



# Glider Pilot Practical Test Preparation Course

# Course Objectives



- Upon completion of this course you will become familiar with -
  - Why the FAA uses Practical Tests and what it expects from Applicants, Flight CFIs and Examiners
    - FAA, Special Emphasis topics
      - Knowledge Test deficiencies
      - Those mentioned in the Practical Test Standards (PTS)
    - Approval, Disapproval and Continuations
  - How to use the Practical Test Standards
    - Using real world scenarios as they apply to the Areas of Operation and Tasks listed in the PTS
    - Quizzing and classroom discussion to do a deep dive into areas that need more clarification
    - Hands on demonstration in the use of systems and equipment as applicable
  - How to complete your Airman Rating Application

# Practical Test Objective



- The Practical Test isn't a barrier which you have to overcome to be a pilot
  - It's a tool used by the Examiner to determine if you have the **MINIMUM** skill and knowledge to exercise the privileges of the rating sought
    - Same as passing with a D grade (and we all should want to do better than that)
  - You are an Applicant and your Application is either Approved, Disapproved or continued
    - Not Pass/Fail
- Keep in mind that the Examiner is evaluating you on what kind of pilot you are and how you operate the aircraft - **FOR THE REST OF YOUR LIFE**
  - They're "on the line", both legally and morally for each Practical Test they administer
    - While they can't disapprove and Applicant for Anything that's not listed in the PTS, they can use their judgement to determine if the Applicant meets the minimum standards
    - An applicant can discontinue the test at anytime without prejudice

# Practical Test Standards



- The Practical Test Standards (PTS) were implemented by the FAA as a tool for Instructors to prepare Applicants for the Practical Test
  - The PTS is being replaced by the Airman Certification Standards (ACS) in a phased process. Gliders aren't listed in this process as of this date
  - **OBTAINING AND BECOME FAMILIAR WITH THE APPROPRIATE PTS FOR THE RATING SOUGHT IS EMPIRICAL!**
- Disapproval is a reflection on the Authorizing CFI, not the Applicant and indicates that the Applicant wasn't properly prepared by the CFI
  - CFIs are required to validate the experience, skill and knowledge of the Applicant and cover all material in the PTS, with Special Emphasis on the deficient areas of the Knowledge Test before they endorse the Applicant as prepared to take the Practical Test

# Practical Test Standards



- AREAS OF OPERATION are phases of the practical test arranged in a logical sequence within each standard. They begin with Preflight Preparation and end with Postflight Procedures. The examiner, however, may conduct the practical test in any sequence that results in a complete and efficient test.
- TASKS are titles of knowledge areas, flight procedures, or maneuvers appropriate to an AREA OF OPERATION
- NOTE is used to emphasize special considerations required in the AREA OF OPERATION or TASK.
- REFERENCE identifies the publication(s) that describe(s) the TASK. Descriptions of TASKS are not included in the standards because this information can be found in the current issue of the listed reference. Publications other than those listed may be used for references if their content conveys substantially the same meaning as the referenced publications

# Practical Test Standards



- Crew Resource Management (CRM)
  - CRM refers to the effective use of all available resources: human resources, hardware, and information. Human resources include all groups routinely working with the cockpit crew or pilot who are involved with decisions that are required to operate a flight safely. These groups include, but are not limited to dispatchers, cabin crewmembers, maintenance personnel, air traffic controllers, and weather services. CRM is not a single TASK, but a set of competencies that must be evident in all TASKS in the Practical Test Standards as applied to either crew or single pilot operations.

# Practical Test Standards



- Applicant's Use of Checklists

- Throughout the practical test, the applicant is evaluated on the use of an appropriate checklist. Proper use is dependent on the specific TASK being evaluated. The situation may be such that the use of the checklist, while accomplishing elements of an Objective, would be either unsafe or impractical, especially in a single-pilot operation. In this case, a review of the checklist after the elements have been accomplished, would be appropriate. Division of attention and proper visual scanning should be considered when using a checklist.

- PAVE

<b>I'M SAFE Checklist</b>
<b>I</b> llness - Symptoms
<b>M</b> edication - Prescription or OTC
<b>S</b> tress - Job, Financial, Health, Family
<b>A</b> lcohol - 8 Hrs? 24 Hrs?
<b>F</b> atigue - Adequately rested
<b>E</b> ating - Adequately Nourished

# Practical Test Standards



## ➤ APPLICANT'S PRACTICAL TEST CHECKLIST

### ➤ ACCEPTABLE AIRCRAFT

- Aircraft Documents:
  - Airworthiness Certificate
  - Registration Certificate
  - Operating Limitations
- Aircraft Maintenance Records:
  - Record of Airworthiness Inspections
  - Current Status of Applicable Airworthiness Directives
- € Pilot's Operating Handbook, FAA-Approved Glider Flight Manual

### ➤ PERSONAL EQUIPMENT

- Practical Test Standard
- Current Aeronautical Charts
- Computer and Plotter
- Flight Plan Form
- Flight Log Form
- Current AIM, Airport Facility Directory, and Appropriate Publications

### ➤ PERSONAL RECORDS

- € Identification - Photo/Signature ID
- Pilot Certificate
- Completed FAA Form 8710-1, Airman Certificate and/or Rating Application with Instructor's Signature (if applicable)
- Airman Test Report
- Pilot Logbook with Appropriate Instructor Endorsements
- FAA Form 8060-5, Notice of Disapproval (if applicable)
- Approved School Graduation Certificate (if applicable)
- Examiner's Fee (if applicable)



# Practical Test Standards



- Use of Distractions During Practical Tests
  - Numerous studies indicate that many accidents have occurred when the pilot has been distracted during critical phases of flight. To evaluate the applicant's ability to utilize proper control technique while dividing attention both inside and/or outside the cockpit, the examiner shall cause a realistic distraction during the flight portion of the practical test to evaluate the applicant's ability to divide attention while maintaining safe flight.

# Scenario Based Testing



- The FAA encourages the use of scenarios in both training and testing. Scenarios should include:
  - A well defined objective with measurable results.
  - Realistic motivations and pressures.
  - Elements that will demonstrate required skills and decision making, which may include multiple outcomes and consequences.
  - Realistic distractions.

# Scenario



You have convinced the club to let you put the 2-32 on display at an airshow at Ramona airport. The Board agreed so long as the glider is gone for no longer than one week.

Friday is the setup day for all displays at the airshow (no setup allowed during the show). Since we don't have a trailer for the 2-32, you will need fly the ship from Elsinore to Ramona the preceding Wednesday. As luck would have it, this will be a "Santa Ana day", with winds out of 33 degrees at 22 mph.

The Treasurer has already paid the \$100 registration fee and the Board has agreed that the club will cover the cost of the tow. Several club members have made plans to help with the display and "Man the booth".

# I. AREA OF OPERATION: PREFLIGHT PREPARATION



## A. TASK: CERTIFICATES AND DOCUMENTS

REFERENCES: 14 CFR parts 43, 61, and 91; AC 61-23; Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to certificates and documents by explaining –
  - a. pilot certificate privileges and limitations.
  - b. medical fitness.
  - c. pilot logbook or flight records.
2. Exhibits knowledge of the elements related to certificates and documents by locating and explaining -
  - a. airworthiness and registration certificates.
  - b. operating limitations, placards, and instrument markings.
  - c. weight and balance data and equipment list.
  - d. maintenance requirements, appropriate records, airworthiness directives, and compliance records.

# I. AREA OF OPERATION: PREFLIGHT PREPARATION



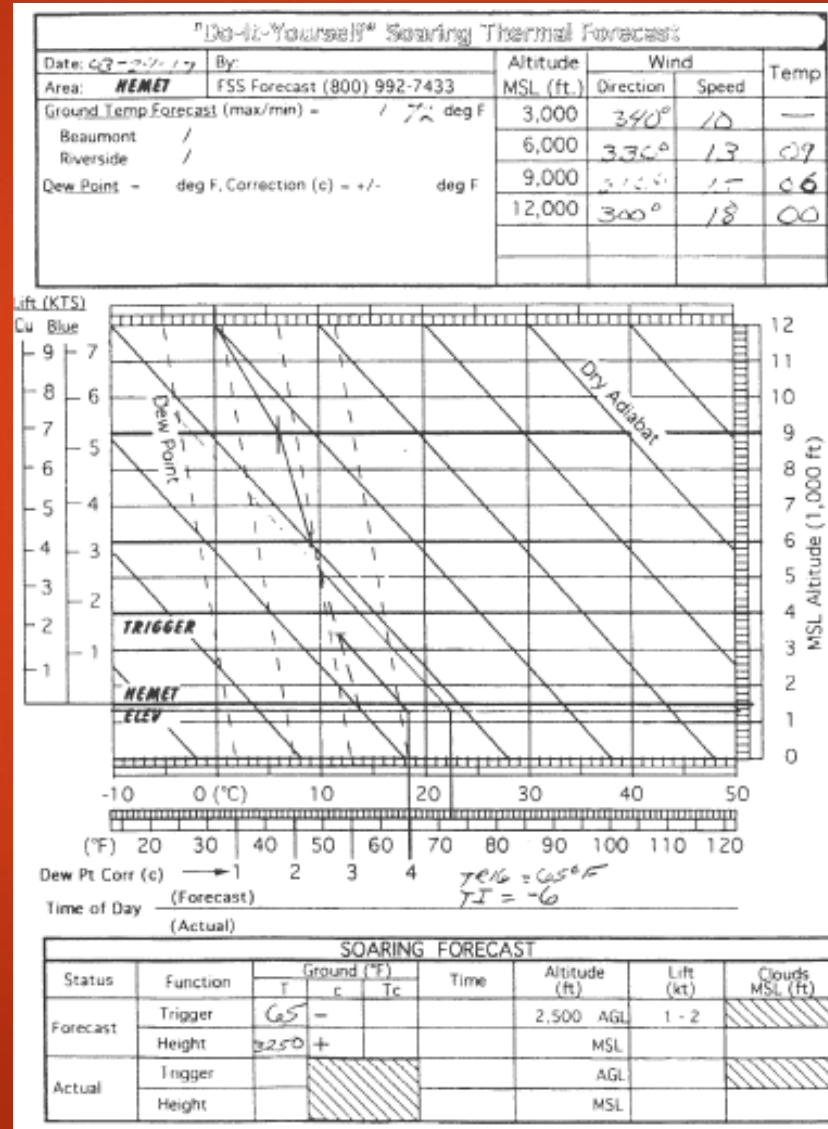
## B. TASK: WEATHER INFORMATION

REFERENCES: AC 00-6, AC 00-45, AC 61-23, and AC 61-84; Soaring Flight Manual

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to weather information from various sources with emphasis on –
  - a. use of weather reports, charts, and forecasts.
  - b. significant weather prognostics.
2. Exhibits knowledge of the relationship of the following factors to the lifting process –
  - a. pressure and temperature lapse rates.
  - b. atmospheric instability.
  - c. thermal index and thermal production.
  - d. cloud formation and identification.
  - e. frontal weather.
  - f. other lifting sources.
3. Explains hazards associated with flight in the vicinity of thunderstorms.
4. Makes a competent “go/no-go” decision based on available weather information.

# Pseudo Adiabatic Chart



# I. AREA OF OPERATION: PREFLIGHT PREPARATION



## C. TASK: OPERATION OF SYSTEMS

REFERENCES: AC 61-23; Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the operation of instruments and systems, including as appropriate –
  - a. magnetic compass.
  - b. yaw string or inclinometer.
  - c. airspeed indicator and altimeter
  - d. variometer and total energy compensators
  - e. gyroscopic instruments.
  - f. electrical.
  - g. landing gear and brakes.
  - h. avionics
  - i. high-lift and drag devices
  - j. oxygen equipment.
2. Correctly interprets information displayed on the instruments.

# I. AREA OF OPERATION: PREFLIGHT PREPARATION



## Oxygen Equipment Checklist.

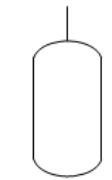
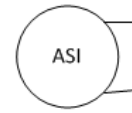
- PRICE
  - Pressure
  - Regulator
  - Indicator
  - Connections
  - Emergency Bailout Bottle



# Flight Instruments



How are the standard instruments found in gliders plumbed?



CAPACITY



PITOT



STATIC



TOTAL ENERGY

# I. AREA OF OPERATION: PREFLIGHT PREPARATION



## D. TASK: PERFORMANCE AND LIMITATIONS

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective : To determine that the applicant:

1. Exhibits knowledge of the elements related to performance and limitations, including the use of charts, tables, data to determine performance, and the adverse effects of exceeding limitations.
2. Uses appropriate performance charts, tables, and data.
3. Computes weight and balance, and determines if the weight and center of gravity are within limits.
4. Explains the management of ballast and its effect on performance.
5. Describes the effect of various atmospheric conditions on the glider's performance.
6. Explains the applicable performance speeds and their uses.
7. Describes the relationship between airspeeds and load factors.

# I. AREA OF OPERATION: PREFLIGHT PREPARATION



E. TASK: AEROMEDICAL FACTORS

REFERENCES: AIM, Soaring Flight Manual.

Objective : To determine that the applicant exhibits knowledge of the elements related to aeromedical factors by explaining:

1. Symptoms, causes, effects, and corrective action of at least three (3) of the following –
  - a. hypoxia.
  - b. hyperventilation.
  - c. middle ear and sinus problems.
  - d. spatial disorientation.
  - e. motion sickness.
  - f. carbon monoxide poisoning (self-launch).
  - g. stress and fatigue.
  - h. dehydration and heatstroke.
2. Effects of alcohol and drugs, including over-the-counter drugs.
3. Effects of evolved gas from scuba diving on a pilot during flight.

# II. AREA OF OPERATION: PREFLIGHT PROCEDURES



## A. TASK: ASSEMBLY

NOTE: If, in the judgment of the examiner, the demonstration of the glider assembly is impractical, competency may be determined by oral testing

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to assembly procedures.
2. Selects a suitable assembly area and provides sufficient crewmembers for assembly
3. Follows an appropriate checklist.
4. Uses proper tools.
5. Handles components properly.
6. Cleans and lubricates parts, as appropriate.
7. Accounts for all tools and parts at the completion of assembly.
8. Performs post-assembly inspection, including a positive control check.

# II. AREA OF OPERATION: PREFLIGHT PROCEDURES



## B. TASK: GROUND HANDLING

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to ground handling procedures.
2. Selects the appropriate ground handling procedures and equipment for existing conditions.
3. Determines the number of crewmembers needed.
4. Handles the glider in a manner that will not result in damage during movement.
5. Secures the glider and controls, as necessary, in proper position.

# II. AREA OF OPERATION: PREFLIGHT PROCEDURES



## C. TASK: PREFLIGHT INSPECTION

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to preflight inspection, including which items must be inspected, for what reasons, and how to detect possible defects.
2. Inspects the glider using the appropriate checklist.
3. Verifies the glider is in condition for safe flight, notes any discrepancies, and determines if maintenance is required.
4. Inspects the launch equipment, including towline, tow hitches, weak links, and release mechanism.

# II. AREA OF OPERATION: PREFLIGHT PROCEDURES



## D. TASK: COCKPIT MANAGEMENT

REFERENCES: 14 CFR part 91; Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to cockpit management procedures.
2. Organizes and arranges material and equipment in a manner making items readily available.
3. Briefs passengers on the use of safety belts, shoulder harnesses, and emergency procedures.
4. Utilizes all appropriate checklists.

# II. AREA OF OPERATION: PREFLIGHT PROCEDURES



E. TASK: VISUAL SIGNALS

REFERENCES: Soaring Flight Manual.

















Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aero tow or ground tow visual signals, as appropriate.
2. Uses, interprets, and responds to prelaunch, launch, airborne, and emergency signals, as appropriate.



# Standard American Soaring Signals



1. CHECK CONTROLS 	2. OPEN/CLOSE  TOW RELEASE	3. PILOT READY 	4. TAKE UP SLACK 
5. TOWPLANE READY  Waggle Rudder	6. HOLD 	7. BEGIN TAKE OFF 	STOP ENGINE/ RELEASE TOWLINE 
STOP OPERATION  EMERGENCY!	 TURN RIGHT	TURN LEFT 	RELEASE NOW!  Rock Wings
SAILPLANE CANNOT RELEASE  Move Out, Then Rock Wings	TOWPLANE CANNOT RELEASE  Fistball	INCREASE SPEED  Rock Wings	DECREASE SPEED  Fish Tail

STANDARD AMERICAN SOARING SIGNALS

# III. AREA OF OPERATION: AIRPORT & GLIDERPORT OPERATIONS



A TASK: RADIO COMMUNICATIONS

NOTE: If radio communications are impractical, competency may be determined by oral testing.

REFERENCES: AIM.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to radio communications, radio failure, and ATC light signals.
2. Selects appropriate frequencies for facilities to be used.
3. Transmits using recommended phraseology.
4. Acknowledges radio communications and complies with instructions.
5. Uses appropriate procedures for simulated radio communications failure.
6. Interprets and complies with ATC light signals.

# III. AREA OF OPERATION: AIRPORT & GLIDERPORT OPERATIONS



## B TASK: TRAFFIC PATTERNS

REFERENCES: 14 CFR part 91; AC 90-66; Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to traffic pattern procedures for gliders.
2. Follows established traffic pattern procedures.
3. Maintains awareness of other traffic in pattern.
4. Maintains proper ground track with crosswind correction, if necessary.
5. Crosses designated points at appropriate altitudes, unless conditions make such action impractical.
6. Selects touchdown and stop points.
7. Adjusts glidepath and track promptly to compensate for unexpected lift, sink, or changes in wind velocity.
8. Makes smooth, coordinated turns with a bank angle not to exceed 45° when turning final approach.
9. Adjusts flaps, spoilers, or dive brakes, as appropriate.
10. Recognizes and makes appropriate corrections for the effect of wind.
11. Completes the prescribed checklist, if applicable.

# III. AREA OF OPERATION: AIRPORT & GLIDERPORT OPERATIONS



C TASK: AIRPORT, RUNWAY, AND TAXIWAY SIGNS, MARKINGS, AND LIGHTING

REFERENCES: AC 61-23; AIM.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to airport, runway, and taxiway signs, markings, and lighting.
2. Identifies, interprets, and complies with appropriate airport, runway, and taxiway signs, markings, and lighting.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



## AERO TOW

### A TASK: BEFORE TAKEOFF CHECK

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the before takeoff check, including the reasons for checking the items, and how to detect malfunctions.
2. Establishes a course of action with crewmembers, including signals, speeds, wind, and emergency procedures.
3. Ensures that the glider is in safe operating condition.
4. Checks towline hookup and release mechanism, using the appropriate hook for the type of launch conducted.
5. Ensures no conflict with traffic prior to takeoff.
6. Completes the prescribed checklist, if applicable.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



## AERO TOW

### B TASK: NORMAL AND CROSSWIND TAKEOFF

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind takeoff, including configurations and tow positions.
2. Uses proper signals for takeoff.
3. Lifts off at an appropriate airspeed.
4. Maintains proper position until towplane lifts off.
5. Maintains directional control and proper wind-drift correction throughout the takeoff.
6. Maintains proper alignment with the towplane.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



## AERO TOW

### C TASK: MAINTAINING TOW POSITIONS

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to high-tow (slightly above the wake) and low-tow (slightly below the wake) positions during various phases of aero tow.
2. Makes smooth and correct control applications to maintain vertical and lateral positions during high and low tow.
3. Transitions from high-tow to low-tow position through the wake while maintaining positive control.
4. Maintains proper tow position during turns.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



AERO TOW

D TASK: SLACK LINE

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to the causes, hazards, and corrections related to slack line.
2. Recognizes slack line and applies immediate, positive, and smooth corrective action to eliminate slack line in various situations.



# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



AERO TOW

E TASK: BOXING THE WAKE

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to boxing the wake (maneuvering around the wake).
2. Maneuvers the glider, while on tow, slightly outside the towplane's wake in a rectangular, box-like pattern.
3. Maintains proper control and coordination.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



AERO TOW

F TASK: TOW RELEASE

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to tow release, including related safety factors.
2. Maintains high-tow position with normal towline tension.
3. Clears the area before releasing the towline.
4. Releases the towline and confirms release by observing the towline.
5. Makes level or climbing turn.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



AERO TOW

G TASK: ABNORMAL OCCURRENCES

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aero tow abnormal occurrences, for various situations, such as –
  - a. towplane power loss during takeoff.
  - b. towline break.
  - c. towplane power failure at altitude.
  - d. glider release failure.
  - e. glider and towplane release failure (oral only).
2. Demonstrates simulated aero tow abnormal occurrences as required by the examiner.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



## AERO TOW

### Q TASK: NORMAL AND CROSSWIND LANDING

NOTE: If a crosswind condition does not exist, the applicant's knowledge of crosswind elements shall be evaluated through oral testing.

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to normal and crosswind approach and landing procedures.
2. Adjusts flaps, spoilers, or dive brakes, as appropriate.
3. Maintains recommended approach airspeed, +10/-5 knots.
4. Maintains crosswind correction and directional control throughout the approach and landing.
5. Makes smooth, timely, and positive control application during the roundout and touchdown.
6. Touches down smoothly within the designated landing area, with no appreciable drift, and with the longitudinal axis aligned with the desired landing path, stopping short of and within 200 feet (120 meters) of a designated point.

NOTE: The applicant shall touchdown and roll to a point designated by the examiner stopping within 200' without rolling past the designated point. The point should be far enough away from the touchdown point that it should not require more than light-medium braking to come to a stop within the required distance.

7. Maintains control during the after-landing roll.
8. Completes appropriate checklists.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



AERO TOW

R TASK: SLIPS TO LANDING

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to forward, side, and turning slips to landing, with and without the use of drag devices.
2. Recognizes the situation where a slip should be used to land in a desired area.

# IV. AREA OF OPERATION: LAUNCHES AND LANDINGS



AERO TOW

S TASK: DOWNWIND LANDING

NOTE: This TASK may be evaluated orally at the discretion of the examiner.

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to downwind landings, including safety related factors.
2. Adjusts flaps, spoilers, or dive brakes, as appropriate.
3. Maintains recommended approach airspeed,  $\pm 5$  knots.
4. Uses proper downwind landing procedures.
5. Maintains proper directional control during touchdown and roll-out.
6. Applies brake smoothly to bring glider to a stop.

# V. AREA OF OPERATION: PERFORMANCE AIRSPEEDS



A TASK: MINIMUM SINK AIRSPEED

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to aerodynamic factors and use of minimum sink airspeed.
2. Determines the minimum sink airspeed for a given situation and maintains the selected speed,  $\pm 5$  knots.

# VI. AREA OF OPERATION: SOARING TECHNIQUES



NOTE: Due to varying geographical locations and atmospheric conditions, the applicant may be asked to demonstrate at least one of the following soaring TASKS most appropriate for the particular location and existing conditions.

If conditions do not permit a demonstration of soaring skills, applicants will be expected to demonstrate knowledge of the various types of soaring through oral testing.



# VI. AREA OF OPERATION: SOARING TECHNIQUES



A TASK: THERMAL SOARING

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to thermal soaring.
2. Recognizes the indications of, and the presence of, a thermal.
3. Analyzes the thermal structure and determines the direction to turn to remain within the thermal.
4. Exhibits coordinated control and planning when entering and maneuvering to remain within the thermal.
5. Applies correct techniques to re-enter the thermal, if lift is lost.
6. Remains oriented to ground references, wind, and other aircraft.
7. Maintains proper airspeeds in and between thermals.

# VI. AREA OF OPERATION: SOARING TECHNIQUES



B TASK: RIDGE AND SLOPE SOARING

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to ridge and slope soaring.
2. Recognizes terrain features and wind conditions which create orographic lift.
3. Enters the area of lift properly.
4. Estimates height and maintains a safe distance from the terrain.
5. Exhibits smooth, coordinated control, and planning to remain within the area of lift.
6. Uses correct technique to re-enter the area of lift, if lift is lost.
7. Remains oriented to ground references, wind, and other aircraft.
8. Uses proper procedures and techniques when crossing ridges.
9. Maintains proper airspeeds.

# VI. AREA OF OPERATION: SOARING TECHNIQUES



C TASK: WAVE SOARING

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to wave soaring.
2. Locates and enters the area of lift.
3. Exhibits smooth, coordinated control, and planning to remain within the area of lift.
4. Uses correct technique to re-enter the area of lift, if lift is lost.
5. Remains oriented to ground references, wind, and other aircraft.
6. Recognizes and avoids areas of possible extreme turbulence.
7. Maintains proper airspeeds.
8. Coordinates with ATC, as appropriate.

# VII. AREA OF OPERATION: PERFORMANCE MANEUVERS



A TASK: STRAIGHT GLIDES

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to straight glides, including the relationship of pitch attitude and airspeed.
2. Tracks toward a prominent landmark at a specified airspeed.
3. Demonstrates the effect of flaps, spoilers, or dive brakes, if equipped, in relation to pitch attitude and airspeed.
4. Exhibits smooth, coordinated control, and planning.
5. Maintains the specified heading,  $\pm 10^\circ$ , and the specified airspeed,  $\pm 10$  knots

# VII. AREA OF OPERATION: PERFORMANCE MANEUVERS



B TASK: TURNS TO HEADINGS

REFERENCES: Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to turns to headings, including the relationship of pitch attitude, bank angle, and airspeed.
2. Enters and maintains an appropriate rate of turn with smooth, proper, and coordinated control applications.
3. Maintains the desired airspeed,  $\pm 10$  knots, and rolls out on the specified heading,  $\pm 10^\circ$ .

# VII. AREA OF OPERATION: PERFORMANCE MANEUVERS



C TASK: STEEP TURNS

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to steep turns, including load factor, effect on stall speed, and overbanking tendency.
2. Establishes the recommended entry airspeed.
3. Enters a turn maintaining a bank angle of  $45^\circ / \pm 5^\circ$ , with smooth and coordinated control applications.
4. Maintains desired airspeed,  $\pm 10$  knots.
5. Recovers with smooth and coordinated control application within  $10^\circ$  of the desired heading.

# VIII. AREA OF OPERATION: NAVIGATION



NOTE: The applicant's knowledge of this AREA OF OPERATION will be evaluated through oral testing.

A TASK: FLIGHT PREPARATION AND PLANNING

REFERENCES: AC 61-23; AIM, Soaring Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to flight preparations and planning.
2. Selects and uses current and appropriate aeronautical charts.
3. Plots a course and selects prominent en route checkpoints.
4. Constructs a flight profile to determine minimum flight altitude at go-ahead points.
5. Explains method of using lift sources and speeds effectively within and between lift sources.
6. Selects available landing area.
7. Describes coordination procedures with air traffic control, as appropriate.

# Flight Planning



Begin by plotting the flight path from Skylark to Ramona airports on the Los Angeles Sectional Chart.

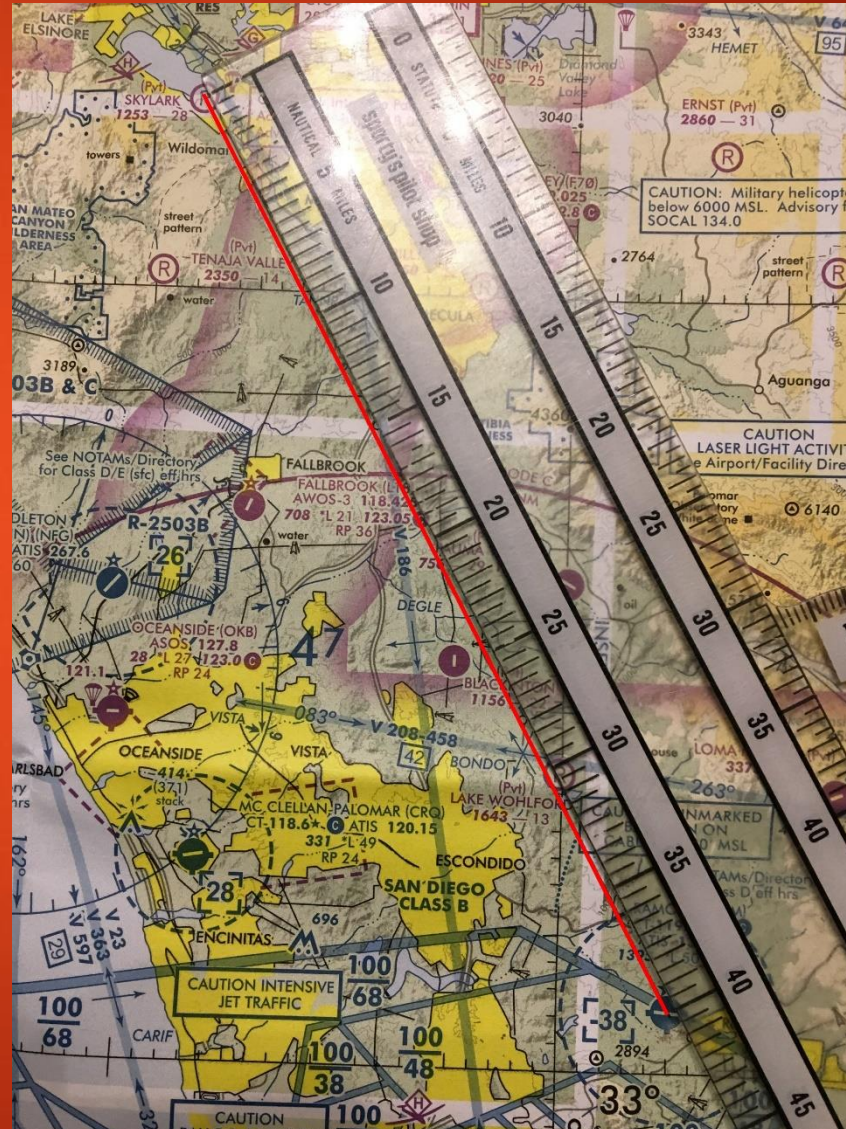




# Flight Planning

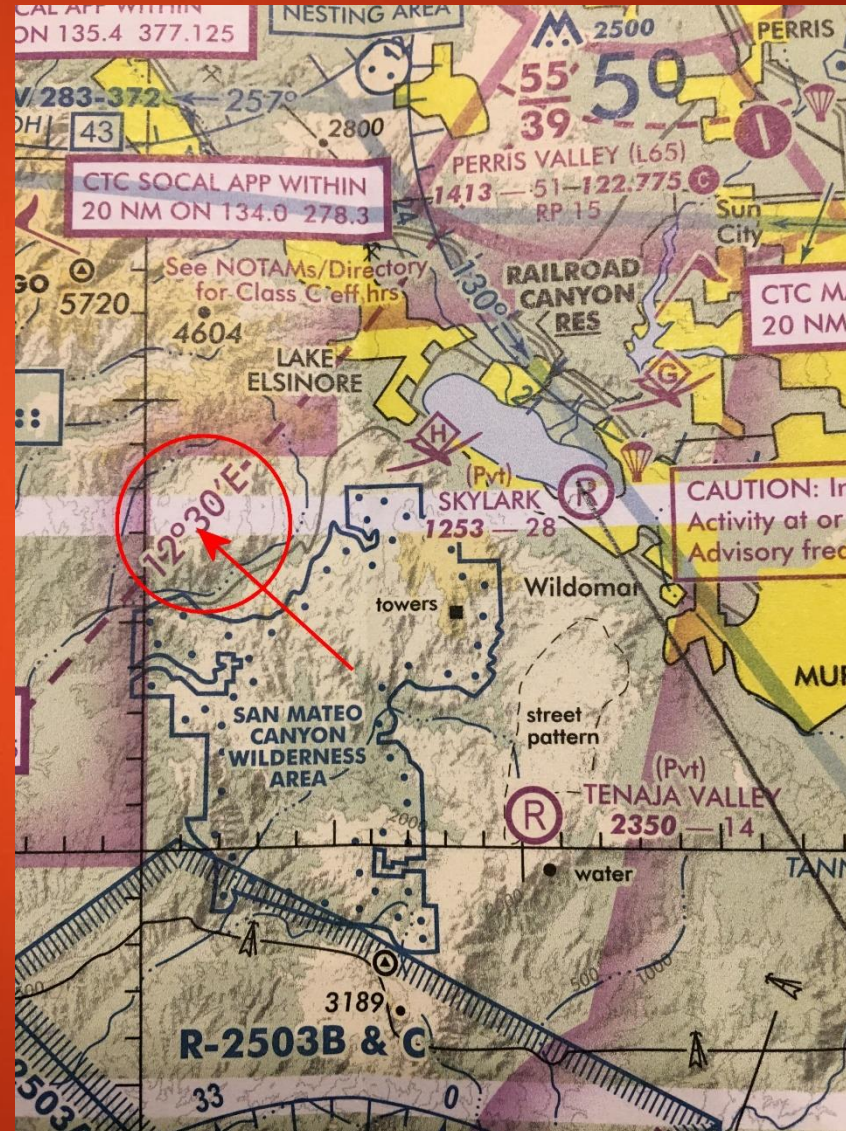


Determine the length of the flight.



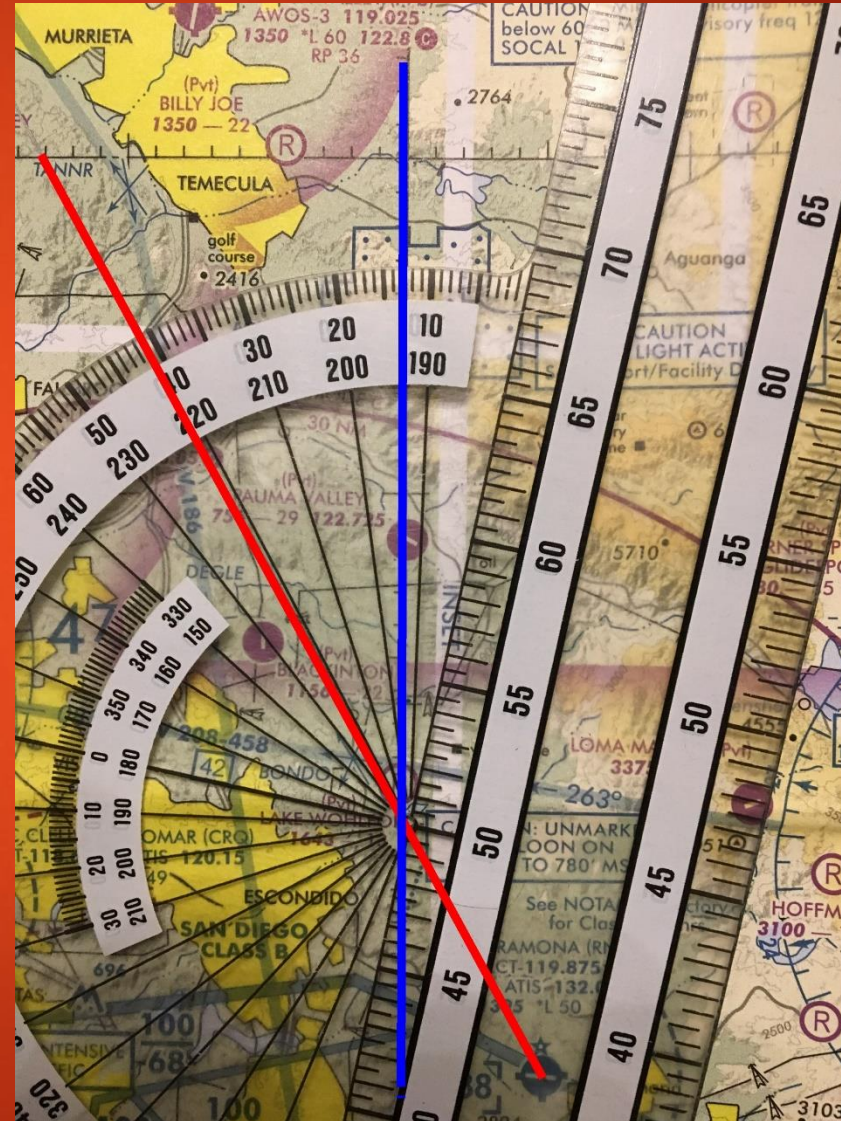
# Flight Planning

Find the magnetic deviation.

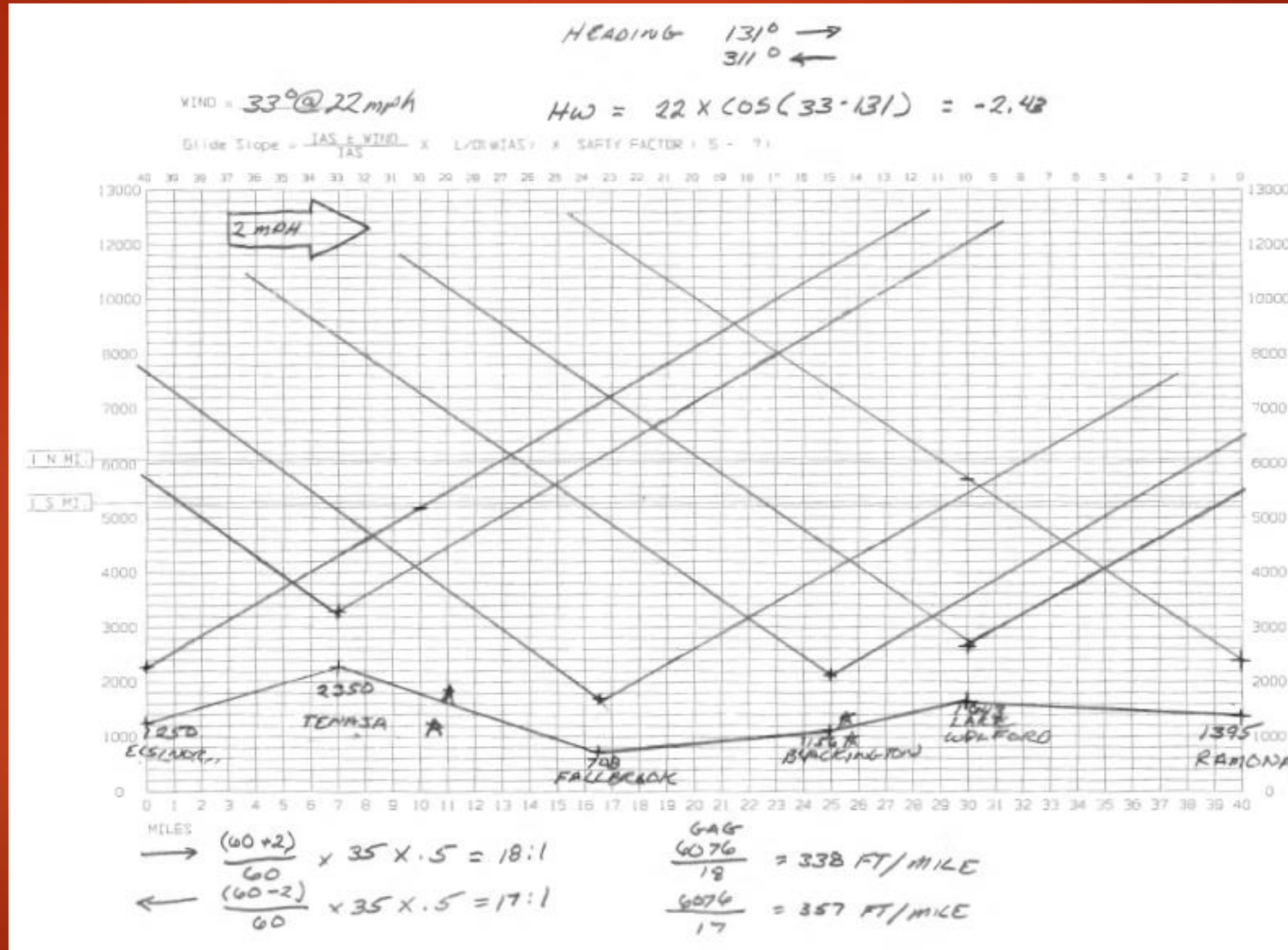


# Flight Planning

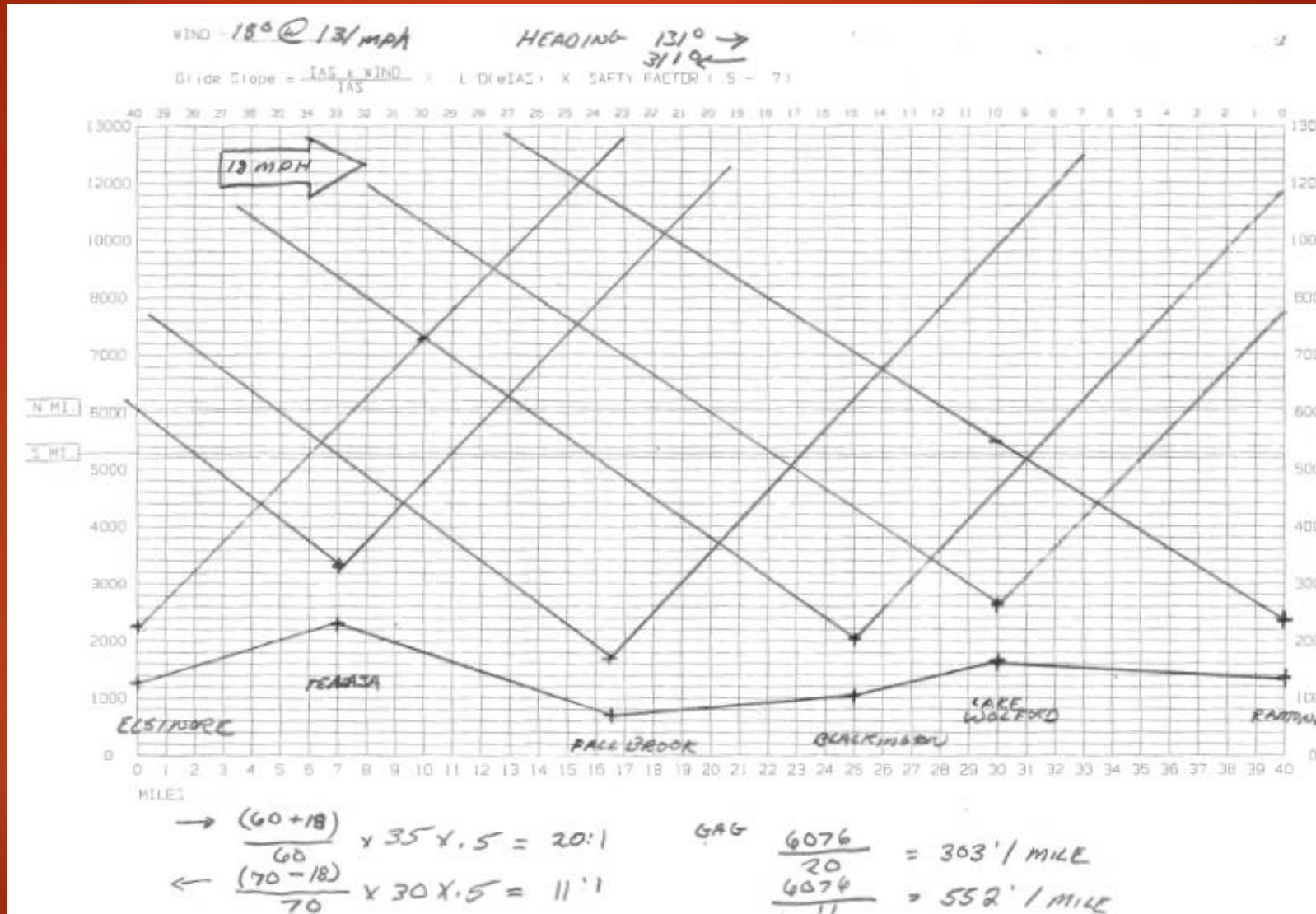
Plot magnetic north to find the magnetic heading of the flight.



# Cross Country Profile



# Cross Country Profile



# VIII. AREA OF OPERATION: NAVIGATION



NOTE: The applicant's knowledge of this AREA OF OPERATION will be evaluated through oral testing.

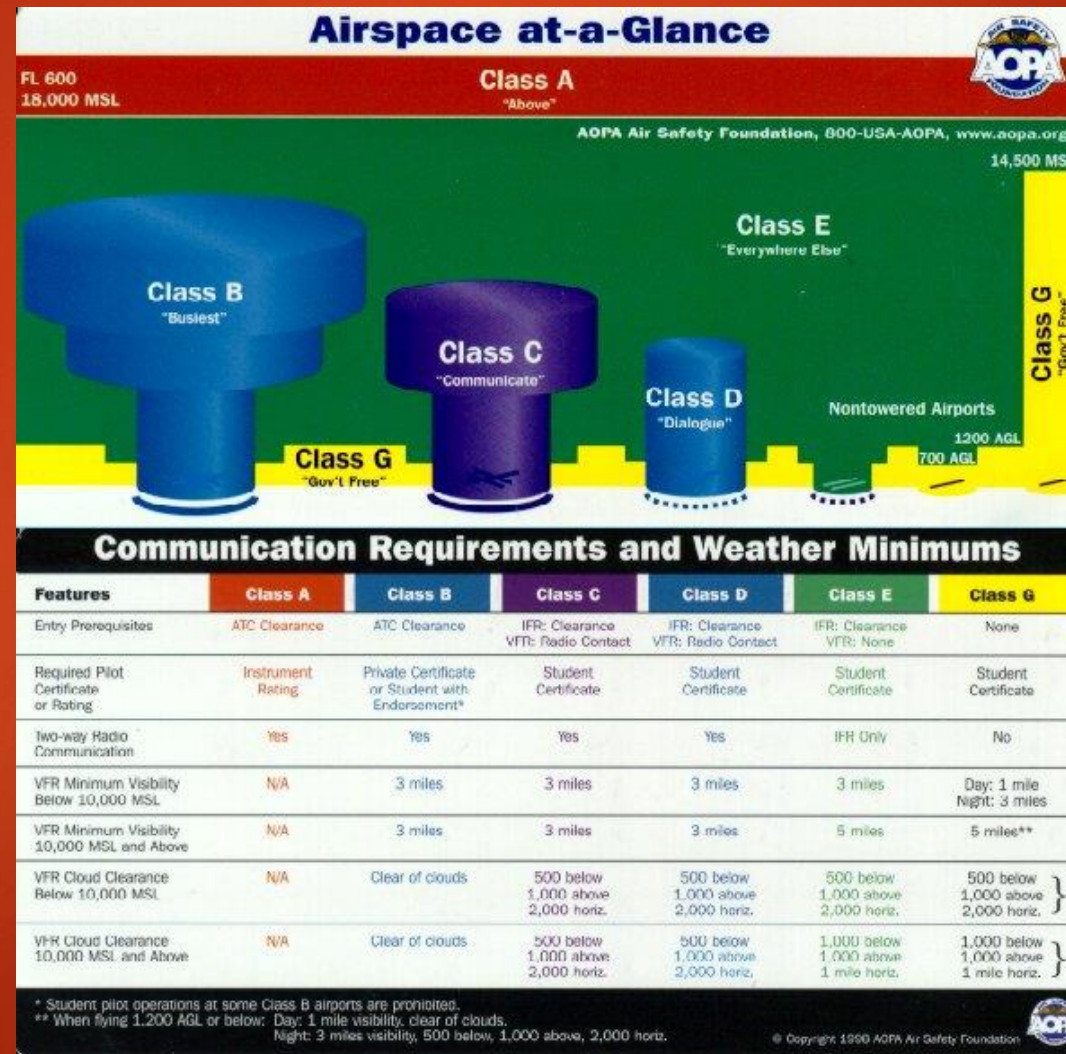
B TASK: NATIONAL AIRSPACE SYSTEM

REFERENCES: 14 CFR part 91; AIM.

Objective: To determine that the applicant exhibits knowledge of the elements related to the National Airspace System by explaining:

1. Basic VFR weather minimums for all classes of airspace.
2. Airspace classes and their dimensions, pilot certification, and glider equipment requirements for the following –
  - a. Class A.
  - b. Class B.
  - c. Class C.
  - d. Class D.
  - e. Class E.
  - f. Class G.
3. Special use airspace and other airspace areas.

# VIII. AREA OF OPERATION: NAVIGATION



# IX. AREA OF OPERATION: SLOW FLIGHT AND STALLS



A TASK: MANEUVERING AT MINIMUM CONTROL AIRSPEED

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to maneuvering at minimum control airspeed, including flight characteristics and controllability.
2. Establishes and maintains the airspeed at which any further increase in angle of attack or change in configurations would result in a stall in straight or turning flight in various configurations and bank angles.
3. Adjusts the airspeed to avoid stalls in turbulent air or as bank is increased.
4. Applies control inputs in a smooth and coordinated manner.
5. Uses proper procedures to avoid stalls when raising a lowered wing.
6. Maintains heading,  $\pm 10^\circ$ , during straight flight, and the desired bank angle,  $\pm 10^\circ$ , during turn.



# IX. AREA OF OPERATION: SLOW FLIGHT AND STALLS



B TASK: STALL RECOGNITION AND RECOVERY

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to stall recognition and recovery, including the aerodynamic factors and flight situations that may result in stalls, and the hazards of stalling during uncoordinated flight.
2. Selects an entry altitude that will allow the maneuver to be completed no lower than 1,500 feet AGL.
3. Establishes and maintains a pitch attitude that will result in a stall during both straight and turning flight with and without flaps, spoilers, or dive brakes, as appropriate.
4. Maintains a specified bank angle of up to 15° of bank,  $\pm 10^\circ$ , during turns.
5. Recovers at the stall.
6. Uses smooth and coordinated control applications throughout the maneuver.

# X. AREA OF OPERATION: EMERGENCY OPERATIONS



NOTE: These TASKS are knowledge only

A TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant exhibits knowledge of the elements related to a simulated off-airport landing, including selection of a suitable landing area and the procedures used to accomplish an off-airport landing.

# X. AREA OF OPERATION: EMERGENCY OPERATIONS



NOTE: These TASKS are knowledge only

B TASK: EMERGENCY EQUIPMENT AND SURVIVAL GEAR

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant exhibits knowledge of the elements related to emergency equipment and survival gear, appropriate to the glider used for the practical test, by describing :

1. Location in the glider.
2. Method of operation or use.
3. Servicing and storage.
4. Inspection, fitting, and use of parachutes.
5. Equipment and gear appropriate for operation in various climates and over various types of terrain.

# XI. AREA OF OPERATION: POSTFLIGHT PROCEDURES



TASK: AFTER-LANDING AND SECURING

REFERENCES: Soaring Flight Manual, Glider Flight Manual.

Objective: To determine that the applicant:

1. Exhibits knowledge of the elements related to after-landing and securing procedures, including local and ATC operations, ramp safety, parking hand signals, shutdown (if appropriate), securing, and postflight inspection.
2. Selects a suitable parking area while considering wind and safety of nearby persons and property.
3. Taxies to parking area and performs engine shutdown, if applicable.
4. Services the glider, if applicable.
5. Secures the glider properly.
6. Performs a satisfactory postflight inspection.
7. Completes the prescribed checklist.