Examiner's Plan of Action
Pre-Solo-ASEL

1. VERIFY APPLICANT ELIGIBILITY

☐ Verify § 61.83 - Applicant meets the eligibility requirements

☐ Verify § 61.87(b) - Applicant has received and logged the required ground training and passed the required knowledge test.

☐ Verify § 61.87(c);(d) - Applicant has logged required training and demonstrated required flight proficiency.

☐ Verify knowledge test of 61.87(b) has been reviewed and corrected to 100% by applicant's CFI.

☐ Verify a/c checkout quiz has been reviewed and corrected to 100% by applicant's CFI.

PERSONAL EQUIPMENT

☐ View-Limiting Device

☐ Completed FAA 7233-1 Flight Plan Form or electronic equivalent

☐ Completed flight logs or electronic equivalent

☐ Computer and plotter or electronic equivalent

☐ Current Aeronautical Charts or electronic equivalent

☐ Current Chart Supplement or electronic equivalent

☐ Appropriate publications or electronic equivalent

☐ Backup charging source and backup charts if using EFB (recommended)

PERSONAL RECORDS

☐ Government issued ID (name matches IACRA)

☐ Pilot certificate (signed on back)

☐ Current Medical Certificate or BasicMed Qualification

☐ Pilot Logbook with Instructor Endorsements

2. VERIFY ACCEPTABLE AIRCRAFT

☐ Maintenance Records (AV1ATE)

☐ A/C Documents (AROW or ARROW)

☐ Approved FAA POH (or substitute if approved by Evaluator)

The applicant has been instructed to plan the following flight scenario:

Please prepare for your Pre-solo Stage Check by preparing for the flight as if you are going solo. The evaluator is present to evaluate your performance. While your evaluator will provide instruction if needed and ensure the safe outcome of the flight, it is your job to achieve the training objectives. Excessive instruction will result in an incomplete stage check due to time constraints.

Please plan a local flight as if you are going on a local, solo flight. Calculate weight and balance, takeoff, landing and climb performance for yourself under current meteorological conditions.

3. CONDUCT PRACTICAL TEST

☐ The pre-solo Stage Check is designed to familiarize you with the FAA's testing procedures and protocol

☐ Its purpose is to:

1. Ensure the applicant possesses the Knowledge and Skill to solo an airplane.
2. Ensure the applicant possesses the ability to recognize, assess and take the appropriate action when facing a risk management problem in order to act as PIC.

☐ Today's Stage Check is mostly an instructional activity. You will learn a lot today, it's ok.

☐ Perfection is not the standard. Students should strive to remain within standards and when a deviation occurs, promptly correct to within standards.

☐ I will take notes throughout the test to provide you with a through debrief.

☐ Oral examining will continue throughout the test.

☐ Please let me know if you do not understand a question, statement or instruction. You deserve the best instruction possible! Please speak up if you're confused or don't understand what's going on.

ORAL EVALUATION

1. Preflight Preparation (15 minutes)

A. Certificates and Documents

1. What pilot documents must you have in your possession or readily accessible when acting as PIC?
2. Explain 14 CFR Part 91.3
3. What class of medical certificate is required to act as PIC while exercising the privileges of a student pilot? How long is your certificate valid?
4. (If appropriate) Explains BasicMed privileges and limitations.
5. When can a Student Pilot log PIC time?
6. When can you log night time? Night landings?
7. When can you log cross-country time?
8. What privileges and limitations apply to solo Student Pilots?
9. What is the duration of a solo endorsement?

B. Airworthiness Requirements (10 minutes)

1. What a/c documents are required to be in the a/c during operation?
2. Who is responsible for maintaining an a/c in an airworthy condition?
3. Who responsible for determining that the a/c is airworthy?
4. Equipment requirements day – What pilot action is required if inoperative equipment is discovered prior to flight? During flight?

C. Weather Information (10 minutes)

1. What FAA facility is considered the primary source of Aviation Weather Briefings?
2. Student demonstrates use of aviation wx sources to make an appropriate go/no-go decision.
3. Explains recognition and considerations for LLWS, Micro-bursts, Wake Turbulence.
4. Explains recognition of seasonal wx considerations including icing and high density altitudes.

D. Local Area Familiarization and Procedures (10 minutes)

1. Explains practice area procedures and considerations
2. Explains Denver Class B airspace avoidance procedures and considerations
3. Explains Centennial Class D airspace procedures and considerations
4. Explains emergency considerations:
   a. Engine problems/failure
   b. Electrical problems/failure
   c. Radio problems/failure
5. VFR Sectional Chart symbology and airspace general

**Ensure student correlates PAVE checklist, identifies hazards, tendency to continue despite adverse change in conditions.

E. Performance and Limitations (10 minutes)

1. Compute Weight and Weight and balance for a solo flight scenario.
2. Evaluate t/o and landing data
3. Calculates a/c performance: climb rate after takeoff
4. What are the 4 forces acting on an airplane?
5. What are the two basic types of drag associated with flight
6. What causes an airplane to stall? To spin? Spin Recovery Technique?

F. Aircraft Systems and Limitations (10 minutes)

1. Explain the four strokes of the Otto cycle.
2. Why do aviation engines use magnetos instead of an automotive style ignition coil?
3. Discuss 2 aircraft systems, one CFI choice, one student choice.].
4. Discuss system limitations.

G. Human Factors (10 minutes)

1. What are your personal minimums, CFI minimums, AFC minimums, FAR minimums?
2. Explain is ADM/RM?
3. Explain SRM
4. How does flying unfamiliar aircraft or aircraft with unfamiliar avionics adversely affect safety?
5. Perform a self-assessment including whether the pilot is fit for flight.
6. Show sound decision-making and judgment (based on reality of circumstances).
7. Explain the difference between proficiency and currency?
8. How does flying unfamiliar aircraft or unfamiliar avionics affect safety of flight?

PRACTICAL EVALUATION

II. Preflight Procedures:

A. Preflight Assessment (preflight inspection)
1. Risk Management
   a. External Pressures
   b. Environment
   c. Aviation security
2. Skills and Knowledge
   a. Checklist usage (internal and external inspection)
   b. Verifies A/c in airworthy condition
   c. Knowledge of a/c systems and detection of possible defects

B. Flight Deck Management
1. Risk Management
   a. Improper SRM, ADM
2. Skills and Knowledge
   a. Ensures security of all objects in the airplane.
   b. Ensures all items are organized in a manner to support successful outcome of the flight.
   c. Proper programming/use of navigation equipment and other electronics
   d. Conducts passenger and crew briefings as required.

C. Engine Starting
1. Risk Management
   a. Propeller Safety
2. Skills and Knowledge
   a. Proper positioning of A/C considering wind, obstructions, safety
   b. Engine starting under a variety of atmospheric conditions
   c. Checklist Usage

D. Taxi
1. Risk Management
   a. Inappropriate activities
   b. Expectation bias
2. Skills and Knowledge
   a. Brake Check
   b. Positions flight controls correctly
   c. Throttle and brake management
   d. Situational awareness
   e. ATC clearances and communications
   f. a/c control during taxi

g. use of navigation charts
h. use of briefings to avoid runway incursions

E. Before Takeoff Check
1. Risk Management
a. Maintains Situational awareness
b. Identification/mitigation of threats
2. Skills and Knowledge
a. Division of attention
b. Positioning of a/c
c. Verify engine parameters and a/c airworthiness
d. Checklist usage
e. use of briefings to avoid runway incursions

III. Airport operations

A. Communication and light gun signals
1. Risk Management
a. Failure to declare an emergency
b. Confirmation bias or expectation bias
2. Skills and Knowledge
a. Appropriate use of radio equipment and tuning of frequencies
b. Radio communications in accordance with AIM
c. Receives, acknowledges, and complies with instructions

B. Traffic Patterns
1. Risk Management
a. Distractions
b. Operating near other aircraft
c. Failure to execute timely go around
d. Loss of situational awareness
2. Skills and Knowledge
a. Maintains TPA ±100' & 10 kts
b. Fly correct ground track and pattern procedures
c. Comply with traffic pattern procedures
d. Maintains awareness of other a/c and proper spacing when required

IV. Takeoffs, Landings, and Go-Arounds

A. Normal Takeoff and Climb
1. RM
a. Crosswind, windshear, wake TB

b. Engine failure, other emergencies
c. Distractions

2. Skills and Knowledge
   a. Checklist usage
   b. Runway selection
   c. Effects of atmospherics
   d. Rotates and lifts off at the appropriate airspeeds
   e. Climbs at Vy +10/−5 kts to a safe altitude
   f. Directional control and wind drift correction

B. Normal Apch and Landing

1. RM
   a. Environmental hazards
   b. Operational hazards
   c. Distractions
2. Skills and Knowledge
   a. Ensure a/c is on the correct/assigned runway
   b. Checklist usage
   c. S/A and comms
   d. Stabilized approach including crosswind
   e. A/s +10/−5 kts
   f. Touches down smoothly at a speed providing little or no aerodynamic lift
   g. Touches down within 400' of specified point with no drift, on centerline, and with a/c properly aligned with the runway
   h. Maintains crosswind correction and directional control throughout the landing sequence
   i. Executes timely go-around if apch cannot be executed within the tolerances above

C. Soft Field Takeoff and Climb

1. RM
   a. Environmental factors
   b. Emergency considerations
   c. Collision avoidance
   d. SRM and Task Management
2. Skills and Knowledge
   a. Checklist usage
   b. SA and Comms
   c. Collision avoidance and division of attention
   d. A/c control
      i. Systems management and configuration
      ii. Rotates correctly and accelerates in ground effect
      iii. Vx or Vy +10/−5 kts
      iv. Maintains desired flight path

D. Soft Field Approach and Landing
1. RM
   a. Environmental factors
   b. Emergency considerations
   c. Collision avoidance
   d. SRM and Task Management
2. Skills and Knowledge
   a. Checklist usage
   b. SA and Comms
   c. Proper a/c configuration
   d. Proper a/s +10/−5 kts
   e. Proper landing technique keeping nose off until loss of elevator effectiveness
   f. Maintains proper positioning of flight controls and speed for soft surface
   g. Executes go around if maneuver cannot be made within the tolerances above

E. Short Field and Max Performance Climb
1. RM
   a. Environmental factors
   b. Emergency considerations
   c. Collision avoidance
2. Skills and Knowledge
   a. Checklist usage
   b. SA and Comms
   c. Collision avoidance and division of attention
   d. Maneuver Parameters
      i. Systems management and configuration
      ii. Rotates correctly and accelerates in ground effect
      iii. Establishes correct pitch attitude
      iv. Maintains Vx +10/−5 kts until obstacle is cleared or 50'
      v. Maintains desired flight path

F. Soft Field Approach and Landing
1. RM
   a. Environmental factors
   b. Emergency considerations
   c. Collision avoidance
2. Skills and Knowledge
   a. Checklist usage
   b. SA and Comms
   c. Proper a/c configuration
   d. Proper a/s +10/−5 kts

e. Touchdown ≤200' beyond specified point
f. Proper braking technique
g. Timely go around if landing within tolerances not anticipated

G. Forward Slip to Landing
1. RM
   a. Low altitude stall/spin awareness
   b. Failure to apply correct controls for crosswind landings
   c. Failure to go-around
2. Skills and Knowledge
   a. Purpose of the maneuver
   b. Determines if xwind component exceeds pilot's or aircraft's capability
   c. Extablishes a sutable touchdown point
   d. Maintains desired flight path
   e. Touchdown ≤400' beyond specified point
   f. Maintains crosswind correction and directional control throughout the landing sequence
   g. Executes timely go-around if apch cannot be executed within the tolerances above

H. Go Around/Rejected Landing
1. RM/PAVE/TEAM
   a. Delayed recognition or performance of go around
   b. Improper power application or a/c configuration
   c. Collision avoidance, division of attention
   d. Distractions, loss of SA, improper task management
2. Skills and Knowledge
   a. Purpose of the maneuver
   b. Knowledge elements related to maneuver
   c. Checklist usage
   d. Environmental considerations
   e. SA and Comms
   f. A/c configuration
   g. Maneuver parameters
      i. Timely decision and execution
      ii. Correct pitch and power
      iii. Vy +10/-5 kts
      iv. Maintains desired flight path

V. Performance and Ground Reference Maneuvers

A. Steep Turns
1. RM
   a. Collision avoidance, division of attention

b. Distractions, loss of SA, improper task management
c. Stall/spin awareness, energy management

2. Skills and Knowledge
   a. Purpose of the maneuver
   b. Knowledge elements related to maneuver
   c. Checklist usage
   d. Environmental considerations
   e. SA and Comms
   f. A/c configuration
   g. Maneuver parameters
      i. ≅45^0 AoB
      ii. 360^0 turns in both directions
      iii. ±100', AS ±10 kts, Bank ±5^0. Hdg ±10'

B. Ground Reference Maneuvers

1. RM
   a. Collision avoidance, division of attention
   b. Distractions, loss of SA, improper task management
   c. Stall/spin awareness, energy management
   d. Emergency considerations
2. Skills and Knowledge
   a. Knowledge elements related to maneuver
   b. Identifies suitable emergency landing area
   c. Selects suitable ground reference
   d. Plans the maneuver as to enter with the appropriate perameters
   e. Applies wind drift corrections
   f. Maneuver parameters
      i. Divides attention between a/c control, collision avoidance and ground track while maintaining coordinated flight
      ii. 600'-1000' AGL ±100', a/s ±10 kts
      iii. Exits as appropriate

VI. NAVIGATION

A. Pilotage and Dead Reckoning

1. RM
   a. Selects most appropriate altitude considering obstacles and emergencies
   b. Bracketing strategy
   c. Task management
   d. Cockpit organization
   e. Failure to properly lean or select planned RPM setting
2. Skills and Knowledge

a. Prepare and use paper or electronic flight log
b. Navigate by pilotage, dead reckoning
c. Note differences between pre-computed headings, groundspeeds and elapsed times
d. Maintain ±3 nm of flight planned route
e. Arrives within 5 minutes of flight planned or revised ATA
f. ALT ±200' and HDG 15^0

B. Navigation Systems and Radar Services
1. RM
   a. Failure to manage automation and navigation systems
2. Skills and Knowledge
   a. Use an installed electronic navigation system
   b. Intercepting and tracking radials or bearings as appropriate
   c. Recognizing station passage
   d. Recognizes signal loss and takes corrective action
   e. Determine a/c position using navigation system
   f. Proper comms when using radar services
   g. Maintains ALT ±200' and HDG $\pm15^0$

C. Diversion
1. RM/ADM/SRM
   a. Failure to make timely decision
   b. Selects inappropriate airport
   c. Failure to manage tasks and maintain situational awareness
2. Skills and Knowledge
   a. Selects appropriate destination
   b. Estimates HDG, Time, Fuel, Distance
   c. Use of resources (SRM)

D. Lost Procedures
1. RM
   a. Failure to record times over waypoints
   b. Failure to declare an emergency or seek assistance
2. Skills and Knowledge
   a. Determines position
   b. Maintains appropriate hdg and climbs as necessary
   c. Uses pilotage, electronic nav and ATC to determine position

VII. Slow Flight and Stalls

A. Maneuvering during slow flight
1. RM
   a. Understanding hazards of inadvertent slow flight

2. Skills and Knowledge
   a. Understands aerodynamics of slow flight
   b. Maintains coordinated flight
   c. Maneuver Parameters
      i. ≥1500'
      ii. Establish AS with no stall indications
      iii. Config as specified
      iv. ALT ±100', HDG ±10°, +10/−0 KTS, specified AoB ±10°

B. Power-Off Stalls
1. RM
   a. Failure to recognize stall indications
   b. Improper recovery procedure
   c. Factors affecting stalling speed
   d. Secondary stalls, accelerated stalls, and cross-control stalls
2. Skills and knowledge
   a. Maneuver parameters
      i. Clear the area
      ii. ≥1500',
      iii. Configure as specified by evaluator
      iv. Establish a stabilized decent
      v. Transitions from apch decent to an attitude that will induce a stall
      vi. 10° HDG if straight, ≤20° AoB if turning
      vii. Recognizes and recover promptly after a full stall has occured
      viii. Executes proper recovery procedure iaw POH/AFM
      ix. Accelerates to Vx or Vy prior to flap retraction
      x. Returns to ALT, HDG and IAS specified by evaluator

C. Power-On Stalls
1. RM
   a. Failure to recognize stall indications
   b. Improper recovery procedure
   c. Factors affecting stalling speed
   d. Secondary stalls, accelerated stalls, elevator trim stalls, and cross-control stalls
2. Skills and knowledge
   a. Stall indications
   b. Circumstances that can lead to inadvertent stalls
   c. Maneuver parameters
      i. Clear the area
      ii. ≥1500',
      iii. Establish takeoff, departure or cruise configuration as assigned by the examiner
      iv. Power as specified by examiner, not less than 65%

v. 10° HDG if straight, ≤20° AoB ±10if turning
vi. Acknowledges and recovers at the first indication of an impending stall
vii. Executes proper recovery procedure iaw POH/AFM
viii. Accelerates to Vx or Vy prior to flap retraction
ix. Returns to ALT, HDG and IAS specified by evaluator

D. Spin Awareness
1. RM
   a. Factors leading to or contributing to spins
   b. Recovery procedure
2. Skills and Knowledge
   a. Spin recovery procedures
   b. Assess and avoid situations where unintentional spins may occur

VIII. Basic Instrument Maneuvers

A. Emergency Decent (eg. smoke/fire)
1. RM
   a. Poor cockpit/task management
   b. Continued flight into IMC
   c. Hazards of rapid head movement
2. Skills and Knowledge
   a. Controls a/c solely by reference to instruments
   b. Performs straight and level flight
   c. Airspeed climbs
   d. Airspeed descents
   e. Turns to headings
   f. Recovery from unusual attitudes
   g. Use of a navigation facility to intercept and track a desired course
   h. Interact with ATC in order to obtain and comply with radar sevices
   i. Maneuver parameters:
      i. ALT ±200', HDG ±20^0, IAS ±10 KTS

B. Emergency approach and landing (simulated)
1. RM:
   a. Collision hazards
   b. Low altitude stall/spin awareness
   c. Failure to select suitable landing area
   d. Improper task management
2. Skills and Knowledge
   a. Analyze situation and take most appropriate course of action

b. Exhibit orientation, division of attention, and proper planning
c. Effects of atmospherics
d. ATC services
e. Maneuver parameters:
   i. a/s ±10kts
   ii. proper configuration
   iii. plans and follows flight path to the selected landing area
   iv. prepares for landing
   v. completes checklist
   vi. makes appropriate radio calls when conditions allow

C. Systems and equipment malfunctions (relocated from the flight portion)
1. RM:
   a. Failure to use proper checklist
2. Skills and Knowledge
   a. Demonstrates understanding of:
      i. Partial or complete loss of engine power
      ii. Electrical malfunction
      iii. Flight control failures
      iv. Flight instrument failures
      v. System failures
      vi. Smoke/fire
      vii. Inadvertent door/window open
   b. Describes action items for 3 of the above.
   c. Analyze situation and take most appropriate course of action
   d. Completes checklist or procedure

XI. Postflight Procedures

C. After landing, Parking and securing
1. RM:
   a. Distractions
   b. Airport security
   c. Inappropriate cockpit/task management
2. Skills and Knowledge
   a. Utilize runway incursion avoidance procedures
   b. Complete checklists after a/c has stopped
   c. Proper shutdown procedure
   d. Documentation
   e. Disembarkation of passengers
   f. Safety awareness

g. Securing of aircraft
h. Postflight inspection
i. Checklist usage