCEDURES FOR NORMAL OPERATIONS

For best fuel economy during normal operations, the following procedures are recommended.

1. After engine start and for all ground operations, set the throttle to 1200 RPM and lean the mixture for maximum RPM. After leaning, set the throttle to the appropriate RPM for ground operations. Leave the mixture at this setting until beginning the BEFORE TAKEOFF checklist. After the BEFORE TAKEOFF checklist is complete, lean the mixture again as described above, until ready to perform the TAKEOFF checklist.
2. Adjust the mixture for placarded fuel flows during MCP climbs.
3. Lean the mixture at any altitude for RECOMMENDED LEAN or BEST ECONOMY fuel flows when using 75% or less power.

28. Fuel Vapor

28.1. If you notice the fuel flow moving erratically or bouncing, you may have a fuel vapor issue. This would be more common in hotter environments.

EXCESSIVE FUEL VAPOR

Fuel vapor in the fuel injection system is most likely to occur on the ground, typically during prolonged taxi operations, when operating at higher altitudes and/or in unusually warm temperatures.

Excessive fuel vapor accumulation is shown by fuel flow indicator (FFLOW GPH) fluctuations greater than 1 gal./hr. This condition, with leaner mixtures or with larger fluctuations, can result in power surges, and if not corrected, may cause power loss.

To slow vapor formation and stabilize fuel flow on the ground or in the air, set the FUEL PUMP switch to the ON position and adjust the mixture as required for smooth engine operation. If vapor symptoms continue, select the opposite fuel tank. When fuel flow stabilizes, set the FUEL PUMP switch to the OFF position and adjust the mixture as desired.

Under hot day, high altitude conditions, or conditions during a climb that are conducive to fuel vapor formation, it may be necessary to utilize the auxiliary fuel pump to attain or stabilize the fuel flow required for the type of climb being performed. In this case, turn the auxiliary fuel pump on, and adjust the mixture to the desired fuel flow. If fluctuating fuel flow (greater than 1 GPH) is observed during climb or cruise at high altitudes on hot days, place the auxiliary fuel pump switch in the ON position to clear the fuel system of vapor. The auxiliary fuel pump may be operated continuously in cruise.

FUEL VAPOR PROCEDURES

The engine fuel system can cause fuel vapor formation on the ground during warm weather. This will generally occur when the outside ambient air temperature is above 80°F. Vapor formation may increase when the engine fuel flows are lower at idle and taxi engine speeds. The following procedures are recommended when engine idle speed and fuel flow fluctuations show that fuel vapor may be present:

1. With the mixture full rich, set the throttle at 1800 RPM to 2000 RPM. Maintain this power setting for 1 to 2 minutes or until smooth engine operation returns.
2. Retard the throttle to idle to verify normal engine operation.
3. Advance the throttle to 1200 RPM and lean the mixture as described under FUEL SAVINGS PROCEDURES FOR NORMAL OPERATIONS.
4. In addition to the above procedures, the auxiliary fuel pump may be turned ON with the mixture adjusted as required to aid vapor suppression during ground operations. The auxiliary fuel pump should be turned OFF prior to takeoff.
5. Just prior to TAKEOFF, advance the throttle to 39 in.hg. for approximately 10 seconds to verify smooth engine operation for takeoff.

NOTE

When the engine is operated above 1800 RPM, the resulting increased fuel flow results in lower fuel temperatures throughout the engine fuel system. This increased flow purges the fuel vapor and the cooler fuel minimizes vapor formation.

29. Engine Pre Heat

29.1. When ambient temperatures are below 20°F (-6°C), the POH/AFM strongly recommends using a preheater and an external power source start. There are third party resources that recommend using a preheater at even higher temperatures to include into 30°F. This would be for when the aircraft has been sitting for a long duration.

29.2. As a California focused guide, there are relatively few airports in the state that will get this cold. But as the T206H can more readily operate at higher elevation airports, it is expected it will see more cold weather. FBOs in common cold weather airports will likely offer this service for a fee. If on a funded mission, this is a covered expense. Please take the extra time as it helps preserve engine longevity.

29.3. The POH/AFM also recommends turning the propeller by hand several times before start. Turn in the opposite direction of normal rotation.

29.4. If using any equipment, please ensure it is clear of the aircraft before movement. It is common to want to remove the heat source as close to engine start as possible. But take a little time to ensure cowl plugs, blankets, and other items are all clear before start and/or movement.

30. Electric/Manual Trim Check

30.1. The standard CAP checklist for T206Hs has the Electric/Manual Trim Check.

30.2. The POH has no mention or proper procedure for the Electric/Manual Trim Check for the T206Hs with GFC700.

30.3. What do you do on the GFC700? There is no right answer. It may be best to simulate the motions of the KAP140 procedure. What is not acceptable is developing a bad or incorrect habit that is OK on the GFC700 and then using it when flying a KAP140. Look up the KAP140 procedure before flight if in a KAP140.

POH GFC700 Checklist
No mention of Manual
Electric Trim

5. Cargo Doors - CHECK (locking pin removed and stowed)
6. Flight Controls - FREE and CORRECT
7. Flight Instruments (PFD) - CHECK (no red X's)
8. Altimeters:
   a. PFD (BARO) - SET
   b. Standby Altimeter - SET
9. ALT SEL - SET
10. Standby Flight Instruments - CHECK
11. Fuel Quantity - CHECK (verify level is correct)

NOTE

Flight is not recommended when both fuel quantity indicators are in the yellow band range.

12. Mixture Control - RICH
13. FUEL SELECTOR Valve - SET BOTH
14. Autopilot - ENGAGE (push AP button on either PFD or MFD bezel)
15. Flight Controls - CHECK (verify autopilot can be overpowered in both pitch and roll axes)

(Continued Next Page)

T206HPHBUS-01 U.S. 4-15

SECTION 4 CESSNA
NORMAL PROCEDURES MODEL T206H NAV III
GFC 700 AFCS

BEFORE TAKEOFF (Continued)

16. A/P TRIM DISC Button - PRESS (verify autopilot disengages and aural alert is heard)
17. Flight Director - OFF (push FD button on either PFD or MFD bezel)
18. Elevator and Rudder Trim Controls - SET FOR TAKEOFF
19. Throttle Control - 1800 RPM
   a. MAGNETOS Switch - CHECK (RPM drop should not exceed 175 RPM on either magneto or 50 RPM differential

CAP Checklist for T206H
(all CAP has GFC700)

Before Takeoff - Run-Up

1. Parking Brake .... Set
2. Pilot & Pax Seat Backs ..... Upright pos
3. Seats and Seat Belts .... Secure
4. Cabin Doors ..... Closed and Locked
5. Cargo Doors......................... Check
   (Locking Pin Removed & Stowed)
6. Flight Controls ....Free & Correct
7. Flight Instruments .Check no red Xs
8. Altimeters Recheck:
   - PFD (Baro) .... Set
   - Standby Altimeter .... Set
9. G1000 Altitude Select (ALT SEL) .... Set
10. Standby Flight Instruments.. Check
11. Fuel Quantity .... Check

Note: Flight is not recommended when both fuel quantity indicators are in the yellow arc range.

12. Mixture .... .Rich
13. Fuel Selector Valve .... Set BOTH
14. Electric/Manual Trim............Check
15. Autopilot......... ENGAGE verify can overpower in pitch and roll
16. Autopilot Trim DISC Button .. Press
    verify aural alert and Off

31. ESP: Electronic Stability Protection

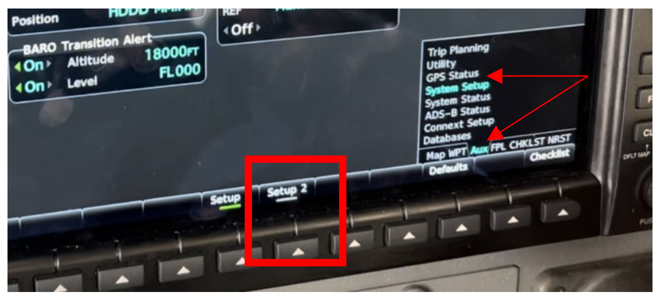
31.1. As mentioned in other material, new G1000s from 2020 and later are coming equipped with ESP. This uses software to manipulate the autopilot servos to try and maintain flight inside certain parameters.

31.2. There is still the same issue of NXi with ESP an NXi without ESP.

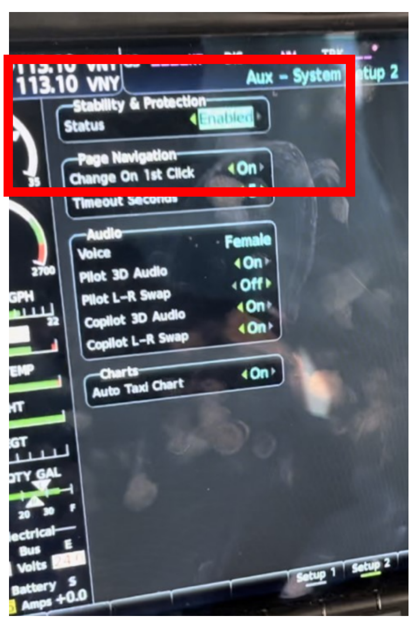
31.3. The T206H ESP behaves very similarly to the 182T's ESP. Under speed protection is initiated by the electric stall warning.

31.4. If you have previously completed ESP training with a CAP Instructor Pilot in another CAP aircraft type, there is no need to do it in the T206H. However, if you have not previously completed this training ever, you must do this training with an instructor to fly with the ESP enabled.

31.5. Turning off ESP is not at all intuitive as with the other aircraft. You must navigate via the MFD to AUX then System Setup. Using the buttons at the bottom, select Setup 2. A box with Stability & Protection will then be displayed with the selectable box saying Enabled. You can select the box and change it to Disabled.



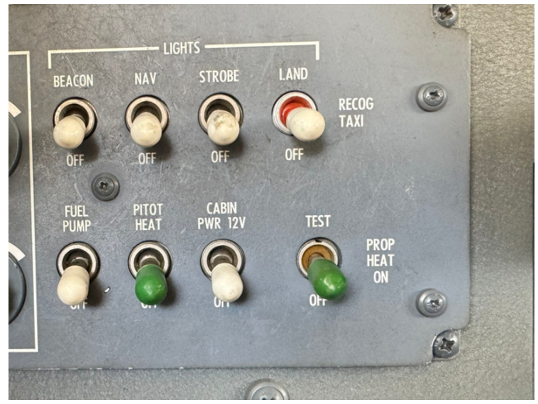
31.6. The Checklist won't say how to find this page.



32. Exterior Light Panel

32.1. All the T206Hs should have the newer style light switches. And with dual wing landing lights.

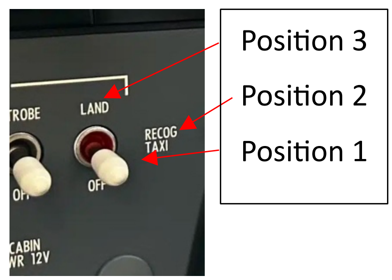
32.2. On the newer panel, there is no longer a pulse light switch. There is now a three-position switch for the Landing, Recognition, Taxi, and off. The top position for Landing will be full brightness continuously on always.



32.3. The middle position's function depends on if the plane is on the ground or inflight. On the ground, reduced light output for Taxi is shining continuously. In flight, the Landing lights will flash on and off in Recognition mode.

32.4. If you're used to the pulse light switch on the older panel, please use caution. The prop heat switch has taken its normal switch spot.

32.5. There is no firm rule on what function to use the lights beyond the usual FARs for Anti-Collision Beacon. For night takeoffs and landings, you probably want the Landing light in the full brightness position possible. Recognition (RECOG) position on a newer panel means the light will be on and off, far from an ideal situation when landing at night. On the older panel, the Landing or Taxi light on means the Pulse light function is inhibited.



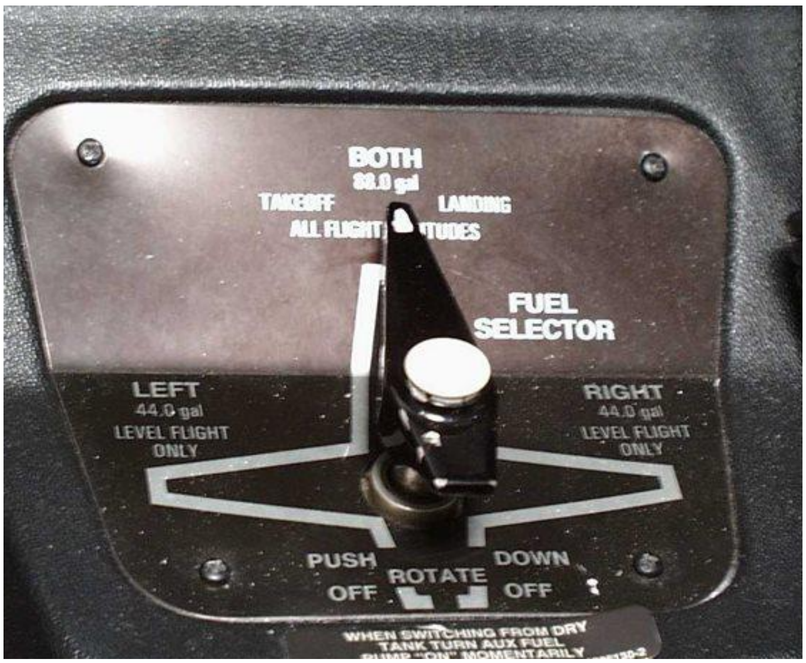
OLD Style Lights

Lights on Each Wing

33. Fuel Selector

33.1. For those more used to the older U206G, the Fuel Selector will function quite differently in the T206H. The T206H has a BOTH position in the 12 O'clock position, unlike the U206G.

33.2. When moving Fuel Selector positions in the T206H, use the Left, Both, or Right position. There should be no need to move to the 6 O'clock position of OFF on the T206H during normal operation.



34. Closing Thoughts

34.1. This guide is in no way to replace any official POH or FAA documents. This is not a replacement for G1000 training required by CAP. This is not a replacement for Turbocharged Training required by CAP. It is not enough for a FAA High Performance Endorsement if you don't already have one. This guide was written in the context you are familiar with the companion 182T guide and aircraft. You must still seek out real training. This is just a supplement to aid the pilot's awareness and education.

34.2. The Civil Air Patrol Form 70-5 Evaluation Endorsement for Turbo never expires. You could get it one time and never fly turbocharged aircraft again for decades. Then as long as you have a current High-Performance Form 70-5 in say a normally aspirated 182T, per regulations you are not prohibited from flying turbocharged. This is where CAP is heavily leaning on the Pilot in Command to make a good judgement call. If you have not flown turbocharged in quite a while, you may want a refresher with an instructor and/or review the material on the ground heavily before flying. But per the regulations, you don't have to.

34.3. If your first Cessna 206 Form 70-5 Evaluation is in the T206H, it will allow you to fly the older U206G without any further formal training. There are some unique differences between the two. Please study the POH/AFM beforehand and/or consider asking an instructor to go over the differences. This is another area that CAP is looking for you to exercise good judgement on. CAP has many U206Gs still in service.

34.4. Assuming you have an already existing 182 Form 70-5 Evaluation, the T206H Form 70-5 Evaluation will allow you to fly the T182T without any formal training. Again, use good judgement with the POH/AFM and instructors.

34.5. A Form 70-5 Evaluation in the T206H will also allow you to fly normally aspirated, non-Turbo, 206Hs. In CAP, there is only one 206H in the fleet. As of June 2024, it is located in Pennsylvania.

34.6. A Form 70-5 Evaluation in the T206H will also allow you to fly the older TU206Gs. As of June 2024, there is only one remaining TU206G left in CAP. It is located in Alaska. All of the older T182Rs have been retired as of June 2024 from CAP. This means there is only one turbocharged aircraft left in CAP that predates the relatively modern Cessna G1000 turbocharger system.