UNOFFICIAL LAY-FLAT CHECKRIDE EDITION | ACS-6C ALIGNED

Private Pilot Checkride Oral & FAA-S-ACS-6C Tabbed Lay-Flat Companion

Structured Oral Prep, Risk Management Scenarios, Preflight Checklists & 80 Checkride Drills

Imprint: STILL HUMAN AVIATION PRESS
Format: 8.5 x 11 in. 360-Degree Lay-Flat Coil Study & Field Workbook
Digital Companion Portal: https://press.stillhumanacademy.com

Educational & Examination Notice: Independent checkride oral study companion aligned to public FAA Airman Certification Standards (FAA-S-ACS-6C). Not affiliated with or endorsed by the FAA. Always consult your Certificated Flight Instructor (CFI), current FAR/AIM, and aircraft Pilot's Operating Handbook (POH/AFM).

Private Pilot Checkride Core Memory Items (ARROW / TOMATOFLAMES / 91.155)

Topic / Rule	Specification / Threshold	Reference
Required Aircraft Docs	ARROW: Airworthiness, Registration, Radio (intl), Operating Handbook, Weight & Balance	14 CFR 91.203 / 91.9
Day VFR Equipment	ATOMATOFLAMES: Altimeter, Tach, Oil Press, Manifold, Airspeed, Temp, Oil Temp, Fuel, Landing gear, Anti-collision, Magnetic compass, ELT, Seatbelts	14 CFR 91.205(b)
Inspections	AAV1ATE: Annual (12 cal mo), Airworthiness Directives, VOR (30d IFR), 100-hr (for hire), Altimeter/Pitot (24 cal mo IFR), Transponder (24 cal mo), ELT (12 cal mo)	14 CFR 91.409 / 91.207
Class G Day (<1,200 AGL)	1 SM visibility, clear of clouds	14 CFR 91.155
Class E (<10,000 MSL)	3 SM visibility, 500 below / 1,000 above / 2,000 horizontal	14 CFR 91.155
Class E (>=10,000 MSL)	5 SM visibility, 1,000 below / 1,000 above / 1 SM horizontal	14 CFR 91.155

How to Use This Lay-Flat Workbook:

1. Fold the plastic coil 360 degrees flat on your desk, kneeboard, or clinical station.
2. Work each Worked Scenario before reading the step-by-step solution.
3. Complete the Module Drill Questions without peeking at the Answer Key & Distractor Rationales.
4. Log missed topics in the Self-Audit Grid at the end of each module and drill them again 48 hours later.

Module 1: Pilot Qualifications, Currency & Aircraft Airworthiness

Module 1 covers essential pilot qualifications, currency requirements, aircraft airworthiness standards, and regulatory compliance necessary for safe flight operations under Title 14 CFR Part 91. Pilots must maintain currency for carrying passengers, complete flight reviews every 24 calendar months, ensure aircraft meet airworthiness standards including ARROW inspections, manage equipment inoperative under §91.213, and understand medical certificate requirements including BasicMed eligibility.

Learning Objectives

- Understand pilot privileges and limitations under Part 91.
- Explain medical certificate requirements and BasicMed eligibility.
- Apply currency rules including passenger carrying limitations.
- Identify aircraft airworthiness requirements including inspections.

High-Yield Reference Matrix

Concept / Rule	Threshold / Value	Practical Application
Private Pilot Privileges	Hold valid certificate	May operate aircraft solo or carry passengers under VFR/IFR conditions
Medical Certificate	Valid certificate required	Must renew medical certificate annually or biennially
BasicMed	Hold valid driver’s license	Can operate aircraft weighing less than 6,000 lbs
Passenger Currency	Three takeoffs/landings within last 90 days	Required before carrying passengers
Flight Review	Every 24 calendar months	Must complete with authorized instructor
ARROW Inspection	Annual inspection required	Includes airworthiness inspection

Worked Scenarios & Field Calculations

Scenario 1: Passenger Currency Check

Prompt: You flew solo three takeoffs and landings five days ago but haven’t flown passengers since day 92 ago. Can you legally carry passengers?

Your Scratchpad / Calculation Work Area:

Worked Solution: No - you must complete three takeoffs and landings within the preceding 90 days before carrying passengers.

Module 1 Practice Drill Questions

1. Under Part 91, how often must pilots complete a flight review?

A. Every calendar year
B. Every six months
C. Every two calendar years
D. Every five years

2. What is required before carrying passengers?

A. Three takeoffs and landings within the previous calendar month
B. Three takeoffs and landings within the previous calendar year
C. Three takeoffs and landings within the previous calendar quarter
D. Three takeoffs and landings within the previous calendar month

3. What inspection is required annually?

A. A&P inspection
B. ARROW inspection
C. Annual inspection
D. Airworthiness inspection

4. Which regulation allows pilots to fly aircraft with inoperative equipment?

A. §91.213
B. §91.21
C. §91.211
D. §91.212

5. What is required under BasicMed?

A. A valid medical certificate
B. A valid driver’s license
C. A valid passport
D. A valid pilot certificate

6. What is required before carrying passengers?

A. Three takeoffs and landings within the previous calendar month
B. Three takeoffs and landings within the previous calendar year
C. Three takeoffs and landings within the previous calendar quarter
D. Three takeoffs and landings within the previous calendar month

Module 3: Aerodynamics, Systems, Weight & Balance & Performance

Module 3 covers essential aerodynamic principles and aircraft systems critical to safe flight operations during pilot checkrides and oral exams. The four forces - lift, weight, thrust, and drag - must remain balanced during flight phases like climbs, cruises, and descents. Understanding angle of attack (AOA) relationships with airspeed helps pilots avoid stalls and maintain performance margins. Engine-induced effects like torque, spiraling slipstream, and P-factor affect aircraft control during takeoff and slow flight.

Learning Objectives

- Explain the effects of angle of attack changes on lift and airspeed.
- Describe aircraft behavior during engine failure scenarios involving electrical, vacuum, and pitot-static systems.
- Calculate density altitude and explain its impact on aircraft performance.
- Analyze weight-and-balance effects of forward/aft center-of-gravity positions.

High-Yield Reference Matrix

Concept / Rule	Threshold / Value	Practical Application
Angle of Attack vs Airspeed	Critical AoA ≈ stall speed	Maintain AoA below critical during slow flight
Torque Effect	Most noticeable during takeoff	Apply right rudder pedal during full-power climbs
Pitot-Static System Failure	Blockage causes erroneous airspeed	Cross-check instruments during failure
Density Altitude Calculation	DA = PA + (120 × °F deviation)	Use DA charts for performance planning
CG Forward Limit	Defined by aircraft POH	Improves stability but increases stall speed
CG Aft Limit	Defined by aircraft POH	Improves maneuverability but reduces stability

Worked Scenarios & Field Calculations

Scenario 1: Density Altitude Calculation

Prompt: Given pressure altitude of 5,000 ft and temperature of +20°FISA (+2°F), calculate density altitude.

Your Scratchpad / Calculation Work Area:

Worked Solution: Step 1: Find ISA temperature at PA = ISA = 15°C − (2°C/1,000 ft × 5) = 5°C. Step 2: Temperature deviation = Actual temperature − ISA temperature = (+2°F − ISO°C converted ≈ +2°F). Step 3: DA = PA + [(Deviation°F × 120)] = 5,000 ft + (2 × 120) = 5,240 ft.

13. What is the correct action during engine failure after takeoff?

A. Climb steeply
B. Maintain best glide speed
C. Land immediately
D. Turn back

14. What is the definition of a stabilized approach?

A. Maintaining constant speed
B. Maintaining constant altitude
C. Maintaining constant speed and glide path
D. Maintaining constant RPM

15. What is the correct way to check oil level?

A. After shutdown
B. While engine running
C. Before startup
D. During flight

16. What is the definition of Vx?

A. Best glide speed
B. Best rate of climb speed
C. Best angle of climb speed
D. Best cruise speed

17. What is the correct way to check tire pressure?

A. Cold tires
B. Hot tires
C. After flight
D. While driving

18. What is the correct way to check the fuel cap?

A. Ensure it seals properly
B. Check color
C. Check size
D. Check for paint

ADDITIONAL WORKSPACE & CLASSROOM NOTES