4. Weight & Balance and Aircraft Performance:

a. Weight & Balance:

A maintenance record dated 12/1/2008 indicates an empty weight of 1843.4 pounds, 108.8 inch arm and 200,484 inch-pounds moment. The maximum gross weight is 3100 pounds. The following weight and balance calculations were made using estimated weights at the time of the mishap.

Item Description	Weight (lb.)	Long Arm (in.)	Long Moment (in.-lb.)
Basic weight	1843.4	108.8	200,484.00
Pilot (Left/Front)	180	73.5	13,230.00
Passenger (Right/Front)	180	73.5	13,230.00
Passenger (Left/Rear)	200	105.0	21,000.00
Passenger (Right/Rear)	200	105.0	21,000.00
Backpack & Misc Personal Equip.	30	110.0	3,300.00
Fuel (50 gal)	340	96.8	32,912.00
A/C Gross Weight	2973.4	102.6	305,156.00

A gross weight of 2973.4 pounds and longitudinal center of gravity of 102.6 inches falls within the limits specified in the 369FF Rotorcraft Flight Manual, Table 6-1.

Allowing for deviations in weight estimates and configuration, the aircraft was being operated within the published weight and balance limits at the time of the incident.

b. Operational Performance Data:

The accident site was about 30 miles west - northwest of Tucson International Airport (KTUS). The METAR weather report for KTUS reported winds from 300 degrees and 9 knots with gusts to 16 knots, visibility 10 miles with a few clouds at 4100 and a broken cloud layer at 6,000 feet, temperature 11 degrees C and the dew point 1 degrees C. The elevation of the accident site is approximately 3600 feet. Using these conditions, the 369FF Rotorcraft Flight Manual (RFM), Figure 8-2, shows the helicopter has sufficient in ground effect (IGE) and out of ground effect (OGE) hover performance.