

VOYAGER

Space Flight Operations Schedule (SFOS)

Issue Date: April 19, 2017

For the Period: 04/20/17 to 05/08/17 (17/110 – 17/128)

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

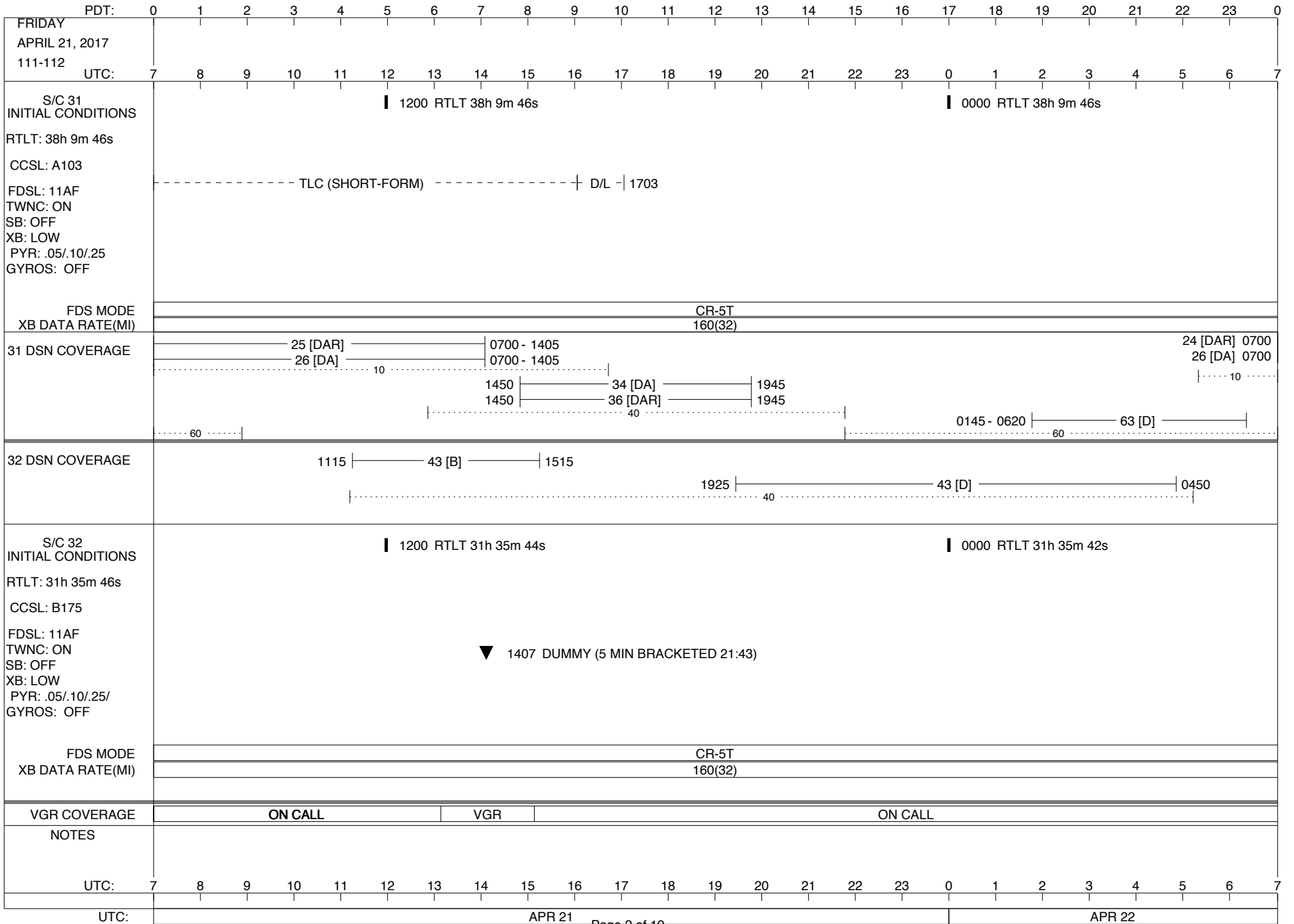
Posted at http://voyager.jpl.nasa.gov/mission/soesfos/tracking_schedule.html

02/27/17

ISSUE DATE: 04/19/17 07:00

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 20, 2017 110-111																												
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 46s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 38h 9m 46s												0000 RTLTL 38h 9m 46s															
----- TLC (SHORT-FORM) -----																												
														1946 ----- 2054 TAPPOS 2248 2249 PWS/RH 2259 TAPPOS 0021 ↓ 2248 GS-4B 2249														
FDS MODE	CR-5T												CR-5T															
XB DATA RATE(MI)	160(32)												160(32)															
31 DSN COVERAGE	----- 24 [DAR] ----- 0705 - 1025 ----- 25 [DA] ----- 0705 - 1025 10												25 [DAR] 0700 26 [DA] 0700 10															
..... 60												2340 ----- 65 [DAR] ----- 0500 2340 ----- 55 [DA] ----- 0500 60																
32 DSN COVERAGE	1145 ----- 34 [DA] ----- 1540 1145 ----- 36 [DAR] ----- 1540												1815 ----- 34 [D] ----- 2215 40															
S/C 32 INITIAL CONDITIONS RTLTL: 31h 35m 52s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLTL 31h 35m 50s												0000 RTLTL 31h 35m 46s															
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 @ 2248 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 20														APR 21													

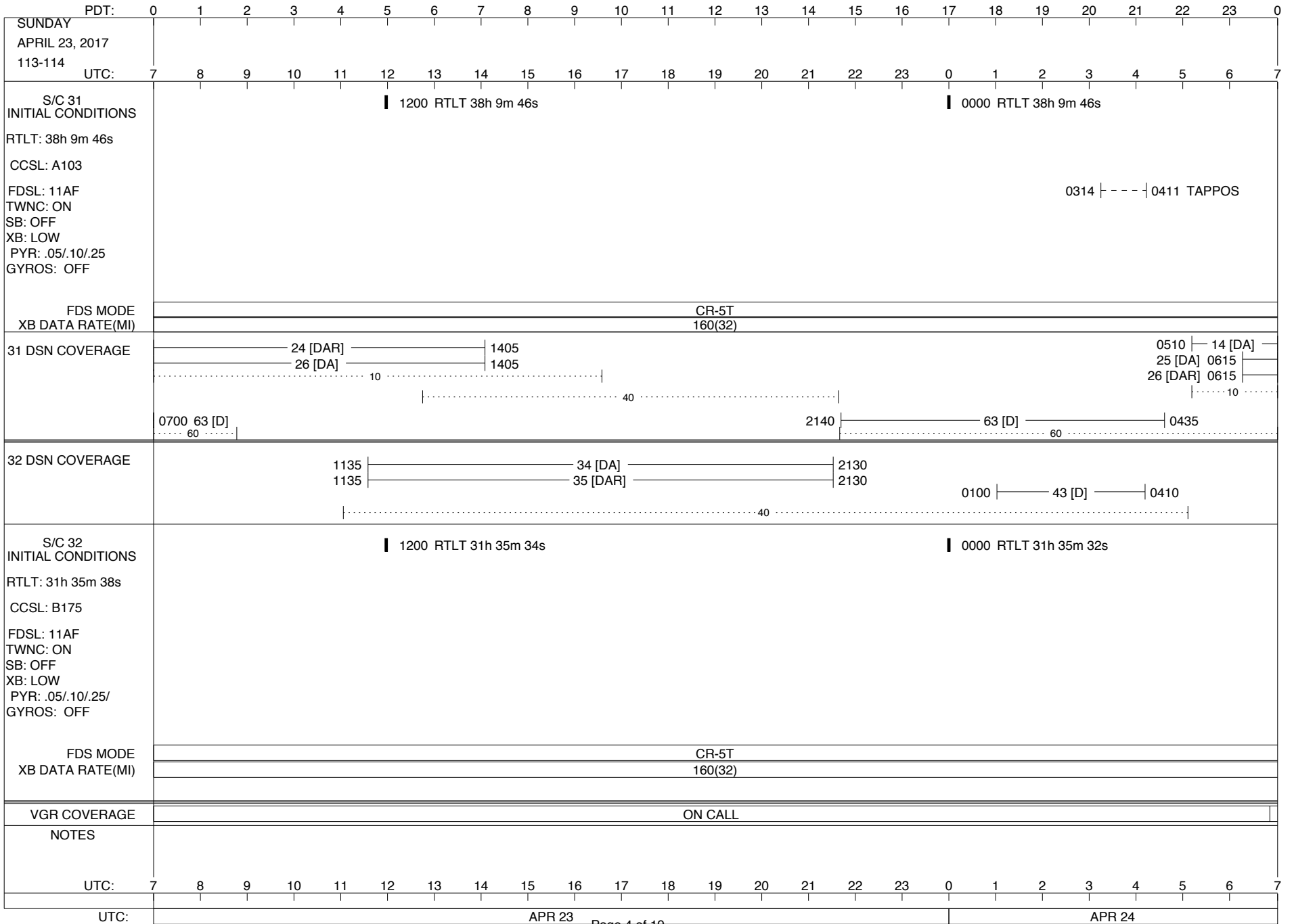
ISSUE DATE: 04/19/17 07:00



ISSUE DATE: 04/19/17 07:00

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 22, 2017 112-113	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 46s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 9m 46s												0000 RTLT 38h 9m 46s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	24 [DAR] 0700 - 1205 26 [DA] 0700 - 1205 1205 10 14 [D] 1635 1635 35 [DAR] 1940 1635 36 [DA] 1940 40 2145 - 0700 63 [D] 60												24 [DAR] 0655 26 [DA] 0655 10												
32 DSN COVERAGE	1145 34 [DA] 1505 1145 35 [DAR] 1505 1505 43 [D] 0310 40																								
S/C 32 INITIAL CONDITIONS RTLTL: 31h 35m 42s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 35m 40s												0000 RTLT 31h 35m 38s												
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 @ 0148 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 22												APR 23												

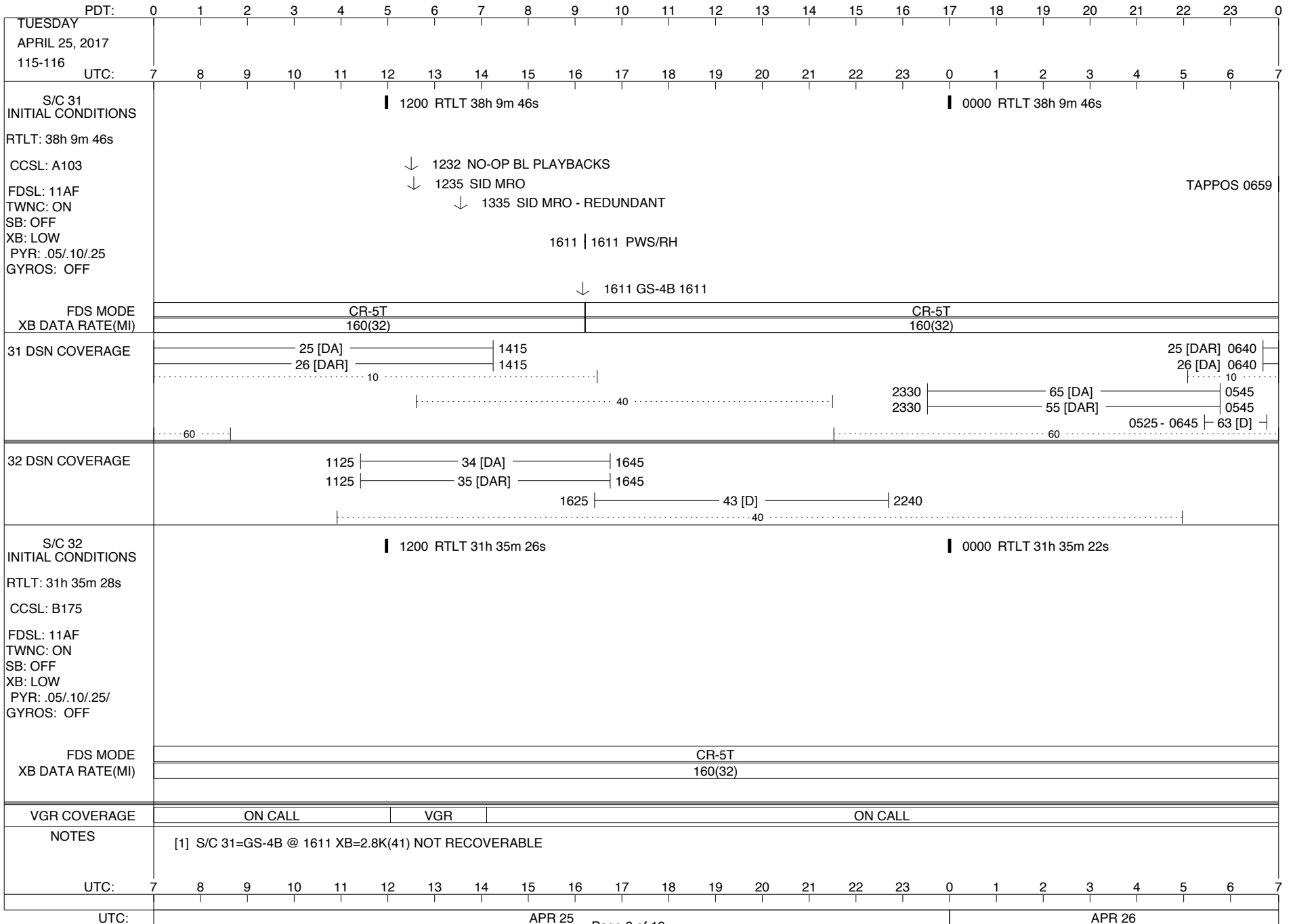
ISSUE DATE: 04/19/17 07:00



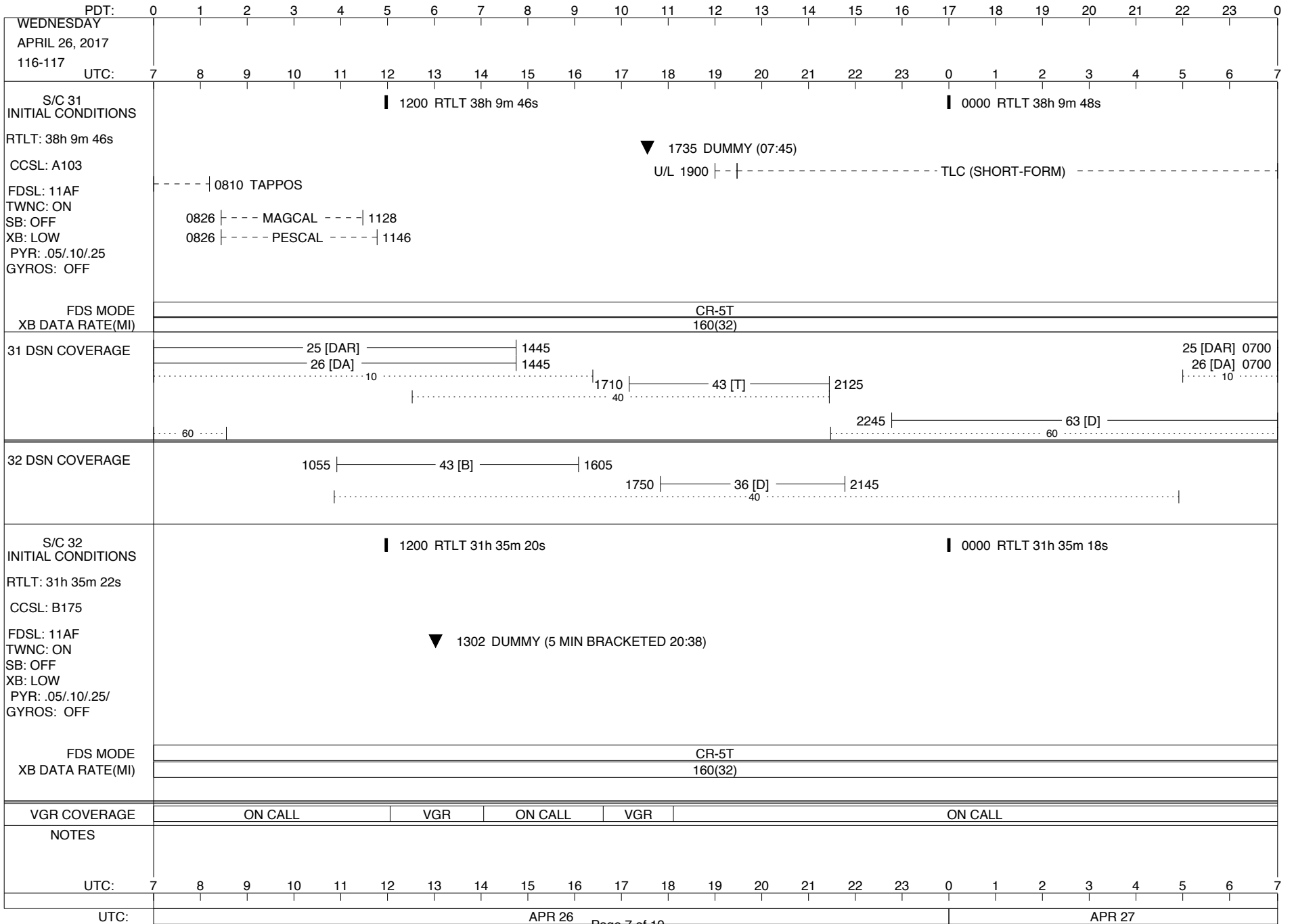
ISSUE DATE: 04/19/17 07:00

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 24, 2017 114-115																									
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 9m 46s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 9m 46s												0000 RTLT 38h 9m 46s												
	↓ 0720 BAY 1 HTR OFF ↓ 0724 X/B HI POWER ↓ 0736 YAW=.05 0747 ----- PLAYBACK ----- 1423 ↓ 1432 X/B LOW POWER ↓ 1432 YAW=.10 ↓ 1436 BAY 1 HTR ON ↓ 0747 ↓ 1423												0023 - 0049 TAPPOS												
FDS MODE	PB-14												CR-5T												
XB DATA RATE(MI)	1.4K(39)												160(32)												
31 DSN COVERAGE	14 [DA] 1445 25 [DA] 1445 26 [DAR] 1445 10 40 60												25 [DA] 0645 26 [DAR] 0645 10 2345 - 0645 ----- 63 [D] ----- 60												
32 DSN COVERAGE	1130 ----- 34 [DAR] ----- 1800 1130 ----- 36 [DA] ----- 2130 40 2130 ----- 43 [D] ----- 0115																								
S/C 32 INITIAL CONDITIONS RTLT: 31h 35m 32s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 35m 30s												0000 RTLT 31h 35m 28s												
FDS MODE													CR-5T												
XB DATA RATE(MI)													160(32)												
VGR COVERAGE	VGR												ON CALL												
NOTES	[1] S/C 31=PB-14 @ 0747 XB=1.4K(39) [2] S/C 31=CR-5T @ 1423 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 24												APR 25												

ISSUE DATE: 04/19/17 07:00



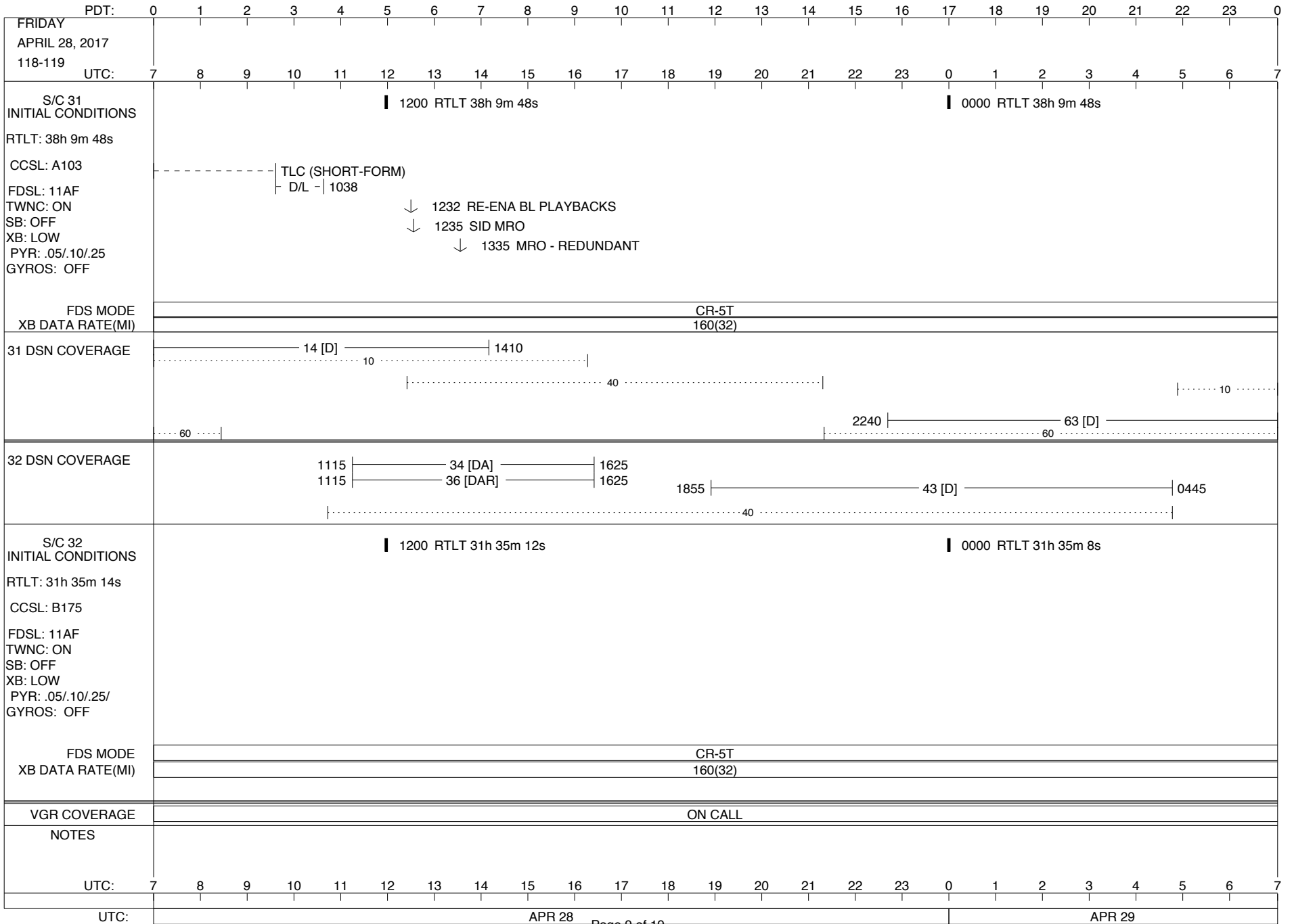
ISSUE DATE: 04/19/17 07:00



ISSUE DATE: 04/19/17 07:00

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 27, 2017 117-118																										
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 48s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 38h 9m 48s												0000 RTLTL 38h 9m 48s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)													
31 DSN COVERAGE	25 [DAR] 0700 - 1345 26 [DA] 0700 - 1345												0555 14 [D]													
32 DSN COVERAGE	1120 34 [oA] 2010 1120 35 [DAR] 2010												1950 43 [D] 2210													
S/C 32 INITIAL CONDITIONS RTLTL: 31h 35m 18s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLTL 31h 35m 16s												0000 RTLTL 31h 35m 14s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)													
VGR COVERAGE	ON CALL												ON CALL													
NOTES	[1] S/C 31=GS-4B @ 2223 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 27													APR 28												

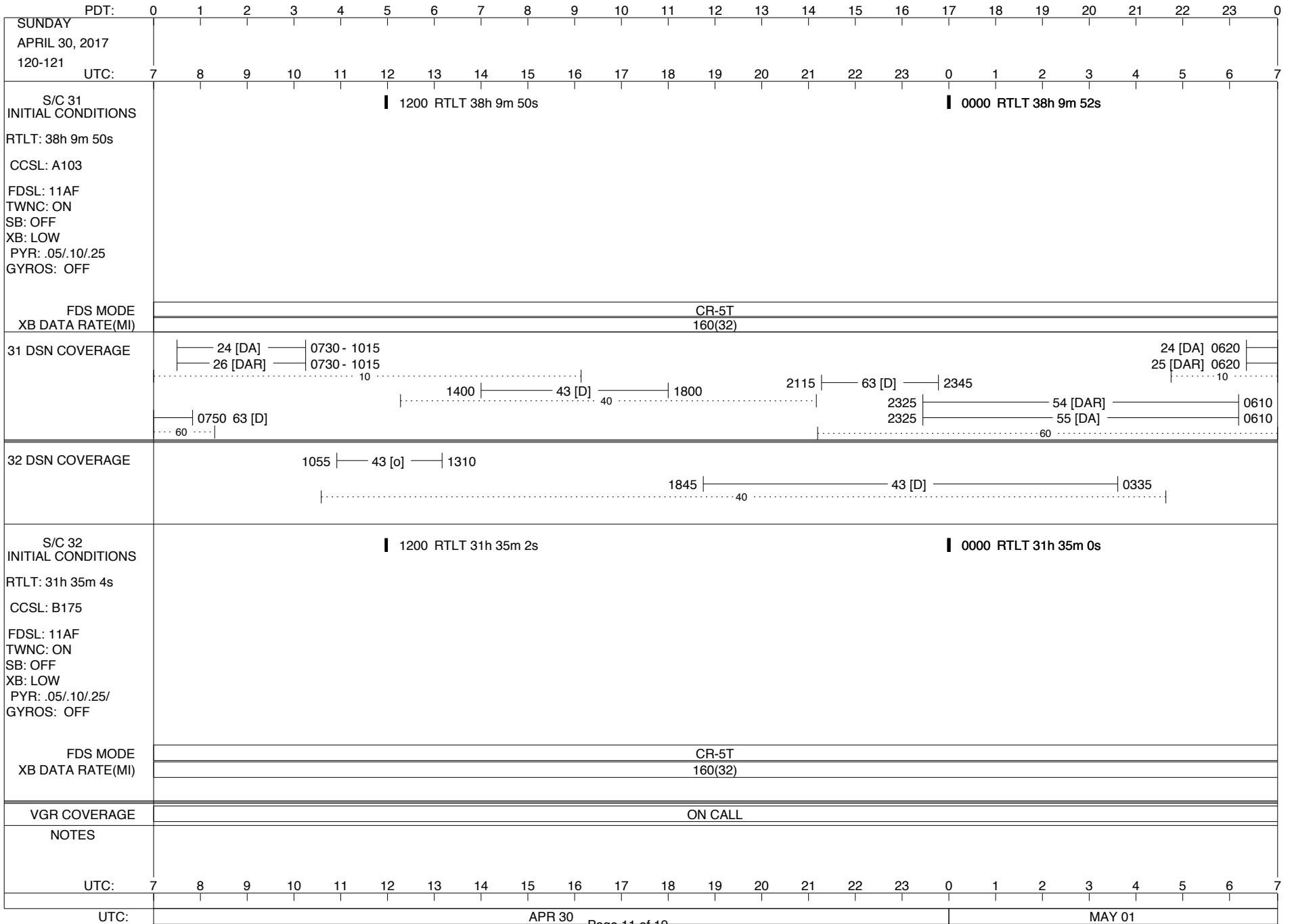
ISSUE DATE: 04/19/17 07:00



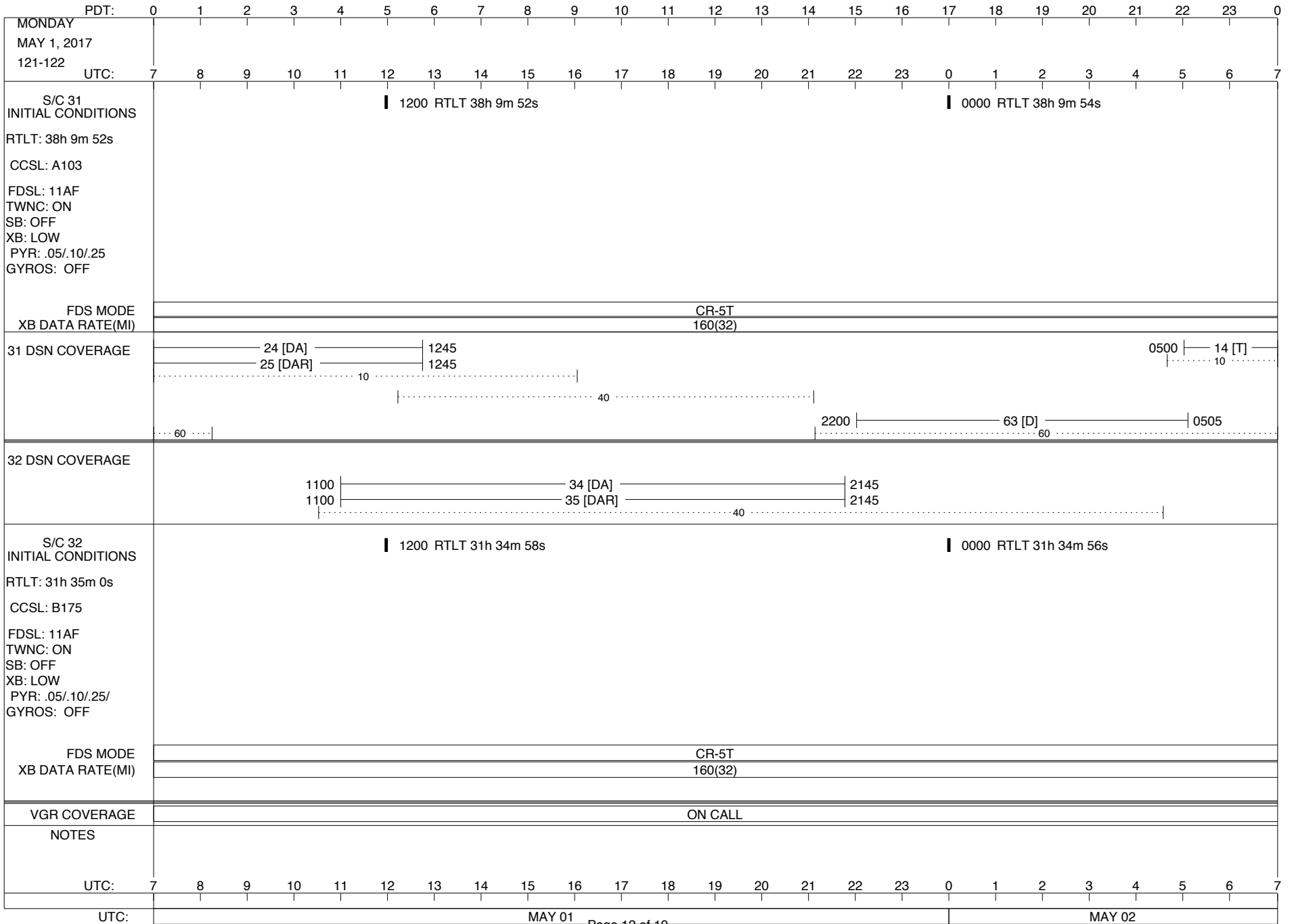
ISSUE DATE: 04/19/17 07:00

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 29, 2017 119-120	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 48s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 9m 50s												0000 RTLT 38h 9m 50s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	0825 14 [D] 1010 1000 25 [DAR] 1435 1000 26 [DA] 1435 10 40 2300 55 [DAR] 0220 2300 54 [DA] 0220 0200 63 [D] 60 10 60												
32 DSN COVERAGE	1110 34 [oA] 2245 1110 35 [DAR] 2245 40																								
S/C 32 INITIAL CONDITIONS RTLTL: 31h 35m 8s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 35m 6s												0000 RTLT 31h 35m 4s												
FDS MODE	CR-5T																								
XB DATA RATE(MI)	160(32)																								
VGR COVERAGE													ON CALL												
NOTES	[1] S/C 31=GS-4B @ 0123 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 29												APR 30												

ISSUE DATE: 04/19/17 07:00



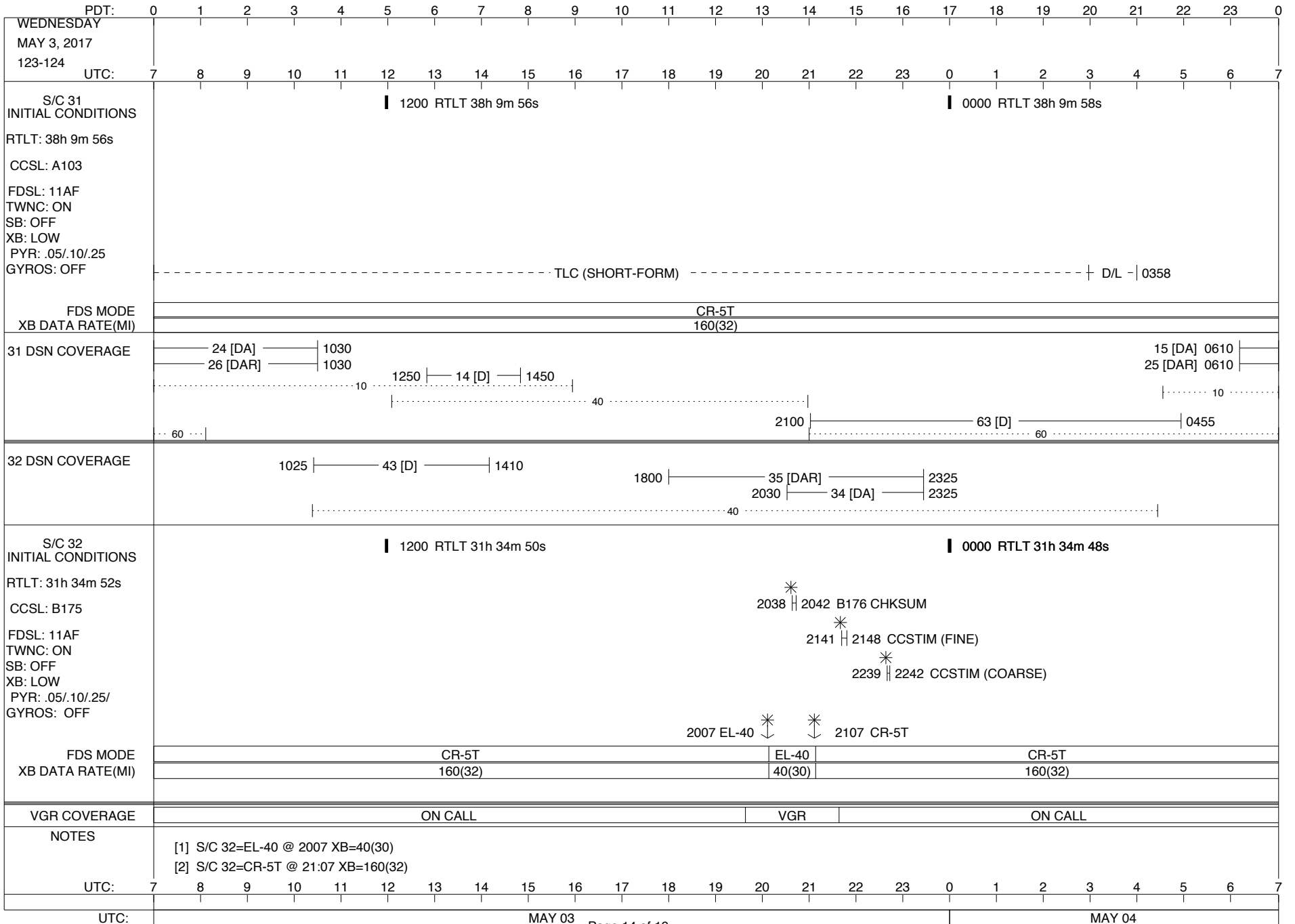
ISSUE DATE: 04/19/17 07:00



ISSUE DATE: 04/19/17 07:00

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			
TUESDAY																													
MAY 2, 2017																													
122-123																													
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 9m 54s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 38h 9m 54s 0856 BAY 1 HTR OFF 0856 GYROS BC ON 0940 ALL DB=.05 0956 AAI 0957 - - 1032 ASCAL 1031 RAI 1034 GYROS OFF 1042 BAY 1 HTR ON 1043 YAW=.10, ROLL=.25 1055 DUMMY (01:05) U/L 1220 - - - - - TLC (SHORT-FORM)																												
	0000 RTLT 38h 9m 56s 1547 1547 PWS/RH 1547 GS-4B 1547																												
	FDS MODE XB DATA RATE(MI)	CR-5T 160(32)	EL-40 40(30)	CR-5T 160(32)																									CR-5T 160(32)
31 DSN COVERAGE	14 [T] 1345 10 1530 35 [DA] 1730 1530 36 [DAR] 1730 40 2055 - 0645 63 [D] 60 24 [DA] 0625 26 [DAR] 0625 10																												
32 DSN COVERAGE	1150 43 [H] 2225 40																												
S/C 32 INITIAL CONDITIONS RTLT: 31h 34m 56s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	1200 RTLT 31h 34m 54s 1220 DUMMY (19:55) 1232 EL-40 (20:06) 1253 CCSL B176 (20:28) 1332 CR-5T (21:06) 1406 CCSTIM F/C (21:41)																												
	0000 RTLT 31h 34m 52s 1745 PLSCAL - 1928 1745 - - - - - MAGCAL - - - - 2048 1745 - - - - - PESCAL - - - - 2105																												
	FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																											
VGR COVERAGE	ON CALL	VGR												ON CALL															
NOTES	[1] S/C 31=EL-40 @ 0859 XB=40(30) [2] S/C 31=D/L AGC & SNR VARIATIONS EXPECTED DURING ASCAL (0957-1032) [3] S/C 31=CR-5T @ 1047 XB=160(32) [4] S/C 31=GS-4B @ 1547 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:	MAY 02														MAY 03														

ISSUE DATE: 04/19/17 07:00



ISSUE DATE: 04/19/17 07:00

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 MAY 4, 2017 124-125																													
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 9m 58s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF		1200 RTLT 38h 9m 58s														0000 RTLT 38h 10m 0s													
FDS MODE XB DATA RATE(MI)		CR-5T 160(32)							CR-5T 160(32)							CR-5T 160(32)													
31 DSN COVERAGE		<p>0800 0810 0810 25 [DAR] 14 [D] 1545 40 2225 63 [D] 10 0600</p>																											
32 DSN COVERAGE		<p>1050 36 [DA] 1740 1840 35 [DAR] 1820 43 [D] 2140 40</p>																											
S/C 32 INITIAL CONDITIONS RTLT: 31h 34m 48s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF		1200 RTLT 31h 34m 46s														0000 RTLT 31h 34m 44s													
FDS MODE XB DATA RATE(MI)		CR-5T 160(32)																											
VGR COVERAGE		VGR														ON CALL													
NOTES		[1] S/C 31=GS-4B @ 2200 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:		MAY 04														MAY 05													

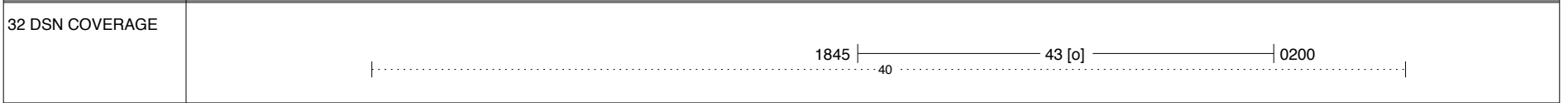
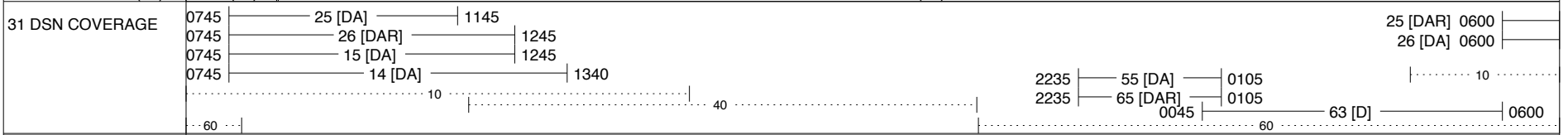
ISSUE DATE: 04/19/17 07:00

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

FRIDAY
MAY 5, 2017
125-126 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 0s
CCSL: A103
FDSL: 11AF
TWNC: ON
SB: OFF
XB: LOW
PYR: .05/.10/.25
GYROS: OFF
1200 RTLT 38h 10m 0s
0000 RTLT 38h 10m 2s
0832 BAY 1 HTR OFF
0832 GYROS BC ON
0842 GYRO FAULT TEST
0928 WGY MRO
0932 AAI
0935 - - - - | 1042 MAGROL
1047 RAI
1052 GYROS OFF
1101 BAY 1 HTR ON
1121 WGY MRO
0835 EL-40 0836

FDS MODE CR-5T CR-5T
XB DATA RATE(MI) 160(32) 160(32)



S/C 32
INITIAL CONDITIONS
RTLT: 31h 34m 44s
CCSL: B175
FDSL: 11AF
TWNC: ON
SB: OFF
XB: LOW
PYR: .05/.10/.25/
GYROS: OFF
1200 RTLT 31h 34m 42s
0000 RTLT 31h 34m 40s

FDS MODE CR-5T
XB DATA RATE(MI) 160(32)

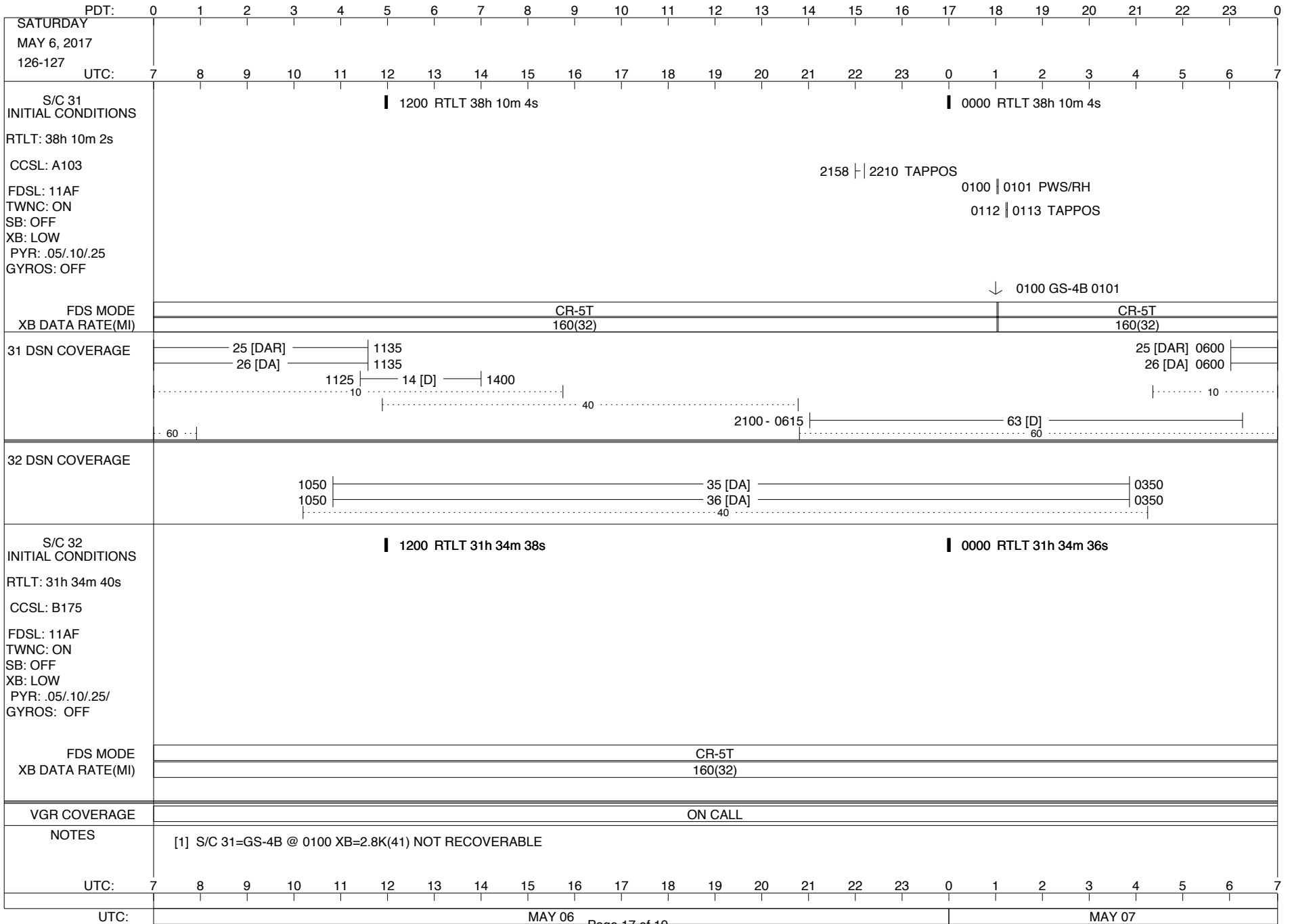
VGR COVERAGE VGR ON CALL

NOTES
[1] S/C 31=D/L AGC & SNR VARIATIONS EXPECTED DURING MAGROL (0935-1042)

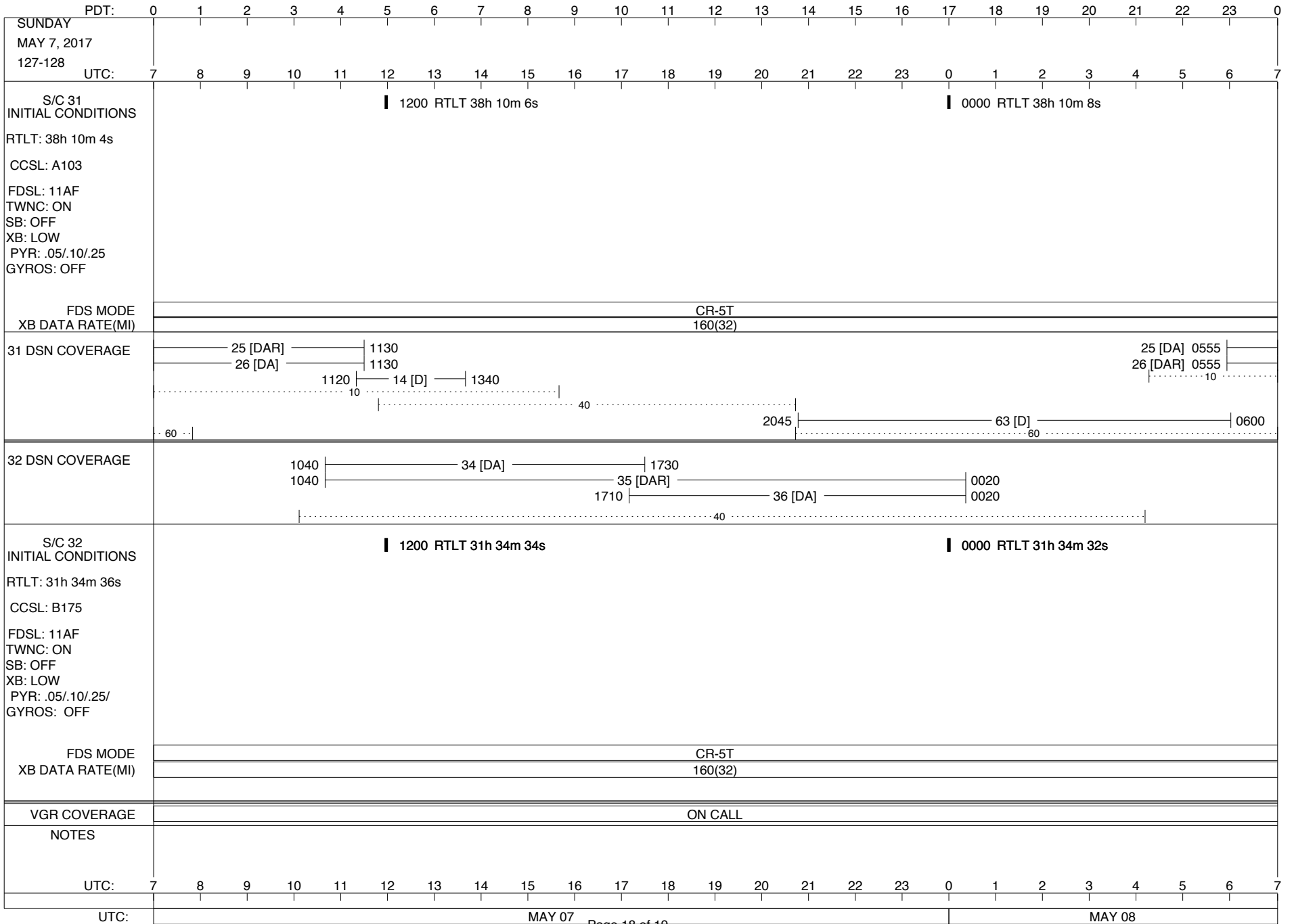
UTC: 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7

UTC: MAY 05 Page 16 of 19 MAY 06

ISSUE DATE: 04/19/17 07:00



ISSUE DATE: 04/19/17 07:00



ISSUE DATE: 04/19/17 07:00

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 MAY 8, 2017 128-129																											
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 8s CCSL: A103 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	<div style="text-align: center;"> <p>1200 RTLT 38h 10m 8s</p> </div>																										
FDS MODE XB DATA RATE(MI)	<div style="text-align: center;"> <p>CR-5T 160(32)</p> </div>																										
31 DSN COVERAGE	<div style="text-align: center;"> <p>25 [DA] 1340 26 [DAR] 1340 10 40 </p> </div>																										
32 DSN COVERAGE	<div style="text-align: center;"> <p>1700 ----- 34 [D] ----- 2100</p> </div>																										
S/C 32 INITIAL CONDITIONS RTLT: 31h 34m 32s CCSL: B175 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25/ GYROS: OFF	<div style="text-align: center;"> <p>1200 RTLT 31h 34m 30s</p> </div> <div style="text-align: right; margin-right: 50px;"> <p>0000 RTLT 31h 34m 28s</p> </div>																										
FDS MODE XB DATA RATE(MI)	<div style="text-align: center;"> <p>CR-5T 160(32)</p> </div>																										
VGR COVERAGE	<div style="text-align: center;"> <p>ON CALL</p> </div>																										
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:	MAY 08														MAY 09												