

**TUCSON AEROSERVICE CENTER**  
**SYSTEMS, PROCEDURES & LIMITATIONS REVIEW**  
**FOR AIRCRAFT WITH RECIPROCATING ENGINES**

This form is to be filled out for each aircraft (make and model) to be flown. It will be used in reviewing aircraft limitations, systems and procedures. Utilize all available documents, including the aircraft information manual, pilot operating handbook, flight school and company procedures, etc. to aid in filling out this sheet. Only answer those questions that apply. After completing this form it will become a permanent part of your file.

Name: (please print) \_\_\_\_\_ Date of Birth \_\_\_\_\_

**AIRCRAFT MAKE and MODEL:** \_\_\_\_\_

Certification Category: \_\_\_\_\_ lbs. Max. Limit Load Factor: \_\_\_\_\_ lbs

Max. Ramp Weight: \_\_\_\_\_ lbs. Max. Takeoff Weight: \_\_\_\_\_ lbs

Max. Landing Weight: \_\_\_\_\_ lbs Max. Zero Fuel Weight: \_\_\_\_\_ lbs

**ENGINE:**

Make and Model \_\_\_\_\_ No. of cylinders: \_\_\_\_\_ Displacement: \_\_\_\_\_ Cubic inches

Maximum Rated Horsepower: \_\_\_\_\_ at \_\_\_\_\_ Manifold Pressure and \_\_\_\_\_ RPM

Max. Acceptable Takeoff Power: \_\_\_\_\_ at \_\_\_\_\_ Manifold Pressure and \_\_\_\_\_ RPM

Check those that apply:

Turbo charged  Normally Aspirated  Fuel Injected  Carbureted  Geared  Direct Drive

Air Cooled  Liquid Cooled Cylinder Arrangement: \_\_\_\_\_  
(Opposed-Radial-Inverted-Etc.)

**OIL CAPACITY:**

Minimum \_\_\_\_\_ Quarts Maximum \_\_\_\_\_ Quarts **OIL GRADE:** \_\_\_\_\_

**PROPELLER:** Make: \_\_\_\_\_  Fixed Pitch  Controllable Pitch  Ground adjustable

Static RPM Range: \_\_\_\_\_

**FUEL SYSTEM:** Total Capacity: \_\_\_\_\_ Gal. Usable Capacity: \_\_\_\_\_ Gal.

Acceptable Fuel Grades/Colors: \_\_\_\_\_

Number and Location of Fuel Tanks: \_\_\_\_\_

Number and Location of Fuel Drains: \_\_\_\_\_

**ELECTRICAL SYSTEM:** Alternator Volts: \_\_\_\_\_ Amps: \_\_\_\_\_ Battery Volts: \_\_\_\_\_

Amp /Hour Rating: \_\_\_\_\_ Location of Battery: \_\_\_\_\_

Describe Procedure For Using External Power For Engine Start: \_\_\_\_\_

**BRIEFLY DESCRIBE COMPONENTS AND OPERATION OF THE FOLLOWING SYSTEMS:**

Hydraulic System: \_\_\_\_\_

Retractable Landing Gear (Include all gear unsafe indications): \_\_\_\_\_

Wing Flap System: \_\_\_\_\_

Cabin Heater: \_\_\_\_\_

Anti-Ice/De-Ice: \_\_\_\_\_

Vacuum or Instrument Pressure System: \_\_\_\_\_

**AIRSPEDS FOR SAFE OPERATION:**

Vso: \_\_\_\_\_ Va: \_\_\_\_\_ Vne: \_\_\_\_\_ Vmc: \_\_\_\_\_

Vsi: \_\_\_\_\_ Vfe: \_\_\_\_\_ Vno: \_\_\_\_\_ Vsse: \_\_\_\_\_

Vx: \_\_\_\_\_ Vle: \_\_\_\_\_ Best Glide: \_\_\_\_\_ Vyse: \_\_\_\_\_

Vy: \_\_\_\_\_ Vlo: \_\_\_\_\_ Rotation: \_\_\_\_\_ Vxse: \_\_\_\_\_

Normal Approach Speed Flaps Up: \_\_\_\_\_ Flaps Down: \_\_\_\_\_ Enroute Climb Speed \_\_\_\_\_

Maximum Demonstrated Crosswind Component: \_\_\_\_\_

**AIRCRAFT PERFORMANCE:**

Using the Aircraft Performance Charts, Calculate the performance under the conditions indicated.

Takeoff and Climb:

Maximum Takeoff Weight, Field Elevation, Zero Wind, Temperature ISA+20, Standard Altimeter.

Takeoff Ground Roll: \_\_\_\_\_ Takeoff Distance to Clear 50ft.: \_\_\_\_\_ Rate of Climb: \_\_\_\_\_ Ft. per minute

Climb Gradient: \_\_\_\_\_ Ft. per nautical mile.

**AIRCRAFT PERFORMANCE (MULTI ENGINE AIRCRAFT ONLY):**

Accelerate-Stop Distance: \_\_\_\_\_ Accelerate-Go Distance: \_\_\_\_\_ SE Rate of Climb: \_\_\_\_\_ Ft. per minute

SE Climb Gradient: \_\_\_\_\_ Ft. per nautical mile

Cruise: 65% power at the maximum altitude it can be sustained. Assume ISA+20

Landing Distance to Clear 50Ft.: \_\_\_\_\_ Landing Ground Roll:

**EMERGENCY PROCEDURES:**

Briefly describe the proper procedures to meet the following situations.

Engine Fire While Starting on the Ground:

Emergency Descent:

Electrical Fire in Flight:

Manual Landing Gear Extension:

Alternator Failure:

Pilot Signature \_\_\_\_\_ Date \_\_\_\_\_ Instructor Signature \_\_\_\_\_