

# MVP Aviation Pre-Solo Knowledge Test

NAME: \_\_\_\_\_ DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

RESULTS: \_\_\_\_\_%

CORRECTED to 100% \_\_\_\_\_ CFI Signature, DATE \_\_\_\_/\_\_\_\_/\_\_\_\_

Per: **14 CFR 61.87** Solo requirements for student pilots, **Aeronautical Knowledge**

## Knowledge Exam (expect 2-3 hours)

Sources Cited (e.g. 14 CFR 91.13)

1. What personal documents and endorsements are you required having before you fly solo?

- \_\_\_\_\_ (14 CFR 61.3)
- \_\_\_\_\_ (14 CFR 61.3)
- \_\_\_\_\_ (14 CFR 61.3)
- \_\_\_\_\_ (14 CFR 61.87n)

2. What are your limitations as a student pilot regarding carrying of passengers or cargo and flying for compensation or hire?

\_\_\_\_\_ (14 CFR 61.89)

3. Who has the final authority and responsibility for the operation of the aircraft when you are flying solo?

\_\_\_\_\_ (14 CFR 91.3)

4. What are your weather minimums?

\_\_\_\_\_ ((14 CFR 61.195 (d)(ii))

5. Discuss what preflight action concerning the airport and aircraft performance is specified in the regulations for a local flight.

\_\_\_\_\_ ((14 CFR 91.103 (b))

6. What are the general requirements pertaining to the use of safety belts and shoulder harnesses?

- \_\_\_\_\_ ((14 CFR 91.107 (a)(1))
- \_\_\_\_\_ (14 CFR 91.107 (a)(2))
- \_\_\_\_\_ ((14 CFR 91.107 (a)(3))
- \_\_\_\_\_ ((14 CFR 91.105 (a))
- \_\_\_\_\_ ((14 CFR 91.105 (b))

7. What is the minimum fuel reserve for day VFR flight and on what cruise speed is the fuel reserve based?

\_\_\_\_\_ ((14 CFR 91.151 (a)(1))

8. What aircraft certificates and documents must be on board when you are flying solo?

- \_\_\_\_\_ ((14 CFR 91.203 (a)(1))
- \_\_\_\_\_ ((14 CFR 91.203 (a)(2))
- \_\_\_\_\_ (FCC 47 CFR 87.18)
- \_\_\_\_\_ 14 CFR 21.5 ((14 CFR 91.9 (b)(1))
- \_\_\_\_\_ ((14 CFR 91.103 (b)), 91.9  
(formerly 91.31), AC 60-6B, Type Certificate Data Sheet

9. Discuss the right-of-way rules regarding overtaking another aircraft, approaching head-on and another aircraft converging from the side.

- \_\_\_\_\_ ((14 CFR 91.113 (f))
- \_\_\_\_\_ ((14 CFR 91.113 (e))
- \_\_\_\_\_ ((14 CFR 91.113 (d))

10. Who has the right-of-way when two aircraft are on final approach to land at the same time?

- \_\_\_\_\_ ((14 CFR 91.113 (g))

11. A transponder with Mode C is required at all times in all airspace at and above \_\_\_\_\_ ft MSL, excluding that airspace at and below \_\_\_\_\_ ft AGL.

- \_\_\_\_\_ ((14 CFR 91.215(b)(5)(i))

12. Except when necessary for takeoffs and landings, what are the minimum safe altitudes when flying over congested and other than congested areas?

- \_\_\_\_\_ ((14 CFR 91.119 (b,c))

13. If the altimeter setting is not available at an airport, what setting should you use before departing on a local flight?

- \_\_\_\_\_ ((14 CFR 91.121 (1)(iii))

14. When practicing steep turns, stalls and maneuvering during slow flight, the entry altitude must allow a recovery to be completed no lower than how many feet AGL?

- \_\_\_\_\_ ((14 CFR 91.303 (e)), and  
The Airplane Flying Handbook FAA-H-8083B Chapter 4

15. When is a go-around appropriate? Can you come up with (7) reasons?

- (1) \_\_\_\_\_
  - (2) \_\_\_\_\_
  - (3) \_\_\_\_\_
  - (4) \_\_\_\_\_
  - (5) \_\_\_\_\_
  - (6) \_\_\_\_\_
  - (7) \_\_\_\_\_
- [https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC00-54.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC00-54.pdf)  
[https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC\\_91-79A.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_91-79A.pdf)

16. You may not fly as pilot in command of a civil aircraft within \_\_\_\_\_ hours after consumption of any alcoholic beverage or while you have \_\_\_\_\_% or more alcohol on your blood. (14 CFR 91.17)

17. Provide visibility and cloud clearance requirements for the following airspace.

- Class D \_\_\_\_\_
  - Class E below 10,000' MSL \_\_\_\_\_
  - Class G below 1,200' AGL during the day \_\_\_\_\_
  - Class G below 1,200' AGL at night \_\_\_\_\_
- (14 CFR 91.155)

18. Can a student pilot request a special VFR clearance in less than VFR conditions? Explain your answer.

\_\_\_\_\_ (14 CFR 61.89)

19. During engine run-up, you cause rocks, debris and propeller blast to be directed toward another aircraft or person. Could this be considered careless or reckless operation of an aircraft? Why or why not?

\_\_\_\_\_ (14 CFR 91.13)

20. What altitudes should you use when operating VFR in level cruising flight at more than 3000 feet AGL and what determines those altitudes?

\_\_\_\_\_ (14 CFR 91.159)

21. What is the emergency frequency?

\_\_\_\_\_ (47 CFR 87.173)

22. List the minimum equipment and instruments that must be working properly in your aircraft for day VFR flight. (name 15, SEE 14 CFR 91.205)

- (1) \_\_\_\_\_
- (2) \_\_\_\_\_
- (3) \_\_\_\_\_
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_
- (6) \_\_\_\_\_
- (7) \_\_\_\_\_
- (8) \_\_\_\_\_
- (9) \_\_\_\_\_
- (10) \_\_\_\_\_
- (11) \_\_\_\_\_
- (12) \_\_\_\_\_
- (13) \_\_\_\_\_
- (14) \_\_\_\_\_
- (15) \_\_\_\_\_

23. Describe the flap settings for your training airplane. (N20068)

Recommended Normal Takeoff Flaps \_\_\_\_\_

Recommended Soft/Short Field Takeoff Flaps \_\_\_\_\_

Max Go-around Flaps \_\_\_\_\_

Recommended Landing Flaps \_\_\_\_\_

Max Flap \_\_\_\_\_

Soft/Short Field Landing Flaps \_\_\_\_\_

Prohibited Flap Setting / Why? \_\_\_\_\_ / \_\_\_\_\_

<https://www.mvpaviation.com/uploads/1/0/1/6/101653584/sop.pdf>

24. Under what circumstances should you use carburetor heat?

\_\_\_\_\_

<https://www.mvpaviation.com/uploads/1/0/1/6/101653584/sop.pdf>

25. Under what circumstances could a spin occur in your training aircraft? What two critical phases of flight are most dangerous if improper control inputs are allowed? (FAA AC 61-67C)

Spins occur: \_\_\_\_\_

1) \_\_\_\_\_

2) \_\_\_\_\_

26. Describe the spin recovery procedures for your training aircraft. (FAA AC 61-67C)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

27. What is the G load and stall speed of your training airplane in a 60 degree bank with flaps up?

\_\_\_\_\_

[https://www.mvpaviation.com/uploads/1/0/1/6/101653584/n20068\\_vspspeeds.pdf](https://www.mvpaviation.com/uploads/1/0/1/6/101653584/n20068_vspspeeds.pdf)

<http://www.csgnetwork.com/aircraftturninfocalc.html>

28. What direction is the traffic patterns for each runway at your home airport? What is the MSL altitude for the traffic pattern? (Ref: your CFI)

Runway 17/ 35 \_\_\_\_\_

Runway 08/26 \_\_\_\_\_

TPA \_\_\_\_\_ feet MSL

29. How do you enter and exit the traffic pattern at your airport. Who must you be talking to during each phase of operating in and out of Augusta Regional Airport AGS and on what frequencies?

Enter/Exit \_\_\_\_\_

When you are going to Taxi: "Augusta \_\_\_\_\_" on 121.9

Before you enter a runway to depart, or enter the pattern to land: "Augusta \_\_\_\_\_" on 118.7

When before entering or while exiting AGS Class D airspace: "Augusta \_\_\_\_\_" on 126.8

<https://skyvector.com/airport/AGS/Augusta-Regional-At-Bush-Field-Airport>

(Upper left corner - Chart Supplement) or the AFD Airport Facilities Directory

30. Describe how you would approach and enter the traffic pattern at an uncontrolled airport. What does RP mean on a VFR Sectional (shown in the Airport Data Section EXAMPLE: BNL Barnwell)

Approaching: At TPA of \_\_\_\_\_ feet AGL, making all \_\_\_\_\_ turns unless otherwise indicated, watching for other \_\_\_\_\_ in the pattern while announcing my \_\_\_\_\_ on \_\_\_\_\_.

RP means \_\_\_\_\_ for the listed runway/s

[https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/airplane\\_handbook/media/09\\_afh\\_ch7.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/media/09_afh_ch7.pdf)

[https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC\\_90-66B.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_90-66B.pdf)

31. What radio calls are recommended as you approach and fly in the traffic pattern at an uncontrolled airport?

\_\_\_\_\_ miles out, when turning D \_\_\_\_\_, B \_\_\_\_\_ and F \_\_\_\_\_ or, as necessary to coordinate with other traffic.

[https://www.faa.gov/regulations\\_policies/handbooks\\_manuals/aviation/airplane\\_handbook/media/09\\_afh\\_ch7.pdf](https://www.faa.gov/regulations_policies/handbooks_manuals/aviation/airplane_handbook/media/09_afh_ch7.pdf)

[https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC\\_90-66B.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_90-66B.pdf)

32. What are the typical dimensions of Class D airspace and what requirement(s) must be met prior to entry?

Dimensions: typically up to \_\_\_\_\_ feet AGL, and within \_\_\_\_\_ n.m. of the airport

[https://www.faasafety.gov/files/events/ea/ea03/2012/ea0345029/airspace\\_made\\_easy.pdf](https://www.faasafety.gov/files/events/ea/ea03/2012/ea0345029/airspace_made_easy.pdf)

33. How can you tell if a runway is closed?

\_\_\_\_\_ will be on each end of the runway

[https://www.faa.gov/airports/southern/airport\\_safety/part139\\_cert/media/aso-airfield-standards-quick-reference.pdf](https://www.faa.gov/airports/southern/airport_safety/part139_cert/media/aso-airfield-standards-quick-reference.pdf)

34. If you receive ATC instructions that you do not understand or feel may compromise safety, what should you do?

Do not comply until \_\_\_\_\_. You are \_\_\_\_\_. You are \_\_\_\_\_% responsible. (14 CFR 91.3)

[https://www.faa.gov/airports/runway\\_safety/publications/media/Runway\\_Safety\\_Best\\_Practices\\_Brochure.pdf](https://www.faa.gov/airports/runway_safety/publications/media/Runway_Safety_Best_Practices_Brochure.pdf)

35. What would you do if you lost the radio communications?

Continue flight under \_\_\_\_\_ Flight Rules, Squawk \_\_\_\_\_, and \_\_\_\_\_ as soon as practicable

<http://tfmlearning.faa.gov/Publications/atpubs/AIM/Chap6/aim0604.html>

36. What is the meaning of each of the following ATC light signals? (14 CFR 91.125)

Signal	GROUND	AIR
Steady Green	_____	_____
Flashing Green	_____	_____
Steady Red	_____	_____
Flashing Red	_____	_____
White	_____	_____
Alternating Red/Green	_____	_____

37. What aircraft equipment and student pilot authorizations are required for a student pilot to fly solo in Class B airspace?

From your CFI: Specific to that Class B, \_\_\_\_\_ and \_\_\_\_\_ training, and a logbook \_\_\_\_\_  
 (14 CFR 61.95)  
 Valid for \_\_\_\_\_ Days

38. A magenta dashed line surrounds certain uncontrolled airports. What does this indicate and what is its significance to VFR pilots?

Class E airspace continues to the ground and VFR minimums are:  
 \_\_\_\_\_ statute miles visibility, \_\_\_\_\_ below, \_\_\_\_\_ above, \_\_\_\_\_ horizontal cloud clearance.  
[https://www.faa.gov/files/events/ea/ea03/2012/ea0345029/airspace\\_made\\_easy.pdf](https://www.faa.gov/files/events/ea/ea03/2012/ea0345029/airspace_made_easy.pdf)

39. On a sectional, what does a dashed blue line around an airport indicate?

Class \_\_\_\_\_ Airspace  
[https://www.faa.gov/air\\_traffic/flight\\_info/aeronav/digital\\_products/aero\\_guide/](https://www.faa.gov/air_traffic/flight_info/aeronav/digital_products/aero_guide/)

40. What are the minimum visibility and ceiling requirements for VFR flight in Class D airspace? (14 CFR 91.155)

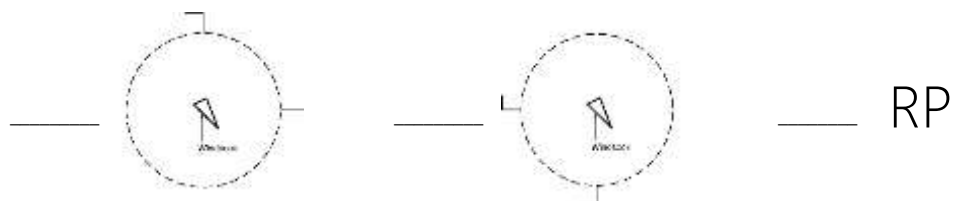
\_\_\_\_\_ statute miles visibility, \_\_\_\_\_ below, \_\_\_\_\_ above, \_\_\_\_\_ horizontal cloud clearance.

41. Prior to taking the runway at an uncontrolled airport, it is recommended to maneuver the airplane as needed to view the final approach area to confirm that there is no other landing traffic. At an airport with a control tower is this still a recommended maneuver? Explain your answer. (AC 90-48D, 4.7.1) and (14 CFR 91.3)

You are \_\_\_\_\_. You are ultimately responsible for \_\_\_\_\_ of the flight. Traffic \_\_\_\_\_ to the Tower.

42. What is the standard direction of turn in the traffic pattern? Indicate the visual display indication a non-standard traffic pattern. [https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/AC\\_90-66B.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/AC_90-66B.pdf)

Standard Direction? \_\_\_\_\_ turns. Non-Standard Direction? (Check what applies)



43. What is the purpose of CTAF? (AC 90-42F)

CTAF is a designated frequency for the purpose of carrying out \_\_\_\_\_ practices at airports without a control tower in operation.

44. What are the frequencies for ATIS, Ground, Tower, and Departure/Approach at AGS?

ATIS \_\_\_\_\_ GROUND \_\_\_\_\_ TOWER \_\_\_\_\_ DEP/APPR \_\_\_\_\_

<https://skyvector.com/airport/AGS/Augusta-Regional-At-Bush-Field-Airport>

45. What is the frequency for IRQ and what is the radial and distance to AGS?

IRQ Freq. \_\_\_\_\_ Radial \_\_\_\_\_ Distance \_\_\_\_\_ n.m.

<https://skyvector.com/airport/AGS/Augusta-Regional-At-Bush-Field-Airport>

46. Describe where you are on Augusta Regional Airport, and mark the question number in the corresponding location on the Airport Diagram below: \_\_\_\_\_



What does the double-solid/double dashed yellow line mean? \_\_\_\_\_

47. Where are you on the Augusta Regional Airport? Mark the question number in the corresponding location on the Airport Diagram below: \_\_\_\_\_



48. What taxiway are you on at Augusta Regional Airport? Mark the question number in the corresponding location on the Airport Diagram below: \_\_\_\_\_



49. Describe where you are at Augusta Regional Airport, and Mark the question number in the corresponding location on the Airport Diagram below: \_\_\_\_\_



50. Mark the question number in the corresponding location at Augusta Regional Airport, diagram below. Can you take-off or land using Runway 35? \_\_\_\_\_



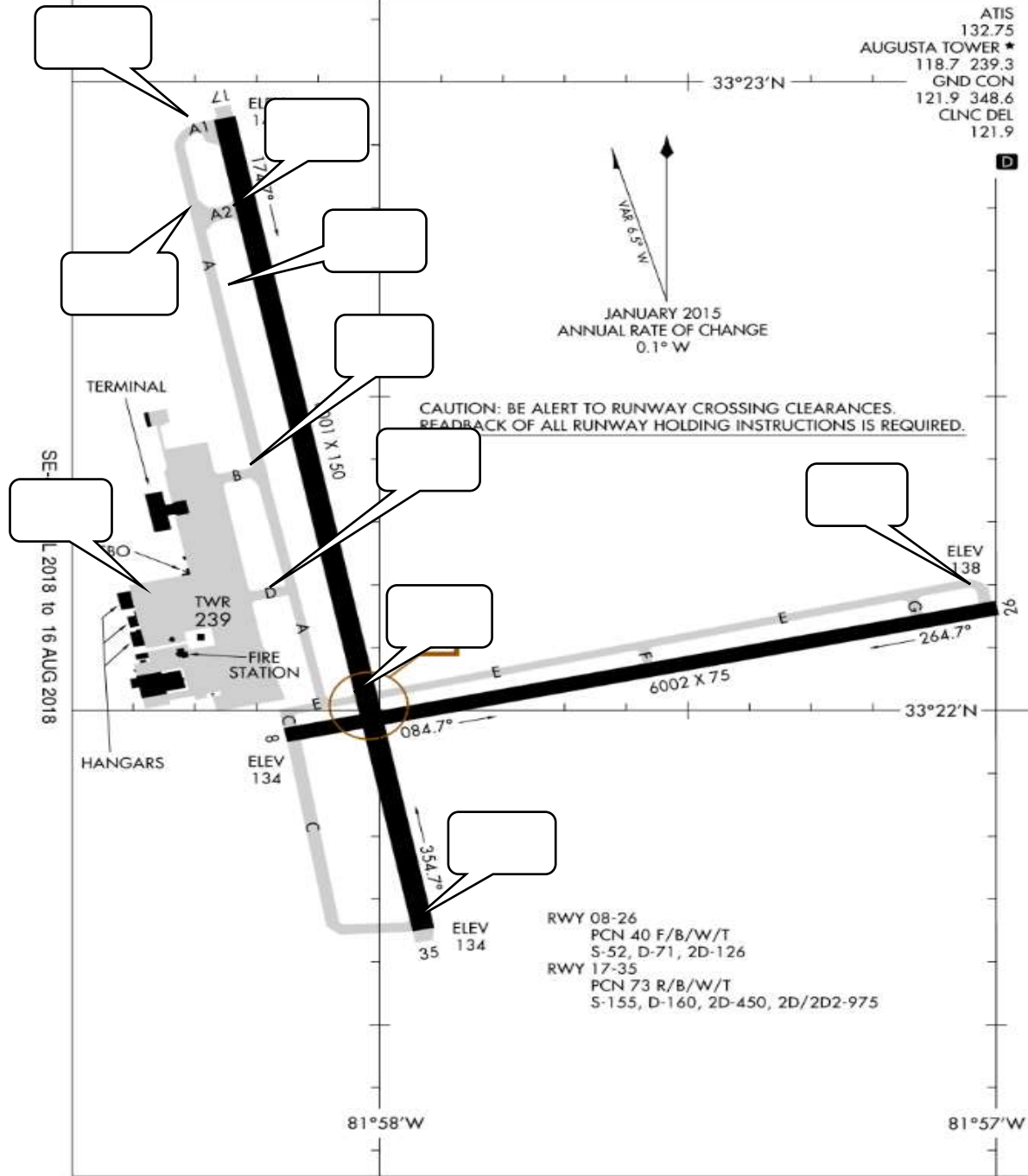
- Continue to Airport Diagram -



18032  
**AIRPORT DIAGRAM**

AL-27 (FAA)

**AUGUSTA RGNL AT BUSH FIELD (AGS)**  
 AUGUSTA, GEORGIA



ATIS  
 132.75  
 AUGUSTA TOWER ★  
 118.7 239.3  
 GND CON  
 121.9 348.6  
 CLNC DEL  
 121.9

33°23'N  
 VAS 5.5 84° W  
 JANUARY 2015  
 ANNUAL RATE OF CHANGE  
 0.1° W

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.  
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

SE-4, 19 JUL 2018 to 16 AUG 2018

SE-4, 19 JUL 2018 to 16 AUG 2018

RWY 08-26  
 PCN 40 F/B/W/T  
 S-52, D-71, 2D-126  
 RWY 17-35  
 PCN 73 R/B/W/T  
 S-155, D-160, 2D-450, 2D/2D2-975

18032  
**AIRPORT DIAGRAM**

**AUGUSTA, GEORGIA**  
**AUGUSTA RGNL AT BUSH FIELD (AGS)**