

AIRCRAFT WRITTEN

(Updated March 20, 2001)

Name _____
Date _____
Phone _____
Aircraft Type _____

SPEEDS

Vso _____ Vsl _____ Vr _____ Vx _____ Vy _____
Best Glide _____ Vfe _____ Vno _____ Vne _____
Va (max wt.) _____ Vlo _____ (ret) Vlo _____ (ext)
Vle _____ Max crosswind component Vmc _____
Vsse _____ Vyse _____

WEIGHTS

Max Ramps _____ Max Takeoff _____
Max Landing _____ Useful Load _____

AIRCRAFT SYSTEMS

1. What type of **power plant** does the aircraft have? How much horsepower? How much oil-minimum, maximum? What kind of oil this engine uses?

2. **Fuel systems:** how much fuel do the tanks hold?

Is the engine carbureted or fuel injected?

Fuel Pumps: How many and what drives them?

What is the fuel consumption at Cruise and take off power?

What is the endurance at cruise?

3. **Propeller:** Is it fixed pitch or constant speed? If it is constant speed, what power and propeller settings do you use for take off, climb, (at 65%) cruise and descent?

4. **Electrical system:** What voltage battery does the airplane have and what size alternator? What is the total voltage on the electrical system? What equipment is affected by an alternator failure?

5. **Landing gear system:** What allows the gear to retract? What allows the gear to extend for your airplane?

6. **Emergency landing gear system:** How do you use the emergency landing gear system?

EMERGENCIES

1. Describe the procedures for the following emergencies:

A. Engine failure on takeoff sufficient runway available.

B. Engine failure on the takeoff insufficient runway available.

C. Engine failure en route.

D. Engine and electrical fires.

WEIGHTS AND BALANCES:

Aircraft has maximum fuel; pilot weighs 180 lbs., and passenger 220 lbs. Rear seat passengers weigh 190 lbs. each. Is the aircraft within limits?

Aircraft Performance:

Runway length available: 2500 ft. Wind: Calm. Temperature: 90 degrees. Barometric Pressure: 28.92 In Hg. Field elevation 1,500 Ft. The aircraft is loaded at maximum takeoff weight. Can the aircraft takeoff and land over a 50 Ft. obstacle under these conditions? If not, what is the required runway length?

Pilot signature: _____

Date: _____

Instructor: _____