

Acceleration-Duration Eyes Down

Note: comparing data against the “All Restraints” curve

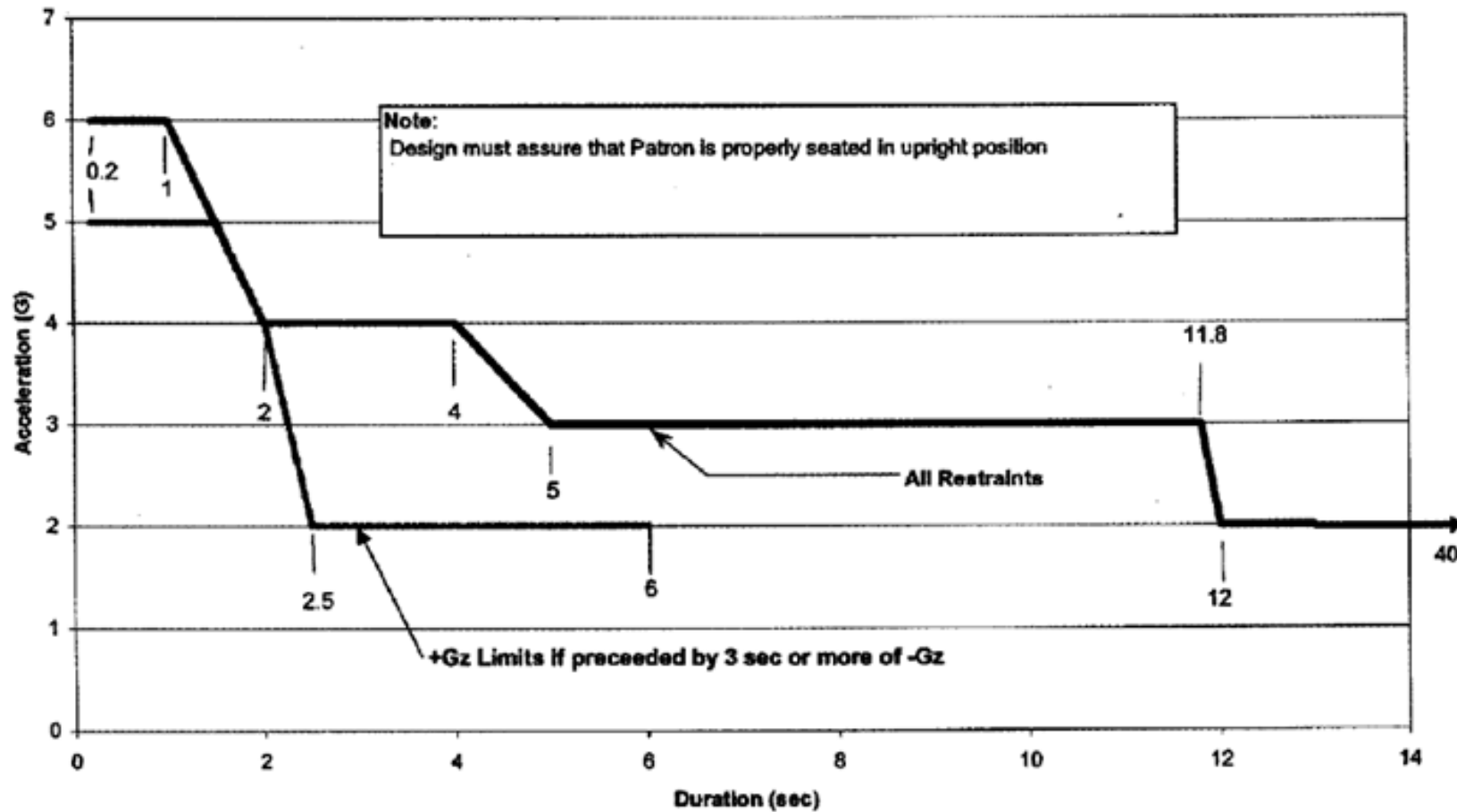
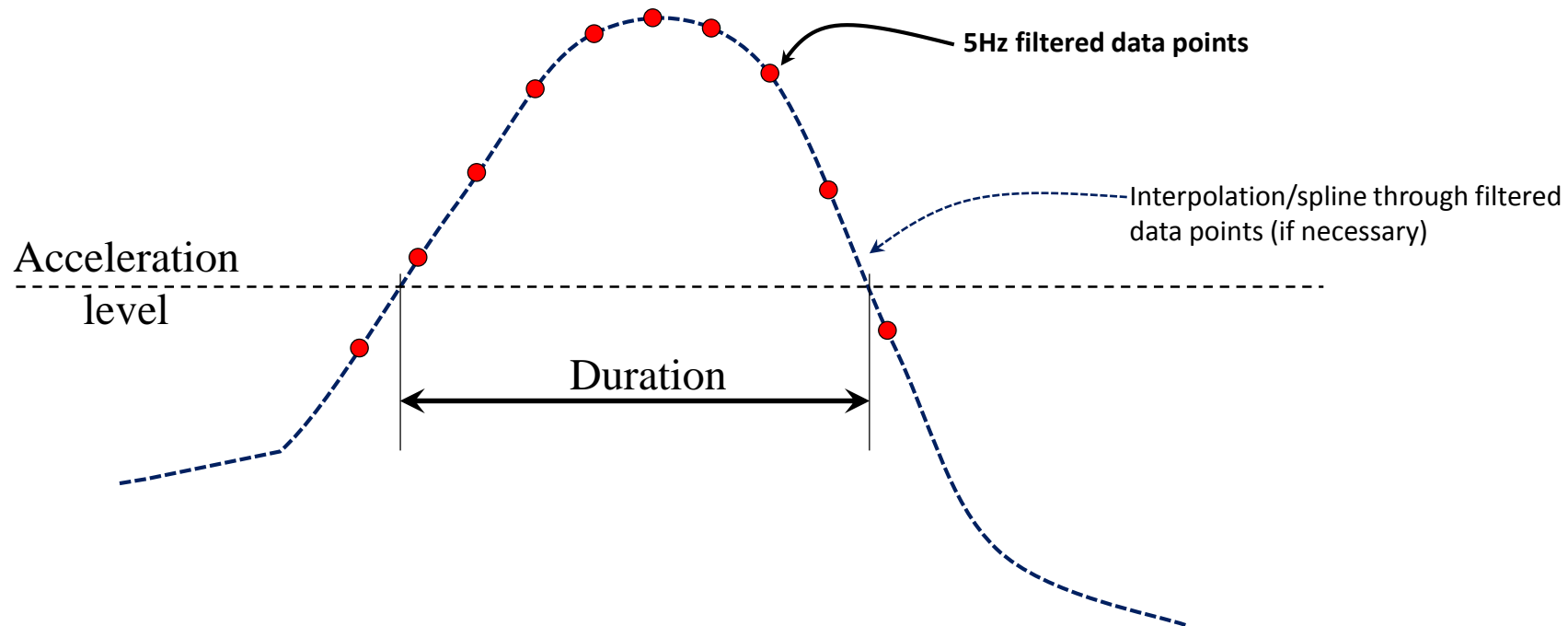


FIG. 10 Acceleration-Duration Limits for +Gz (Eyes Down)

Process (suggested)

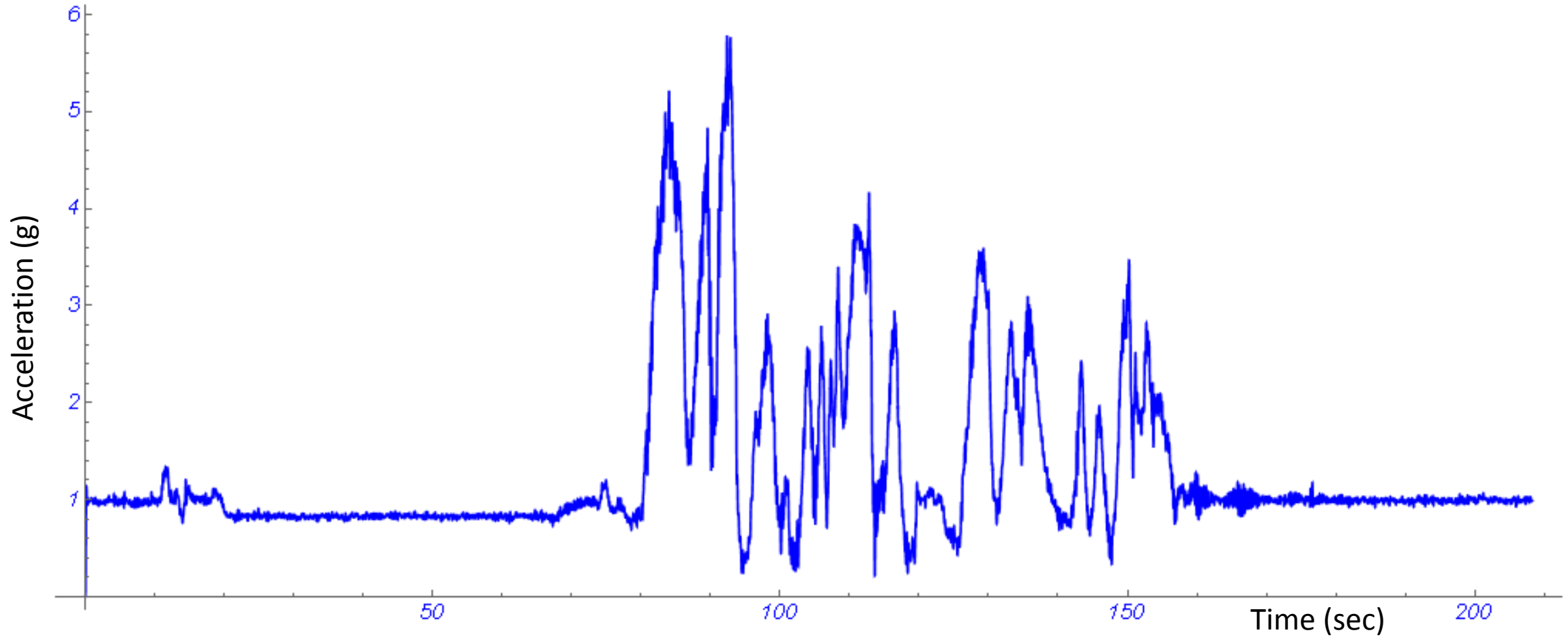
1. Filter data to 5Hz
2. If maximum acceleration is less than the 40 second exposure limit acceleration, data passes.
3. If not, select an acceleration value
4. Locate all places on the filtered acceleration time-history where this acceleration value is exceeded.
5. For each one of these events, calculate the duration at this acceleration value. Note that this may require interpolation between the sampled data points, depending upon the sample rate.
6. Compare the acceleration-duration point with the allowable limit curve



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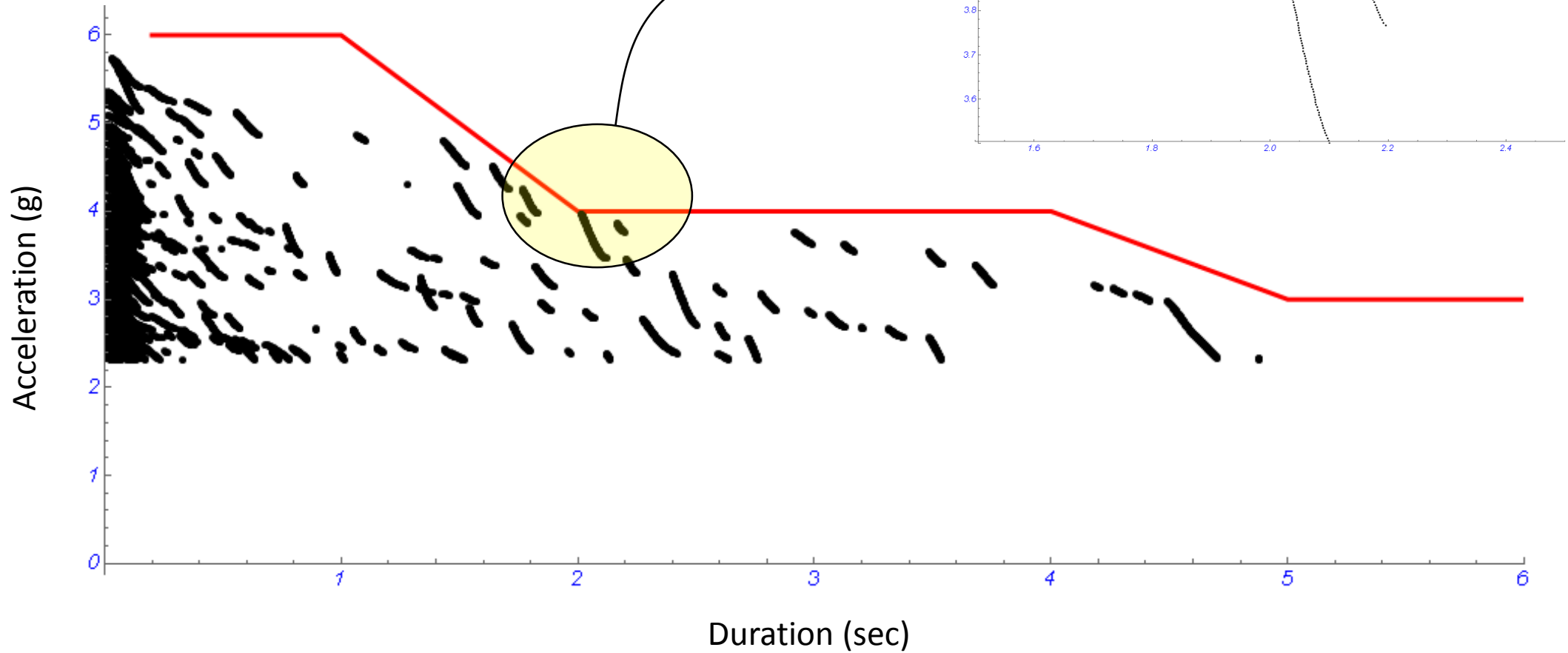
ASTM_AccelDuration_Down_justPasses

Data filtered using a 5.0Hz Butterworth Lowpass 4-pole filter, specifically the Matlab "filter" function



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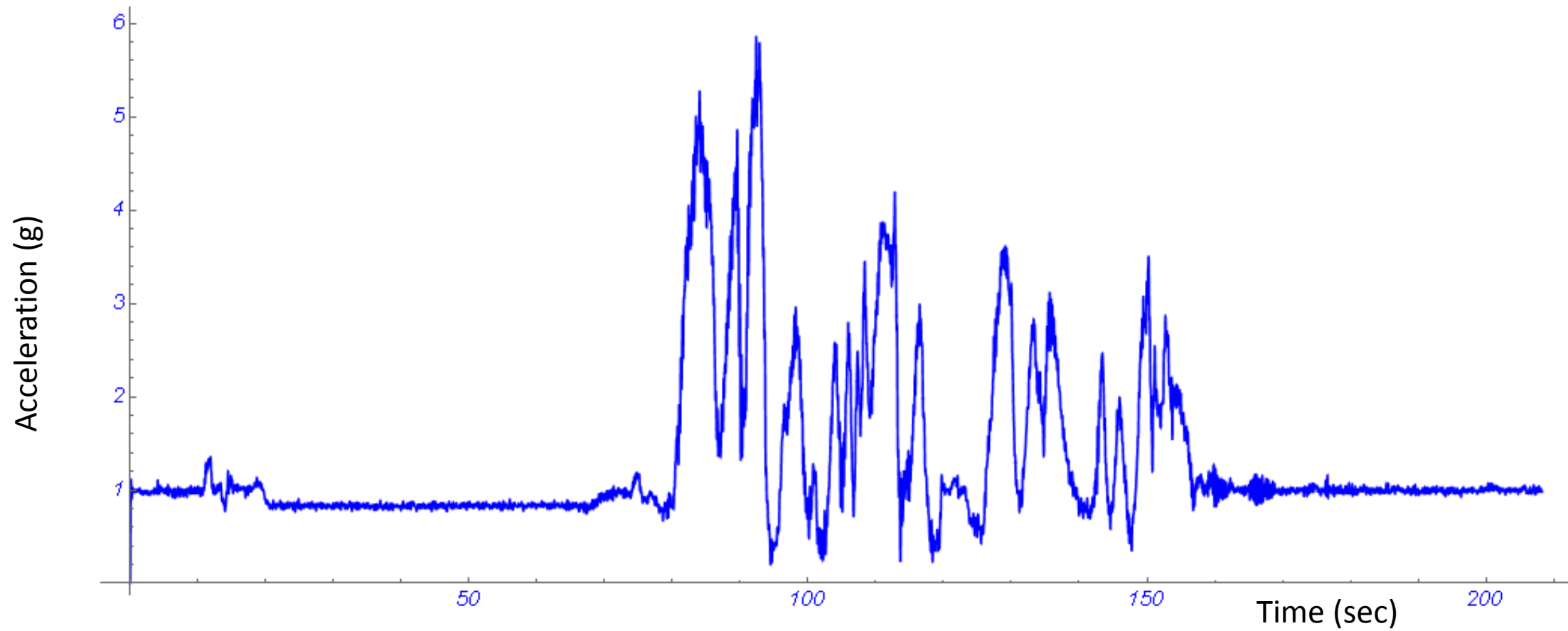
ASTM_AccelDuration_Down_justPasses



Acceleration-Duration Eyes Down

ASTM_AccelDuration_Down_justFails

Data filtered using a 5.0Hz Butterworth Lowpass 4-pole filter, specifically the Matlab "filter" function



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ASTM_AccelDuration_Down_justFails

