

# VOYAGER

## Space Flight Operations Schedule (SFOS)

Issue Date: March 29, 2017

For the Period: 03/30/17 to 04/17/17 (17-089 – 17-107)

DSN OPSCHIEF	230-102	SCIENCE	FLIGHT TEAM	600-100
DSOT	230-102	CRS bryant@mail630.gsfc.nasa.gov LECP r.decker@jhuapl.edu MAG u2mha@lepvax.gsfc.nasa.gov PLS vgr@space.mit.edu PWS wsk@space.physics.uiowa.edu Leonard.F.Burlaga@nasa.gov Donald-Gurnett@uiowa.edu	Dodd, S. Hall, J. Howard, S. Ko, A. Ledeboer, W. Ludwig, R. Matsumoto, S. Medina, E. Peralta, F. Weeks, T. Yang, L.	

**LEGEND:**

- ∇ = R/T Command (Last chance or Contingency)
- ▼ = R/T Command (Scheduled)
- \* = Result of R/T Command
- n = (where n = 1,2,3 ..) Special Note, see bottom of page
- A = Arrayed station
- B = BLF
- D = Downlink only pass
- H = High Power Transmitter
- R = Array Reference Antenna
- T = TLC Uplink
- U = Uplink only pass
- [o] = Ramp-through

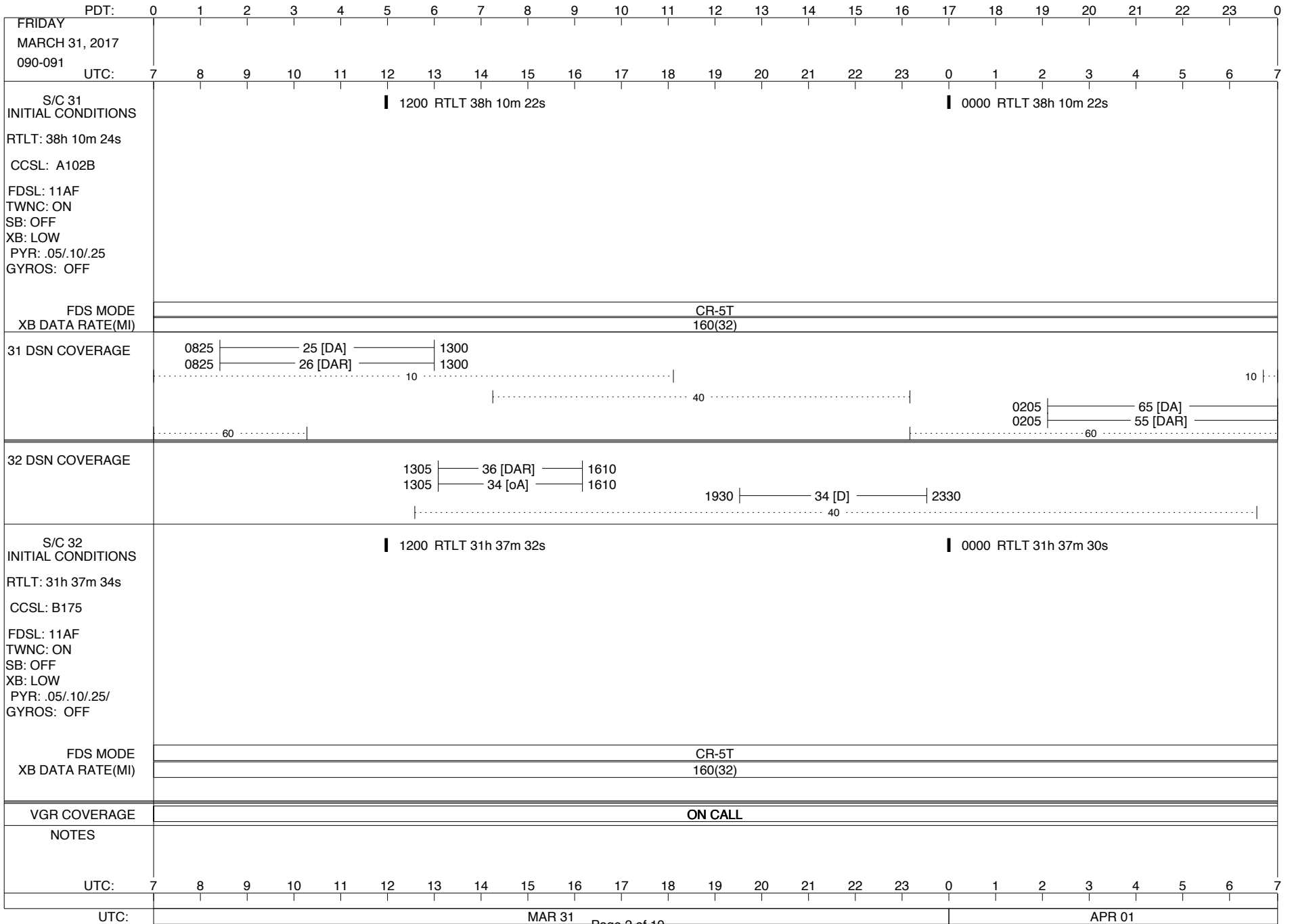
Posted at [http://voyager.jpl.nasa.gov/mission/soesfos/tracking\\_schedule.html](http://voyager.jpl.nasa.gov/mission/soesfos/tracking_schedule.html)

02/27/17

ISSUE DATE: 03/29/17 14:50

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S/C 31 INITIAL CONDITIONS RTLTL: 38h 10m 28s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 10m 26s												0000 RTLT 38h 10m 24s													
FDS MODE	CR-5T												CR-5T													
XB DATA RATE(MI)	160(32)												160(32)													
31 DSN COVERAGE	0830   24 [DA]   1155 0830   25 [DAR]   1155 ..... 10 ..... ..... 60 .....   ..... 40 .....   0100 - 0645   55 [DAR]   ..... 60 .....   ..... 60 .....   0100 - 0645   54 [DA]												10													
32 DSN COVERAGE	1715   35 [DAR]   2045 1715   34 [DA]   2115 ..... 40 .....   0005   43 [D]   0405 ..... 40 .....																									
S/C 32 INITIAL CONDITIONS RTLTL: 31h 37m 40s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 37m 36s												0000 RTLT 31h 37m 34s													
FDS MODE	CR-5T																									
XB DATA RATE(MI)	160(32)																									
VGR COVERAGE	ON CALL																									
NOTES	[1] S/C 31=GS-4B @ 0000 XB=2.8K(41) NOT RECOVERABLE																									
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	
UTC:	MAR 30												MAR 31													

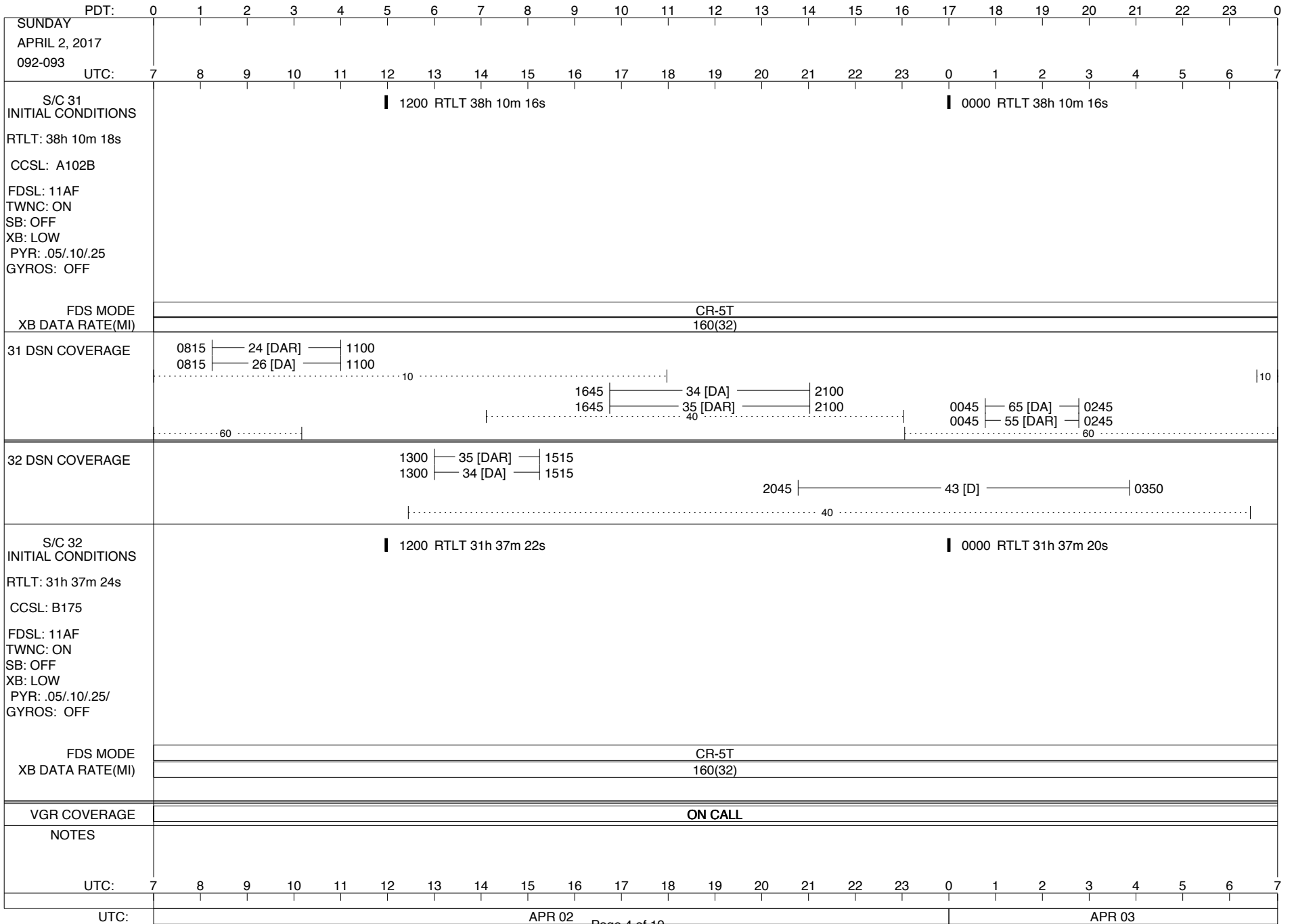
ISSUE DATE: 03/29/17 14:50



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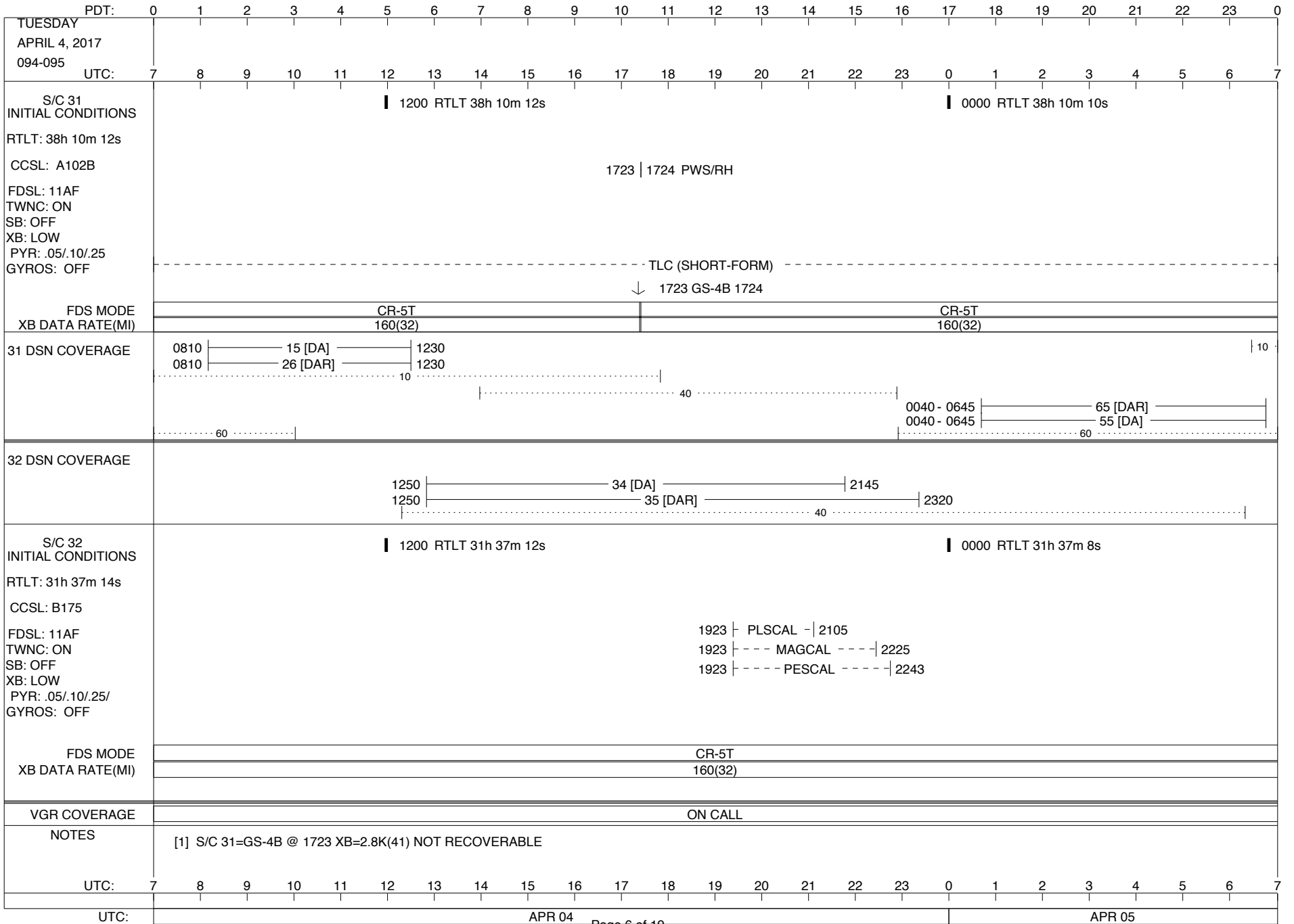
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SATURDAY APRIL 1, 2017 091-092																												
S/C 31 INITIAL CONDITIONS RTLTL: 38h 10m 22s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 10m 20s														0000 RTLT 38h 10m 18s													
FDS MODE	CR-5T														CR-5T													
XB DATA RATE(MI)	160(32)														160(32)													
31 DSN COVERAGE	<p>0820  -----25 [DAR]-----  1440  0820  -----26 [DA]-----  1440</p> <p>..... -----40----- </p> <p>----- 0755 65 [DA]-----   ----- 0755 55 [DAR]----- </p> <p>60  -----2310-----63 [D]-----  0150  60  -----60----- </p>																											
32 DSN COVERAGE	<p>1300  ---36 [DAR]---  1445  1300  ---34 [DA]---  1445</p> <p>1955  ---36 [D]---  2100  2045  ---43 [D]---  0155</p> <p>..... -----40----- </p>																											
S/C 32 INITIAL CONDITIONS RTLTL: 31h 37m 30s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 37m 26s														0000 RTLT 31h 37m 24s													
FDS MODE	CR-5T														CR-5T													
XB DATA RATE(MI)	160(32)														160(32)													
VGR COVERAGE	ON CALL																											
NOTES	[1] S/C 31=GS-4B @ 0300 XB=2.8K(41) NOT RECOVERABLE																											
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7			
UTC:	APR 01														APR 02													

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PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	
MONDAY APRIL 3, 2017 093-094																										
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	
S/C 31 INITIAL CONDITIONS RTLT: 38h 10m 16s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 10m 14s												0000 RTLT 38h 10m 12s													
													EL-40 (16:58) 0248▼ CCSL A103 (17:19) 0309▼ AHEL12 MRO CR-5T (17:53) 0342▼ CCSTIM F/C (18:33) 0423▼													
													U/L 0510   -   TLC (SHORT-FORM)   - - - -													
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)													
31 DSN COVERAGE	0815  -----  15 [DA]  -----  1215 0815  -----  24 [DAR]  -----  1215												-----  10  -----  40  -----  2300 - 0645  -----  63 [T]  -----  60													
32 DSN COVERAGE	1225  -----  43 [D]  -----  1555												-----  40  -----													
S/C 32 INITIAL CONDITIONS RTLT: 31h 37m 20s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 37m 16s												0000 RTLT 31h 37m 14s													
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)													
VGR COVERAGE	ON CALL												VGR						ON CALL							
NOTES																										
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	
UTC:	APR 03												APR 04													



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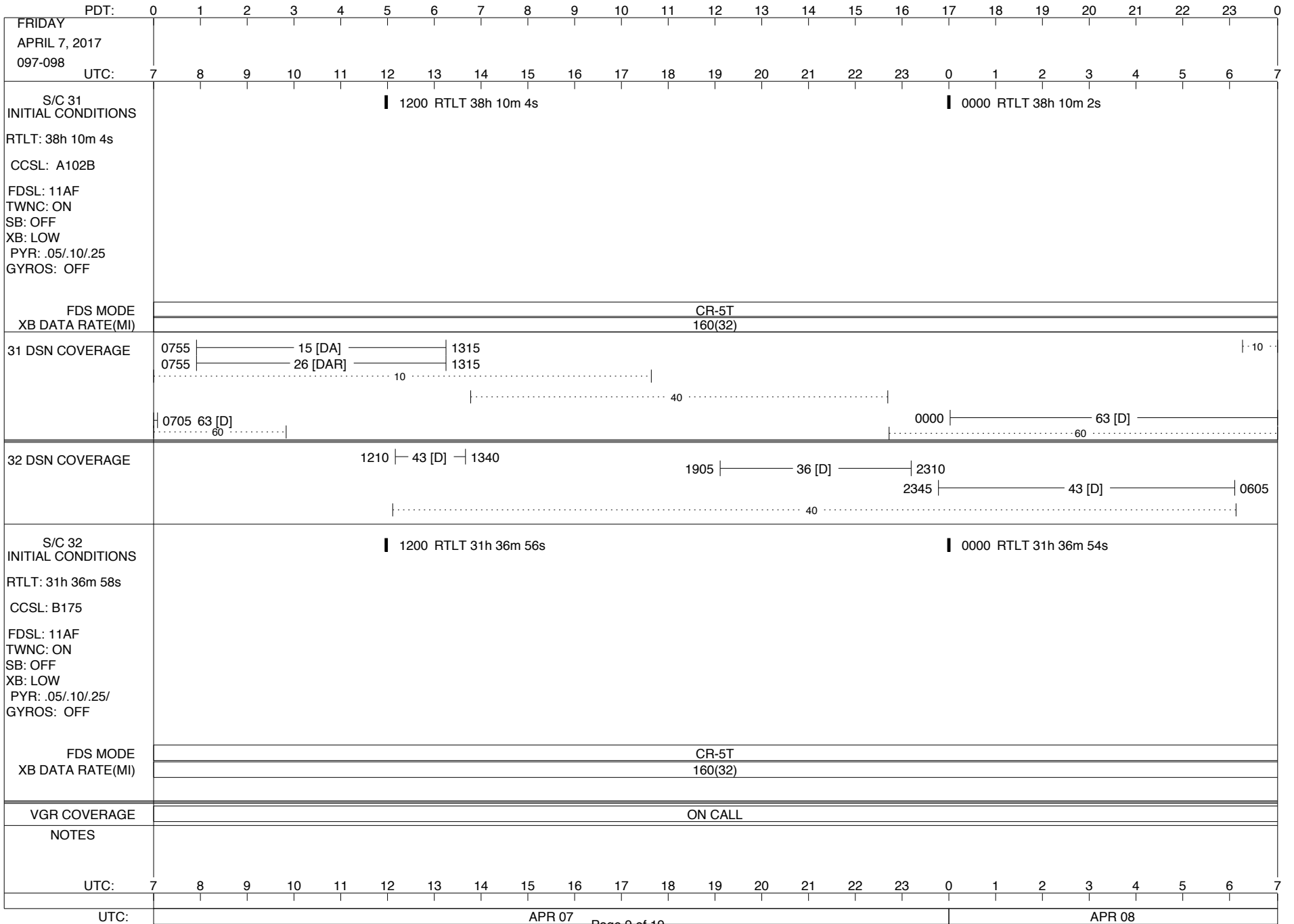
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WEDNESDAY APRIL 5, 2017 095-096																																			
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7										
S/C 31 INITIAL CONDITIONS RTLT: 38h 10m 10s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 10m 8s												0000 RTLT 38h 10m 8s																						
													1733 * 1737 A103 CHKSUM 1755 * 1757 2 AHEL2 SID MRO'S 1833 * 1840 CCSTIM (FINE) 1933 * 1936 CCSTIM (COARSE)																						
	----- TLC (SHORT-FORM) -----   D/L -   2048																																		
	1700 EL-40 *												1800 CR-5T *																						
FDS MODE	CR-5T												EL-40						CR-5T																
XB DATA RATE(MI)	160(32)												40(30)						160(32)																
31 DSN COVERAGE	..... 10 .....																																		
													1650  ----- 35 [DA] -----  2050 1650  ----- 36 [DAR] -----  2050  ----- 40 -----																						
	..... 60 .....																		0035  ----- 65 [DA] -----  0215 0035  ----- 54 [DAR] -----  0215  ----- 60 .....						10										
32 DSN COVERAGE																																			
	1215  ----- 43 [B] -----  1630												0210  ----- 43 [D] -----  0610																						
													----- 40 .....																						
S/C 32 INITIAL CONDITIONS RTLT: 31h 37m 8s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 37m 6s												0000 RTLT 31h 37m 4s																						
	▼ 1407 DUMMY (5 MIN BRACKETED 21:45)																																		
FDS MODE	CR-5T																																		
XB DATA RATE(MI)	160(32)																																		
VGR COVERAGE	ON CALL							VGR							ON CALL							VGR							ON CALL						
NOTES	[1] S/C 31=EL-40 @ 1700 XB=40(30) [2] S/C 31=CR-5T @ 1800 XB=160(32)																																		
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7										
UTC:	APR 05														APR 06																				



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PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0			
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THURSDAY APRIL 6, 2017 096-097																												
S/C 31 INITIAL CONDITIONS RTLTL: 38h 10m 8s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 10m 6s														0000 RTLT 38h 10m 4s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)														CR-5T 160(32)													
31 DSN COVERAGE	<p>0800  ----- 15 [DA] -----  1230  0800  ----- 24 [DAR] -----  1230</p> <p>..... ----- 10 ----- </p> <p>..... ----- 40 ----- </p> <p>..... ----- 60 ----- </p> <p>2250  ----- 63 [D] -----  0030  ----- 10 ----- </p> <p>0030  ----- 65 [DA] -----  0215  0030  ----- 54 [DAR] -----  0215</p> <p>0455  ----- 63 [D] ----- </p>																											
32 DSN COVERAGE	<p>1240  ----- 34 [DA] -----  2120  1240  ----- 35 [DAR] -----  2215</p> <p>..... ----- 40 ----- </p>																											
S/C 32 INITIAL CONDITIONS RTLTL: 31h 37m 4s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 37m 2s														0000 RTLT 31h 36m 58s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																											
VGR COVERAGE	ON CALL																											
NOTES	[1] S/C 31=GS-4B @ 2336 XB=2.8K(41) NOT RECOVERABLE																											
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7			
UTC:	APR 06														APR 07													

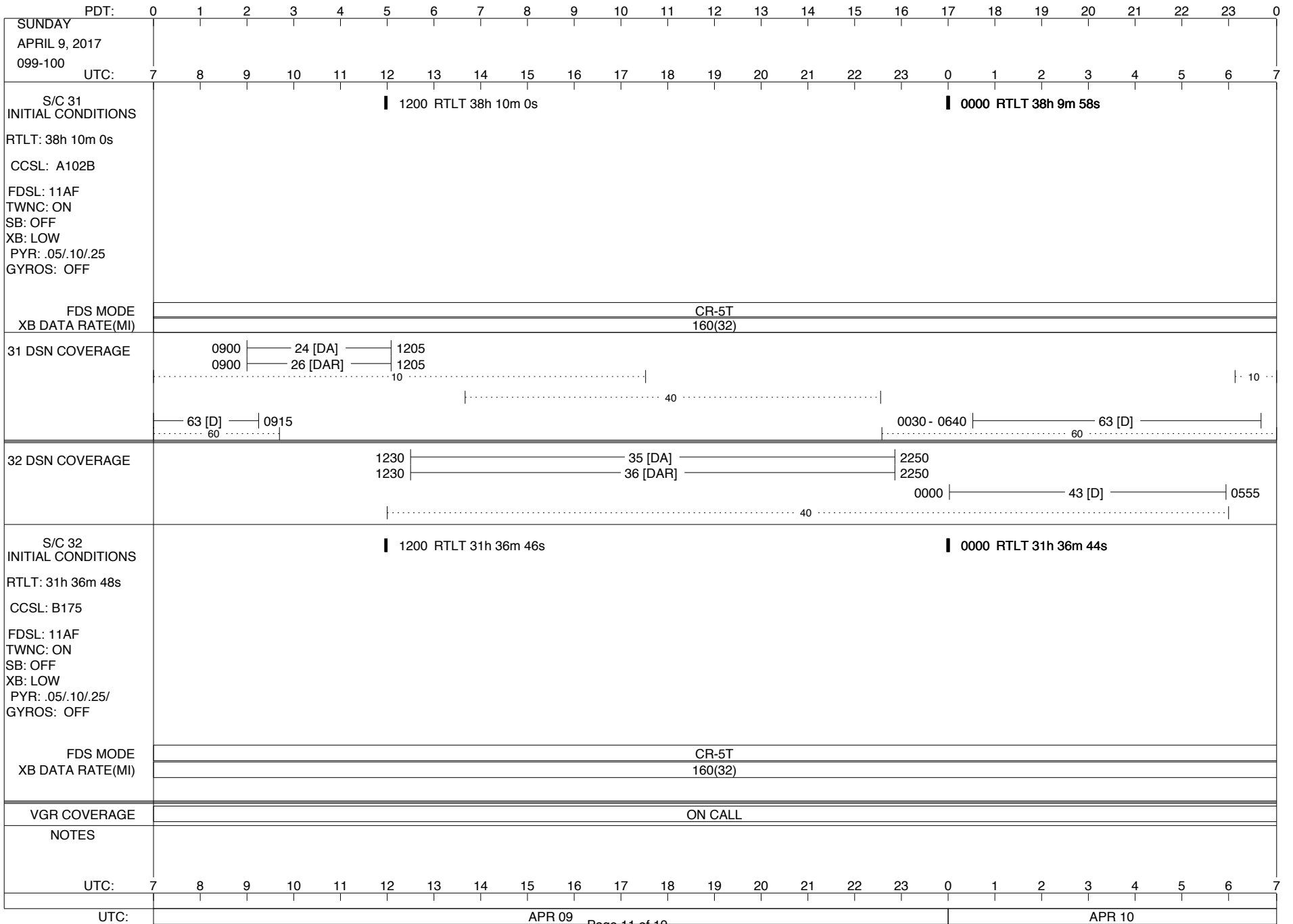
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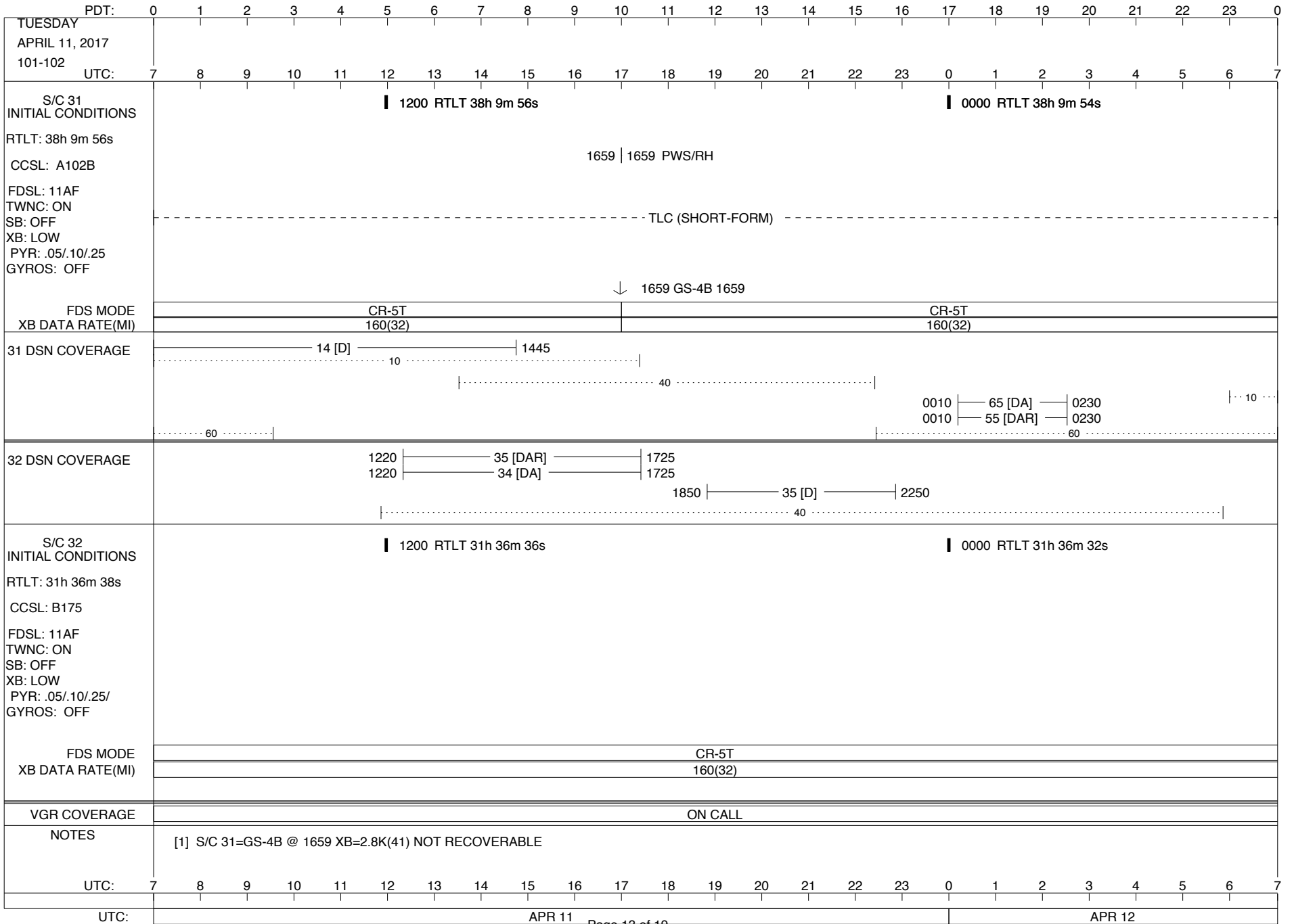
ISSUE DATE: 03/29/17 14:50

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SATURDAY APRIL 8, 2017 098-099																									
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
S/C 31 INITIAL CONDITIONS RTLTL: 38h 10m 2s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 38h 10m 2s												0000 RTLTL 38h 10m 0s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	.....												.....												
	63 [D]   0855						1540   35 [DA]   2040 1540   36 [DAR]   2040						2240   63 [D]						10 ..						
	60						40						60												
32 DSN COVERAGE	.....												.....												
	1425   43 [o]   2230																								
	40																								
S/C 32 INITIAL CONDITIONS RTLTL: 31h 36m 54s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLTL 31h 36m 50s												0000 RTLTL 31h 36m 48s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL												ON CALL												
NOTES	[1] S/C 31=GS-4B @ 0236 XB=2.8K(41) NOT RECOVERABLE																								
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
UTC:	APR 08												APR 09												

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PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0
MONDAY APRIL 10, 2017 100-101	UTC: 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
S/C 31 INITIAL CONDITIONS RTLTL: 38h 9m 58s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 9m 58s												0000 RTLT 38h 9m 56s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																								
31 DSN COVERAGE	0745  ----- 24 [DA] -----  1405 0745  ----- 26 [DAR] -----  1405												14 [D] 0625  ----- 10 -----												
	..... 60 .....												2230 - 0645  ----- 63 [1T] -----  ..... 60 .....												
32 DSN COVERAGE	1200  ----- 43 [D] -----  1335												2015  ----- 43 [D] -----  2140												
	..... 40 .....												2355  ----- 35 [DA] -----  0430 2355  ----- 36 [DAR] -----  0430												
S/C 32 INITIAL CONDITIONS RTLTL: 31h 36m 44s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 36m 40s												0000 RTLT 31h 36m 38s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																								
VGR COVERAGE	ON CALL												VGR ON CALL												
NOTES	[1] A103 BACKUP U/L TRACK																								
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
UTC:	APR 10												APR 11												



ISSUE DATE: 03/29/17 14:50

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WEDNESDAY APRIL 12, 2017 102-103																									
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
S/C 31 INITIAL CONDITIONS RTLTL: 38h 9m 54s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 9m 54s												0000 RTLT 38h 9m 54s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	24 [DA]   0735 - 1005 26 [DAR]   0735 - 1005 1005   14 [D]   1715 10   40 60												0600   14 [D]   10 0005   65 [DA]   0600 0005   55 [DAR]   0600 60												
32 DSN COVERAGE	1150   43 [D]   1420												2015   43 [B]   0005 40												
S/C 32 INITIAL CONDITIONS RTLTL: 31h 36m 32s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 36m 30s												0000 RTLT 31h 36m 28s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL												VGR						ON CALL						
NOTES	▼ 2107 DUMMY (04:44)																								
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
UTC:	APR 12												Page 14 of 19						APR 13						

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PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0
THURSDAY APRIL 13, 2017 103-104																									
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
S/C 31 INITIAL CONDITIONS RTLTL: 38h 9m 54s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 38h 9m 52s												0000 RTLTL 38h 9m 52s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	14 [D]   1445												1045   63 [D]												
32 DSN COVERAGE	1145   43 [D]   1325												1840   35 [D]   2245   0030   43 [D]   0540												
S/C 32 INITIAL CONDITIONS RTLTL: 31h 36m 28s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLTL 31h 36m 26s												0000 RTLTL 31h 36m 22s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL												ON CALL												
NOTES	[1] S/C 31=GS-4B @ 2311 XB=2.8K(41) NOT RECOVERABLE																								
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
UTC:	APR 13												APR 14												



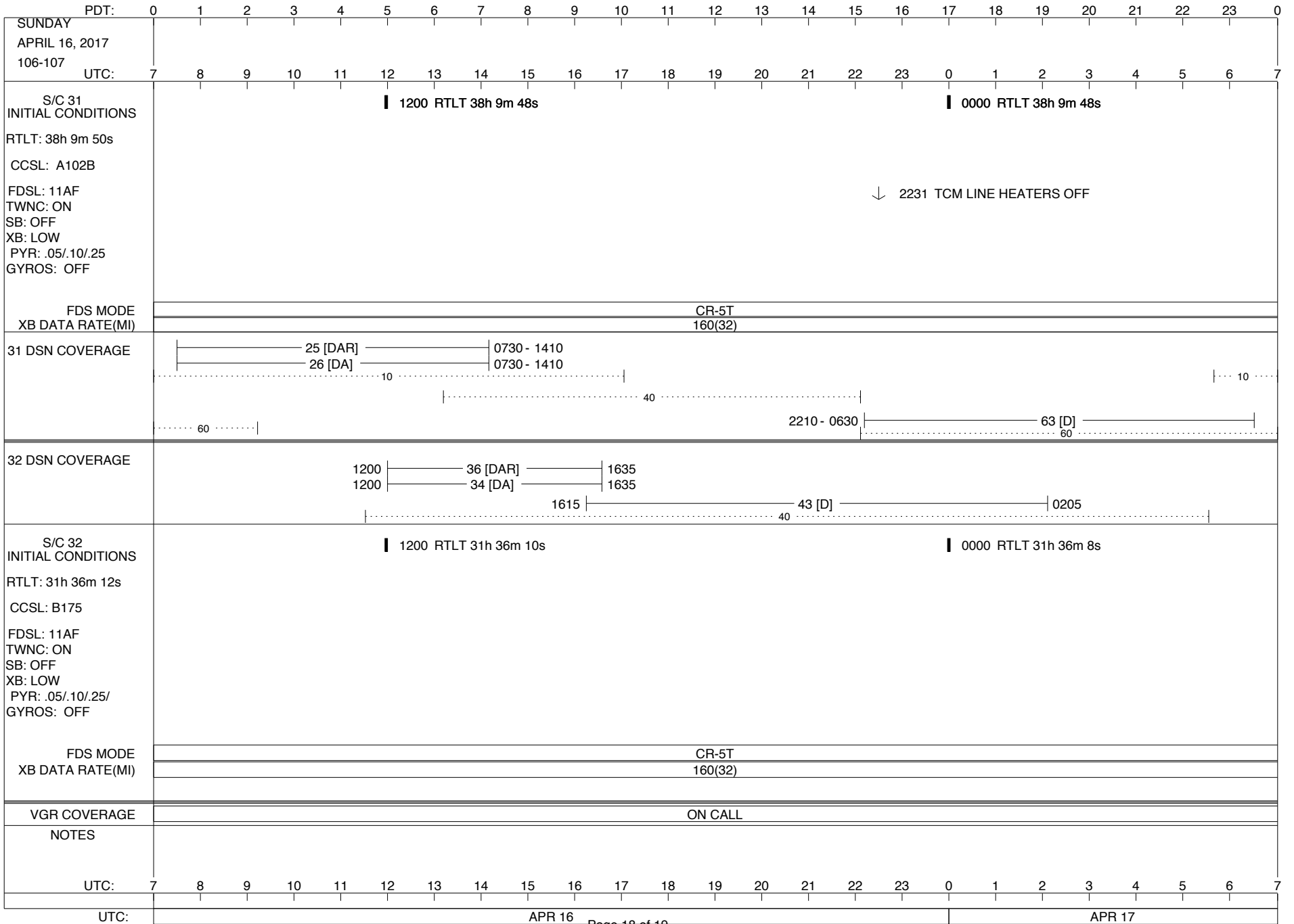
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FRIDAY APRIL 14, 2017 104-105																									
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
S/C 31 INITIAL CONDITIONS RTLTL: 38h 9m 52s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 38h 9m 52s												0000 RTLTL 38h 9m 50s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	0800   24 [DA]   1015 0800   26 [DAR]   1015 ..... 10 .....												2225   63 [D]   0225 0215 - 0635   65 [DAR]   0215 - 0635   55 [DA]   ..... 60 .....												
32 DSN COVERAGE	1140   43 [D]   1410 ..... 40 .....												1840   34 [o]   2245 0245   43 [D]   0535 ..... 40 .....												
S/C 32 INITIAL CONDITIONS RTLTL: 31h 36m 22s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLTL 31h 36m 20s												0000 RTLTL 31h 36m 18s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL												ON CALL												
NOTES																									
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
UTC:	APR 14												APR 15												

ISSUE DATE: 03/29/17 14:50

PDT:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0
SATURDAY APRIL 15, 2017 105-106	UTC: 7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
S/C 31 INITIAL CONDITIONS RTLTL: 38h 9m 50s CCSL: A102B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 38h 9m 50s												0000 RTLTL 38h 9m 50s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	24 [DAR] ————— 0725 - 1205 26 [DA] ————— 0725 - 1205 ..... 10 ..... ..... 60 .....												2215   63 [D]   0000 ..... 10 ..... 0000 - 0635   65 [DA]   ..... 0000 - 0635   55 [DAR]   ..... ..... 60 .....												
32 DSN COVERAGE	..... 1540   ..... 40 ..... 43 [D]   ..... 0535																								
S/C 32 INITIAL CONDITIONS RTLTL: 31h 36m 18s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLTL 31h 36m 14s												0000 RTLTL 31h 36m 12s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL												ON CALL												
NOTES	[1] S/C 31=GS-4B @ 0211 XB=2.8K(41) NOT RECOVERABLE																								
UTC:	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7
UTC:	APR 15												APR 16												

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