while focusing on the dominant frequencies. Less emphasis should be placed on the differences at the high frequency and low amplitude portions of the PSD plot. During the analysis, certain structural components of the flight simulator have resonant frequencies that are filtered and may not appear in the PSD plot. If filtering is required, the notch filter bandwidth should be limited to 1 Hz to ensure that the buffet feel is not adversely affected. In addition, a rationale should be provided to explain that the characteristic motion vibration is not being adversely affected by the filtering. The amplitude should match helicopter data as described below. However, if the PSD plot was altered for subjective reasons, a rationale should be provided to justify the change. If the plot is on a logarithmic scale it may be difficult to interpret the amplitude of the buffet in terms of acceleration. For example, a 1×10^{-3} g-rms^2/Hz would describe a heavy buffet and may be seen in the deep stall regime. Alternatively, a 1×10^{-6} g-rms^2/Hz buffet is almost imperceptable, but may represent a flap buffet at low speed. The pre-

vious two examples differ in magnitude by 1000. On a PSD plot this represents three decades (one decade is a change in order of magnitude of 10, and two decades is a change in order of magnitude of 100).

NOTE: In the example, "g-rms^2" is the mathematical expression for "g's root mean squared."

f. Table C2B, Motion System Recommendations for Level C and Level D Helicopter Simulators, contains a description of the parameters that should be present in simulator motion systems to provide adequate onset motion cues to helicopter pilots. The information provided covers the six axes of motion (pitch, roll, yaw, vertical, lateral, and longitudinal) and addresses displacement, velocity, and acceleration. Also included is information about the parameters for initial rotational and linear acceleration. The parameters listed in this table apply only to Level C and Level D simulators, and are presented here as recommended targets for motion system capability. They are not requirements.

TABLE C2B—MOTION SYSTEM RECOMMENDATIONS FOR LEVEL C AND LEVEL D HELICOPTER SIMULATORS

a.	Motion System Envelope	
a.1.	Pitch	
a.1.a.	Displacement	±25°
a.1.b.	Velocity	±20°/sec
a.1.c.	Acceleration	±100°/sec^2
a.2.	Roll	
a.2.a.	Displacement	±25°
a.2.b.	Velocity	±20°/sec
a.2.c.	Acceleration	±100°/sec^2
a.3.	Yaw	
a.3.a.	Displacement	±25°
a.3.b.	Velocity—	±20°/sec
a.3.c.	Acceleration	±100°/sec^2
a.4.	Vertical	
a.4.a.	Displacement	±34 in.
a.4.b.	Velocity	±24 in.
a.4.c.	Acceleration	±0.8 g.
a.5.	Lateral	
a.5.a.	Displacement	±45 in.
a.5.b.	Velocity	±28 in/sec.
a.5.c.	Acceleration	±0.6 g.
a.6.	Longitudinal	
a.6.a.	Displacement	±34 in.
a.6.b.	Velocity	±28 in/sec.
a.6.c.	Acceleration	±0.6 g.
a.7.	Initial Rotational Acceleration Ratio.	
		All axes 300°/ sec^2/sec
a.8.	Initial Linear Acceleration Ratio.	
a.8.a.	Vertical	±6g/sec
a.8.b.	Lateral	±3g/sec
a.8.c.	Longitudinal	±3g/sec