The American Bonanza Society's Beechcraft Pilot Proficiency Program (BPPP)

Guide to Initial Pilot Checkout: Pressurized and Turbocharged Barons

Models 58P and 58TC

December 2012

The ABS/BPPP Guide to Initial Pilot Checkout for 58P/58TC Barons

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Contents

Using this Guide

The American Bonanza Society Air Safety Foundation highly encourages pilots receiving initial checkout (transition) training in a Beechcraft 58P or 58TC Baron to fly with an authorized instructor knowledgeable about the specific model of airplane to be flown, and current in its operation. Resources include ABS' Beechcraft Pilot Proficiency Program (BPPP), a wholly owned subsidiary of the ABS Air Safety Foundation, and individual Certificated Flight Instructors who have received systems, pilot techniques and instructor standardization training through the ABS Flight Instructor Academy. Information about BPPP live and online training, as well as a list of BPPP-standardized flight instructors, is available at www.bonanza.org.

Although ABS is significantly increasing the number of its standardized instructors, and the BPPP Online+Flight program serves as a thorough, convenient and affordable initial checkout experience, occasionally a pilot new to flying Beech airplanes or transitioning from one model of Beechcraft to another does not have the opportunity to complete BPPP training or fly with a BPPP-trained instructor. For that event the ABS Air Safety Foundation has created this training outline. It is intended for experienced flight instructors who may not have Beech experience, to address the most vital topics and operations during the critical transition in a 58P or 58TC. This outline is not intended as a substitute for a thorough checkout by an instructor knowledgeable about the specific make and model and current in flying the type. It cannot address all topics, and completing training described by the outline alone does not meet all the requirements of a Flight Review or an Instrument Proficiency Check, or corresponding requirements governing operations in countries other than the United States. Further, a necessary and thorough avionics checkout is outside the scope of this *Guide* because of the wide variety of avionics installed in individual aircraft. The *Guide to Initial Pilot Checkout* drives the pilot and instructor into the manuals to learn the basic safety and operating characteristics of Beech airplanes, to assist the pilot until such time he/she is able to complete type-specific training with a Beech-knowledgeable flight instructor.

Several supplemental documents referred to in this *Guide* are available for download from the *Guide to Initial Pilot Checkout* web page.

The *Guide to Initial Pilot Checkout* also serves as a training document for instructor pilots in the ABS Flight Instructor Academy.

Pilots completing this syllabus earn 50 points toward the **ABS AVIATOR** program. Earning recognition as an ABS AVIATOR may qualify the pilot for discounts on his/her aircraft insurance—ask your insurance agent or broker. See the ABS AVIATOR description at www.bonanza.org for program details.

Please direct any questions to absmail@bonanza.org or 316-945-1700.
Enjoy your introduction to the Beechcraft 58P or 58TC!

Transition Training Checklist

Aircraft systems review

ABS recommends both the pilot and the instructor independently read the entire Pilot's Operating Handbook (POH) and all POH Supplements for optional, installed equipment and STCs before beginning training. Then, review and discuss system design and operation with special emphasis on (but not limited to) the items listed below.

ITEM	TOPIC	TASK
1	POH Section II, Limitations	• Airspeed limitations • Changes in limiting speeds with altitude • Instrument markings • Weight and center of gravity limitations • Approved maneuvers and entry speeds • Minimum fuel required in each main tank for take-off and approved maneuvers • Flight in icing conditions prohibited (unless approved) • Kinds of Operations and Equipment List (KOEL) See the article on using the KOEL on the ABS website *Guide to Initial Pilot Checkout* page. • Any limitations contained in POH Supplements for installed optional or aftermarket equipment.
2	POH Section III, Emergency Procedures	• Emergency airspeeds • All Emergency Procedures checklists Listen to the podcast "Turbo Troubles" linked from the ABS website *Guide to Initial Pilot Checkout* page.
3	POH Section IV, Normal Procedures	• Airspeeds for Safe Operation • All Normal Procedures checklists • Pressurization system operation (58P) • Supplemental oxygen endurance calculations (if equipped) • Flight in Icing Conditions (if approved)
4	POH Section V, Performance	• Compute expected airplane performance for conditions the pilot anticipates to be "normal" and "possible" for his/her operation, to confirm the pilot's ability to use the charts.

ITEM	TOPIC	TASK
4	POH Section V, Performance (continued)	• Associated Conditions and Airspeeds necessary to get computed performance. • Adjustment to performance figures, Associated Conditions or Airspeeds from any POH Supplements for optional or aftermarket equipment.
5	POH Section VI, Weight And Balance	• Seating, baggage and equipment arrangements • Center of gravity (CG) shift with fuel burn • Necessity of computing landing condition CG as well as takeoff condition ◦ Discuss limits to flight endurance as needed to remain within CG limits for landing • Compute sample weight and balance for conditions the pilot anticipates to be "normal" and "possible" to confirm his/her ability to use the charts See "How to Make Weight and Balance Calculations" on the *Guide to Initial Pilot Checkout* page at www.bonanza.org. • Adjustment to weight and balance limitations or characteristics from any POH Supplements for optional or aftermarket equipment
6	POH Section VII, Systems Description: **Doors, Windows and Exits** Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.	• Procedure to properly secure and check the forward cabin door • Securing forward and aft doors for pressurized flight (58P) • Operation of the forward cabin door seal (58P) • Procedure to open the doors after pressurized flight (58P) • Operation of aft cargo or utility doors (58TC) • Operation of emergency exits • Passenger emergency exit briefing • Airspeed limitation on pilot's storm window • Procedures following open forward cabin door on takeoff and in flight **WARNING:** Any window scratch deep enough to catch your fingernail makes pressurized flight prohibited.

ITEM	TOPIC	TASK
7	POH Section VII, Systems Description: **Seats** Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.	• Seat adjustment • Seat belt and shoulder harness use for pilots and passengers

8	POH Section VII, Systems Description:
	Flight Controls
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Operation of throw-over control yoke, if equipped
		• Adjustment of rudder pedals
		• Trim system
		  • Operation
		  • Position indication
		  • Takeoff position
		• Electric pitch trim
		  • Operation
		  • Preflight check
		  • Pitch trim runaway emergency procedure
		• Autopilot
		  • Operating modes
		  • Annunciation
		  • Preflight check
		  • Coupled operations
		  • Flight Director operation

9	POH Section VII, Systems Description: **Flaps** Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.	• Flap switch operation • Flap position indicating system • Flap limit speeds

ITEM	TOPIC	TASK

10	POH Section VII, Systems Description:
	Engine and Propeller
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Cowling latch operation
		• Cowl flap operation and indicators, and when to open cowl flaps
		• Alternate induction air system operation
		• Starter
		  • Operation, including STARTER ENERGIZED annunicator if equipped
		  • Starter limitations
		• Manifold pressure gauges
		• Fuel flow indicators
		• Starting
		  • Normal, hot and flooded start procedures
		NOTE: Starting procedures for the Bendix fuel injection system are different from other Continental engines. Starting with the mixture control in other than the IDLE CUTOFF position at the beginning of start may damage the fuel control diaphragm.
		  • Ammeter/Loadmeter indications after engine start
		• Takeoff and climb power recommendations
		  • Mixture control during takeoff and climb
		  • High density altitude takeoffs
		  • Temperature management during climb
		• Leaning using the Turbine Inlet Temperature (TIT), Exhaust Gas Temperature (EGT) and engine monitors
		  • Alternative leaning techniques
		  • Rich of Peak EGT (ROP)
		  • Lean of Peak EGT (LOP)
		• Powerplant limitations
		• Powerplant instrument markings
		• Engine preheat recommendations
		• Continental Motors recommendation on minimum cruise RPM (CSB09-11)
		  • Avoid continuous operation below 2300 RPM

ITEM	TOPIC	TASK

11	POH Section VII, Systems Description:
	Fuel System
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Total fuel quantity
		• Usable and unusable fuel
		• Fuel system limitations
		  • Minimum fuel quantity in each main tank for takeoff
		  • Long range fuel tanks (auxiliary wingtip tanks)
		  • Filling an inboard tanks to the top of the filler port puts about 2.5 gallons of fuel in that wing's auxiliary tip tank
		  • Maximum continuous slip
		  • Crossfeed limitations
		• Fuel system preflight inspection
		  • Fuel strainer locations
		  • Fuel vent locations
		  • Recommendation to run engines in CROSSFEED for one minute each before taxiing from the ramp
		• Fuel tank selection
		  • Crossfeed
		• Use of the auxiliary fuel pumps
		• If equipped with long range fuel tanks (auxiliary wingtip tanks):
		  • Wingtip tank capacity
		  • Wingtip tank fuel strainer and vent locations
		NOTE: Cockpit fuel indicators will indicate full until all fuel is drained from the auxiliary wingtip tanks
		• Confirming fuel state while en route

ITEM	TOPIC	TASK

12	POH Section VII, Systems Description:
	Landing Gear
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Landing gear switch operation
		  • Maximum extension speed
		• Landing gear position indicators
		• Landing gear warning horn and annunciator (as appropriate)
		• Landing gear squat switch(es) do not always prevent gear retraction on the ground
		• Throttle position to retract gear (as appropriate)
		• Confirming gear extension
		  • Sound
		  • Aerodynamic effect (attitude change)
		  • Performance effect (power, vertical speed)
		  • Position indicators check
		  • Optional external gear mirrors check
		• Manual extension procedure
		  • Use the checklist
		  • Landing gear motor circuit breaker
		  • Crank until reaching the hard stop
		• Gear up and gear collapse mishaps account for nearly half of all reported Beechcraft accidents
		  • Constant attention to landing gear strategy
		• Landing gear strategy
		  • “Gear down to go down”:
		  • Gear down at the Final Approach Fix
		  • Use gear extension to begin the final descent from pattern altitude
		  • Do not release the gear switch until extension is complete and you have confirmed gear position
		  • “Down and locked” check on short final
		  • Do not retract flaps, etc. during landing roll, to avoid inadvertent gear retraction

ITEM	TOPIC	TASK

13	POH Section VII, Systems Description:
	Brakes
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Brakes operation
		  • Presence or lack of brakes on the copilot's side
		  • If there are no brakes on the copilot's side, need to brief on how instructor will command the pilot to increase braking when needed
		• Parking brake operation
		  • Apply brake pressure, then trap pressure by pulling the parking brake valve
		  • Do not leave parking brake set for long periods

14	POH Section VII, Systems Description: **Electrical System** Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.	• Normal system • Alternate battery buss system (if equipped) • Monitoring systems and annunciators

15	POH Section VII, Systems Description:
	Environmental System
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Cabin ventilation system operation
		• Heater operation
		• Maximum defroster operation
		• Air conditioning system operation
		  • Limitations
		  • Reduce all performance by 5% when air conditioner is operating (as applicable)
		• Pressurization system operation (58P)

16	POH Section VII, Systems Description: **Pitot/Static System** Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.	• Optional emergency static air source operation • Instrument calibration/corrections while using the emergency system

ITEM	TOPIC	TASK

17	POH Section VII, Systems Description:
	Instrument Air System
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Pressure system
		• Normal “green arc” indication on the cockpit gauge
		• Factory or aftermarket backup instrument air sources
		  • GYRO WARNING and STANDBY AIR annunciator lights
		  • Operation of the backup system
		  • Which instruments are powered by the

18	POH Section VII, Systems Description:
	Ice Protection Systems
	Note: Although most information on this topic comes from Section VII or the POH or appropriate POH Supplements, some items reference Section II, Limitations, Section V, Performance, or other sources.
		• Deice vs. anti-ice systems
		• Approval for flight in icing conditions
		  • Environmental conditions that are not approved under “known ice”
		• Surface deice system operation
		• Windshield anti-ice systems
		  • Electrothermal
		  • Fluid-flow (alcohol)
		• Electrothermal propeller deice
		• Pitot heat
		• Stall warning anti-ice
		• Heated fuel vents

19	POH Section IV, Normal Procedures	• Review preflight inspection checklist

Knowledge Questions

At a minimum, the pilot must be able to answer these questions:

1. What is the total usable fuel?
2. What is the endurance with a one-hour reserve at 75% power at 15,000 feet?
3. What is the maximum and minimum oil capacity in quarts?
4. How much payload can the airplane carry with all fuel tanks full?
5. How much fuel can you carry under the following conditions?
    - Total front seat occupants weight = 400 lbs
    - Total Seats 3/4 occupant weight is 300 lbs
    - Total aft baggage weight is 120 lbs
6. Assuming you load that amount of fuel for takeoff and with that cabin load, after burning 80 gallons of fuel will the center of gravity be within limits?
7. What is the maximum demonstrated crosswind component?
8. What are the indications of an instrument air system failure?
9. When should you extend the landing gear during an instrument approach?
10. When should you extend the landing gear during a visual/VFR traffic pattern approach?
11. How do you verify landing gear extension?
12. When should you retract flaps after landing?
13. When should the cowl flaps be open?
14. How will you lean the mixture for takeoff? Climb? Cruise? Descent? Landing?
15. How many fuel drains are there?
16. What is the procedure for an unlatched forward cabin door on takeoff? In flight?
17. (58P) How do you properly secure the forward and aft cabin doors for pressurized flight?
18. (58P) How do you open the cabin doors after pressurized flight?
19. (58P) How do you determine whether pressurized flight is permitted if a window is scratched?
20. When and how do you use the auxiliary fuel pumps?
21. From the moment you taxi onto the runway for departure, what is the sequence of events (airplane configurations, actions, airspeeds, attitudes) for a normal takeoff without obstacles?
22. (58P) How do you control and monitor cabin pressurization for takeoff, climb, descent and landing?
23. What should be your actions following a loss of engine power in cruise flight?
24. What should you do if an engine loses power immediately after takeoff?
25. What is the Emergency Descent procedure?
26. What is the single-engine landing procedure?
27. What limitations exist on flight in icing conditions?
28. If the landing gear will not extend, what should you do?

Pilot and Instructor Preflight Check and Briefing

ITEM	TOPIC	TASK
1	Comply with all regulatory, certification and recency of experience requirements applicable to the flight.	• FAR 61, 91requirements for Pilot-in-Command • FAR 91.109 requirements for instructional flight in aircraft with single flight control See the ABS website *Guide to Initial Pilot Checkout* page for sources of dual control rental if needed.
2	Comply with any insurance requirements.	• Ensure the pilot is authorized to receive instruction in the airplane under the owner's aircraft insurance policy (see "Approved Pilots" in the policy) • Ensure the flight instructor meets the aircraft insurance policy Open Pilot Warranty or is otherwise authorized to provide flight instruction under the owner's insurance policy. • Review and comply with any insurance policy pilot checkout and/or dual instruction requirements before solo and/or carrying passengers. Contact the aircraft owner's insurance agent or broker to answer any questions before flying.
3	Assess pilot and instructor readiness for flight.	• IMSAFE model
4	Briefing	• Review the pilot's completed BPPP Speed Sheet • Review flight syllabus and goals

Aircraft Preflight Check

ITEM	TOPIC	TASK
1	Aircraft documents	• Required documents (FAR Parts 91) • Required inspections and certifications (FAR Parts 43, 91) • Current GPS database, if IFR GPS is to be used
2	Compliance with recurring and one-time Airworthiness Directives	Including but not limited to: • Uplock rollers last lubed and when next due See the following items on the ABS website *Guide to Initial Pilot Checkout* page: • How to conduct an Airworthiness Directives search for your aircraft • Checklist for subscribing to receive Airworthiness Directives (ADs) and Special Airworthiness Information Bulletins (SAIBs) by email
3	Tracking airplane maintenance and inspection status	• Discuss creating an aircraft status board or spreadsheet.

4	Preflight inspection	• Conduct preflight inspection of the aircraft using the POH checklist, with special emphasis on:
		  • Landing gear manual handcrank stowed and accessible (not blocked by spar cover)
		  • Main landing gear roller bearings free to rotate
		  • Main landing gear uplock and downlock springs and cables
		  • Condition of aft fuselage and empennage
		  • Determining fuel available in each tank
		  • (58P) Cabin window check

Flight Training

General recommendations

These recommendations come from experience as techniques for avoiding the most common causes of Baron accidents:

- Do not perform touch and goes. There is a high correlation between touch and goes and inadvertent landing gear retraction on the runway. A large number of loss-of control crashes also occur during the high-workload on-runway phase of a touch and go. Make all landings to a full stop and take time to reconfigure for another takeoff and traffic pattern.
- Do not retract flaps during the landing rollout. Reconfigure the airplane only after coming to a stop on the taxiway after clearing the runway.
- Be familiar with the weight and balance of your airplane. As fuel burns the CG moves aft. You should compute two weight and balance problems or each flight—one with fuel and cabin load prior to takeoff, the other with the fuel calculated to be remaining when you arrive at your destination or alternate. You may be under maximum gross weight and within the CG envelope at departure but beyond the aft limit upon reaching your destination. 58P and 58TC Barons may be forward out of limits with full fuel and only the front seats occupied.
- Plan on having a minimum of one hour of fuel on board upon arriving at your destination or alternate. Avoid a planned fuel stop within one hundred miles or one hour of your destination. There is a great temptation to fly over the fuel stop and continue to your destination.
- Always use checklists to verify your actions. Before landing use GUMPPS:
    - Confirm the *G*as (fuel) selector is on a main tank that has adequate fuel for approach, landing and, if necessary, missed approach or balked landing and climb before you begin your descent from cruise flight.
    - Make sure the *U*ndercarriage (landing gear) lever is down and indicators confirm gear down.
    - Set the *M*ixture to full rich or as required by field elevation.
    - Put the *P*ropeller control the high RPM and set the *P*ressurization controls (58P).
    - Turn on the fuel boost pump *S*witches.
- Undertake a program to insure your currency. Each month select a new area of concentration. Examples include: instrument currency; night operations; short, soft and crosswind takeoffs and landings; GPS operations; slow flight and stall recognition and recovery; etc. See training opportunities recognized by the ABS AVIATOR program for ideas.

A checkout following the checklists in this *Guide* covers only the basic information absolutely necessary for initial transition training. Plan on completing BPPP (Online+Flight or LIVE) as soon as possible to learn much more about your Baron and how to safely fly it to is maximum potential. See www.bonanza.org for course descriptions and details.

By the Numbers:
Power, Attitude, Configuration (PAC) Chart

58P/58TC Pressurized/Turbocharged Barons

CONDITION	MP	RPM	ATTITUDE	GEAR	FLAPS	KIAS	VSI	TRIM
Initial climb	FT	MAX	+7°	UP upon positive rate	UP	Per POH	↑XXX	Per POH
Cruise climb	34”	2400	+7°	UP	UP	130	↑XXX	As req’d
Cruise	As desired	As desired	Level	UP	UP	XXX	0	0 to 2 down
En route descent	As desired	As desired	-2°	UP	UP	Green arc	As desired	As needed
Approach (level)	22”	2400	+2°	UP	APPROACH	120	0	+3° to +5°
Precision descent	22”	2400	+2°	DOWN	APPROACH	120	↓500 - 600 fpm	+0° to -3°
Nonprecision descent	20”	2400	+2°	DOWN	APPROACH	120	↓800 - 1000 fpm	+3° to +5°
MDA level	27”	2400	+2°	DOWN	APPROACH	120	0	+3° to +5°
Missed approach	34”	2400	+7°	UP	UP	130	↑XXX	+3° to +5°

Reducing manifold pressure by one inch results in a roughly 100-fpm descent.
A 5-inch reduction in MP results in a 500 fpm descent.

The “By the Numbers” technique has been taught since World War II to provide a simple, consistent way to conduct flight, especially instrument flight, yet it is not widely taught to pilots of personal airplanes like the 58P and 58TC. For attitude reference, adjust the airplane bar to the horizon during level cruise flight and do not adjust further. Power settings and airplane configurations will result in the approximate performance tabulated. Adjust these numbers as necessary for your airplane under current conditions.

Flight Training Syllabus

Syllabus items may take several flights to accomplish, and may be presented in any order as conditions require and/or at the discretion of your instructor. Your instructor may incorporate Scenario-Based Training (SBT) techniques but should ensure that, at a minimum, all listed Tasks are covered during your checkout.

There is no set amount of time required to complete the checkout. An inexperienced or non-current pilot, or a pilot not experienced flying high-performance single– or twin-engine piston airplanes, may require longer to complete the training than a current pilot experienced flying similar aircraft. In all cases the instructor should use the Federal Aviation Administration's guidance from the Practical Test Standards, including judgment that the pilot "demonstrates mastery of the aircraft in the tasks performed with the successful outcome of each task performed never seriously in doubt."

Upon completion of the syllabus the instructor shall log all ground and flight instruction time in the pilot's log book in accordance with Federal Air Regulations. The instructor may reference the use of the ABS/BPPP Guide to Initial Pilot Checkout as a reference for such training, but doing so does not imply ABS, ABS Air Safety Foundation or BPPP endorsement of the instruction received.

The instructor may endorse the pilot for a Flight Review and/or an Instrument Proficiency check entirely at the instructor's discretion. Whether or not the instructor provides such endorsements, he/she should recommend additional study, practice, and/or dual flight instruction for the pilot to improve his/her skills, and suggest a regimen of recurrent training that should include participation in BPPP online or live training to learn more about the Beechcraft 58P or 58TC.

Flight Training Syllabus

ITEM	TASK	AMPLIFICATION
1	Preflight inspection	• Orderly habit pattern • Special emphasis items • Checklist use • (58P) Securing doors for pressurized flight
2	Startup and taxi	• Cockpit flows and checklists • Develop an orderly cockpit for single-pilot operations • Do not program avionics (GPS) while taxiing

3	Takeoff and initial climb	• Flows and checklist use
		• Technique and speeds per the POH performance charts
		  • Normal takeoff
		  • Crosswind takeoff
		  • Short-field takeoff
		• Engine management including mixture control
		• (58P) Pressurization system managment
		• Use of the Power, Attitude and Configuration (PAC) recommendations
		• Forward cabin door unlatched:
		  • Do not attempt to close the door in flight
		  • The airplane flies nearly the same with the door open
		  • Land and then secure the door

4	Cruise climb	• Flows and checklist use • Engine and mixture management • Step climb • (58P) Pressurization system management • Oxygen use (as applicable)

ITEM	TASK	AMPLIFICATION
5	Level-off and cruise	• Flows and checklist use • Engine and mixture management • Fuel management • (58P) Pressurization system management
6	Normal maneuvering	• Standard rate turns • Normal (30° bank) turns
7	Steep turns	• Begin below weight-adjusted V_A • Reduce published V_A by 2 knots for every 100 pounds below maximum weight
8	Slow flight	• Mixture: Full Rich • Cowl flaps: Open • Monitor cylinder head temperature (CHT) and oil temperature. Exit slow flight if either becomes excessive.

9	Spiral tendency demonstration and recovery	• Enter at 100 to 120 knots
		• Allow the airplane to roll to 50° to 60° bank (do not exceed 60°)
		• Recover at V_A or 60° bank, whichever is reached first
		  • Wings level
		  • Gear down as needed
		  • Power idle until in a climb attitude
		  • Normal climb attitude
		• In recovery, forward pressure will be needed on the controls to prevent excessive pitch up and potential overstress
		See the article “Demonstrating the Spiral Tendency and Recovery” on the ABS website Guide to Initial Pilot Checkout page.

10	Stall recognition and recovery	• Mixture: Full Rich or as required by altitude • Keep ailerons neutral and ball centered prior to stall and during recovery (instructor may need to block movement of the controls)

ITEM	TASK	AMPLIFICATION

10	Stall recognition and recovery (continued)	• Do not practice stalls with fuel in optional tip tanks
		  • The weight of fuel may introduce or amplify roll, making recovery difficult
		• Approach to landing stalls
		  • Power idle
		  • Gear down
		  • Full flaps
		  • Descend ~500 fpm
		  • Trim off pressures
		  • Increase Angle of Attack until the wing stalls
		  • Recover
		• Takeoff and departure stalls
		  • Power: 20” MP to full throttle
		  • Gear up
		  • Flaps up
		  • Trim set for takeoff
		  • Climb steeply
		  • Increase Angle of Attack until the wing stalls
		  • Recover
		• Accelerated stalls (Approach and/or Takeoff)
		  • Bank no more than 30°
		  • Stall occurs at a higher indicated airspeed (“accelerated”)
		• Balked landing (Trimmed) stalls
		  • Takeoff stalls with pitch trim set to the typical landing position
		  • 15 to 20 units up unless loaded well aft

ITEM	TASK	AMPLIFICATION

11	Simulated engine failure/ power off glide	• Demonstrate only at altitude in VMC after clearing for traffic, including below
		• Do not initiate a simulated engine failure below 5000 ft AGL
		• Do not initiate a simulated engine failure below Vyse (Blue Line) speed
		• Reduce engine temperatures gradually prior to initiating demonstration
		• Simulate engine failure, troubleshooting (if time permits) and feathering
		  • Simulate engine failure with a gradual throttle reduction
		  • Do not initiate failure with mixture or fuel selector controls
		• Single-engine maneuvering
		• Air start
		• Simulated engine failure to zero thrust
		  • 12”MP/prop on detent
		• Single engine maneuvering
		• Single engine approach and landing
		  • If initiating a simulated or actual go-around from below 500 feet AGL, advance both engines to climb power and discontinue single-engine maneuvering

12	Manual landing gear extension	• Checklist use • Slow to 100-110 knots • Continually check for traffic during demonstration • Pilot should move the seat aft and recline the seat back. The front passenger should move the seat forward for better access to the manual gear hand crank. • Extend the gear without using the autopilot (simulating a total electrical failure) • Discuss using the autopilot during gear extension See the article “Manual Landing Gear Extension Technique” on the ABS website *Guide to Initial Pilot Checkout* page.

ITEM	TASK	AMPLIFICATION

13	Instrument procedures	• VFR only pilots
		  • PACs demonstration
		  • Approach level
		  • 500 fpm descent
		  • 800 fpm descent
		  • Missed approach
		  • Basic attitude flight
		  • Recovery from unusual flight attitudes
		  • Level, 180° escape turn
		  • Use of autopilot for escaping IMC
		• IFR pilots wishing to exercise instrument rating privileges
		  • PACs demonstration
		  • Approach level
		  • Precision approach descent
		  • Non-precision approach descent
		  • MDA level off/Circling
		  • Missed approach
		  • Flows and checklist use
		  • Approach set-up and briefing
		  • Instrument Proficiency Check items as required by Part 91 and IFR Practice Test Standards Rating Task Table (p. 1-vii)

14	Visual approach and landing	• Flows and checklist use • Normal and crosswind landings • Short-field landing • (58P) Pressurization system management • Simulated single-engine landing (zero thrust) • No-flap landing • Rejected landing (“go-around”) • Do not perform touch and goes • Do not reconfigure the airplane during the landing roll. Clear the runway and come to a stop on the taxiway before retracting flaps, etc.

ITEM	TASK	AMPLIFICATION
15	Taxi and shutdown	• Flows and checklist use • (58P) Opening doors after pressurized flight
16	Post-flight inspection	• Exterior walk-around to detect and issues that should be addressed before the next flight
17	Debriefing	• Review of all tasks and maneuvers • Any questions from the pilot • Suggestions for additional study, practice and/or dual flight instruction • Suggestions for a regimen of regular recurrent training, including participation in BPPP online or live instruction • Discussion of personal minimums, especially in the pilot's first 100 hours in the specific aircraft • Logbook entries • Endorsements at the discretion of the instructor

ABS welcomes pilot and instructor comments on the Guide to Initial Pilot Checkout, as well as suggestions for additional and improvement. Please post your reviews and comments on the ABS Hangar Flying bulletin board Flight Instruction forum, or send them to asf@bonanza.org.

I hope this *Guide* has made you a better pilot and instructor.

Thomas P. Turner
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