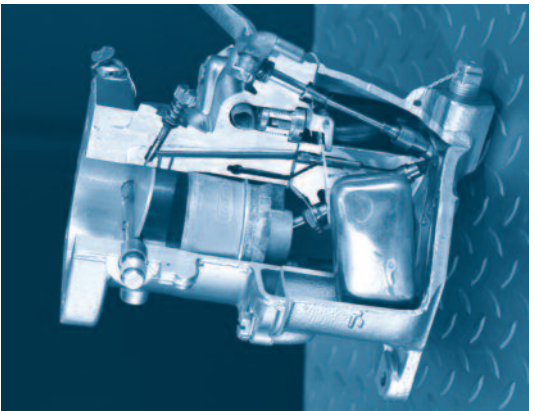


Fuel System



1. FOLD HERE

Fuel System

Circle the type(s) of fuel system(s) in your aircraft:

- Gravity-fed
- Pump Driven
- Fuel-injected
- Carbureted

2. CUT HERE



2. CUT HERE

Fuel Capacity



1. FOLD HERE

Fuel Capacity

Total: _____ gal. Usable: _____ gal.

TIP:

Some airplanes have long range and/or tip tanks. Make sure you use the correct "usable" fuel amounts for your airplane's endurance calculations.

2. CUT HERE



Fuel Drains and Locations



1. FOLD HERE

Fuel Drains and Locations

Number of Drains: _____

Locations: _____



2. CUT HERE

Fuel Type and Weight



1. FOLD HERE

Fuel Type and Weight

Type (e.g., avgas, jet): _____

Weight: _____ lb./gal.



2. CUT HERE

(Make, Model, HP, rpm)

Engine



1. FOLD HERE

Engine

Make: _____ **Model:** _____

Horsepower: _____ **Max. rpm:** _____

TIP:

Engine model numbers can tell you a lot. For example, a C172R has a Lycoming IO-360 engine. The “I” means fuel injected and the “O” means the cylinders are horizontally opposed. The “360” refers to cubic inches of displacement, describing the physical size of the engine.



2. CUT HERE

(Min./Max./Type)

Oil



1. FOLD HERE

Oil

Minimum: _____

Maximum: _____

Type: _____



2. CUT HERE

Magneto Check



1. FOLD HERE

Magneto Check

Runup rpm: _____ Max. rpm Drop: _____

Max. Difference Between

Left and Right _____

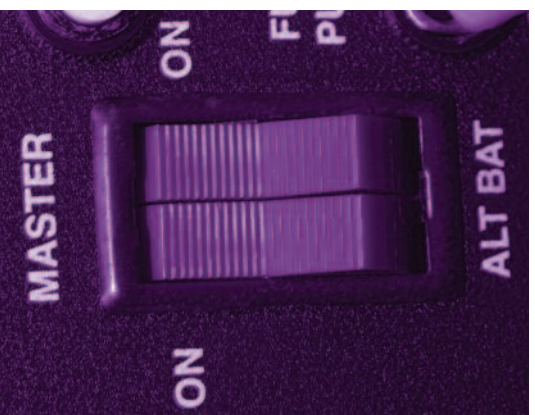
TIP:

Question on how magnetos work? Check out the AOPA Air Safety Foundation's *Engine and Propeller* online course at www.asf.org/courses.



2. CUT HERE

Electrical System



1. FOLD HERE

Electrical System

Alternator Voltage: _____ Battery Voltage: _____

Alternator Amperage: _____

Abnormal Indications and Warnings:

TIP:

Electrical component amperage is listed on the faces of the circuit breakers. Turning OFF the components with the largest draw will lengthen the life of the battery following an alternator failure.

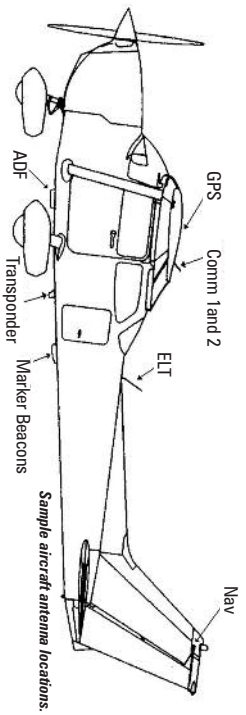


Antenna Locations



1. FOLD HERE

Antenna Locations



TIP:

Aircraft antenna locations vary based on the aircraft make/model and equipment installed.



2. CUT HERE

Nosewheel Steering



1. FOLD HERE

Nosewheel Steering

Steerable through _____ degrees

or

Free Castering

TIP:

This is important when maneuvering the aircraft on the ground with a tug and/or tow bar. Look for markings on the nosewheel strut, wheel pant, or cowling that indicate the steering limit. This does not apply if the nosewheel is free castering.



VNE



1. FOLD HERE

VNE - Never Exceed Speed

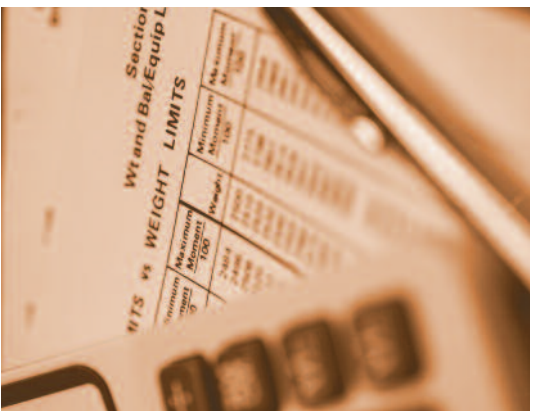
TIP:

VNE is denoted by the red line.



2. CUT HERE

Maximum Weights



1. FOLD HERE

Maximum Ramp Weight

_____ lb.

Maximum Takeoff Weight

_____ lb.

TIP:

Maximum ramp weight usually includes the weight of fuel needed to taxi and complete the runup. This is why the maximum ramp weight may exceed the maximum takeoff weight in the normal category.



V_A



1. FOLD HERE

V_A - Maneuvering Speed

At Max. Gross Weight: _____

TIP:

V_A is the maximum speed at which you may apply full control deflections without overstressing the airplane. It varies with weight. Pilots should fly below this speed in severe turbulence.



2. CUT HERE

V_{NO}



1. FOLD HERE

V_{NO} - Maximum Structural Cruising Speed

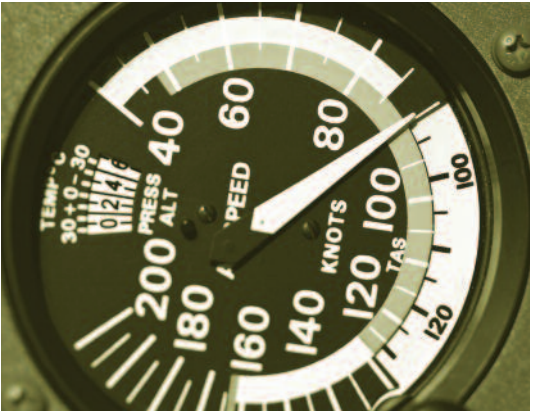
TIP:

V_{NO} is shown where the green and yellow arcs meet. It should not be exceeded except in smooth air.



2. CUT HERE

V_x



1. FOLD HERE

V_x - Best Angle of Climb



TIP:

V_x delivers the greatest altitude gain over a given **distance**.



2. CUT HERE

V_y



1. FOLD HERE

V_y - Best Rate of Climb



TIP:

V_y delivers the greatest altitude gain over a given period of **time**.



2. CUT HERE

V_{FE}



1. FOLD HERE

V_{FE} - Maximum Flap Extension Speed

Increment _____
Speed _____



TIP:

Flap operating range is shown on the airspeed indicator by the white arc. Often, the first flap extension speed is not included in the white arc.



2. CUT HERE

V_R



1. FOLD HERE

V_R - Rotation Speed

Normal: _____
Short-field: _____
Soft-field: _____

TIP:

This is *not* marked on the airspeed indicator and will change depending on the takeoff procedure.



2. CUT HERE

V_{SO}



1. FOLD HERE

V_{SO} - Stall Speed – Landing Configuration

_____ 0° Bank
_____ 60° Bank

TIP:

V_{SO} is shown on the bottom of the white arc.

Remember: V_{SO} = “Stuff Out,” which means gear and flaps extended.



2. CUT HERE



2. CUT HERE

V_{S1}



1. FOLD HERE

V_{S1} - Stall Speed – Clean

_____ 0° Bank
_____ 60° Bank

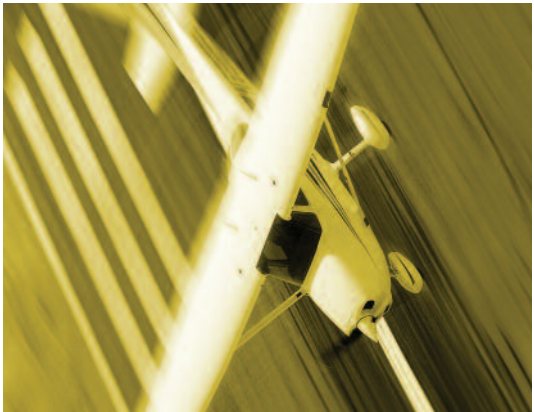
TIP:

V_{S1} is shown on the bottom of the green arc.

Remember: V_{S1} = “Stuff In,” which means gear and flaps retracted.



Normal Landing Procedures



1. FOLD HERE

Normal Landing Procedures

Leg	Power Setting	Flap Setting	Airspeed
Crosswind:	_____	_____	_____
Downwind:	_____	_____	_____
Base:	_____	_____	_____
Final:	_____	_____	_____

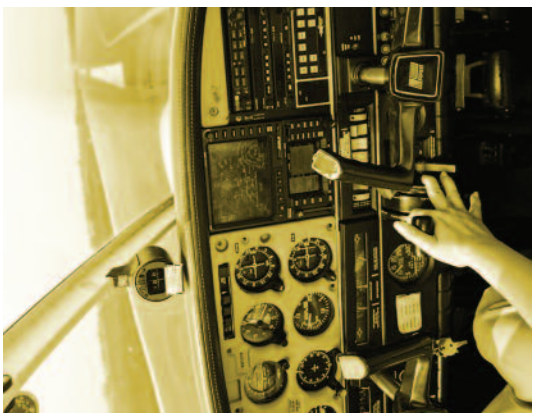
TIP:

Memorizing proper power settings and airspeeds for each segment of the approach will help stabilize the approach and landing.

2. CUT HERE



Normal Takeoff Procedures



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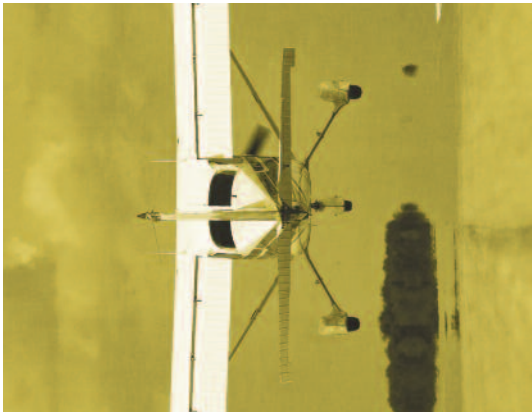
Normal Takeoff Procedures

Flap Setting: _____
Rotation Speed: _____
Climb Speed: _____

2. CUT HERE



Short-Field Landing Procedures



1. FOLD HERE

Short-Field Landing Procedures

Leg	Power Setting	Flap Setting	Airspeed
Crosswind:	_____	_____	_____
Downwind:	_____	_____	_____
Base:	_____	_____	_____
Final:	_____	_____	_____

TIP:

The objective of the short-field landing is to transfer the aircraft's weight from the wings to wheels as soon as possible. Touch down as slowly as possible, while simultaneously applying maximum braking.



2. CUT HERE

Short-Field Takeoff Procedures



1. FOLD HERE

Short-Field Takeoff Procedures

Flap Setting:	_____
Rotation Speed:	_____
Climb Speed:	_____
Flap Retraction:	_____

TIP:

The objective of the short-field landing is to transition from the takeoff roll to best-angle-of-climb speed as quickly, efficiently, and safely as possible. This generally means using minimal runway length, neutral elevator for low drag, proper flap setting, and avoiding lifting off too soon.



2. CUT HERE

Procedures Landing Soft-Field



1. FOLD HERE

Soft-Field Landing Procedures

Leg	Power Setting	Flap Setting	Airspeed
Crosswind:	_____	_____	_____
Downwind:	_____	_____	_____
Base:	_____	_____	_____
Final:	_____	_____	_____

TIP:

The objective of a soft-field landing is to have the wings support the aircraft's weight as long as possible, which helps minimize the chance of sinking in the soft soil. Touch down as softly as possible, hold the nosewheel off the ground, and avoid unnecessary braking. You may need to add power in the flare to avoid a hard landing.



2. CUT HERE

Procedures Takeoff Soft-Field



1. FOLD HERE

Soft-Field Takeoff Procedures

Climb Speed: _____
Flap Setting: _____
Flap Retraction: _____ (airspeed *or* altitude)

TIP:

Don't forget these soft-field takeoff techniques: Hold full aft elevator while taxiing into position and avoid unnecessary stopping or braking. After rotation, remember to fly in ground effect until reaching the proper climb speed. In many light general aviation aircraft you may need to push forward on the yoke to stay in ground effect while building up airspeed.



Best Glide Speed



1. FOLD HERE

Best Glide Speed

TIP:

Most light general aviation aircraft will glide about two miles for every 1,000 feet of altitude. Usually you'll want to extend the glide as long as possible by strictly maintaining the best glide speed and keeping the aircraft's configuration clean (e.g., gear and flaps up, feathered prop).



2. CUT HERE

Maximum Demonstrated Crosswind Component



1. FOLD HERE

Max. Demonstrated Crosswind Component

TIP:

This is the maximum crosswind in which the aircraft was tested during certification. Although it is not *technically* a limitation, it should be treated as one.



Emergency Procedures: Engine Failure



1. FOLD HERE

Emergency Procedures: Engine Failure

Memory Items:

2. CUT HERE



2. CUT HERE

Types of Operations



1. FOLD HERE

Types of Operations

- Night Yes No
- IFR Yes No
- Known Icing Yes No

TIP:

Even if an aircraft has deice or anti-ice equipment, it may not be certified for flight into known icing conditions. In fact, few light general aviation aircraft have this certification.

2. CUT HERE





Emergency Procedures:
**Engine Fire
in Flight**

1. FOLD HERE

2. CUT HERE



Emergency Procedures:
**Engine Fire
on Start**

1. FOLD HERE

Emergency Procedures: Engine Fire in Flight
Memory Items:

Emergency Procedures: Engine Fire on Start
Memory Items:



2. CUT HERE



Emergency Procedures: Inadvertent Icing Encounter

1. FOLD HERE

Emergency Procedures: Inadvertent Icing Encounter

TIP:

Due to lack of anti- or deice equipment, most light general aviation aircraft are not approved for flight into icing conditions. If the aircraft is not equipped and certified for icing, you **MUST** exit icing conditions immediately. If you have an inadvertent icing encounter in an aircraft without windshield anti-ice, adjust the defroster setting to provide maximum heat to help keep a portion of the windshield clear. Turn off the cabin heat, if that will provide more heat to the windshield.

For more information, visit www.asf.org/advisors and select the *Aircraft Icing Safety Advisor*, and take the *Weather Wise: Precipitation and Icing* online course at www.asf.org/courses.



Emergency Procedures: Electrical Fire in Flight

2. CUT HERE

Emergency Procedures: Electrical Fire in Flight

Memory Items:

TIP:

Electrical fires are usually smelled long before they are seen.

1. FOLD HERE



www.asf.org



1. FOLD HERE

www.asf.org



The **AOPA Air Safety Foundation** is dedicated to making flying easier and safer for general aviation pilots. For information on free live seminars, online courses, and print materials visit www.asf.org.

2. CUT HERE

Spin Recovery



1. FOLD HERE

Spin Recovery

Memory Items:

TIP:

Some pilots commit to memory the **PARED** acronym, which means **P**ower-reduce, **A**ilerons-neutral, **R**udder-full opposite, **E**levator-forward to break the stall, and **D**ive-recover.

