

EPOXI HRII Data Log for Hartley 2 Flyby (Encounter-18 hours through E+48 hours)

Notes:

- All data are non-compressed
- During encounter we recorded the frames that obviously had the comet but it may be visible in more frames
- Exposure IDs are color-coded for data quality:
 - Green = good (i.e., comet in the frame or a darks looks like a dark)
 - Red = missing (i.e., exposure ID never received on the ground)
 - Yellow = partially or fully corrupted (use with caution; see comments for usability)
 - Orange = use with caution; see comments for usability

Final enctr parameters from Shyam Bhaskaram, Dec 14 2010:

CA = 694.3 km
 Speed = 12.3196 km/s
 Phase@CA = 79.7 deg
 Time of CA = 13:59:45 UTC (predicted =
 Frac Time = 0.9 sec 13:59:28.8)
 Time-Predict = 1.5 sec

Timeline (KPK)	EXPOSURE ID	# of Imgs	Data Quality	Comments	Enctr Time (sec)	Inst Mode	Img Size	TRUE EXP (ms)	Corrected Time [s]	Est. Range [km]	Est. Scale [m/binned pix]
E-18hr scan	4000001	30	good	Comet: 1-27 (i.e., comet is in frame numbers 1 through 27)	-64754.78	BINFF	256	7000	-64755.68	44959868.4	449598.7
E-16hr scan	4000003	30	good	Star: 3 (i.e., star in frame #3)	-57554.78	BINFF	256	7000	-57555.68	39960908.4	399609.1
E-14hr scan	4000200	16	good	Comet: 5-16; Star: 11-13	-50354.78	BINFF	256	7000	-50355.68	34961948.4	349619.5
E-12hr scan	4000202	30	good	Comet appears in frame #8	-43154.78	BINFF	256	7000	-43155.68	29962988.4	299629.9
Coma scan	4000400	8	good	Comet: 4-8; Obvious continuum in frame #7	-42882.19	UBFF	512	8000	-42883.09	29773730.4	297737.3
Coma scan	4000402	8	good		-42749.47	UBFF	512	8000	-42750.37	29681582.9	296815.8
E-10hr scan	4000500	16	good	Comet: 5-16; Strong continuum frame #8	-35964.78	BINFF	256	5000	-35965.68	24970971.4	249709.7
E-8hr scan	4000502	30	good	Comet: 7-18	-28769.78	BINFF	256	4000	-28770.68	19975482.9	199754.8
E-6hr scan	4000600	30	good	Comet: 6-12	-21574.78	BINFF	256	3000	-21575.68	14979994.4	149799.9
E-4hr scan	4000602	30	good	Comet: 4-17; Strong continuum in frame #11	-14374.78	BINFF	256	3000	-14375.68	9981034.4	99810.3
E-3hr scan	4000604	30	good	Comet: 3-17	-10767.28	ALTFF	256	2500	-10768.18	7476347.4	74763.5
E-2hr scan	5000000	30	good	Comet: 5-18; Strong continuum in frame #9	-7167.28	ALTFF	256	2500	-7168.18	4976867.4	49768.7
E-1hr scan	5000002	30	good	Feature at 3.4micron; Asymmetries in H2O emission	-3576.82	ALTFF	256	1440	-3577.72	2484011.0	24840.1
E-48min scan	5000004	30	good	Comet appears in frame #5	-2901.82	ALTFF	256	1440	-2902.72	2015358.5	20153.6

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E-36min scan	5000006	30	good	Feature at 3.4micron; Asymmetries in H2O and CO2 emission	-2176.82	ALTF	256	1440	-2177.72	1511991.0	15119.9
E-25min scan	5000008	30	good	Comet: 5-30	-1426.82	ALTF	256	1440	-1427.72	991266.0	9912.7
E-14min scan	5001000	116	good	Comet: 8-116	-1051.82	ALTF	256	1440	-1052.72	730903.5	7309.0
E-7min scan	5001002	58	good	Comet: 4-58	-544.20	ALTF	256	1440	-545.10	378460.2	3784.6
E-4m and E-3m scans	5001004	182	good	Comet: 8-52 117-170	-342.36	BINSF2	64	721	-343.26	238328.1	2383.3
E nadir	5003000	186	caution	Star: 51-56,112,125,165,169-172	-208.40	BINSF2	64	721	-209.30	145319.9	1453.2
E nadir	5003001	200	caution	Star: 100	-71.56	BINSF2	64	721	-72.46	50310.0	503.1
E nadir	5005000	204	good		75.37	BINSF2	64	721	74.47	51706.3	517.1
E+3m and E+4m scans	5005001	168	good	Comet: 33-80 95-119	225.19	BINSF2	64	721	224.29	155724.4	1557.2
E+7min scan	5006000	56	good		362.02	ALTF	256	1440	361.12	250727.0	2507.3
E+14min scan	5007000	116	good	Comet appears in frame #17. Nucleus behind anti saturation filter #292	734.32	ALTF	256	1440	733.42	509213.5	5092.1
E+25min scan	5007002	30	good	Comet: 5-30; In frame #28 two spectra profiles are observed; Feature at 3.40 micron observed	1361.18	ALTF	256	1440	1360.28	944442.4	9444.4
E+38min scan	5007004	30	good	Comet: 6-30	2311.18	ALTF	256	1440	2310.28	1604027.4	16040.3
E+52min scan	5007006	30	good	Comet: 7-30	3111.18	ALTF	256	1440	3110.28	2159467.4	21594.7
E+1hr scan	5008000	30	good		3511.18	ALTF	256	1440	3510.28	2437187.4	24371.9
E+1.5hr scan	5008002	32	good		5316.22	ALTF	256	2000	5315.32	3690426.7	36904.3
E+2hr scan	4000700	32	good		7118.47	ALTF	256	2250	7117.57	4941728.9	49417.3

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E+2.5hr scan	4000800	32	good	CO2 and H2O around frame #4; Organics start around frame #11;	8920.72	ALTFF	256	2500	8919.82	6193031.0	61930.3
E+3hr scan	4000900	32	good		10722.97	ALTFF	256	2750	10722.07	7444333.2	74443.3
E+3.5hr scan	4001000	32	caution	Peak brightness around frame #20; Cosmic ray: 31; Star: 10	12525.22	ALTFF	256	3000	12524.32	8695635.4	86956.4
E+4hr scan	4001100	32	caution	CO2 in frame #6; Peak brightness around frame #20; Star: 11	14313.22	BINFF	256	3000	14312.32	9937044.0	99370.4
E+4.5hr scan	4001200	32	good	Start to see nucleus in frame #18	16113.22	BINFF	256	3000	16112.32	11186784.0	111867.8
E+5hr scan	4001300	32	good		17913.22	BINFF	256	3000	17912.32	12436524.0	124365.2
E+5.5hr scan	4001400	32	good		19713.22	BINFF	256	3000	19712.32	13686264.0	136862.6
E+6hr scan	4001500	32	good	Comet: 6-32; Cosmic ray: 8, 27; Hot pixel: 9	21513.22	BINFF	256	3000	21512.32	14936004.0	149360.0
E+6.5hr scan	4001600	32	good	Comet: 8-30; Cosmic ray: 14,20	23313.22	BINFF	256	3000	23312.32	16185744.0	161857.4
E+7hr scan	4001700	32	good		25115.72	BINFF	256	3500	25114.82	17437219.7	174372.2
E+7.5hr scan	4001800	32	good		26915.72	BINFF	256	3500	26914.82	18686959.7	186869.6
E+8hr scan	4001900	32	good		28718.22	BINFF	256	4000	28717.32	19938435.5	199384.4
E+8.5hr scan	4002000	32	good		30519.47	BINFF	256	4250	30518.57	21189043.4	211890.4
E+9hr scan	4002100	32	good	Cosmic ray: 3	32320.72	BINFF	256	4500	32319.82	22439651.2	224396.5
E+9.5hr scan	4002200	32	good	Comet: 10-32; No 3.5-micron feature	34121.97	BINFF	256	4750	34121.07	23690259.1	236902.6
E+10hr scan	4002300	32	good	Comet: 9-32	35923.22	BINFF	256	5000	35922.32	24940867.0	249408.7
E+10.5hr scan	4002400	32	good	Comet: 8-32; Cosmic ray: 9; Nice continuum in 17-19	37723.22	BINFF	256	5000	37722.32	26190607.0	261906.1

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E+11hr scan	4002500	32	good	Comet: 10-32; Continuum in 18-19	39525.72	BINFF	256	5500	39524.82	27442082.7	274420.8
E+11.5hr scan	4002600	32	good	Comet: 9-32; Cosmic ray: 10,30	41325.72	BINFF	256	5500	41324.82	28691822.7	286918.2
Coma scan	4002700	8	good		42024.49	UBFF	512	8000	42023.59	29176980.8	291769.8
Coma scan	4002800	8	good	Cosmic ray: 6	42581.64	UBFF	512	8000	42580.74	29563808.6	295638.1
E+12hr scan	4002900	32	good	Comet: 8-32; 4.6-micron feature in frame 18	43128.22	BINFF	256	6000	43127.32	29943298.5	299433.0
E+12.5hr scan	4003000	32	good	Comet: 10-32; Cosmic ray: 19	44928.22	BINFF	256	6000	44927.32	31193038.5	311930.4
E+13hr scan	4003100	32	caution	Comet: 11-32; Cosmic ray: 20; Star: 3,4	46733.22	BINFF	256	7000	46732.32	32446250.0	324462.5
E+13.5hr scan	4003200	32	caution	Comet: 13-32; Continuum in 20-22; Star: 5-7	48533.22	BINFF	256	7000	48532.32	33695990.0	336959.9
E+14hr scan	4003300	32	caution	Comet: 12-32; Cosmic ray: 26; Continuum in 21; Star: 8,9	50333.22	BINFF	256	7000	50332.32	34945730.0	349457.3
E+14.5hr scan	4003400	32	caution	Comet: 13-32; Continuum in 20-22; Star: 6,10,11	52133.22	BINFF	256	7000	52132.32	36195470.0	361954.7
E+15hr scan	4003500	32	caution	Comet: 15-32; Star: 7,11,12	53933.22	BINFF	256	7000	53932.32	37445210.0	374452.1
E+15.5hr scan	4003600	32	caution	Star: 13,14	55733.22	BINFF	256	7000	55732.32	38694950.0	386949.5
E+16hr scan	4003700	32	good	Comet: 11-32	57533.22	BINFF	256	7000	57532.32	39944690.0	399446.9
E+16.5hr scan	4003800	32	caution	Comet: 12-32; Cosmic rays: 26; Star: 11,15,16	59333.22	BINFF	256	7000	59332.32	41194430.0	411944.3
E+17hr scan	4003900	32	caution	Comet: 12-32; Cosmic rays: 9,21; Star: 12,15,16	61133.22	BINFF	256	7000	61132.32	42444170.0	424441.7
E+17.5hr scan	4004000	32	caution	Comet: 12-32; Cosmic rays: 22,29; Star: 12,16,17	62933.22	BINFF	256	7000	62932.32	43693910.0	436939.1
E+18hr scan	4004100	32	caution	Comet: 12-32; Star: 13,17,18	64733.22	BINFF	256	7000	64732.32	44943650.0	449436.5

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E+18.5hrPost-enc scan	4004200	32	good?		66533.22	BINFF	256	7000	66532.32	46193390.0	461933.9
E+19hr scan	4004300	32	caution	Comet: 7-23; Star: 18	68333.22	BINFF	256	7000	68332.32	47443130.0	474431.3
E+19.5hr scan	4004400	32	caution	Comet: 6-25; Star: 14,15,18	70133.22	BINFF	256	7000	70132.32	48692870.0	486928.7
E+20hr scan	4004500	32	caution	Comet: 6-32; Cosmic rays: 29; Star: 19,20	71933.22	BINFF	256	7000	71932.32	49942610.0	499426.1
E+20.5hr scan	4004600	32	caution	Comet: 7-23; Cosmic rays: 14,24,31; Star: 19-21	73733.22	BINFF	256	7000	73732.32	51192350.0	511923.5
E+21hr scan	4004700	32	caution	Comet: 7-24; Star: 21,22	75533.22	BINFF	256	7000	75532.32	52442090.0	524420.9
E+21.5hr scan	4004800	32	caution	Comet: 6-27; Star: 18,19,22,23	77333.22	BINFF	256	7000	77332.32	53691830.0	536918.3
E+22hr scan	4004900	32	caution	Comet: 7-18; Star: 19,23,24	79133.22	BINFF	256	7000	79132.32	54941570.0	549415.7
E+22.5hr scan	4005000	32	caution	Comet: 6-20; Cosmic rays: 20; Star: 18,19,22,23	80933.22	BINFF	256	7000	80932.32	56191310.0	561913.1
E+23hr scan	4005100	32	caution	Comet: 7-20; Cosmic rays: 20; Star: 20,23	82733.22	BINFF	256	7000	82732.32	57441050.0	574410.5
E+23.5hr scan	4005200	32	caution	Comet: 6-18; Star: 22-25	84533.22	BINFF	256	7000	84532.32	58690790.0	586907.9
E+24hr scan	4005300	32	caution	Comet: 6-18; Cosmic rays: 10,17; Star: 23,24	86333.22	BINFF	256	7000	86332.32	59940530.0	599405.3
E+24.5hr scan	4005400	32	caution	Comet: 6-18; Cosmic rays: 2,11; Star: 23,24	88133.22	BINFF	256	7000	88132.32	61190270.0	611902.7
E+25hr scan	4005500	32	caution	Comet: 6-17; Cosmic rays: 11,12,20; Star: 23-25	89933.22	BINFF	256	7000	89932.32	62440010.0	624400.1
E+25.5hr scan	4005600	32	caution	Comet: 8-19; Cosmic rays: 6,18; Star: 25,26	91733.22	BINFF	256	7000	91732.32	63689750.0	636897.5
E+26hr scan	4005700	32	caution	Comet: 8-21; Star: 26,27	93533.22	BINFF	256	7000	93532.32	64939490.0	649394.9
E+26.5hr scan	4005800	32	caution	Comet: 6-22; Cosmic rays: 15; Star: 23,27,28	95333.22	BINFF	256	7000	95332.32	66189230.0	661892.3

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E+27hr scan	4005900	32	caution	Comet: 8-23; Cosmic rays: 8,9; Star: 28,29	97133.22	BINFF	256	7000	97132.32	67438970.0	674389.7
E+27.5hr scan	4006000	32	caution	Comet: 8-23; Star: 25,29,30,31	98933.22	BINFF	256	7000	98932.32	68688710.0	686887.1
E+28hr scan	4006100	32	caution	Comet: 8-24; Cosmic rays: 9,12,14; Star: 29-31	100733.22	BINFF	256	7000	100732.32	69938450.0	699384.5
E+28.5hr scan	4006200	32	caution	Comet: 9-24; Cosmic rays: 21,27; Star: 31,32	102533.22	BINFF	256	7000	102532.32	71188190.0	711881.9
E+29hr scan	4006300	32	caution	Comet: 10-24; Cosmic rays: 6; Star: 31,32	104333.22	BINFF	256	7000	104332.32	72437930.0	724379.3
E+29.5hr scan	4006400	32	caution	Comet: 11-23; Cosmic rays: 27; Star: 32	106133.22	BINFF	256	7000	106132.32	73687670.0	736876.7
E+30hr scan	4006500	32	caution	Comet: 11-25; Cosmic rays: 22; Star: 32	107933.22	BINFF	256	7000	107932.32	74937410.0	749374.1
E+30.5hr scan	4006600	32	caution	Comet: 11-24; Cosmic rays: 4,26,27,31; Star: 32	109733.22	BINFF	256	7000	109732.32	76187150.0	761871.5
E+31hr scan	4006700	32	good	Comet: 12-24	111533.22	BINFF	256	7000	111532.32	77436890.0	774368.9
E+31.5hr scan	4006800	32	good	Comet: 12-29; Cosmic rays: 3	113333.22	BINFF	256	7000	113332.32	78686630.0	786866.3
E+32hr scan	4006900	32	good	Comet: 13-27; Cosmic rays: 14,21,27	115133.22	BINFF	256	7000	115132.32	79936370.0	799363.7
E+32.5hr scan	4007000	32	good	Comet: 14-29; Cosmic rays: 3,23	116933.22	BINFF	256	7000	116932.32	81186110.0	811861.1
E+33hr scan	4007100	32	good	Comet: 12-18; Cosmic rays: 19,22,23,27,29,31	118733.22	BINFF	256	7000	118732.32	82435850.0	824358.5
E+33.5hr scan	4007200	32	good	Comet: 14-27; Cosmic rays: 8,13,22	120533.22	BINFF	256	7000	120532.32	83685590.0	836855.9
E+34hr scan	4007300	32	good	Comet: 12-27; Cosmic rays: 8,11,19	122333.22	BINFF	256	7000	122332.32	84935330.0	849353.3
E+34.5hr scan	4007400	32	good	Comet: 12-26; Cosmic rays: 21,22	124133.22	BINFF	256	7000	124132.32	86185070.0	861850.7
E+35hr scan	4007500	32	good	Comet: 11-27	125933.22	BINFF	256	7000	125932.32	87434810.0	874348.1

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E+35.5hr scan	4007600	32	caution	Comet: 11-24; Cosmic rays: 4; Star: 31	127733.22	BINFF	256	7000	127732.32	88684550.0	886845.5
E+36hr scan	4007700	32	caution	Comet: 11-27; Cosmic rays: 16,23; Star: 31,32	129533.22	BINFF	256	7000	129532.32	89934290.0	899342.9
E+36.5hr scan	4007800	32	good	Comet: 10-23; Cosmic rays: 17,18,22	131333.22	BINFF	256	7000	131332.32	91184030.0	911840.3
E+37hr scan	4007900	32	caution	Comet: 10-24; Cosmic rays: 19; Star: 31	133133.22	BINFF	256	7000	133132.32	92433770.0	924337.7
E+37.5hr scan	4008000	32	caution	Comet: 11-24; Cosmic rays: 8,11; Star: 32	134933.22	BINFF	256	7000	134932.32	93683510.0	936835.1
E+38hr scan	4008100	32	caution	Comet: 11-23; Star: 32	136733.22	BINFF	256	7000	136732.32	94933250.0	949332.5
E+38.5hr scan	4008200	32	good	Comet: 10-22	138533.22	BINFF	256	7000	138532.32	96182990.0	961829.9
E+39hr scan	4008300	32	good	Comet: 10-23; Cosmic rays: 8,25	140333.22	BINFF	256	7000	140332.32	97432730.0	974327.3
E+39.5hr scan	4008400	32	good	Comet: 8-21; Cosmic rays: 1,32	142133.22	BINFF	256	7000	142132.32	98682470.0	986824.7
E+40hr scan	4008500	32	good	Comet: 8-21; Cosmic rays: 6,19,27	143933.22	BINFF	256	7000	143932.32	99932210.0	999322.1
E+40.5hr scan	4008600	32	paritally corrupt	Comet: 8-22; Cosmic rays: 3,11; Partially corrupt: 32	145733.22	BINFF	256	7000	145732.32	101181950.0	1011819.5
E+41hr scan	4008700	32	good	Comet: 7-17	147533.22	BINFF	256	7000	147532.32	102431690.0	1024316.9
E+41.5hr scan	4008800	32	good	Comet: 7-18; Cosmic rays: 6,7	149333.22	BINFF	256	7000	149332.32	103681430.0	1036814.3
E+42hr scan	4008900	32	good	Comet: 7-18; Cosmic rays: 4,5,17,20,29	151133.22	BINFF	256	7000	151132.32	104931170.0	1049311.7
E+42.5hr scan	4009000	32	good	Comet: 7-17; Cosmic rays: 28	152933.22	BINFF	256	7000	152932.32	106180910.0	1061809.1
E+43hr scan	4009100	32	good	Comet: 5-16; Cosmic rays: 24	154733.22	BINFF	256	7000	154732.32	107430650.0	1074306.5
E+43.5hr scan	4009200	32	good	Comet: 6-16	156533.22	BINFF	256	7000	156532.32	108680390.0	1086803.9

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E+44hr scan	4009300	32	good	Comet: 7-15; Cosmic rays: 6	158333.22	BINFF	256	7000	158332.32	109930130.0	1099301.3
E+44.5hr scan	4009400	32	good	Comet: 7-15	160133.22	BINFF	256	7000	160132.32	111179870.0	1111798.7
E+45hr scan	4009500	32	good	Comet: 7-17	161933.22	BINFF	256	7000	161932.32	112429610.0	1124296.1
E+45.5hr scan	4009600	32	good	Comet: 9-19; Cosmic rays: 2,19	163733.22	BINFF	256	7000	163732.32	113679350.0	1136793.5
E+46hr scan	4009700	32	good	Comet: 8-18	165533.22	BINFF	256	7000	165532.32	114929090.0	1149290.9
E+46.5hr scan	4009800	32	good	Comet: 7-18; Cosmic rays: 5,30	167333.22	BINFF	256	7000	167332.32	116178830.0	1161788.3
E+47hr scan	4009900	32	good	Comet: 9-19	169133.22	BINFF	256	7000	169132.32	117428570.0	1174285.7
E+47.5hr scan	4010000	32	good	Comet: 9-18; Cosmic rays: 3	170933.22	BINFF	256	7000	170932.32	118678310.0	1186783.1
E+48hr scan	4010100	32	good	Comet: 8-18; Cosmic rays: 19,29	172733.22	BINFF	256	7000	172732.32	119928050.0	1199280.5