

SCSU Aero Club

Initial Aircraft Checkout Quiz

This quiz only needs to be completed once, prior to any solo flight, in each type of aircraft that you are going to be flying. **For a six month checkout only, DO NOT USE THIS QUIZ. Please use the “Bylaws and FAA Regulations Quiz.”**

All blanks on the front page and all questions on the subsequent pages must be filled in for your checkout to be considered complete!

Date: ___/___/___

Member Information

Name: _____

Phone: _____

Address: _____

Email: _____

City/State/Zip: _____

Tech ID: _____

SSN: _____

Licenses (Please check all that apply to you)

****Note**** As the Aero Club does not have multi-engine aircraft, that information is not required.

- Student Instrument
 Private CFI-I
 Commercial
 CFI

Aircraft

Aircraft Type in which the checkout was completed

- C-152 C-172 PA-28

*****Remember, this quiz is not complete unless all of the appropriate questions following this page have been answered.**

I have read the entire POH for this particular aircraft and have satisfactorily completed the required training. I certify that I have read the entire Aero Club membership manual. I understand all applicable bylaws and will abide by them.

Member Signature: _____ Date: ___/___/___

CFI Signature: _____ Date: ___/___/___

Aircraft Make/Model (Circle One):

Cessna 152

Cessna 172

Piper Arrow

- 1) Total Fuel Capacity: _____
- 2) Total Usable Fuel: _____
- 3) What type of fuel(s) can be used? _____
- 4) What colors are these fuels? _____
- 5) How many fuel drains are on this aircraft? _____
- 6) Where are the fuel drains and when are they drained?

- 7) What grade of oil is used in this aircraft? _____
- 8) What is the minimum oil operating level? _____ Maximum? _____
- 9) What is the definition of V_y and when is it used?

- 10) What is the value of V_y for this aircraft? _____
- 11) What is the normal climb speed and when is it used?

- 12) What is the definition of V_x and when is it used?

- 13) What is the value of V_x for this aircraft? _____
- 14) What is the definition of V_a and when is it used?

- 15) What is V_a for this aircraft? _____
- 16) What is the value for the following V-speeds?
 V_s _____ V_{so} _____ V_{so} (60° bank) _____

- 17) What is the normal approach speed? _____
- 18) What is the approach speed if the wind is 15 knots with gusts to 25 knots? _____
Airspeed had to be increased by _____ knots.
- 19) What is the recommended short field approach airspeed and configuration?

- 20) Describe the "Go-Around" procedure.

- 21) What is the maximum crosswind component for your aircraft? _____
Is this a limitation? _____
- 22) What is the purpose of the flaps?

- 23) How do you detect carburetor/induction icing?

- 24) In the event of carburetor/induction ice, what do you do and how does the aircraft respond?

- 25) Where is the alternate static source located on this aircraft?

- 26) What changes in pitot-static instruments would you expect if you were using the alternate static source?

- 27) This aircraft has a _____ volt electrical system.
- 28) How many volts is the battery? _____
- 29) What is the amperage of the alternator? _____
- 30) What would be the indication of an alternator or generator malfunction?
- _____
- _____
- _____
- 31) What are the load factor limits (in Gs)? _____
- 32) At what speed can the flaps first be extended? _____
- Full flaps? _____
- 33) What is the best glide speed?
- _____

Performance

- 34) What is the rated horsepower of this aircraft? _____
- 35) At what RPM is this horsepower produced? _____
- 36) What type of propeller is on this aircraft? _____

Use the following information to answer 37-39

Atmospheric Conditions

Temperature: 50°F

Pressure: 29.52" Hg

Wind: 270@12

Airport Conditions

Airport Elevation: 1600 ft MSL

Runway in use: 31

- 37) What is the pressure altitude of the airport? _____
- 38) What is the crosswind component if you are taking off on 31? _____
- Headwind component? _____
- 39) What is the takeoff distance with the above conditions at max gross weight for your aircraft? _____
- Over a 50ft obstacle? _____
- 40) What would the takeoff distance be if the field elevation was 3600 feet MSL, a temperature of 86°F, and calm winds? _____ 50ft Obstacle? _____

41) What will the cruise performance be on this aircraft at a pressure altitude of 40000 feet MSL, a temperature of 75°F, and at 65% power?

RPM: _____

TAS: _____

GPH: _____

Weight and Balance

1) Obtain the weight and balance forms for this aircraft

2) Locate the graphs and/or tables which apply

3) Perform all calculations; do not exceed the maximum allowable weight and remain within center of gravity limits

42) Empty Weight: _____

43) Max ramp weight: _____

44) Max takeoff weight: _____

45) Useful load: _____

46) Your weight: _____

Given Data:

Two Place Aircraft

Passenger's weight: 200 lbs

Baggage: 20 lbs

Four Place Aircraft

Passenger's weight (right front): 120 lbs

Passenger's weight (left rear): 160 lbs

Passenger's weight (right rear): 180 lbs

Baggage: 40 lbs

Calculate the following:

Actual takeoff weight: _____

Total fuel on board: _____ lbs _____ gals

Computer center of gravity: _____

What area of the envelope does the center of gravity fall in (ex: upper left, lower right, center, etc.): _____

Can you takeoff safely? _____

Piper Arrow Section

You only need to complete this part if you are being checked out in a Piper Arrow

Aero Club Requirements to fly the Piper Arrow

- 1) Private certificate and 100 hour total time with one of the following:
 - a. 25 hours retract time and minimum 1 hour dual checkout in Arrow
 - b. Minimum 5 hours dual in Arrow
 - 2) Refer to Article X, Section 4, Sub-section K in Aero Club membership manual for complex currency requirements.
 - 3) Instrument pilots must complete annual instrument proficiency checks in the Arrow if they wish to exercise instrument privileges in this aircraft.
 - 4) Ground training on aircraft systems and avionics.
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- 1) V_{lo} (retraction) _____
- 2) V_{lo} (extension) _____
- 3) V_{le} _____
- 4) What is the procedure for emergency gear extension?

- 5) What speed must be reached before the gear will retract on takeoff? _____
- 6) At what speed will the gear automatically extend with power off? _____
- 7) How is the landing gear actuated (powered)?

- 8) Does the autopilot have an altitude hold function? _____
- 9) What is the fuel capacity when filled to the tabs? _____
- 10) The landing gear warning horn and red "Warning Gear Unsafe" light will be activated under what three conditions?

11) What kind of propeller does the Arrow have?

12) What is the purpose for having this kind of propeller on an aircraft?

13) The manifold pressure should always be kept at or above propeller speed?

a. True

b. False