Welcome to When Pigs Fly Aviation School!

We are a volunteer and charity aviation school here to help you achieve your dreams of becoming a ***pilot***. Our experienced instructors *enlisted* to ensure that you receive the best training possible. Browse our website to find tips and resources for your flying goals. Contact us today to get started on your journey to the skies!

We Recommend Sporty's Online Training Course:

SPORTYS

Don't forget to pack!

Sunglasses

Headset

Flight bag

For Shorties: Seat Cushion

Tablet

Brief & Notepad

Pens - More than one!

Jacket

Steps to getting your pilot license

Discovery Flight

- *Call* the flight school that is local to you and schedule a "Discovery Flight," with a pilot instructor. Your first instructor will have you fly in the pilot's seat! Woo hoo!

Ground School

- *Sign up* for ground school via an online program or at your local flight school. Most flight schools will require at least one in person class. Ground school is where you will begin studying for your written examination.

Flight Training

- *Schedule* your flights and work with an instructor that you feel will help you best advance in your training. You will pay for fuel, instructor time as well as aircraft rental. If you can, it's best to schedule several flights a week.

Written Exam & Practical Exam

- *Study* ~ Usually the written is taken prior to the practical. Once you score at least an 80% on your practice exams, *schedule* your written. *SOLO* until you're ready to join your instructor for the practical exam. Your instructor will let you know when you are ready to ***fly***!

A pilot can never have enough checklists...

EXTERNAL PRESSURES

Trip Planning

Allowance for delays ..... _____ minutes

Alternate Plans for Diversion or Cancellation

Notification of person(s) you are meeting

Passengers briefed on diversion or cancellation plans and alternatives

Modification or cancellation of car rental, restaurant, or hotel reservations

Arrangement of alternative transportation (airline, car, etc.)

Personal Equipment

Credit card and telephone numbers available for alternate plans

Appropriate clothing or personal needs (eye wear, medication...) in the event of unexpected stay

▶ _____

_____

_____

_____

_____

Importance of Trip

The more important the trip, the more tendency there is to compromise your personal minimums, and the more important it becomes to have alternate plans.

Your Personal Minimums Checklist—

- An easy-to-use, personal tool, tailored to your level of skill, knowledge, and ability
- Helps you control and manage risk by identifying even subtle risk factors
- Lets you fly with less stress and less risk

Practice "Conservatism Without Guilt"

Each item provides you with either a space to complete a personal minimum or a checklist item to think about. Spend some quiet time completing each blank and consider other items that apply to your personal minimums. Give yourself permission to choose higher minimums than those specified in the regulations, aircraft flight manuals, or other rules.

How to Use Your Checklist

Use this checklist just as you would use one for your aircraft. Carry the checklist in your flight kit. Use it at home as you start planning a flight and again just before you make your final decision to fly.

Be wary if you have an item that's marginal in any single risk factor category. But if you have items in more than one category, you may be headed for trouble.

If you have marginal items in two or more risk factors/categories, don't go!

Periodically review and revise your checklist as your personal circumstances change, such as your proficiency, recency, or training. You should never make your minimums less restrictive unless a significant positive event has occurred. However, it is okay to make your minimums more restrictive at any time. And never make your minimums less restrictive when you are planning a specific flight, or else external pressures will influence you.

Have a fun and safe flight!

Developed in cooperation with:

FEDERAL AVIATION ADMINISTRATION — AVIATION SAFETY PROGRAM

KING SCHOOLS
King Schools, Inc.
3840 Calle Fortunada
San Diego, CA 92123
1-800-854-1001

FOR SMART, SAFE, & WR FLYING

PERSONAL MINIMUMS CHECKLIST

Think...

PILOT
AIRCRAFT
enVIRONMENT
EXTERNAL PRESSURES

Pilot: _____

Date Revised: _____

Reviewed with: _____
(if applicable)

PILOT

Experience/Recency

Takeoffs/landings..... _____ in the last _____ days

Hours in make/model ..... _____ in the last _____ days

Instrument approaches ..... _____ in the last (simulated or actual) _____ days

Instrument flight hours ..... _____ in the last (simulated or actual) _____ days

Terrain and airspace .....familiar

Physical Condition

Sleep ..... _____ in the last 24 hours

Food and water ..... in the last _____ hours

Alcohol .....None in the last _____ hours

Drugs or medication.....None in the last _____ hours

Stressful events .....None in the last

AIRCRAFT

Fuel Reserves (Cross-Country)

VFR Day ..... _____ hours
Night..... _____ hours

IFR Day ..... _____ hours
Night..... _____ hours

Experience in Type

Takeoffs/landings..... _____ in the last
in aircraft type _____ days

Aircraft Performance

Establish that you have additional performance available over that required. Consider the following:

- Gross weight
- Load distribution
- Density altitude
- Performance charts

Aircraft Equipment

Avionics..... familiar with equipment (including autopilot and GPS systems)

COM/NAV..... equipment appropriate to flight

enVIRONMENT

Airport Conditions

Crosswind ..... _____ % of max POH
Runway length..... _____ % more than POH

Weather

Reports and forecasts .....not more than _____ hours old

Icing conditions .....within aircraft/pilot capabilities

Weather for VFR

Ceiling Day..... _____ feet
Night ..... _____ feet

Visibility Day..... _____ miles
Night ..... _____ miles

Weather for IFR

Precision Approaches
Ceiling ..... _____ feet above min.
Visibility ..... _____ mile(s) above min.

Non-Precision Approaches
Ceiling ..... _____ feet above min.
Visibility ..... _____ mile(s) above min.

Missed Approaches

Check the weather & fuel prices...

Sky Vector

https://skyvector.com/

Applications

Foreflight

FOREFLIGHT

Garmin Pilot

GARMIN

Sportys E6B

SPORTYS

Live ATC

LIVE ATC

AOPA

AOPA

Flight Aware

FLIGHT AWARE

My RadarPilot

RADARPILOT

Station Weather

STATIONWEATHER

Manuals

FAA Manuals

AIM (pdf)

DOWNLOAD

Airship Pilot Manual (pdf)

DOWNLOAD

Aviation Weather Handbook (pdf)

DOWNLOAD

Balloon Flying Handbook (pdf)

DOWNLOAD

Glider Flying Handbook (pdf)

DOWNLOAD

Instrument Procedures (pdf)

DOWNLOAD

Parachute Rigger Handbook (pdf)

DOWNLOAD

Personal Parachute Manual (pdf)

DOWNLOAD

Risk Management Handbook (pdf)

DOWNLOAD

Powered Parachute Manual (pdf)

DOWNLOAD

Tips on Mountain Flying (pdf)

DOWNLOAD

Weight and Balance Handbook (pdf)

DOWNLOAD

Plane Sense General Aviation Manual (pdf)

DOWNLOAD

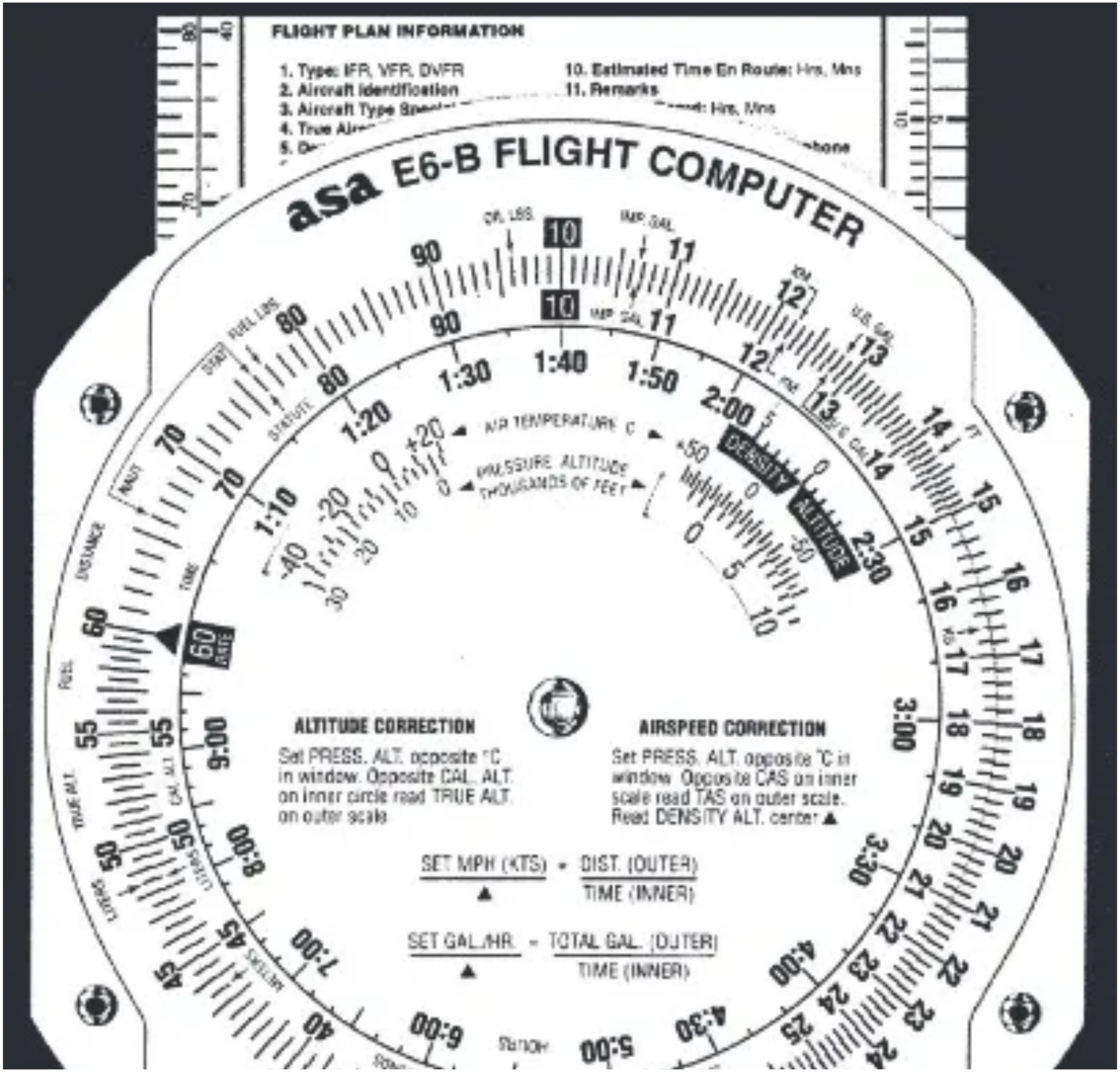
Balloons Storms & Tempests (pdf)

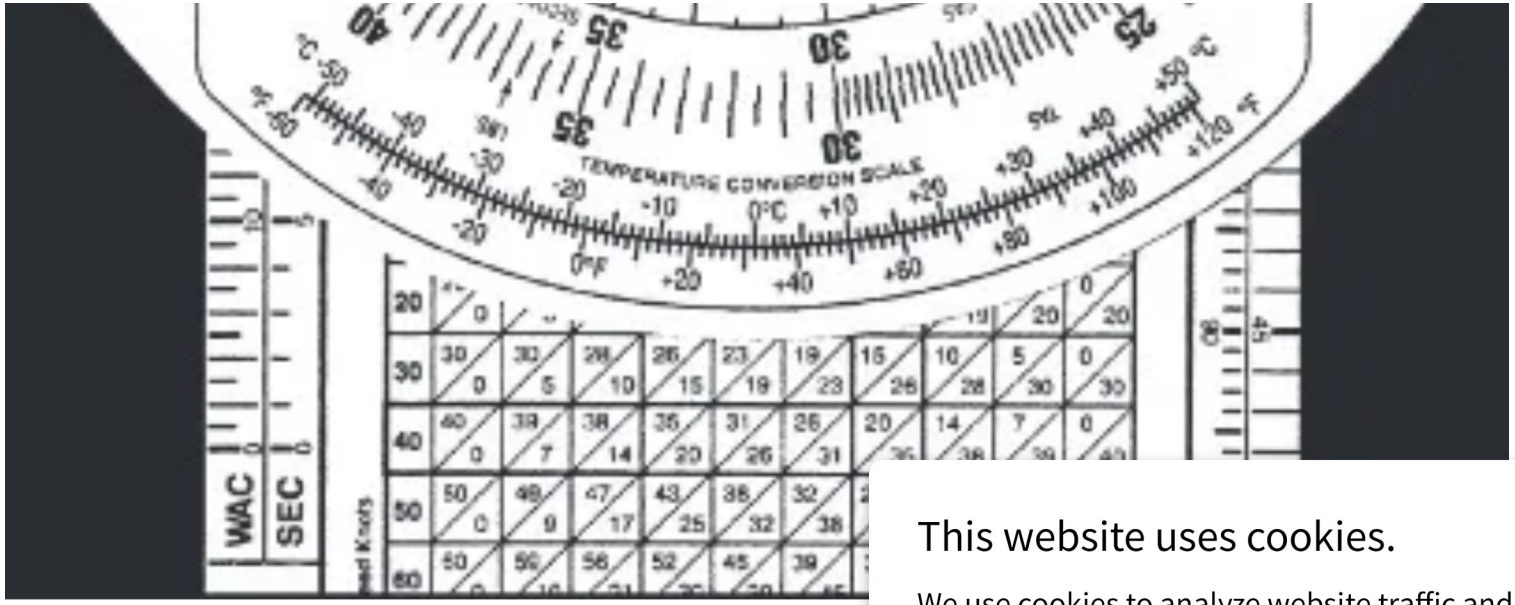
DOWNLOAD

Emergency Procedures Training (pdf)

DOWNLOAD

E6B Flight Computer


FLIGHT PLAN INFORMATION
1. Type: IFR, VFR, DVFR
2. Aircraft Identification
10. Estimated Time En Route: Hrs, Mins
11. Remarks
asa E6-B FLIGHT COMPUTER
AIR TEMPERATURE °C
PRESSURE ALTITUDE THOUSANDS OF FEET
DENSITY
ALTITUDE
ALTITUDE CORRECTION
Set PRESS. ALT. opposite °C in window. Opposite CAL. ALT. on inner circle read TRUE ALT. on outer scale.
AIRSPEED CORRECTION
Set PRESS. ALT. opposite °C in window. Opposite CAS on inner scale read TAS on outer scale. Read DENSITY ALT. center ▲
SET MPH (KTS) ▲ = DIST. (OUTER) / TIME (INNER)
SET GAL./HR. ▲ = TOTAL GAL. (OUTER) / TIME (INNER)



E6B Flight Computer

An E6B helps us calculate our:

- *True Course*
- *True Heading*
- *True Airspeed*
- *Groundspeed*
- *Windspeed or Direction*
- *Fuel*
- *And more, to understand further please navigate to Gleim Aviation's page, or download this manual from ASA.*

Radio

NATO Phonetic Alphabet

Alpha Bravo Charlie Delta Echo *Fox* Golf Hotel India Juliet Kilo Lima Mike November Oscar Papa Quebec Romeo Sierra Tango Uniform Victor Whiskey X-Ray Zulu

Example Radio Call to Base

"Auburn Lewiston Traffic Cherokee 508 t h Base runway ###"
Once a pilot, forever a pilot ~ Rest in Love & Peace, John Light

Four W's

- Who you are calling
- Who you are
- Where you are
- What you want

Radio Calls

When ready to taxi:
Pilot: Lancaster Ground, Cherokee 8121K, west ramp, VFR,

4,500 to Frederick with [information] Sierra.

Ground: Cherokee 8121K, Lancaster Ground, taxi to Runway 26.

Pilot: Taxi to Runway 26, Cherokee 8121K.

When ready for takeoff:

Pilot: Lancaster Tower, Cherokee 8121K, Runway 26, ready for takeoff.

Tower: Cherokee 8121K, Runway 26, cleared for takeoff.

Pilot: Cleared for takeoff Runway 26, Cherokee 8121K.

Arriving:

Pilot: Lancaster Tower, Cherokee 8121K, 10 [miles] southwest at 2,500, inbound for landing with [information] Sierra.

Tower: Cherokee 8121K, Lancaster Tower, report entering left downwind Runway 31.

Pilot: Report entering left downwind, Cherokee 8121K.

--->>

Pilot: Cherokee 8121K entering left downwind Runway 31.

Tower: Cherokee 21K, cleared to land Runway 31.

Pilot: Cleared to land Runway 31, Cherokee 21K

Reference: AOPA

IFR CRAFT

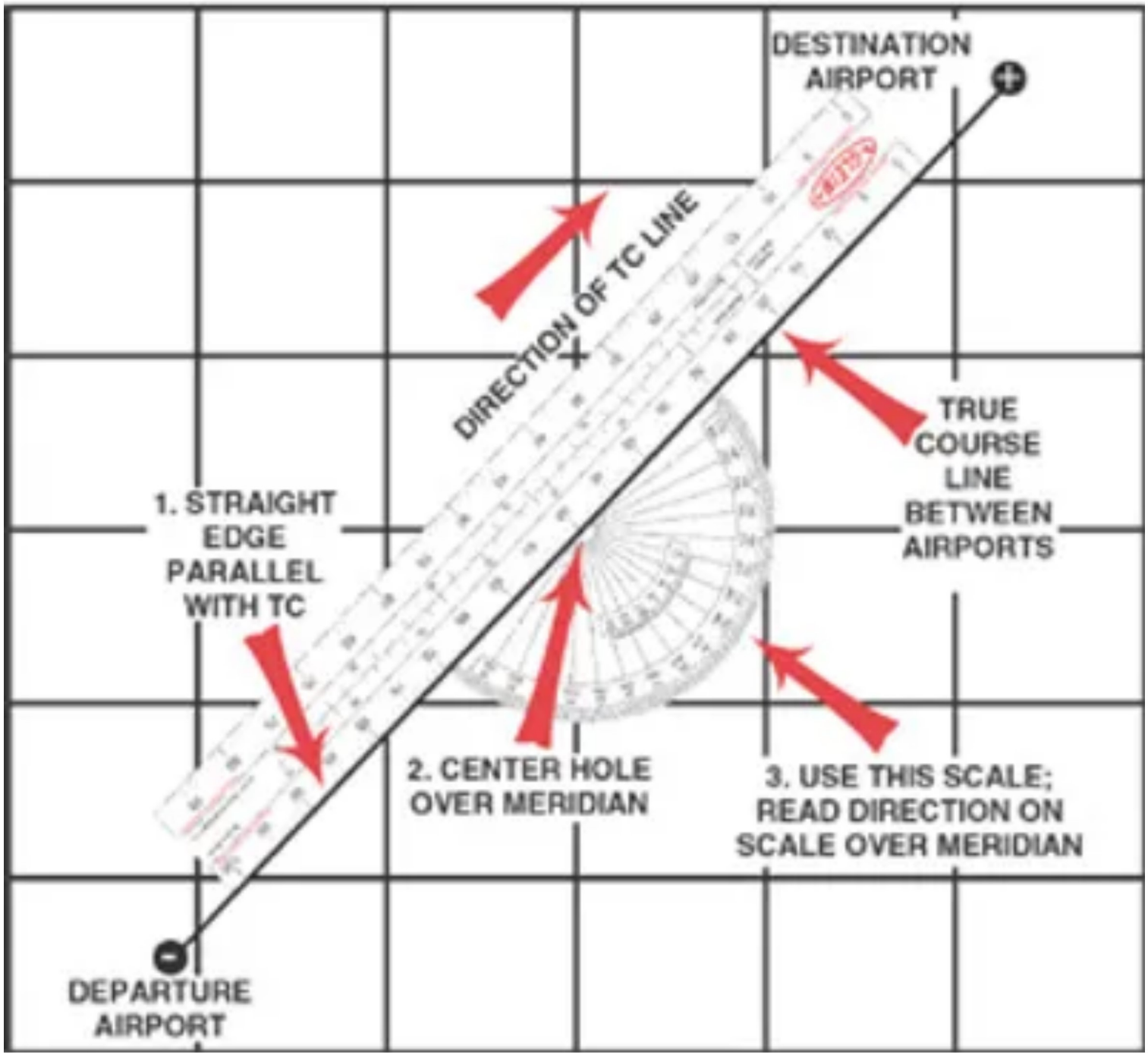
Most IFR clearances consist of five basic components (“CRAFT”):

• Clearance limit: Your destination airport or an intermediate fix.
• Route of flight: The route you filed, unless traffic conditions dictate otherwise.
• Altitude: If not as requested, followed by when to expect climb or descent clearance.
• Frequency: The radio frequency for departure control.
• Transponder: Your four-digit squawk code.

IFR PATTEN

Include the following items when making a position report ("IPATTEN"):
• Identification
• Position
• Altitude
• Time
• Type of flight plan*
• ETA to next reporting point• Name of next reporting point
Reference: AOPA

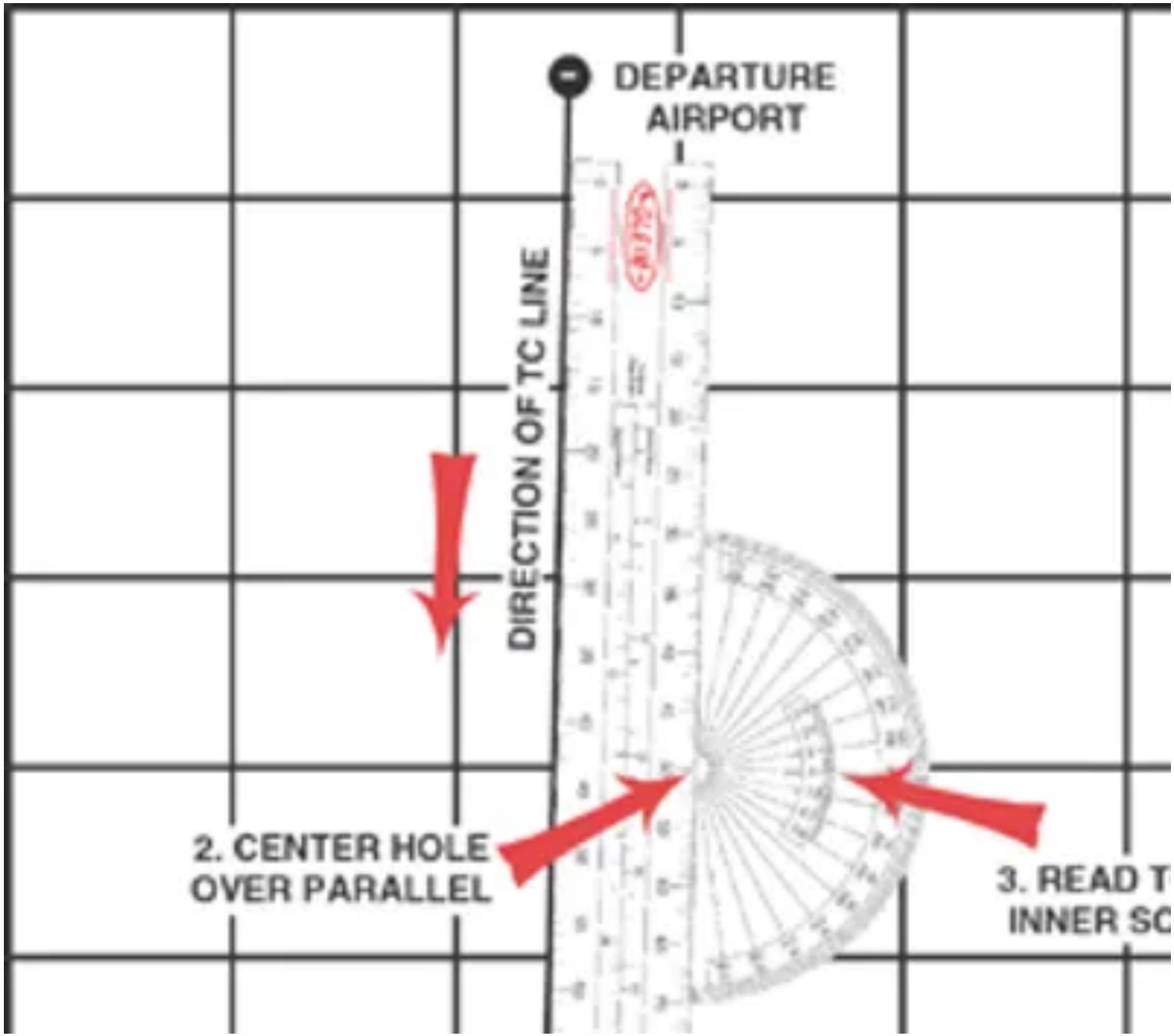
Navigational Plotter Instructions


DESTINATION AIRPORT
DIRECTION OF TC LINE
TRUE COURSE LINE BETWEEN AIRPORTS
1. STRAIGHT EDGE PARALLEL WITH TC
2. CENTER HOLE OVER MERIDIAN
3. USE THIS SCALE; READ DIRECTION ON SCALE OVER MERIDIAN
DEPARTURE AIRPORT

Navigational Plotter Instructions

1. Use your plotter to determine the true course (TC), the total distance of your flight, and the distance between each checkpoint.
2. Place the small hole in the center of the protractor section over a meridian (line of longitude), and then align either the bottom or top edge of the ruler section with your course line, as shown below.

- In the illustration above, the TC, which is read on the scale over the meridian, is 042°. The reciprocal (return) course is 222°. Make sure that you use the proper scale for your direction of flight.
- Meridians are not parallel lines. They converge at the poles. Therefore, course measurements should be made near the midpoint of each segment.


DEPARTURE AIRPORT
DIRECTION OF TC LINE
2. CENTER HOLE OVER PARALLEL
3. READ T
INNER SC

3. If your course is nearly north or south and does not cross a meridian, place the hole of your plotter over a parallel (line of latitude), and use the inner scale as shown below.
4.Measure the total distance of the course, as well as the distance between checkpoints with the ruler section.

- Use the scale that is appropriate to your chart (Sectional, Terminal Area Chart, or World Aeronautical Chart).
- You should generally use the nautical mile scale for most operations.

Checklists

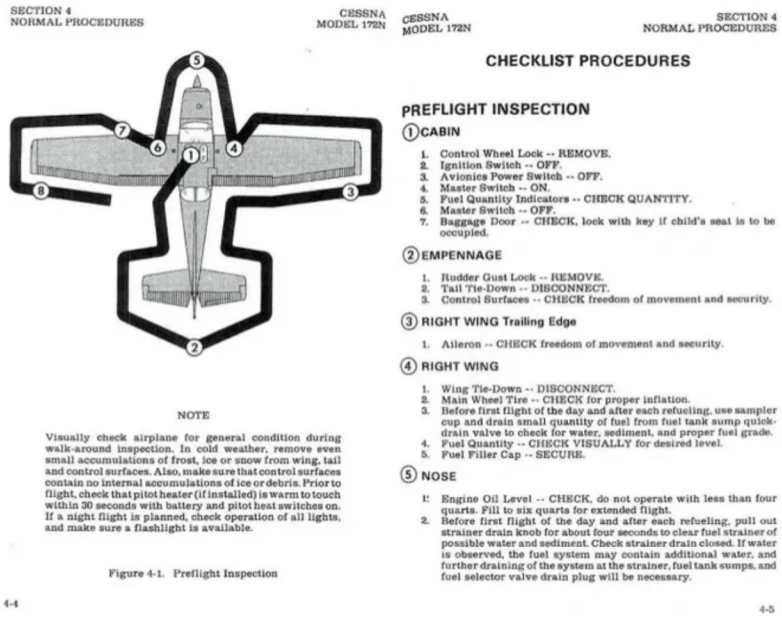
Cessna 150 Checklist (pdf) Download

Cessna 172 Checklist (pdf) Download

Piper 140 Checklist (pdf) Download

Piper 181 Checklist (pdf) Download

Basic Diagrams



SECTION 4
NORMAL PROCEDURES

CESSNA
MODEL 172N

NOTE

Visually check airplane for general condition during walk-around inspection. In cold weather, remove even small accumulations of frost, ice or snow from wing, tail and control surfaces. Also, make sure that control surfaces contain no internal accumulations of ice or debris. Prior to flight, check that pitot heater (if installed) is warm to touch within 30 seconds with battery and pitot heat switches on. If a night flight is planned, check operation of all lights, and make sure a flashlight is available.

Figure 4-1. Preflight Inspection

4-4

CESSNA
MODEL 172N

SECTION 4
NORMAL PROCEDURES

CHECKLIST PROCEDURES

PREFLIGHT INSPECTION

(1) CABIN

1. Control Wheel Lock -- REMOVE.
2. Ignition Switch -- OFF.
3. Avionics Power Switch -- OFF.
4. Master Switch -- ON.
5. Fuel Quantity Indicators -- CHECK QUANTITY.
6. Master Switch -- OFF.
7. Baggage Door -- CHECK, lock with key if child's seat is to be occupied.

(2) EMPENNAGE

1. Rudder Gust Lock -- REMOVE.
2. Tail Tie-Down -- DISCONNECT.
3. Control Surfaces -- CHECK freedom of movement and security.

(3) RIGHT WING Trailing Edge

1. Aileron -- CHECK freedom of movement and security.

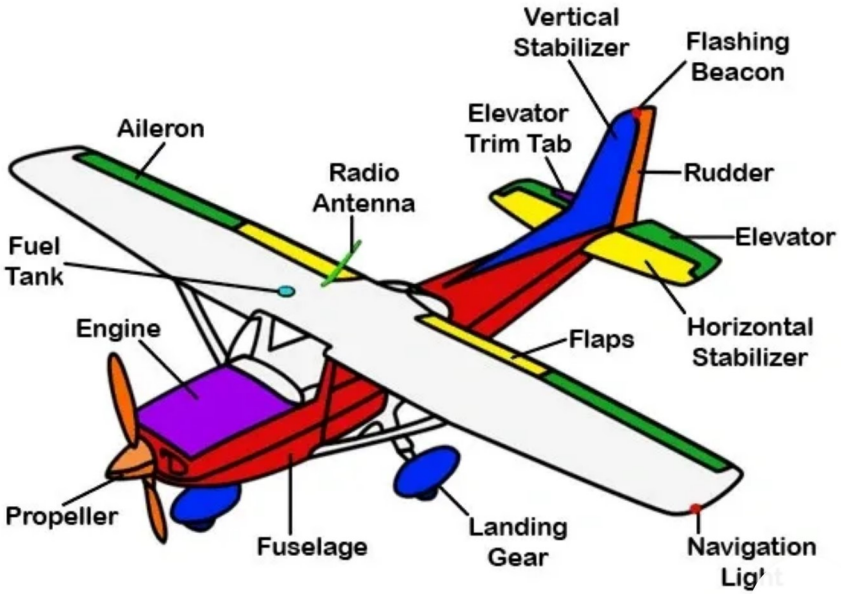
(4) RIGHT WING

1. Wing Tie-Down -- DISCONNECT.
2. Main Wheel Tire -- CHECK for proper inflation.
3. Before first flight of the day and after each refueling, use sampler cup and drain small quantity of fuel from fuel tank sump quick-drain valve to check for water, sediment, and proper fuel grade.
4. Fuel Quantity -- CHECK VISUALLY for desired level.
5. Fuel Filler Cap -- SECURE.

(5) NOSE

1. Engine Oil Level -- CHECK, do not operate with less than four quarts. Fill to six quarts for extended flight.
2. Before first flight of the day and after each refueling, pull out strainer drain knob for about four seconds to clear fuel strainer of possible water and sediment. Check strainer drain closed. If water is observed, the fuel system may contain additional water, and further draining of the system at the strainer, fuel tank sumps, and fuel selector valve drain plug will be necessary.

4-5



Exterior

Pre-Flight

Cabin

SECTION 6
WEIGHT AND BALANCE

PIPER AIRCRAFT CORPORATION
PA-28-181, CHEROKEE ARCHER II

	Weight (Lbs)	Arm Aft Datum (Inches)	Moment (In-Lbs)
Basic Empty Weight			
Pilot and Front Passenger		80.5	
Passengers (Rear Seats)*		118.1	
Fuel (48 Gallon Maximum)		95.0	
Baggage*		142.8	
Total Loaded Airplane			

Totals must be within approved weight and C.G. limits. It is the responsibility of the airplane owner and the pilot to insure that the airplane is loaded properly. The Basic Empty Weight C.G. is noted on the Weight and Balance Data Form (Figure 6-00). If the airplane has been altered, refer to the Weight and Balance Record for this information.

*Utility Category Operation - No baggage or rear passengers allowed.

Weight and Balance

Aeronautical Charts (Airports)

L1

TAKEOFF MINIMUMS, (OBSTACLE) DEPARTURE PROCEDURES, DIVERSE VECTOR AREA (RADAR VECTORS)

23278

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURI

Civil Airports and Selected Military Airports

ALL USERS: Airports that have Departure Procedures (DPs) designed specifically to assist pilots in avoiding obstac climb to the minimum enroute altitude, and/or airports that have civil IFR takeoff minimums other than standard, are Takeoff Minimums and Departure Procedures apply to all runways unless otherwise specified. An entry may also be contains only Takeoff Obstacle Notes. Altitudes, unless otherwise indicated, are minimum altitudes in MSL.

DPs specifically designed for obstacle avoidance are referred to as Obstacle Departure Procedures (ODPs) and are described below, or published separately as a graphic procedure. If the ODP is published as a graphic procedure, it listed below, and it can be found in either this volume (civil), or the applicable military volume, as appropriate. Users graphic obstacle DPs by the term "(OBSTACLE)" included in the procedure title; e.g., TETON TWO (OBSTACLE). specifically assigned an ODP, SID, or RADAR vector as part of an IFR clearance, an ODP may be required to be flo clearance, even though not specifically stated in the IFR clearance. When doing so in this manner, ATC should be i the ODP being used contains a specified route to be flown, restrictions before turning, and/or altitude restrictions.

Some ODPs, which are established solely for obstacle avoidance, require a climb in visual conditions to cross the air NAVAID in a specified direction, at or above a specified altitude. These procedures are called Visual Climb Over Air To ensure safe and efficient operations, the pilot must verbally request approval from ATC to fly the VCOA when rec IFR clearance.

At some locations where an ODP has been established, a diverse vector area (DVA) may be created to allow RADA be used in lieu of an ODP. DVA information will state that headings will be as assigned by ATC and climb gradients applicable, will be published immediately following the specified departure procedure.

Graphic DPs designed by ATC to standardize traffic flows, ensure aircraft separation and enhance capacity are refe "Standard Instrument Departures (SIDs)". SIDs also provide obstacle clearance and are published under the appro section. ATC clearance must be received prior to flying a SID.

CIVIL USERS NOTE: Title 14 Code of Federal Regulations Part 91 prescribes standard takeoff rules and establishe minimums for certain operators as follows: (1) For aircraft, other than helicopters, having two engines or less – one visibility. (2) For aircraft having more than two engines – one-half statute mile visibility. (3) For helicopters – one-hal visibility. These standard minima apply in the absence of any different minima listed below.

MILITARY USERS NOTE: Civil (nonstandard) takeoff minima are published below. For military takeoff minima, refe service directives.

02 NOV 2023 to 30 NOV 2023

AUBURN/LEWISTON, ME

AUBURN/LEWISTON MUNI (LEW)

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES

AMDT 6 08SEP22 (22251) (FAA)

TAKEOFF MINIMUMS:

Rwy 17, 300-2¼ or std. w/min. climb of 220' per NM to 700.

Rwy 22, 300-1¼ or std. w/min. climb of 320' per NM to 500.

DEPARTURE PROCEDURE:

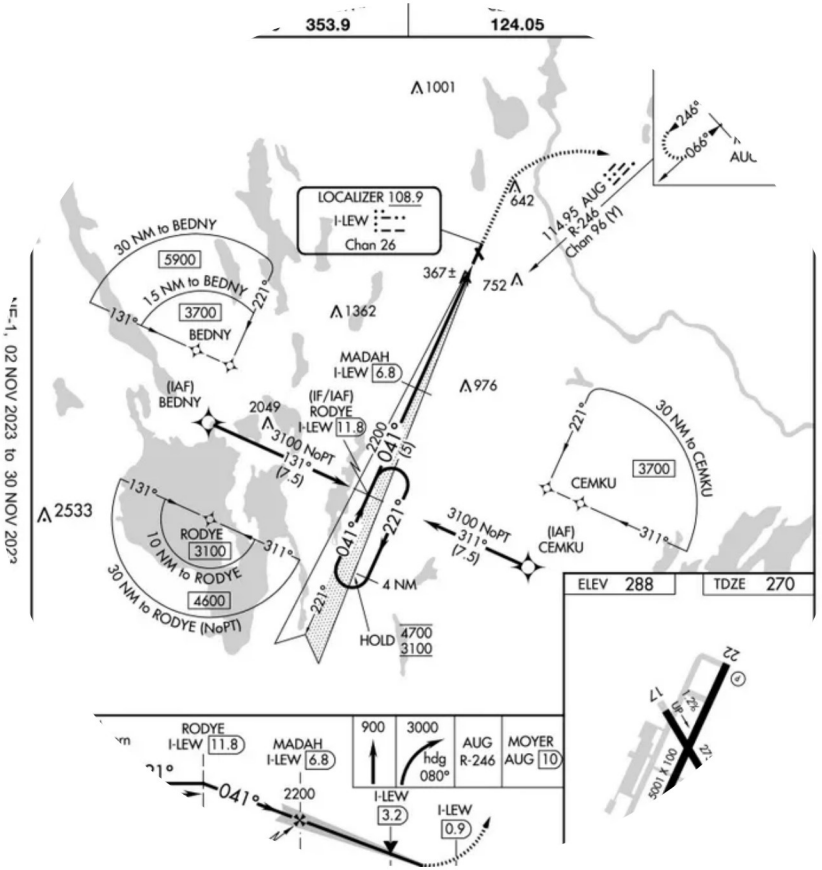
Rwy 17, climb on heading 165° to 900 before turning left.

Rwy 22, climb on heading 221° to 2100 before turning right.

TAKEOFF OBSTACLE NOTES:

Rwy 4, pole 101' from DER, 386' left of centerline, 23' AGL/277' MSL.
Pole 145' from DER, 479' left of centerline, 30' AGL/279' MSL.
Tree 297' from DER, 519' right of centerline, 68' AGL/329' MSL.
Tree 540' from DER, 491' left of centerline, 69' AGL/311' MSL.
Tree 749' from DER, 547' left of centerline, 74' AGL/314' MSL.
Tree 753' from DER, 389' right of centerline, 68' AGL/335' MSL.
Trees beginning 762' from DER, 321' left of centerline, up to 75' AGL/319' MSL.
Tree, pole beginning 1273' from DER, 347' right of centerline, up to 81' AGL/385' MSL.
Trees beginning 1535' from DER, 194' right of centerline, up to 77' AGL/386' MSL.
Tree 1598' from DER, 277' left of centerline, 77' AGL/323' MSL.
Rwy 17, trees beginning 170' from DER, 390' right of centerline, up to 60' AGL/399' MSL.
Traverse way 531' from DER, 156' left of centerline, 305' MSL.
Tree 574' from DER, 174' left of centerline, 33' AGL/322' MSL.
Tree 1053' from DER, 251' left of centerline, 44' AGL/336' MSL.
Tree 1.6 NM from DER, 2410' left of centerline, 60' AGL/549' MSL.
Trees beginning 1.7 NM from DER, 246' left of centerline, up to 60' AGL/579' MSL.

CON'T



Aero Charts & Minimums

https://www.airwaymap.com

INSTRUMENT APPROACH PROCEDURE CHARTS

IFR ALTERNATE AIRPORT MINIMUMS

Pilots must review the IFR Alternate Minimums Notes to determine alternate airport suitability. ⚠NA designation on the approach chart means that pilots may not use that approach as an alternate due to unmonitored facility, absence of weather reporting service, or lack of adequate navigation coverage. Approaches with the ⚠NA designation are not listed in this section. ⚠ designation on the approach chart indicates that the approach procedure has non-standard minimums (for aircraft other than helicopters) or restrictions (for all users) for its use as an alternate.

Alternate Minima (ref: 14 CFR 91.169)

	Precision Approach	Non-Precision Approach
Standard	**600-2**	**800-2**
⚠Non-Standard or restrictions	As indicated below	As indicated below
Helicopters	For the selected approach: Ceiling: 200' above published ceiling Visibility: the greater of 1 SM visibility or the published visibility	
US Military (USA/USN/USAF)	See Service Regulations	

Note: For alternate airport flight planning purposes, precision approach operations include: ILS, PAR, and GLS, and Non-Precision approach operations include: NDB, VOR, LOC, TACAN, LDA, SDF, ASR, RNAV (GPS) and RNAV (RNP).

02 NOV 2023 to 30 NOV 2023

02 NOV 2023 to 30 NOV 2023

NAME — ALTERNATE MINIMUMS

AUBURN/LEWISTON, ME

AUBURN/LEWISTON MUNI (LEW)…… **ILS or LOC Rwy 4[13]**
RNAV (GPS) Rwy 4[2]
RNAV (GPS) Rwy 22[3]

[1]LOC, Category C, 800-2½; Category D, 900-2¾.
[2]Category C, 800-2¼; Category D, 900-2¾;
[3]NA when local weather not available.

AUGUSTA, ME

AUGUSTA STATE (AUG)…… **ILS or LOC Rwy 17[1]**
RNAV (GPS) Rwy 17[2]
RNAV (GPS) Rwy 35[2]
VOR Rwy 35[2]

NA when local weather not available.
[1]ILS, LOC, Category D, 900-2½.
[2]Category D, 900-2½.

BANGOR, ME

BANGOR INTL (BGR)…… **ILS or LOC Rwy 33[1]**
ILS Y or LOC Y Rwy 15[2]
RADAR-1[3]
RNAV (GPS) Rwy 15[3]
RNAV (GPS) Rwy 33[3]

[1]ILS, LOC, Categories A, B, 1200-2; Categories C, D, E, 1200-3.
[2]ILS, Category D, 700-2; Category E, 700-2½; LOC, Category E, 800-2½.
[3]Category E, 800-2½.

NAME — ALTERNATE MINIMUMS

BAR HARBOR, ME

HANCOCK COUNTY/ BAR HARBOR (BHB)…… **ILS or LOC Rwy 22[1]**
RNAV (GPS) Rwy 4[2]
RNAV (GPS) Rwy 22[2]

[1]LOC, Category D, 800-2½.
[2]Category D, 800-2½.

BARRE-MONTPELIER, VT

EDWARD F KNAPP STATE (MPV)…… **RNAV (GPS) Rwy 17**

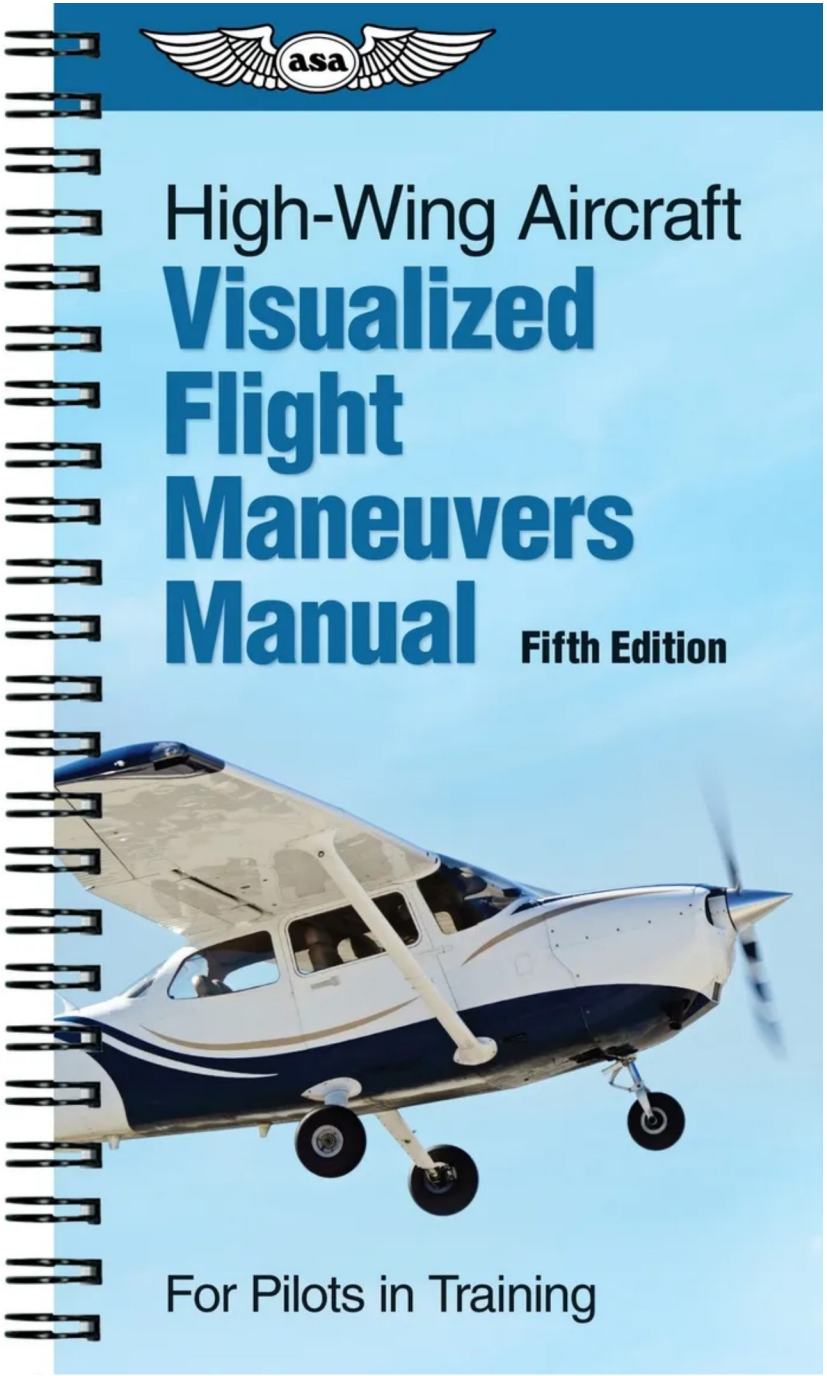
NA when local weather not available.
Categories A, B, 900-2; Category C, 1600-3; Category D, 1800-3.

BEDFORD, MA

LAURENCE G HANSCOM FLD (BED)…… **ILS or LOC Rwy 11[12]**
ILS or LOC Rwy 29[12]
RNAV (GPS) Rwy 23[34]
RNAV (GPS) Z Rwy 11[34]
RNAV (GPS) Z Rwy 29[3]

[1]NA when control tower closed.
[2]LOC, Category C, 800-2¼; Category D, 800-2½.
[3]Category C, 800-2¼; Category D, 800-2½.
[4]NA when local weather not available.

Visualized Flight Maneuvers



Visualized Flight Maneuvers

Sheet for Reference

ASA Manual

Manual for Reference

Full Guide

U.S. Flight Schools

To view a list of flight schools in the United States navigate to AOPA.org.

FAA Medical Examiner

For medical examinations: AME

Fun & Learning

Air Shows

https://www.airshowcenter.com

Fly~Ins

https://www.funplacestofly.com/aviation-events.asp

Eagle's Mentorships & Free Flights

https://www.eaa.org/eaa/learn-to-fly/introductory-flights-for-free

Ladies' Mentorships, Flights & Scholarships

https://www.ninety-nines.org/

GeoFS Flight Simulator

https://www.geo-fs.com/geofs.php?v=3.7

Virtual Logbook

https://myflightbook.com

Fly Flight Win