

Instrument Airplane FAR 61.65

Total Time	Dual	Solo	PIC	Dual XC	Solo XC	PIC XC	Instrument	Night Dual	Night PIC	Night TO/Land PIC
Blank	15	Blank	50	3	Blank	50	40	Blank	Blank	Blank
	3 hours last 60 days, 5 dual in airplanes			1 IFR XC 250 miles, 3 approaches 3 different airports		10 hours in airplanes	40 hours or 20 is FTD used up to 20 Hours FTD			
Non 142 Training Device/Simulator Max Credit 20										

PRETEST BRIEFING

1. Put the applicant at ease (small talk, etc.)
2. Advise applicant of available comfort facilities
3. Confirm type of practical test or retest
4. Provide casual overview of the test
5. Collect/Verify required documents
 - FAA Form 8710-1, Airman Certificate and/or Rating Application
- ____
- Photo/signature I.D. (Note type on 8710-1 and return) ____
- Pilot Certificate (Verify vs I.D. & FAA Form 8710-1 and return)
- ____
- Medical (note limitations) ____
- Knowledge test results (if appropriate) ____
- Logbook or training records (Verify that the applicant meets all requirements and appropriate endorsements) ____
- Aircraft documents (Verify location & scheduled availability)
6. Verify that required equipment (hood, etc.) is available
7. Verify that applicant is aware of PTS requirements and tolerances
8. Advise the applicant that:
 - FAA Practical Test IAW the _____ PTS
 - Will be using a Plan of Action (Used to organize the Practical Test)
 - Will be taking notes for the debrief
 - Perfection is not the standard
 - Oral questioning will continue throughout the test
 - Three possible outcomes are:
 - Temporary airman certificate
 - Notice of disapproval of application
 - Letter of Discontinuance
9. Any Questions?
10. Collect Fee ____
11. **Announce "THE TEST HAS BEGUN!"**

ORAL QUESTIONING

Oral questioning may continue throughout the test.

I. PREFLIGHT PREPARATION

A. Weather Information

Brief me on the real-time weather for our proposed flight. (METAR's, TAF's, FA's, PIREP's, SIGMET's, NOTAM's,

FDC NOTAM's.

Read a METAR and a TAF (I select it)

B. Cross-Country Flight Planning

Review flight plan and NAV LOG for route, fixes, Alternate selection, Fuel, Wind and Altitude selected.

When is an alternate required? Assume an alternate is required for the following:

Prove to me that the alternate you selected is acceptable by FAR's (non standard or N/A, Fuel, weather at ETA) Explain how to conduct an approach to the destination airport without radar vectors from the last enroute fix on flight plan.

Explain pilot controlled lights at the destination airport.

VII. EMERGENCY OPERATIONS

A. Loss of Communications

Analyze the proposed flight plan from a lost comm perspective for:

Route, Altitudes, ETA, which approaches assumed cleared for.

When would it be appropriate under lost communications to deviate from the flight plan? (VFR, Emergency declaration)

II. PREFLIGHT PROCEDURES

A. Aircraft Systems Related to IFR Operations

What De-ice/Anti-ice capability is this aircraft equipped with?

B. Aircraft Flight Instruments and Navigation Equipment

If the pitot tube had ice on the tip, what would the effect be on the instruments?

Why don't you make it standard practice to open the alternate static valve (or break the glass on the VSI!!!!) prior to IFR flight to avoid a clogged static port? Effect on instruments by doing this?

If the Vacuum system failed, what would happen? Can the aircraft be controlled? How?

In straight and level flight, what is the Primary power instrument? Primary pitch? While in a climb?

Why can't you use the VSI for primary pitch?

When making a Partial panel turn from the east to the west, and NOT holding a steady airspeed, would the compass be accurate when approaching west in the turn? Why?

Why do you use approx. a 30° U.N.O.S. in this aircraft?

At what point during an unusual attitude should the gyros "tumble" or become unreliable?

How do you determine and Alternator failure?

If the aircraft experienced a complete loss of electrical power during IFR flight, which gyro(s) will fail?

Is a DME ever REQUIRED for IFR flight? Why? When crossing a VORTAC or VOR/DME, what distance is displayed?

What is the difference between a MEA and a MOCA?

What is the correct setting on the marker beacon receiver for approach?

Why is it necessary to "continuously monitor" the morse code on the ADF when using it?

How do you "STOP SQUAWKING MODE C" if ATC requests it?

Is a transponder required for IFR flight? Where?

If you plan to use VOR's for navigation, what inspection must be performed? What must be recorded?

What can make the GPS not legal for IFR Instrument approaches? (Database expired, Quick reference card, Owner's Manual, etc)

(If this plane is IFR GPS equipped) Explain how GPS will be properly configured for an approach.

Explain RAIM from a pilot's perspective.

Pre-flight briefing:

- Overview of Flight Portion of Test
- How emergencies would be simulated
- Transfer of controls
- Looking for traffic, Clearing of Area
- Oral Questioning continues
- Perfection is not the standard, but consistently exceeding tolerances is not acceptable
- DME ARC procedure
- GPS DATABASE MUST BE CURRENT!
- If you are unsure of what I asked, ask me again. If you aren't ready to do something, tell me.
- I am also testing for good judgment, like NOT continuing a bad approach, leveling off PRIOR to MDA, etc.
- Stabilized approaches
- Continue/Discontinue if unsatisfactory option of applicant
- Radio communications are your responsibility except for setting up approaches with ATC. Remember YOU are PIC, not me.

II. PREFLIGHT PROCEDURES (cont.)

C. Instrument Cockpit Check

Checks instruments and radios before takeoff

How do you determine if the comms are stuck on transmit? What can you do about it?

III. AIR TRAFFIC CONTROL CLEARANCES AND PROCEDURES

A. Air Traffic Control Clearances

Copy an simulated clearance and read it back correctly in a timely manner.

B. Compliance with Departure, En Route, and Arrival Procedures and Clearances

Comply with a simulated ATC departure procedure.

C. Holding Procedures

This is combined with DME ARC if DME equipped.

IV. FLIGHT BY REFERENCE TO INSTRUMENTS

A. Basic Instrument Flight Maneuvers

S+L, Climbs, Descents, Turns

B. Recovery from Unusual Attitudes FULL PANEL

Use the correct procedure. If it's climbing I expect FULL POWER(do not exceed 2700 RPM), nose down, level wings.

If it's diving, I expect the throttle closed, level wings, nose up. DO NOT combine these moves.

V. NAVIGATION SYSTEMS

Intercepting and Tracking Navigational Systems and DME Arcs

We have to "invent" a 5 DME ARC procedure on the 3K6 approach plate that terminates at the 300° radial of TOY.

Intercept and track a radial inbound to TOY, begin DME ARC, transition to approach, on missed approach, join hold described.

VI. INSTRUMENT APPROACH PROCEDURES

A. Nonprecision Instrument Approach

2 of these, one must be Partial Panel.

1 of these must include a procedure turn

±100ft, ± 10 kias, ± 10° heading ¾ scale max, (or 10° if NDB/RMI)

Tracks to the airport, no S-turning.

Arrives at MDA prior to MAP, -0, +100 feet, ± 10° heading, ± 10 kias.

B. Precision ILS Instrument Approach

Stabilized from Outer marker inbound ± 10 kias, ¾ scale max.

C. Missed Approach

Follows instructions, ± 10° heading, ± 100 ft, ± 10 kias.

D. Circling Approach

Maintains MDA -0, +100ft, stays within visibility criteria at all times during circle (unless otherwise directed by ATC).

E. Landing from a Straight-in or Circling Approach

Begins a descent once in a position from which...etc.

Can land the plane safely. (includes crosswind control, etc.)

VII. EMERGENCY OPERATIONS

D. Loss of Gyro Attitude and/or Heading Indicators

This is done in conjunction with one of the non-precision approaches.

VIII. POSTFLIGHT PROCEDURES

A. Checking Instruments and Equipment

Shuts down avionics I/A/W checklist, writes up any noted squawk.

POST - FLIGHT

1. General

- Reaffirm outcome
- Allow applicant some time to self
- Prepare temporary cert./disapproval notice/letter of discontinuance
- Offer to sign applicant's logbook

2. Temporary Airman Certificate

- Establish a positive atmosphere
- Highlight above average performance
- Debrief using the plan of action
- Have applicant review and sign temporary airman certificate
- Examiner signs and issues temporary airman certificate
- Advise of duration - 120 days
- Ensure applicant has proper documents
- Verify that you have the proper documents
- Brief flight instructor of applicant's performance

3. Disapproval Notice

- Establish a positive atmosphere
- Highlight above average performance as well as deficient tasks
- Debrief using the plan of action
- Use PTS to explain reasons for disapproval
- Do not criticize the flight instructor
- Be alert for Denial, Anger, Bargaining, or Depression
- Issue disapproval notice
- Advise re-test credit for satisfactorily completed items is 60 days
- Ensure applicant has proper documents
- Verify that you have the proper documents
- Brief flight instructor of applicant's performance

PTS AREAS and TASKS

I. PREFLIGHT PREPARATION

- A. Weather Information
- B. Cross-Country Flight Planning .

II. PREFLIGHT PROCEDURES

- A. Aircraft Systems Related to IFR Operations
- B. Aircraft Flight Instruments and Navigation Equipment
- C. Instrument Cockpit Check

III. AIR TRAFFIC CONTROL CLEARANCES AND PROCEDURES

- A. Air Traffic Control Clearances
- B. Compliance with Departure, En Route, and Arrival Procedures and Clearances
- C. Holding Procedures

IV. FLIGHT BY REFERENCE TO INSTRUMENTS

- A. Basic Instrument Flight Maneuvers
- B. Recovery from Unusual Flight Attitudes

V. NAVIGATION SYSTEMS

- A. Intercepting and Tracking Navigational Systems and DME Arcs

VI. INSTRUMENT APPROACH PROCEDURES

- A. Nonprecision Approach (NPA)
- B. Precision Approach (PA)
- C. Missed Approach
- D. Circling Approach
- E. Landing from a Straight-in or Circling Approach

VII. EMERGENCY OPERATIONS

- A. Loss of Communications
- B. One Engine Inoperative During Straight-and-Level Flight and Turns (Multiengine Airplane)
- C. One Engine Inoperative—Instrument Approach (Multiengine Airplane)
- D. Loss of Primary Flight Instrument Indicators

VIII. POSTFLIGHT PROCEDURES

- A. Checking Instruments and Equipment