

**PA-28 EXPANDED CHECKLIST STUDY GUIDE  
AND  
RADIO COMMUNICATIONS SAMPLE SCRIPT**



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## 1. INTRODUCTION

The purpose of this guide is to introduce students to the use of checklists and also serve as a Standard Operating Procedure (SOP) for the verbiage used in challenges and responses, thereby improving Crew Resource Management (CRM) between crewmembers (ie the Student and the Instructor). This checklist constitutes partial information and is not a substitute for the approved flight manual or operating handbook.

## 2. USE OF CHECKLISTS (SOP)

Checklists are safety tools; they provide mechanisms to ensure the aircraft is set up for flight, or to correct deficiencies before they cause a mishap. Extra guidance and explanations are included in the ACTION column of this guide. In general, the student will state the CHALLENGE, perform or verify the ACTION and state the RESPONSE. Actions are NOT to be verbalized. Verbalized CHALLENGES and RESPONSES are ***“CAPITALIZED, ITALICED BOLD FONT IN QUOTATIONS”***

Upon completion of a checklist, state ***“[CHECKLIST TITLE] COMPLETE.”*** If a checklist needs to be paused or interrupted, state “holding the checklist at [item].” When ready to resume the checklist, state “continuing checklist.”

When an ACTION involves a "check" of the position or setting of a movable control or switch, the student is expected to **TOUCH** that item to aid in verification of its position or setting, and if necessary, change its setting or position to make it consistent with the prescribed reply.

Whenever a checklist item requires manipulation of a flight control, that action shall **ONLY** be performed by the person at the controls. The definition of “flight controls” includes the yoke and rudder, as well as the flaps, throttle, and brakes.

Responses such as “SET” imply that the item has been set up appropriately for the event’s conduct. Items are never to be reported "as required." Report the actual switch position.



### 3. SWITCHING FUEL TANKS (SOP)

In order to ensure uninterrupted engine power, always turn the electric FUEL PUMP ON just before switching tanks, in the air and on the ground, as a good operating practice. After the tank switch, turn the fuel pump off and **check fuel flow and pressure indications** to confirm that the new tank is supplying fuel.

Do not allow any fuel tank to run dry in normal operations. To avoid such an occurrence, switch tanks every 30 min to 1 hour, or as appropriate in PIC judgment and in accordance with POH / AFM. The method for keeping track of time and the reminder for a particular flight are left up to the PIC judgment.

Switching tanks should be approached with extreme caution. There is no guarantee that the other tank will function properly, or that the fuel selector does not have a mechanical problem. Therefore, whenever moving the fuel selector, it is possible that a short time after (possibly 30 seconds to 1 min) the engine will quit due to fuel starvation.

As a result, do not switch tanks just prior to takeoff. Rather, use the fuel tank tested during the runup instead. See the Expanded Before Takeoff / Runup checklist and the Expanded Takeoff checklist of this text for amplifying detail.

In the air, do not switch tanks at low altitude, close to the ground, if it at all can be avoided. Having sufficient altitude will allow the pilot time to deal with a problem. Switching tanks during the initial stages of descent from cruise altitude should typically provide ample time and altitude margin should anything go wrong.



***“PREFLIGHT – INTERIOR INSPECTION”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “HOBBS / TACH TIMES”</b>	Record the current Hobbs meter reading (if installed) and verify it matches the value on the Aircraft Data Sheet. Record the current Tachometer time and verify it matches the value on the Aircraft Data Sheet. Notify staff of any discrepancy.	<b><i>“RECORDED”</i></b>
<b>2. “DOCUMENTS”</b>	Check the Airworthiness Certificate is visible, Aircraft Registration, and FCC Radio Station Permit (international flights only). Verify that the correct and complete Pilot’s Operating Handbook or Aircraft Flight Manual, Weight and Balance information, and additional appropriate operations manuals (e.g. Garmin G430 GPS manual) are aboard and accessible. Verify flight crew possesses appropriate photo identification, current pilot and medical certificates, and all required documents.	<b><i>“CHECKED”</i></b>
<b>3. “CIRCUIT BREAKERS”</b>	Verify all circuit breakers are checked, are in, and that any circuit breakers that are disengaged are properly placarded and collared. IF A TRIPPED CIRCUIT BREAKER IS DETECTED (CB is popped out), and appropriate maintenance placard is not present, INFORM STAFF. The airplane is not to be flown until appropriate action is taken and the airplane is cleared for return to service by Maintenance.	<b><i>“CHECKED IN”</i></b>
<b>4. “CARB HEAT”</b>	Move/Check the Carburetor Heat lever up to the OFF position.	<b><i>“OFF”</i></b>
<b>5. “ALL ELECTRICAL SWITCHES”</b>	Verify all panel rocker switches and wheel rheostats are OFF. Verify the <b>avionics master</b> switch is OFF, to prevent damage to avionics later when the master switch is cycled.	<b><i>“OFF”</i></b>
<b>6. “THROTTLE AND MIXTURE”</b>	Verify that the throttle and mixture controls are in full IDLE and CUT-OFF position (all the way aft).	<b><i>“IDLE CUTOFF”</i></b>
<b>7. “IGNITION SWITCH”</b>	Verify that the combination MAGNETOS / IGNITION SWITCH is in the OFF position. Place keys on the dash as a visual safety measure for any ground servicing crew.	<b><i>“OFF, KEY ON THE DASH”</i></b>



8. <b>"MASTER SWITCH"</b>	Turn both sides of the red electrical system MASTER SWITCH to ON in order to check electrically operated systems.	<b>"ON"</b>
<b>"FUEL QUANTITY"</b>	Check fuel gauges to confirm that they are operational.	<b>"CHECKED"</b>
<b>WARNING:</b> <i>Flight crews shall not rely on fuel gauges alone and shall also manually check fuel levels in each tank prior to each flight.</i>		
<b>"LIGHTS / PITOT HEAT"</b>	Check ALL exterior lights outside for proper operation. TURN THE LIGHTS OFF IMMEDIATELY after the required checks are completed before continuing with the rest of the preflight. Failure to do so may result in a good battery being drained to a point where engine start may be difficult or impossible. Turn the pitot heat ON, and, WITHOUT DELAY, verify pitot/static mast is heating properly. Turn pitot heat switch OFF immediately after. Check all interior lights, as required, to assure that adequate lighting exists for the intended operation.	<b>"CHECKED"</b>
<b>"STALL WARNING"</b>	Check the stall warning vane and corresponding panel stall warning sound and/or light for proper operation.	<b>"CHECKED"</b>
9. <b>"MASTER SWITCH"</b>	Upon conclusion of the preflight checks of electrically operated systems, turn both sides of the MASTER SWITCH OFF to prevent the battery from being drained more than necessary.	<b>"OFF"</b>
10. <b>"FUEL SELECTOR VALVE"</b>	Verify that the fuel selector can be moved freely between LEFT, RIGHT and OFF position, and check the operation of the safety lock. Then, set the fuel selector to the lowest tank. Feel that the fuel selector has engaged the detent when in the LEFT or RIGHT tank position.	<b>"LOWEST TANK"</b>
11. <b>"FIRE EXTINGUISHER/ SAFETY EQUIPMENT"</b>	Check that the fire extinguisher gauge is in the green arc indicating ready for use. Check that the fire extinguisher is secure and will not move inadvertently. Check that the carbon monoxide detector is present and indicates the appropriate date.	<b>"CHECKED" (AS REQUIRED)</b>
12. <b>"EMPTY SEATS"</b>	Secure any loose belts and personal belongings to mitigate shifting during flight.	<b>"SEAT BELTS FASTENED"</b>



<b>13. "WINDSCREEN"</b>	Clean windows and windscreen as necessary with approved cleaning solution and cloth. DO NOT USE UNAPPROVED CLEANERS, OR ANY CLEANERS CONTAINING ALCOHOL OR AMMONIA. If approved aviation windshield cleaner is not available, a solution of water and regular hand or dish soap can be substituted.	<b>"CHECKED"</b>
<b>14. "FLAPS"</b>	In increments, fully extend flaps while listening for binding noises and checking for correct operation, indicated by flaps deploying smoothly, evenly, and correct number of degrees. Retract the flaps in increments and check for the same. Then, extend the flaps again, and leave them extended temporarily, so the flaps can be inspected during the exterior portion of the preflight.	<b>"EXTENDED"</b>
<b>CAUTION:</b> <i>During preflight, leave flaps in fully retracted (full up) position, except when necessary for the preflight inspection. The right flap is designed to be used as a step only in the up position. As a good operating practice, in general, avoid stepping on the flap, regardless of its position.</i>		
<b>"INTERIOR INSPECTION CHECKLIST COMPLETED"</b>		

**"PREFLIGHT – EXTERIOR INSPECTION CHECKLIST"**

CHALLENGE	ACTION	RESPONSE
<b>1. "RIGHT WING"</b>		
<b>a. "FLAPS / AILERON"</b>	Check flap, aileron and all hinge points for connections and free movement, verify all are secure and undamaged (e.g. dents, binding). Inspect the flap for damage and excessive play. Ensure the counterweight on the aileron is present and secure. Check the accessible nuts on the aileron and flap activation rods for looseness. Check if the static wicks (if installed) are missing or damaged. Check exterior condition of the wing tip and the wing tip lights. Look for unrepaired cracks and other physical damage	<b>"CHECKED"</b>



<p><b>b. "FUEL QUANTITY"</b></p>	<p>Visually check fuel quantity and color by removing the fuel cap and examining the fuel inside the fuel tank. Use the fuel level in relation to tabs inside the tank to determine if the fuel quantity meets minimum requirements. Verify fuel level matches gages read during interior inspection.</p>	<p><b>"VERIFIED"</b></p>
<p><b>c. "FUEL SUMP"</b></p>	<p>Drain the fuel drain/sump on the underside of the wing. Ensure you draw a large fuel sample from the drain (at least <math>\approx 1/3</math> of the fuel sampling GATS jar). Check the fuel for water, contaminants and correct fuel grade by examining the color. When checking the fuel cap in the following steps, drain clean fuel back into the fuel tank through the mesh screen of the GATS jar.</p>	<p><b>"DRAINED"</b></p>
<p><b>d. "WING VENT"</b></p>	<p>Check that the fresh air inlet at the root of the wing is unobstructed and free of contamination. Check the leading edge for dents and other damage.</p>	<p><b>"CHECKED"</b></p>
<p><b>e. "GEAR AND BRAKES"</b></p>	<p>Inspect the main gear components one by one. Look at each individual component in turn rather than trying to take in the entire main gear assembly all at once. Inspect brake pads and disk for no leaks, damage, cracks.</p>	<p><b>"CHECKED"</b></p>
<p><b>f. "MOUNT STRUT"</b></p>	<p>Inspect the strut assembly to include bolts, cotter pins, nuts and oleo strut extension of approx. 4.5 inches.</p>	<p><b>"CHECKED"</b></p>
<p><b>g. "TIRE"</b></p>	<p>Move the aircraft if necessary to observe the entire tire outer/inner sidewalls. Ensure proper inflation per POH guidance.</p>	<p><b>"CHECKED"</b></p>
<p style="text-align: center;"><b><u>WARNING:</u></b> <b><i>Flight crews shall ground the aircraft if any of the following conditions are present during inspection of the landing gear tires:</i></b></p> <ul style="list-style-type: none"> <li>- <b><i>Tire displays areas of exposed cord or belts</i></b></li> <li>- <b><i>Tire clearly displays visible grooves in the center section of the tire</i></b></li> <li>- <b><i>Tire displays cuts or gouges of undeterminable depth, or displays cuts/gouges that enter the tire cord structure</i></b></li> </ul>		
<p><b>2. "NOSE"</b></p>		
<p><b>a. "OIL"</b></p>	<p>Open the oil door/cowling and check inside for any obvious damage / abnormalities. Remove the oil dipstick and check the oil level (6 quarts minimum). Secure the oil</p>	



	dipstick. Close the oil door/cowling and check that it latches securely. Never leave the oil dipstick/oil door removed/unsecure and unattended.	
<b>b. "ENGINE COWLING"</b>	Check that cowling is secure, as indicated by the two (2) properly engaged cowl latches. Check that the upper cowling is properly attached to the lower cowling.	<b>"SECURED"</b>
<b>c. "PROP/ SPINNER"</b>	Check the propeller and spinner for damage and fluid leaks. Any suspected leak must be evaluated by Maintenance. Systematically check the propeller face, edges and back for damage. Propeller should be free of nicks, cracks, or spurs. Verify that spinner has no damage and is secure. Any propeller nick that is enough to catch on finger moved along the blade should be evaluated by Maintenance before flight.	<b>"CHECKED"</b>
<b>d. "ALTERNATOR BELT / FLYWHEEL"</b>	Check that the alternator belt inside the front cowling is secure by gently tugging on it and ensuring it feels appropriately tight. Inspect the visible portion of the alternator belt for damage, such as fraying, uneven wear and gouges. Check the flywheel for damage.	<b>"CHECKED"</b>
<b>e. "TIRE"</b>	Move the aircraft if necessary to observe the entire tire outer/inner sidewalls. Ensure proper inflation per POH guidance.	<b>"CHECKED"</b>
<p><b>WARNING:</b>  <i>Flight crews shall ground the aircraft if any of the following conditions are present during inspection of the landing gear tires:</i></p> <ul style="list-style-type: none"> <li>- <i>Tire displays areas of exposed cord or belts</i></li> <li>- <i>Tire clearly displays visible grooves in the center section of the tire</i></li> <li>- <i>Tire displays cuts or gouges of undeterminable depth, or displays cuts/gouges that enter the tire cord structure</i></li> </ul>		
<b>f. "NOSE STRUT"</b>	Inspect the strut assembly to include bolts, cotter pins, nuts and oleo strut extension of approx. 3.25 inches.	<b>"CHECKED"</b>
<b>g. "AIR INLETS"</b>	AIRCRAFT CONFIGURATION MAY VARY: Check the front cowl air inlets for contamination, foreign objects, obstructions and damage. Check the openings behind the propeller blade that admit the cooling and engine air into the engine compartment. Check the baffle plates and engine cylinder	<b>"CLEAR"</b>



	cooling fins inside for the same. Check the round opening (inside one of the larger openings) that leads to the muffler shroud of the cabin heat and defrost system. Check the cowl scoop on the bottom right of the cowling that admits air to the oil cooler, and check the outlet of the air from the oil cooler on the bottom of the cowling.	
<b>h. "BRAKE FLUID"</b>	Access the brake fluid reservoir and visually confirm acceptable level of fluid.	<b>"CHECKED"</b>
<b>i. "ENGINE COWLING"</b>	Check that cowling is secure, as indicated by the two (2) properly engaged cowl latches. Check that the upper cowling is properly attached to the lower cowling.	<b>"SECURED"</b>
<b>j. "FUEL SUMP"</b>	Drain the fuel drain/sump on the left underside of the nose. Ensure you draw a large fuel sample from the drain ( $\approx 1/3$ of the fuel sampling GATS jar or more). Check the fuel for water, contaminants and correct fuel grade by examining the color. When checking the fuel cap in the following steps, drain clean fuel back into the fuel tank through the mesh screen of the GATS jar.	<b>"DRAINED"</b>
<b>3. "LEFT WING"</b>	<b>Perform all steps of #1 "RIGHT WING" in reverse order</b>	
<b>a. "PITOT STATIC MAST"</b>	Check the pitot/static mast under the wing for damage, and the pitot, drain and static hole(s) for obstructions and contamination.	<b>"CHECKED"</b>
<b>4. "LEFT FUSELAGE / ANTENNAS"</b>	Check the left side of the fuselage for damage. Check that all external antennas on top of the fuselage are secure and free of damage.	<b>"CHECKED"</b>
<b>5. "EMPENNAGE FLIGHT SURFACES"</b>	Check both left and right sides of the stabilator, the trim / servo tab and the static wicks (if installed). Examine for damage, looseness, freedom of movement, and surface condition, Check all hinges, attachment points and all visible connections. Check that the trim tab is in agreement with the pitch trim wheel setting in the cockpit. Lift up the stabilator and check the underside, including the trim / servo tab connections. Ensure all nuts and safety pins are secure. When moving the stabilator, ensure that the trim / servo tab is	<b>"CHECKED"</b>



	also moving in the correct direction and the correct amount of travel. Check if the static wicks (if installed) are missing or damaged. Check inside the tail cone for foreign objects, such as bird nests, etc. Observe stabilator stops and accompanying cables to the extent possible.	
<b>6. "RIGHT FUSELAGE / ANTENNAS"</b>	Check the right side of the fuselage for damage. Check that all external antennas on top of the fuselage are secure and free of damage. Check that the ELT access / inspection panels (if any) are secure.	<b>"CHECKED"</b>
<b>7. "UNDERBELLY"</b>	Check the underside of the fuselage for damage. Check the vents protruding from the bottom for obstructions and damage. Check that all external antennas on the bottom of the fuselage are secure and free of damage.	<b>"CHECKED"</b>
<b>8. "BAGGAGE COMPARTMENT"</b>	Ensure that the baggage door by the airplane entrance is securely latched. If any cargo is carried, it must also be locked. Never leave an unsecured baggage door unattended.	<b>"LOCKED"</b>
<b>"EXTERIOR INSPECTION CHECKLIST COMPLETED"</b>		

**"PREFLIGHT INSPECTION COMPLETED"**



***“BEFORE STARTING ENGINE CHECKLIST”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “PASSENGER BRIEF”</b>	S.A.F.E.T.Y brief per FAR 91.107. Seatbelts, Air, Fire Actions (and Fire Extinguisher), Exits, Traffic and Talking, Your Questions.	<b><i>“COMPLETE”</i></b>
<b>2. “FLAPS”</b>	Verify wing flap handle is lowered to the floor and flaps are in the full UP position after the exterior preflight inspection has been complete.	<b><i>“RETRACTED / UP”</i></b>
<b>3. “SEATS, BELTS, HARNESES”</b>	Adjust seats in order to properly use full rudders and ensure seats are locked in place. Then connect belts and harnesses ensuring a snug fit. Check passengers.	<b><i>“ADJUSTED AND SECURED”</i></b>
<b>4. “ANTI COLLISION / BEACON LIGHT”</b>	Turn the anti-collision/beacon switch to the ON position and leave them on for the entire flight, as required by FAR 91.209(b). If a beacon is not installed, turn the strobe light switch to the ON position.	<b><i>“ON”</i></b>
<b>5. “BRAKES”</b>	Gently pump both brakes and verify positive pressure from each occupied seat. Hold the brakes to prevent movement during start.	<b><i>“HOLD”</i></b>
<b><i>“BEFORE STARTING ENGINE CHECKLIST COMPLETED”</i></b>		



## **“STARTING ENGINE CHECKLIST”**

*(HOT or COLD START PROCEDURE)*

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “PRIME”</b>	<b>COLD START ONLY</b> – Engage two pumps of the primer slowly. Afterwards, ensure knob is twisted in and locked in position.	<b>“TWO STROKES”</b>
<b>2. “MIXTURE”</b>	Push the mixture knob in full forward RICH.	<b>“FULL RICH”</b>
<b>3. “MASTER SWITCH”</b>	Depress simultaneously to ON both the BAT and ALT sides of the master switch to provide electrical power for engine start.	<b>“ON”</b>
<b>4. “FUEL PUMP”</b>	Turn the fuel pump ON and verify fuel pressure for engine priming.	<b>“ON / FUEL PRESSURE CHECKED”</b>
<b>5. “THROTTLE”</b>	Move the throttle full forward, then full aft TWICE to engage the accelerator pump aiding in engine start. Verify that the throttle is set to ¼” to allow sufficient engine air/fuel mixture.	<b>“PUMP TWICE / OPEN 1/4”</b>
<b>6. “PROP AREA”</b>	Check prop area clear visually and shout “CLEAR PROP” outside the aircraft to alert personnel around you that the engine will be stating momentarily.	<b>“CLEAR”</b>
<b>7. “IGNITION SWITCH”</b>	Engage the starter with the key in the ignition switch. If the engine starts, proceed to the next step. If the engine does not start within <b>10 seconds</b> of cranking, allow the starter to cool for <b>20 seconds</b> before cranking the engine again. Reattempt 3 times max. If engine does not start, cool starter for 10 min.	<b>“START, HAND ON THROTTLE”</b>
<b>8. “THROTTLE”</b>	As the engine starts, adjust the throttle to set 1000 RPM	<b>“1000 RPM”</b>
<b>9. “OIL PRESSURE”</b>	Visually check oil pressure during engine start.	<b>“CHECKED”</b>
<b>CAUTION:</b> <i>If the oil pressure gauge does not begin to show reading within 30s in the summertime or up to 1 minute in very cold weather, stop the engine and investigate.</i>		
<b>10. “MIXTURE”</b>	Reduce/Lean the mixture for taxi to prevent fouling of spark plugs from excessively rich mixture during low RPM ground operations.	<b>“LEAN”</b>
<b>11. “FUEL PUMP”</b>	Verify the auxiliary fuel pump is OFF for taxi.	<b>“OFF”</b>
<b>“STARTING ENGINE CHECKLIST COMPLETED”</b>		



**“STARTING ENGINE CHECKLIST – FLOODED START PROCEDURE”**

CHALLENGE	ACTION	RESPONSE
1. <b>“THROTTLE”</b>	Verify that the throttle is fully open (FULL FORWARD) to allow maximum amount of air to enter the engine to mix with the fuel already there. Keep in mind the need to reduce the throttle to idle PROMPTLY once the engine is started in the consequent steps.	<b>“FULL FORWARD”</b>
2. <b>“MASTER SWITCH”</b>	Turn ON the master switch to provide electrical power for the engine, priming, starting and lights.	<b>“ON”</b>
3. <b>“FUEL PUMP”</b>	Verify the fuel pump is OFF to avoid adding excess fuel to the already flooded engine.	<b>“OFF”</b>
4. <b>“MIXTURE”</b>	Verify MIXTURE is in IDLE CUT-OFF position in preparation for engine start and to prevent additional fuel from reaching flooded engine immediately after start.	<b>“IDLE CUT-OFF”</b>
5. <b>“PROP AREA”</b>	Check prop area clear visually and shout “CLEAR PROP” outside the aircraft to alert personnel around you that the engine will be starting momentarily.	<b>“CLEAR”</b>
6. <b>“IGNITION SWITCH”</b>	Engage the starter with the key in the ignition switch. If the engine starts, proceed to the next step. If the engine does not start within <b>10 seconds</b> of cranking, allow the starter to cool for <b>20 seconds</b> before cranking the engine again. Reattempt 3 times max. If engine does not start, cool starter for 10 min.	<b>“START, HAND ON MIXTURE”</b>
7. <b>“MIXTURE”</b>	As the engine starts, advance mixture to FULL RICH smoothly to provide the engine with continuous fuel flow.	<b>“ADVANCING FULL RICH”</b>
8. <b>“THROTTLE”</b>	As the engine starts, PROMPTLY REDUCE the throttle to 1000 RPM.	<b>“1000 RPM”</b>
9. <b>“OIL PRESSURE”</b>	Check oil pressure during engine start.	<b>“CHECKED”</b>
<b>CAUTION:</b> <i>If the oil pressure gauge does not begin to show reading within 30s in the summertime or up to 1 minute in very cold weather, stop the engine and investigate.</i>		
10. <b>“MIXTURE”</b>	Reduce/Lean the mixture for taxi to prevent fouling of spark plugs from excessively rich mixture during low RPM ground operations.	<b>“LEAN”</b>
<b>“STARTING ENGINE CHECKLIST COMPLETED”</b>		



**“BEFORE TAXI CHECKLIST”**

CHALLENGE	ACTION	RESPONSE
<b>1. “RADIOS/ AVIONICS”</b>	Move the avionics switch to the ON position. Power on individual components. Set frequencies and check volume. Obtain weather/advisories then obtain clearance as required. If uncontrolled field, CTAF: <i>ANY RADIO ANY RADIO, RADIO CHECK.</i>	<b>“ON AND SET”</b>
<b>After avionics switch is ON, conduct an interphone (ICS) check.</b> Student: “ICS check,” CFI: “Loud and clear, how me?” Student: “I have you the same.”		
<b>Sample KPNS Clearance Call:</b> Student: “Pensacola Clearance, EIGHT ZERO FIVE FIVE CHARLIE, Northwest Practice Area, Three Thousand Five Hundred with Information [ATIS LETTER]”  Controller: “EIGHT ZERO FIVE FIVE CHARLIE, maintain VFR at or below 1,700, squawk 1-2-3-4.”  Student: Repeat clearance verbatim: e.g. “Maintain VFR at or below 1,700, squawk 1-2-3-4. EIGHT ZERO FIVE FIVE CHARLIE.”  Controller: “EIGHT ZERO FIVE FIVE CHARLIE, READBACK CORRECT”		
<b>2. “TRANSPONDER”</b>	Ensure the proper code is entered (VFR 1200 or clearance squawk code), and the transponder is set to altitude (ALT) per AIM 4-1-20.a(3).	<b>“SQUAWK SET, ALTITUDE MODE”</b>
<b>3. “FLIGHT INSTRUMENTS”</b>	Start top left (airspeed indicator) and work right. Airspeed indicator: “ZERO KTS.” Attitude indicator: “ERECT AND STABLE.” Check current altimeter “SET [STATE SETTING]” and shows “WITHIN 75 FEET OF FIELD ELEVATION”. VSI “NO RISE” +/- 100 ft Compass general condition OK. Heading indicator: “MATCHES COMPASS.” Turn coordinator shows “WINGS LEVEL, BALL IN BRACKET AND FULL OF FLUID.”	<b>“CHECKED”</b>
<b>Sample INSTRUMENT CHECK IN THE CHOCKS at KPNS:</b> Student: “Airspeed zero. Attitude indicator erect and stable. Altimeter set 3-0-0-3 reading 120 feet, within 75 feet of our field elevation. VSI no rise. Heading indicator matches compass. Wings level, ball in the bracket and full of fluid.		
<b>4. “NAVIGATION AND TAXI LIGHTS”</b>	Utilize the LANDING/TAXI lights for maximum visibility. Verify that NAV lights are ON if at night.	<b>“ON”</b>
<b>5. “BRAKES”</b>	VISUALLY CLEAR THE AREA, place heels to the floor as aircraft moves forward.	<b>“RELEASED”</b>
<b>“BEFORE TAXI CHECKLIST COMPLETED”</b>		



### “TAXI CHECKLIST”

CHALLENGE	ACTION	RESPONSE
1. “BRAKES”	After establishing forward movement, apply both brakes to ensure proper function. Pass controls over to the instructor in order to check brakes from the other seat.	“CHECKED”
2. “INSTRUMENTS”	Once clear of personnel or objects and still in the ramp area (if able), apply L or R rudder and check proper needle and ball deflection. i.e. While applying left rudder, state “LEFT TURN, BALL RIGHT, HEADING DECREASING” and vice versa for other rudder.	“CHECKED”
<b>Sample INSTRUMENT CHECK DURING TAXI at KPNS:</b>		
Student: “Right turn, ball left, heading increasing. Left turn, ball right, heading decreasing.”		
<b>“TAXI CHECKLIST COMPLETED”</b>		

**Sample KPNS Communications Before Entering Movement Area from the Innisfree Ramp:**

Student: “Pensacola Ground, EIGHT ZERO FIVE FIVE CHARLIE, at the Innisfree Ramp, taxi to run-up, information [ATIS LETTER]”

Controller: “EIGHT ZERO FIVE FIVE CHARLIE, taxi to the run-up via Delta.”

Student, repeat taxi clearance call verbatim: e.g. “taxi to the run-up via Delta, EIGHT ZERO FIVE FIVE CHARLIE.”





**“RUN-UP CHECKLIST”**

CHALLENGE	ACTION	RESPONSE
1. <b>“FLIGHT CONTROLS”</b>	Check that the stabilator and ailerons cockpit controls move all the way to their designed limits freely, smoothly and without binding. At the same time, check that the outside control surface deflections correctly correspond to the cockpit control movements. <i>The aileron should be UP on the side of the yoke handle that is DOWN (think OPPOSITES). The stabilator should be DOWN when yoke is FORWARD, and it should be UP when the yoke is AFT.</i>	<b>“FREE AND CORRECT”</b>
2. <b>“FUEL SELECTOR”</b>	Switch tank in accordance with SOP on page 3. The fuel tank tested during the runup will be the fuel tank used during takeoff. Avoid switching tanks just before takeoff, for if there is a problem with the new tank, it may not exhibit itself until after takeoff had commenced and aircraft had just become airborne.	<b>“SWITCH TANK”</b>
3. <b>“PRIMER”</b>	Ensure the primer knob is secured in and twisted locked.	<b>“IN AND LOCKED”</b>
4. <b>“MIXTURE”</b>	Push the mixture full forward for RICH.	<b>“FULL RICH”</b>
5. <b>“THROTTLE”</b>	Advance throttle to set 2000 RPM	<b>“2000 RPM”</b>
<b>“MAGS”</b>	ANNOUNCE moving the magneto switch first to the R position and note RPM. Next ANNOUNCE moving the switch back to BOTH to clear the other set of plugs. Then ANNOUNCE moving switch to the L position, note RPM and ANNOUNCE returning the switch back to BOTH. RPM drop should not exceed 125 RPM drop on either side or show greater than 50 RPM difference between magnetos. VERBALLY ANNOUNCE ALL SWITCH POSITION MOVEMENTS.	<b>“CHECKED”</b>
<b>“CARB HEAT”</b>	Move the carb heat level down to ON and note a RPM drop of 50-100 RPM. Return the knob to the OFF position and note RPM rise.	<b>“CHECKED / OFF”</b>



<b>"VACUUM"</b>	Check that the vacuum gauges indicate between 4.9" and 5.1" A reading outside of this range at 2000 RPM would indicate the need for maintenance before any IFR flight.	<b>"CHECKED"</b>
<b>"AMMETER"</b>	Check that the ammeter (loadmeter) is indicating appropriate alternator output (load). A zero indication (zero load) would imply that the alternator is not producing electrical current.	<b>"CHECKED"</b>
<b>NOTE</b>		
<p style="text-align: center;"><b>The standard ammeter is of a loadmeter type (i.e. it indicates total load placed on the alternator, rather than battery charge/discharge)</b></p> <p style="text-align: center;"><b>A zero indication on the ammeter implies a problem with the alternator not producing any electrical current, or possibly a problem with the ammeter gauge itself. If alternator output cannot be verified and the situation remedied, shutdown the engine and inform Dispatch / Maintenance.</b></p> <p style="text-align: center;"><b>A high continuous load indication on the ammeter for no apparent reason (≈30 AMP or more) immediately following engine start may indicate that starter did not disengage and is "hung" (still running in conjunction with the engine). If depleted battery and electrical accessories do not account for the high load, and a hung starter is suspected, shutdown the engine and inform Dispatch / Maintenance.</b></p>		
<b>"ENGINE INSTRUMENTS"</b>	Check that the oil temperature and pressure gauges are in the proper range.	<b>"GREEN ARC"</b>
6. <b>"THROTTLE"</b>	Set the throttle FULL AFT to idle. Check engine will continue to run between 500-800 RPM. Return to 1000 RPM.	<b>"CHECK IDLE / 1000 RPM"</b>
7. <b>"THROTTLE FRICTION LOCK"</b>	Adjust the friction lock lever located to the right of the throttle assembly as desired for a snug fit.	<b>"SET"</b>
8. <b>"MIXTURE"</b>	Reduce/Lean the mixture for taxi to prevent fouling of spark plugs from excessively rich mixture during low RPM ground operations.	<b>"LEAN"</b>
9. <b>"RADIOS/ AVIONICS/NAV"</b>	Verify that avionics and transponder are SET for departure. Confirm primary method of navigation; enter GPS flight plan; set OBS courses as desired.	<b>"SET"</b>
10. <b>"DEPARTURE/ CREW BRIEF"</b>	See sample crew brief below.	<b>"COMPLETED"</b>



**Sample Departure Crew Brief:**

Student: "The will be a normal zero-flap takeoff. Takeoff distance is 900 feet and our GO/No-GO point is the runway intersection. We will rotate at 65 and climb out at V<sub>r</sub> of 85. For any malfunction prior to rotate, announce ABORT ABORT ABORT, I'll reduce the throttle and stop ahead. For engine failure below 1000 feet, I will set best glide 85 and select a suitable landing area ahead. If above 1000 feet, I will set best glide 85 and return to the field. You will fly the emergency as PIC. We will depart VFR and remain at or below 1700 to the practice area. I have the flight controls. Questions? Briefing complete.

**"RUN-UP CHECKLIST COMPLETED"**

**Sample KPNS Communications After Run-Up:**

Student: "Pensacola Ground, EIGHT ZERO FIVE FIVE CHARLIE, at the run-up, taxi to runway XX"

GND Controller: "EIGHT ZERO FIVE FIVE CHARLIE, runway eight, Alpha intersection departure, taxi runway eight via Delta, Alpha, cross (or hold short) runway 35 at Delta." Or "EIGHT ZERO FIVE FIVE CHARLIE, runway 17 at Bravo intersection departure, taxi runway 17 via Delta Charlie Bravo, cross (or hold short) runway 26 at Charlie." Or "EIGHT ZERO FIVE FIVE CHARLIE, runway 26 at Delta Two intersection departure, taxi runway 26 via Delta, Delta Two"

Student, repeat taxi clearance call verbatim: e.g. "runway eight at Alpha intersection departure, taxi runway 8 via Delta Alpha, cross runway 35 at Delta, EIGHT ZERO FIVE FIVE CHARLIE."



**Once stopped at the hold short line of the active runway, switch from the ground frequency to tower and execute the BEFORE TAKEOFF checklist**



***“BEFORE TAKEOFF CHECKLIST”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “DOOR / WINDOW”</b>	Visually confirm door and window closed and latched	<b><i>“SECURED”</i></b>
<b>2. “TRANSPONDER”</b>	Confirm transponder to ALTITUDE reporting mode (ALT) in order to transmit the transponder code (Mode A) and the altitude readout (Mode C).	<b><i>“SET, ALT MODE”</i></b>
<b>3. “CARB HEAT”</b>	Check the carb heat lever is set to OFF.	<b><i>“OFF”</i></b>
<b>4. “LANDING LIGHT/PITOT HEAT”</b>	Utilize the LANDING and ANTI-COLLISION/STROBES for maximum visibility on takeoff. Verify that NAV lights are ON if at night. Turn the pitot heat ON if visible moisture is present and pitot mast blockage possibility exists.	<b><i>“ON”</i></b>
<b>5. “FUEL PUMP”</b>	Turn the auxiliary electric fuel pump ON to provide backup to the engine-driven fuel pump on takeoff.	<b><i>“ON”</i></b>
<b>6. “MIXTURE”</b>	Check mixture lever is full forward for FULL RICH.	<b><i>“RICH”</i></b>
<b>7. “PRIMER”</b>	Ensure the primer knob is secured in and twisted locked.	<b><i>“IN AND LOCKED”</i></b>
<b>8. “FLAPS”</b>	Set flaps to appropriate takeoff position in accordance with the POH.	<b><i>“SET [STATE SETTING]”</i></b>
<b>9. “TRIM”</b>	Set aileron and rudder trim to appropriate takeoff position.	<b><i>“SET”</i></b>
<b>10. “INSTRUMENTS”</b>	Recheck engine instruments to ensure in proper range. Recheck the heading indicator against the compass and reset to the correct heading if necessary. It is normal for the heading indicator to have precessed during taxi operations, and to be significantly off the actual heading. Set the heading bug to the departure runway, if appropriate.	<b><i>“CHECKED”</i></b>
<b><i>“BEFORE TAKEOFF CHECKLIST COMPLETED”</i></b>		



**Sample Communications for KPNS Departure:**

Student: *“Pensacola Tower, EIGHT ZERO FIVE FIVE CHARLIE, holding short runway eight at ALPHA, **ready for departure\***”*

Controller: *“EIGHT ZERO FIVE FIVE CHARLIE, fly heading 0-6-0. Runway eight at Alpha intersection, **cleared for takeoff\***.” Or “EIGHT ZERO FIVE FIVE CHARLIE, runway one-seven at Bravo intersection, **cleared for takeoff\*** – fly runway heading”.*

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\* The Aeronautical Information Manual (AIM) contains a great deal of guidance on what to say and when in Chapter 4. While it doesn’t come right out and state: “use ‘departure’ before you get on the runway” and “‘takeoff’ when you are on the runway,” it can be inferred through the example given in 4-3-10:

*“Cleveland Tower, Apache Three Seven Two Two Papa, at the intersection of Taxiway Oscar and Runway Two Three Right, **READY FOR DEPARTURE.**”*

When working with ATC — presumably the tower — use “TAKEOFF” when acknowledging a clearance:

*“Cessna 1234, **CLEARED FOR TAKEOFF**, Runway One Seven.”*

**ONCE CLEARED FOR TAKEOFF:**

- Visually clear the runway environment before taxiing onto an active runway.
- To ensure takeoff is conducted on the correct runway, crosscheck the painted runway numbers against the heading indicator and the magnetic compass.
- Apply 3-second application of full power. Check IAS increasing airspeed.

**Sample ICS communication during the takeoff roll are as follows:**

*“Heels to the deck, FULL THROTTLE, Instruments in the green, Airspeed alive, 65 Rotate.”*

**NOTE:**

**If an instrument is not in the green or does not look right, abort the takeoff and taxi off the runway to troubleshoot.**



***“500 FEET, CLIMB CHECKLIST”***

**Initiate the Climb Checklist at a safe altitude no less than 500’ AGL**

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “FLAPS”</b>	NORMAL TAKEOFF: Verify that the wing flaps are fully retracted when it is safe to do so; SHORT/SOFT FIELD TAKEOFF: When clear of obstacles, pitch for $V_Y$ and with a positive rate of climb retract flaps from 25° to 10° while accelerating to $V_Y$ . Retract flaps from 10° to 0° (full up) and maintain $V_Y$	<b><i>“UP”</i></b>
<b>2. “ENGINE INSTRUMENTS”</b>	Check engine instrument indications, paying particular attention to oil pressure and oil temperature. Check the fuel flow (if installed) and fuel pressure for normal indications. Any serious abnormality at this point would necessitate a carefully considered and immediate action while engine power is still available. Monitor engine instruments, particularly the temperatures, throughout the climb to guard against overheating the engine.	<b><i>“CHECKED”</i></b>
<b>3. “FUEL PUMP”</b>	If climbing and departing the traffic pattern, turn OFF the fuel pump, otherwise, if remaining in the traffic pattern leave the pump ON for the upcoming landing. Wait a few moments after turning OFF the fuel pump, while observing fuel flow and fuel pressure to ensure that the engine driven pump is capable of supplying sufficient fuel to the engine.	<b><i>“OFF” (or “ON”)</i></b>
<b><i>“CLIMB CHECKLIST COMPLETED”</i></b>		



**Sample Communications for KPNS Tower Handoff:**

Tower Controller: *“EIGHT ZERO FIVE FIVE CHARLIE, fly heading 0-6-0. Contact departure.”*

Student: *“Switching to departure, EIGHT ZERO FIVE FIVE CHARLIE.”*

(Switch frequency)

Student: *“Pensacola Departure, EIGHT ZERO FIVE FIVE CHARLIE, one thousand three hundred (for example) for one thousand seven hundred”. Or “Pensacola Departure, EIGHT ZERO FIVE FIVE CHARLIE, in the climb to one thousand seven hundred”.*

Departure Controller: *“EIGHT ZERO FIVE FIVE CHARLIE, RADAR CONTACT<sup>1</sup>, continue climb to requested VFR altitude, RESUME OWN NAVIGATION<sup>2</sup>”.*

Student: *“Continue climb to three thousand five hundred (whatever altitude originally requested), own navigation<sup>2</sup>, EIGHT ZERO FIVE FIVE CHARLIE”.*

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**1. RADAR CONTACT:**

- a. Used by ATC to inform an aircraft that it is identified using an approved ATC surveillance source on an air traffic controller's display and that radar flight following will be provided until radar service is terminated. Radar service may also be provided within the limits of necessity and capability.
- b. The term used to inform the controller that the aircraft is identified and approval is granted for the aircraft to enter the receiving controllers airspace.

**2. RESUME OWN NAVIGATION:** Used by ATC to advise a pilot to resume his/her own navigational responsibility. It is issued after completion of a radar vector or when radar contact is lost while the aircraft is being radar vectored.



***“CRUISE CHECKLIST”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “POWER”</b>	Set power (throttle and propeller) for cruise, transition flight to practice area, or for maneuvers.	<b><i>“SET”</i></b>
<b>2. “MIXTURE”</b>	Lean the mixture as required and in accordance with the POH / AFM and the engine operating instructions. Doing so will obtain the best fuel flow for the segment to be flown, as appropriate to the density altitude and operating conditions. Reference fuel flow gauges and exhaust gas temperature (EGT) gauges to achieve optimal setting.	<b><i>“LEAN”</i></b>
<b>3. “ENGINE INSTRUMENTS”</b>	Check and continuously monitor engine instrument indications, paying particular attention to oil pressure, oil temperature and cylinder head temperature (if installed) indications.	<b><i>“CHECKED”</i></b>
<b>4. “LANDING LIGHT”</b>	Turn LANDING/TAXI lights OFF. Otherwise if appropriate, leave the LANDING and/or TAXI lights ON while remaining within 10 miles of any airport or in areas of reduced visibility and where flocks of birds may be expected, in accordance with FAA Guidance (operation “Lights On”, see AIM 4-3-23)	<b><i>“OFF” (or “ON”)</i></b>
<b><i>“CRUISE CHECKLIST COMPLETED”</i></b>		



***“PRE MANEUVER CHECKLIST”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “CLEARING TURNS”</b>	Execute series of turns to visually clear for traffic in preparation for maneuvers.	<b><i>“COMPLETED”</i></b>
<b>2. “FUEL PUMP”</b>	Turn the auxiliary electric fuel pump ON to provide backup to the engine-driven fuel pump during maneuvers.	<b><i>“ON”</i></b>
<b>3. “GAS”</b>	Switch to the fullest tank in accordance with SOP on page 3.	<b><i>“FULLEST TANK”</i></b>
<b>4. “MIXTURE”</b>	Check mixture lever is forward FULL RICH.	<b><i>“FULL RICH”</i></b>
<b>5. “LANDING LIGHT”</b>	Move the landing light switch to ON; this ensures greater visibility to other aircraft.	<b><i>“ON”</i></b>
<b><i>“PRE MANEUVER CHECKLIST COMPLETED”</i></b>		



***“DESCENT CHECKLIST”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “FUEL SELECTOR VALVE”</b>	If appropriate, and at sufficient altitude to deal with any fuel related problem, switch the fuel selector to the FULLEST TANK in preparation for terminal operations and landing. Adhere to SOP on Page 3. However, if the aircraft is already at low altitude and with plenty of fuel remaining in the current tank, leave the fuel selector on the current tank.	<b><i>“PROPER TANK”</i></b>
<b>2. “POWER/CARB HT”</b>	Set appropriate RPM setting. Enrich the mixture during descent to compensate for higher density air at lower altitudes. Ensure the mixture is set to FULL RICH when descending through 3,000 feet for a landing. Check the carb heat lever is set to OFF (unless req’d).	<b><i>“SET” (as desired)</i></b>
<b>3. “DESTINATION INFO, WEATHER”</b>	Obtain ATIS / ASOS / AWOS, etc. reports at the destination airport and plan the approach accordingly. Verify altimeter setting.	<b><i>“RECEIVED”</i></b>
<b>4. “APPROACH BRIEFING”</b>	VFR: Brief the expected entry to the traffic pattern and runway; IFR: Brief IAP (see sample brief below). Confirm briefed IAP loaded/activated and proper mode selected (VLOC or GPS); confirm RAIM and WAAS checked	<b><i>“COMPLETED”</i></b>
<b>5. “INSTRUMENTS”</b>	Check and continuously monitor engine instrument indications, paying particular attention to oil pressure, oil temperature and cylinder head temperature (if installed) indications. Verify/set correct altimeter setting received from Step #3.	<b><i>“CHECKED”</i></b>
<b><i>“DESCENT CHECKLIST COMPLETED”</i></b>		



**Sample Communications for KPNS Approach, INBOUND to KPNS:**

Student: *"Pensacola Approach, EIGHT ZERO FIVE FIVE CHARLIE, information ALPHA, 20 miles northwest, three thousand five hundred, VFR, inbound, full stop"*

APPR Controller: *"EIGHT ZERO FIVE FIVE CHARLIE, ident"* \*IDENT = press the ID button on the transponder to highlight your position for the radar controller.

Student: Readback verbatim; *"EIGHT ZERO FIVE FIVE CHARLIE, ident"*.

APPR Controller: *"EIGHT ZERO FIVE FIVE CHARLIE, Pensacola Approach, RADAR CONTACT, 20 miles northwest, altitude indicates three thousand five hundred. Proceed direct the field, descend and maintain two thousand two hundred."*

Student: Readback verbatim; *"Proceed direct the field, descend and maintain two thousand two hundred, EIGHT ZERO FIVE FIVE CHARLIE"*.

**Sample Communications for KPNS Approach Handoff to Tower:**

APPR Controller: *"EIGHT ZERO FIVE FIVE CHARLIE, enter the left downwind runway 3-5, contact tower."*

Student: Readback verbatim; *"Enter the left downwind runway 3-5, switching to tower, EIGHT ZERO FIVE FIVE CHARLIE"*.

(Switch frequency to Tower, place Ground in stby)

Student: *"Pensacola Tower, EIGHT ZERO FIVE FIVE CHARLIE, entering left downwind runway 3-5, full stop."*

TWR Controller: *"EIGHT ZERO FIVE FIVE CHARLIE, Pensacola Tower, CLEARED TO LAND RUNWAY 3-5, winds 3-5-0 at 8"* or *"EIGHT ZERO FIVE FIVE CHARLIE, Pensacola Tower, continue on the left downwind runway 3-5, I'll call your base"*

Student: Readback verbatim; *"CLEARED TO LAND RUNWAY 3-5, EIGHT ZERO FIVE FIVE CHARLIE"* or *"Continue on the left downwind runway 3-5, you'll call my base, EIGHT ZERO FIVE FIVE CHARLIE."*



**“BEFORE LANDING CHECKLIST”**

CHALLENGE	ACTION	RESPONSE
<b>Execute this checklist when at traffic pattern altitude on downwind + base + final for each landing. This shall be complete no later than the turn base to final, or equivalent, and in no case later than 300’ AGL otherwise GO AROUND shall be executed.</b>		
<b>1. “FUEL PUMP”</b>	Turn the auxiliary electric fuel pump ON to provide backup to the engine-driven fuel pump during maneuvers.	<b>“ON”</b>
<b>2. “PRIMER”</b>	Ensure the primer knob is secured in and twisted locked.	<b>“IN AND LOCKED”</b>
<b>3. “MIXTURE”</b>	Set/Verify the mixture is in FULL RICH (full forward) position, to ensure smooth engine operation during landing and in case of a go-around.	<b>“FULL RICH”</b>
<b>4. “LANDING LIGHT”</b>	Move the landing light switch to ON; this ensures greater visibility to other aircraft.	<b>“ON”</b>
<b>5. “SEATS, BELTS, HARNESSES”</b>	Adjust seats in order to properly use full rudders and ensure seats are locked in place. Then connect belts and harnesses ensuring a snug fit. Check passengers.	<b>“FASTENED”</b>
<b>“BEFORE LANDING CHECKLIST COMPLETE, CLEARED TO LAND RWY xx”</b>		



**“GO AROUND (or MISSED APPROACH)”**

CHALLENGE	ACTION	RESPONSE
1. <b>“POWER”</b>	Immediately, right to left, apply THROTTLE and MIXTURE all the way forward for maximum power.	<b>“FULL”</b>
2. <b>“FLAPS”</b>	If the flaps are fully down at 40°, retract them immediately to 25°	<b>“25”</b>
3. <b>“CLIMB”</b>	Establish 5 deg nose-up, positive rate of climb indicated on the altimeter and the VSI, as well as using visual references, so the possibility of touching down on the remaining runway no longer exists.	<b>“POSITIVE RATE”</b>
<b>If obstacles exist and maximum angle of climb is desired, continue climbing at Vx with flaps at 25° until obstacles are cleared.</b>		
4. <b>“FLAPS”</b>	When clear of obstacles, pitch for Vy, maintain a positive rate of climb and retract flaps from 25° to 10° while accelerating to Vy.	<b>“10”</b>
<b>“FLAPS”</b>	Retract flaps from 10° to 0° (full up) and maintain Vy.	<b>“UP”</b>
5. <b>“CLIMB CHECKLIST”</b>	Perform climb checklist once >500A and clear of obstructions.	<b>“EXECUTE”</b>
<b>“CLIMB CHECKLIST COMPLETED”</b>		



**“AFTER LANDING CHECKLIST”**

**Perform once stopped AND clear of the runway.**

CHALLENGE	ACTION	RESPONSE
1. <b>“FLAPS”</b>	Set flaps to zero degrees / UP position and check visually.	<b>“UP”</b>
2. <b>“FUEL PUMP”</b>	Verify the auxiliary fuel pump is OFF for taxi.	<b>“OFF”</b>
3. <b>“CARB HEAT”</b>	Check the carb heat lever is set to OFF.	<b>“OFF”</b>
4. <b>“MIXTURE”</b>	Reduce/Lean the mixture for taxi to prevent fouling of spark plugs from excessively rich mixture during low RPM ground operations.	<b>“LEAN”</b>
5. <b>“LANDING LIGHT/ PITOT HEAT”</b>	Turn OFF the landing light (DAY ONLY) and pitot heat during taxi.	<b>“OFF”</b>
<b>“AFTER LANDING CHECKLIST COMPLETED”</b>		

**Sample KPNS Communications Upon Clearing the Runway:**

Student: *“Pensacola Ground, EIGHT ZERO FIVE FIVE CHARLIE, clear of runway 3-5 at DELTA, taxi to Innisfree Ramp”*

GND Controller: *“EIGHT ZERO FIVE FIVE CHARLIE, taxi to the ramp via Delta.”*

Student, repeat taxi clearance call verbatim: e.g. *“taxi to the ramp via Delta, EIGHT ZERO FIVE FIVE CHARLIE.”*



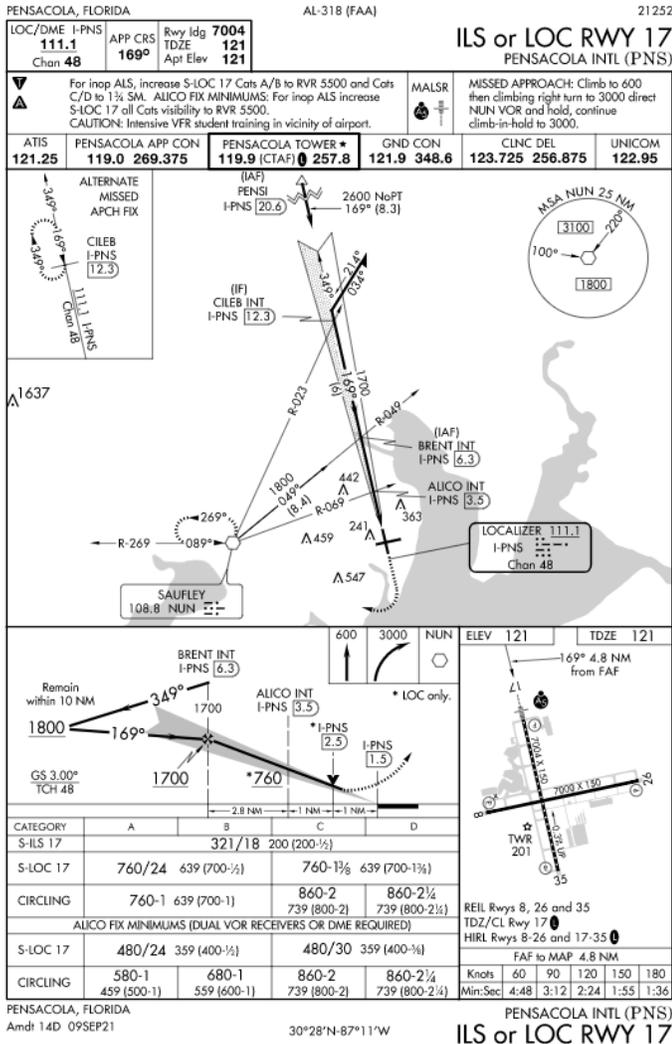
***“ENGINE SHUTDOWN CHECKLIST”***

<b>CHALLENGE</b>	<b>ACTION</b>	<b>RESPONSE</b>
<b>1. “RADIOS / AVIONICS”</b>	Turn off all individual components as needed. Turn the avionics switch to OFF to prevent potential damage to the avionics from electrical current surge during shutdown.	<b>“OFF”</b>
<b>2. “THROTTLE”</b>	Set throttle to 1200 RPM for ten seconds.	<b>“1200 RPM FOR 10 SECONDS”</b>
<b>“THROTTLE”</b>	Set throttle to 1000 RPM	<b>“1000 RPM”</b>
<b>3. “MIXTURE”</b>	With the engine running at 1000 RPM, set the mixture to IDLE CUT-OFF (full aft) position in order to starve the engine of fuel and shut it down.	<b>“IDLE CUTOFF”</b>
<b>DO NOT PROCEED FURTHER UNTIL PROPELLER MOTION STOPS</b>		
<b>4. “IGNITION SWITCH”</b>	Move the ignition switch to OFF. Remove the keys from the ignition and place on the dashboard. Never allow the key to remain in the ignition unless the engine is running.	<b>“OFF, KEYS ON THE DASH”</b>
<b>5. “MASTER SWITCH”</b>	Turn OFF both BAT and ALT sides of the red master switch.	<b>“OFF”</b>
<b>HOLD CHECKLIST HERE TO EGRESS / RE-POSITION AIRCRAFT (AS REQUIRED)</b>		
<b>1. “HOBBS AND TACH TIMES”</b>	Note the hobbs and tachometer times for later system entry.	<b>“RECORDED”</b>
<b>2. “CABIN”</b>	Collect all trash, empty oil bottles, etc and personal belongings.	<b>“CLEAN”</b>
<b>3. “PITOT COVER/ COWL PLUGS”</b>	Install pitot mast cover and engine cowl plugs (if so equipped).	<b>“INSTALLED”</b>
<b>4. “CHOCKS, TIE DOWNS AND COVER”</b>	Install chocks, tie downs, and cover, as necessary.	<b>“INSTALLED”</b>
<b>5. “POSTFLIGHT INSPECTION”</b>	Conduct walkaround to assess for any damage and call for refueling as necessary. Close flight plan as required.	<b>“COMPLETED”</b>
<b>6. “AIRCRAFT DISCREPANCIES”</b>	Notify maintenance or staff of any issues with the aircraft (grounding or otherwise) for action if needed.	<b>“RECORDED / NOTIFIED”</b>
<b>“SECURING CHECKLIST COMPLETED”</b>		



Sample

Instrument Approach Procedure (IAP) Brief



Attention to Brief.

This will be the ILS to RWY-17 at Pensacola. Chart is current.

Localizer frequency is 111.1, approach course 169.

7004 feet available.

Guidance to final will be via [vectors <OR> BRENT for the course reversal procedure turn <OR> PENSI inbound]

Maintain at or above 1700 feet until final approach fix defined as "glideslope intercept at 1700 feet" <OR> Maintain at or above 1800 feet for the procedure turn, at or above 1700 once established and inbound to final approach fix identified as "glideslope intercept at 1700 feet".

We'll descend to straight-in ILS minimums, Decision Altitude of 321 feet.

Missed approach point is defined as Decision Altitude; climb runway heading to 600 feet, climbing right turn to 3000 feet direct Saufley VOR and hold as published.

PAPIs to the left, intensive student training in the area.

Your Questions? Briefing Complete.