

USE OF CHARTS (cont'd)

HOVER PERFORMANCE

In-ground-effect (IGE) and out-of-ground-effect (OGE) hover performance is given in the Hover Ceiling vs. Gross Weight charts on pages 5-7 and 5-8, respectively. Note that hover performance is limited by the MGT five-minute limit, not by torque. Hover performance is substantiated up to 11,000 feet density altitude; however, data is presented beyond 11,000 feet density altitude only to determine performance with engine anti-ice, cabin heat, and/or generator loads over 50 amps. With anti-ice and cabin heat OFF, maximum IGE hover gross weight is 2700 lb up to 11,000 feet density altitude at any OAT within limits.

To correct for anti-ice, cabin heat, and/or high generator load, increase the actual OAT as specified on the charts. The following example illustrates the calculation of an effective OAT when anti-ice and cabin heat are turned ON, and there is a 90-amp generator load (40 amps over the 50-amp load on which the charts are based):

Pressure altitude:	9000 ft
Actual OAT:	0°C
Anti-ice ON correction:	10°C
Cabin heat ON correction:	20°C
90-amp load correction:	$(90 - 50)/20 = 2^\circ\text{C}$
Effective OAT:	$0 + 10 + 20 + 2 = 32^\circ\text{C}$

A pressure altitude of 9000 ft and OAT of 32°C are therefore used with the charts, giving a maximum gross weight of 2580 lb for IGE hover and 2320 lb for OGE hover.

CLIMB PERFORMANCE

Climb performance charts are given for maximum gross weight (2700 lb) and for 2200 lb gross weight at 60 KIAS climb speed and maximum continuous torque or MGT (whichever is less). Each chart gives the potential reduction in climb rate due to anti-ice and cabin heat. The charts assume a 50-amp generator load; generator load has a small effect on climb rate. Note that predicted climb rate is approximate; variations in aircraft and operating conditions may significantly affect performance.

USE OF CHARTS (cont'd)

HEIGHT-VELOCITY DIAGRAM

The height-velocity diagram is given for maximum gross weight at sea level and at 7800 feet density altitude. An appropriate curve for altitudes between sea level and 7800 feet may be estimated by interpolation. For example, a curve with a hover point at 600 feet AGL may be used for 3900 feet density altitude.