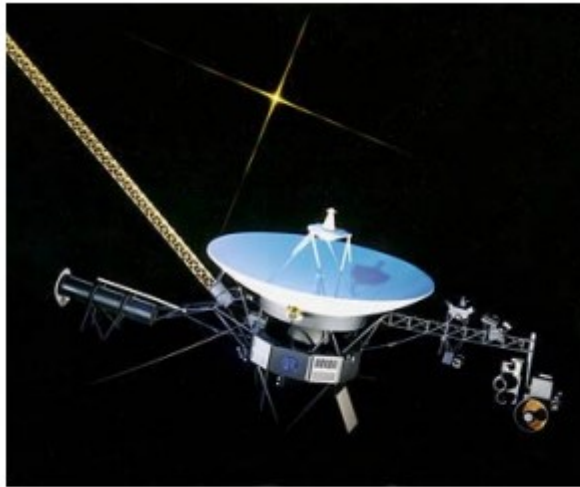


VOYAGER

Space Flight Operations Schedule (SFOS)

Issue Date: November 26, 2019

For the Period: 11/28/19 to 12/16/19 (19/332 – 19/350)



Posted at <https://voyager.jpl.nasa.gov/mission/status/>

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

02/27/19

ISSUE DATE: 11/26/19 10:02

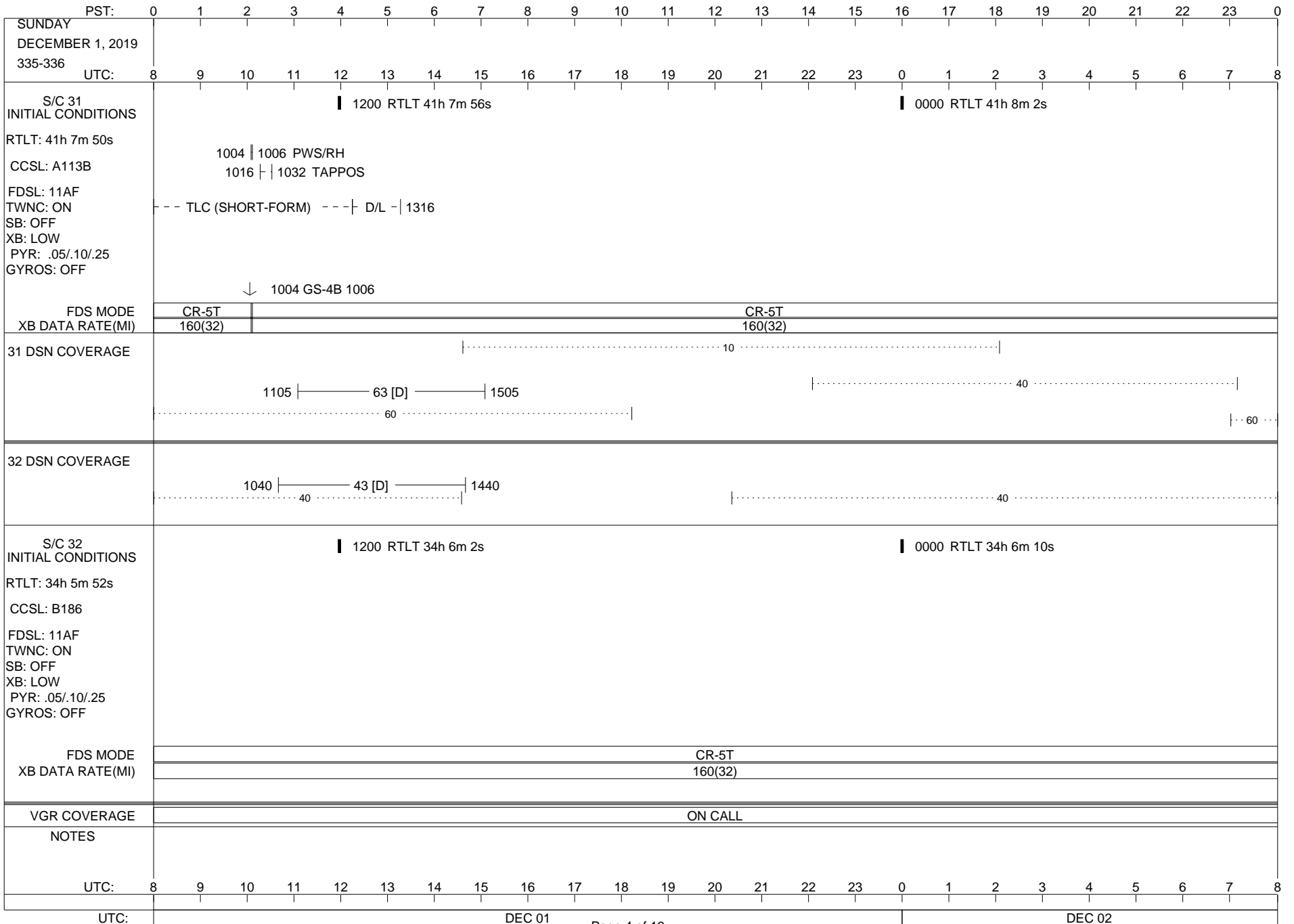
PST:	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0
THURSDAY NOVEMBER 28, 2019 332-333	UTC: 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLT: 41h 7m 14s CCSL: A113B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 41h 7m 20s												0000 RTLT 41h 7m 26s												
FDS MODE	CR-5T																								
XB DATA RATE(MI)	160(32)																								
31 DSN COVERAGE	60												2215 14 [D] 0215 1715 63 [D] 1845 40												
32 DSN COVERAGE	0935 43 [D] 1420 40												40												
S/C 32 INITIAL CONDITIONS RTLT: 34h 4m 58s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 34h 5m 8s												0000 RTLT 34h 5m 16s												
FDS MODE	CR-5T																								
XB DATA RATE(MI)	160(32)																								
VGR COVERAGE	ON CALL																								
NOTES	JPL HOLIDAY!																								
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	NOV 28												NOV 29												

ISSUE DATE: 11/26/19 10:02

PST:	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 NOVEMBER 29, 2019 333-334	UTC: 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLT: 41h 7m 26s CCSL: A113B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 41h 7m 32s												0000 RTLT 41h 7m 38s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																								
31 DSN COVERAGE	1630 ----- 14 [T] ----- 2130												----- 40 -----												
	----- 60 -----												----- 60 -----												
32 DSN COVERAGE	0940 ----- 43 [D] ----- 1345												----- 40 -----												
S/C 32 INITIAL CONDITIONS RTLT: 34h 5m 16s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLT 34h 5m 26s												0000 RTLT 34h 5m 34s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)																								
VGR COVERAGE	ON CALL												VGR ON CALL												
NOTES	JPL HOLIDAY!																								
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	NOV 29												NOV 30												

ISSUE DATE: 11/26/19 10:02

PST:	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 NOVEMBER 30, 2019 334-335	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	
S/C 31 INITIAL CONDITIONS RTLTL: 41h 7m 38s CCSL: A113B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 41h 7m 44s												0000 RTLTL 41h 7m 50s													
	TAPPOS 0703 0704																									
	----- TLC (SHORT-FORM) -----																									
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)													
31 DSN COVERAGE60.....												2205 ----- 14 [D] ----- 020540.....													
32 DSN COVERAGE	1020 ----- 43 [D] ----- 143540.....											40.....													
S/C 32 INITIAL CONDITIONS RTLTL: 34h 5m 34s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 34h 5m 44s												0000 RTLTL 34h 5m 52s													
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)													
VGR COVERAGE	ON CALL																									
NOTES																										
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	
UTC:	NOV 30													DEC 01												

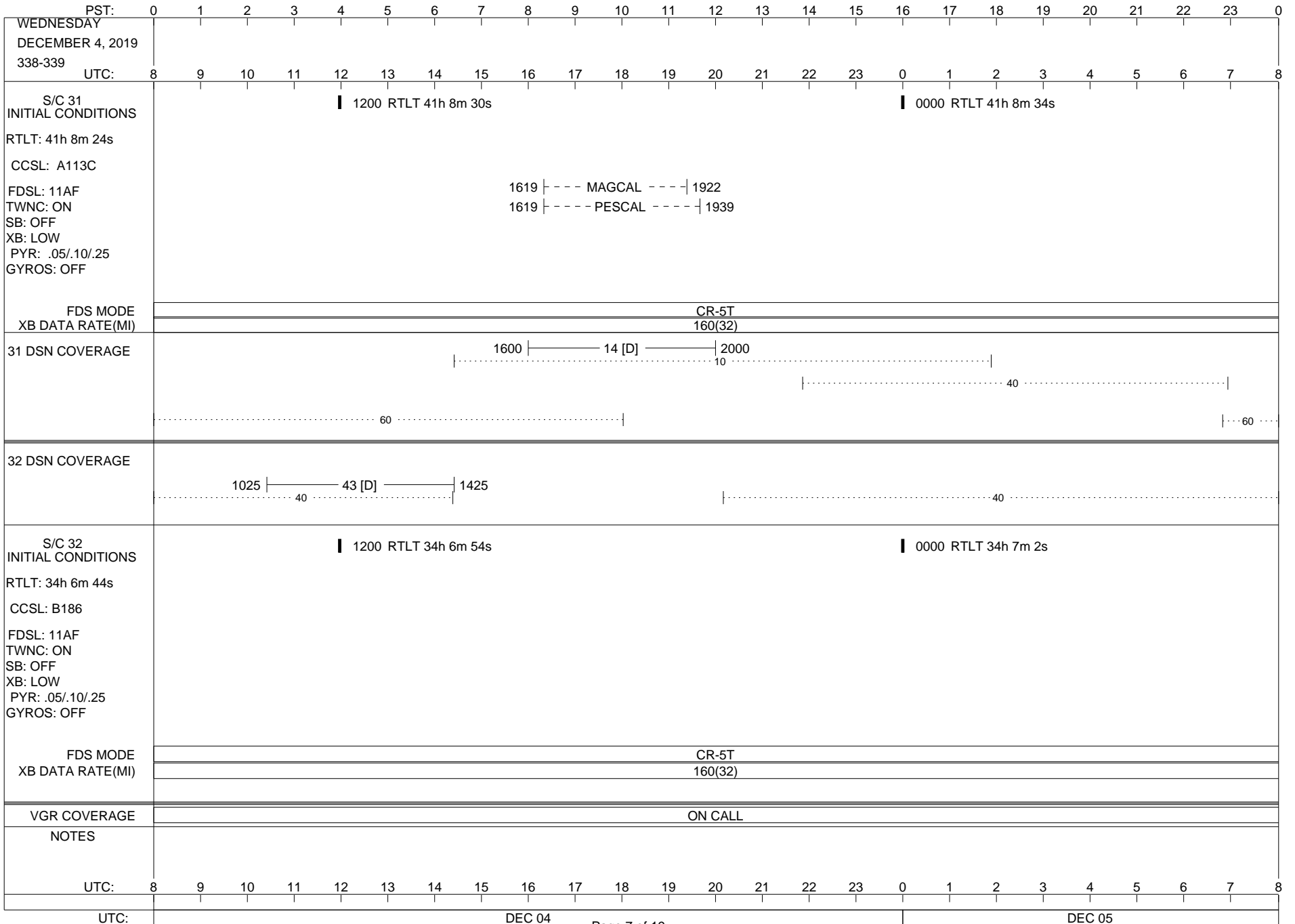


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MONDAY DECEMBER 2, 2019 336-337	UTC: 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLTL: 41h 8m 2s CCSL: A113B FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 41h 8m 8s												0000 RTLTL 41h 8m 12s												
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)												
31 DSN COVERAGE	1755 ----- 14 [D] ----- 2155												----- 40 -----												
	60 -----												----- 60												
32 DSN COVERAGE	1030 ----- 43 [D] ----- 1430												----- 40 -----												
S/C 32 INITIAL CONDITIONS RTLTL: 34h 6m 10s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	1200 RTLTL 34h 6m 18s												0000 RTLTL 34h 6m 28s												
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)												
VGR COVERAGE													ON CALL												
NOTES																									
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	DEC 02												DEC 03												

ISSUE DATE: 11/26/19 10:02

PST:	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 DECEMBER 3, 2019 337-338	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLTL: 41h 8m 12s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	█ 1200 RTLTL 41h 8m 18s												█ 0000 RTLTL 41h 8m 24s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE	-----10-----												-----40-----												
	1030	-----63 [D]-----						1430																	
	-----60-----												-----60-----												
32 DSN COVERAGE	-----40-----												-----40-----												
	1025	-----43 [D]-----						1425																	
S/C 32 INITIAL CONDITIONS RTLTL: 34h 6m 28s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	█ 1200 RTLTL 34h 6m 36s												█ 0000 RTLTL 34h 6m 44s												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL																								
NOTES																									
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	DEC 03												DEC 04												

ISSUE DATE: 11/26/19 10:02

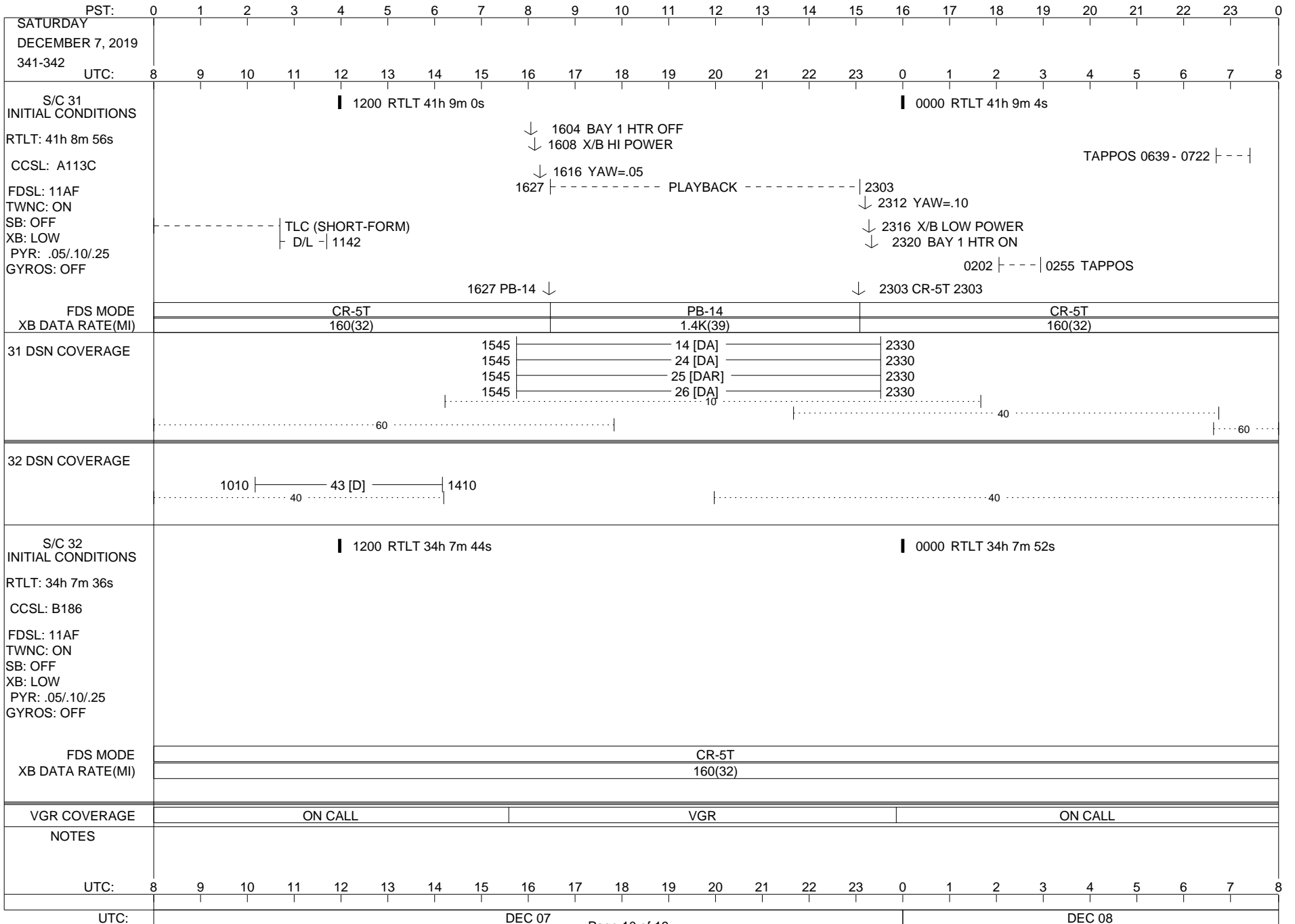


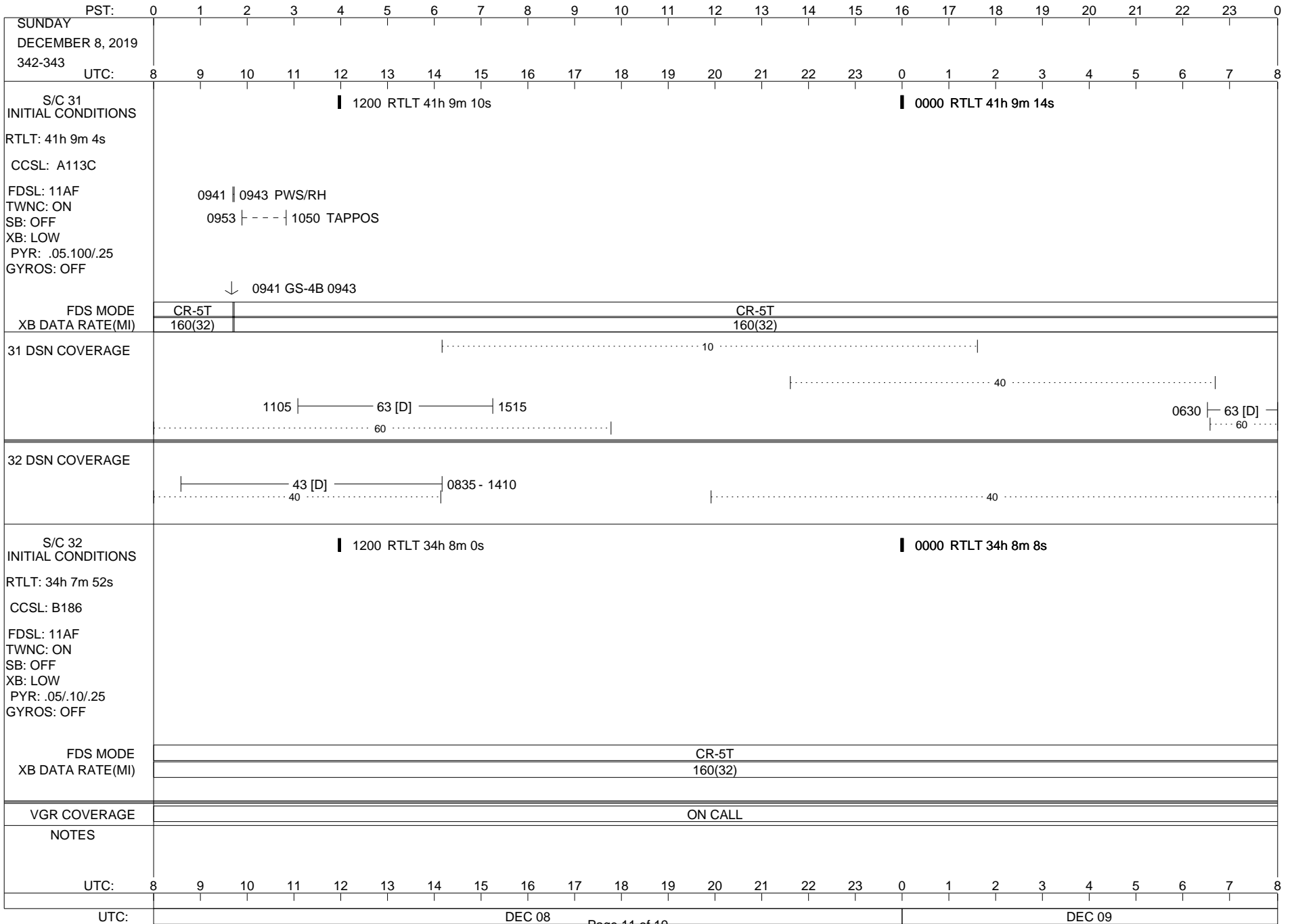
ISSUE DATE: 11/26/19 10:02

PST:	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 DECEMBER 5, 2019 339-340																																								
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8															
S/C 31 INITIAL CONDITIONS RTLTL: 41h 8m 34s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF	1200 RTLT 41h 8m 40s												0000 RTLT 41h 8m 44s																											
	1640 DUMMY (09:49)												0339 - 0408 TAPPOS PWS/RH 0641 0643 TAPPOS 0653 - 0736 - -																											
	U/L 1705 - ----- TLC (SHORT-FORM) -----																																							
	0641 GS-4B 0643 ↓																																							
FDS MODE	CR-5T												CR-5T																											
XB DATA RATE(MI)	160(32)												160(32)																											
31 DSN COVERAGE	<div style="display: flex; justify-content: space-between;"> </div> <div style="display: flex; justify-content: space-between;"> </div> <div style="display: flex; justify-content: space-between;"> </div>																																							
32 DSN COVERAGE	<div style="display: flex; justify-content: space-between;"> </div> <div style="display: flex; justify-content: space-between;"> </div>																																							
S/C 32 INITIAL CONDITIONS RTLTL: 34h 7m 2s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF	1200 RTLT 34h 7m 10s												0000 RTLT 34h 7m 20s																											
	0047 DUMMY (5 MIN BRACKETED 10:55)																																							
	0123 0129 CCSTIMB FINE																																							
FDS MODE	CR-5T												CR-5T																											
XB DATA RATE(MI)	160(32)												160(32)																											
VGR COVERAGE	ON CALL								VGR								ON CALL								VGR								ON CALL							
NOTES																																								
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8															
UTC:	DEC 05												DEC 06																											

ISSUE DATE: 11/26/19 10:02

PST:	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 DECEMBER 6, 2019 340-341	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLTL: 41h 8m 44s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF	█ 1200 RTLTL 41h 8m 50s												█ 0000 RTLTL 41h 8m 56s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)												
31 DSN COVERAGE	----- 60												----- 10												
32 DSN COVERAGE	----- 40												----- 40												
S/C 32 INITIAL CONDITIONS RTLTL: 34h 7m 20s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/25 GYROS: OFF	█ 1200 RTLTL 34h 7m 28s												█ 0000 RTLTL 34h 7m 36s												
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)												CR-5T 160(32)												
VGR COVERAGE	ON CALL												ON CALL												
NOTES																									
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	DEC 06												DEC 07												





ISSUE DATE: 11/26/19 10:02

PST:	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 DECEMBER 9, 2019 343-344	UTC: 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLT: 41h 9m 14s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/100/.25 GYROS: OFF	1200 RTLT 41h 9m 20s												0000 RTLT 41h 9m 24s												
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)												
31 DSN COVERAGE	1405 ----- 14 [D] ----- 1835 ----- 10 ----- ----- 40 -----												63 [D] ----- 0950 ----- ----- 60 -----												
32 DSN COVERAGE	1005 ----- 43 [D] ----- 1405 ----- 40 -----												----- 40 -----												
S/C 32 INITIAL CONDITIONS RTLT: 34h 8m 8s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/.25 GYROS: OFF	1200 RTLT 34h 8m 16s												0000 RTLT 34h 8m 26s												
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)												
VGR COVERAGE													ON CALL												
NOTES																									
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	DEC 09												DEC 10												

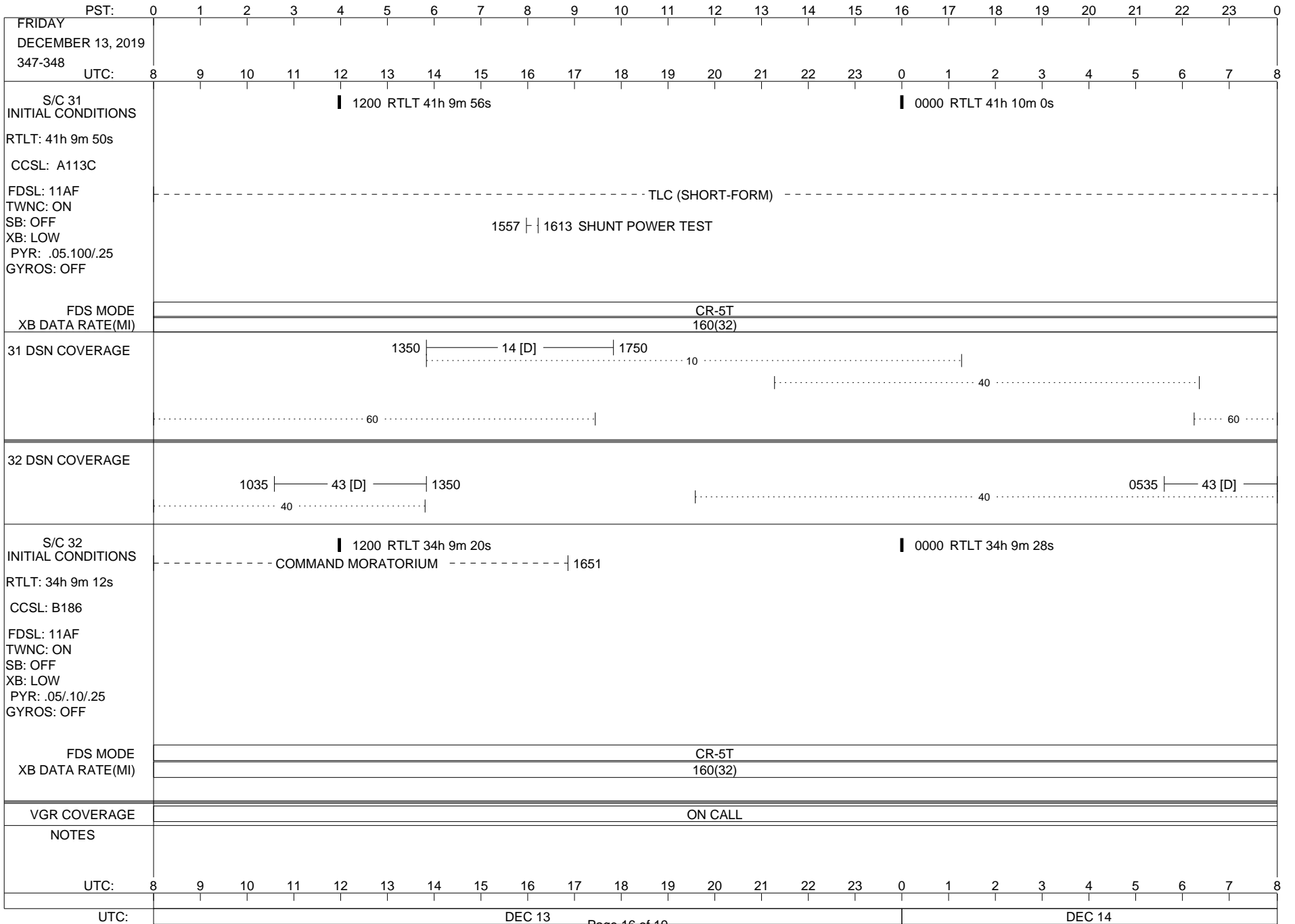
ISSUE DATE: 11/26/19 10:02

TUESDAY DECEMBER 10, 2019 344-345		PST: 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																																			
UTC: 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7 8		S/C 31 INITIAL CONDITIONS RTLT: 41h 9m 24s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/100/.25 GYROS: OFF												1200 RTLT 41h 9m 28s												0000 RTLT 41h 9m 34s											
FDS MODE XB DATA RATE(MI)		CR-5T 160(32)												CR-5T 160(32)																							
31 DSN COVERAGE		1355 ----- 14 [D] ----- 1755												10												40											
32 DSN COVERAGE		0905 ----- 43 [H1] ----- 1355												40												40											
S/C 32 INITIAL CONDITIONS RTLT: 34h 8m 26s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/.25 GYROS: OFF		1123 ----- 1200 RTLT 34h 8m 34s												COMMAND MORATORIUM												0000 RTLT 34h 8m 40s											
FDS MODE XB DATA RATE(MI)		CR-5T 160(32)												CR-5T 160(32)																							
VGR COVERAGE		VGR												ON CALL																							
NOTES		[1] HP TXR OFF <= 12:36																																			
UTC: 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 0 1 2 3 4 5 6 7 8		DEC 10												DEC 11																							

PST:	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			
WEDNESDAY DECEMBER 11, 2019 345-346																												
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8			
S/C 31 INITIAL CONDITIONS RTLT: 41h 9m 34s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05.100/.25 GYROS: OFF	█ 1200 RTLT 41h 9m 38s														█ 0000 RTLT 41h 9m 42s													
FDS MODE XB DATA RATE(MI)															CR-5T 160(32)													
31 DSN COVERAGE	1400 ----- 14 [D] ----- 1545													10..... -----40----- 60.....													
32 DSN COVERAGE	0955 -----43 [D]----- 1355														1945 -----43 [D]----- 231040.....													
S/C 32 INITIAL CONDITIONS RTLT: 34h 8m 40s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/.10/.25 GYROS: OFF	█ 1200 RTLT 34h 8m 48s														█ 0000 RTLT 34h 8m 56s													
FDS MODE XB DATA RATE(MI)	CR-5T 160(32)														CR-5T 160(32)													
VGR COVERAGE	ON CALL														VGR				ON CALL									
NOTES	<p style="text-align: center;">----- COMMAND MORATORIUM -----</p> <p style="text-align: center;">* ↓ 2006 CRS CMD WORD 10 SC21AF 000</p> <p style="text-align: center;">↓ 2102 BAY 1 HTR OFF ↓ 2102 AC GYROS ON 2102 ----- 2202 CONDITIONING ↓ 2202 GYROS OFF ↓ 2210 BAY 1 HTR ON</p> <p style="text-align: center;">↓ 2105 EL-40 2106</p> <p>1021 PLSCAL - 1203 1021 --- MAGCAL --- 1323 1021 ---- PESCAL ---- 1341</p>																											
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8			
UTC:	DEC 11														DEC 12													

PST:	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 DECEMBER 12, 2019 346-347																									
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLTL: 41h 9m 42s CCSL: A113C FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/100/.25 GYROS: OFF	1200 RTLTL 41h 9m 46s												0000 RTLTL 41h 9m 50s ▼ 2250 ECR 204313 (16:00) ▼ 2258 YAW SSB UPD (16:08) ▼ 2306 DUMMY (16:16) U/L 2345 - - - - - - TLC (SHORT-FORM) - - - - - 0316 - - - - - 0426 TAPPOS PWS/RH 0617 0619 0629 - 0754 TAPPOS 0617 GS-4B 0619 ↓												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
31 DSN COVERAGE 10 60 2205 ----- 43 [T] ----- 0050 40 60																								
32 DSN COVERAGE 40 0135 ----- 34 [DAR] ----- 0535 0135 ----- 43 [DA] ----- 0535 40																								
S/C 32 INITIAL CONDITIONS RTLTL: 34h 8m 56s CCSL: B186 FDSL: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/.25 GYROS: OFF	1200 RTLTL 34h 9m 4s												0000 RTLTL 34h 9m 12s ----- COMMAND MORATORIUM ----- ↓ 0300 BAY 1 HTR OFF ↓ 0300 GYROS BC ON ↓ 0301 GYRO INIT ↓ 0310 GYRO FAULT TEST ↓ 0331 AAI 0331 - - 0407 MAGROL ↓ 0413 RAI ↓ 0419 GYROS OFF ↓ 0419 CRU 0303 EL-40 0304 ↓ ↓ 0427 BAY 1 HTR ON												
FDS MODE	CR-5T												CR-5T												
XB DATA RATE(MI)	160(32)												160(32)												
VGR COVERAGE	ON CALL						VGR						ON CALL						VGR						
NOTES	[1] S/C 32 - D/L AGC VARIATIONS EXPECTED DURING MAGROL (0300-0419)																								
UTC:	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
UTC:	DEC 12												DEC 13												

ISSUE DATE: 11/26/19 10:02



ISSUE DATE: 11/26/19 10:02

PST:	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 DECEMBER 14, 2019 348-349	UTC: 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8
S/C 31 INITIAL CONDITIONS RTLT: 41h 10m 0s CCSL: A113C FDLS: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/100/.25 GYROS: OFF	1200 RTLT 41h 10m 4s												0000 RTLT 41h 10m 8s												
	* ↓ 1601 ECR 204313 ↓ 1605 CRS CMD WORD10 SC21AF 000 * ↓ 1609 YAW SSB UPD												0616 - 0740 TAPPOS												
	----- TLC (SHORT-FORM) -----												+ D/L - 1823												
FDS MODE XB DATA RATE(MI)													CR-5T 160(32)												
31 DSN COVERAGE	1350 ----- 14 [D] ----- 1825												10 40 60 60												
32 DSN COVERAGE	43 [D] ----- 0945												40 40 0420 ----- 43 [D] -----												
S/C 32 INITIAL CONDITIONS RTLT: 34h 9m 28s CCSL: B186 FDLS: 11AF TWNC: ON SB: OFF XB: LOW PYR: .05/10/.25 GYROS: OFF	1200 RTLT 34h 9m 36s												0000 RTLT 34h 9m 42s												
													↓ 0452 PYR=.01 0456 - 0529 ASCAL ↓ 0529 ROLL=.25												
FDS MODE XB DATA RATE(MI)													0430 EL-40 ↓ ↓ 0533 CR-5T												
	CR-5T												EL-40 CR-5T												
	160(32)												40(30) 160(32)												
VGR COVERAGE	ON CALL												VGR ON CALL												
NOTES	[1] S/C 32=EL-40 @ 0430 XB=40(30)												[2] S/C 32=CR-5T @ 0533 XB=160(32)												
UTC: 8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	0	1	2	3	4	5	6	7	8	
UTC:	DEC 14												DEC 15												

ISSUE DATE: 11/26/19 10:02

