Fuel System

1. FOLD HERE

2. CUT HERE

Fuel Capacity

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

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.

Fuel Drains and Locations

1. FOLD HERE

Fuel Drains and Locations

Number of Drains: ____________

Locations: ________________

____

____

2. CUT HERE

Fuel Type, Weight, and Color

1. FOLD HERE

Fuel Type,Weight, and Color

Type (e.g., avgas, jet)**:** ________________

Weight: __________ **lb./gal.**

Color: __________

2. CUT HERE

Engine

(Make, Model, HP, RPM)

Oil

(Min./Max./Type/Qty.)

1. FOLD HERE

2. CUT 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.

Oil

Minimum: ____________________

Maximum: ____________________

Quantity: ____________________

Type: ________________________

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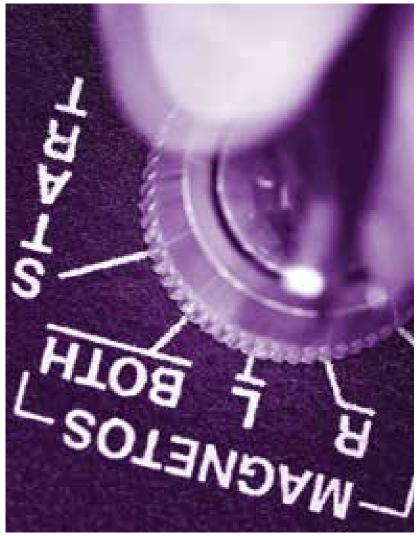
Magneto Check



1. FOLD HERE

Magneto Check

Runup RPM: ________ Max. RPM Drop: __________

Max. Difference Between Left and Right: _________

TIP:

A drop on one magneto but not the other (or no drop on either magneto) could indicate a "hot mag," which means the engine could fire inadvertently after shutdown as a result of a broken or damaged P-lead or magneto switch. It's important to include a hot mag check into your engine shutdown list.

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.

2. CUT HERE

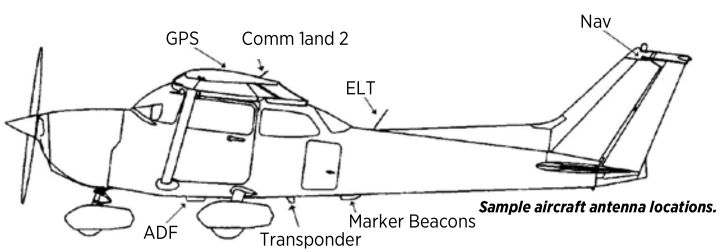
Antenna Locations

Nosewheel Steering

1. FOLD HERE

2. CUT HERE

Antenna Locations



Sample aircraft antenna locations.

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

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

Maximum Weights

1. FOLD HERE

2. CUT HERE

VNE - Never Exceed Speed

____

TIP:
VNE is denoted by the red line.

2. CUT 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. V_A decreases as the aircraft's weight decreases. 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: ________________

TIP:

There is no published airspeed for soft-field takeoffs. Instead, with full power and back pressure to keep the nose off the ground, the airplane will lift off the ground when it's ready to fly.

2. CUT HERE

Vso

1. FOLD HERE

Vso - Stall Speed – Landing Configuration

__________ 0º Bank

__________ 45º Bank

__________ 60º Bank

TIP:

Vso is shown on the bottom of the white arc.

Remember: Vso = "Stuff Out," which means gear and flaps extended.

2. CUT HERE

Vs1

1. FOLD HERE

Vs1 - Stall Speed – Clean

__________ 0º Bank

__________ 45º Bank

__________ 60º Bank

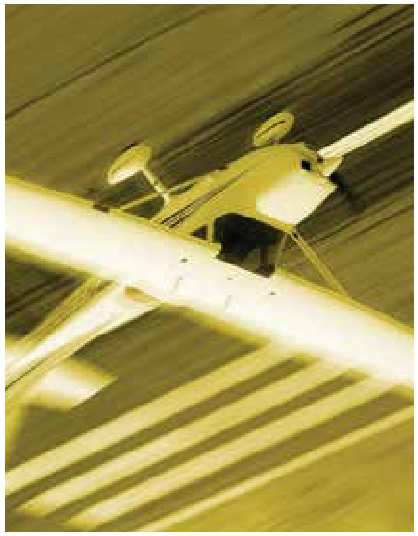
TIP:

Vs1 is shown on the bottom of the green arc.

Remember: Vs1 = "Stuff In," which means gear and flaps retracted.

2. CUT HERE

Normal Landing Procedures



1. FOLD HERE

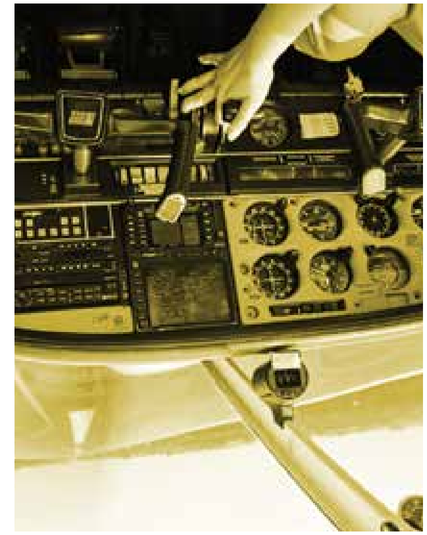
Normal Landing Procedures

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



1. FOLD HERE

Normal Takeoff Procedures

Flap Setting: ______

Rotation Speed: ______

Climb Speed: ______

2. CUT HERE

Short-Field Landing Procedures

Short-Field Takeoff Procedures

1. FOLD HERE

2. CUT 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 retracting flaps and applying maximum braking. Keeping the flaps extended maintains some residual lift, which could cause the wheels to skid as brakes are being applied.

Short-Field Takeoff Procedures

Flap Setting: ______

Rotation Speed: ______

Climb Speed: ______

Flap Retraction: ______

TIP:

The objective of the short-field takeoff 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.

Soft-Field Landing Procedures

1. FOLD HERE

2. CUT 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, while allowing the nosewheel to settle gently to the ground, and avoid unnecessary braking. You may need to add power in the flare to avoid a hard landing.

Soft-Field Takeoff Procedures

1. FOLD HERE

2. CUT HERE

Soft-Field Takeoff Procedures

Flap Setting: ______________

Climb Speed: ______________

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

Maximum Demonstrated Crosswind Component

1. FOLD HERE

2. CUT 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

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, and may vary with personal minimums.

Emergency Procedures:

Engine Failure During Flight

1. FOLD HERE

2. CUT HERE

Emergency Procedures: Engine Failure During Flight

Memory Items: ____________________

____

____

____

____

Emergency Procedures:

Engine Failure Immediately After Takeoff

1. FOLD HERE

2. CUT HERE

Emergency Procedures: Engine Failure Immediately After Takeoff

Memory Items: ____________________

____

____

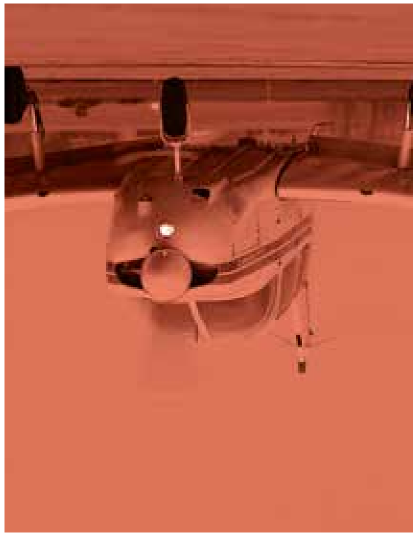
____

____

____

Emergency Procedures:

Engine Failure During Takeoff Roll



Types of Operations

1. FOLD HERE

2. CUT HERE

Emergency Procedures: Engine Failure During Takeoff Roll

Memory Items: ______________________

____

____

____

____

____

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.

Emergency Procedures:

Engine Fire in Flight

Emergency Procedures:

Engine Fire on Start

1. FOLD HERE

2. CUT HERE

1. FOLD HERE

2. CUT HERE

Emergency Procedures: Engine Fire in Flight

Memory Items: ______________________________

____

____

____

____

____

Emergency Procedures: Engine Fire on Start

Memory Items: ______________________________

____

____

____

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____

Emergency Procedures:

Inadvertent Icing Encounter

Emergency Procedures:

Electrical Fire in Flight

1. FOLD HERE

2. CUT HERE

Emergency Procedures: Inadvertent Icing Encounter

Due to lack of deice or anti-ice 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.

Emergency Procedures: Electrical Fire in Flight

Memory Items: ______________________________

____

____

____

TIP:

Electrical fires are usually smelled long before they are seen.

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1. FOLD HERE

2. CUT HERE

Spin Recovery

1. FOLD HERE

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2. CUT HERE

Spin Recovery

Memory Items: ____________________

____

____

____

TIP:

Some pilots commit to memory the **PARE** acronym, which means **P**ower-to idle, **A**ilerons-neutral, **R**udder-full opposite the spin, **E**levator-forward to break the stall.

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