

AEROTECH D10

CERTIFIED VALUES

Total Impulse: 20.0 newton-seconds
Delays: 3, 5, 7 seconds

Propellant Type: Composite
Propellant Mass: 9.8 grams

Casing Dimensions: 18 mm × 70 mm

Certification Date: 98-March-29
Contest Use Date: 98-May-28

Certification Type: Model Rocket

STATIC TEST DATA

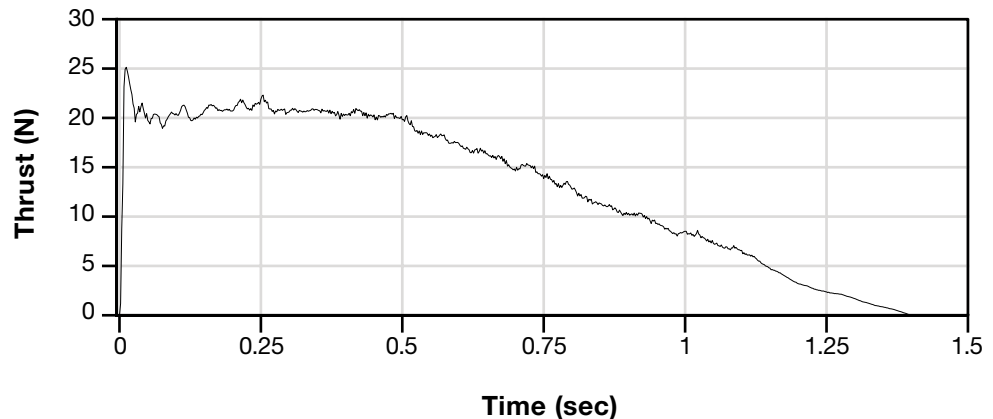
Date Tested: 98-March-29

Total Impulse: 18.75 newton-seconds (σ 0.22)
Peak Thrust: 25.13 newtons (σ 2.32)
Burn Time: 1.40 seconds (σ 0.08)
Average Thrust: 13.39 newtons

Mass After Firing: 12.0 grams

Delay Time	Average Measured Delay	Initial Mass	Mfg Recommended Max Liftoff Weight
3	3.82	25.8 g	450 g
5	5.90	25.9 g	300 g
7	7.82	25.9 g	300 g

TYPICAL THRUST-TIME CURVE



REMARKS

; Apogee D10 RASP.ENG file made from NAR published data
 ; File produced September 4, 2000
 ; The total impulse, peak thrust, average thrust and burn time are
 ; the same as the averaged static test data on the NAR web site in
 ; the certification file. The curve drawn with these data points is as
 ; close to the certification curve as can be with such a limited
 ; number of points (32) allowed with wRASP up to v1.6.

Time (Sec)	Thrust (N)
D10	18 70 3-5-7 .0098 .0259 APO
0.011	14.506
0.018	25.130
0.032	20.938
0.079	19.065
0.122	21.139
0.136	19.686
0.169	21.139
0.201	20.728
0.223	21.760
0.233	20.938
0.255	21.970
0.276	20.938
0.352	20.728
0.402	20.107
0.420	20.728
0.459	20.107
0.488	20.517
0.556	18.243
0.671	15.959
0.707	14.717
0.729	15.127
0.779	12.853
0.793	13.474
0.836	11.401
0.904	10.158
0.926	10.569
0.990	8.083
1.026	8.498
1.123	6.011
1.231	2.487
1.342	0.829
1.400	0.000

