

**Chapter 3A
Normal Procedures**

Table of Contents

General.....	3
Use of the Checklist	3
Checklist Sequence	5
Aircraft “Can” Acceptance	5
Flight Crew Conduct	7
Speed vs. Efficiency in Task Execution	7
Normal Procedures Checklist	8
Aircraft Acceptance.....	8
Pre-Flight Inspection	8
Before Engine Start	10
Engine Start.....	11
Taxi.....	11
Before Takeoff	11
Line-Up.....	12
Climb	12
Cruise.....	12
Descent	13
Approach.....	13
Before Landing	13
Go-Around	13
After Landing.....	13
Parking & Securing	14
Reference Airspeeds.....	14
Expanded Normal Procedures	15
Aircraft Acceptance.....	15
Pre-Flight Inspection	16
Before Engine Start	23
Engine Start.....	24
Taxi.....	25
Before Takeoff	26
Line-Up.....	31
Climb	31
Cruise.....	31
Descent	32
Approach.....	33
Before Landing	34
Go-Around	35
After Landing.....	36
Parking & Securing	37

This Page Intentionally Left Blank

General

This chapter contains the approved Bridgewater State College Normal Procedures for operating the Cessna 172. The procedures are based and in some cases expand on the manufacturer’s procedural recommendations. Flight crews are expected to thoroughly familiarize themselves with the contents of this chapter prior to operating the aircraft.

Use of the Checklist

Flight crews shall follow the procedures within the **Normal Procedures Checklist**. The checklist is arranged by phase of operation (ground operations, takeoff, climb, cruise, descent, approach, landing, and parking). It contains the approved procedures to be followed by BSC flight crews and shall be carried onboard the aircraft, readily accessible to the flight crew *at all times*. The procedures are based upon flight crew knowledge of aircraft systems and system integration. As such, some checklist items may condense the procedures contained within the approved Pilot’s Operating Handbook/Aircraft Flight Manual. Situations presenting an immediate risk are identified on the separate **Emergency Procedures Checklist** for rapid and accurate action and must be accomplished from memory. Flight crews shall refer to the **Emergency Procedures Checklist** as circumstances require.

CAUTION

Flight crews shall execute the appropriate checklist procedures in response to an emergency situation. In the event of an emergency, the Pilot-In-Command may deviate from the Emergency Procedures Checklist as necessary to ensure the safe outcome of the flight.

Checklists in this and all BSC standards manuals are printed in a manner to indicate the preferred method and sequence of execution. The checklist shall be initiated when the Pilot Flying (PF) calls for the appropriate checklist. Tasks on the checklist may be performed prior to referencing the physical checklist, *but the checklist tasks shall be verified with the checklist in-hand*.

If completion of a checklist sequence is interrupted, flight crews shall return to the checklist as necessary, including starting from the beginning if required, and *ensure that checklist tasks have actually been completed* when the checklist is reported as "COMPLETE".

1. Challenge and Response (C/R)

Checklists with the “C/R” in the title box are composed of Challenge and Response tasks. Under normal training conditions the pilot under instruction will execute all checklists operating as a single pilot. All BSC pilots conducting non-training flights are encouraged to practice Challenge and Response checklist methods, and to demonstrate this method at any time to pilots under instruction. The PF calls the checklist item, and the PNF both executes and verbalizes the required action.

Avionics Master. OFF

2. Verbal Response Only (V/R)

Checklists with the “V/R” in the title box are composed of tasks for which the pilot completing the checklist verbalizes both the task and the response.

Magnetos GROUND CHECK

In the example above, the pilot would ground check the magnetos, then state “Magnetos ground checked.”

3. Non-Response (N/R)

Checklists with the “N/R” in the title box are composed of tasks not requiring a verbal response.

Circuit BreakersCHECKED/IN

4. ^R Tasks

Tasks preceded by a superscript “R” are the only tasks required during repetitive landing operations.

5. ^B Tasks

Tasks preceded by a superscript “B” are the only preflight tasks required to be conducted after the initial preflight on any flight that will consist of multiple stops by the same flight crew.

6. Conditional Responses

“CHECKED”

“CHECKED” serves as a generic checklist response corresponding to completion of operational status, condition, or equipment test.

BrakesCHECKED

“AS REQUIRED”

“AS REQUIRED” serves as a response when more than one status option is available. The pilot completing the task shall verbalize the *actual condition of the checklist item*. For example:

FlapsAS REQUIRED
This would be verbalized as “Flaps 10 degrees,” “Flaps Up,” or as appropriate.

Checklist Sequence

Flow Pattern

The Normal and Emergency Procedures Checklists provided in this manual provide flight crewmembers with both an abbreviated list and the corresponding expanded description of tasks to be accomplished. These checklists are designed to be performed using “flow” patterns: Procedural steps are completed in such a manner as to “flow” from one area of the cockpit to the next in a logical and smooth manner. This method enhances pilot visual and physical habit patterns, and increases efficiency in completing the required tasks. When practiced properly, this method also serves to more readily alert a pilot if a step in any flow pattern is missed. Flows may be accomplished prior to the use of the actual checklist. Regardless, *all BSC checklists must be executed and verified with the checklist in-hand.*

Aircraft Acceptance Checklist

The Aircraft Acceptance Checklist is to ensure the general airworthiness of the aircraft. The checklist must be accomplished each time there is a flight crewmember change, or maintenance is performed on the aircraft. It may also be conducted at any other time at the discretion of the Pilot-In-Command. During normal operations the Aircraft Acceptance Checklist is accomplished by the student, however it is the responsibility of the Flight Instructor to ensure that all required checks have been completed.

Subsequent Checklists

All subsequent checklists will be completed at their appropriate time, and in the manner indicated in the specific checklist.

Aircraft “Can” Acceptance

The aircraft can shall be retained by BSC Dispatch until released for flight or aircraft maintenance. Once released for flight the can then becomes the responsibility of the flight crew. The can shall be readily accessible to the flight crew during flight.

The can shall be checked for:

Daily Flight Data Sheet

1. Correct aircraft tail number
2. Correct data
3. Correct aircraft model
4. Correct pilot name and ID #
5. Placard sheet has all placarded equipment correctly listed

6. Ensure that either beginning Tach and Hobbs time, first flight of the day, or ending Tach and Hobbs time, subsequent flights, is/are correct prior to engine start. Any discrepancy shall be reported to Dispatch.
7. Check the Next Inspection Due: Tach times. *Ensure that NO Tach time exceeds this reading.*
8. Check the Aircraft, VOR, and GPS Data Card inspection/renewal times and due dates. *Ensure that there are no mathematical discrepancies and that the aircraft and equipment has not/will not exceed the next inspection/renewal date on this event.*

✚ Aircraft discrepancy sheet

1. A copy of the aircraft squawk sheet shall be placed in the can. The Pilot-In-Command will check this for any open discrepancy items.

NOTE

Aircraft shall not be flown with open maintenance items. Any open discrepancy items must be repaired or deferred by Maintenance prior to flight.

⊕ Aircraft Inspection Summary

1. Ensure that the Aircraft Inspection Summary sheet(s) are for the correct aircraft.
2. Ensure that the Transponder, Altimeter, Static System, Mode C, ELT Battery Replacement, 100 hour and annual inspections *have not and will not exceed their respective due dates/intervals on this event.*
3. Check that the aircraft inspection has been signed on the Maintenance Inspector and the Inspection Authorization (IA) lines.
4. Ensure that all Airworthiness Directives and Service Bulletins have been complied with *and are not/will not be past their respective due dates on this event.*
5. Check that the aircraft Weight & Balance data matches what has been used to calculate the BSC Takeoff and Landing Data (TOLD) Card.

NOTE

The Aircraft Inspection Summary is not an official Weight & Balance document. Official Weight & Balance data can be found in the Approved Airplane Flight Manual issued for and aboard the specific aircraft.

Ⓢ VOR Accuracy Check

Ensure that the VOR check is current for the flight. This check must be completed per 14 CFR Section 91.171 for all civil aircraft operating under IFR using the VOR system for radio navigation. *If the 30-day limit is nearly due, flight crews shall complete the VOR check to prevent expiration of the check's validity.*

Flight Crew Conduct

This section delineates procedures to be followed by flight crews during normal operations. For situations requiring use of the Emergency Procedures Checklist, flight crews can refer to Chapter 4, Emergency Procedures in the Flight Standards Manual. The checklists contained in this section provide flight crews with a list of the tasks to be accomplished in the aircraft. Those same checklists and associated tasks are explained in detail in the expanded section of the chapter. The checklists may be accomplished from memory, if appropriate, *and then verified with the checklist in-hand.*

NOTE

Any flight crew member conducting an Emergency Procedures Checklist on the ground in response to an actual emergency shall, if able, return the aircraft to the ramp for maintenance action.

CAUTION

BSC Flight Instructors are the PIC on any dual flight training event and are therefore responsible for and shall take action as necessary to ensure the safe outcome of the flight.

Speed vs. Efficiency in Task Execution

The most important and sophisticated technology in the aircraft is the pilot's mind. His/her ability to analyze a rapidly changing situation, determine a desired outcome, select from available alternatives, act on the decision, evaluate the result and if necessary conduct that sequence several times over, presents the very best chance for a successful outcome. Where a pilot acts first, rushing through tasks and making mistakes, precious time is wasted by having to repeat previously missed steps in a procedure. In nearly all flight situations, there is always time to *think first, and then act efficiently and effectively*: The result prevents mistakes and the associated loss of time available to the flight crew.

All tasks in the approved BSC Normal Procedures Checklists are to be completed in sequence, smoothly, accurately, and efficiently. Although the completion of tasks will follow a specified sequence, certain sequences may be performed nearly simultaneously. Instructors and students are expected to review and rehearse these procedures as necessary to achieve and maintain the expected level of proficiency.

During training operations, single-pilot execution of any normal procedure listed in the chapter will be executed using the Verbal Response method.

Normal Procedures Checklist

V/R	AIRCRAFT ACCEPTANCE
	Aircraft Surfaces CLEAR
	Windows/Windscreen CLEAN/NO DAMAGE
	Maintenance Status VERIFIED/CLEARED
	Hobbs Meter RECORDED
	Tachometer Time RECORDED
	Carbon Monoxide Detector CHECKED
	Fire Extinguisher CHARGED/SECURED
	Aircraft Documents CHECKED
	Aircraft Cabin Area CLEAN/NO DAMAGE
	A/C Acceptance Checklist COMPLETE

N/R	PRE-FLIGHT INSPECTION
^B	Control Lock REMOVED
	Flight Controls FREE/CORRECT
^B	Parking Brake SET
	Ignition Switch OFF
	Battery Master Switch OFF
	Avionics Master Switch OFF
	All Electrical Switches OFF
	Flaps UP
^B	Throttle IDLE
^B	Mixture IDLE CUT-OFF
	Battery Master Switch ON
	Fuel CHECK GAUGES
	Avionics Master Switch ON
	Comm/Nav Radios CHECKED
	ELT OFF
	Avionics Master Switch OFF
	Cabin/Exterior Lights CHECKED
^B	Caution/Warning Lights CHECKED
	Stall Warning Horn CHECK
	Pitot Heat CHECKED
	Alternate Static Source NORMAL
^B	Circuit Breakers CHECKED/IN
^B	Flaps DOWN
	Fuel Selector BOTH
	Battery Master Switch OFF

LEFT WING

Fuel Sump	DRAIN
Flap	SECURE, NO DAMAGE
Aileron & Static Wick	CHECKED
Wing Tip	CHECKED
^B Strobe, Nav Light	CHECKED
Wing Leading Edge	CHECKED
Wing Inspection Plates	SECURE
Landing/Taxi Lights	CHECKED
^B Fuel Tank Vent	UNOBSTRUCTED
^B Tie Down	REMOVED/STOWED
^B Pitot Tube	UNOBSTRUCTED
Stall Warning Vane	TEST
^B Fuel Cap	CHECKED/SECURE
^B Landing Gear/Strut	CHECKED
^B Brake Assembly	CHECKED

NOSE

^B Static Source	CHECKED
Cowling	NO DAMAGE
Propeller/Spinner	CHECKED
Alternator/Belt	CHECKED
^B Cowl Intakes	UNOBSTRUCTED
Baffles	SECURE/NO DAMAGE
^B Nose Gear	CHECKED
Fuel Sump	DRAIN
Aux. Power Receptacle Cover	SECURE
^B Engine Oil Level	CHECKED
^B Oil Dipstick	REPLACED/SECURE
Oil Door	CLOSED/SECURE

RIGHT WING

^B Tie Down	REMOVED/STOWED
Wing Inspection Plates	SECURE
^B Fuel Tank Vent	UNOBSTRUCTED
Wing Leading Edge	CHECKED
Wing Tip	CHECKED
^B Strobe, Nav Light	CHECKED
Aileron & Static Wick	CHECKED
Flap	SECURE, NO DAMAGE
Fuel Sump	DRAIN
^B Fuel Cap	CHECKED/SECURE
^B Landing Gear/Strut	CHECKED
^B Brake Assembly	CHECKED

FUSELAGE, RIGHT

Door/Latch..... CHECKED/SECURE
 Comm/Nav Antennas..... SECURE/NO DAMAGE
 Fuselage..... CHECKED/NO DAMAGE

EMPENNAGE

Horizontal Stabilizer (R/L)..... CHECKED
 Elevator (R/L)..... CHECKED
 Elevator Static Wicks (R/L) ATTACHED
 Rudder..... CHECKED
^BTie Down..... REMOVED/STOWED

FUSELAGE, LEFT

Fuselage..... CHECKED
 Baggage Door..... SECURE
 Door/Latch..... CHECKED/SECURE
 Pre-Flight Inspection Checklist COMPLETE

C/R	BEFORE ENGINE START
------------	----------------------------

Aircraft Acceptance Check	COMPLETE
Pre-Flight Inspection.....	COMPLETE
Passenger Briefing	COMPLETE
Seats/Belts/Harnesses	CHECKED/LATCHED
Parking Brake	SET
Avionics Master.....	OFF
Circuit Breakers	CHECKED/IN
Fuel Selector.....	BOTH
Before Engine Start Checklist	COMPLETE

C/R	ENGINE START
------------	---------------------

Battery Master.....	ON
External Lights.....	AS REQUIRED
(NORMAL)	
Throttle	OPEN ¼ INCH
Mixture	RICH
Propeller Area	VERIFY L/C/R CLEAR
Starter	ENGAGE
Throttle	SET 800-1000 RPM
Oil Pressure.....	CHECK
Avionics Master	ON
Flaps	UP
Engine Instruments.....	CHECK
Engine Start Checklist.....	COMPLETE

C/R	TAXI
------------	-------------

Avionics.....	SET AS REQUIRED
Transponder	VERIFY STDBY
Taxi Area	VERIFY L/C/R CLEAR
Parking Brake.....	RELEASE
Brakes and Steering.....	CHECKED
Flight Instruments	CHECKED
Taxi Checklist	COMPLETE

C/R	BEFORE TAKEOFF
------------	-----------------------

Heading.....	INTO WIND
Parking Brake.....	SET
Fuel Selector	BOTH
Fuel Quantity	VERIFY
Cabin Heat/Defrost.....	AS REQUIRED
Flight Controls	FREE/CORRECT
Brakes	HOLD
RUN-UP CHECK	
Mixture	RICH
Throttle	1800 RPM
Engine Instruments.....	CHECKED
Ammeter	CHARGING
Vacuum (If Installed)	4.5 – 5.5 Hg
Caution/Warning Lights.....	CHECKED
Magnetos.....	CHECKED
Alternate Static Source.....	CHECKED
Throttle	IDLE
Mixture.....	LEAN

AFTER RUN-UP CHECK

Throttle Friction.....	SET
Trim.....	SET TAKEOFF
Flight Instruments.....	SET
Navigation Radios/GPS	SET TAKEOFF
Departure Briefing	COMPLETE
Taxi Route.....	OBTAIN/VERIFY
Parking Brake	RELEASE
Before Takeoff Checklist	COMPLETE

V/R	LINE-UP
------------	----------------

Doors.....	CLOSED/LATCHED
Flight Instruments.....	CHECKED
Engine Instruments	CHECKED
Trim.....	SET/CHECKED
Flaps.....	SET/CHECKED
Heading	SET TAKEOFF RWY

AFTER CLEARED ON TO RUNWAY

External Lights	AS REQUIRED
Transponder.....	SET ALT
Mixture.....	FULL RICH
Time Off.....	NOTE
RWY Alignment.....	SET/VERIFY
Line-Up Checklist.....	COMPLETE

V/R	CLIMB
------------	--------------

^R Climb Power.....	SET
Mixture.....	FULL RICH
^R Flaps	UP
^R Engine Instruments	CHECKED
^R Transponder	VERIFY ALT
Climb Checklist	COMPLETE

V/R	CRUISE
------------	---------------

Cruise Power	SET
Mixture.....	LEAN AS REQUIRED
Engine Instruments	CHECK
Trim.....	AS REQUIRED
Heading/Compass	CHECK
External Lights	AS REQUIRED
Cruise Checklist.....	COMPLETE

V/R	PARKING AND SECURING
Parking Brake	SET
Throttle	IDLE
Avionics Master	OFF
Magnetos	GROUND CHECK
Mixture	IDLE CUT-OFF
Magnetos	OFF
Battery Master Switch	OFF
Ignition	OFF
Lights/Electrical Switches	OFF
Parking Brake	RELEASED
Control Lock	INSTALLED
Hobbs/Tachometer Times	RECORDED
Windows/Doors	SECURED
Tie Downs	INSTALLED/SECURED
Post-Flight Inspection	COMPLETE
Parking & Securing Checklist	COMPLETE

REFERENCE AIRSPEEDS

Best Angle of Climb V_X	60 KIAS
Best Rate of Climb V_Y	79 KIAS
Maneuvering Range V_A	82 - 99 KIAS
Flap Operating Speed V_{FE}	110 KIAS (10^0), 85 KIAS Full
Max. Structural Cruise V_{NO}	129 KIAS
Never Exceed Speed V_{NE}	163 KIAS
Max Demonstrated Crosswind	15 Knots
Approach/Landing	60 - 70 KIAS/AS REQUIRED

Expanded Normal Procedures

V/R	AIRCRAFT ACCEPTANCE
Aircraft Surfaces	CLEAR
✦ Ensure that all flight control and wing surfaces are clear and free of any debris, frost, ice, or snow.	
Windows/Windscreen.....	CLEAN/NO DAMAGE
✦ Clean windows and windscreen as necessary with approved cleaning solution and cloth.	
Maintenance Status	VERIFIED/CLEARED
✦ Verify aircraft maintenance and avionics/navigation inspection dates/times have not been exceeded, and documents are properly completed and present in the aircraft can.	
Hobbs Meter.....	RECORDED
✦ Record the current Hobbs reading and verify it matches the value on the Aircraft Data Sheet. Notify Dispatch of any discrepancy.	
Tachometer Time	RECORDED
✦ Record the current Tachometer time and verify it matches the value on the Aircraft Data Sheet. Notify Dispatch of any discrepancy.	
Carbon Monoxide Detector	CHECKED
✦ Check CO indicator, verify operable/safe status.	
Fire Extinguisher.....	CHARGED/SECURED
✦ Check that fire extinguisher is aboard, fully charged, safety pin secured, unit securely stowed.	
Aircraft Documents	CHECKED
✦ Check the Airworthiness Certificate, Aircraft Registration, and FCC Radio Station Permit (international flights only). Verify that the correct and complete Pilot's Operating Handbook or Aircraft Flight Manual, and additional appropriate operations manuals (e.g. GPS) are aboard. Verify flight crew possesses appropriate photo identification, current pilot and medical certificates.	
Aircraft Cabin Area.....	CLEAN/NO DAMAGE
✦ Verify condition of cabin. Remove any items left by previous crew. After flight event, contact previous crew regarding proper removal/disposal of items, if applicable.	
A/C Acceptance Checklist.....	COMPLETE
✦ Verify the Aircraft Acceptance checklist has been completed.	

N/R	PRE-FLIGHT INSPECTION
------------	------------------------------

The pre-flight inspection is a visual check to verify that the airplane and all its visible components and equipment are safe and ready to fly. Flight crews should inspect the aircraft with the attitude that the aircraft must prove it is fit to fly, rather than doing so with the assumption that they are going and the airplane “is probably fine.” The pre-flight inspection is conducted prior to the first flight of the day and at Pilot-In-Command changes. “B” checklist items must be completed between Pilot-In-Command changes. A walk-around shall be conducted during turnarounds in accordance with the Pre-flight Inspection checklist. *The walk-around shall be conducted with the checklist in hand.*

- ^BControl Lock REMOVED
 - ⊕ Remove and stow/secure the control lock.

- Flight Controls FREE/CORRECT
 - ⊕ Verify freedom and correct movement/displacement of all flight controls.

- ^BParking Brake SET
 - ⊕ Set parking brake ON.

- Ignition Switch OFF
 - ⊕ Verify ignition switch is off, and key is out of ignition.

WARNING

If the ignition switch is not in the OFF position or the key can be removed from the ignition housing while remaining in the Left, Right or Both magneto “ON” position, the flight crew will immediately report this to BSC Dispatch for maintenance action.

- Battery Master Switch OFF
 - ⊕ Verify Battery master switch is in the OFF position.

- Avionics Master Switch OFF
 - ⊕ Verify Avionics master switch is in the OFF position.

- All Electrical Switches OFF
 - ⊕ Verify all remaining electrical switches are in the OFF position.

- Flaps UP
 - ⊕ Verify flap switch and flaps are in the UP position.

- ^BThrottle IDLE
 - ⊕ Verify throttle control is full aft in the IDLE position.

^BMixture.....IDLE CUT-OFF
 ⚙ Verify mixture control is full aft in the IDLE CUT-OFF position.

CAUTION

Ensure that the Avionics Master switch is OFF before turning the battery master switch ON or OFF. This will prevent any inadvertent electrical charge from damaging the avionics equipment when the electrical system is engaged.

Battery Master SwitchON
 ⚙ Place battery master switch in the ON position.

Fuel.....CHECK GAUGES
 ⚙ Check fuel gauges to confirm operation.

NOTE

Fuel gauge readings cannot be used to accurately determine usable fuel load. Flight crews shall also manually check fuel levels in each tank in accordance with the pre-flight checklist.

Avionics Master Switch.....ON
 ⚙ Place avionics master switch in the ON position.

Comm/Nav Radios CHECKED
 ⚙ Test both communication and navigation radios as follows: Verify communication radios are clearly receiving on local ATIS, Ground, or other frequency, as appropriate and are NOT set on 121.5 Mhz. Test transmit capability by clicking the transmit key on the control yolk two (2) times. Verify both navigation radios are receiving properly by selecting a local navaid frequency, identifying the signal via Morse code ID, and ensuring CDI indications on instrument faces accurately reflect position of aircraft relative to navigation signal.

ELT..... OFF
 ⚙ Verify that ELT is not armed/operating. If the ELT is transmitting, attempt to turn it off via the remote switch in the cockpit. Report the activation to BSC Dispatch.

Avionics Master Switch..... OFF
 ⚙ Place the avionics master switch in the OFF position.

Cabin/Exterior Lights CHECKED
 ⚙ Test and verify operation of cabin/exterior lighting.

^BCaution/Warning Lights TEST
 ⚙ Push TEST switch to verify proper operation of all caution/warning lights.

Stall Warning Horn..... CHECK
 ☩ Check stall warning horn for proper operation.

Pitot Heat..... CHECKED
 ☩ Turn pitot heat ON, and verify pitot tube is heating properly. Turn pitot heat switch OFF.

CAUTION

The pitot tube achieves operating temperature quickly and can cause injury. Do NOT operate pitot heat on the ground for more than 30 seconds. Test pitot heat temperature immediately after turning pitot heat switch ON, then return to the cockpit and turn pitot heat OFF.

Alternate Static Source..... NORMAL
 ☩ Verify alternate static source is in the OFF position.

^BCircuit Breakers CHECKED/IN
 ☩ Verify all circuit breakers are checked, are in, and that any circuit breakers that are disengaged are properly placarded and collared, if applicable.

^BFlaps DOWN
 ☩ Ensure no personnel are near the flaps. When the area is clear, extend flaps in increments, ensuring both flaps extend symmetrically and at the same rate.

Fuel Selector..... BOTH
 ☩ Verify the fuel selector moves freely and is set in the BOTH position.

Battery Master Switch..... OFF
 ☩ Place the battery master switch in the OFF position.

LEFT WING

Fuel Sump DRAIN
 ☩ Remove a sample of fuel and inspect for contaminants. Return clean fuel to fuel tank when inspecting fuel cap.

Flap SECURE, NO DAMAGE
 ☩ Check flap for connections, verify it is secure and undamaged (e.g. dents, binding).

Aileron & Static Wick..... CHECKED
 ☩ Verify aileron static wicks are attached, aileron connections and hinges are secure and free from debris or contaminants, and counterweights are securely attached.

Wing Tip CHECKED
 ☩ Verify wingtip is secure and undamaged.

- ^BStrobe, Nav Light CHECKED
 ⚙ Verify strobe and navigation lights are operative and secure.
- Wing Leading Edge..... CHECKED
 ⚙ Check leading edge for dents or other damage.
- Wing Inspection PlatesSECURE
 ⚙ Verify all inspection plates are in place and secured.
- ^BLanding/Taxi Lights CHECKED
 ⚙ Verify landing and taxi lights are secure and operational.
- ^BFuel Tank Vent.....UNOBSTRUCTED
 ⚙ Inspect fuel vent opening and ensure it is unobstructed by any foreign matter/debris.
- ^BTie Down REMOVED/STOWED
 ⚙ Remove the tie down strap and stow securely in the aircraft.
- ^BPitot Tube.....UNOBSTRUCTED
 ⚙ Inspect pitot tube opening and ensure it is unobstructed by any foreign matter/debris.
- Stall Warning Vane TEST
 ⚙ Verify stall warning vane freedom of movement, and proper activation of warning horn.
- ^BFuel Cap CHECKED/SECURE
 ⚙ Remove fuel cap and replace fuel from tester. Secure fuel cap. Inspect wing upper surface for contaminants and/or damage.
- ^BLanding Gear/Strut CHECKED
 ⚙ Inspect landing gear strut. Verify connections at fuselage and wheel assembly are secure. Check that all connections (bolts, nuts, cotter pins) are secure on wheel assembly. Check tire tread wear, and move aircraft if necessary to view entire tire. Verify air valve cap is in place.
- ^BBrake Assembly CHECKED
 ⚙ Check brake lines and brake assembly and ensure attachments are secure. Check connecting points for hydraulic fluid leaks. Check brake pads for wear (approximately 1/16” or the thickness of a nickel is minimum allowable thickness for operation).
- NOSE**
- ^BStatic Source..... CHECKED
 ⚙ Check static source to verify it is clear and uncontaminated.
- Cowling NO DAMAGE
 ⚙ Inspect engine cowling for damage.

Propeller/SpinnerCHECKED

- ⊕ Inspect propeller face and back, and spinner for damage. Propeller should be free of knicks, cracks, or spurs. Verify that spinner has no damage and is secure.

Alternator/BeltCHECKED

- ⊕ Inspect alternator and belt for damage, verify alternator belt is secure and tight.

^BCowl Intakes UNOBSTRUCTED

- ⊕ Check cowl intakes and under cowl to ensure they are free of foreign matter (e.g. leaves, small animals, nests).

BafflesSECURE/NO DAMAGE

- ⊕ Inspect engine baffles through the oil dipstick cover door. Ensure there is no damage or contaminants.

^BNose GearCHECKED

- ⊕ Inspect nose gear assembly for proper tire inflation and tread wear, leaks, and ensure connections are secure. Ensure tire air valve cap is secure.

Fuel SumpDRAIN

- ⊕ Drain the lower fuel sump and inspect for contaminants in fuel. Return clean fuel to wing tank.

Aux. Power Receptacle Cover SECURE

- ⊕ Verify receptacle area is clear of foreign matter and cover operates freely.

Oil Door CLOSED/SECURE

- ⊕ Secure oil door. Take care not to scratch or damage engine cowling with foreign objects (e.g. wristwatch, fuel tester).

^BEngine Oil LevelCHECKED

- ⊕ Verify oil level is at least 5 quarts, 8 for extended flights.

^BOil Dipstick REPLACED/SECURE

- ⊕ Replace oil dipstick in socket, verify it is secure.

RIGHT WING

^BTie DownREMOVED/STOWED

- ⊕ Remove the tie down strap and stow securely in the aircraft.

Wing Inspection Plates SECURE

- ⊕ Verify all inspection plates are in place and secured.

- ^BFuel Tank Vent.....UNOBSTRUCTED
 ⊕ Inspect fuel vent opening and ensure it is unobstructed by any foreign matter/debris.
- Wing Leading Edge..... CHECKED
 ⊕ Check leading edge for dents or other damage.
- Wing Tip..... CHECKED
 ⊕ Verify wingtip is secure and undamaged.
- ^BStrobe, Nav Light CHECKED
 ⊕ Verify strobe and navigation lights are operative and secure.
- Aileron & Static Wicks CHECKED
 ⊕ Verify aileron static wicks are attached, aileron connections and hinges are secure and free from of debris or contaminants, and counterweights are securely attached.
- Flap..... SECURE, NO DAMAGE
 ⊕ Check flap for connections, verify it is secure and undamaged (e.g. dents, binding).
- Fuel Sump..... DRAIN
 ⊕ Remove a sample of fuel and inspect for contaminants. Return clean fuel to fuel tank when inspecting fuel cap.
- ^BFuel Cap CHECKED/SECURE
 ⊕ Remove fuel cap and replace fuel from tester. Secure fuel cap. Inspect wing upper surface for contaminants and/or damage.
- ^BLanding Gear/Strut CHECKED
 ⊕ Inspect landing gear strut. Verify connections at fuselage and wheel assembly are secure. Check that all connections (bolts, nuts, cotter pins) are secure on wheel assembly. Check tire tread wear, and move aircraft if necessary to view entire tire. Verify air valve cap is in place.
- ^BBrake Assembly CHECKED
 ⊕ Check brake lines and brake assembly and ensure attachments are secure. Check connecting points for hydraulic fluid leaks. Check brake pads for wear (approximately 1/16” or the thickness of a nickel is minimum allowable thickness for operation).

FUSELAGE, RIGHT

Door/Latch.....CHECKED/SECURE

- ✚ Verify door latch and door operates freely.

Comm/Nav Antennas.....SECURE/NO DAMAGE

- ✚ Verify communications and navigation antennas are secure and undamaged.

Fuselage.....CHECKED

- ✚ Check fuselage skin for damage.

EMPENNAGE

Horizontal Stabilizer (R/L).....CHECKED

- ✚ Check condition of horizontal stabilizer for dents or other damage.

Elevator (R/L).....CHECKED

- ✚ Verify elevator connection points are secure, elevator moves freely through entire range of motion, and is undamaged. Verify elevator trim tab is undamaged and free of foreign matter.

Elevator Static Wick (R/L)..... ATTACHED

- ✚ Verify elevator static wicks are attached and secure.

Rudder.....CHECKED

- ✚ Check rudder attachment points and cable connections. Verify rudder is undamaged.

Rudder Static Wicks ATTACHED

- ✚ Verify rudder static wicks are attached and secure.

^BTie Down.....REMOVED/STOWED

- ✚ Remove the tie down strap and stow securely in the aircraft.

FUSELAGE, LEFT

Fuselage.....CHECKED

- ✚ Inspect fuselage for any damage or loose fittings.

Door/Latch.....CHECKED/SECURE

- ✚ Verify door latch and door operates freely.

Pre-Flight Inspection ChecklistCOMPLETE

- ✚ Verify Pre-Flight Inspection checklist has been completed.

C/R	BEFORE ENGINE START
------------	----------------------------

- Aircraft Acceptance Check COMPLETE
 ☉ Verify Aircraft Acceptance check has been completed.
- Pre-Flight Inspection COMPLETE
 ☉ Verify Pre-Flight Inspection checklist has been completed.
- Passenger Briefing..... COMPLETE
 ☉ Brief all occupants on the location of all emergency exits, use of seat belts and harnesses, and emergency procedures in the event of an engine fire during engine start. Brief flight crew procedure for positive exchange of flight controls during ground and flight operations.
- Seats/Belts/Harnesses CHECKED/LATCHED
 ☉ Fasten seat belts/shoulder harnesses. Adjust seat to ensure full rudder travel, brake control, and proper exterior visibility from the desired seating position. Verify seat remains in position when maximum pressure is applied to the brakes. Brief all occupants on the use of seat belts and shoulder harnesses, and verify that all passengers are properly secured.
- Parking Brake..... SET
 ☉ Set parking brake ON.
- Avionics Master OFF
 ☉ Verify avionics master switch is OFF.
- Circuit Breakers CHECKED/IN
 ☉ Verify all circuit breakers are in or collared and placarded, if applicable.
- Fuel Selector BOTH
 ☉ Set fuel selector to BOTH.
- Before Engine Start Checklist..... COMPLETE
 ☉ Verify Before Engine Start checklist has been completed.

C/R	ENGINE START
------------	---------------------

External LightsAS REQUIRED

- ⊕ At minimum, ensure beacon is turned on. As necessary, turn on additional external lighting.

Battery Master ON

- ⊕ Turn battery master switch to ON position.

Propeller Area..... VERIFY L/C/R CLEAR

- ⊕ Verify area to the left, center, right, and behind the aircraft is clear of any personnel. Call out clearly and loudly “CLEAR PROP!” before engaging starter.

(NORMAL)

Fuel Shutoff Valve.....ON

- ⊕ Push fuel shutoff valve knob fully in to the ON position.

Throttle.....OPEN ¼ INCH

- ⊕ Push throttle approximately 1/4” forward.

Aux. Fuel Pump ON

- ⊕ Set the auxiliary fuel pump switch to ON for 3 – 5 seconds. If the engine is still warm from a previous flight, omit this step in the engine start procedure.

Mixture.....AS REQUIRED

- ⊕ Push mixture control full RICH until fuel flow indication is stable (usually 3 – 5 seconds), then set to IDLE CUT-OFF.

Aux. Fuel Pump OFF

- ⊕ Set the auxiliary fuel pump switch to OFF.

Starter..... ENGAGE

- ⊕ Insert key and engage starter. Starter cycles should not exceed 10 seconds, and must have 20 seconds between starting attempts. Do not exceed 3 cycles without seeking assistance from Maintenance.

NOTE

For a flooded engine start, turn Auxiliary Fuel Pump OFF, set Mixture to IDLE CUT-OFF, open throttle to ½ to full, and engage the starter. When engine starts, set Mixture smoothly to full RICH and promptly close the throttle.

Mixture.....RICH

- ⊕ Push mixture control smoothly to full RICH when engine starts.

- Throttle SET 800 – 1000 RPM
 ⚙ Set throttle to 800 – 1000 RPM for engine warm-up.
- Oil Pressure CHECK
 ⚙ Check oil pressure and ensure it is within normal operating limits. For cold weather operation, allow the engine to warm until oil pressure reading begins to increase to normal range.
- Avionics Master ON
 ⚙ Place avionics switch in the ON position.
- Electrical System CHECK
 ⚙ Verify that all required electrical system components are operating properly.
- Flaps UP
 ⚙ Retract flaps in increments to the UP position. Verify flaps retract smoothly and fully.
- Engine Instruments CHECK
 ⚙ Check engine tachometer, oil pressure, oil temperature, and EGT to ensure engine is operating within normal limitations.
- Engine Start Checklist COMPLETE
 ⚙ Verify Engine Start checklist has been completed.

C/R	TAXI
------------	-------------

The Pilot-In-Command **MUST** ensure that the flight crew maintains vigilance for other aircraft, personnel, vehicles, and objects at all times, especially during taxi operations in and around the parking ramp. Flight crews shall avoid head-down time (e.g. making changes to avionics settings, reading lesson plans) and avoid exchanges of flight controls or brakes and steering checks until *well* clear of other parked aircraft, vehicles, or structures.

CAUTION

*Proper taxi speeds play a significant role in collision avoidance.
 The PIC is responsible for ensuring the aircraft taxis at a speed consistent with safety.
 Always be attentive to taxi speed, and when in doubt, SLOW DOWN.*

- AvionicsSET AS REQUIRED
- ⊕ Set GPS #1 for primary navigation, and in-flight frequencies. Set COMM/NAV #2 for back-up navigation and ground frequencies.
- Transponder..... VERIFY STDBY
- ⊕ Set transponder to STDBY. Set VFR code if conducting VFR operations. For IFR operations, set transponder code in accordance with the IFR clearance, as received by ATC.
- Taxi Area..... VERIFY L/C/R CLEAR
- ⊕ Verify the taxi area is clear to the left, forward (center) and right of the aircraft in preparation for taxi.
- Parking Brake RELEASE
- ⊕ Release the parking brake.
- Brakes and SteeringCHECKED
- ⊕ Verify brakes are operational during initial movement out of parking space. Verify left and right steering is operational during taxi.
- Flight Instruments.....CHECKED
- ⊕ Check flight instruments during taxi to ensure proper operation.
- Taxi Checklist.....COMPLETE
- ⊕ Verify the Taxi Checklist has been completed.

C/R	BEFORE TAKEOFF
------------	-----------------------

- Heading INTO WIND
- ⊕ Point the nose of the aircraft into the wind to aid in engine cooling during run-up. Regardless of wind direction, avoid directing the prop wash toward personnel, other aircraft, hangars, etc.
- Parking Brake SET
- ⊕ Set the parking brake ON.
- Fuel Selector..... BOTH
- ⊕ Verify fuel selector is set to BOTH.
- Fuel Quantity VERIFY
- ⊕ Check fuel gauges to ensure their operation and approximate indication of known fuel level.

NOTE

In accordance with FAA regulations, fuel quantity indicators must only reflect an accurate level of fuel when the fuel tanks are empty.

Cabin Heat/Defrost..... AS REQUIRED

- ⊕ Set cabin heat/defrost as required for conditions. Allow warm-up time as appropriate for the weather conditions and crew/passenger comfort.

Flight Controls FREE/CORRECT

- ⊕ Verify flight controls are free and correct through entire range of movement.

Brakes HOLD

- ⊕ Verify that the pilot/flight crew has their feet on the brakes and the aircraft is secured against forward movement.

RUN-UP CHECK

Mixture RICH

- ⊕ Verify mixture is full forward.

Throttle 1800 RPM

- ⊕ Advance throttle to 1800 RPM on the tachometer.

Engine Instruments..... CHECKED

- ⊕ Verify all engine instruments are reading in their normal range. Oil pressure 50 – 90 psi, oil temperature 100 – 245° F, RPM 1800 and holding.

Ammeter CHARGING

- ⊕ Verify that the ammeter indicates a positive charge but is below load limit, and shows an additional load when additional electrical equipment is turned on (e.g. landing light).

Suction Gauge (If Installed)..... 4.5 – 5.5 Hg

- ⊕ Verify vacuum pump is producing 4.5 – 5.5 Hg. If pressure is low, verify RPM setting is correct. If no change, there may be a leak in the line or blockage within the system. Higher than normal reading may indicate an improper setting on the system. Return aircraft for maintenance if pressure remains outside normal limits.

Caution/Warning Lights CHECKED

- ⊕ Verify normal operation of all caution/warning lights.

Magnetos..... CHECKED

- ⊕ Turn ignition key to the Right magneto, verify RPM drop not more than 125 RPM. Return key to BOTH position and allow RPMs to stabilize. Repeat for the Left magneto and note RPM drop. Verify not more than 50 RPM difference between Right and Left magneto indications. Verify ignition is returned to BOTH position.

Alternate Static Source.....CHECKED

- ⊕ Pull alternate static source ON, verify slight climb in both Altimeter and VSI. Place alternate static source in the OFF position.

Throttle..... IDLE
 ⚙ Retard throttle to IDLE. Verify engine continues operating normally.

Mixture.....LEAN
 ⚙ Lean mixture for taxi. Remain at lean setting until ready to execute the Before Takeoff Checklist.

AFTER RUN-UP CHECK

Throttle Friction..... SET
 ⚙ Set throttle friction knob to allow free but controlled movement of the throttle.

Trim.....SET TAKEOFF
 ⚙ Set trim for takeoff using manual trim wheel and indicator on center column.

Flight Instruments..... SET
 ⚙ Verify Magnetic Compass casing is full of fluid and card is floating freely, and that the compass deviation card is legible. Verify clock is operating properly and is set to the correct time. Verify ASI indicates zero. Set the primary Attitude Indicator (AI) and standby AI (if installed) for straight and level flight; verify horizon is +/- 5° of level and does not show banking during taxi turns. Set Altimeter to the current local altimeter setting and verify that it is within 75' of the local field elevation. Verify that the Turn Coordinator shows wings level, no flag, and the inclinometer (ball) is centered.
 ⚙ Align the Heading Indicator or HSI with the Magnetic Compass. Note any variations from zero on the Vertical Speed Indicator (VSI). Set localizer frequency for departure airport (if available) and front course on OBS 1. Use OBS 2 for positional awareness using nearest VOR, or course to nearest GPS waypoint, as appropriate.

Navigation Radios/GPS SET TAKEOFF
 ⚙ Set GPS 1 for primary navigation to intended clearance limit (IFR) or initial waypoint along a pre-planned VFR flight plan. Verify that an IFR route or VFR flight plan is entered into GPS 1. Set NAV 2 as required.

Departure BriefingCOMPLETE
 ⚙ The PF shall conduct the departure briefing which will include but not be limited to the following:

1. Who will conduct the takeoff, and type of takeoff.
2. Aircraft flap configuration, and V_R speeds.
3. “Bridgewater Standard” departure, per the following example:

Bridgewater Standard departure - Any abnormalities before V_R , call the malfunction and abort the takeoff. Call “ABORT” and execute the appropriate checklist. In the unlikely event of an engine failure after takeoff, maintain aircraft control and conduct the appropriate Engine Failure During Takeoff checklist. Any problems after V_R and below 1000’, call the malfunction, maintain aircraft control, establish best glide 60-70 KIAS (flaps up) and execute the Engine Failure in Flight emergency checklist. Above 1000’, call the malfunction and execute the Engine Failure During Flight checklist and any subsequent checklists, as appropriate.

4. Initial altitude and route.
5. Review three-way positive exchange of the flight controls.
6. Sterile cockpit requirements below 1000’ AGL.
7. Brief the passengers, if applicable.

Sample Departure Briefing

“I will conduct the takeoff, flaps up, V_R is 55 KIAS. Bridgewater Standard, runway heading to 1000’ AGL before turning north to Practice Area Charlie. We will execute positive three-way exchanges of flight controls during all ground and flight operations. I am the acting PIC for this flight. In the event of a real urgency or emergency condition, the lesson is terminated and we will handle the situation as a team using crew coordination procedures. Sterile cockpit is in effect during the landing phase unless it is instructionally necessary. Do all passengers have their seat belts on and understand how to egress the aircraft? Any questions?”

- Taxi Route OBTAIN/VERIFY
- ✦ Obtain taxi instructions (assumes controlled airport) or indicate intended taxi route (non-controlled airport). Verify taxi route using current taxi diagram for the airport of operation. Ensure that both flight crew members are clear and in agreement of the required route, including any possible high-risk areas.
- Parking Brake.....RELEASE
- ✦ Release the parking brake, clear the area, and initiate the taxi.
- Before Takeoff Checklist..... COMPLETE
- ✦ Verify the Before Takeoff checklist has been completed.

V/R	LINE-UP
------------	----------------

- Doors..... CLOSED/LATCHED
 ☒ Verify pilot and co-pilot/passenger doors are closed and latched.
- Flight Instruments.....CHECKED
 ☒ Verify flight instruments are set for takeoff.
- Engine InstrumentsCHECKED
 ☒ Verify all engine instruments are showing normal indications.
- Trim.....SET/CHECKED
 ☒ Set trim for Takeoff using the trim indicator dial on the center column.
- FlapsSET/CHECKED
 ☒ Set flaps as appropriate for the takeoff being conducted.
- Heading SET TAKEOFF RWY
 ☒ Verify the assigned takeoff runway and verbalize required takeoff heading.

AFTER CLEARED ON TO RUNWAY

Flight crews are reminded NOT to request a takeoff clearance until they are prepared to execute the clearance promptly when it is received. Flight instruction should be kept to a minimum or, better yet, avoided after the clearance is received as the aircraft taxis into position for takeoff. This will help to avoid distractions and associated errors, minimize time taxiing onto the runway, and permit full vigilance for other traffic.

- External LightsAS REQUIRED
 ☒ Set external lighting to maximum available, appropriate to the conditions.
- Transponder.....SET ALT
 ☒ Set transponder to ALT.
- Mixture..... FULL RICH
 ☒ Set/verify mixture is full rich.
- Time Off.....NOTE
 ☒ Note time off. Time permitting, make notation on kneeboard.
- RWY Alignment..... SET/VERIFY
 ☒ Establish the aircraft on departure runway centerline and verify that the Compass and Heading Indicator or HSI show the correct takeoff heading.
- Line-Up Checklist.....COMPLETE
 ☒ Verify the Line-Up checklist has been completed.

V/R	CLIMB
------------	--------------

This checklist should be completed after the aircraft is safely established in a climb, reconfigured for the departure and above 500' AGL. Flight crews may initiate the checklist sequence so as to complete it upon reaching or climbing through 500' AGL.

^RClimb Power SET
 ☒ Verify throttle is set to FULL and the engine is developing full power.

Mixture FULL RICH
 ☒ Verify mixture is set to full rich.

^RFlaps UP
 ☒ After cleared of the obstacle (as appropriate) and established in a positive rate of climb, smoothly retract flaps, verify flaps are up.

^REngine Instruments CHECKED
 ☒ Verify all engine instruments are indicating normal operation.

^RTransponder VERIFY ALT
 ☒ Verify transponder has switched to ALT mode and the correct squawk code is set into the unit.

Climb Checklist COMPLETE
 ☒ Verify the Climb checklist has been completed.

V/R	CRUISE
------------	---------------

Cruise Power SET
 ☒ Set throttle to achieve desired cruise power setting.

Mixture LEAN AS REQUIRED
 ☒ Lean mixture to obtain best fuel flow for segment to be flown. Reference fuel flow gage and adjust as appropriate.

NOTE

Lean the mixture for maximum RPM during climbs above 3000'. The mixture may also be leaned for maneuvers such as stalls and flight at minimum controllable airspeed. Flight crews should lean the mixture for all operations at any altitude when using 80% or less power.

Engine Instruments CHECK
 ☒ Verify all engine instruments are indicating normal operation.

Trim.....AS REQUIRED

- ⊕ Set trim for “hands off” flying, as appropriate to the prevailing weather conditions.

Heading/CompassCHECK

- ⊕ Crosscheck Heading Indicator/HSI to Magnetic Compass and verify that Heading Indicator (if installed) accurately reflects compass reading. Under turbulent conditions or flight segments involving repetitive maneuvering, flight crews should make this check more frequently.

External LightsAS REQUIRED

- ⊕ Set external lights as required. Flight crews are encouraged to utilize maximum available lighting to increase their aircraft’s visibility to other traffic.

Cruise Checklist.....COMPLETE

- ⊕ Verify the Cruise checklist has been completed.

V/R	DESCENT
------------	----------------

This checklist will be completed prior to beginning the initial descent for arrival. Flight crews are reminded to adjust the aircraft altimeter to the local altimeter setting.

Seats/Belts/HarnessesCHECKED

- ⊕ Ensure flight crew and passenger (if applicable) seats are in proper position and locked. Verify all aircraft occupant seatbelts and harnesses are properly latched and secured.

Mixture.....ADJUST W/DESCENT

- ⊕ Adjust mixture as aircraft descends to account for changes in air density.

Throttle.....AS REQUIRED

- ⊕ Set throttle as required for the desired descent rate/airspeed.

Descent ChecklistCOMPLETE

- ⊕ Verify the Descent checklist has been completed.

C/R	APPROACH
------------	-----------------

NOTE

This checklist shall be completed prior to each landing, regardless of type of arrival. For repetitive landing operations, conduct the checklist once the aircraft is established in the downwind leg of the traffic pattern.

^RApproach Briefing COMPLETE

- ⊕ Conduct the approach briefing appropriate to the type of arrival (from cruise vs. repetitive pattern operations). Follow the example provided at the end of this section.

Fuel Selector BOTH

- ⊕ Verify the fuel selector is set to BOTH.

External Lights AS REQUIRED

- ⊕ Verify external lights are on, appropriate to prevailing weather conditions and visibility requirements. As a rule, flight crews should use maximum lighting for their aircraft when it is available, especially in higher-traffic environments.

Parking Brake VERIFY RELEASED

- ⊕ Verify the parking brake is OFF, and that the brakes are generating appropriate pressure (both pilot stations).

^RApproach Checklist COMPLETE

- ⊕ Verify the Approach checklist has been completed.

Approach Brief

Complete the Approach checklist not later than five (5) miles from the airport of intended landing or, for repetitive traffic pattern operations, after the aircraft is established on the downwind leg. During instructional flights the pilot flying will conduct the Approach briefing. For non-instructional flights, the pilot flying may transfer the flight controls or continue flying, at his/her discretion.

- ⊕ For repetitive traffic pattern operations, the briefing will contain:
 - The type of landing to be conducted, the landing runway, intended touchdown point, and how the landing will terminate (stop and go, touch and go, etc.).
- ⊕ For VFR arrivals from outside the traffic pattern, the briefing will contain the following:
 - The arrival runway, direction of traffic, point of intended landing, and which electronic backup will be used for the approach, if one is available. The brief may include any additional information deemed necessary by the PIC.

NOTE

Flight crews are strongly encouraged to use all available navigational aids, including during VFR conditions, to enhance situational awareness and ensure arrival at the correct airport on the correct runway. **FLY ASSERTIVELY - AVOID COMPLACENCY!**

- ✦ For IFR weather conditions, or for IFR training in VFR weather, the briefing will contain:
 - Name of the instrument approach.
 - Communication and navigation frequencies and identifiers.
 - Inbound final approach course.
 - Altitudes during the approach (e.g. procedure turn, initial, step downs, DA/DH/MDA, field elevation, or as appropriate). Note TDZE.
 - Verification of required navigational signal or GPS receiver status.
 - Missed approach procedure (missed approach point, initial course or heading, holding fix).
 - Any other information the PIC deems necessary.

C/R BEFORE LANDING

THIS CHECKLIST SHALL BE COMPLETED PRIOR TO EACH LANDING.

^RMixture FULL RICH

- ✦ Verify mixture is set to full rich.

^RFlaps AS REQUIRED

- ✦ Abeam the point of intended landing, set flaps as required for type of landing and prevailing weather conditions.

^RLanding Light ON

- ✦ Verify landing light is ON.

^RBefore Landing Checklist.....COMPLETE

- ✦ Verify the Before Landing checklist has been completed.

C/R	GO-AROUND
------------	------------------

- Pitch..... LEVEL ATTITUDE
 ⊕ Smoothly apply back elevator pressure to raise the aircraft nose to a level pitch attitude.
- Power..... SMOOTHLY TO FULL
 ⊕ Smoothly apply full power.
- Pitch..... POSITIVE CLIMB ATTITUDE
 ⊕ Adjust pitch attitude to initiate a climb. Set for V_X or V_Y as appropriate.
- Flaps AS REQUIRED
 ⊕ Set flaps as required for the environment and conditions. Consider leaving flaps extended if obstacle clearance requires a short-field performance climb.
- Airspeed..... AS REQUIRED
 ⊕ Establish V_X or V_Y climb airspeed as required and appropriate for the conditions. Maintain coordination throughout the maneuver.
- Flaps UP
 ⊕ After reaching 60 KIAS or greater, established in a positive climb, and clear of any obstacles ahead of the aircraft, smoothly retract flaps in increments. Verify full flap retraction, as appropriate.
- Go-Around Checklist COMPLETE
 ⊕ Verify the Go-Around checklist has been completed.

V/R AFTER LANDING

CAUTION

This checklist will be executed only AFTER the aircraft has taxied off and cleared the landing runway and has come to a complete stop.

Throttle..... 800-1000 RPM

⊕ Set throttle 800 to 1000 RPM.

Mixture..... LEAN

⊕ Lean mixture.

Flaps..... UP

⊕ Smoothly retract flaps.

External Lights AS REQUIRED

⊕ Set external lighting as required for the conditions. Flight crews are reminded to use common sense and professional courtesy when near other aircraft or personnel, and avoid use of lighting that can negatively affect another aircraft or vehicle operator's visibility.

Pitot Heat..... OFF

⊕ Verify pitot heat is turned OFF.

Transponder..... SET STDBY

⊕ Set transponder to STDBY.

Time On NOTE

⊕ Note time of arrival.

Taxi Route..... OBTAIN/VERIFY

⊕ Obtain taxi instructions (assumes controlled airport) or indicate intended taxi route (non-controlled airport). Verify taxi route using current taxi diagram for the airport of operation. Ensure that both flight crew members are clear and in agreement of the required route, including any possible high-risk areas.

After Landing Checklist..... COMPLETE

⊕ Verify the After Landing checklist has been completed.

Windows/Doors SECURED

- ✦ Exit the aircraft, removing all personal items (flight gear, water bottle, any paper logs, etc.) and ensuring the cabin is clean for the oncoming flight crew. Ensure windows are securely latched closed, and doors are closed and latched.

Tie-Downs.....INSTALLED/SECURED

- ✦ Ensure all tie-downs are properly installed and the aircraft is secured against movement.

Post-Flight InspectionCOMPLETE

- ✦ Conduct a post-flight walk-around of the aircraft to check for any new damage or items that require assistance from Maintenance. Inform BSC Dispatch immediately of any discrepancies that require Maintenance attention.

Parking & Securing ChecklistCOMPLETE

- ✦ Verify the Parking & Securing checklist has been completed.