

Hands on RECON Collision Dynamics Report

by
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Incident Date: 1/20/2006
Incident Location: 4th and Victoria
Involved Vehicles: 1
Involved Parties: 2
Case Comments:

Case Number: 12345-6
Case Name: Smith Accident

1. Smith Vehicle Stopping

Distance traveled after accel/decelerating from or to a stop

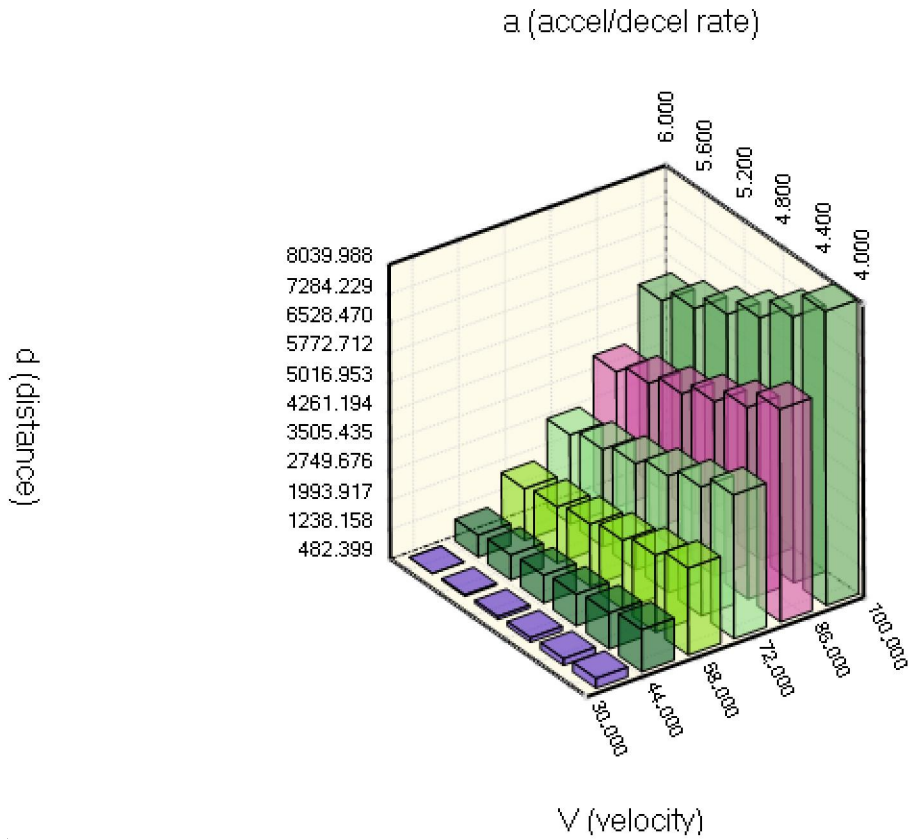
$$d = \frac{V^2}{2a}$$

Equation Comments

This was a very easy case to solve thanks to CrashMath

Input Value(s)	Units	Value
V (velocity)	mph	30.000 -> 100.000 (step by...
a (accel/decel rate)	G	4.000 -> 6.000 (step by...

Result(s) for d (distance) (feet)	4.000	4.400	4.800	5.200	5.600	6.000
30.000	482.399	516.856	556.615	602.999	657.817	723.599
44.000	1037.694	1111.816	1197.340	1297.118	1415.038	1556.542
58.000	1803.101	1931.894	2080.502	2253.877	2458.775	2704.652
72.000	2778.620	2977.093	3206.100	3473.275	3789.027	4167.930
86.000	3964.250	4247.411	4574.135	4955.313	5405.796	5946.375
100.000	5359.992	5742.849	6184.606	6699.990	7309.080	8039.988



Solution Steps

V = velocity = 30.000 mph = 44.000 ft/sec
 a = accel/decel rate = 4.000 G = 1.338 ft/sec²

$$d = \frac{V^2}{2a}$$

$$d = \frac{44^2}{2 \times 1.338}$$

$$d = \frac{1935.994}{2.676}$$

$$d = 723.599$$

d = distance = 723.599 feet