Table Slot	Use Description	Mode ID	Cycle Duration	Rate			#	Steps	eV	Collapse
						1024s Cycle	Tables			
						Energies	64	0 to 127	Full Range + FB	Adjacent 2
					IONS	Elevations	6	0 to 15		0-1,2-4,5-7,8-10,11-13,14-15
	Clave Dhata alastrana	A 0.4	4004	Mannal		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
6	Slow Photo-electrons	A21	1024	Normal		Energies	64	0-62, 123	4-811, highest	Full Res
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	6	0 to 15*		0-1,2-4,5-7,8-10,12-13,14-15
						Energies	32	5 to 100	25 to 5400	Adjacent 3
					IONS	Elevations	8	0 to 15		Adjacent 2
5	Solar Wind at the Comet	A22	4004	Nermal		Azimuths	16	0 to 15		Full res
Э	Solar Wind at the Comet	AZZ	1024	Normal		Energies	32	0 to 63	4 to 811	Adjacent 2
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
	High Res Angular	A31	1024	Burst	IONS	Energies	64	0 to 127	Full Range + FB	Adjacent 2
						Elevations	16	0 to 15		Full Res
8						Azimuths	16	0 to 15		Full Res
					ELECTRONS	Energies	64	0 to 127	Full Range + FB	Adjacent 2
						Elevations	16	0 to 15		Full Res
						Azimuths	15	0 to 15*		Full Res*
	High Res Energy	A32	1024	Burst	IONS	Energies	124	0 to 123	Full Range	Full Res
						Elevations	8	0 to 15		Adjacent 2
9						Azimuths	16	0 to 15		Full Res
9					ELECTRONS	Energies	128	0 to 127	Full Range + FB	Full Res
						Elevations	16	0 to 15		Full Res
						Azimuths	8	0 to 15*		Adjacent 2*
						512s Cycle	Tables			
						Energies	24	5 to 100	25 to 5400	Adjacent 4
		921	512		IONS	Elevations	8	0 to 15		Adjacent 2
3	Solar Wind at the Comet			Normal		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
· ·	Colar Wind at the Comet	321	0.12	Norman		Energies	24	0 to 71	4 to 1225	Adjacent 3
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
			512			Energies	32	0 to 127	Full Range + FB	Adjacent 4
					IONS	Elevations	16	0 to 15		Full Res
4	Pickup, High Res Angular	931		Burst		Azimuths	16	0 to 15		Full Res
·	o.cop, riigii reco / iiigulai	331				Energies	33	0 to 95, 123	4 to 4202 + highest	Adjacent 3
					ELECTRONS	Elevations	16	0 to 15		Full Res
						Azimuths	15	0 to 15*		Full Res*

Table Slot	Use Description	Mode ID	Cycle Duration	Rate			#	Steps	eV	Collapse
256s Cycle Tables										
						Energies	32	0 to 127	Full Range + FB	Adjacent 4
					IONS	Elevations	4	0 to 15		Adjacent 4
12	Full Coverage, Low Res	821	256	Normal		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
12	Full Coverage, Low Res	021	200	Normai		Energies	32	0 to 127	Full Range + FB	Adjacent 4
					ELECTRONS	Elevations	4	0 to 15		Adjacent 4
						Azimuths	4	0 to 15*		Adjacent 4*
						Energies	63	0 to 125	Full Range	Adjacent 2
					IONS	Elevations	8	0 to 15		Adjacent 2
1	Slow Photo-electrons	831	256	Burst		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
·	0.0			24.50		Energies	63	0 to 62	4 to 772	Full Res
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
			256			Energies	33	0 to 98	4 to 4901	Adjacent 3
		832		Burst	IONS	Elevations	8	0 to 15		Adjacent 2
0	Solar Wind at the Comet					Azimuths	16	0 to 15		Full res
					ELECTRONS	Energies	32	0 to 63	4 to 811	Adjacent 2
						Elevations	8	0 to 15		Adjacent 2
						Azimuths	15	0 to 15*	F. II Danasa	Full res*
	Pickup	833	256	Burst	IONS	Energies	63	0 to 125	Full Range	Adjacent 2
						Elevations	8	0 to 15		Adjacent 2
2					ELECTRONS	Azimuths	8	0 to 15	Full Days	0,1,2,3-11,12,13,14,15
						Energies Elevations	63 8	0 to 125 0 to 15	Full Range	Adjacent 2 Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
						128s Cycle		0 to 13		Aujacent 2
						Energies	16	36 to 99	202 to 5156	Adjacent 4
	Solar Wind at the Comet	721			IONS	Elevations	3	0 to 15	202 to 0100	0-4, 5-10, 11-15
			128			Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
10				Normal		Energies	16	0 to 63	4 to 811	Adjacent 4
					ELECTRONS	Elevations	3	0 to 15	110011	0-4, 5-10, 11-15
						Azimuths	8	0 to 15*		Adjacent 2*
						Energies	32	0 to 127	Full Range + FB	Adjacent 4
					IONS	Elevations	8	0 to 15		Adjacent 2
11	Full Pange Low Pee	724	128	Burot		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
11	Full Range, Low Res	731	128	Burst		Energies	31	0 to 123	Full Range	Adjacent 4
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
						Energies	16	36 to 99	202 to 5156	Adjacent 4
					IONS	Elevations	8	0 to 15		Adjacent 2
7	Solar Wind at the Comet	732	128	Burst ·		Azimuths	16	0 to 15		Full Res
,	Colai Willia at the Collet	7.52				Energies	31	0 to 92	4 to 3603	Adjacent 3
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*

Table Slot	Use Description	Mode ID	Cycle Duration	Rate			#	Steps	eV	Collapse
Commissioning Tables										
						Energies	1	0 to 30	4 to 151	All
					IONS	Elevations	1	0 to 15		All
_						Azimuths	16	0 to 15		Full Res
5	Normal2	202	128	Normal		Energies	1	0 to 30	4 to 151	All
					ELECTRONS	Elevations	1	0 to 15		All
						Azimuths	16	0 to 15		Full Res
						Energies	31	0 to 30	4 to 151	Full Res
					IONS	Elevations	1	0 to 15		All
	.					Azimuths	16	0 to 15		Full Res
6	Burst2	3C0	128	Burst		Energies	31	0 to 30	4 to 151	Full Res
					ELECTRONS		1	0 to 15		All
						Azimuths	16	0 to 15		Full Res
					Pre	PC10 Nomi	nal Tables			
	Cal Minimal 1C0					Energies	77	0 to 127	Full Range + FB	Full Res (0-25), Adjacent 2(26-127)
			1024	Minimal	IONS	Elevations	2	0 to 15		Adjacent 8
0		400				Azimuths	2	0 to 15		0-2&12-14,3-11
9		100			ELECTRONS	Energies	77	0 to 127	Full Range + FB	Full Res (0-25), Adjacent 2(26-127)
						Elevations	2	0 to 15		Adjacent 8
						Azimuths	2	0 to 15		Adjacent 8
						Energies	77	0 to 127	Full Range + FB	Full Res (0-25), Adjacent 2(26-127)
	Cal Minimal, No ELC 11	1C1	1024	Minimal	IONS	Elevations	2	0 to 15		Adjacent 8
						Azimuths	2	0 to 15		0-2&12-14,3-11
9					ELECTRONS	Energies	77	0 to 127	Full Range + FB	Full Res (0-25), Adjacent 2(26-127)
						Elevations	2	0 to 15		Adjacent 8
						Azimuths	2	0 to 15*		Adjacent 8*
		000	100			Energies	64	5 to 100	Full Range + FB	Adjacent 2
				Normal	IONS	Elevations	2	0 to 15		Adjacent 8
10	Cal Normal					Azimuths	3	0 to 15		0-2,3-11,12-15
10	Cai Normai	2C0	128			Energies	64	0 to 63	Full Range + FB	Adjacent 2
					ELECTRONS	Elevations	3	0 to 15		0-4,5-10,11-15
						Azimuths	2	0 to 15		Adjacent 8
						Energies	64	5 to 100	Full Range + FB	Adjacent 2
					IONS	Elevations	2	0 to 15		Adjacent 8
10	Cal Normal, No ELC 11	2C1	128	Normal		Azimuths	3	0 to 15		0-2,3-11,12-15
10	Car Normai, No ELC 11	201	120	Normai		Energies	64	0 to 63	Full Range + FB	Adjacent 2
					ELECTRONS	Elevations	3	0 to 15		0-4,5-10,11-15
						Azimuths	2	0 to 15*		Adjacent 8*
						Energies	63	0 to 126	Full Range	Adjacent 2
			128	Burst	IONS	Elevations	4	0 to 15		Adjacent 4
11	Cal Burst	3C0				Azimuths	8	0 to 15		0-2&12-15,3-4,5,6,7,8,9,10-11
	Cai Duisi	300				Energies	63	0 to 126	Full Range	Adjacent 2
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	4	0 to 15		Adjacent 4

Table Slot	Use Description	Mode ID	Cycle Duration	Rate			#	Steps	eV	Collapse
						Energies	63	0 to 126	Full Range	Adjacent 2
					IONS	Elevations	4	0 to 15		Adjacent 4
11	Cal Burst, No ELC 11	3C1	128	Burst		Azimuths	8	0 to 15		0-2&12-15,3-4,5,6,7,8,9,10-11
	Car Burst, No ELO 11	301	120	Burst		Energies	63	0 to 126	Full Range	Adjacent 2
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	4	0 to 15*		Adjacent 4*
					S	pecial Testin	g Tables			
						Energies	63	0 to 126	Full Range	Adjacent 2
					IONS	Elevations	4	0 to 15		Adjacent 4
						Azimuths	8	0 to 15		0-2&12-15,3-4,5,6,7,8,9,10-11
0	Noisy ELC Channel Test	3C2	128	Burst	ELECTRONS	Energies	56	0 to 126	Full Range	0-1,2-4,5-100(Sequence of Adjacent 2,2,3,2,2,3),101-102,103-104,105- 107,108-125(Adjacent 2)
						Elevations	4	0 to 15		Adjacent 4
						Azimuths	9	0 to 15		0-7,8,9,10,11,12,13,14,15
		2C3			IONS	Energies	4	5 to 15, 20 to 45, 55 to 66, 73 to 79	25 to 69, 90 to 323, 539 to 949, 1359 to 1846	5-15,20-45,55-66,73-79
			128	Burst		Elevations	16	0 to 15		Full Res
0	Pointing Test					Azimuths	16	0 to 15		Full Res
O	Pointing Test					Energies	11	1 to 17, 31 to 43	8 to 77, 155 to 293	1,2,3,4,5,6-7,8-9,10-11,12-14,15-17,31- 43
					ELECTRONS	Elevations	16	0 to 15		Full Res
						Azimuths	16	0 to 15		Full Res
			128		IONS	Energies	8	39 to 83	202 to 2269	39-43,44-49,50-57,58-62,63-67,68-72,73- 76,77-83
					IONS	Elevations	16	0 to 15		Ful Res
0	Cartwheel Test	3C3		Burst		Azimuths	16	0 to 15		Full Res
					ELECTRONS	Energies	7	0 to 54	4 to 513	0-2,3-6,7-11,12-20,21-31,32-45,46-54
						Elevations	16	0 to 15		Full Res
						Azimuths	15	0 to 15*		Full Res*

Table Slot	Use Description	Mode ID	Cycle Duration	Rate			#	Steps	eV	Collapse		
	MSB Tables											
						Energies	7	3 to 80	17 to 1946	3-13,14-23,24-44,45-54,55-60,61-68,69- 80		
					IONS	Elevations	8	0 to 15		Adjacent 2		
2	MSB Normal	2A0	128	Normal		Azimuths	10	0 to 15		0,1,2,3-5,6-8,9-11,12,13,14,15		
						Energies	6	12 to 74	56 to 1428	12-22,23-30,31-44,45-54,55-65,66-74		
					ELECTRONS	Elevations	4	0 to 15		Adjacent 4		
						Azimuths	8	0 to 15		Adjacent 2		
	MSB Burst	3A0	128	Burst	IONS	Energies	8	3 to 80	17 to 1946	3-13,14-23,24-34,35-44,45-54,55-60,61- 69,70-80		
						Elevations	16	0 to 15		Full Res		
3						Azimuths	16	0 to 15		Full Res		
3					ELECTRONS	Energies	7	0 to 74	4 to 1428	0-12,13-22,23-30,31-44,45-54,55-65,66- 74		
						Elevations	16	0 to 15		Full Res		
						Azimuths	16	0 to 15		Full Res		
						ESB2 Tal	oles					
						Energies	16	36 to 99	202 to 5156	Adjacent 4		
		2E0	128	Normal	IONS	Elevations	3	0 to 15		0-4, 5-10, 11-15		
0	ESB2 Approach					Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15		
O	LЭВ2 Арргоасп	ZLU				Energies	16	40 to 103	250 to 6334	Adjacent 4		
					ELECTRONS	Elevations	3	0 to 15		0-4, 5-10, 11-15		
						Azimuths	8	0 to 15*		Adjacent 2*		
			128			Energies	31	0 to 123	Full Range	Adjacent 4		
	ESB2 Approach				IONS	Elevations	8	0 to 15		Adjacent 2		
1		3E0		Burst		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15		
	LOBZ Apploach	3E0		Burst	ELECTRONS	Energies	32	40 to 103	250 to 6334	Adjacent 2		
						Elevations	8	0 to 15		Adjacent 2		
						Azimuths	8	0 to 15*		Adjacent 2*		

Table Slot	Use Description	Mode ID	Cycle Duration	Rate			#	Steps	eV	Collapse
						Energies	32	0 to 127	Full Range + FB	Adjacent 4
					IONS	Elevations	8	0 to 15		Adjacent 2
2	ESB2 Inner Mag	3E1	128	Burst		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
2	LODZ IIIIIei Way	JL I	120	Duist		Energies	31	0 to 123	Full Range	Adjacent 4
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
						Energies	31	38 to 99	224 to 5156	Adjacent 2
	ESB2 Upstream	3E2	128	Burst	IONS	Elevations	8	0 to 15		Adjacent 2
3						Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
3					ELECTRONS	Energies	32	0 to 63	4 to 811	Adjacent 2
						Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*
	ESB2 Upstream	2E1	128	Normal	IONS	Energies	16	36 to 99	202 to 5156	Adjacent 4
						Elevations	3	0 to 15		0-4, 5-10, 11-15
4						Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
4						Energies	16	0 to 63	4 to 811	Adjacent 4
					ELECTRONS	Elevations	3	0 to 15		0-4, 5-10, 11-15
						Azimuths	8	0 to 15*		Adjacent 2*
					Post	t PC10 Repla	ced Tables			
						Energies	64	0 to 127	Full Range + FB	Adjacent 2
					IONS	Elevations	8	0 to 15		Adjacent 2
7	Pickup	A23	1024	Normal		Azimuths	8	0 to 15		0,1,2,3-11,12,13,14,15
,	i ickup	723	1024			Energies	32	0 to 63	4 to 811	Adjacent 2
					ELECTRONS	Elevations	8	0 to 15		Adjacent 2
						Azimuths	8	0 to 15*		Adjacent 2*

These tables define the configurations of the acquisition tables used by IES.

Cycling of ESA voltages is completed using 128 steps (0 to 127) which include 4 steps (124 to 127) during "flyback" (FB), the transition from the highest voltage of 1667 V (step 123) to 0 V (step 127). While the actual transition time does not require all 4 steps, i.e. the 0 V level may be attained in 2 steps or less, science data readings during the first three steps of the flyback should be considered unreliable. When flyback steps are averaged, they are averaged only with other flyback steps. Step 127 may be considered as 0V for background measurements if not averaged.

Initial flight measurements indicated a high level of noise counts in ELC Azimuth (Sector) #11. In 2006, the after a test, all mode tables were updated to discard counts from this channel. If a mode returns counts averaged across multiple sectors, the counts in Azimuth #11 are excluded from the average. In the mode table, when the number of averaged (collapsed) ELC azimuths is displayed, an asterisk, "*" is appended to indicate that sector 11 is not included in the average.