

1. VERIFY APPLICANT ELIGIBILITY

Examiner's Plan of Action Instrument Pilot ASEL

Examiner's Plan of Action

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

Your daughter has college orientation in Lubbock, TX. She has always dreamt of attending Texas Tech and now's your chance to get the father or mother of the year award!

Please plan a flight to Lubbock.

Passengers include:

Yourself and your 30 lbs. of luggage

Your spouse: 140 lbs. and 30 lbs. of luggage Your daughter: 120 lbs. and 20 lbs. of luggage And daughter #2 at 80 lbs. and 20 lbs. of luggage



<u> 2. VERIFY ACCEPTABLE AIRCRAFT</u>
☐ Maintenance Records (AV1ATE)
\square A/C Documents (AROW or ARROW)
☐ Approved FAA POH (or substitute if approved by Evaluator)

3. CONDUCT PRACTICAL TEST

Examiner Rules of Conduct

- I will conduct this test in accordance with the ASEL ACS.
- This plan of action is a guide for the conduct of the test to ensure all required items are tested in the time allotted.
- Instruction during the FAA Practical Exam is not allowed.
- Areas found to be deficient will be marked as "below standards." Applicant will review those areas and receive additional instruction if necessary. Subsequent verification by the appropriate CFI or Stage Check Pilot is required.
- Perfection is not the standard. Students should strive to remain within standards and when a deviation occurs, promptly correct to within standards.
- Second chances are not allowed.
- I will take notes throughout the test to provide you with a through debrief.
- Oral examining will continue throughout the test.
- Assume you have passed unless told otherwise.
- I will not intervene or provide assistance except to prevent a violation or unsafe condition.
- Please let me know if you do not understand a question, statement or instruction.

Three possible outcomes:

- 1. Temporary Certificate
- 2. Notice of Disapproval
- 3. Letter of Discontinuance

5-minute break if student would like one and we will begin the Oral Exam



ORAL EVALUATION

1. Preflight Preparation (10 minutes)

A. PILOT QUALIFICATIONS

- 1. When is an instrument rating required?
- 2. Recency of experience requirements?
- 3. Proficiency vs Currency
- 4. What are your personal minimums?
- 5. Physiological Factors that affect IFR flight?
- 6. Performs or provides a risk analysis. (uses PPP, PAVE, TEAM, CARE)
- 7. Perform a self-assessment including whether the pilot is fit for flight.
- 8. Show sound decision-making and judgment (based on reality of circumstances).

B. Weather Information

- 1. What FAA facility is considered the primary source of Aviation Weather Briefings? What types of briefings are available?
- 2. Student demonstrates use of FAA wx briefing, ASOS, METAR, TAF, etc in scenario:
 - a. How can I check current wx at KAPA and/or Destination? Demonstrates ASOS
 - b. Explain the difference between ASOS, METAR, ATIS
 - c. What is the most appropriate source of wx information at the Centennial Apt within the past hour? Demonstrates the use of METAR or ATIS
 - i. I.e. METAR: KIAH 031353Z 18010G16KT 7SM BKN013TCU OVC023 26/23 A2981 RMK AO2 SLP094 TCU E-S MOVG NE VCSH E-S T02610228
- 3. How can I check forecasted WX at KAPA and/or destination? Demonstrates use of TAF.
 - a. I.e. what is the wx in IAH at 2300Z in the example below?
 - i. TAF: KIAH 031404Z 0314/0418 19011KT P6SM BKN013 OVC023

TEMPO 0315/0319 -SHRA

FM031900 20015G23KT P6SM VCTS BKN015CB

TEMPO 0322/0324 4SM -TSRA BKN010CB

FM040100 31008G15KT P6SM VCSH OVC015

- 4. Which chart shows areas of convective activity including level of intensity, tops and direction of movement? Demonstrates the use of Radar Summary Chart
- 5. Which chart depicts pressure centers, frontal zones, isobars? Demonstrates the use of Surface Analysis Chart
- 6. What is a chart similar to the Surface analysis chart except that its forecasted? Demonstrates the use of Prog Charts.
- 7. What type of weather is generally associated with: a low-pressure system, a high-pressure system, a cold front, a warm front, a stationary front, an occluded front? State characteristics as: Visibility good/bad, Clouds Cumulous/Stratus, Precip Showery/continuous
- 8. What kind of weather would I expect to see if I were in _____ (pick a city with obvious isobar contours) to test student understanding of Isobars?



- 9. What are some kinds of fog and what kind(s) would I most likely encounter in the Denver area?
- 10. Under what conditions would you expect icing to occur?
- 11. How can you receive an Inflight Weather Briefing?
- 12. Seasonal weather phenomena.

**Ensure student correlates dynamic wx to the flight, identifies limitations of wx reports and forecasts, applies personal wx minimums

C. Cross Country Flight Planning

- 1. Student presents Flight Plan and Navigation Log (electronic or paper)
- 2. How many GPH are we planned to consume? How did you come to this number? Demonstrates a/c performance calculations)
- 3. What is emergency/minimum fuel?
- 4. What altitude are we filed for and why?
- 5. At what altitude would we require O2
- 6. What is our alternate airport and why? Explains Alternate Apt Filing requirement.
- 7. Airspace considerations
- 8. Topographical limitations such as mountains, large bodies of water, night flight
- 9. Diversion tripwires
- 10. Provide Student with the following clearance or a similar one if desired or required:

 N12345 is cleared to the KXYZ airport via the PIKES1.PUB V81 LBB then as filed; Climb and maintain 7,700' expect 8,000' one zero minutes after departure, squawk 1234.
 - a. Demonstrates understanding of preferred routes
 - b. Recalculates Fuel: Explains fuel planning considerations in the IFR environment. (you don't know what you'll be cleared for until you're in the airplane and already fueled or if you'll have to hold when you get there.)
 - c. Explains taxi charts, procedures, considerations
 - d. Explains SID/ODP charts, procedures, considerations
 - e. Explains IFR Low Enroute charts, procedures, considerations
 - f. Explains IFR Arrival charts, procedures, considerations
 - g. Explains IFR Approach charts, procedures, considerations

2. PREFLIGHT PROCEDURES

A. Aircraft Systems Related to IFR Operations

- 1. Explain a/c systems; choose 3 of the following:
 - a. Electrical system limitations and considerations for IFR
 - b. Anti-ice and/or de-ice equipment limitations and usage in IFR
- B. Airplane Flight Instruments and Navigation Equipment
 - a. Giro instruments; electric v pneumatic
 - b. Pitot-Static system limitations and considerations for IFR



- c. Transponder Requirements
- d. Navigation and Communication radio requirements
- e. IFR equipment checks
- f. IFR equipment requirements
- g. Limitations of EFB
- 3. Air Traffic Control Clearances and Procedures
 - A. Compliance with ATC Clearances
 - 1. When is it authorized to deviate from an ATC clearance?
 - 2. What should you do if you receive a TCAS Traffic Alert while IMC?



PRACTICAL EVALUATION

To the examiner: the following RM concepts should be confirmed during all phases of flight:

- ADM
- Collision avoidance, division of attention
- Distractions, loss of SA, improper task management
- Stall/spin awareness, energy management

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- I) This section left blank.
- II) Preflight Procedures:
 - A) Aircraft Systems Related to IFR Operations
 - 1. Risk Management
 - a. Failure to consider a/c Icing
 - 2. Skills and Knowledge
 - a. Usage of anti-icing and de-icing equipment
 - B. Aircraft Flight Instruments and Navigation Equipment
 - 1. Risk Management
 - a. Distractions created by programming avionics
 - b. Failure to manage automation
 - c. Operations with unfamiliar equipment
 - 2. Skills and Knowledge
 - a. Operate and manage installed equipment
 - C. Instrument and Equipment Cockpit Check
 - 1. Risk Management
 - a. Inoperative Equipment
 - b. Programming avionics during a/c movement
 - c. Outdated database
 - 2. Skills and Knowledge
 - a. Runway incursion avoidance
 - b. IFR equipment inspections
 - c. Inoperative equipment requirements
- III) Air Traffic Control Clearances and Procedures
 - A. Compliance with ATC Clearances
 - 1. Risk Management
 - a. Failure to fully understand ATC Clearances and their implications
 - 2. Skills and Knowledge
 - a. Uses standard phraseology
 - b. Correct understanding and readback of all clearances



- c. Proper frequency selection and tspdr code compliance
- d. Timely readbacks
- e. Maintains Airspeed +/- 10 kts, Hdg +/-10 degrees, altitude +/-100'

B. Holding Procedures

- 1. Risk Management
 - a. Fuel reserves when unexpected holding occurs
 - b. Deteriorating situation while in holding
 - c. Improper avionics and automation management
- 2. Skills and Knowledge
 - a. Calculates fuel reserves based on EFC
 - b. 10/10/100/.75 deflection
 - c. Applies proper wind correction
 - d. Selects appropriate speed to conserve fuel
 - e. Changes a/s within 3 minutes or less, but prior to holding fix
 - f. Selects proper entry
 - g. Makes appropriate voice report
 - h. Uses proper timing/distance
 - i. Appropriate use of navigation displays

IV) FLIGHT BY REFERENCE TO INSTRUMENTS

A. Instrument Flight

- 1. Risk Management
 - a. Distractions
 - b. Improper instrument cross-check
 - c. Failure to recognize abnormal situations
- 2. Skills and Knowledge
 - a. 10/10/100/AOB 5
 - b. Uses proper instrument crosscheck and makes appropriate corrections when applicable
 - c. Recognizes distractions
 - d. Recognizes abnormal instrument indication

B. RECOVERY FROM UNUSUAL FLIGHT ATTITUDES

- 1. Risk Management
 - a. Situations that could lead to loss of control (LOC)
 - b. Startle response
 - c. Exceeding operating limitations
- 2. Skills and Knowledge
 - a. Recognizes, confirms and recovers from unusual attitudes (nose high/low, low/high speed)
 - b. Recovers, in correct sequence, to stabilized, level flight

V) NAVIGATION SYSTEMS



A. INTERCEPTING AND TRACKING NAVIGATION SYSTEMS AND DME ARCS

- 1. Risk Management
 - a. Failure to intercept course
 - b. Navigation system mismanagement or failures
- 2. Skills and Knowledge
 - a. Procedures for intercepting and tracking courses and DME arcs
 - b. Indications of NAV failures
 - c. Tunes and identifies facilities
 - d. Sets CDI/HSI correctly for course to be intercepted
 - e. Intercepts course at a predetermined able and tracks inbound or outbound
 - f. Maintains 10/10/100/.75/1nm for DME arcs
 - g. Properly programs autopilot (if installed) to intercept courses

B. DEPARTURE, ENROUTE AND ARRIVAL OPERATIONS

- 1. Risk Management
 - a. Icing situations
 - b. Failure to communicate with ATC
- 2. Knowledge and Skills
 - a. Verifies proper CDI scales/sensitivity
 - b. Complies with all ATC clearances
 - c. Complies with all IAP, DP, STARs including notes
 - d. Proper use of facilities
 - e. 10/10/100/.75

VI) INSTRUMENT APPROACH PROCEDURES

A. NON-PRECISION APPROACH

- 1. Risk Management
 - a. Failure to follow the procedure
 - b. Excessive decent rates
 - c. Unstable approach
 - a. Decent below MDA/DA/DH without prescribed references
 - e. Failure to manage automation
- 2. Knowledge and Skills
 - a. Selects appropriate IAP to be flown
 - b. Proper use of nav facilities
 - c. Complies with all clearances by ATC or the Evaluator
 - d. Recognize any flight instrument errors and act appropriately
 - e. Proper voice reports
 - f. Establishes appropriate airspeed +/- 10kts
 - g. Adjusts MDA as required by a/c equipment, inoperative equipment, NOTAM
 - h. Establishes stabilized approach that will result in arrival at prior to FAP
 - i. AS ± -10 kts, alt $\pm 100/-0$, less than or equal to .75 deflection



- j. Executes missed approach, normal or circling landing
- k. Uses MFD or other graphical displays, if installed, to monitor position, track and other parameters in order to maintain desired flight path
- 1. Confirms appropriate annunciations during a GPS approach

B. PRECISION APPROACH

- 1. Risk Management
 - a. Failure to follow the procedure
 - b. Excessive decent rates
 - c. Unstable approach
 - d. Decent below MDA/DA/DH without prescribed references
 - e. Failure to manage automation
- 2. Knowledge and Skills
 - m. Selects appropriate IAP to be flown
 - n. Proper use of nav facilities
 - o. Complies with all clearances by ATC or the Evaluator
 - p. Recognize any flight instrument errors and act appropriately
 - q. Proper voice reports
 - r. Establishes appropriate airspeed +/- 10kts
 - s. Adjusts DA/DH as required by a/c equipment, inoperative equipment, NOTAM
 - t. Establishes a pre-determined rate of decent that approximates glideslope
 - u. AS ± -10 kts, alt $\pm 100/-0$, less than or equal to .75 deflection
 - v. Executes missed approach, normal or circling landing
 - w. Uses MFD or other graphical displays, if installed, to monitor position, track and other parameters in order to maintain desired flight path

c. MISSED APPROACH

- 1. Risk Management
 - a. Failure to follow the prescribed procedure
 - b. Improper a/c configuration
 - c. Failure to manage automation
- 2. Skills and Knowledge
 - a. Initiates missed approach at the correct point and maneuvers a/c appropriately
 - b. Reports to ATC
 - c. Configures a/c appropriately (5 C's)
 - d. 10/10/100
 - e. Uses MFD or other graphical display for SA

D. CIRCLING APPROACH

- 1. Risk Elements
 - a. Circling with inadequate visible references
 - b. Improper a/c control



2. Skill and Knowledge

- a. Selects appropriate approach considering traffic and wx
- b. Selects appropriate circling category and complies
- c. Maintains A/S and ALT
- d. Loses sight of rwy
- e. Decent below MDA
- f. Low alt maneuvering
- g. Missed approach as it pertains to circling approaches

E. LANDING FROM AN INSTRUMENT APPROACH

- 1. Risk Management
 - a. Attempts to land from an unstabilized approach
 - b. Airport signs, markings and lighting
- 2. Skills and Knowledge
 - a. Transition from instrument to visual decent
 - b. Proper correction for decent below glidepath
 - c. Unstabilized approach/ proper decent angle

VII) EMERGENCY OPERATIONS

A. LOSS OF COMMUNICATIONS

- 1. Risk Management
 - a. Failure to recognize/manage radio equipment failure
 - b. Failure to follow lost communication procedures
 - c. Deviating from IFR clearance
- 2. Skills and Knowledge
 - a. Recognizes loss comms
 - b. Troubleshooting, attempts to regain comms
 - c. Continues at EFC or as appropriate
 - d. Complies with appropriate IFR loss comm procedures

B. APPROACH WITH LOSS OF PRIMARY FLIGHT INSTRUMENTS

- 1. Risk Management
 - a. Failure to maintain situational awareness
 - b. Failure to follow prescribed procedures
 - c. Failure to maintain a/c control
 - d. Excessive decent rates
 - e. Failure to establish stabilized approach
- 2. Skills and Knowledge
 - a. Recognizes and transitions to secondary flight display
 - b. Advises ATC
 - c. Completes NON-PRECISION instrument approach without the use of primary flight instruments.



VIII) POST FLIGHT PROCEDURES

- A. CHECKING INSTRUMENTS AND EQUIPMENT
 - 1. Risk Management
 - a. Failure to conduct post-flight inspection
 - b. Failure to document discrepancies
 - 2. Skills and Knowledge
 - a. Document any a/c discrepancies
 - b. Incident reporting (NASA REPORT)
 - c. Post flight inspection

END EVALUATION