Chapter 4 - NIMS Observation Summaries

Contents

Introduction to Chapter 4

This chapter summarizes the NIMS IFL observations in terms of a comprehensive sequence summary, Individual Obstab Summaries and a NIMS Obstab (Observation Table).

The NIMS Sequence Summary is a time-ordered listing of all spacecraft activity pertinent to NIMS operations for the IFL Sequence. The information in this summary is derived from the IFL SEF (Spacecraft Event File) with inputs from the NIMS Science Coordinators regarding the start time and duration of the NIMS observations. There are twelve columns of information in this table:

1) Line - Line Count.
2) YR - Year.
3) DOY - Day of Year.
4) Time - SCET Time (UTC).
5) PSID - Parameter Set ID of the SEF line.
6) Command - Command name from the SEF.
7) Parameters - Parameters from the above Command Line.
8) Description - Description of the above Command for NIMS.
9) GCM - NIMS Gain, Chopper mode, Instrument Mode.
   Gain = 1,2,3 or 4.
   Chopper Mode = R (Reference) or 6 (63Hz).
   Instrement Mode = 0-15
10) GO - NIMS Grating Offset.
11) GS - NIMS Grating Start Position.
12) RIM,MF,I - SCLK of the Command Line (RIM:MF:RTI)

An additional line is inserted into this table at the start and stop times of each NIMS Observation (Oapel) to bracket the commands which affect each NIMS Observation.

The Individual Obstab Summaries are expansions of the NIMS Obstab to one page per Obstab entry for ease in reading the NIMS Obstab.

The NIMS Obstab (Observation Table) is a time-ordered listing of the NIMS obsrvation parameters for use by downlink data processing of the NIMS IFL data. It is also derived from the IFL SEF. Each Obstab entry is 512 bytes long but is presented here as 4 lines of 128 characters per entry.

			Sequence:	IIFL2N Created:	5/7/96	Begin:	96-142/15:58:00.000 Finish: 96-153/23:35:00.000				
Line	YR	DOY	Time	PSID	Command	Parameters	Description	GCM	GO	GS	RIM MF I
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1	96	142	15:58:00.000	20A3EY	37C1PR	Initial conditions	Optics Heater 1 OFF (primary relay)				3,445,477:75:5
2	96	142	15:58:00.000	20A3EZ	37C2PR	Initial conditions	Optics Heater 2 OFF (primary relay)				3,445,477:75:5
3	96	142	15:58:00.000	20A3FA	37F1PR	Initial conditions	Radiator Flash Heater OFF (primary relay)				3,445,477:75:5
4	96	142	15:58:00.000	20A3FB	37F2P	Initial conditions	Shield Flash Heater ON (primary relay)				3,445,477:75:5
5	96	142	15:58:00.000	20A3FC	40CPR	Initial conditions					3,445,477:75:5
6	96	142	15:58:00.000	20A3EX	37HR	Initial conditions	Replacement Heaters OFF				3,445,477:75:5
7	96	142	15:58:00.000	20A3FE	40T1PR	Initial conditions	PCT Heater 1 OFF (primary relay)				3,445,477:75:5
8	96	142	15:58:00.000	20A3FF	40T2R	Initial conditions	PCT Heater 2 OFF				3,445,477:75:5
9	96	142	15:58:00.000	20A3EW	37A	Initial conditions	NIMS Power ON	260	4	0	3,445,477:75:5
10	96	142	15:58:00.333		DMS:	: READY	RDY, TRACK 1, FWD, TIC 201.00 +/-	260	4	0	3,445,477:76:0
11	**96**	**142**	**20:54:16.333**	**31DE3A**	**37F2PR**	**1**	**Shield Flash Heater OFF (primary relay)**	**260**	**4**	**0**	**3,445,770:77:0**
12	**96**	**142**	**20:55:17.000**	**31DE3B**	**37F2PR**	**2**	**Shield Flash Heater OFF (primary relay)**	**260**	**4**	**0**	**3,445,771:77:0**
13	**96**	**142**	**20:56:17.666**	**31DE3C**	**40T1P**	**1**	**PCT Heater 1 ON (primary relay)**	**260**	**4**	**0**	**3,445,772:77:0**
14	**96**	**142**	**20:57:18.333**	**31DE3D**	**40T1P**	**2**	**PCT Heater 1 ON (primary relay)**	**260**	**4**	**0**	**3,445,773:77:0**
15	**96**	**142**	**20:58:19.000**	**31DE3E**	**40T2**	**1**	**PCT Heater 2 ON**	**260**	**4**	**0**	**3,445,774:77:0**
16	**96**	**142**	**20:59:19.666**	**31DE3F**	**40T2**	**2**	**PCT Heater 2 ON**	**260**	**4**	**0**	**3,445,775:77:0**
17	**96**	**145**	**11:17:00.133**	**20EA5A**	**37PL**		**Program Load (halts microprocessor & unwri**	**260**	**4**	**0**	**3,449,472:41:0**
18	**96**	**145**	**11:18:00.800**	**20EA5B**	**37MRL**		**Memory Realocate (software operates from R**	**260**	**4**	**0**	**3,449,473:41:0**
19	**96**	**145**	**11:19:01.466**	**20EA4A**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,474:41:0**
20	**96**	**145**	**11:19:14.800**	**20EA4B**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,474:61:0**
21	**96**	**145**	**11:19:28.133**	**20EA4C**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,474:81:0**
22	**96**	**145**	**11:19:41.466**	**20EA4D**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:10:0**
23	**96**	**145**	**11:19:54.800**	**20EA4E**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:30:0**
24	**96**	**145**	**11:20:02.133**	**20EB4A**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:41:0**
25	**96**	**145**	**11:20:08.800**	**20EB4B**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:51:0**
26	**96**	**145**	**11:20:15.466**	**20EB4C**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:61:0**
27	**96**	**145**	**11:20:22.133**	**20EB4D**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:71:0**
28	**96**	**145**	**11:20:28.800**	**20EB4E**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,475:81:0**
29	**96**	**145**	**11:20:35.466**	**20EB4F**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:00:0**
30	**96**	**145**	**11:20:42.133**	**20EB4G**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:10:0**
31	**96**	**145**	**11:20:48.800**	**20EB4H**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:20:0**
32	**96**	**145**	**11:21:02.800**	**20EC4A**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:41:0**
33	**96**	**145**	**11:21:09.466**	**20EC4B**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:51:0**
34	**96**	**145**	**11:21:16.133**	**20EC4C**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:61:0**
35	**96**	**145**	**11:21:22.800**	**20EC4D**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:71:0**
36	**96**	**145**	**11:21:29.466**	**20EC4E**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,476:81:0**
37	**96**	**145**	**11:21:36.133**	**20EC4F**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,477:00:0**
38	**96**	**145**	**11:21:42.800**	**20EC4G**	**37DML**	**14BC,00,00**	**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,477:10:0**
39	**96**	**145**	**11:21:49.466**	**20EC4H**	**37DML**	**14C0,C4,1B,FF,FF**	**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,477:20:0**
40	**96**	**145**	**11:22:10.133**	**20ED4B**	**37DML**	**14F3,0D**	**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,477:51:0**
41	**96**	**145**	**11:22:13.466**	**20ED4D**	**37DML**		**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,477:56:0**
42	**96**	**145**	**11:22:16.800**	**20ED4C**	**37DML**	**14F6,C1,C4**	**Direct Memory Load (loads data into NIMS R**	**260**	**4**	**0**	**3,449,477:61:0**
43	**96**	**145**	**11:42:16.800**	**20ED5A**	**37IRT**		**Instrument Reset (goes into POR state)**	**260**	**4**	**0**	**3,449,497:41:0**
44	**96**	**145**	**11:43:17.466**	**20ED5B**	**37MN**		**Memory Normal (software operates from ROM)**	**260**	**4**	**0**	**3,449,498:41:0**
45	**96**	**145**	**11:44:18.133**	**20ED4E**	**37IST**	**1,2,0,OFF,0,0,0**	**Chopper ON, Sync, Chopper (Ref)**	**2R0**	**4**	**0**	**3,449,499:41:0**
46	96	145	14:55:26.800	432CE6A	6RTSL1		R/T Select of DDS and	2R0	4	0	3,449,688:45:0
47	96	145	16:00:38.800	431ZL6A	6RCDSL	DDSNCG,PLSNCG,EI	Record Deselect (DDS o	2R0	4	0	3,449,752:89:0
48	96	145	16:05:02.800	20ZM6A	6EUVON			2R0	4	0	3,449,757:30:0
49	96	145	16:05:43.466	431ZM6A	6RCSEL	DDSNCG,PLSNCG,EI	Record Select (DDS onl	2R0	4	0	3,449,758:00:0

Line	YR	DOY	Time	PSID	Command	Parameters	Description	GCM	GO	GS	RIM MF I
50	96	145	17:00:14.800	125DE	NIMSINIT	GS	##### GROUP START INIT	2R0	4	0	3,449,811:84:0
51	**96**	**145**	**17:00:14.800**	**125DE4A**	**37IST**	**1,0,0,OFF,0,0,0**	**Chopper ON, Sync, 63Hz (Ref)**	**260**	**4**	**0**	**3,449,811:84:0**
52	**96**	**145**	**17:01:15.466**	**125DE4B**	**37IST**	**1,2,0,OFF,0,0,0**	**Chopper ON, Sync, Chopper (Ref)**	**2R0**	**4**	**0**	**3,449,812:84:0**
53	**96**	**145**	**17:02:16.133**	**125DE4C**	**37IST**	**0,0,0,OFF,0,1,1**	**Gain State 4**	**4R0**	**4**	**0**	**3,449,813:84:0**
54	**96**	**145**	**17:03:16.800**	**125DE4D**	**37MB**	**1B,1B,0,0,0,0**	**Selects mirror (spatial) edit table**	**4R0**	**4**	**0**	**3,449,814:84:0**
55	96	145	17:03:16.800	125DE11A	NIMSINIT	GE	##### GROUP END INIT	4R0	4	0	3,449,814:84:0
56	96	145	17:06:18.800	127DE	NIMSTAB	GS	%%%%% GROUP START TAB	4R0	4	0	3,449,817:84:0
57	**96**	**145**	**17:06:18.800**	**127DE4A**	**37IOP**	**3,0**	**Long Map, Grating Start Position =0**	**4R3**	**4**	**0**	**3,449,817:84:0**
58	**96**	**145**	**17:06:19.466**	**127DE4B**	**37ETB**	**07,C7,31,80,00,0**	**Loads wavelength edit table**	**4R3**	**4**	**0**	**3,449,817:85:0**
59	96	145	17:06:55.466	127DE11A	NIMSTAB	GE	%%%%% GROUP END TAB	4R3	4	0	3,449,818:48:0
60	***96***	***145***	***17:07:24.133***	***432DE6A***	***6RTSL2***	***NIMSEL,AACNCG,RT***	***NIMS R/T SELECT***	***4R3***	***4***	***0***	***3,449,819:00:0***
61	**96**	**145**	**17:08:20.133**	**125DF4A**	**37IST**	**0,2,1,OFF,1,0,1**	**OPCAL**	**4R3**	**4**	**0**	**3,449,819:84:0**
62	96	145	17:08:20.133	125DF11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	3,449,819:84:0
63	96	145	17:08:20.133	125DF	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,449,819:84:0
64	96	145	17:10:21.466	125DG	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,449,821:84:0
65	**96**	**145**	**17:10:21.466**	**125DG4A**	**37IST**	**0,2,1,OFF,1,0,1**	**OPCAL**	**4R3**	**4**	**0**	**3,449,821:84:0**
66	96	145	17:10:21.466	125DG11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	3,449,821:84:0
67	***96***	***145***	***17:11:25.466***	***432DF6A***	***6RTDS2***	***NIMDSL,AACNCG,RT***	***NIMS R/T DESELECT***	***4R3***	***4***	***0***	***3,449,822:89:0***
68	96	145	18:38:24.133	432ME6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,449,909:00:0
69	96	145	20:26:34.800	432MF431A6A	6RCDSL	DDSDSL,PLSNCG,EP	Record Deselect (DDS o	4R3	4	0	3,450,015:90:0
70	96	145	20:26:35.466	432MF6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,450,016:00:0
71	96	145	21:27:22.800	488AI6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,450,076:11:0
72	96	146	00:14:26.800	488AI6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,450,241:32:0
73	96	146	00:19:07.466	432A6A	6RTDS2	NIMNCG,AACNCG,RT	R/T ENG DESLECT	4R3	4	0	3,450,245:89:0
74	96	146	00:36:20.133	432B6A	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	4R3	4	0	3,450,263:00:0
75	96	146	05:12:24.800	488AJ6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,450,536:04:0
76	96	146	08:08:00.133	20AD6A	6RTDS2	NIMNCG,AACNCG,RT	R/T ENG DESLECT	4R3	4	0	3,450,709:64:0
77	96	146	10:54:49.466	20AD6B	6RTSL2	NIMNCG,AACNCG,RT	R/T ENG SELECT	4R3	4	0	3,450,874:63:0
78	96	146	10:59:29.466	488AJ6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,450,879:28:0
79	96	146	21:57:28.733	488AK6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,451,530:06:0
80	96	147	00:14:32.733	488AK6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,451,665:57:0
81	96	147	05:12:30.733	488AL6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,451,960:29:0
82	96	147	06:59:34.733	488AL6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,452,066:19:0
83	96	147	18:21:50.666	432BJ6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4R3	4	0	3,452,740:89:0
84	96	147	21:57:34.666	488AM6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,452,954:31:0
85	96	148	00:07:39.333	432AK431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4R3	4	0	3,453,082:90:0
86	96	148	00:07:40.000	432AK6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,453,083:00:0
87	96	148	00:07:40.000	432AK6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4R3	4	0	3,453,083:00:0
88	96	148	00:14:38.666	488AM6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,453,089:82:0
89	96	148	03:45:02.000	432BK6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4R3	4	0	3,453,297:89:0
90	96	148	04:57:36.666	488AN6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,453,369:69:0
91	96	148	06:37:56.666	432AL431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4R3	4	0	3,453,468:90:0
92	96	148	06:37:57.333	432AL6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4R3	4	0	3,453,469:00:0
93	96	148	06:37:57.333	432AL6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,453,469:00:0
94	96	148	06:44:40.666	488AN6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,453,475:59:0
95	96	148	15:59:02.666	127DM	NIMSTAB	GS	%%%%% GROUP START TAB	4R3	4	0	3,454,023:84:0
96	**96**	**148**	**15:59:02.666**	**127DM4A**	**37IOP**	**3,0**	**Long Map, Grating Start Position =0**	**4R3**	**4**	**0**	**3,454,023:84:0**
97	**96**	**148**	**15:59:03.333**	**127DM4B**	**37ETB**	**07,C7,31,80,00,0**	**Loads wavelength edit table**	**4R3**	**4**	**0**	**3,454,023:85:0**
98	96	148	15:59:26.666	127DM11A	NIMSTAB	GE	%%%%% GROUP END TAB	4R3	4	0	3,454,024:29:0
99	**96**	**148**	**16:01:04.000**	**125DL4A**	**37IST**	**0,2,1,OFF,1,0,1**	**OPCAL**	**4R3**	**4**	**0**	**3,454,025:84:0**
100	96	148	16:01:04.000	125DL11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	3,454,025:84:0
101	96	148	16:01:04.000	125DL	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,454,025:84:0
102	***96***	***148***	***16:01:08.666***	***432DL6A***	***6RTSL2***	***NIMSEL,AACNCG,RT***	***NIMS R/T SELECT***	***4R3***	***4***	***0***	***3,454,026:00:0***

Strip of sequence iifl2n
prepared by NIMS engineering - A.K.S. Date 5/12/96

Line	YR	DOY	Time	PSID	Command	Parameters	Description	GCM	GO	GS	RIM MF I
103	96	148	16:03:05.333	125DN4A	37IST	0,2,1,OFF,1,0,1	OPCAL	4R3	4	0	3,454,027:84:0
104	96	148	16:03:05.333	125DN	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,454,027:84:0
105	96	148	16:03:05.333	125DN11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	3,454,027:84:0
106	96	148	16:05:10.000	432DN6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	4R3	4	0	3,454,029:89:0
107	96	148	18:07:30.666	432BL6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4R3	4	0	3,454,150:89:0
108	96	148	21:57:40.666	488AO6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,454,378:56:0
109	96	148	23:52:18.600	432AM431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4R3	4	0	3,454,491:90:0
110	96	148	23:52:19.266	432AM6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,454,492:00:0
111	96	148	23:52:19.266	432AM6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4R3	4	0	3,454,492:00:0
112	96	148	23:59:44.600	488AO6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,454,499:31:0
113	96	149	03:40:48.600	432BM6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4R3	4	0	3,454,717:89:0
114	96	149	04:57:42.600	488AP6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,454,794:03:0
115	96	149	06:37:45.933	432AN431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4R3	4	0	3,454,892:90:0
116	96	149	06:37:46.600	432AN6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,454,893:00:0
117	96	149	06:37:46.600	432AN6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4R3	4	0	3,454,893:00:0
118	96	149	06:44:46.600	488AP6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,454,899:84:0
119	96	149	09:57:43.266	488AP6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,455,090:68:0
120	96	149	10:44:47.266	488AP6D	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,455,137:27:0
121	96	149	18:33:37.266	432BO6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4R3	4	0	3,455,600:89:0
122	96	149	21:12:46.600	488AQ6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,455,758:35:0
123	96	149	23:53:08.600	432AP431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4R3	4	0	3,455,916:90:0
124	96	149	23:53:09.266	432AP6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,455,917:00:0
125	96	149	23:53:09.266	432AP6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4R3	4	0	3,455,917:00:0
126	96	149	23:59:50.600	488AQ6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,455,923:56:0
127	96	150	03:41:38.600	432BP6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4R3	4	0	3,456,142:89:0
128	96	150	04:57:47.200	488AR6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4R3	4	0	3,456,218:26:0
129	96	150	06:22:25.200	432AQ431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4R3	4	0	3,456,301:90:0
130	96	150	06:22:25.866	432AQ6A	6RTSL1		R/T Select of DDS and	4R3	4	0	3,456,302:00:0
131	96	150	06:22:25.866	432AQ6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4R3	4	0	3,456,302:00:0
132	96	150	06:29:52.533	488AR6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4R3	4	0	3,456,309:33:0
133	96	150	11:41:57.200	488AS6A	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	4R3	4	0	3,456,618:01:0
134	96	150	15:00:02.533	127DL4A	37IOP	3,0	Long Map, Grating Start Position =0	4R3	4	0	3,456,813:84:0
135	96	150	15:00:02.533	127DL	NIMSTAB	GS	%%%%% GROUP START TAB	4R3	4	0	3,456,813:84:0
136	96	150	15:00:03.200	127DL4B	37ETB	07,C7,31,80,00,0	Loads wavelength edit table	4R3	4	0	3,456,813:85:0
137	96	150	15:00:26.533	127DL11A	NIMSTAB	GE	%%%%% GROUP END TAB	4R3	4	0	3,456,814:29:0
138	96	150	15:02:03.866	125DM4A	37IST	0,2,1,OFF,1,0,1	OPCAL	4R3	4	0	3,456,815:84:0
139	96	150	15:02:03.866	125DM	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,456,815:84:0
140	96	150	15:02:03.866	125DM11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	3,456,815:84:0
141	96	150	15:02:08.533	432DM6A	6RTSL2	NIMSEL,AACNCG,RT	NIMS R/T SELECT	4R3	4	0	3,456,816:00:0
142	96	150	15:04:05.200	125DO	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,456,817:84:0
143	96	150	15:04:05.200	125DO11A	NIMSINIT	GE	##### GROUP END INIT	4R3	4	0	3,456,817:84:0
144	96	150	15:04:05.200	125DO4A	37IST	0,2,1,OFF,1,0,1	OPCAL	4R3	4	0	3,456,817:84:0
145	96	150	15:05:05.866	125DH4A	37MB	0,0,0,0,0,0	Selects mirror (spatial) edit table	4R3	4	0	3,456,818:84:0
146	96	150	15:05:05.866	125DH	NIMSINIT	GS	##### GROUP START INIT	4R3	4	0	3,456,818:84:0
147	96	150	15:06:06.533	125DH4B	37IST	1,0,0,OFF,0,0,0	Chopper ON, Sync, 63Hz (Ref)	463	4	0	3,456,819:84:0
148	96	150	15:06:09.866	432DO6A	6RTDS2	NIMDSL,AACNCG,RT	NIMS R/T DESELECT	463	4	0	3,456,819:89:0
149	96	150	15:07:07.200	125DH4C	37IST	1,1,0,OFF,0,0,0	Chopper OFF, N/A, 63Hz (Ref)	4O3	4	0	3,456,820:84:0
150	96	150	15:08:07.866	125DH4D	37IOP	0,0	Safe, Grating Start Position =0	4O0	4	0	3,456,821:84:0
151	96	150	15:08:07.866	125DH11A	NIMSINIT	GE	##### GROUP END INIT	4O0	4	0	3,456,821:84:0
152	96	150	15:48:03.866	31DF3A	40T1PR	1	PCT Heater 1 OFF (primary relay)	4O0	4	0	3,456,861:38:0
153	96	150	15:49:04.533	31DF3B	40T1PR	2	PCT Heater 1 OFF (primary relay)	4O0	4	0	3,456,862:38:0
154	96	150	15:50:05.200	31DF3C	40T2R	1	PCT Heater 2 OFF	4O0	4	0	3,456,863:38:0
155	96	150	15:51:05.866	31DF3D	40T2R	2	PCT Heater 2 OFF	4O0	4	0	3,456,864:38:0

Line	YR	DOY	Time	PSID	Command	Parameters	Description	GCM	GO	GS	RIM MF I
156	**96**	**150**	**15:52:06.533**	**31DF3E**	**37F2P**	**1**	**Shield Flash Heater ON (primary relay)**	**4O0**	**4**	**0**	**3,456,865:38:0**
157	**96**	**150**	**15:53:07.200**	**31DF3F**	**37F2P**	**2**	**Shield Flash Heater ON (primary relay)**	**4O0**	**4**	**0**	**3,456,866:38:0**
158	96	150	17:56:01.866	432BR6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,456,987:89:0
159	96	150	21:07:17.200	488AT6A	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,177:12:0
160	96	150	21:47:51.200	488AT6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,217:23:0
161	96	150	23:37:47.866	432AS431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,457,325:90:0
162	96	150	23:37:48.533	432AS6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,457,326:00:0
163	96	150	23:37:48.533	432AS6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,457,326:00:0
164	96	150	23:44:56.533	488AT6C	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,333:05:0
165	96	151	03:37:25.200	432BS6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,457,562:89:0
166	96	151	04:57:53.200	488AU6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,642:51:0
167	96	151	06:23:15.200	432AT431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,457,726:90:0
168	96	151	06:23:15.866	432AT6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,457,727:00:0
169	96	151	06:23:15.866	432AT6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,457,727:00:0
170	96	151	06:29:57.866	488AU6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,733:57:0
171	96	151	08:56:55.866	432BT6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,457,878:89:0
172	96	151	09:47:54.466	488AU6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,929:36:0
173	96	151	10:22:53.133	432AU431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,457,963:90:0
174	96	151	10:22:53.800	432AU6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,457,964:00:0
175	96	151	10:22:53.800	432AU6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,457,964:00:0
176	96	151	10:29:58.466	488AU6D	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,457,971:00:0
177	96	151	18:52:28.466	432BU6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,458,467:89:0
178	96	151	21:42:57.800	488AV6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,458,636:54:0
179	96	151	23:37:37.133	432AV431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,458,749:90:0
180	96	151	23:37:37.800	432AV6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,458,750:00:0
181	96	151	23:37:37.800	432AV6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,458,750:00:0
182	96	151	23:45:01.800	488AV6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,458,757:29:0
183	96	152	03:38:15.133	432BV6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,458,987:89:0
184	96	152	04:57:59.800	488AW6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,459,066:77:0
185	96	152	06:23:04.466	432AW431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,459,150:90:0
186	96	152	06:23:05.133	432AW6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,459,151:00:0
187	96	152	06:23:05.133	432AW6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,459,151:00:0
188	96	152	06:30:03.800	488AW6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,459,157:82:0
189	96	152	08:52:42.466	432BW6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,459,298:89:0
190	96	152	09:43:00.466	488AW6C	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,459,348:66:0
191	96	152	10:22:42.466	432AX431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,459,387:90:0
192	96	152	10:22:43.133	432AX6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,459,388:00:0
193	96	152	10:22:43.133	432AX6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,459,388:00:0
194	96	152	10:30:04.466	488AW6D	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,459,395:25:0
195	96	152	18:53:18.400	432BX6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,459,892:89:0
196	96	152	21:43:03.733	488AX6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,460,060:79:0
197	96	152	23:23:17.066	432AY431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,460,159:90:0
198	96	152	23:23:17.733	432AY6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,460,160:00:0
199	96	152	23:23:17.733	432AY6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,460,160:00:0
200	96	152	23:30:07.733	488AX6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,460,166:69:0
201	96	153	03:34:01.733	432BY6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,460,407:89:0
202	96	153	04:58:04.400	488AY6A	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,460,491:09:0
203	96	153	06:07:43.733	432AZ431A6A	6RCDSL	DDSDSL,PLSDSL,EP	Record Deselect (DDS o	4O0	4	0	3,460,559:90:0
204	96	153	06:07:44.400	432AZ6A	6RTSL1		R/T Select of DDS and	4O0	4	0	3,460,560:00:0
205	96	153	06:07:44.400	432AZ6B	6RTSL2	NIMNCG,AACSEL,RT	AACS SELECT	4O0	4	0	3,460,560:00:0
206	96	153	06:15:09.733	488AY6B	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,460,567:31:0
207	96	153	10:29:35.733	432MH6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,460,818:89:0
208	96	153	10:55:01.066	488AY6C	6TMSED	NORM,AH5	Sci, Eng, and D/L Chan	4O0	4	0	3,460,844:11:0

Line	YR	DOY	Time	PSID	Command	Parameters	Description	GCM	GO	GS	RIM MF I
209	96	153	19:04:15.000	432BZ6B	6RTDS2	NIMNCG,AACDSL,RT	AACS DESELECT	4O0	4	0	3,461,327:89:0
210	96	153	21:07:17.000	488AZ6A	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,461,449:60:0
211	96	153	21:38:08.333	488AZ6B	6TMSED	FILL,AL3	Sci, Eng, and D/L Chan	4O0	4	0	3,461,480:16:0
212	96	153	23:30:13.000	488AZ6C	6TMSED	NORM,AH3	Sci, Eng, and D/L Chan	4O0	4	0	3,461,591:02:0
213	96	153	23:35:00.000	20A3FC	40CPR	Final conditions		4O0	4	0	3,461,595:68:5
214	96	153	23:35:00.000	20A3EW	37A	Final conditions	NIMS Power ON	260	4	0	3,461,595:68:5
215	96	153	23:35:00.000	20A3EX	37HR	Final conditions	Replacement Heaters OFF	260	4	0	3,461,595:68:5
216	96	153	23:35:00.000	20A3EY	37C1PR	Final conditions	Optics Heater 1 OFF (primary relay)	260	4	0	3,461,595:68:5
217	96	153	23:35:00.000	20A3EZ	37C2PR	Final conditions	Optics Heater 2 OFF (primary relay)	260	4	0	3,461,595:68:5
218	96	153	23:35:00.000	20A3FA	37F1PR	Final conditions	Radiator Flash Heater OFF (primary relay)	260	4	0	3,461,595:68:5
219	96	153	23:35:00.000	20A3FF	40T2R	Final conditions	PCT Heater 2 OFF	260	4	0	3,461,595:68:5
220	96	153	23:35:00.000	20A3FE	40T1PR	Final conditions	PCT Heater 1 OFF (primary relay)	260	4	0	3,461,595:68:5
221	96	153	23:35:00.000	20A3FB	37F2P	Final conditions	Shield Flash Heater ON (primary relay)	260	4	0	3,461,595:68:5
222	96	153	23:35:00.333		DMS:	: READY	RDY, TRACK 1, FWD, TIC 201.00 +/-	260	4	0	3,461,595:69:0

IFLNIMSOCAL1

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OAPEL:  IFLNIMSOCAL1            ALIAS:  IFLNIMSOCAL1
EXT:    R                       PSID:   DE
SCLK1:  03449819:00:0           SCLK2:  03449819:90:0
SCET1:  1996-145/17:07:24.133   SCET2:  1996-145/17:08:24.133
TARGET: CAL                     PARTITION: 1

MODE:      3                    GAIN:      4
CHOP:      1                    GRAT_OFF:  4
PTAB_A:    1 1 0 0 124          PTAB_B:    1 1 0 0 124
ECAL:      0                    OPCAL:     0
R/T:       1                    RECORD:    0

MB_DOWN:   11011                MB_UP:     11011
COMP_FLAG: 0
EST_COMP:  0.0                  EST_COMPV: 0.0
RATE_CON1: 00000                RATE_CON2: 00000
NWAVETOT:  002                  TLMFMT:    RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES:  000, 000, 000, 000, 000, 000, 000, 000, 000
                   000, 000, 000, 000, 000, 000, 000, 000

WETGID:    0302048000          03  02  048  000
WTGRP_SIZ:  2
```

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL1

OAPEL:	IFLNIMSOCAL1	ALIAS:	IFLNIMSOCAL1
EXT:	S	PSID:	DE
SCLK1:	03449820:00:0	SCLK2:	03449820:90:0
SCET1:	1996-145/17:08:24.800	SCET2:	1996-145/17:09:24.800
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	1
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL1

OAPEL:	IFLNIMSOCAL1	ALIAS:	IFLNIMSOCAL1
EXT:	T	PSID:	DE
SCLK1:	03449821:00:0	SCLK2:	03449821:90:0
SCET1:	1996-145/17:09:25.466	SCET2:	1996-145/17:10:25.466
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	0
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL1

OAPEL:	IFLNIMSOCAL1	ALIAS:	IFLNIMSOCAL1
EXT:	U	PSID:	DE
SCLK1:	03449822:00:0	SCLK2:	03449822:89:0
SCET1:	1996-145/17:10:26.133	SCET2:	1996-145/17:11:25.466
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	1
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL2

OAPEL:	IFLNIMSOCAL2	ALIAS:	IFLNIMSOCAL2
EXT:	R	PSID:	DE
SCLK1:	03454026:00:0	SCLK2:	03454026:90:0
SCET1:	1996-148/16:01:08.666	SCET2:	1996-148/16:02:08.666
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	1
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL2

```
OAPEL:  IFLNIMSOCAL2            ALIAS:  IFLNIMSOCAL2
EXT:    S                       PSID:   DE
SCLK1:  03454027:00:0           SCLK2:  03454027:90:0
SCET1:  1996-148/16:02:09.333   SCET2:  1996-148/16:03:09.333
TARGET: CAL                     PARTITION: 1

MODE:      3                    GAIN:      4
CHOP:      1                    GRAT_OFF:  4
PTAB_A:    1 1 0 0 124          PTAB_B:    1 1 0 0 124
ECAL:      0                    OPCAL:     0
R/T:       1                    RECORD:    0

MB_DOWN:   11011                MB_UP:     11011
COMP_FLAG: 0
EST_COMP:  0.0                  EST_COMPV: 0.0
RATE_CON1: 00000                RATE_CON2: 00000
NWAVETOT:  002                  TLMFMT:    RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES:  000, 000, 000, 000, 000, 000, 000, 000, 000
                   000, 000, 000, 000, 000, 000, 000, 000

WETGID:    0302048000          03  02  048  000
WTGRP_SIZ:  2
```

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL2

OAPEL:	IFLNIMSOCAL2	ALIAS:	IFLNIMSOCAL2
EXT:	T	PSID:	DE
SCLK1:	03454028:00:0	SCLK2:	03454028:90:0
SCET1:	1996-148/16:03:10.000	SCET2:	1996-148/16:04:10.000
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	1
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL2

OAPEL:	IFLNIMSOCAL2	ALIAS:	IFLNIMSOCAL2
EXT:	U	PSID:	DE
SCLK1:	03454029:00:0	SCLK2:	03454029:89:0
SCET1:	1996-148/16:04:10.666	SCET2:	1996-148/16:05:10.000
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	0
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL3

OAPEL:	IFLNIMSOCAL3	ALIAS:	IFLNIMSOCAL3
EXT:	R	PSID:	DE
SCLK1:	03456816:00:0	SCLK2:	03456816:90:0
SCET1:	1996-150/15:02:08.533	SCET2:	1996-150/15:03:08.533
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	1
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL3

OAPEL:	IFLNIMSOCAL3	ALIAS:	IFLNIMSOCAL3
EXT:	S	PSID:	DE
SCLK1:	03456817:00:0	SCLK2:	03456817:90:0
SCET1:	1996-150/15:03:09.200	SCET2:	1996-150/15:04:09.200
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	0
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL3

OAPEL:	IFLNIMSOCAL3	ALIAS:	IFLNIMSOCAL3
EXT:	T	PSID:	DE
SCLK1:	03456818:00:0	SCLK2:	03456818:90:0
SCET1:	1996-150/15:04:09.866	SCET2:	1996-150/15:05:09.866
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	1
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

IFLNIMSOCAL3

OAPEL:	IFLNIMSOCAL3	ALIAS:	IFLNIMSOCAL3
EXT:	U	PSID:	DE
SCLK1:	03456819:00:0	SCLK2:	03456819:84:0
SCET1:	1996-150/15:05:10.533	SCET2:	1996-150/15:06:06.533
TARGET:	CAL	PARTITION:	1

MODE:	3	GAIN:	4
CHOP:	1	GRAT_OFF:	4
PTAB_A:	1 1 0 0 124	PTAB_B:	1 1 0 0 124
ECAL:	0	OPCAL:	0
R/T:	1	RECORD:	0

MB_DOWN:	11011	MB_UP:	11011
COMP_FLAG:	0		
EST_COMP:	0.0	EST_COMPV:	0.0
RATE_CON1:	00000	RATE_CON2:	00000
NWAVETOT:	002	TLMFMT:	RT

THRESHOLD_SEL: 0
THRESHOLD_VALUES: 000, 000, 000, 000, 000, 000, 000, 000, 000
000, 000, 000, 000, 000, 000, 000, 000

WETGID: 0302048000 03 02 048 000
WTGRP_SIZ: 2

EDIT TABLE

GRATING STEP	HEX MASK	DETECTOR MASK
0	18000	1,1000,0000,0000,0000
1	18000	1,1000,0000,0000,0000
2	18000	1,1000,0000,0000,0000
3	18000	1,1000,0000,0000,0000
4	18000	1,1000,0000,0000,0000
5	18000	1,1000,0000,0000,0000
6	18000	1,1000,0000,0000,0000
7	18000	1,1000,0000,0000,0000
8	18000	1,1000,0000,0000,0000
9	18000	1,1000,0000,0000,0000
10	18000	1,1000,0000,0000,0000
11	18000	1,1000,0000,0000,0000
12	18000	1,1000,0000,0000,0000
13	18000	1,1000,0000,0000,0000
14	18000	1,1000,0000,0000,0000
15	18000	1,1000,0000,0000,0000
16	18000	1,1000,0000,0000,0000
17	18000	1,1000,0000,0000,0000
18	18000	1,1000,0000,0000,0000
19	18000	1,1000,0000,0000,0000
20	18000	1,1000,0000,0000,0000
21	18000	1,1000,0000,0000,0000
22	18000	1,1000,0000,0000,0000
23	18000	1,1000,0000,0000,0000
24	00000	0,0000,0000,0000,0000
25	00000	0,0000,0000,0000,0000

NIMS IFL OBSTAB

This is a time-ordered ASCII TABLE (listing) of GALILEO NIMS observation parameters for use by downlink data processing of the NIMS IFL data. Each Obstab entry is 512 bytes long but is presented here as 4 lines of 128 characters per entry. Included items come from NIMS commands in (1) the Standard Sequence Data File (SSDF) and (2) the Playback Table Update Process (PTUP), plus some items from (3) the NIMS/CDS software load.

Note that SCLK1, SCLK2, SCET1 and SCET2 of non-realtime observations reflect the amount of data actually played back, rather than the amount recorded on tape. Likewise, the wavelength edit table pointers of non-realtime observations point to the playback edit table masks, rather than the ones used during recording.

Some of these items are needed for MIPS realtime processing of NIMS data, others for NIMSMERGE generation of the EDR and still others by NIMS/ISIS and MIPS systematic processing of EDRs into cubes. Missing non-required items will not interfere with a processing step. For completeness, almost all uplinked parameters are included in the table. (Only those items which will almost certainly remain constant have been omitted; e.g. Rice decision tables.)

The source below is one of:

- SEF for the Standard Sequence Data File (SSDF), specifying parameters of one of the NIMS (37) commands
- PBK for the Playback Table Update Process (PTUP), specifying parameters of the NIMPBK SINGLE command
- S/W for the NIMS/CDS software load process
- NIMS for NIMS team systematic processing requests to MIPS

* indicates item absolutely required for UDR generation (decompression, wavelength edit processing)
\# indicates item useful for UDR generation (for checking)
unmarked items needed for cube generation or useful for general information
<tbd> indicates more details will be forthcoming

	name	nchar	columns	.description	.source
	OAPEL	12	1 - 12	.Oapel Name from SEF (no aliases yet)	SEF: activity ID, 1st 12 chars should be unique
	ALIAS	12	13 - 24	.NIMS alias name for OAPEL	NIMS:
	EXT	1	25 - 25	.Extension, for split OAPELs, A,B,C... for playback, R,S,T... for realtime. Required for realtime.	NIMS: if breaking activity into several cubes
	PSID	2	26 - 27	.Parameter Set IDentification	SEF: <tbd>
*	SCLK1	13	28 - 40	.Start time of played-back OBS in SCLK	PBK (except realtime data: SEF)
*	SCLK2	13	41 - 53	.Stop time of played-back OBS in SCLK	PBK (except realtime data: SEF)
*	PARTITION	1	54 - 54	.Partition for SCLK1 and SCLK2.	
	<spare>	9	55 - 63	.	
	TARGET	8	64 - 71	.Primary Target of OBS	SEF: translate from 3rd char in OAPEL (activity ID)

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  MODE          2  72 -  73     .NIMS Instrument MODE (0-15)                    SEF: 37IOP, data byte 2, bits 5-8
  GAIN          1  74 -  74     .Gain State (true value)                        SEF: 37IST, data byte 3, bits 7-8 (if bit 6 = 1)
                                                                                      0=gs2, 1=gs4, 2=gs3, 3=gs1
  CHOP          1  75 -  75     .Chopper State (1=Ref,2=63Hz,3=FreeRun,4=Off)   SEF: 37IST, data byte 2, bits 7-8 (if bit 6 = 1)
                                                                                      0=63hz, 1=off, 2=ref, 3=freerun
  GRAT_OFF      1  76 -  76     .Grating Offset (0-7, default 4)                SEF: 37GOF, data byte 2, bits 5-8
  PTAB_A(6)    12  77 -  88     .First PTAB  |repeat count,mirror op,autobias...SEF: functions of MODE (from 37IOP) as modified by
  PTAB_B(6)    12  89 - 100     .Second PTAB |...grating start, grating delta...      37MPT, unless special sequence (modes 12-15)
                                .            |...number of grating positions)         in which case values come from 37SS
                                                                                      parameters <tbd>
  ECAL          1 101 - 101     .Electronics Calibration Active (1=yes)         SEF: 37IST, data byte 3, bit 4 (1=on)
  OPCAL         1 102 - 102     .Optics Calibration active (1=yes)              SEF: 37IST, data byte 3, bit 5 (1=on)
# REAL_TIME     1 103 - 103     .NIMS in Real-Time Telemetry (1=yes)            SEF: track RT_INST_SEL .and. 37RT
# RECORD        1 104 - 104     .NIMS in Record Telemetry (1=yes)               SEF: track DMS status event:
                                                                                      RECORD, REVERSE, RESUME, RUNDOWN <tbd>


* THRESHSEL     1 105 - 105     .Threshold value select (>0 = yes)              PBK: THRESHLD_TBL > 0 (i.e. 1-3)
  <spare>       1 106 - 106     .
# RTISELDN      5 107 - 111     .RTI select, 5 binary bits (for mirror          SEF: 37MB data byte 1, bits 4-8 <tbd>
                                  position blocking, down scan)
# RTISELUP      5 112 - 116     .RTI select, 5 binary bits (for mirror          SEF: 37MB data byte 2, bits 4-8 <tbd>
                                  position blocking, up scan)
  <spare>       1 117 - 117     .
* RICEFLAG      1 118 - 118     .Rice compression flag                          PBK: 0 no compression
                                                                                     1 Rice compression, ref vals each mirror scan
                                                                                     3 Rice compression, ref vals each RIM rollover
  <spare>       1 119 - 119     .
  ESTCOMP       3 120 - 122     .Rice estimated compression ratio (m.n)         PBK: CMPR_DVSR <tbd>
  ESTCOMPV      3 123 - 125     .Rice estimated error in compression ratio (m.n)PBK: CMPR_UNC <tbd>
# RATECON1      5 126 - 130     .Rate control lower limit                       PBK: | S/W table entry indexed by LOSSY_COMP (1-7)
# RATECON2      5 131 - 135     .Rate control upper limit                       PBK: | or 0 if LOSSY_COMP = 0 (no rate control)
  <spare>      17 136 - 152
  NWAVETOT      3 153 - 155     .Total number of wavelengths selected           Compute from relevant Wavelength Edit Table group
  TLMFMT        3 156 - 158     .Telemetry format (MPW et al, LPU or LNR)         SEF: 6TMREC command
  SCET1        21 159 - 179     .Start time of played-back OBS in UTC           PBK (except realtime data: SEF)
  SCET2        21 180 - 200     .Stop time of played-back OBS in UTC            PBK (except realtime data: SEF)
<spares>       67 201 - 267     .Start time of played-back OBS in UTC           PBK (except realtime data: SEF)
* THRESH       51 268 - 318     .Threshold values (17 3-digit values, 0-999)    PBK: S/W table indexed by THRESH_TBL > 0, else 0s
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# WETGID       10 319 - 328     .Wavelength selection group ID (unique)         PBK: WET_GID    (realtime <tbd>)
                                  Rule of formation: mmeelllnnn where
                                   mm  = instrument mode (0-15)
                                   ee  = # entries in group
                                   lll = number of wavelengths selected
                                   nnn = sequence number
* WETGRPSIZ     2 329 - 330     .# Wavelength Edit entries (1-26)               PBK: ED_GRP_LEN (realtime SEF: 37ETB <tbd>)
* WETGRP      182 331 - 512     .Wavelength Edit Table group:  WETGRPSIZ        PBK: ED_GRP     (realtime SEF: 37ETB data bytes 2..)
                                  entries, each one has 7 characters.  The
                                  first 2 characters are the repeat count
                                  (01-26).  The other 5 characters contain
                                  5 hex digits, representing the detector
                                  mask in the form BHHHH where B is 0 or 1
                                  and H has range 0-15.  (These entries are
                                  from the 37ETB instrument edit group for
                                  realtime data and from the logical AND of
                                  corresponding entries in the instrument
                                  and playback edit groups for playback data.)
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.The TARGET names used are:
   CAL      - N - non-science targets, usually calibration targets
   EARTH    - W - Earth
   MOON     - L - Moon
   SKY      - H - Stellar Space (space and stars)
   VENUS    - V - Venus
   GASPRA   - P - Gaspra
   IDA      - U - Ida
   JUPITER  - J - Jupiter
   IO       - I - Io
   EUROPA   - E - Europa
   GANYMEDE - G - Ganymede
   CALLISTO - C - Callisto
   RING     - R - Jupiter rings
   (the single letter abbreviation appears as the third character in the OAPEL name ).
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IFLNIMSOCAL1IFLNIMSOCAL1RDE03449819:00:003449819:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12400100 1101111011 0 0.00.0000
0000000                 002RT 1996-145/17:07:24.1331996-145/17:08:24.133
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL1IFLNIMSOCAL1SDE03449820:00:003449820:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12401100 1101111011 0 0.00.0000
0000000                 002RT 1996-145/17:08:24.8001996-145/17:09:24.800
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL1IFLNIMSOCAL1TDE03449821:00:003449821:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12400100 1101111011 0 0.00.0000
0000000                 002RT 1996-145/17:09:25.4661996-145/17:10:25.466
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL1IFLNIMSOCAL1UDE03449822:00:003449822:89:01         CAL      3414 1 1 0 0 124 1 1 0 0 12401100 1101111011 0 0.00.0000
0000000                 002RT 1996-145/17:10:26.1331996-145/17:11:25.466
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL2IFLNIMSOCAL2RDE03454026:00:003454026:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12401100 1101111011 0 0.00.0000
0000000                 002RT 1996-148/16:01:08.6661996-148/16:02:08.666
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL2IFLNIMSOCAL2SDE03454027:00:003454027:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12400100 1101111011 0 0.00.0000
0000000                 002RT 1996-148/16:02:09.3331996-148/16:03:09.333
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL2IFLNIMSOCAL2TDE03454028:00:003454028:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12401100 1101111011 0 0.00.0000
0000000                 002RT 1996-148/16:03:10.0001996-148/16:04:10.000
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL2IFLNIMSOCAL2UDE03454029:00:003454029:89:01         CAL      3414 1 1 0 0 124 1 1 0 0 12400100 1101111011 0 0.00.0000
0000000                 002RT 1996-148/16:04:10.6661996-148/16:05:10.000
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL3IFLNIMSOCAL3RDE03456816:00:003456816:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12401100 1101111011 0 0.00.0000
0000000                 002RT 1996-150/15:02:08.5331996-150/15:03:08.533
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL3IFLNIMSOCAL3SDE03456817:00:003456817:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12400100 1101111011 0 0.00.0000
0000000                 002RT 1996-150/15:03:09.2001996-150/15:04:09.200
           0000000000000000000000000000000000000000000000000000302048000 224180000200000

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IFLNIMSOCAL3IFLNIMSOCAL3TDE03456818:00:003456818:90:01         CAL      3414 1 1 0 0 124 1 1 0 0 12401100 1101111011 0 0.00.0000
0000000                 002RT 1996-150/15:04:09.8661996-150/15:05:09.866
           000000000000000000000000000000000000000000000000000302048000 224180000200000

IFLNIMSOCAL3IFLNIMSOCAL3UDE03456819:00:003456819:84:01         CAL      3414 1 1 0 0 124 1 1 0 0 12400100 1101111011 0 0.00.0000
0000000                 002RT 1996-150/15:05:10.5331996-150/15:06:06.533
           000000000000000000000000000000000000000000000000000302048000 224180000200000

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