

Pilot Name:

Instructor Name:

Date:

# Aircraft Checkout

**Beech Baron B55** (TC-1608 thru TC-2002)

**\*\* (Assume max gross wt & zero wind unless specified)\*\***

1. V-speeds (please specify KTS or MPH)

V <sub>R</sub>	
V <sub>X</sub>	
V <sub>Y</sub>	
V <sub>SSE</sub>	
V <sub>XSE</sub>	
V <sub>YSE</sub>	
V <sub>MC</sub>	
V <sub>cruise climb</sub>	
V <sub>A</sub>	
V <sub>NO</sub>	
V <sub>FE</sub>	
V <sub>LE</sub> & V <sub>LO</sub>	
V <sub>Ref (final approach)</sub>	
V <sub>S (clean)</sub>	
V <sub>SO (flaps &amp; gear down)</sub>	

<b>Note to all:</b> Falcon Field has three colors of airplane tiedowns: White: Falcon Executive Aviation Red: Transient and overflow parking Yellow: Private/ rented- DO NOT USE
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2. What is the max demonstrated crosswind? \_\_\_\_\_
3. Does the B55 Baron have a maximum zero-fuel weight? If so, what is it? \_\_\_\_\_
4. What is max ramp weight? Max takeoff & landing weight? Why are they different? \_\_\_\_\_  
\_\_\_\_\_
5. What are the max weights for: a) nose baggage; b) area behind 2nd row seats; c) rear baggage area ?  
\_\_\_\_\_  
\_\_\_\_\_
6. Calculate weight & balance for: pilot/ front passenger 380 lbs., 2nd row passenger 170 lbs., baggage 240 lbs., and full fuel. Where will you put the baggage? Is the plane within limitations? If not, what can be done? \_\_\_\_\_  
\_\_\_\_\_
7. What is short field ground roll and total distance to clear a 50 ft. obstacle at 5,000 ft field elev. field elev. with 29.92" altimeter setting & 80° F? \_\_\_\_\_
8. What is your expected *normal* (not published short) *takeoff total distance* to clear trees at 5,000 ft field elev. with 29.92" altimeter setting & 80° F? \_\_\_\_\_
9. What is accelerate/stop distance for 40° C, 3500' Pressure Alt? \_\_\_\_\_
10. What is the max weight for Accelerate-Go in the conditions in # 9 ? \_\_\_\_\_
11. What's normal best climb rate for 40° C, 2500' Pressure Alt? \_\_\_\_\_
12. What's single-engine climb rate for the conditions in # 11 ? \_\_\_\_\_

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13. What's your expected *normal* (not published short) landing distance for 90° F, 3500' Pressure Alt?

\_\_\_\_\_

14. What is this Baron's usable fuel capacity? What grade? \_\_\_\_\_

15. How many gallons does it burn per hour @ full-power climb? @ 75% cruise? \_\_\_\_\_

16. How many quarts of oil minimum & maximum would you use? What type? \_\_\_\_\_

17. Does this plane have alternators or generators? How many volts do they and the battery supply?

\_\_\_\_\_

18. Explain how electrical power is created by the engines and supplied to the system. \_\_\_\_\_

\_\_\_\_\_

19. What's the definition of  $V_{MC}$  including under what conditions? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

20. Where is the battery? Where is the gpu port? Does this affect which engine is started first?

\_\_\_\_\_

\_\_\_\_\_

21. What are the procedures for a short field takeoff? \_\_\_\_\_

\_\_\_\_\_

22. Describe how the landing gear system works, and how quickly it should take to cycle up or down.

\_\_\_\_\_

23. Normal braking action may come from what stations? \_\_\_\_\_

24. What holds the gear in place (up & down)? \_\_\_\_\_

25. How do you know the gear is in transit? When it is up? \_\_\_\_\_

\_\_\_\_\_

26. What does it mean when only 2 of 3 green gear lights come on? \_\_\_\_\_

\_\_\_\_\_

27. What is the procedure for manually extending the gear? What's the max speed for this? \_\_\_\_\_

\_\_\_\_\_

28. When will the gear warning horn sound? \_\_\_\_\_

\_\_\_\_\_

29. If you select gear up on the ground, will anything stop it? How does it work? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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30. If you apply rudder while the gear is retracting, will it interfere with the nose wheel going into the well? Explain why or why not. \_\_\_\_\_  
\_\_\_\_\_
31. What are the auxiliary fuel pumps used for? \_\_\_\_\_  
\_\_\_\_\_
32. What is the procedure for a cold start? \_\_\_\_\_  
\_\_\_\_\_
33. What is the procedure for a hot start? \_\_\_\_\_  
\_\_\_\_\_
34. What does it mean if a load meter reads zero during flight? What else do you check & what do you do? \_\_\_\_\_  
\_\_\_\_\_
35. Explain what the cowl flaps are for and when they are moved. \_\_\_\_\_  
\_\_\_\_\_
36. What can you do if you have to follow slower traffic in the pattern? What's the traffic pattern altitude at Falcon Field for this aircraft? \_\_\_\_\_  
\_\_\_\_\_
37. What brand, displacement, & horsepower are the engines? Are they different? \_\_\_\_\_  
\_\_\_\_\_
38. What pushes the props toward low RPM? High RPM? \_\_\_\_\_  
\_\_\_\_\_
39. If an engine fails, how quickly can the prop be feathered? \_\_\_\_\_
40. How can the engine be unfeathered, if needed? \_\_\_\_\_  
\_\_\_\_\_
41. A \_\_\_\_\_, operated by centrifugal force, prevents feathering below \_\_\_\_\_ RPM. What effect does this have on the runup? \_\_\_\_\_  
\_\_\_\_\_
42. What systems are available if the air intake or filter become clogged? How do they work? \_\_\_\_\_  
\_\_\_\_\_
43. How many positions does each fuel selector have, and what are they? \_\_\_\_\_  
\_\_\_\_\_

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44. Describe the fuel system, how many tanks, and how it delivers fuel to the cylinders and what happens if too much fuel or vapor is brought to the engine. \_\_\_\_\_

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45. While starting, you notice smoke or flame coming out of the cowling. What is the most likely cause and what would you do? (Explain each option) \_\_\_\_\_

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46. What kind of airspace is Falcon Field, and are there any Mode C requirements? \_\_\_\_\_

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47. What is the floor of Phoenix airspace to the west? Over Falcon Field north, south, & east? \_\_\_\_\_

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