

AEROTECH G74

CERTIFIED VALUES

Total Impulse: **82.74 newton-seconds**
Delays: **4, 6, 9**

Propellant Type: **Composite**
Propellant Mass: **39.3 grams**

Casing Dimensions: **29 mm X 83 mm**

Certification Type: **Model Rocket**

STATIC TEST DATA

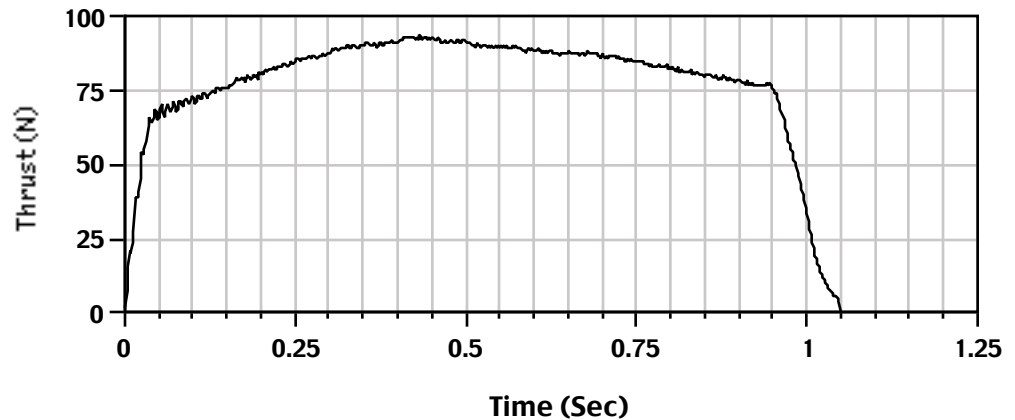
Date Tested: **15-Feb-2014**

Total Impulse: **82.74 newton-seconds** (**0.51**)
Peak Thrust: **94.48 newtons** (**2.44**)
Burn Time: **1.04 seconds** (**0.01**)
Average Thrust: **79.64 newtons**

Mass After Firing: **43.3 grams**

Delay Time	Average Measured Delay	Initial Mass
4	4.28	87.6 g
6	5.65	87.8 g
9	7.99	88.5 g

TYPICAL THRUST-TIME CURVE



REMARKS

FILE NAME	MOTOR	IT	F-MAX	F-AVG	T-BURN	T-DELAY
AT140217	G74-4	82.746	99.171	77.477	1.068	4.706
AT140218	G74-4	83.084	92.277	79.736	1.042	3.898
AT140219	G74-4	83.165	95.762	80.120	1.038	4.098
AT140220	G74-4	82.711	95.171	80.773	1.024	4.432
AT140221	G74-6	82.248	91.648	80.793	1.018	5.968
AT140222	G74-6	82.740	95.254	80.644	1.026	5.372
AT140223	G74-6	81.754	93.649	77.418	1.056	5.988
AT140224	G74-6	82.068	96.465	79.833	1.028	5.270
AT140225	G74-9	82.755	93.093	80.344	1.030	8.582
AT140226	G74-9	83.499	95.630	80.133	1.042	7.822
AT140227	G74-9	83.251	95.486	79.136	1.052	7.578
AT140228	G74-9	82.882	90.125	79.237	1.046	

Avg	82.74	94.48	79.64	1.04
Std	0.51	2.44	1.15	0.01
% Std	0.61	2.58	1.45	1.42

DELAYS

ALLOWABLE	INDICATED	AVG	ACTUAL	ACTUAL	ACTUAL	ACTUAL
2.5 TO 5.5	4	4.28	4.706	3.898	4.098	4.432
4.5 TO 7.5	6	5.65	5.968	5.372	5.988	5.270
7.2 TO 10.8	9	7.99	8.582	7.822	7.578	

```

; Aerotech G744 RASP.ENG file made from NAR published data
; File produced March, 2014
; 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.

```

```

G74 29 83 4-6-9 .0393 .0880 AT
0.008 18.884
0.014 25.261
0.026 44.385
0.032 56.652
0.047 65.485
0.086 69.407
0.151 76.920
0.218 81.684
0.255 85.127
0.296 86.106
0.337 89.549
0.396 90.537
0.417 93.482
0.458 92.503
0.525 89.080
0.583 88.591
0.640 87.613
0.714 86.155
0.779 83.710
0.886 80.287
0.943 76.364
0.963 75.386
0.986 61.163
1.007 43.028
1.019 26.838
1.031 11.148
1.036 4.772
1.040 0.000

```

