

AEHF 1 - Reaction Engine Assembly Manoeuvres
Ted Molczan, 2010 Sep 18

Manoeuvres					Hobbyist ¹ Observations					Estimated Burn							
					Manoeuvre Results			Delta-V		Thrust ²			S/C	Propellant		Duration	
					Per	Apo	inc	Burn	Cum.	F	Isp	\dot{m}	Mass	Burn	Cum.	Burn	Cum.
Seg	Num	Apogee	Date	UTC	km	km	deg	m/s	m/s	lbs	s	kg/s	kg	kg	kg	min	min
Initial Orbit					273	49989	22.10						6169				
	COLA	10	2010-Aug-20	14:24:57	278	49989	22.10	0.4	0.4	10.0	225	0.0202	6168	1	1	1	1
1	1	24	2010-Aug-29	14:52:08	446	49975	21.62	17.4	17.8	10.0	225	0.0202	6121	48	49	40	41
1	2	27	2010-Aug-31	13:25:32	589	49992	21.21	14.2	32.0	10.0	225	0.0202	6081	39	89	33	73
1	3	30	2010-Sep-02	12:09:14	791	49983	20.81	18.4	50.4	10.0	225	0.0202	6031	50	139	42	115
1	4	33	2010-Sep-04	11:05:23	982	49981	20.36	17.9	68.2	10.0	225	0.0202	5982	49	188	40	155
2	1	37	2010-Sep-07	01:57:46	1164	49994	19.96	16.3	84.5	10.0	225	0.0202	5938	44	232	36	192
2	2	40	2010-Sep-09	01:20:38	1512	49985	19.35	29.6	114.1	10.0	225	0.0202	5859	79	311	65	257
2	3	43	2010-Sep-11	00:49:49	2222	49975	18.23	57.1	171.2	10.0	225	0.0202	5710	150	461	124	381
2	4	46	2010-Sep-13	01:38:45	3091	49976	17.01	65.1	236.3	10.0	225	0.0202	5543	166	627	137	518
2	5	49	2010-Sep-15	03:10:28	3946	49985	16.00	59.1	295.4	10.0	225	0.0202	5397	146	773	121	639
Estimated Remainder ³					4300	49985	15.20	29.7	325.1	10.0	225	0.0202	5325	72	845	60	699

¹ S. Campbell, D. Breit, K. Fetter, T. Luton, M. McCants, T. Molczan, J. Nix, G. Roberts, I. Roberts, P. Wakelin, B. Young, et al.

² Values are approximate. Thrust probably is minimum; intended to estimate times to order of magnitude accuracy.

³ Based on estimated total hydrazine fuel that would have been consumed, had the LAE manoeuvres not been aborted.