

**SECTION 5  
PERFORMANCE  
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**SECTION 5  
PERFORMANCE**

**GENERAL**

IGE hover controllability has been substantiated in 17 knot wind from any direction up to 9600 feet (2930 meters) density altitude. Refer to hover performance charts for allowable gross weight.

***CAUTION***

Performance data presented in this section was obtained under ideal conditions. Performance under other conditions may be substantially less.

***NOTE***

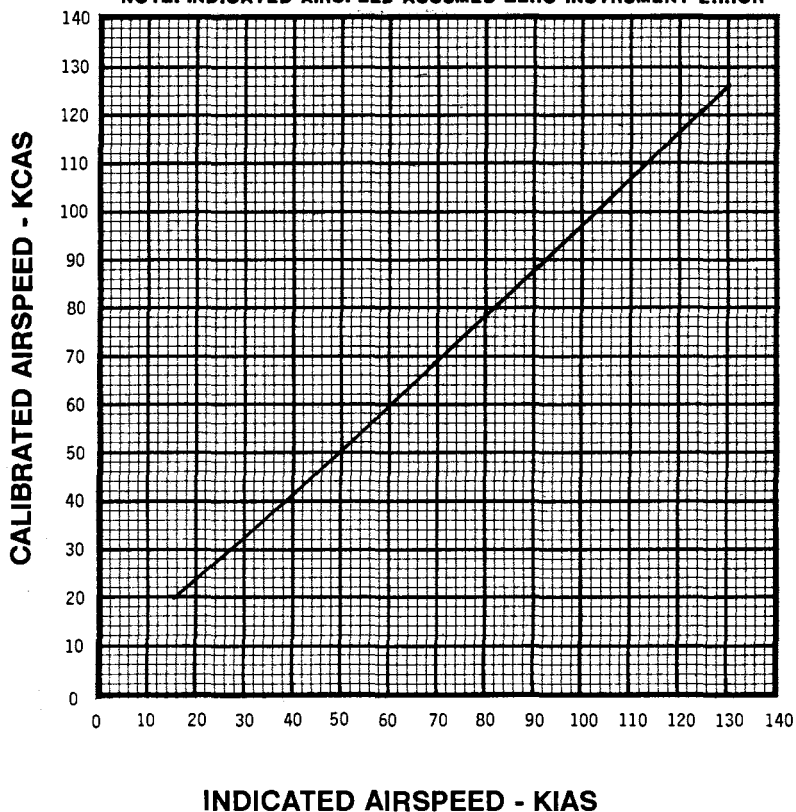
Hover performance data given is with carburetor heat off. Full carburetor heat reduces hover ceilings by up to 2400 feet (730 meters).

Indicated airspeed (KIAS) shown on charts assumes zero instrument error.

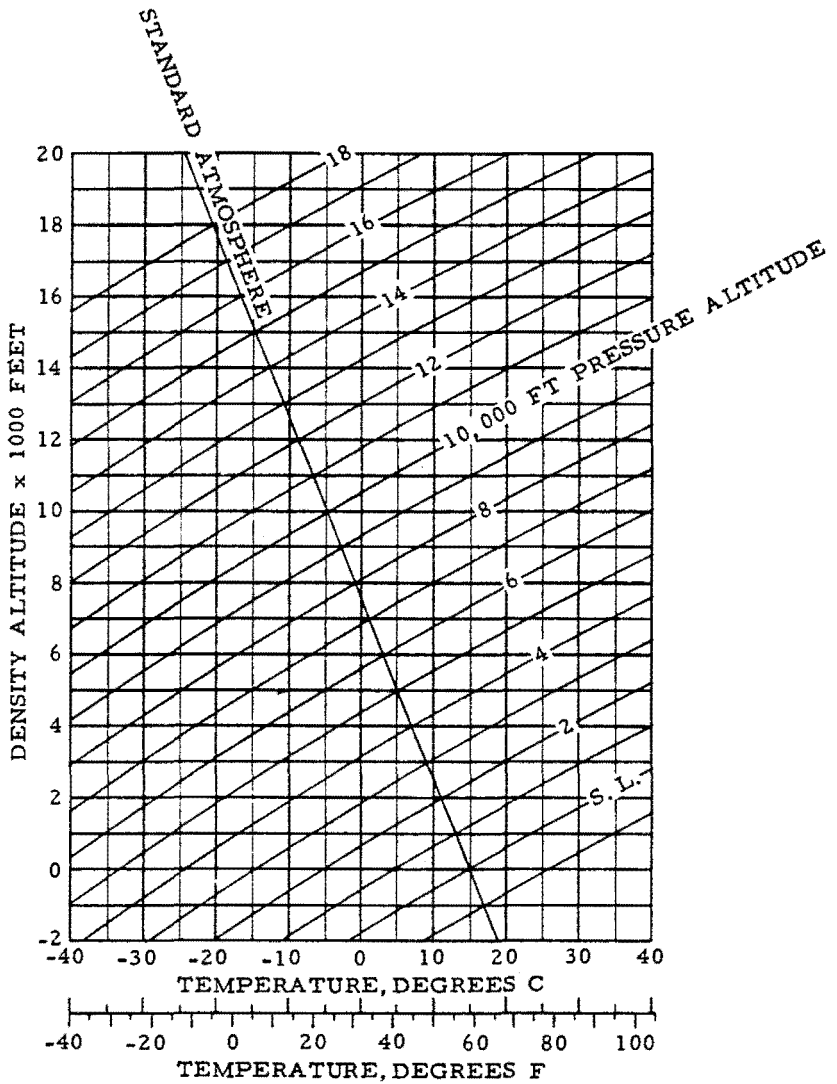
**DEMONSTRATED OPERATING TEMPERATURE**

Satisfactory engine cooling has been demonstrated to an outside air temperature of 38°C (100°F) at sea level or 23°C (41°F) above ISA at altitude.

**NOTE: INDICATED AIRSPEED ASSUMES ZERO INSTRUMENT ERROR**

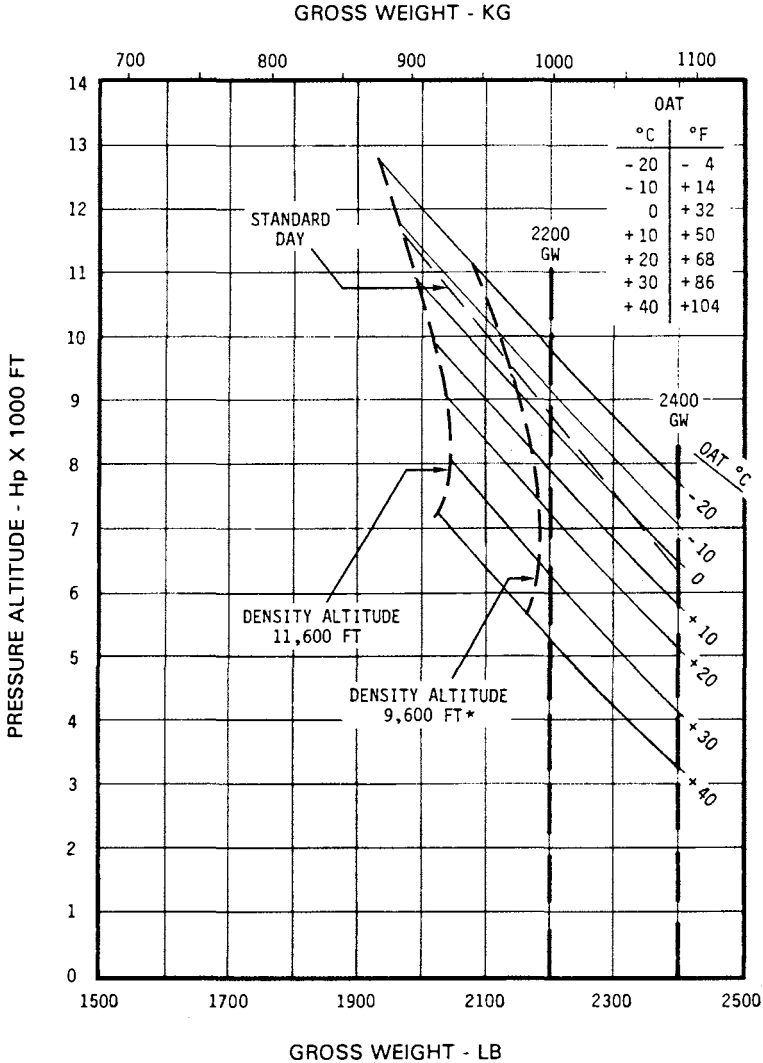


**AIRSPEED CALIBRATION CURVE**



DENSITY ALTITUDE CHART

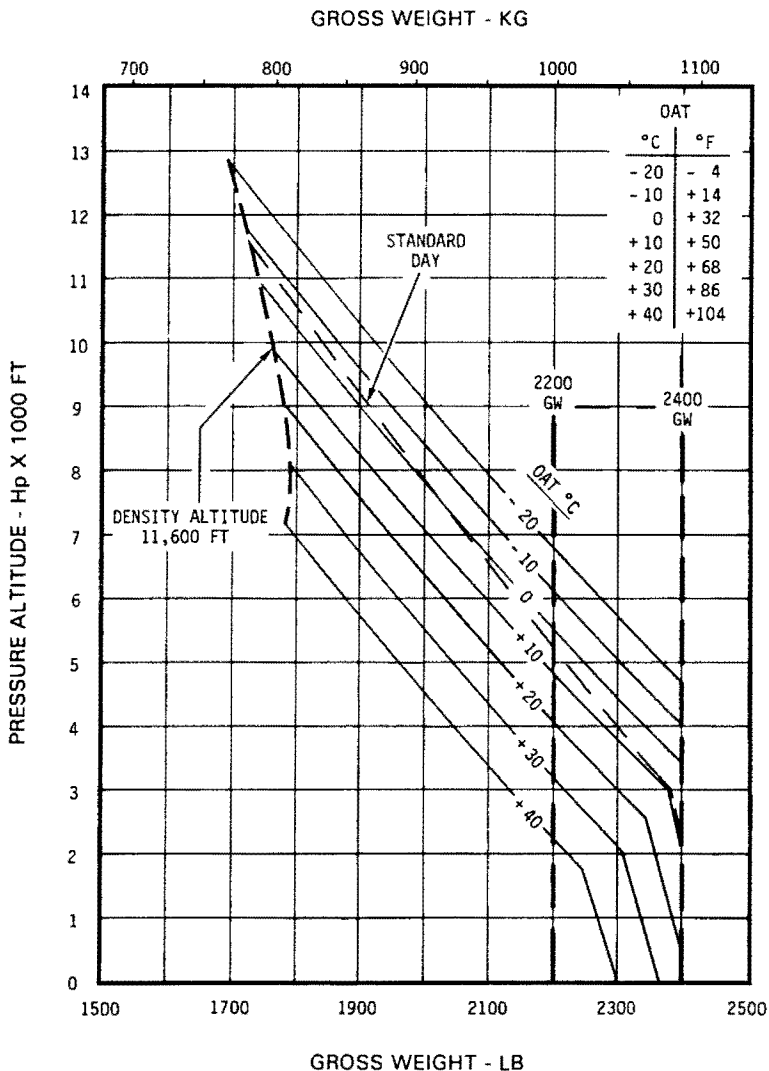
IN GROUND EFFECT AT 2 FOOT SKID HEIGHT  
FULL THROTTLE  
101-102% RPM  
ZERO WIND



**IGE HOVER CEILING VS. GROSS WEIGHT**

\*Hover controllability with 17 knot wind substantiated up to 9600 feet density altitude.

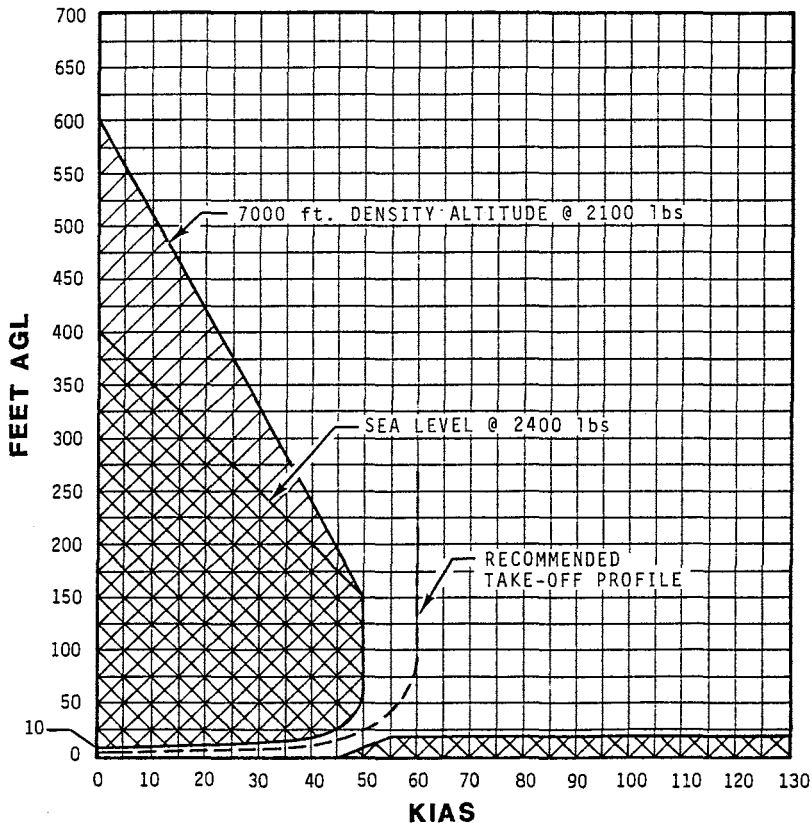
OUT OF GROUND EFFECT, ZERO WIND  
TAKEOFF POWER OR FULL THROTTLE  
101-102% RPM



**OGE HOVER CEILING VS. GROSS WEIGHT**

DEMONSTRATED CONDITIONS:  
SMOOTH HARD SURFACE  
WIND CALM  
GOVERNOR ON

AVOID OPERATION IN SHADED AREAS



**HEIGHT - VELOCITY DIAGRAM**



**NOISE CHARACTERISTICS**

The following noise levels comply with 14 CFR Part 36, Appendix J and ICAO Annex 16, Chapter 11 noise requirements and were obtained from FAA-approved data from actual noise tests.

Model: R44  
 Engine: Lycoming O-540-F1B5  
 Gross Weight: 2400 lb (1089 kg)

Configuration		V <sub>H</sub> KTAS	Flyover Sound Exposure Level dB(A)
Earlier Version	Large Muffler	108	78.9
	Small Muffler		81.9
Later Version	Large Muffler	107	81.0

**Notes:**

1. Configurations are:

Earlier version — Horizontal Stabilizer is mounted adjacent to tail gearbox.

Later version — Horizontal Stabilizer is mounted under tailcone forward of tail rotor.

2. Large muffler is P/N C169-35 or -36

Small muffler is P/N C169-1 or -3

3. Later version with small muffler is not an approved configuration.

These noise levels meet the requirements for a Stage 3 helicopter as defined in 14 CFR Part 36.

**NOTE**

No determination has been made by the Federal Aviation Administration that the noise levels of this aircraft are or should be acceptable or unacceptable for operation at, into, or out of any airport.

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